# Managing Doctors from a Healthy Distance

The role of altered professional identity in shaping doctors' perceptions of managerial control in a telemedicine context

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# Abstract

Professional Identities and how they change is an established field of research and has received significant attention from academia and practitioners in recent years. The research to date includes specific classifications of doctors' professional identities and how they change but has yet to focus on telemedicine's impacts, an increasingly prominent feature of the healthcare landscape. Therefore, this study aims to investigate how doctors' professional identities change in a telemedicine context, identify the sub-components of identities, and observe how they impact doctors' relationships with their organization's management.

To accomplish this, the authors conducted a qualitative study involving doctors from 5 separate countries and using semi-structured interviews to capture individual perceptions of doctor's professional identities to arrive at a more comprehensive understanding of how such identities change in a telemedicine setting as well its implications for doctors' relationship with management. The study's findings suggest that doctors' professional identities have unique and separate aspects with varying degrees of centrality to their sense of self. More central aspects are more resistant to the changes induced by the movement to a telemedicine context. Additionally, our findings suggest that certain contextual factors, such as the institutional pressure exerted on doctors to change, also impact the degree of identity change that will occur. This study extends the doctor professional identity framework presented by Mishra et al. (2012) and the theoretical understanding of professional identity change in new contexts, generating valuable insights for practitioners relating to how constraining actions can be assessed and implemented in a modern healthcare context.



**Keywords:** Professional Identity, Identity Change, Telemedicine



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Thank you!

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## Definitions

| Term | Definition |
|---|---|
| **Telemedicine** | Refers to providing clinical services (either in real-time or asynchronously) between patient and clinician and/or between clinician and clinician when the two parties are physically remote from one another using some form of information-communication technology (Jain et al., 2015). |
| **Telehealth** | A larger umbrella term encompassing other remote health-related services, such as administration, continuing medical education, and/or provider training (Wilson & Maeder, 2015). |
| **Professional Identity** | The stable set of workplace-related attributes, beliefs, values, motives, and experiences by which individuals define themselves (Schein, 1978). |
| **Care provider identity** | The responsibility doctors feel towards helping patients with their medical issues with the purpose of returning them to full health. It exists formally in written decrees and informally within widely held beliefs of the purpose of doctors (Mishra et al., 2012). |
| **Shared Physician Identity** | The mutual identification doctors have with each other which provides a sense of belonging to the medical community and differentiates them from other professional groups (Mishra et al., 2012). |
| **Clinical work freedom** | The ability of doctors to provide care to a patient without being limited by organizational procedures, financial concerns, performance measurement systems, or managerial control (Salvatore et al., 2018). |
| **Social and economic freedom** | The ability for doctors to choose which type of work they engage with and receive fair remuneration for such work. This represents doctors' ability not to be managed in the industrial sense but rather to determine their own movements, priorities, schedules and workloads (Salvatore et al., 2018). |
| **Doctor's influence on organizational decisions** | Influence on organizational decisions refers to doctors' voices in organizational and managerial choices and their ability to influence the manner in which their unit and hospital function (Salvatore et al., 2018). |

# 1 Introduction

## 1.1 Background

The healthcare sector is a critical component of any society, playing a vital role in promoting the health and well-being of individuals and communities (Kruk et al., 2018), in turn determining the productive capacity of their economies (Hassan et al., 2017; Cetin & Doğan, 2015). Telemedicine has existed within the healthcare industry since the 1960s as a useful way to ensure care to individuals living in rural areas. Starting as a niche delivery method, its use grew progressively over the ensuing decades until 2019, when Sweden led the world in terms of the percentage of medical practices that offered the online functionality to; request appointments, request refills for prescriptions, view test results, and view patient visit summaries (58%). At this time, other developed economies such as New Zealand and Australia lagged substantially behind, with (27%) and (2%) of medical practices offering such services (Commonwealth Fund, 2019). The Covid 19 pandemic accelerated the uptake of telemedicine as government regulations imposed restrictions on the ability of doctors to meet patients in physical settings bar situations of absolute necessity. By 2021 the percentage of patients who had used telemedicine had risen substantially across all countries studied, aided by regulatory changes that facilitated expanded use of telehealth in countries such as India and Australia (Bhaskar et al., 2020).

The context of working remotely differs substantially from that of a physical office (Davenport & Pearlson, 1998). For instance, remote working implies a reduced number of face-to-face interactions, and communication is maintained solely through technology (Vartiainen et al., 2007). Additionally, employees working in a remote context are exposed to fewer physical cues associated with their workplace, including; company logos, office buildings, and the spaces in which they usually work. Since the pandemic, telemedicine usage has stabilized at an elevated rate, aided by more positive consumer evaluations of telemedicine and a substantially higher influx of investment into the sector overall. Despite rapid growth, there is still scope for significant increases in telemedicine services as a share of care delivered moving into 2030 and beyond, with significant implications for doctors and patients alike (Bestsennyy et al., 2021).

Alongside the increasing digitization of doctor-patient relationships, there has been a greater focus on management practices by the governing bodies of hospitals associated with the trend of corporatization (Turner, 2022). Effective management, defined as the appropriate use of performance tracking, incentives, targets, and process problem documentation, has been demonstrated to have a significant positive impact on a firm’s performance (Reenen et al., 2007). Similar studies have shown positive relationships between effective management and favorable outcomes such as worker productivity and firm-survival rates survival rates across a variety of industries and geographies (Parameswar & Hasan, 2021). Additionally, to output performance measures, studies have shown that employees' perceptions of management impact their job satisfaction and quitting intentions and that front-line employees’ perceptions of management competence are more closely aligned to objective measures of management effectiveness compared with manager’s self-reports (Favero & Andersen, 2018; Frenkel et al., 2013). Other research suggests healthcare professionals who perceived their managers as supportive, experienced positive outcomes such as lower burnout levels and higher patient satisfaction (Laschinger & Read, 2016; Haas et al., 2000).

Despite these desirable outcomes, significant apprehension exists of practicing medical staff towards their professional managers, who often experience a perceived lack of capacity due to their lesser need for continuous workplace qualifications compared to the staff they oversee (Gulzar & Hussain, 2022). In light of this research, healthcare professionals such as doctors serve as an interesting case for exploring the reaction of highly autonomous front-line workers to management's efforts to exert control. As a group, healthcare professionals are outliers in terms of the amount of conflict they experience with administrators and the large number of unwritten rules governing their relationship compared with other professional organizations (Bartlett & Ray, 2021).

## 1.2 Problem Discussion

How do doctors perceive management initiatives in a teleworking context? To date, this question remains largely unanswered, raising questions about workers' perceptions towards management with implications for patient outcomes. Through exploratory interviews of doctors who currently work in telemedicine contexts or have done so in the recent past, we hope to add clarity to this area. Adding to the understanding of how managerial actions are likely perceived, this thesis aims to build on identity theory by extending its application to front-line worker responses to remote contexts.

The present research landscape related to professional identity formation for doctors or changes in their professional identity documents the influence of groups and organizations in shaping their member's identities (Greil & Rudy, 1984); how physicians' identities change (Marion, 1991); how identities change as an individual's career progresses (Hall, 1996); the role of medical school in shaping doctors' work-related identity (Knight, 1973). However, such studies do not account for the altered expectations of doctors in a telemedicine context nor cater to their subsequent professional identity change relating to that shift, leaving room for further contribution.

How employees' identities influence their professional behavior is well documented and hence can be considered a mature field of research (Hogg et al., 1995). This is true for all professionals; however its effects have been studied most frequently among groups with exceptionally strong links between their occupation and identity, such as doctors, investment bankers, and consultants (Chreim et al., 2007). The relationship between identity and professional behavior explains why strong negative reactions are observed when individuals' aspects of their identity are threatened; for example, when doctors have their sense of autonomy challenged by exertions of managerial control. In professional groups such as doctors, with highly developed collective identities reliant on group reinforcement, changes induced by the shift to a remote setting are likely to impact how workers relate to their profession and the satisfaction they attain from work. Despite these substantial differences and their scope for impact, there is insufficient research on how the movement to telemedicine context alters professionals' identities and its implications on doctors' attitudes toward managerial control. This hence will be the focus of our research paper.

## 1.3 Purpose and Research Questions

The primary purpose of this study is to investigate how a shift toward a telemedicine work context impacts doctors' professional identities and their perceptions of managerial control. This study aims to understand the changes in doctors' care-provider and shared community identities, initiated by the movement to a telemedicine work setting. This study also emphasizes the role of pre-existing professional identities on doctors' actions and seeks to explore how contextual factors impact professional identity change in response to alterations in context. To fulfill these purposes, the study aims to answer the following research questions:

- How does the shift to a telemedicine context influence doctors' professional identity?
- What impact does identity change have on doctors' perceptions of managerial control?

## 1.4 Delimitations

This study focuses on professional identity and identity change on an individual level, meaning that doctors' subjective experiences and perceptions engaged in telemedicine are investigated. In doing so, the study is delimited to studying a sample of 21 doctors operating in the Indian, Australian, New Zealand, Canadian and Swedish contexts, with a close to 50% split between non-western (i.e., Indian) and western contexts. While the importance of the study is motivated by the potential impact of identity changes on the quality of care patients receive, given the researcher's time and resource constraints, we only focused on doctors in our data collection. The choice to focus on doctors' perspectives of the crucial event and their attitudes towards work and their company's management throughout the change was motivated by the limited time and resources available.

## 1.5 Expected Contribution

This study aims to contribute to existing literature in two ways. Firstly, the study will make a contribution to practice by generating a better understanding of how the components of doctors' identities influence their expectations regarding the various aspects of their work. Because of our delinations, most emphasis is directed to doctors' ability to care for patients as well as the relationships they hold with immediate colleagues and other members of the profession at large. Despite this, we remain open to the possibility of other aspects of doctors' professional identities not captured in the existing literature. Secondly, the study will make a theoretical contribution by providing a more comprehensive version of Mishra et al.'s (2012) proposed framework of doctors' professional identities. In doing this, we intend to generate an increased understanding of how doctors' professional identities change while working in a telemedicine context as well as the contextual factors that influence the degree of changes that occur. By better understanding doctor's professional identities, we hope to provide managers with a more informed set of options in acting to achieve the goals of their practice.

# 2 Theory

## 2.1 Literature Review

The literature review below section (2.1.1) establishes how telemedicine is a significant and growing aspect of the healthcare landscape with the potential for tangible benefits in terms of convenience, coverage, and patient outcomes. The section also emphasizes how changes brought about by telemedicine are likely to impact how doctors experience their work. section (2.1.2) establishes a positive relationship between a doctor's autonomy, their level of satisfaction and their patient's satisfaction, and the perceived quality of received care. section (2.1.3) mentions studies demonstrating how the formation of medical professional identity occurs and its positive implications for workplace behavior and then outlines how professional identities change in response to changing organizational contexts. Finally section (2.1.4) highlights how management intervention occurs in the healthcare context, emphasizing how telehealth influences such interventions.

### 2.1.1 Telemedicine as an Increasingly Prominent Feature of the Healthcare Landscape

The global COVID-19 pandemic made remote work the new norm for many professions due to the need for social distancing with large and unexpected impacts on organizations over the world (Fana et al., 2022). The healthcare industry was no exception to this trend, experiencing an acceleration of uptake of telehealth, for example, causing a tripling of the percentage of US patients conducting a health consultation online in 2020 compared with 2019 (Bestsennyy et al., 2021). Such increases were pervasive across the world; however, more developed economies were able to make the transition more seamlessly, given the presence of existing connectivity infrastructure. Since the easing of covid restrictions, telemedicine has persisted as a prevalent aspect of the healthcare landscape in large part because of the practice's demonstrated value in reducing mortality rates and increasing cost-effectiveness, especially in routine monitoring and non-critical consultation contexts (Kruse et al., 2017; Basit et al., 2020). Traditionally healthcare has had lower penetration rates of remote work compared to other industries, such as IT and finance, given its substantial requirement for physical contact and the need for doctors to gain patients' trust (OECD, 2021). A factor contributing to telehealth's sustained growth is its ability to remedy the uneven distribution of medical resources across geographies, presenting opportunities for patients in remote rural settings access to specialized care which otherwise would require significant effort to attain (Qiao et al., 2020). The potential for time savings also exists for doctors, who can treat patients at home or other places outside their traditional workplace, providing increased flexibility.

Research has found that patients, healthcare professionals, and caregivers may benefit from using both telemedicine services and traditional, in-person healthcare services with positive outcomes associated with symptom management, quality of life, satisfaction, medication adherence, visit completion rates, and disease progression (Shah & Badawy, 2021). Telemedicine services also can decrease medical costs, increasing an organization’s operational efficiency (Zhai et al., 2014; Buvik et al., 2019) and reducing readmission for hospital patients (Xu et al., 2022). Mental stress and depression problems are other aspects that are treated well in the telemedicine context. For these reasons, there is relative

consensus amongst healthcare professionals and patients alike that telemedicine will remain a persistent aspect of the industry landscape to a greater extent than prior to the covid 19 pandemic. Given this, there is substantial reason to expand the base of knowledge pertaining to how such a change will alter the experiences and quality of the actors involved.

