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## **Time is Ticking: French healthcare teams and their managers navigating time challenges with their collective competency**

### **Abstract**

This study explores the time management challenges faced by French healthcare teams and their managers. It examines how these teams use their collective competencies to overcome these challenges. The research question, ‘How does the care team use its collective competency to address time management challenges?’ addresses a crucial matter: the pressing issue of deteriorating working conditions in healthcare, characterised by increased work intensity, overload, and time pressure. Understanding this relationship leads to increased job satisfaction, decreased absenteeism, and improved efficiency in healthcare. This study explores the theoretical foundations of temporality management and collective competency. It defines these key terms and examines how time management for healthcare professionals can be implemented in a concrete way. The methodology includes a qualitative approach, using observations and interviews with healthcare managers and their teams. It presents two case studies conducted at a university medical centre in western France: one in a neurovascular unit and the other in the operating room. The findings highlight the complexity of managing work schedules and the role of collective competency in addressing these challenges. A thematic analysis has been conducted using Nvivo to extract quotes that identify key attributes of collective competency and discuss how these attributes help the response to temporality management challenges. From a theoretical perspective the research contributes to the understanding of temporality management in healthcare and the role of collective competency in addressing these challenges. It suggests that effective time management in healthcare requires a collective approach that leverages the collective competency of care teams. From a

managerial perspective, it shows the challenges faced by healthcare managers in managing their teams' time.

### **Key words**

Healthcare workforce issues, collective competency, time management challenges.

### **Introduction**

In 2024, the World Health Organization (WHO)<sup>1</sup> and the Organization for Economic Cooperation and Development (OECD)<sup>2</sup> published reports highlighting the significant impact of mental health in the workplace. They emphasised the importance of proactive measures to support workers, particularly those in the healthcare sector, who are the most affected by mental health issues. Furthermore, studies conducted by Abord de Chatillon and colleagues in 2022 suggest that the working conditions of healthcare professionals and institutions are deteriorating. This decline correlates with increased work intensity, overload, time pressure, reliance on computerised work routines, and task fragmentation. Researchers have found that time pressure among care workers contributes significantly to their job satisfaction and high absenteeism rates (Achmet and Commeiras, 2021).

This research examines the time management practices in French hospital care teams from both an organisational and a team perspective. The work of each care team is structured around schedules, a complex task for care staff and care managers (Bourgeon et *al.*, 2013). Despite the many challenges involved, few have studied healthcare teams' schedules from an organisational and team perspective. Most of the studies aim to optimise schedules from an

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<sup>1</sup><https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work>.

<sup>2</sup>[https://www.oecd.org/en/publications/health-at-a-glance-europe-2024\\_b3704e14-en.html#page=39.34](https://www.oecd.org/en/publications/health-at-a-glance-europe-2024_b3704e14-en.html#page=39.34).

information technology perspective, for budgeting reasons, or to improve the quality of patient care (Prot et al., 2013; Abdalkareem et al., 2021).

Developing care team's work schedules requires a collaborative approach, as healthcare professionals often work in teams.(Beaucourt and Louart, 2011; Grasser et al., 2021). This research therefore proposes to reflect on the management of care team time management from the perspective of collective competency and it will question the collective's ability to cope with time management challenges (Chédotel and Krohmer, 2014). From a theoretical point of view, this implies bringing together the work on collective competency with temporality management in organizations (Ancona et al., 2001).

This article seeks to answer the following question: How does the care team use its collective competency to address time management challenges? To do this, we base our research on two separate case studies. The first one concerns the creation of new work cycles for and by the care team with its care manager at the Neurovascular Unit of a University Medical Center (CHU) in western France. The second study examines the daily work schedules management in the operating room of the same health establishment. Both case studies provide insights into the role of collective competency in time management, based on the participants' responses to two different time management scenarios.

In the first part, we introduce the issues involved in managing healthcare workers' time. These are based on research into temporal management from a socio-organisational perspective. We end our first part by defining collective competency and its attributes. In the second part, we present our qualitative methodology, which was based on observations and interviews with healthcare managers and their teams, and which we implemented in two departments of a healthcare establishment. In the third part, we present our results, which we have thematically analysed with Nvivo. These results highlight the challenges involved in managing healthcare team schedules, as well as the ways in which the attributes of collective competency help or

hinder responses to these challenges. In the fourth and final part of our study, we present and discuss our findings, which suggest that this research offers fresh perspectives on the role of collective competency in managing time within organisations.

## **1. Conceptual framework: The collective competency's role in managing temporalities for healthcare teams**

To begin, we highlight how time management is implemented in practice, exploring its challenges and its implications for care teams' work for a better contextual understanding (Danos et al., 2023; Bourgeon et al., 2013). Then, we examine the concept of temporality and time management from a socio-organisational approach (Ancona et al., 2001; Orlikowski and Yates, 2002). We end by presenting care teams' planning through the collective competency lens.

### **1.1. Temporality Management: Between complex context and concepts**

Firstly, we will define time management. Then, we will explain the care team's time management to have a better understanding of the practical point of view. Finally, we will focus on the Orlikowski and Yates (2002) conceptual point of view of temporality management and time management.