### 2.1.2 Doctor Autonomy, Satisfaction, and Quality of Care

Delivering high-quality care is an essential aspect of the success of a healthcare organization. It is frequently quoted as one of the most important aspects of health policy principles (Busse et al., 2019). In this section, we highlight the relationships between a doctor's level of autonomy, their level of satisfaction, and the resulting quality of care experienced by patients. While the term 'quality' has a range of definitions in the healthcare context, for this study, we selected the definition of care being "care that maximizes an inclusive measure of patient welfare after one has taken account of the balance of expected gains and losses that attend the care process in all its parts." The "inclusive measure of patient welfare" is a broad term that refers to the overall impact of healthcare on the patient's well-being, taking into account the physical and psychological effects of the care process (Donabedian, 1980). This measure recognizes that quality healthcare is about achieving specific clinical outcomes and promoting the patient's overall health and well-being.

The prevailing literature on healthcare organizations suggests that the delivery of quality care is dependent on a range of factors of which autonomy has a prominent role. This is due to the complex and contextual specific situations in which patient care is delivered, and the large amounts of experience and knowledge doctors can draw on as they amass experience. For this study, we define autonomy as the sum of three component parts outlined in Salvatore et al. (2018). These include; clinical work freedom, social/economic freedom, and the ability of workers to influence organizational decisions. Clinical work freedom is the type of professional autonomy most closely related to patient outcomes; *"it refers to the ability of doctors to provide care to a patient without being limited by organizational procedures, financial concerns, performance measurement systems, or managerial control"* (Salvatore et al., 2018).

Mathews and Pronovost (2008) suggest, physicians who are given greater clinical autonomy are better able to make informed decisions that cater to each patient's unique need, leading to better outcomes and higher patient satisfaction. Historically, a doctor's role has entailed a high degree of clinical work freedom because the activities involved in day-to-day work require specific knowledge and a significant proportion that cannot be standardized or planned, or controlled by superiors. Axelsson et al. (2001) maintain that a high degree of professional autonomy and power among doctors is regarded as necessary and self-evident for preserving high-quality care. By giving doctors more autonomy, healthcare organizations leverage their expertise and ability to make decisions in situations of uncertainty based on clinical judgment.The preference for doctors to possess substantial amounts of clinical autonomy is reflected in the prevailing discourse of groups engaged with medical personnel, such as teaching staff and doctors organizations. In their research, Numerato et al. (2012) highlighted an opinion from a senior medical professional which represents this relative consensus *"Predefined rules in the form of guidelines and protocols, which have inspired the term 'cookbook' medicine, cannot be adapted to local circumstances because they fail to*

*take into account the complex and uncertain nature of healthcare. Nor can they fully mirror subtle elements of medical knowledge".*

While the relationship between a doctor's clinical work freedom and the quality of patient care is clear, the link between a doctor's social and economic freedoms is "*defined as the extent to which a doctor can impact their earnings and the nature and volume of the work they engage with is more nuanced"* (Salvatore et al., 2018). Such freedoms are influenced to a greater extent by the country and the institutional setting in which doctors operate. Individuals lacking this kind of autonomy are often disempowered or demotivated by their workplace and dedicate less time and attention to their work, with negative implications on patient experiences. Research from Haas et al. (2000) demonstrates that when doctors feel their social and economic freedoms are constrained, it can lead to feelings of frustration and burnout, leading to decreased empathy, increased errors, and reduced communication with patients, all of which can lead to lower levels of patient satisfaction.

Influence on organizational decisions refers "*to the extent to which doctors have voices in organizational and managerial choices and their ability to influence how their unit and hospital function"* (Salvatore et al., 2018). Professionals tend to incorporate organizational issues into their professional domains, and higher skill levels may be correlated with the higher participation of professionals in decision-making. Hospital management is often composed of some former or current medical professionals helping the organizations navigate the nuances of profit and treatment tradeoffs. Waddimba et al. (2020) suggest that a doctor's satisfaction and work investment are important quality indicators. When doctors feel empowered to improve care and have sufficient abilities to influence organizational decisions, established practices tend to reflect individual patient needs and better care outcomes regarding patient satisfaction. Evidence suggests that patient and doctor satisfaction are related (Linn et al., 1985; Schulz & Schulz, 1998), implying doctors' perceptions of their autonomy play an essential role in patient outcomes beyond their ability to exercise clinical autonomy and tailor care to patient needs.

Despite its benefits for doctor satisfaction and patient care outcomes, the autonomy of doctors is challenged on the basis of decisions taken by a healthcare organization's management in the pursuit of greater transparency, uniformity, or in response to exogenous factors such as the Covid-19 pandemic. Restrictions on such autonomy often define aggregated measures such as pre-set budgets, identify outliers with atypical treatment patterns, or channel certain treatments through a gatekeeper. A healthcare system's institutional arrangements can greatly influence an autonomy's economic freedoms: the social and economic freedom available to a state-employed physician in a country with universal healthcare will likely be different from the social and economic freedom available to a self-employed physician in a country with voluntary health insurance. Their subjective perceptions and previous experience impact how doctors react to these constraints on their autonomy. The subject of the following sections is how their identity affects their response.

### 2.1.3 Identity Theory

Identity theory is primarily a micro-sociological theory that seeks to explain people's behavior in relation to their roles (Hogg et al., 1995). A crucial concept within identity theory is that of roles, which can be defined as the distinct components of self, associated with the various

positions in society that an individual occupies. According to Hogg and McGarty (1990), roles are not fixed or predetermined but rather dynamic and shaped through an individual's social interactions. Identities are shared social meanings that an individual incorporates with their roles (Burke & Reitzes, 1991). For example, if an individual identifies themselves as a "doctor," they will likely incorporate the social meanings associated with being a doctor, such as professionalism, expertise, and care provider, into their concept of self. This role identity may guide their behavior in professional settings as they align their actions with the expectations and norms associated with being a doctor.

Identities are a source of motivation for action (Gecas, 1982; Heise 1979), especially actions that result in social confirmation of the identity (Hull & Levy, 1979). Individuals tend to continue a certain type of behavior over a consistent line of action and within different situations, and an individual's commitment towards a certain role tends to infuse the self and subjective meaning towards the role (Stryker, 1980). According to Hull & Levy (1979), an identity allows an individual to compare the meanings implied in social interactions ("reflected appraisals") with their self-concept ("the identity"), and this comparison influences their behavior and interactions with others. If the appraisals align with the meanings of their identity, they may produce behavior that is consistent with their identity. However, if the appraisals do not match their identity, they may modify their behavior or interactions in order to bring them into alignment with their identity.

An individual's identity shapes how they see themselves and how they believe others see them; this, in turn, affects their attitudes, beliefs, and behaviors (Stets & Burke, 2014). Stryker (1980) proposes that the more committed an individual is to a particular identity or role, the more likely they are to prioritize that identity or role in their hierarchy of identities and engage in role performances related to that identity more frequently. In order to maintain consistency with one's identity, individuals are likely to engage in behaviors and activities that align with their identity and seek out organizations, groups, or role partners that validate and support that identity (Burke & Reitzes, 1991), which gives rise to their social identification.

Stets & Burke (2014) propose that social identity is a more potent force than individual identity as an individual's group membership exposes them to more consistent pressures to adhere to the values and norms of the group. This social identity can influence their professional behaviors and attitudes, as well as their perceived role in society. Most studies show that professional identity is relatively stable and difficult to change (Abbott, 1988; Chreim et al., 2007). This resilience is explained by the long periods of immersion and socialization that characterize certain professional education programs such as medicine and law (Freidson, 2001). As established from the text in the introductory paragraphs, when faced with the prospect of new work practices that are inconsistent with an established professional identity, individuals tend to try and find ways to avoid such practices. In the face of these discrepancies, we seek to understand if and how a shift to telemedicine impacts a doctor's professional identity.

### 2.1.4 Doctors' Professional Identities

In relation to identity theory's application within the healthcare landscape, Mishra et al. (2012) propose two specific components of a doctor's professional identity being "care

provider identity" (role identity) and "shared physician identity" (social identity). The care provider identity is the responsibility doctors feel toward helping patients with their medical issues with the purpose of returning them to full health. It exists formally in written decrees and informally within widely held beliefs of the purpose of doctors. Shared physician identity, on the other hand, is the mutual identification doctors have with each other, providing a sense of belonging to the medical community members and differentiating them from other professional groups. This social identity influences their professional behaviors and attitudes and their perception of their role in society is tied to the specific subgroup within the medical community that they most closely align with. To keep this thesis within an achievable scope, we will focus on these two components of a doctor's professional identity, which we argue cover the central portion of a doctor's professional identity.

To grasp the impact of telemedicine on a doctor's professional identity, understanding their professional identity formation is crucial. Doctors begin the process of professional identity formation almost as soon as they enter medical school and sometimes even earlier (Haruta et al., 2020). This involves, amongst other things, viewing themselves as helping maintain the health of the community, being knowledgeable in autonomy and health, and acting with professionalism to help others. Within the medical community, gaining clinical knowledge and skills is widely viewed as critical for a doctor's success; developing a sense of a professional identity and the accompanying degree of professionalism is considered equally important by workers within the field (Burford, 2012; Wilson et al., 2013). Monrouxe (2010) found that among doctors, there is the conception that displaying a "professional demeanor" makes it easier to inspire others to have confidence in one's abilities.

A study conducted by Chen et al., (2021) proposed a process model of professional identity restructuring concerning a job redesign which involved four stages: (1) resisting identity change and mourning the loss of previous work, (2) conserving professional identity and avoiding the new work, (3) parking professional identity and learning the new work, and (4) retrieving and modifying a new professional identity and affirming the new work. Even though the study acknowledged how professional identity is usually highly resilient, it established how transitions in professional identity could occur, even when initially, workers were adamantly opposed to changes imposed on their workplace routines and responsibilities. Similarly, Chreim et al., (2007) added to the study of professional role identity reconstruction by incorporating the influence of institutional forces such as management's decision to implement a new technology, processes, or organizational routines. The results highlighted the importance of the interplay between an organization's structure and the agency of individual actors in rebuilding professional roles, with actors possessing less ability to resist the changes adjusting their professional identities faster.

Kyratsis et al. (2017) explored how established doctors manage their professional identities in situations of changing institutional logic (changes in healthcare policies, regulations etc.). They found in their study three distinct types of identity threats: professional values conflict, status loss, and social identity conflict. The doctors deal with these threats by engaging in reflective self-assessment (authenticating), adapting and adjusting professional identity to align with new institutional logic (reframing), and by cultural repositioning, respectively. One reason for the doctors being submissive and adapting themself according to the changes could be that the doctors in the study had no options but to follow the new norms. The presence of strong professional identities amongst doctors often creates situations where

management's efforts to constrain doctors' autonomy in the name of efficiency are met with resistance, causing apprehension toward the imposing group. Given the implications for doctor satisfaction of such friction, we deemed this topic relevant to this study.

### 2.1.5 Managerial Intervention and Control Within Healthcare

As a prelude to the relationship between management and doctors' level of satisfaction, we view it as useful to expand upon the concept of managerial control, given that the profession of a doctor is characterized by high expectations regarding the forms of autonomy outlined in Salvatore et al. (2018). Managerial intervention is defined by Lunenburg (2011) as *"the actions managers take to ensure that work is accomplished effectively and efficiently, goals are met, and problems are resolved."* In a workplace context, this often takes the form of managers exercising their control over employees through tools such as monitoring, performance reviews, and appraisals. Traditionally medical staff, especially doctors, have been given a high degree of autonomy in their work, a fact evident in the statement of Hunter (1996), referring to a structural change in management practices within the healthcare industry, *"Of all healthcare practitioners, doctors have most to lose since they have enjoyed the most important privileges, prestige, and freedom to practice within overall set budgets."*

Since the 1980s, most nations have experienced sustained corporatization of their healthcare systems, driven by the method's reputation amongst governing bodies as an effective means of increasing efficiency within the sector (Turner, 2022). Corporatization is the process of shifting responsibility for service provisions away from state control while retaining public ownership through stock or shareholdings. It can be described according to four distinctive perspectives: (1) managerialism of medical work; (2) institutional reforms to promote market-like behavior; (3) organizational governance; and (4) private sector colonization of the healthcare sector. While this process has numerous implications for the working environments of people working in them, the increased managerialism of medical work is most relevant to our discussion, given its implications for doctors' autonomy.