#### **1.1.1. Time VS Temporalities: multidimensional definitions**

Researchers have been studying time for a very long time: its measurement, perception and application in organisations and societies, since time is key to human life (McGrath 1983; Bluedorn et al., 1988; Das, 1993; Mercure, 1995; Butler, 1995; Long 1996, Ancona et al., 2001; Hernes et al., 2013; Datchary, 2014; Lajous, 2015). We measure time using tools such as calendars, hourglasses, sundials and clocks. Calendars help us to quantify time by allowing us to count its various components, leading us to understand that time can be measured (Grossin 1996). In Greek cultures, it is represented by "*chronos*": "*objective and linear time. It's repetitive, chronometric time that determines the seasons, hours, minutes and seconds, nights*

*and days*" (Lajous, 2015). Time scarcity and loss are common (Lajous, 2015). This leads to a subjective representation of time in three forms. The most familiar in the literature is: "*kairos*", which is "*The time of opportunity, the moment to be seized*" (Lajous, 2015) or "time is shaped by its actors" (Czarniawska, 2004, cited by Datchary, 2014). Additionally, the not much talked about in the literature the creative perspectives of time *Skolé and Diatribé*, "*Skolé*": "*free time for reflection and learning*", *Diatribé*": "*A time for debate, exchange and sharing idea*" (Lajous, 2015).

Time is perceived differently, depending on how it's measured, and this creates a divide in how it's analysed, ignoring the creative aspect of it (*Skolé and Diatribé*). In social sciences, there's a huge difference between the two main ways of studying social time and temporalities: the Durkheimian and Kantian perspectives (Lallement, 2008). Kant believed that social time emerges from the convergence of individual durations. But seeing social time as simply mathematical or clock time ignores how teams and groups experience time, and separates them from reality (Mercure, 1995). In Durkheim's view, social time is not a rigid rule, but a way of connecting people's experiences (Mercure, 1995). This is because different collectives have different experiences. This variety of collective memory gives rise to the concept of social time, meaning there is not just one social time, but many that exist simultaneously (Mercure, 1995). To conclude, time is studied through different lenses in various fields, leading to different definitions. To address our research question on managing time, we will then mobilize the socio-organisational literature, which adds a creative aspect, and goes beyond dichotomies. The discourse on time management is now superseded by that of temporalities management, which includes multiple experiences.

### **1.1.2. Temporality Management: a socio-organisational approach**

For years, scholars have attempted to define time. The socio-organisational approach, developed by Ancona and her colleagues in 2001 and refined by Orlikowski and Yates in 2002,

provides concrete answers to how it is applied beyond the dichotomies discussed in the previous section. Our study is based on the Orlikowski and Yates model. However, we present Ancona and her team’s approach, which serves as a comprehensive model of temporality management by encompassing both social and organisational time research,

Classification of Categories and Subcategories, with Sample Variables		
Category	Subcategory	Sample Variables
Conceptions of time	<ul style="list-style-type: none"> <li>Types of time</li> <li>Socially constructed time</li> </ul>	<ul style="list-style-type: none"> <li>Linear time, uniform time, cyclical time, subjective time, event time</li> <li>Work organization (nine-to-five workdays, work time and family time), celebrations (Passover and/or Easter), time as a renewing cycle, time as linear continuity</li> </ul>
Mapping activities to time	<ul style="list-style-type: none"> <li>Single activity mapping (a)</li> <li>Repeated activity mapping (aa)</li> <li>Single activity transformation mapping (aa')</li> <li>Multiple activity mapping (ab)</li> <li>Comparison and meshing of activity maps (ab) versus (aa)</li> </ul>	<ul style="list-style-type: none"> <li>Scheduling, rate of completion, duration</li> <li>Cycle, rhythm, frequency, interval</li> <li>Life cycles, midpoint transitions, jolts, interrupts, deadline behavior</li> <li>Relocation of activities, allocation of time, ordering, synchronization</li> <li>Entrainment, patterning, temporal symmetry</li> </ul>
Actors relating to time	<ul style="list-style-type: none"> <li>Temporal perception</li> <li>Temporal personality</li> </ul>	<ul style="list-style-type: none"> <li>Experience of time, time passing, time dragging, experience of duration, experience of novelty</li> <li>Temporal orientation, temporal style</li> </ul>
Category-spanning variables		<ul style="list-style-type: none"> <li>Polychronic and monochronic time, banana time</li> </ul>

Figure 1: Summary table of the Ancona and her colleague's model (Ancona et al., 2001)

Temporality refers to the study of time and its various dimensions, including how it is perceived, experienced and understood in different situations. In this study, the authors propose a unified approach to the various temporal studies in the fields of social and organizational sciences (Ancona et al., 2001). An in-depth analysis of this concept and its components would foster a unified understanding and offer a more transparent view of the research on this topic, despite its complexity and diversity in the social sciences literature. The work of Ancona and her colleagues in 2001 served as a milestone in this direction. They identified a set of variables and categorized them so that they could be applied in an organizational context (organizational dynamics, decision-making, and individual behaviour). These mappings enable the temporal applications of activities to be visualised: 1) Conceptions of time: Linear time: This perspective portrays time as a linear progression, advancing from the past to the present and into the future ; Cyclical Time: this perspective contrasts with linear time, where events are perceived as repeating in a predictable pattern, creating a cyclical view of time; ) ... They assimilate events and engineering activities on the continuum, including rhythm, rate, duration, allocation, scheduling. They’ve explored also how actors relating to time by their temporal perception and

personality (style). The model of Ancona and her colleagues not only emphasize the significance of temporality in organizational studies and advocates for an integrated approach to understanding how time affects different aspects of organizational life but also define what is temporal structures, temporal structuring and the actor's roles in it.

Following the last model, Orlikowski and Yates (2002) is the continuity study to Ancona and colleagues that we base our analysis on it. Their study will provide a direct definition of temporality management through time structuring and time structures. These definitions help us better understand the different types of schedules and our context (care team temporality management).