Managerialism entails subjecting healthcare professionals working in public or semi-public contexts to greater regulation of activities traditionally associated with the private sector, such as subjecting personnel to an organization's mission, rules, business plan, and priorities (Marathe et al., 2020). This manifests in practices such as clinical audits, mandated protocols, and guidelines that directly or covertly constrain clinical autonomy to make medical decision-making better informed, responsible, and conformed to evidence-based medicine (Hunter, 1996). The extent of corporatization means most doctors operate under large multi-specialty hospitals following a corporate culture, often with a reduced level of organizational influence compared to those in smaller businesses (Marathe et al., 2020).

The introduction of business-like logic in healthcare produces an interplay of two on-the-job cultures: occupational professionalism and organizational professionalism (Evetts, 2011). Occupational professionalism is associated with traditional professionalism, consisting of the decisional autonomy of front-line workers, patient trust, and medical paternalism (Brain, 1988). On the contrary, organizational professionalism is set on organizational imperatives, setting boundaries that professionals must respect (Carvalho, 2014; Noordegraaf, 2015). Modern doctors must balance both of these aspects in their work, operating with reduced autonomy while making decisions that optimize patient care. This can cause friction within

organizations, reflected in high rates of disputes between healthcare professionals and their managers compared to other industries (Almost et al., 2014).

Over the past decades, changes in workplace practices imposed by the regulation of healthcare providers, output controls for designated resource allocation, and expectations of private sector management style have forced doctors to change their working style to be more considerate of factors other than patient care (Hunter, 1996). Despite the negative responses observed in healthcare personnel responding to these changes, the trend towards professionalized management in healthcare settings is unlikely to reverse because of its significant benefits in increased operational efficiency and reduced variation in patient experience (Turner, 2022). The increasing managerialism outlined above imposes restrictions on physicians' autonomy, posing challenges to doctors who wish to maintain this aspect of their professional identity.

In the workplace context, doctors must reconcile their relatively high status amongst other healthcare professionals with their subordinate position relative to managers. Clearly defined professional identities expose doctors to the risk of having their identity threatened by impositions on their rights and expectations. Management sets targets and controls that are useful for the organization but are often perceived negatively by doctors as they stand in contrast to their pre-existing work expectations (Almost et al., 2014). Magee & Hojat's (2001) findings suggest that their negative perceptions of the healthcare environment can predict physicians' discontent. It has also been noted that physician dissatisfaction predicts reduced patient compliance with post-consultation actions (DiMatteo et al., 1993), doctors prescribing medications inappropriately or overprescribing the medications (Melville, 1980), and patient dissatisfaction (Linn, 1985; Haas et al., 2000).

### 2.1.6 Research Gap

The literature review above demonstrates how telemedicine is an established and growing feature of the healthcare landscape (Bestsennyy et al., 2021). It also highlights how patient care is related to a doctor’s level of satisfaction (Linn et al., 1985; Schulz & Schulz, 1998) and how this depends upon their level of autonomy (Haas et al., 2000). It then highlights how professional identities are formed and altered as well as their influence on workplace behavior (Stets & Burke, 2014; Swann et al., 2009; Monrouxe, 2010). What still remains a question is how the context of telemedicine impacts a doctor’s sense of professional identity and if such changes are also likely to influence their relationship with management and the quality of care received by patients. This represents a research gap, and considering telemedicine’s role in healthcare is likely only to increase, we see it as a worthy area of research to deepen existing knowledge. This study aims to fill this research gap by focusing on the changes to parts of doctors’ autonomy and identity in telehealth contexts and thereby explore any likely implications for quality of care.

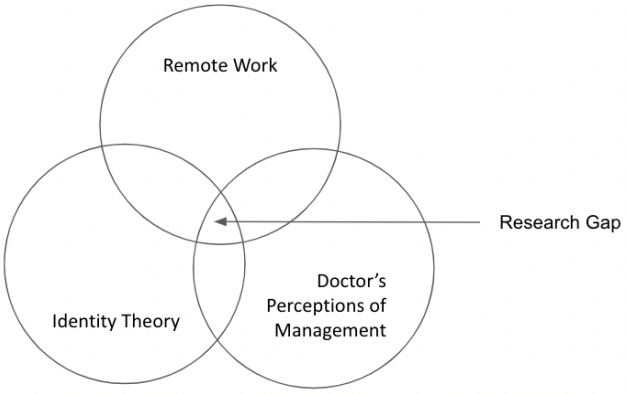


*Figure 1 - Research Gap*

## 2.2 Theoretical Framework

For this study, a preliminary theoretical framework has been developed (see Figure 1) to capture how the movement to a telemedicine context can impact the quality of healthcare services delivered. The framework was compiled from the results of the researcher's literature review, connecting identity theory with doctors' expectations regarding autonomy, their level of satisfaction and perception of management and the quality of care delivered to patients. The first component has been inspired by the conceptual model of identity theory outlined in Mishra et al. (2012), which recognizes a doctor's care provider identity and physician community identity as the two components of their professional identity. These identity components are then theorized to be altered by the movement to a telemedicine context. While formulating the model, we altered the physician community identity to the doctor community identity, as 'doctor' is the more common term in management discourse.

From the initial influences on a doctor's identity, we seek to explore if the changes associated with the movement to a telemedicine context has also altered doctors' expectations regarding the three components of said doctor's autonomy mentioned by Salvatore et al. (2018) in section (2.1.1), namely, clinical work freedom, social and economic freedom, and ability to influence organizational decisions. Given the tension between managers and doctors revolves mainly around their constraints on doctors' autonomy in these three regards, our model emphasizes these variables as a means of influencing doctor's perceptions of management and their overall level of satisfaction as outlined in section (2.1.2) With the interviews we seek to explore the presence of this model's components and add further evidence for their theoretical underpinnings in a new context.

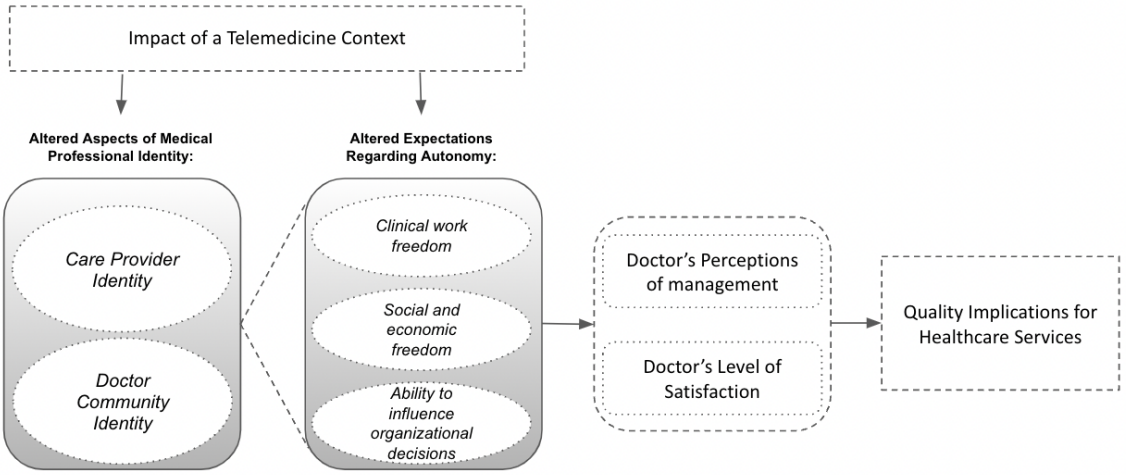


*Figure 2 - Theoretical Framework (inspired by Mishra et al. (2012))*

## 3. Methodology

### 3.1 Research Philosophy

With this study's purpose and research question in mind, we followed the ontological position of constructionism in our research process. The critical component of our research question was doctors' professional identities, resulting from various ongoing personal experiences throughout a doctor's life, which is continuously evolving. The constructionist position suits our purpose as a respondent's professional identity is constructed and developed by the doctor that creates and forms a reality under constant revision (Bell et al., 2022). Thus, it is subjective to the doctor's perception, which is socially influenced. We interviewed doctors to understand how they make sense of their professional identity by asking indirect questions about various components of their professional identity, its formation, and its relationship with management. The interviews' primary purpose was to understand the subjective response from the doctor's point of view regarding the changes they have experienced due to the movement to the telemedicine work context. We followed the epistemological approach of interpretivism to analyze each doctor's response.

Interpretivism concerns understanding subjective aspects of human behavior (Bell et al., 2022). In our case, the doctor's behavior needed to be understood, which was being influenced by the changes induced by the shift to a telemedicine work context. We define this shift as a critical event. Thus it became imperative to interpret the actions of doctors and their social world from a doctor's point of view (Bell et al., 2022). Further, By taking a constructivist stance, we did not aim to generalize the findings (Bell & Thorpe, 2013). Instead, the aim is to yield a deep understanding of the critical event change in "professional identity" attained by numerous and extensive interactions with doctors in healthcare organizations engaged with telemedicine.

### 3.1.1 Research Design

This study has used an inductive approach, suitable for emergent phenomena where little prior research exists (Flick, 2009). We started to collect data by empirical investigation of our critical event and then compared the emerging themes to the claims of existing literature. Through the lens of identity theory we contextualized our theoretical contributions by comparing areas of consistency as well as novel and unexplained changes (Bell et al., 2022). Further analysis of data revealed patterns that emerged inductively, which were then abstracted into a broader sense theorized in the context of change in doctors' professional identity related to the shift to telemedicine.

### 3.2.3 Methodological fit

Change in professional identity is a mature field of research, as there have been multiple studies completed related to this aspect (Chen et al., 2021; Chreim et al., 2007). However, the change in doctors' professional identity specific to the movement to telemedicine work context has yet to be studied. As we intended to attain a rich and deep understanding of the critical event of doctors' movement to a telemedicine context, the methodological approach of a qualitative study was selected. Our chosen interpretivism perspective aligns well with qualitative research as both emphasize understanding subjective meanings and social contexts to explore the complexity and depth of human experiences (Bell et al., 2022). The qualitative study sheds light on individuals' perspectives to build an overarching structure and pattern-based method that help enrich the understanding of a phenomenon (here, critical event) (Flick, 2009). A quantitative approach increases the transferability of the research findings applicable to other industries (Bell et al., 2022; Flick, 2009). However, the quantitative approach fits appropriately to confirm or reject an existing theory by formulating a hypothesis, which is unsuitable in our case as we seek to find answers to an unexplored critical event.

In classifying this shift of individual doctors' work contexts to telemedicine settings, we deemed the transition to be a critical event rather than a phenomenon as the unit of analysis was individual doctors and not the broader social, cultural, or behavioral issues by which phenomena are defined. For this thesis, we chose to hold semi-structured interviews with doctors in order to understand the alterations of their professional identities resulting from the shift to a telemedicine work context. A semi-structured format was suited to gain subjective knowledge about doctors' experiences related to the critical event by which their identities change (Morse & Fields, 1995). This interview format provides relevancy to the topic while being responsive to the participants (Bartholomew et al., 2000). The interviews were conducted by designating the doctors as the "knower" to interpret their responses which would help understand the influence of the critical event on the professional identity of a doctor (McIntosh & Morse, 2015).

The study aimed not to establish cause-and-effect relationships between changes occurring in a healthcare setting and doctors' behavior concerning those changes. Instead, we intended to understand how doctors perceive and respond to the modifications based on their current professional identity and how such an identity might change in response to external factors such as the movement to a telemedicine context. Semi-structured interviews

were conducted by designating the doctors as the "knower" with the purpose of interpreting their responses which would help understand the critical event in the thesis.

## 3.2 Data Collection

### 3.2.1 Interview Sample

In this study, doctors were selected based on their relevance to the research questions pertaining to telemedicine and not on their representation of the population at large (Braun & Clarke, 2013; Flick, 2009). The doctors were selected from both western and non-western contexts, enabled by the networks of the authors conducting the study. India was selected to serve as a representative non-western country that adopted telemedicine relatively late - its first regulatory guidelines enabling the practice of telemedicine were published soon after the outbreak of the covid 19 pandemic. The selection of multiple western countries, Australia, New Zealand, Canada, and Sweden, enabled a broad cross-section of regulatory environments; however, all countries had laws enabling the practice of telemedicine for more than ten years. This contrast in the time in which telemedicine had been practiced in each respective country generated significant variation in the responses from the doctors regarding their use and provided a more broad picture of the global healthcare landscape.

The doctors were selected using a mix of convenience, purposive and snowball sampling (Bell et al., 2022). To establish contact with the initial interviewees, the authors leveraged their personal networks and subsequently asked these respondents for the contacts of other doctors who fit the scope of the study. This process was repeated with the referred contacts respondents until theoretical saturation was achieved. The criteria for selecting the participants were formed at the onset of this thesis, and the prospective interview doctor needed to complete two criteria. First, they needed to have physically practiced as a doctor in a healthcare organization. Second, they should have also worked in a telemedicine context for a substantial period (over three months). Fulfilling these two criteria made them suitable candidates to answer the questions related to the subject matter of doctors professional identities and how the movement to a telemedicine work context impacts them. While selecting doctors, a particular preference was given to include doctors from various specialties of healthcare that would yield greater variation in responses from the doctors (Bell et al., 2022).

The total number of interview candidates was not decided beforehand. Instead, we intended to stop the interview process when theoretical saturation and no further codes were being produced from the doctor’s answers. Repetition of similar patterns was used as an indicator for sufficient sample size (Bell et al., 2022). This is often argued to be the preferred method for deciding the number of participants in qualitative research.

### 3.2.2 Interview Process

After the selection process of the potential interviewee doctors, each doctor was sent an informative email containing an introduction to the project with a copy of the interview guide to be used. The purpose of sending these questions, which were open-ended in form, was to initiate interest in the project and give the respondents time to think about relevant stories

beforehand. The interviews were taken over 48 days in a remote format. Due to the distance between our chosen countries of interest, having a physical interview was impossible. Conducting qualitative research by using video interviews is a viable option and should not necessarily be viewed as inferior to face-to-face interviews (Nehls et al., 2015). The interviews were conducted via the communication platform Zoom, offering the opportunity for video conferencing, which made it possible to utilize the camera function to document respondent body language. The interviews were conducted in English to ensure that both interviewers would understand the responses equally well. Consistency in the interview language helped us analyze the doctor's answers and later in the coding of the documented responses to improve the validity and reliability of the thesis (Bell et al., 2022).

Before starting the primary interview process, one pilot interview was conducted to reveal weaknesses in the interview design and allow the authors to modify it before the primary interviews. Based on the pilot interview, the interview guide was adapted to ensure richer answers (Bell et al., 2022). This allowed the authors to understand better the length of the interview, how the questions from the guide were perceived, and what type of answers could be obtained. The interviews lasted around 45 minutes and were recorded with the participants' permission. All participants were treated anonymously to ensure confidentiality (Bell et al., 2022). An overview of the participants is presented in Appendix 1. During the interviews, both authors were responsible for asking the questions and simultaneously taking notes on what was being said and the body language of the informant. Precision in articulating the questions was given preference as it reflected the interviewer's knowledge, which instilled trust in the doctors inspiring fuller responses (McIntosh & Morse, 2015). After each interview, the authors took individual notes to ensure that spontaneous reflections and insights were captured, which served as a primary means of analysis.

### 3.2.3 Interview Design

Since this study aimed to understand how the movement to telemedicine influences how doctors interact with management, the authors adopted a semi-structured interview approach to enable in-depth responses about the doctor's care provider identity, the doctor's shared identity, and various aspects related to the doctor's autonomy. We targeted these specific components along with questions related to identity theory based on their relevance within the theoretical framework of this thesis.

Our questions were framed indirectly to generate in-depth discussions of these three components and to explore the extent to which they influence a doctor's professional identity in a telemedicine aspect. The semi-structured interviews further allowed for flexibility, given the complex and subjective nature of doctors' perceptions of management. While the professional identities of a doctor might be influenced by their nationality, the components that make up their professional identity, as outlined by Mishra et al. (2012), were expected to be the same. The questions used in the interviews were related to those components and not to a specific condition or a particular healthcare setting. The questions were articulated and sequenced in the same manner that conveyed the same idea to the doctors with the sensitive terms neutralized, which improved the likelihood of detailed and unbiased responses from the doctor (McIntosh & Morse, 2015). Using the same interview guide helped us to analyze the responses uniformly and made them comparable. The questions were open-ended to encourage detailed and rich answers (Kvale & Brinkmann, 2014). The

questions were made simple such that they contained only one aspect or component of the thesis (Berg, 1989). The sequence of the questions in the interview contained broader mild questions in the beginning, with more complex and sensitive questions at the end (Leech, 2002). This logical order of the questions gave the doctors a better understanding of the research topic, increasing the answers' relevance.

## 3.3 Data Analysis

### 3.3.1 Interpretative Process and Gioia Methodology

All interviews were held via the online meeting system Zoom or MS Teams and were recorded using the transcription tool (in accordance with participant acceptance). The recordings minimized the risk of data loss. They made it possible to correctly code the interviewee's intention by looking at body language, tone of voice, and transcriptions. Moreover, the authors worked simultaneously with transcription, coding, and analysis to ensure close attention to the participants' context and progress in the interview phase (Gioia et al., 2013).

We followed the Gioia methodology to reveal insights from the empirical material. We generated first-order codes and second-order themes in a structured and comprehensive manner. This methodology was used to increase the scholarly rigor of this study and to appropriately understand the different views of doctors in a structured way. The first-order codes represented a cluster of *similar codes* in our data structure (Figure 2). The *similar codes* represented the same sentiments depicted by various doctors. Special care was given to categorizing the first-order codes by keeping the same meaning depicted by the doctors. Each author generated these codes separately and compared and discussed them to ensure a fair representation of data (Miles & Huberman, 2010). Axial coding was used to formulate the second-order themes (Strauss & Corbin, 1998), where the first-order codes were clustered together to formulate a representative theme. The second-order themes aim to answer the question of "What is going on here?" based on the first-order codes (Gioia et al., 2013) and to make sense of subjective experiences among doctors (Welch et al., 2011).

After grasping the second-order theme, we moved toward the final and most extensive stage of the Gioia methodology, formulating the aggregate dimension. From the beginning of this stage, we emphasized that the aggregate dimensions relate to our theoretical framework and answered the study's research question. Developing the aggregate dimension was iterative, involving a back-and-forth between theory and practical insights. We revisited our initial codes and themes to make some amendments to arrive at the aggregate dimension that was theoretically sound and practically useful for understanding the critical event under study. Following all the steps of the Gioia methodology ensured that the analysis process was rigorous, transparent, and trustworthy, enabling reliable insights and informed decision-making. These steps helped minimize errors, biases, or unwarranted assumptions and contributed to the credibility and validity of the analytical outcomes.

### 3.3.2 Data Structure

Presenting the data structure is crucial in the Gioia methodology to reach the primary imperative of analytical rigorousness, which shows the systematic and meticulous approach

to reaching conclusions from the raw data. Data structure shows the relationship between the interview participants' lived experiences and the theoretical dimensions to provide a holistic view of the studied topic (Gioia et al., 2013). The data structure visualizes how the raw data emerged into aggregated dimensions (Pratt, 2006).

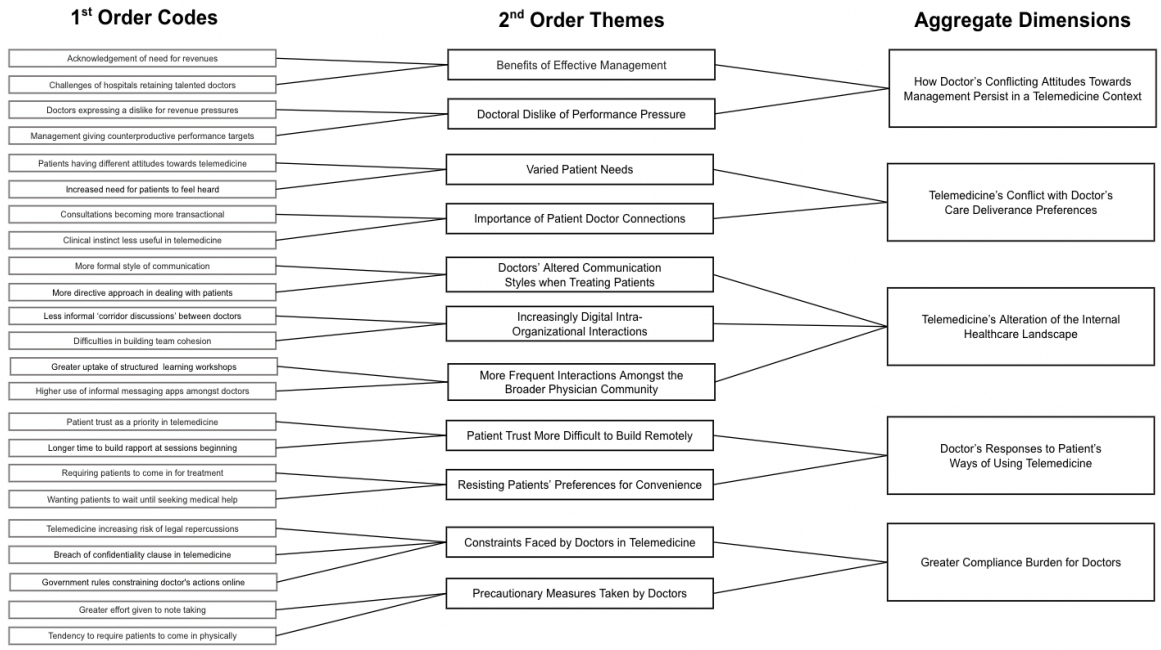


*Figure 3 - Data Structure*

## 3.4 Quality Considerations

Throughout the study, the authors have strived to ensure that they have collected, analyzed, and interpreted the data in a high-quality manner to maintain the trustworthiness of the research design and execution of the research process. To ensure trustworthiness in the data collection and analytical approach, the authors made an effort to fulfill the criteria for conducting qualitative research. The quality of this thesis can be assessed and evaluated by the four quality criteria postulated in Lincoln & Gaba (1985).

### 3.4.1 Credibility

Since the critical event of "change in professional identity of doctors" resulting from the movement to telemedicine work context was studied through the authors' interpretations of doctors' experiences and responses, credibility was essential. Credibility refers to whether the researchers' representations of reality correspond to the reality perceived by the participants (Lincoln & Guba, 1985). The study's credibility was enhanced by the interviewing of multiple doctors from both western and non-western contexts and both public and private organizations. Both authors were present during all the interviews. As a result, the authors could discuss the interpretations to minimize the risk of wrong observations, which increased the study's credibility (Kvale & Brinkmann, 2014). In case of confusion and not agreeing to the terms of the interpretation of data between the two authors, the authors used the process of member checking to verify the transcribed material with the interviewed doctors.

### 3.4.2 Transferability

The transferability of a study refers to the degree to which the findings can be generalized across social settings beyond their immediate context (Bell et al., 2022; Lincoln & Guba, 1985). To enhance the study's transferability, a detailed description of the processes and methods is provided in the above sections to help the reader determine whether the findings are transferable (Lincoln & Guba, 1985). The purposive sampling of doctors from different specialties operating in multiple organizations was chosen to increase the transferability of this study's findings beyond either the private or public healthcare context. Additionally, the authors have provided detailed descriptions of the context and the critical event being studied. This allows readers who may wish to transfer the findings to make their judgment of transferability (Lincoln & Guba, 1985; Bell et al., 2022).

### 3.4.3 Dependability

Dependability is the extent to which the research process of a study conforms to established practices and proper procedures to ensure that theoretical inferences are justified (Bell et al., 2022). In the case of this paper, we used the inquiry audit technique by engaging with a supervisor and fellow researchers for the purpose of assessing the research process as well as an accuracy check of our interpretations.

### 3.4.4 Conformability

As a researcher, one has the responsibility to limit the extent to which their theoretical or personal biases affect the collection, interpretation, and analysis of data. (Bell et al., 2022). To adhere to this aspect of quality, referred to as conformability, the authors made significant efforts to practice reflexivity. This entailed considering the authors' respective roles in interviewing, coding, and analyzing data, consistently discussing with each other how their respective positions might be influencing behavior. To further minimize the presence of bias in their process, the researchers also applied triangulation (Lincoln & Guba, 1985).

## 3.5 Ethical Considerations

In this study, a primary ethical consideration was to ensure data privacy and anonymity for all participants involved. To achieve this, the names of organizations and respondents were not disclosed, and data collected through interviews and communications were deleted promptly after the analysis had been completed. In practice, this meant that video recordings were deleted shortly after being transcribed and that participants had the option to remove certain exchanges from recorded data should they desire to do so. Steps were taken to be compliant with GDPR regulations, including obtaining written expressions of participation consent from all interviewed doctors, including the acknowledgment that such interviews would be recorded.

## 3.6 Methodological Limitations

This study aimed to explore how doctors' professional identities were altered by the movement to a telemedicine context. One of the study's limitations was its exclusive use of qualitative interviews, which were conducted over a short period of time. The use of methods

such as triangulation and longitudinal data capture would have likely resulted in a more rigorous methodological underpinning to our findings; however, this was not possible given resource constraints (Lincoln & Guba, 1985).

Additionally, while all respondents were professionally proficient in English, it is likely that some respondents from India would have varied their responses if they were able to express themselves in their native language. To manage this, the respondents took special consideration to ensure that their questions were understood and revised the recordings of interviews to ensure that respondents answered in a way to suggest comprehension.

## 4 Empirical Findings & Analysis

The following chapter presents the empirical findings of the study with the purpose of providing the reader with an understanding of the attitudes of doctors engaged with their workplace in situations of telemedicine with specific emphasis on the altered relations with patients, management, and other doctors.