They have studied time management from a practice-based theory perspective. They have shown that time is not an objective or subjective concept, but rather a social construct that is experienced and performed within organisations. Therefore, we are no longer talking about time, but about temporality. For them, temporality management is a collective, socio-organisational approach rather than an individual one, enabling individuals and organisations to understand, structure, and collectively coordinate multiple temporal structures in their daily practices. It is based on temporal structuring. So what is temporal structuring? It's when individuals or organisations produce and reproduce time as they go about their daily lives, suggesting that temporal structures are both shaped by and shape human actions. This leads us to the conclusion that there are different types of temporal structures in various organisational contexts. The concept of temporal structuring offers insight into the challenges of maintaining a work-life balance. It suggests that organisations should consider the interaction of various temporal structures and how they affect employees' ability to manage their time effectively.

To address the time management challenges and due to a lack of studies in this field and collective competencies in the time management context, we decided to look at the question of time management from the perspective of collective competency, to better understand how it

facilitates the construction of work cycles between the healthcare manager and his team and how it helps care teams face the contingencies on day-to-day schedules.

Finally, we can conclude that we're not talking about time management, meaning the ability of individuals to organise their schedules, routines, and rhythms to take control of their lives. Instead, we're discussing temporality management, which is a collective, socio-organisational approach, allowing both individuals and organisations to understand, structure, and coordinate various temporal structures in their daily practices. This concept is based on temporal structuring: the process of producing and reproducing (and sometimes modifying) temporal structures, such as work cycles, shift rotations, and schedules; as well as work interactions and routines, to guide, coordinate, and manage ongoing activities. How does it apply to a highly structured context like healthcare? We will explore that in the next section, which focuses on managing time in healthcare.

### **1.1.3. Care team time management: a challenging activity**

In this section, we will discuss the subject of time in a very concrete way, because of the unique challenges and characteristics of the healthcare context. As Clément-Hryniewicz (2016) points out, health

care teams have a unique relationship with time. It is structured collectively in pairs or as part of a multidisciplinary approach, depending on the needs of patients and their families.

In practical terms, time management for care teams is divided into three stages (Danos and Gracia-Gil, 2023): work cycles, rotational schedules, and day-to-day schedules or work rota.

So, to arrive to the operational day to day schedule, which is the final stage, we must go through the design of the work cycles. The work cycle is *"a regulatory concept (article 9 of decree 2002-9-French law) that defines the work rhythm and annual rest periods"*. It is a guarantee for the individual, as it gives him visibility as to the organisation of his working hours and, above all, time off" (Danos and Gracia-Gil, 2023). Then we have a rotational schedule, which

is a French organisational concept. It presents the organisation and sequencing of work cycles for employees in a collective framework for a maximum of 12 weeks. In the final stage we have schedule or work rota: this is a representation of the rotational schedule for 12 months. Schedules can be either realistic or anticipated; realistic schedules consider the unexpected and short-notice absences; while the anticipated schedules consider statutory absences, RTT (reduction in working hours) and JCA (annual leave days) (Danos and Gracia-Gil, 2023).

Despite the importance of the schedule in organizing and ordering this collaborative work, there is a surprising lack of research on this subject. In each care team, collective work is organised around schedules that are complex to put in place, because they raise several issues (Bourgeon *et al.*, 2013). They must manage the balance between different types of contracts, between working and non-working time, and between the professional and family lives of their staff. They must also give two weeks' notice of changes to working hours and ensure that members of the care team can organise their personal lives around their working hours, they also must take into consideration the team arrangements due the organisational contingencies caused by the modifications of the day to day schedule that may affect their planning, work and patient care (Burgaud, 2013 cited by Bourgeon *et al.*, 2013).

In hospitals, healthcare managers spend most of their time planning schedules instead of interacting with patients and teams, because of high turnover and absenteeism. These schedule changes not only lead to dissatisfaction among team members, but they also place additional burdens on healthcare managers. Thus, the healthcare managers has very tensed role as the intermediary between strategic management and the teams on the ground. He or she plays an essential role in implementing organisational decisions, while ensuring the smooth day-to-day running of departments and teams. So, here is the main 5 roles : care management and organisation , Human Resources management, Leadership, project management and ensuring the department life.

Our research integrates the contextual approach of healthcare time management and the socio-organisational approach of temporality management to shed light on the concept and its practical application. However, how can we observe it in action? We will talk about this in the next section we decided to look at the question of temporality management from the perspective of collective competency, to better understand how it facilitates the construction of work cycles between the healthcare manager and his team and how it helps care teams face the contingencies on day-to-day schedules.

## **1.2. Managing temporalities through the care team's collective competency**

In this section, we describe the “collective competency” concept, detailing its emergence and development (Bataille-Chédotel, 2000; Loufrani-Fedida, 2012; Loufrani-Fedida and Aldebert, 2013; Chédotel and Krohmer, 2014; Ruiller and Bruiller, 2016; Gentil and Chédotel, 2018; Roger and Vinot, 2019; Grasser et *al.*, 2021). To gain a comprehensive understanding of this concept and its implementation, we explore it within various perspectives (Boreham et *al.*, 2000; Franqueiro 2017; Løken, 2022; Da Silva, 2022). Before presenting the collective competency concept in the healthcare context, let’s first look at the collective care work.

Healthcare work results from collective work (Estryn-Béhar and Le Nezet, 2006). A care team consists of individuals who work together as part of a larger care community. The manager’s role is to lead the care team and manage interdependencies (Dumas et *al.*, 2016). Managers must consider various factors that define the work of care teams, including task interdependence, member roles, communication, spatial layout, and team longevity. This interdependence also leads to mutual dependence among team members. The jobs of care professionals are mutually dependent, and delegation of competencies is crucial. This delegation between professionals will challenge and redefine the care and cure professions (doctors, nurses, etc.) (Dumas et *al.*, 2016). To face these challenges, one possible response is to develop the ability to act to link up competencies or bring out the collective competency

(Ruiller and Burellier, 2016). In the next sections, we will define the term “collective competency” and its attributes.