The analysis produced by applying the Gioia methodology resulted in five aggregate dimensions (4.1) Doctor's Conflicting Attitudes Towards Management (4.2) Telemedicine's Conflict with Doctor's Care Deliverance Preferences (4.3) Telemedicine's Alteration of the Internal Healthcare Landscape (4.4) Doctor's Responses to Patient's Ways of Using Telemedicine and (4.5) Greater Compliance Burden for Doctors. These dimensions are explored through the lens of the theoretical framework proposed in section (2.2) namely the aspects of the two dimensions of doctor identity, which are care provider identity (5.1), shared physician identity (5.2) as well as the three components of autonomy (5.3) outlined by Salvatore et al. (2018) being; clinical work freedom, social/economic freedom and the ability of workers to influence organizational decisions.

### 4.1 Doctor's Conflicting Attitudes Towards Management

In order to understand how the movement towards telemedicine was influencing doctors' attitudes towards management, it was useful to grasp how such attitudes were prior to the critical event. On the basis of collected interviews, the prevailing consensus amongst interviewed doctors was that management was a necessary aspect of maintaining an effectively functioning practice. While this was the case, a large share of respondents also held feelings of ambivalence towards the actions of management, which restrained their autonomy.

This is captured in the examples below from the same doctor, first acknowledging how management added value to their organizations by possessing necessary complementary skills before then, making it evident that they would not compromise on the quality of care delivered. A notion that gives additional support to the claims of Axelsson et al. (2001) is that doctors deliver better service while autonomous, and Turner (2022) that management is widely recognized as a necessity in a healthcare setting:

> *"To get the best possible treatment protocol and care you have to have a lot of money and investment coming in. You need to have the best possible equipment coming in and that's something doctors aren't experienced with but management helps with."*

*(Interview 1)*

*"You have to stick to the best protocol of care which is internationally acceptable. It's not that I like something or I can just compromise with the care - no, I have to follow the best protocols which are acceptable internationally, regardless if there's pressure to do otherwise."*
*(Interview 1)*

When initially asked how participants felt towards management, the overwhelming majority of responses were either positive, with the next most common response being neutral. Emphasis was often directed to management's limited infringement on doctors' clinical autonomy and their general openness to employee concerns. Reflecting on his time practicing in India before the pandemic, one respondent said:

*"So as an employee my experiences were very good. There were very friendly relations between our manager and the employees. If we had any problem we just talked to the managing doctor and the manager. It was also rare that I'll felt pressured to go about my work using a certain medication or technique" (Interview 3)*

Contrary to these positive conceptions, a large group of respondents expressed a distaste for certain managerial practices enforced upon them in response to the rapid movement to telemedicine. This is expressed in the following quote referring to the response of hospital management complying with regulations induced by the adoption of telemedicine during the Covid-19 pandemic:

*"I want to make sure that I can best care for my patient, we're doing these things (following cumbersome safety procedures) because the government says so, but a lot of us doctors were feeling that we were giving our patients less care because of having to". (Interview 13)*

This doctor's concern with following rules not enabling their ability to deliver patient outcomes was viewed by us as representative of how top-down organizational structures, which are prevalent in large, government-run hospitals, generally resulted in a loss of organizational influence for doctors compared with before the pandemic (Marathe et al., 2020). In the absence of counteracting measures to address this loss of autonomy, general satisfaction amongst doctors operating within this environment went down, a fact reflected in the following contrasting quotes:

*"So in government, they have standard forms, formats and IT processes, etc. with little room for individual doctors to influence these. This was the case before the pandemic, and while telemedicine was being introduced, there was definitely no time for stopping and questioning things." (Interview 4)*

*"They are (constraints imposed by management) more of a thing in hospitals, not in a GP clinic…. In a GP clinic, you can just go into your room, and you work from home if you want practicing the way you see fit."*

*(Interview 14)*

Other doctors, particularly those working in the private context of India, expressed feeling pressure from management to increase revenues in their organization by attracting patients to the hospital and selecting certain treatments over others. This aspect was persistent and a source of continual resentment for many doctors who reported being motivated by their ability to serve patients with ethical means rather than profit-driven medical decision-making.

*"They (management) value revenue generation …. they will say, okay, how much are you going to charge for this? How much the hospital is going to get paid from this? If there's anything which is not making profit, they will probably say, "OK, send the patient somewhere else." This also hasn't changed and and now is often a reason to bring patients in (for a physical consultation instead of having a teleconsultation)" (Interview 6)*

Another alteration to the internal healthcare landscape was the availability of extra earning opportunities afforded by telehealth companies which offered flexible working arrangements to doctors. This could be related to an increase in the economic/social freedom aspect of autonomy mentioned by Salvatore et al. (2018). The fact that all respondents questioned who knew of such opportunities hadn't engaged with them as they already had sufficient remuneration implied adequate economic freedom. It was clear from the aggregate of responses that doctors will hold conflicting attitudes towards management with larger, more government-run institutions providing fewer opportunities for the aspects of autonomy outlined by Salvatore et al. (2018). When expectations of autonomy were not met, some doctors expressed a desire to change their employer, with one having done so in 2020 shortly after the start of the Covid pandemic.

### 4.2 Telemedicine's Conflict with Doctor's Care Deliverance Preferences

Throughout the study, it became clear that a significant portion of interviewed doctors felt their ability to read non-verbal cues and infer patient health was diminished in telemedicine. Despite this, there was little observed concern about telemedicine worsening clinical outcomes due to the hybrid nature of organizations in the data set. Respondents expressed an ability to refer their patients for a physical consultation when deemed necessary, minimizing risks of reduced care. The majority of reservations doctors held towards telemedicine were due to the practice's divergence from their preferred way of practicing, in particular a reduced emotional and physical connection with patients, an aspect of the job that many associated with their professional identity.

*"As a physician, you smell the patient, you get a sense for them when you say hello, you feel their handshake, and when you go out then in the waiting room, sometimes you even make a diagnosis on the spot. But seeing it flat on the screen makes this much more difficult." (Interview 20)*

This reasoning is in line with existing literature about the limits of telemedicine's effectiveness in clinical consultations (Shah & Badawy, 2021) and partially explains why so almost all the respondents expressed a preference for physical examinations over remote ones in making serious diagnoses. A more novel finding was how some respondents

explicitly mentioned that their ability to connect with their patients on an emotional level was reduced by the loss of physical interaction, ultimately making their work feel less meaningful. This was represented in the following quote:

*"I think the job means providing very good health care, both preventative health care and also treating acute medical problems and getting to know a patient… You know, forming a good relationship with them as a GP. I've got no interest in providing health care over the phone to somebody I don't know." (Interview 17)*

Another aspect of telemedicine revealed by the empirical data was the view that consultations with patients become more transactional in an online setting. The doctors interviewed reflected a relative consensus that it is more difficult to establish a relationship with patients remotely. These factors coalesced around one doctor's decision to only conduct telehealth meetings with patients they had seen before, expressed in the quote:

*"On a telephone, it's a lot more transactional. Trust is also a lot harder to build in the first meeting, so I think that treating a patient that you know well is the only way of doing it…. That's why I'll never take the first meeting via telemedicine. (Interview 11)*

This restriction was common amongst recipients, with multiple other interviewed doctors expressing their adherence to the same policy. Despite these drawbacks, all participants believed that telemedicine as a tool would persist as a feature of the healthcare landscape. This was owing to the well-established benefits of telemedicine, such as time savings for doctors and patients alike, as well as the ability to serve rural clients in a better way (Qiao et al., 2020).

It was clear from the empirical data that doctors saw their ability to deliver high quality care as a crucial aspect of their professional identity, a finding in line with the "caregiver identity" proposed by Salvatore et al. (2018). Not wishing to compromise on the quality of care delivered, many doctors reported that their time to make a diagnosis had increased while practicing telemedicine to compensate for fewer non-verbal cues in turn offsetting some of the time savings attained by reduced commuting times.

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*"So it more impacts that you can no longer trust your clinical instinct or clinical gestalt, which is what experience teaches us, and more that you have to go back to medical school, really clarifying the story and what the history is telling to work out the right diagnoses which can take a lot longer." (Interview, 13)*

Relating such reactions to the theoretical framework proposed in section (2.2), it is evident how a doctor's care provider identity has remained resilient throughout the changes induced by the movement to remote work, continuing to view their capacity to care for patients as a key component of their job. Interestingly, many respondents had taken active steps to maintain their professional identity, exercising their clinical autonomy and ability to influence organizational decisions. This aligns with the claims of Chen et al. (2021) that the purpose of conserving professional identity, actors will seek to avoid new work which challenges their existing priorities and only after accepting that institutional forces will necessitate the

continuation of telehealth begin learning the new work and modifying their professional identity accordingly. Such a shift is embodied in the positive expression by a doctor in the phrase:

*"It's not a big thing for us to be referred to as a "telemedicine doctor". There are many of us now doing telemedicine. I think everybody still sees themselves as doctors. It's actually good to call yourself a telemedicine doctor."* (Interview, 15)

### 4.3 Telemedicine's Alteration of the Internal Healthcare Landscape

The introduction of telehealth was expected to have far-reaching implications for the medical industry both from an organizational and individual doctor perspective, with many respondents citing a palpable sense of uncertainty in their organization at the time of it being introduced. The way in which this change ultimately materialized was primarily centered around the altered frequency and means of communication between organizational actors instead of the structures of organizations themselves.

#### 4.3.1 Doctors' Altered Communication Styles when Treating Patients

According to the interviews, some doctors applied a more assertive conversation style while interacting with a patient online. This is expressed in the following representative quotes:

*"The nature of consultations are more transactional when dealing with the patient's online. I would tell them I need you to do this, this and this for me in a way I wouldn't if we were in the same room." (Interview 10)*

*"In my opinion, doctors take an active role in teleconsultation. Because it's we doctors that provide guidance online and provide direction as to where the treatment should go." (Interview 7)*

Similarly some doctors felt that their emotional connection was reduced in telehealth settings with the new patients and subsequently they adopted a more formal style of communication.

*"During the first time, see, you are in the dark, what I'm dealing with is likely to be more formal as I have no prior relationship with this new patient online." (Interview 4)*

These changes can be interpreted as a movement away from an exploratory style of consultations where doctors and patients work together to arrive at shared solutions to a more formulaic application of medical expertise. Looking at this change through the lens of identity theory, we theorize that doctors acted in this way as a means of coping with their lessened professional competency in the telemedicine setting, reflected in the quote:

*"I won't say it's changed, it's just made me feel a bit more irritable about it, you know. Because it's more, it's a new skill which is actually more work for me. It's a harder consultation and it's more work, you know, so it's a less satisfying job. (Interview 10)*

Another Indian doctor explained the importance of educating their patients so they could gain trust that the prescribed procedure was the right one. Given that it was harder to establish rapport in a telehealth setting, they stipulated that being convincing verbally looked of greater importance, and patients with less formal education were seen as more difficult to convince:

*"It also matters with their (the patient's) literacy level, somebody more educated will be better with technology and have greater trust in my clinical recommendation. With less educated patients I usually explain things in more detail". (Interview 6)*

### 4.3.2 Increasingly Digital Intra-Organizational Interactions

The empirical data showed most doctors were meeting their colleagues less in telehealth contexts, although this was dependent on the ratio of in-person to remote consultations for each individual. In response to this, there was increased use of remote communication tools for meetings, Zoom, MS Teams, and messaging apps like Whatsapp for more informal peer-to-peer communication. The respondents' perceptions of whether this altered their workplace environment for the better or worse was mixed. For example, one respondent felt telemedicine practice limited the informal knowledge sharing amongst the doctors compared to a physical setting:

*"You get less opportunity for those sorts of corridor discussions around bouncing an idea off someone or just saying like, oh, by the way, do you know if there's still a supply of this particular medication in Australia? or have you ever come across someone who's requested this type of report from you before?." (Interview 12)*

Many doctors claimed there had been a reduction in social interaction with their colleagues while treating patients online as one of the doctors postulated:

*"We had minimal interaction with our colleagues and more interaction with our patients. When you are working in the hospital there's a lot of interaction amongst colleagues compared to working in a telemedicine practice." (Interview 1)*

Others complained that the sequential nature of speech in virtual settings stifled the flow of conversations, providing a less enjoyable experience and reducing the ability to build collegial camaraderie. This was visible in one of the doctor's responses:

*" I think we've felt less cohesive as a team during the times when we had our meetings exclusively online because it's much harder to have banter around the table. On MS Teams or Zoom you have to take it in strict turns and you only tend to ask a question or speak when there's a space. You don't talk over people. You know, there's all that sort of thing that sort of dampens lively conversation." (Interview 18)*

Interestingly, a group of doctors engaged in telemedicine reported minimal change to their extent of worker interactions owing largely to the fulfillment of online responsibilities at their place of work. Still taken in its totality, this trend of a greater share of communication

occurring via digital mediums was viewed to be persistent since the movement to telemedicine.