### **1.2.1. Collective Competency: definitions and approaches**

The concept of collective competency emerged at the end of the 1990s and there are two main approaches to defining and describing it. The first approach is the harmonic approach, which posits that collective competency is an emergent outcome of cooperation and the synergy of individual competencies (Dupuich, 2011). However, since we have established that care teams are interdependent, this concept is not relevant to our study. Instead, we aim to emphasize the collective aspect of the work, rather than the individual competencies of team members; so, we favour the interactionist approach. This approach considers collective competency as “situational intelligence” and individuals as “organis-actors”. It is based on continuous exchange between team members (Dupuich, 2011). Moreover, we have chosen to develop the definitions of this notion, which are not exhaustive. We opted to use the term “competency” rather than “competence” (Grasser et al., 2021). However, the notion of “competence” is the most frequently cited in English. In light of our previous discussion on the interactionist approach, the characteristics of the care team and care work, we decided to use the French definition of collective competency.: *“The proven capacity of a work team to handle a particular situation means that collective competency is situational”* (Bataille-Chédotel, 2001 ; Chédotel and Krohmer, 2014). To operationalise the concept, in the next section we will talk about the attributes of collective competency and its application in the healthcare field.

### **1.2.2. Collective Competency: core attributes and practical applications**

Collective competency has several characteristics (Chédotel and Krohmer, 2014) that allow us to operationalise this concept:

1) *“Common frame of reference, i.e. a common operative language and a shared representation of the situation that enables the players to work together.”*

- 2) *Confrontation of individual representations: a confrontation of the representations of the decision-makers to identify and study different alternative solutions in the context in question. This occurs when information is shared, representations are standardised, skills are articulated, and reasoning and strategies are developed in common.*
- 3) *Collective decision-making: understood as the joint choice of a solution adapted to the situation (Chédotel and Krohmer, 2014) ”.*

Several applications based on this model, such as the study of Chédotel *et al.*, 2021 were carried out to establish a relationship between collective competency and organisation rules (Chédotel and Kromher, 2021). Collective competency means mobilising a collective made up of different interprofessional players, which makes the collective dynamic more complex to implement (different representations, different possible frames of reference). The work by Ruiller and Burellier (2016), for example, studies the collective competency of interprofessional players in an activity centre within a university hospital. Although a common reference system is being developed, with joint meetings and free sharing of knowledge, professional differences mean that the collective dynamic is weak. As a result, decisions remain imposed and not consensual. The emergence of collective competency develops when work is under pressure, in an emergency, for a complex activity (Chédotel & Krohmer, 2014). It can be a facilitator of collaboration in health services, as shown by the work of Løken and her colleagues in 2022.

We therefore need to understand how collective competency can emerge for managing the schedules of care teams, and how they face planning challenges through their collective competency.

In summary, we will explore the concept of temporality management and its application to the care team, drawing inspiration from Ancona and her colleagues' 2001 study and Orlikowski and Yates' 2002 socio-organisational approaches. These approaches help us define temporal

structures and temporal structuring, and more importantly, time management from a practical organizational perspective.

We will explore the challenges that arise, and how collective competency may be a lever or not to overcome them.

## **2. Research Methodology: case studies on scheduling in hospitals**

We conducted an empirical survey to answer to our question: How does the care team use its collective competency to address time management challenges? This led us to set up a research method with two case studies to observe the creation of schedules and the day-to-day realities and obstacles of schedules. Firstly, we conducted an exploratory study employing a qualitative approach in the neurovascular unit of a hospital in the west of France. We examined another department in the same facility: the operating room, to analyse the day-to-day realities and obstacles of the care team's schedules. In both cases, we will discuss our methods and the data collection process.

### **2.1. Case study 1: work cycle creation in the neurovascular unit**

The Neurovascular Unit (NUV) has two sectors: conventional and emergency. At the time of the survey, the NUV had 15 conventional beds, 8 intensive care beds (NICU) and a day-care chair for TIAs and headaches. The restructuring project proposed that 11 beds being reduced in the NICU and 12 added. More staff were recruited for backup care. The result was the design of new work cycles, with more annual leave. We have conducted onsite- observations. We participated in a meeting between the chief healthcare managers and the healthcare manager of the neurovascular unit concerning the proposed restructuring project of the department, with the aim of formulating a new working time organisation model and calculating the number of staff to be provided for. Then, we participated in a one-day training session for healthcare managers. The aim was to familiarise them with the project's tools by following a precise flowchart and to understand how the work cycle works to obtain the plan for validation by the

company's technical committee. These observations enabled a more profound comprehension of the functionality of the software employed for scheduling, in addition to the managerial challenges associated with the unit restructuring initiative and the establishment of novel work cycles for the care team. Finally, a series of eight individual semi-directive interviews were conducted with the paramedical team and the healthcare manager to understand the operational perspective of the project: the involvement of the teams in the construction of the cycles, interactions between team members and conflicts. The original interview guide was in French and structured around several themes: time management in care teams, team dynamics to analyse the presence of attributes of collective competency. We conducted a manual thematic analysis using conceptual coding for time management codes and attributes coding for collective competency codes (Miles et al., 2018). Here's the participants table for first case study:

<b>Fictitious name</b>	<b>Post</b>	<b>Working hours percentage</b>
Georges	Chief healthcare manager	100%
Marie	Healthcare manager	100%
Paula	Healthcare assistant	100%
Catherine	Healthcare assistant	100%
Pierrette	Nurse	100%
Barbara	Nurse (intern)	100%
Stéphanie	Nurse (contractual)	100%

Christina	Healthcare assistant	100% (after the interview 80%)
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*Table 1: Case study 1 Participants*

## **2.2. Case study 2: tackling daily challenges in care team schedules**

At the time of the survey, the operating room contained 250 professionals, including Registered Operating Department Practitioners (RODP), Registered Nurse Anaesthetists (RNA), healthcare assistants (HCA) and 5 healthcare managers (Kate, Jennifer, Carole, Sarah, Mary) for several departments: Head and Neck, Urology and Digestive Surgery, PONT (Pediatric, Obstetric, and Neonatal). Each Manager is responsible for a team (RODP, RNA, HCA...). Following an exploratory observation of the operating room which enabled us to understand the organisation of work within the department. We conducted 15 interviews with healthcare management teams and managers, as well as seven participants from the care team, including five RNA and two RODP. The interview process with the HCA team is not yet complete, as there are currently three more sessions scheduled. The original interview guide was in French and structured around several themes: care team time management, time management and healthcare team well-being (absenteeism/presenteeism), and the attributes of collective competency. We also participated in a meeting organised by the health manager to discuss the allocation of leave and weekends within the team.

This in situ observations made us realise how care teams change in their schedules even when it's consensual is very important to the team. For the coding process, we also conducted a conceptual analysis thanks to a codebook ( using conceptual coding for time management codes and attributes coding for collective competency codes) to analyse the interviews with the Nvivo software. Here's the participants table for second case study:

<b>Fictitious name</b>	<b>Post</b>	<b>Working hours percentage</b>
Kate	Healthcare manager	100%

Marie	Healthcare manager	100%
Sarah	Healthcare manager	100%
Jennifer	Healthcare manager	100%
Carole	Healthcare manager	100%
Ani	RNA (Registered Nurse Anaesthetist)	80%
Celia	RNA	50%
Matt	RODP (Registered operating department practitioners)	100%
Oliver	RNA	50%
Nick	RNA	100%
Carrie	RNA	100%

*Table 2: Case study 2 Participants*

### **3. Findings: managing temporalities challenges: How does it work?**

In this section, we present the results of the two case studies, based on the verbatim responses of the interviewees to address our research question. For each case study, we highlight time management challenges and the role of collective competency to face these challenges.

#### **3.1. Work cycle design failure: the lack of collective competency**

Our first case study deals with the creation of schedules in their early stages (preliminary). We observed that factors, such as regulations, schedule organizational issues, team dynamics, and

collective work requirements, became sources of tensions, increased workload, stress, and intensification for care teams. There are tensions and a different perspective between the healthcare manager, her supervisor, and the paramedical team. These factors introduce

Problem	Detail	Verbatims
<b>Legal framework and regulations</b>	The need to strictly adhere to legal frameworks governs the schedule creation from the managerial point of view VS source of tension between the team limiting flexibility and creating resistance within the team	<p><i>“We must create work cycles. So, since every task in the hospital public sector has a regulatory component, it is essential that we establish work cycles. ...Cycles and schedules must comply with regulatory constraints. So, we must respect the 12-hour working week, the 35-hour week” (Georges, chief healthcare manager).</i></p> <p><i>There are certain laws, (we'd like) to be aware must deal with those regulations... which means we'll never have the perfect schedule” (Catherine, Care assistant).</i></p>
<b>Organisational problems</b>	time pressures of the project, and workload	<p><i>“We work every other weekend. So that means that every two weeks we have two days off ½ weekends.” (Catherine, care assistant).</i></p> <p><i>“We're on our own in the morning until 9.30am looking after the whole department. That's more complicated” (Stéphanie, Nurse).</i></p> <p><i>“It's true that it's a bit difficult to work overtime for these project meetings several times” (Barbara, Nurse).</i></p>

		<p><i>“The two teams in this project have two different schedules and rosters... organising their own work cycles, ACD (annual day off) and weekends... it's a situation they've never experienced”.</i></p> <p><i>(Marie, Healthcare manager.</i></p>
<b>Tensions</b>	Tensions arise between care team and managers, as well as within teams	<p>“We're very angry... our manager is asking us to draw up a schedule that's not at all suitable... I think the manager should listen to what we want”</p> <p><i>(Pierrette, Nurse).</i></p> <p><i>The only drawback in this department is that there are two nurses with strong personalities who have a negative influence on the team atmosphere”</i></p> <p><i>(Marie, Healthcare Manager).</i></p>

obstacles to the care team scheduling. Regulatory compliance emerges as the primary concern in work cycle planning. Here is the findings table.

Table 3 : Work cycles creation finding

As we can see the table, The need to strictly adhere to legal frameworks governs the schedule creation on the other hand, care team perceive these regulations as a source of tension, limiting flexibility and creating friction within the team. As for the organisational challenges including the structural demands of the service, the time pressures of projects, and workload distribution. Managers face the unique situation of teams developing their own schedules, which can introduce complications. Care team, however, prioritise the equitable distribution of rest

periods and lament the impact of staffing shortages. These organizational pressures aggravated workload challenges and strain team dynamics. Plus, Managers acknowledge the importance of aligning work cycles with team needs, emphasising adaptability to collective and individual preferences: *“The work cycle must correspond to what I call vertical collective constraints... it must meet the need that has been defined to ensure activity... some people want to work five days, others three days”* (Georges, chief healthcare manager). Care team add the necessity of balancing work and personal life, alongside the unpredictable nature of hospital work: *“When we have an important appointment, we have a life outside the hospital”* (Paula, Care assistant). *“We get emergencies... It's hard to anticipate... we do what we can”* (Christina, Care assistant). The interplay of regulatory, organizational, and individual factors often results in relational challenges. Tensions arise between care team and managers, as well as within teams: *“We're very angry... our manager is asking us to draw up a schedule that's not at all suitable... I think the manager should listen to what we want”* (Pierrette, Nurse). Additionally, interpersonal conflicts within teams can disrupt planning processes.