### 4.3.3 More Frequent Interactions Amongst the Broader Physician Community

The empirical data suggests that doctors participated in more online seminars since the movement to telemedicine as it was a way to improve their clinical knowledge and as a means of engaging in enriching discussions with other doctors. This acted to offset the negative implications of reduced collegial comradery evident in the above paragraph and is represented in the quote:

*"I'd say it's (telemedicine) been a boon for the medical education program. It seems like there's greater participation and after sessions, a lot of people stay (online) to talk to one another. It's easier to get guest speakers for panel discussions and overall has made these sort of academic sessions a habit for doctors ." (Interview 4)*

Similarly, another doctor elaborated on their increased use of other social apps to compensate for being unable to see other doctors.

*"You don't see each other physically as much anymore. I think because of this I'm more active in WhatsApp groups and other forums for colleagues - I find myself checking them more than I used to. It's a way of hearing chatter about things that are going on." (Interview 11).*

The movement to telemedicine has increased the incidence of online interactions among doctors, both in structured and unstructured formats, while also decreasing the incidence of face-to-face interactions. Quantifying the impacts of these conflicting forces is difficult; however, as researchers, we took indications from respondents' views of their workplace as a whole. For the most part, respondents did not report that their attitudes toward the broader community of doctors had changed due to their increased association with industry groups. Contrasting this to the reported isolation during the Covid-19 pandemic when telemedicine was widely implemented, it is probable that a hybrid setup in which most doctors now operate is conducive to a group association.

## 4.4 Doctor's Responses to Patient's Ways of Using Telemedicine

Dealing with their own altered workplace situation, doctors reported spending significant energy coping with patients' expectations of receiving care in a telemedicine context and their tendency to use it for convenience, even when a physical consultation is required.

### 4.4.1 Patient Trust More Difficult to Build Remotely

Upon discussing the changes in the approach doctors have taken while treating patients online, many professed the need to take additional steps to gain patients' trust. These included a focus on demonstrating attentiveness and offering free follow-up visits. Most participating doctors acknowledged the need to build rapport with patients persisted once moving to telemedicine despite treating more routine issues rather than more serious cases associated with the emergency room. Doing this required new techniques on behalf of doctors, as represented in the quote:

*"We'd request multiple online visits and make the next visit free, not to raise patient money but rather to try and build rapport and gather their background and medical history before engaging with the actual medical issue. These aspects were always important but became more so when the patients are not present face to face"(Interview 11)*

Along the same line, many doctors emphasized the importance of working collaboratively with the patients to build their commitment to the prescribed treatment as to increase adherence:

*"Working out the diagnosis can usually be done by a computer, but the trust that the therapeutic relationship requires can be hard to build in teleconsultation. The management of a patient is not merely prescribing the medication, as 36% of the time patients don't take medication as prescribed, building the patient's trust in the therapeutic relationship is just as important as getting the diagnosis right" (Interview 12)*

Many doctors reported an initial hesitance from patients to express sensitive information in telehealth settings for fear of being recorded or a greater sense of self-consciousness due to being able to see themselves. In response to this, a significant portion reported allocating more time to consultations reflected in the following quote:

*"My approach is slightly different when I treat patients online. I'll make sure to set the scene for how the session is to work and take more time to develop rapport. Although patients have reservations, they usually sort of melt away a bit after you get over the initial hump." (Interview 10)*

### 4.4.2 Resisting Patients' Preferences for Convenience

Empirical data showed that doctors were generally skeptical of their patient's ability to diagnose their own medical issues. Additionally patients demonstrated a tendency to prefer the convenience of a telemedicine consultation over a physical consultation even when one is recommended. This tendency is represented in the quote:

*"Whether they come or not is up to them but I think patients can often fail to understand the danger that they're in at times because they're not medical… If the patients seem unwell or something else makes me suspicious, I'll insist that they come into the clinic even if they're reluctant. " (Interview 14)*

In response, some doctors reported their tendency to demand patients physically visit their clinic to make more important medical decisions, such as the prescription of strong psychomedicine and the diagnoses of potentially serious conditions. Interestingly this was done despite the protest of patients themselves, who paradoxically were comfortable receiving treatment online:

*"So for instance if they're needing prescriptions for things that I don't feel totally comfortable prescribing, I'll say to them, if you want me to continue with this you need to come see me at*

*least every third session" (Interview 18)*

In a similar way, several doctors expressed concern that telemedicine made it too easy for patients to request care for minor issues, acting as a burden on the healthcare system:

*"There's a reason that you should wait three days until you go to the doctor. Because in 75% of the cases, patients will resolve themselves in these three days. So having good access to health care is not always good for the patient." (Interview 20)*

It was clear from these findings that doctor's perceived their patients' effective use of telemedicine as a necessary precondition of them achieving positive results in a telemedicine context. It also demonstrated the view held by many that their clinical knowledge and expertise allowed them to make judgments contrary to the opinions and preferences of patients when it came to decisions about their care.

## 4.5 Greater Compliance Burden for Doctors

The empirical evidence showed that while doctors, for the most part, could transition to telemedicine context without a perceived deterioration of their delivered quality of care, some areas, however, did require additional actions to remain compliant with regulations and minimize the risk of negative repercussions.

### 4.5.1 Constraints Faced by Doctors in Telemedicine

Although most of the doctors were satisfied with practicing telemedicine overall, they raised some concerns regarding constraints related to the increased preventive measures required while treating patients online. For example, some respondents from New Zealand disliked the actions taken by their organization's management in compliance with governmental guidelines, including verifying patient identities and mandating disclosing telemedicine's limitations, risks, and potential costs at the beginning of new consultations. The reason was that these procedures, when combined with the imposed time limits, resulted in pressure on doctors to move through the remainder of their consultation at a more hurried pace. This is reflected in the quote from a doctor from New Zealand below; it is, however, noteworthy that doctors operating within the Australian and Indian contexts also expressed a distaste for their management's intervention in compliance with regulation enacted during the rollout of telemedicine during the Covid pandemic.

*"I want to make sure that I can best care for my patient, we're doing these things (following cumbersome safety procedures) because the government says so, but a lot of us doctors were feeling that we were giving our patients less care because of having to". (Interview 13)*

This constraint reflects the doctors' inability to take action considered the most appropriate in the medical situation, e.g., staying longer with the patient and diagnosing their underlying issue, corresponding to constrained clinical freedom as defined by (Salvatore et al., 2018). This indirect influence of governmental guidelines to mandate non-care related processes reduced their clinical work freedom. Similarly, some doctors, particularly within the Indian context, proclaimed their dislike for allocating a greater proportion of their work time to telemedicine but did so after instruction from management.

*“There has been conflict about how much telemedicine I would want to do versus how much management would like me to do. Honestly, sitting in front of a laptop doing hours of telemedicine can be tiring. But I could not say no to my superiors” (Interview 10).*

The empirical evidence suggested that doctors operating within the Indian private sector faced a higher degree of monitoring compared to their peers in other countries and contexts. This differential persisted throughout the transition to telemedicine expressed by the quote of a doctor referring to their hospital’s rating system:

*“They asked us to maintain a 4.5-star rating. I needed to take action to please the patient instead of just focusing on their outcomes so that they would give me a good rating. It burdened me a lot.” (Interview 7).*

Similarly, some other doctors expressed concern about the consolidation of power within large telehealth providers who use extensive monitoring techniques on their employees:

*“I knew the company recorded my consultations as my manager would discuss the specifics of them without me having told him and I felt this was a breach of confidentiality. This behavior was one of the reasons I left that company as it violated the privacy of doctors and patients.” (Interview 7)*

It was evident to us that these types of performance management systems can limit the clinical freedom of doctors as they feel pressured to adhere to the preferences of patients or management rather than being solely focused on outcomes. It can pressure them to act in a manner that raises their scores in the rating system or increases company profits rather than acting in accordance with their preferred treatment methods. In line with the findings of (Haas et al. 2000), this reduction in clinical autonomy will result in a decrease to satisfaction, something evident in the findings evident in the above quote.

### 4.5.2 Precautionary Measures Taken by Doctors in a Telemedicine Context

The empirical data collected showed that numerous doctors understood the practice of medicine in a remote context came with increased risks. One such risk was the perceived increased chance of misdiagnoses associated with the lack of physical cues in a telemedicine setting. This caused some doctors to request that patients come into their clinic for physical checkups. The consensus that medicolegal cases of patients filing lawsuits against doctors had increased since the movement to telemedicine was conveyed in a representative quote:

*"I think that (medicolegal cases) are a risk, and there is always a danger that you miss something by not having that visual information. I'm very mindful of that and now am more careful with my note-taking and prescriptions. I know that the Medical Protection Society has been running webinars on this issue and how better to practice telemedicine."* *(Interview 10)*

Other doctors reported changing their treatment styles, becoming more cautious in response to the increased prevalence of medicolegal cases:

*"I'm a member of the regulatory board in West Australia for doctors, so I see all the big cases come through. So that's highlighted to me quite a lot of issues and I now really try to minimize risk in my diagnosis by requesting patients come in for a physical examination before prescribing them something major." (Interview 15)*

To the research team writing this paper, the rising number of medicolegal cases concerning telemedicine limits how doctors would like to treat patients, such that they are not booked with medical malpractice cases that taint their care provider identity, reducing their clinical freedom (Salvatore et al., 2018). It also appeared to reduce the risk of overly fast diagnosis, a benefit likely mitigated by the resource-constrained environment in which doctors operate.

## 5 Discussion

We conclude the presentation of our empirical data by highlighting the various ways in which its findings support and contradict the research from the literature review in section (2.1). Once complete, we propose a more general variation of our preliminary theoretical framework based on Mishra et al. (2012) to include other aspects of doctors' professional identities. Our study concludes with a discussion of the implications of our model both for theory related to identity construction and, more practically, for the training and management of healthcare and other professionals. This section will contain the grouping of 'key findings' into themes tying together the references from the literature review with findings from the analysis in section (4).

### 5.1 Factors Shaping Doctor's Expectations of Autonomy

Throughout the analysis of the empirical data, there were ample instances of doctors having pre-existing preferences related to their professional identity. One such example was doctors' placement of a high value on their clinical autonomy, corroborating the claims made by Salvatore et al. (2018) to the same effect. This aspect of autonomy is present throughout the analysis section and encapsulated in section (4.2), where doctors expressed satisfaction with management despite the requirement of working hours and performance management systems so long as they rarely were pressured to follow specific techniques or prescribe specific medications when treating patients.

Given the relatively minor deviations in professional identities observed in our study and the significant time that had passed since the critical event of doctor's movement to telemedicine, the claim that professional identities are relatively stable and difficult to change (Abbott, 1988). This resilience was explained by the long periods of immersion and socialization that characterize professional education, supporting the claims of (Freidson, 2001). More generally, the shift to telemedicine more broadly supports the claims of Chreim et al. (2007) that technology will cause an organization to pressure an increasing number of employees to adopt new work practices where they initially see little value. This is reinforced when changes are not well aligned with their identity, such as with various aspects of telemedicine such as reduced collegial interactions and patient-doctor face-to-face connections, adding to the need to understand how such identity transitions can be managed.

### 5.1.1 Doctor-Patient Connections as an Orientation

The empirical evidence showed that the high-value doctors placed on clinical autonomy were motivated mainly by wanting to treat patients without feeling obstructed by external forces. The rationale for refusing to take first meetings with patients in a telemedicine format demonstrated doctors' attachment to the emotional connection between them and patients as a part of their professional identity. It signified doctors' tendency to value their relationship with patients over monetary rewards in alignment with the "caregiver identity" proposed in Mishra et al. (2012).

The concept of patient care prevalent among doctors within our study was closely aligned with the 'holistic definition' proposed by Donabedian (1980). Doctors distinguished between the short-term psychological impacts and longer-term physical and mental well-being of patients, prioritizing the latter. This was evident in the rejection of patients who wished to have a faster and near frictionless telemedicine visit instead of a physical trip to the hospital despite the small risk of misdiagnosis. This willingness of doctors to subordinate patient preferences in the name of quality care also demonstrated a parental aspect of the doctor-patient relationship, something largely unsaid by Mishra et al. (2012) in describing the way that doctors relate to their patients while providing care.

Alongside this, the empirical data pointed towards doctors' satisfaction being increased when patients expressed appreciation to them for their efforts. While no patients were interviewed during the study, and hence claims about perceived quality cannot be made, the increased engagement of doctors with their work resulting from this provides evidence to support the claims of (Linn et al., 1985) that expressed patient satisfaction helps doctors better take care of their patient's concerns.

### 5.1.2 Doctor-Doctor Connections as an Orientation

It became clear through the empirical data that doctors highly valued the degree to which they could associate with their colleagues as a source of support and knowledge. This was evident in doctors' actions in compensating for reduced face-to-face interactions with their colleagues by engaging more through digital means. It also was shown in their increased tendency to engage with the border doctor community, both of which support the claim of a shared physician community aspect of doctors' professional identities as proposed by Mishra et al. (2012). Some doctors expressed concern about the learning experience of young graduates entering the field of telemedicine with reduced intra-doctor communications. This was premised on the assumption that significant informal learning occurs outside of structured conversation and learning sessions, aspects that were perceived as having deteriorated in a telemedicine setting.