- Common frame of references:

We observed a difference of frame of reference, depending on the interviewees. For managers, this frame of reference is based on the project and its approach, for example: *“The idea was to develop a common culture shared by everyone, so to define the concepts and vocabulary that we wanted and that we put in place... We developed the vocabulary and developed common tools so that all managers who wanted to present a project had to use that tool.”* (Georges, chief healthcare manager). For its part, the team mentions another frame of reference, the patient: *“But we still try, for the patient”* (Paula, Care Assistant).

- Confrontation of individual representations:

The confrontation of representations enables the manager to benefit from the experiences of the members of the care team: *"It's the perception of what is, of what each person is going to feel, so individually. And then there's everything that the situations will feel, the need for the 100%, but the 80% and others will have a different feeling because they have different rest periods or a little more rest. So, it's also a question of making these demands coincide and ensuring that the vote is a team effort"* (Georges, chief healthcare manager).

But on the other hand, the verbatims of our participants highlight that the lack of common reference framework between the team and the manager led to tensions, rather than representation sharing: *"I think that the manager should listen to what we want and create a schedule based on that. And that's not what she does at all... We're very angry. The whole nursing team in relation to management especially us in relation to our manager, who is in fact asking us to draw up a schedule that's not at all suitable and who has in fact asked us to rework it ourselves"* (Pierrette, Nurse), leading to tensions. There are also differences between nurses. For example: *"there are tensions between people who are at 100% and people who are at 80%"*. (Pierrette, Nurse).

To overcome this situation, the members of the paramedical team asked for more time to be able to exchange views on shifts. The aim is to try and hold discussion meetings so that the project can be completed on time, in the interests of the patient. In fact, the pressure, the urgency of the project and the activity are what lead them to develop this collective skill: *"If there's only one brain, there's one solution. If there are several brains, there will be more solutions After that, there may also be more conflicts. But then you must be fair. And to say that there must be as much on one side as on the other, because there are part-timers, there are full-timers... So we've tried to do things, to change mornings for evenings, to try to be as fair as possible for everyone (...) It's complicated to draw up the perfect schedule, it doesn't exist, but (we do) as fair as possible"* (Catherine, Care assistant).

In the end, the care team changed the way it organised its work and set up a regular meeting to discuss about the shifts: *“We had a meeting with our colleagues to explain how things worked. After that, it's a bit difficult to create a schedule that everyone likes. And it's up to us to do it. (...) If we can have more time, meetings, a bit of discussion, a meeting where we can talk about how we're feeling about care when it's difficult. Don't hesitate to talk about it and see what solutions we can put in place, which paramedical professional we can involve making it as easy as possible”* (Barbara, Nurse).

- Collective decision:

Finally, depending on the manager's management style, some managers have a decision validated by the team because it's validated by the software, rather than seeking a collective decision based on a consensus on work schedules: *“What means that in a team, we'll never have an overall consensus, we'll say (that what's important) is to have an approach. And that it already complies with the regulatory organisation, if they have validated it, even if not everyone can do it. But the regulations will validate the framework, the organisation and the rest”* (Georges, chief healthcare manager). On the other hand, a perfect work cycle for them do not exist because tensions are still present between teams: *“It's a bit difficult to create a schedule that appeals to everyone... It's true that we don't have much time to do it, that there are people who have offered to do it but that on their line (90% and 80%)”*(Paula, Nurse).

In conclusion, we can say that this team tried to mobilize the collective competencies by doing things differently, but there were differences in the common frame between the healthcare manager and his team. This led to tensions and the failure of the project. As we conclude there's no collective competency in this case

### **3.2. Navigating through daily time challenges successfully: the emergence of care team collective competency**

Our second case study deals with the daily challenges in care team schedules. From a managerial perspective, the issue for the operating team is how to deal with leaves, multiple work hours range. “*There's a mind-blowing number of timetables. When I arrived here, it took me two, three months to understand all the timetables*” (Carole, Healthcare Manager). Additionally, there is the outdated, unresponsive time management tool that doesn't match the schedules daily contingencies so they developed a certain daily time allocation for their team : “*We're not working on schedule management software at all, we just enter the sick leave and that's it, so that it can be justified on that tool. After that, we use Excel to do our allocation*” (Sarah, Healthcare manager). This tool is very complex and unresponsive. It can cause stress to new healthcare managers in the OR: “*At the beginning, I even had anxiety attacks at night because I didn't understand anything about the software, it was all so complicated and I was afraid that if I didn't get someone in, for example, I'd get a new one. In fact, when you come here as a junior member of staff, you are. When I started, we weren't coached on the day-to-day work, on the software. So it's really, it was really role-playing, freewheeling and total improvisation*” (Carole, Healthcare Manager).

From care team perspectives (RODPs and RNAs), there was two main issues: the shifts and the workload resulted from the intensifications of the care activity, for RODPS it's more the longue instrumentation and sterilisation, for RNAs it's the night shifts from the revival room, where there's shortage of staff and heavy workflows.

Then we have the working hours preferences and here is the disagreement. In this department we have two sector emergency and non-emergency sectors. Between these sectors there's a huge difference on how they work so effectively the preferences differs. Furthermore, between RODPs and RNAs there's certain differences because we're talking about two different teams. Moreover, within teams the preferences can cause conflicts and tensions

So, these working hours preferences or even shifts preferences is linked with unforeseen errors and quality of care.

An additional challenge is the turnover of managers: *“I've been here for seven years now. I think I've had nine managers, and they're overwhelmed with work... There's a lack of management. But I love our managers. That's not the point. But I mean, we change managers all the time... but there's no service project to follow. And that's also hard to get involved in a team. When you don't have a leader, you don't have a manager”* (Ani, RNA).

In summary, the absence rate among staff at this location is primarily related to physical factors, with a minimal impact on the RNA team: *“on the RNA side, there's always a little turnover in the whole team, and I don't think we have the most. I think the RODPs have a lot of sick leave now and the ASs, there are always people on sick leave, but I don't think we're the speciality most affected by sick leave”* (Oliver, RNA). Although absenteeism and presenteeism are a problem in the emergency sector *“We've got absenteeism, so there's absenteeism due to physical exhaustion with walks and colleagues who are off work for knee or arm problems... and psychological absenteeism in disguise. It was a case of presenteeism, we have 2 colleagues here who are going to take a 3-month leave of absence each, the 3-month leave of absence allows them to keep the job in the emergency unit... So we can clearly see that there is still adherence... To the service, but we can clearly see that they're tired and exhausted, and so Ben's 3-month leave is a form of absenteeism to get out of the way... but for the person who's usually there in the emergency unit, it's a monstrous work overload. So it also leads to exhaustion”* (Nick, ER RNA). they can affect workers' sense of purpose *“Today I find that I've lost a bit of meaning”* (Celia, RNA). For RODPs, high workloads in specific sectors and lengthy equipment setup processes may contribute to their absence: *“The long stoppages we have are essentially for physical problems. People often have long periods off work mainly for shoulder and back problems. That's how it is for us men and women”* (Matt, RODP).

We can observe collective competency in various situations. Our main example is changing work hours, but we also propose another situation during the interview: if one of your teammates (in a different field) were to be absent, what would you do? Their answer was very clear. We will categorize it under the attributes of collective competency. We discovered that teamwork is crucial to the development of each team's collective competency.

As we say Teamwork make the dream work: Shifts, and the temporalities of RNAs and RODPs are very important for the organization of the department. Additionally, by seeing team synergy and cohesion we can see how the collective competency starts to mobilise *"It's quite a heterogeneous group and we've really got different characters etc... But there's a kind of team synergy which means that we communicate quite a lot and we've put the emphasis on welcoming new arrivals and really making sure that everyone feels at ease in this team, that we train them properly from a professional point of view but also that we welcome them in such a way that they feel surrounded and not thrown in alone in the middle of the sharks"* (Matt, RODP). Furthermore, when we discuss care team interdependence, we also talk about temporality interdependence *"From 12:30 to 1: 30, I do another replacement so that all my colleagues have eaten before having coffee. Finally, I go for lunch at 1: 30pm, from 1:30pm to 2:30pm and finally at 2.30pm."* (Ani, RNA), that the team use it to help each other: *"So at the end of the day, when we've finished a little early, we often go and give the alarm clock a hand. The wake-up room"* (Oliver, RNA).

#### Common frame of references:

Four out of five of our RNAs (Nick, Ani, Celia, and Oliver) believe that the patient should be the sole focus in these situations : *"The patient is at the centre, and we're going to have to put him to sleep, so we're going to have to adapt and gravitate towards them"* (Ani, RNA). Regarding RODPs it's ensuring continuity of care is the main objective: *"People aren't there because they can't be there and there are tasks to do in the OR to keep things running"* (Matt,

RODP). One of our RNAs has a brutally realistic point of view: *“I find that priority is often given to the person's own needs rather than the needs of the patient”* (Carrie, RNA)

- Confrontation of individual representations and collective decision:

The way they communicate if it's something like absence or leaves the teams will arrange and exchange shifts by communicating with each other: *“people come up to us and say, well, there's such-and-such who's on sick leave today, we just found out this morning... Can you just do that, you go over there, and we'll put someone else in their place, and so on... We do a bit of juggling to try and fill in the puzzle... we're all ready, I'm the first, to do what's needed to make the day go smoothly.”* (Matt, RODP). Typically, team members who are affected by this situation initiate these exchanges automatically through WhatsApp, unless it is outside the working hours range: *“It's often on WhatsApp on the group. So other people see it, but usually with the person concerned”* (Celia, RNA). *“When we can swap with each other, we try to find someone who has the same hours, or at least the same number of hours per day”* (Matt, RODP)

Also, there are situations where a colleague forgets an instrument during the intervention or is delayed. These situations can disrupt both the timing of interventions and the team's schedule and affect patient safety. In such cases, the team mobilizes its collective competency to ensure the patient's safety. They are willing to step up and help clean or prepare patients, instead of HCA, or try to do tasks before their colleagues, but only while ensuring patient safety: *“if the RODP must fetch equipment from outside the room, which is often the case because surgeries are not scheduled... Well, I'm going to open bags, while I'm dressing the surgeon... It's not a job I'm taking on because I don't have the skills, but a 5- or 10-minute replacement is perfectly capable of doing it... And I know about hygiene and sterility, I'm a nurse so it's part of my initial training, I know what to do so I can do it”*

(Nick, RNA). Additionally, they will communicate with other team member or the healthcare manager: *“I'm going to warn. I'll ask the team. If it's an RODP who's not there, I'll go and see*

*his colleagues. I couldn't replace her. If it's an orderly, I'll say so. But maybe he's not here. It doesn't really matter. I'm the one who's going to look for the patient. I'll do his job. The RODP won't be able to, so I'll ask his colleagues and then, afterwards, I'll call a manager and say, well, I can't take a patient into the ward right now because I'm missing someone, so just tell me what to do..." (Ani, RNA).*

- Collective decision:

we could not see it directly, but as the situation resolves and we don't close room or cancel an intervention, we consider that collective decision is made after all it's all about patient care and security.