Another finding was that in their reaction to increased medicolegal risks posed in the telemedicine context; doctors motivated precautionary measures by ensuring that they continually aligned their actions with their professional identity; in particular, the concern was the doctor's status and standing amongst their peers. This is a finding in line with the conclusions of Kyratsis et al. (2017), where the authors argue that doctors may experience status loss when they perceive that their traditional roles and responsibilities are being eroded or devalued or when they are subject to increased scrutiny or regulation. The doctors altered their treatment patterns, acting more conservatively when prescribing treatments

online, often requiring in-person consultations, and writing detailed notes to safeguard themselves from the risk of wrong clinical actions. Such actions elicited negative responses in doctors who reported a sense of disillusionment with their work since the increase in compliance requirements and less motivation to treat patients. This supports the findings of Haas et al. (2000) that less time in face-to-face consultations due to the need to comply with administrative tasks can reduce the quality of work a doctor provides, causing burnout and frustration.

### 5.2 Variation in the Extent of Professional Identity Change

The reluctance expressed by some doctors to use telemedicine can be explained by the professional identity restructuring process outlined by Chreim et al. (2007) and the sense that such doctors were having their professional competency tested in the new setting. Within the subgroup of doctors who had the agency to minimize their time spent in telemedicine work, such as general practitioners or those working in smaller, less rigid organizations, there was a greater tendency to highlight the limitations of telemedicine. This was often done on the basis of commonly held conceptions of the field, such as how a doctor's job was inherently physical and required the development of strong emotional connections with their patients, ultimately justifying their decision to engage less with the practice.

In the context of Chreim et al.'s (2007) proposed identity restructuring process, this can be seen as resisting identity change and preserving their professional identity by avoiding the new work. For doctors working in larger institutional settings such as hospitals where the organizational pressure to conform to the telemedicine model was greater and, in many cases, insurmountable, there was evidence of a greater willingness to learn the skills associated with practicing medicine remotely. In practice, this entailed reverting to established rules of clinical practice practicing medicine "by the book" while also allocating more time to the development of rapport in order to gain the patient's trust. By treating patients in this slower and methodic way instead of relying on the tacit knowledge they had accumulated through years of face-to-face encounters, they claimed to be able to minimize the risks of misdiagnosis. While this change in behavior occurred, there was an evident modification of the doctors' professional identities in regard to the extent to which face-to-face reactions with patients were seen as necessary, as well as their tendency to affirm the benefits of telemedicine.

This positive change in attitudes was articulated explicitly in the quote at the end of section (4.2), "It's actually good to call yourself a telemedicine doctor," and a range of other positive associations expressed towards the telemedicine practice. From this comparison, we observe indications as to the strength of institutional forces (in this case, management) in shaping a professional's identity change. More rigid structures were more conducive to fast identity changes as individuals with limited agency in shaping their roles needed to make adjustments to remain effective. Hence it can be said that a professional identity will often change to accommodate new organizational conditions as it needs to, or the individual will leave the organization. These findings align with research from Kyratsis et al. (2017), showing that professionals can change their identity in concert with changes in their work when they believe the new work is valuable. It is interesting to note, however the doctors

who experienced less pressure to adopt the work practice were less likely to see the tools offered by telemedicine as valuable.

A point contrary to this argument and the limits of institutional pressure on altering professional identities was how several Indian doctors working in the private sector were shown to persist in their resentment of management's imposition of a profit-centric organizational model on their clinical decision-making. It was clear from the empirical evidence in section (4.1) that doctors' resentment of such pressure persisted in spite of unrelenting pressure from management to focus on revenues, something which persisted through the transition to telemedicine and will likely continue owing to the central role such values hold in their conception of self.

### 5.3 Resistance to the Autonomy Constraining Aspects of Telemedicine

The claim from Axelsoon (1998) that a reduction in doctors' autonomy will lower their job satisfaction is generally supported by this paper's empirical findings. Doctors who were pressured to abide by rules of management or governmental guidelines contrary to their pre-existing expectations expressed dissatisfaction with the work environment and often acted to confirm their self-concept in line with the predictions of Hull & Levy, (1979). The manifestations of these 'behavioral modifications' took a range of forms, which, when viewed through identity theory, revealed the extent to which doctors' social appraisals from management were mismatched with the respondents' concepts of self.

At the most extreme, one Indian doctor left his organization to pursue work in the public sector where profit would not be such a strong motivator, and he would have greater agency to express clinical judgment. This demonstrated how dedication to patient care was at the essence of his professional identity, suggesting that the 'care provider identity' warranted a more primary position in the framework of Mishra et al., (2012). Contrastingly, the empirical evidence showed that when doctors faced a reduction in flexibility regarding where to work and were required to practice at hospitals, it incited little backlash in both public and private settings. From this lack of backlash, it is inferable that the temporal aspect of economic freedom did not solidify into a central component of the doctor's work expectations within the period since it was introduced, hinting at its lesser significance in the professional identities of doctors.

The claims of Axelsson et. al. (2001) and Mathews & Pronovost (2008) that a reduction in the ability of doctors to choose appropriate treatment procedures will reduce patient care quality was a pervasive belief among physicians interviewed and a core reason for resistance to management intervention. While validating such a claim from the patient's perspective was not possible given that the scope of this study is limited to doctors, its near universality among healthcare professionals makes a strong case for its existence. This was evident in the doctors’ reported verbal backlash towards management for their actions of indirectly constraining doctors through; the recording of consultations and introduction of patient-led rating systems. While these adverse reactions from doctors were strong, their impact on the organization as a whole was limited and manifested in verbal disagreement being directed at the managers implementing them. This can be partly explained by the strength of the desire to help patients and the knowledge that such patients would suffer by withholding work services as a tool for leverage.

Within the empirical data, there was evidence to support the view of identity proposed by Hull & Levy (1979) of doctors actively comparing the meanings implied by their social interactions with their self-concepts influencing their behavior. When appraisals from managers were aligned with a doctor's meaning of their identity, they produced behavior consistent with their identity in delivering patient care to the best of their ability and navigating difficult working conditions to do so. However, if the appraisals did not match aspects of their identity, such as when needing to deliver patient care remotely with a compromised ability to connect with their patients, they modified their behavior and interactions to align them with their identity. In this case, this involved taking additional time to establish a rapport with patients and requiring in clinic visits when necessary.

### 5.4 The Telemedicine Doctor Identity

From the empirical evidence, it was clear that there were reformations to doctors' professional identities since the movement to telemedicine, albeit to a minor extent. Given the subjective nature of identities, we inferred changes from respondents' reported behaviors as much as their perceived and verbalized changes that surfaced in the more direct discussions. Based on the similarities of doctors' responses within different national and organizational contexts, it's clear that there are aspects of a universal doctor identity that exist amongst practitioners. While defining the exact boundaries of such an identity is difficult, it was evident that a significant portion of each doctor's self-concept was related to the extent to which they could care for and heal their patients. This single identity factor was by far the most salient over the course of empirical data collection, and its consistency in the minds of respondents explains why the care provider identity was so resilient in the situations of telemedicine remaining largely unchanged.

The empirical evidence showed a large portion of doctors experienced patient gratitude as a significant motivator for practicing their work in a telemedicine context. This aspect of their identity was likely resilient to the changes induced by the movement to telemedicine as they were still able to receive feedback from patients in a digital format. These positive responses to feedback from clients and an absence of a reduction in the perceived meaning of their work suggest doctors had taken on a new multifaceted professional identity associated with telemedicine more closely aligned to the holistic care approach proposed by Donabedian (1980). This is evident as the prevailing consensus amongst doctors was that strong personal connections with patients were significantly easier to attain through face-to-face interactions. The findings also showed that while the care provider identity remained largely unchanged by the movement to telemedicine, the ways in which the identity manifests in doctors operating in a telemedicine context is distinct. The ability to serve patients who otherwise wouldn’t be able to receive care was a strong motivating aspect for many doctors and viewed as a unique benefit of their practice of telemedicine.

## 5.5 Altered Theoretical Framework

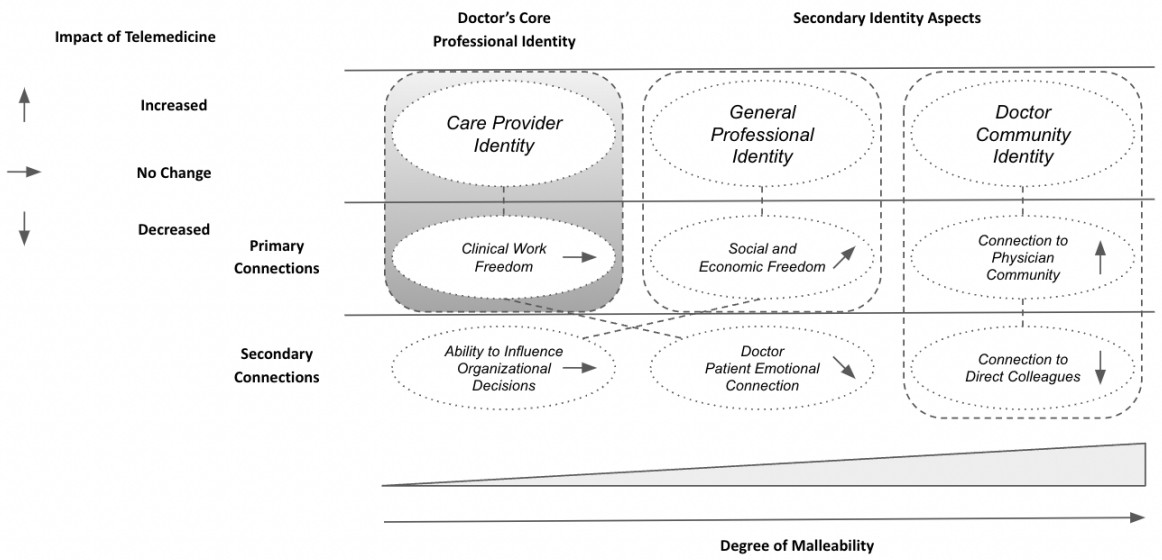


*Figure 4 - Altered Theoretical Framework*

Given the scope of the empirical data captured, we limited the theoretical framework to the factors of professional identity and autonomy, taking the resulting implications for doctor satisfaction and quality of patient care as given. Upon restricting these aspects, it was clear that a distinction could be made between malleable and non-malleable aspects of a professional identity.

The Y-axis on the left of the figure shows primary and secondary connections that demonstrate the degree of closeness between components of a doctor's professional identity (primary being closer) and the subsequent expectations doctors hold towards various aspects of their work. The X axis on the top of the figure distinguishes between the 'core' aspect of a doctor's professional identity, the care provider identity, and the other more secondary aspects of general professional identity and doctor community identity. The rightmost circles denote a lesser degree of response observed from doctors in spite of change induced by the movement to a telemedicine context, henceforth referred to as malleability. This malleability was inferred by the degree to which respondents resisted attitudinal change after the movement to telemedicine, with more resilient aspects having a more central position in doctors' views of self.

This model implies that doctor's expectations of work are shaped to a large extent by their professional identities, of which include the three types proposed by Salvatore et al. (2018) as well as other work attitudes which became clear during the interviews, namely; doctor-patient emotional connections, doctor's connection to direct colleagues and doctor's connection to the physician community. The arrows attached to the six sub-aspects of identity denote the extent to which the fulfillment of these expectations had changed based on the movement to a telemedicine context. The dotted lines vertically connecting each of the three sets of bubbles denote the groupings of identities to primary and secondary connections to said identities.

As was outlined in section (5.2), doctors demonstrated an inflexibility to compromise on the expectations attached to their care provider identity, revealing it to be a core aspect of their professional identity. Our analysis found that while doctor's capacity to exercise clinical work freedom was threatened by the risk of medicolegal cases and the following cumbersome governmental procedures, the stiff resistance they exerted on their organizations in the form of disagreeing comments to management and an initial reluctance to see certain patients via telemedicine ultimately had a limited impact on their ways of working and use of telemedicine itself. The second aspect attached to doctors' care provider identity is the perceived need for doctor-patient emotional connections. Taken in the aggregate, it was clear these connections experienced a deterioration due to the reduction in physical cues. The response from doctors was an expressed reduction in satisfaction with their work and actions that would increase the proportion of meetings taken in a physical setting. While clearly observable, the strength of these actions was less potent than constraining actions on clinical autonomy, warranting its position as a non-central component of doctors' professional identity.

From the empirical evidence, we observed the existence of a 'general professional identity' consisting of a set of expectations that are generally applicable to a range of professions. Attached to this identity were two aspects of autonomy proposed by Salvatore et al. (2018): the extent of social and economic freedom and the ability to influence organizational decisions. The classification of social and economic freedom as a primary connection was motivated by respondents' repeated verbalisation of how the high social standing of doctors was an important aspect of how they saw themselves. The upward sloping arrow in the model denotes how the amount of perceived economic autonomy had increased for respondents given the additional revenue generating opportunities available through telemedicine work alongside their existing jobs. Contrastingly, the ability to influence organizational decisions was to a lesser extent impacted by the movement to a telemedicine context due to the countervailing forces of less face to face interactions with management and increased accessibility through digital means.

The aspect of professional identity proposed by Mishra et al. (2012), 'doctor community identity' was observed to change the most relative to the two other aspects, demonstrating its relatively less significant position in doctor's perception of self. This illuminates the extent to which the profession is patient oriented despite the shared experiences and sense of community experiences that doctors possess. The lack of resistance also can be attributed to the counterbalancing forces of reduced collegial interactions and increased structured learning opportunities with the broader physician community which were observed in the study. It was clear from empirical evidence that doctor's actions were influenced to a greater extent by their affiliation with the doctor community who they shared training and a purpose with compared with their direct colleagues.

Taken together it is clear that the aspects of a doctor's professional identity has a significant impact on their attitudes to the expectations of autonomy attached to it. This model depicts how identity changes can be seen in the degree to which a respondent's expectations around work are altered under new circumstances. In the case of telemedicine, doctors experienced attitudinal changes to aspects of their work pertaining to the peripheral aspects of their identity such as general professional identity and doctor community identity. As

authors we theorize that the degree of attitudinal change could be influenced by such attitudes proximity to central aspects of one's identity in other contexts.

## 6 Conclusions

This study was initiated to understand the process of professional identity change and clarify its influences and implications for doctors' relations with their management. By gaining context of the specific pressures doctors experienced in the movement to telemedicine, it became apparent how the doctor's expectations regarding the work environment were connected to the components of their identity.

***How does the shift to a telemedicine context influence doctors' professional identity?***
By applying the study's theoretical framework, it has been demonstrated that the movement to telemedicine influenced the aspects of doctors' professional identities to varying extents on the basis of their centrality to their sense of professional self. The empirical data collection showed the more central aspects to be the doctor community identity proposed by Mishra et al. (2012) and the 'general professional identity'. This change was evident in the alteration of each of the identity aspect's two related attitudes.

It became clear through the empirical data how the components of autonomy proposed by Salvatore et al. (2018), namely; clinical freedom, social and economic freedom, and the ability to influence organizational decisions, were suitable methods to describe doctors' expectations related to aspects of their general professional and care provider identities but were not collectively exhaustive in describing all expectations doctors had of their workplace environments. To deal with this lack of comprehensiveness, three additional connections representing doctors' expectations were added to the model, 'doctor-patient emotional connection', 'connection to direct colleagues' 'connection to physician community'. The proximity to the right-hand side of the model denotes the extent to which these aspects were altered. The strength of institutional pressures exerted on doctors was also shown to have a large impact on the degree of identity change, with more intense pressures generally causing more significant alterations to professional identities after the adjustment period.

***What impact does identity change have on doctors' perceptions of managerial control?***
The empirical findings of this study imply that doctors' professional identities can change in response to managerial control after a period of resistance, in line with the findings of Chreim et al. (2007), with larger changes implying more favorable views of management. The extent to which identities will change can be explained by the degree of centrality such identities hold within a doctor's view of self. To a large extent, doctors' identities appear to transcend international borders with a high degree of commonality between the three components identified in the study. It is evident that managers' pressure to control aspects of a doctor's primary identity, namely their work related to clinical work freedom, can expect to experience more substantial and sustained resistance from doctors.

### 6.1 Theoretical Contributions

This study investigated how the movement to a remote working environment altered the professional identities of doctors and gave a theoretical explanation of their responses to a

reduction in autonomy. By investigating the research gap of how the movement to a telemedicine context impacts doctors' professional identities and their perceptions of managerial control, this study has combined three otherwise divided streams of research; identity theory, remote work, and doctors perceptions of management. The new knowledge created from the study pertains to a more complete description of doctor's professional identities as well as the clarification as to how specific expectations about one's work form the basis of identity. Adding to the identity framework proposed by Mishra et al. (2012), our framework distinguishes between the degrees of centrality doctors' identities hold in relation to their sense of self, with implications to their tendency to resist pressure that conflicts with attached expectations.

In contrast to previous research the findings suggest that doctors' willingness to resist violations of workplace expectations can be related to the centrality of underlying aspects of their identity. Additionally the study also highlighted how contextual factors such as institutional pressure influence the degree of identity alteration in a telemedicine context. Given the substantial changes that a telemedicine context imposes on doctors' ways of working and relationship to management (Basit et al., 2020) this study has contributed meaningfully to identity theory research in explaining how it applies in this novel context.

### 6.2 Practical Implications / Managerial Implications

The study's findings have several implications for practitioners, as insights about how telemedicine is likely to continually shape doctors' professional identities and the relationships they hold with management, in particular, which areas of the professional expectations they are likely to compromise on. The findings show that the concept of a doctor's professional identity transcends national boundaries yet, at the same time, is contextually dependent and can be influenced by institutional settings. Knowing this, healthcare managers should be mindful when acting in a way that constrains central aspects of doctors' identities, such as clinical autonomy and their ability to maintain emotional connections with patients, expecting resistance when doing so.

The telemedicine context makes it more difficult for doctors and their managers to maintain a sense of closeness within immediate work groups. In response to this, healthcare managers are advised to take active steps to promote informal knowledge sharing and interactions while also encouraging doctors to engage with the physician community at large. Exactly how work arrangements will look in the future remains uncertain, but the predictions are that telemedicine will remain a significant aspect of the healthcare industry (Bestsennyy et al., 2021; Liu et al., 2022). Managers should strive for a situation in which the organization's goals are met without doctors having the central aspects of their professional identities challenged.

### 6.3 Limitations

As with all research, the findings within this study are subject to limitations. Firstly, while the selection of respondents was completed to maximize doctors' current use of telemedicine, all those interviewed were engaged in at least some physical consultations as part of their daily work. For this reason, it is likely that aspects of identity change evident in a completely remote telemedicine setting were missed. With this being said, given the majority of doctors

practicing telemedicine do so in a hybrid format, the findings can be seen as having a practical use.

The findings contain the perspectives of the twenty doctors interviewed and should thus not be considered an absolute measure of how identities change in a telemedicine context. The themes identified from the empirical data can form the basis of further research as well as practical change implemented by management on the topic of doctors' identity change in a telemedicine context. The study was conducted in the aftermath of the COVID-19 pandemic of 2020, where telemedicine was forced upon the respondents' organizations, creating additional pressures on doctors and managers alike. While delineating these effects is difficult, we as researchers took steps in the interviews to focus respondents' attention on their experiences after the initial movement to telemedicine had taken place, limiting the influence of Covid related pressures.

Lastly, there are limitations in terms of the selection of interviewees within the sample. Given the wide scope of respondents, including interviewees from multiple countries and organizational contexts, there is likely to be some unexplained variation in professional identities pertaining to these factors influencing their responses to the questions. Such factors arising from different cultural and medical contexts were not accounted while observing the changes in doctors' identities. To minimize the negative impacts of this, as researchers, we took steps to ensure questions were standardized and not leading in nature so that such differences could be recognized and accounted for. Additionally, by including a broad sample group, we aimed to provide insights into doctors' professional identities that are broadly applicable.

Additionally, the study’s sample does not distinguish between the different kinds of doctors interviewed such as general practitioners and different kinds of specialists. This occurs despite the variation in impact of telemedicine between fields resulting from the differences in the nature of doctor’s interactions with patients and variation between the level of doctor patient emotional connectedness in different specialties. By taking these measures while investigating respondents' perspectives, the authors identified different themes relevant for both practice and research in terms of increasing the understanding of professional identity change in a telemedicine context.

### 6.4 Future research

The authors hope that this study will stimulate future research within the field of professional identity theory in a management context by expanding on the periphery of the work completed. This could be done by applying a similar framework as (Figure 2) to other professions considered to have strong work identities or those experiencing changes in their work environment due to technological advancement and automation. In a similar way, it could be fruitful to explore how managers and teachers can take a more active role in shaping professional identities that will be performative in employees' workplace settings. It was clear that overall, the aspects of doctors' professional identities had a positive impact on their work performance in a physical healthcare context, but as circumstances change, arguments could be made for altering the medical training experience for those wishing to move into the field of telemedicine given its unique environment.

To further strengthen the findings of this study, it would be relevant for future research to test the findings with a quantitative method so that statistical support can be achieved. Finally, studying a mixed arrangement between physical and telemedicine consultations provided valuable insights. It would also be relevant for future research to study doctors working exclusively with telemedicine since these may correspond better to more substantive shifts in identity.

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## 8. Appendices

## 8.1 Appendix 1: Interview Sample

| | Interviewee | Type of Interview | Duration | Medical Speciality | Country | Date of Interview |
|---|---|---|---|---|---|---|
| **1** | Interview 0 | Pilot Interview | 58 mins | Orthopaedician | India | 2023-03-07 |
| **2** | Interview 1 | Semi-Structured | 52 mins | Orthopaedician | India | 2023-03-09 |
| **3** | Interview 2 | Semi-Structured | 45 mins | Pulmonogist | India | 2023-03-12 |
| **4** | Interview 3 | Semi-Structured | 48 mins | Consultant Physician | India | 2023-03-13 |
| **5** | Interview 4 | Semi-Structured | 43 mins | Consultant Physician | India | 2023-03-14 |
| **6** | Interview 5 | Semi-Structured | 50 mins | Lifestyle medicine | India | 2023-03-17 |
| **7** | Interview 6 | Semi-Structured | 45 mins | Neurosurgeon | India | 2023-03-18 |
| **8** | Interview 7 | Semi-Structured | 42 mins | Psychiatrist and Sexologist | India | 2023-03-24 |
| **9** | Interview 8 | Semi-Structured | 44 mins | Pathologist | India | 2023-03-26 |
| **10** | Interview 9 | Semi-Structured | 30 mins | Cardiologist | India | 2023-03-26 |
| **11** | Interview 10 | Semi-Structured | 51 mins | General Practitioner | Australia | 2023-03-27 |
| **12** | Interview 11 | Semi-Structured | 50 mins | Psychiatrist | Australia | 2023-03-27 |
| **13** | Interview 12 | Semi-Structured | 27 mins | General Physician | India | 2023-03-29 |
| **14** | Interview 13 | Semi-Structured | 43 mins | Psychiatrist | New Zealand | 2023-03-30 |
| **15** | Interview 14 | Semi-Structured | 32 mins | General Practitioner | Australia | 2023-03-31 |
| **16** | Interview 15 | Semi-Structured | 44 mins | General Practitioner | New Zealand | 2023-03-08 |
| **17** | Interview 16 | Semi-Structured | 38 mins | General Practitioner | Canada | 2023-04-10 |
| **18** | Interview 17 | Semi-Structured | 40 mins | General Practitioner | Australia | 2023-04-13 |
| **19** | Interview 18 | Semi-Structured | 36 mins | Psychiatrist | Australia | 2023-04-14 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **20** | Interview 19 | Semi-Structured | 58 mins | General Practitioners | New Zealand | 2023-04-21 |
| **21** | Interview 20 | Semi-Structured | 56 mins | Clinical Geneticist | Sweden | 2023-04-24 |

### 8.2 Appendix 2: Interview Guide

| **Topic** | **Question** |
|---|---|
| *Background Information* | ● Can you briefly talk about your position within your organization today. |
| *Contextual Factors* | ● How do you feel about the management practices of your organization?<br>● What is the one thing that you would like to see more of and the one that should be changed immediately? |
| *Telemedicine's Impact on Care provider Identity* | How did the movement to remote working impact:<br><br>● The extent to which you are able to care for the needs of your patients?<br>● The extent to which patients take an active role in your meetings with them?<br>● The power distance between you and the patent?<br><br>● How do you gain that trust while seeing patients remotely?<br>● The extent to which patients can choose their doctor - If so does this alter the relationship you have with patients? |
| *Shared Community Identity* | How did the movement to remote working impact:<br><br>● The nature and frequency of interactions with your colleagues?<br>● Would you say this has impacted the way you relate to your colleagues? |
| *Management in a Telemedicine Context* | How did the movement to remote working impact:<br><br>● Your ability to choose how you go about your work?<br>● The way you interact with your manager?<br>● If yes, did you feel that the changes imposed were the result of individual managers' decisions or the broader context in which you work?<br><br>● Has there been times in the past where you've felt constrained by process or a manager to act differently than you otherwise would have? |
| *Identity Theory* | ● When thinking about what the job of a doctor means to you, what comes to mind?<br>● What was the most prominent experience/experiences that stayed with you and shaped the way you feel about your role as a doctor? |

| | |
|---|---|
| | ● Has there been any significant changes to this idea since you started working? |
| *General* | ● Is there anything else that you'd like to share with us? |