In summary, in this case, we see the collective competency of care teams emerge and develop in the hardest situations. This is possible because of a common reference (the patient) and team synergy that helps mobilize this competency.

#### **4. Discussion: managing time through care team collective competency: What purpose?**

To answer to our research question, we conducted two case studies. In the first case, we observed time structures and structuring (work cycle creation) as an objective way of measuring certain numbers of shifts and weekends, as well as the time of workers. The main objective is to have an objective point of view for temporal structuring. In the second case, we observed schedules in real time and how they are experienced (Orlikowski and Yates, 2002).

In both cases, time management was challenging, as suggested in the literature review. Firstly, differences of perspectives led to tensions, but in the second case, the different perspectives complemented each other in a practical way. One of the points of view is the daily working hours between 7:30 and 10:00 or 12:00. Here, there is a dilemma, which makes us think that it is no longer a matter of organizing time, but rather how each person can prefer a certain number of hours based on their experience. These working hours can vary from week to week and even

from morning to night (7–15 hours, 7–17:30 hours, 7–18:30 hours, 15–18:30 hours, etc.). This diversity is experienced differently by each team and sector and even by each person. But we can see how a certain shift is interdependent on others, and how they managed to organize it. To sum up, temporality structuring challenges could be harmful for the team dynamics and relationships, revealing managerial and organisation problems between team and their manager but it could also be a starting point for the emergence of the collective competency.

To analyse the role of collective competency, we must situate it and its attributes within an interactionist approach (Chédotel & Krohmer, 2014). In the first case study, the care professionals work in pairs as an interdisciplinary team (Dumas *et al.*, 2013) to construct their own cycles during a dedicated project. At some point, collective competency can facilitate collaboration between care team members (Løken, 2022). However, this was not achieved because of a lack of common frame of reference, so that the manager and the teams did not agree on the work cycles. Therefore, even though discussions and exchanges took place, decisions on cycles remain stalled (Ruiller and Burellier, 2016). Consequently, the scheduling project failed (this was not approved), because of a lack of collective competency. This suggests that work cycles and schedules are not just simple organizational structures (Ancona *et al.*, 2001). Structuring temporalities or temporalities management (Orlikowski and Yates, 2002) is not only a difficult task but also a reference for care team members (main objective) and the nerve of the war.

We confirm that the common frame of reference plays a crucial role (Chédotel & Krohmer, 2014), leading to consider equity objectives.

The statement “Patients are our focus” is often used, but the underlying tensions caused by the preferences of certain workers (nurses 100% and 80%) on weekends and at night and morning shifts, Wednesdays for mothers in the team, and the equality of these preferences are also present. The issue here is not how temporalities are being perceived or conceptualized (Ancona

et *al.*, 2001). Rather, it is about the organizational aspects of it and how teams model their work cycles with their workload, private life, and private preferences. All of these should be negotiated among team members, the team, and their manager for the regulatory aspect, which can cause tension, stress and workload, especially with the time urgency of the project (Bourgeon et *al.*, 2013).

Despite their strained relationship, the team tried to mobilise their collective competency by restructuring their work and time structures and structuring (managing night and morning shifts) to ensure equality and address the situation (Orlikowski and Yates, 2002, Chédotel et *al.*, 2014). Despite their efforts, the care team's collective competency wasn't there from the beginning by lacking a common reference to complete the project and work cycles. (Chédotel et *al.*, 2014).

On the other hand, we can see management problems in the role of the healthcare manager, Marie; she had a simple yet tense role. She coordinated and monitored the team. However, what they asked for was guidance and leadership in this project. We think about the autonomy ratio given to the team and its effect on not only the care team's work, but also on the manager's role. We can see the disagreement between the paramedical team and their manager, and their need for leadership and fellowship. (Reigner and Brechi, 2023; Moisson and Garody, 2021; Franchistéguy-Coulome, 2015; Dumas and Ruiller, 2013).

On another hand when we see the case of schedule in real time and the work contingencies, it's hard to analyse the collective competency attributes. There are interruptions in work, workload, as well as last-minute leaves, temporalities differences, and healthcare, managers turnover. However, we can say the objectives and references are more homogenic between team members and their managers which is ensuring continuity of care. These issues are the keys motivators for the emergence of collective competency. Based on the verbatim from the various care team members, we observe that collective competency emerges when discussing the

identified issues. We clearly see how they collaborate to resolve the problems. However, the collective decision-making process is not as clear. Nonetheless, several factors can enhance this competency, including care team cohesion, effective communication, regular meetings, and solidarity.

Second, our research presents concrete managerial perspective on the different care teams' temporality management challenges. The extended and anticipated absence in this case is not problematic, as the high rate of turnover in the care management team. Moreover, there is some dissatisfaction regarding the absence of these managers, although we can say that they are satisfied with the managers' acceptance of changes and the team's autonomy. The managers' absence does not directly affect the schedule or its modifications, but it does impact the organization of care activities (Reigner and Brechi, 2023). Based on the verbatim, the most pressing challenges are the working hours, with preferences for moms of 7:30 a.m., young ones of 10 a.m. or 12 p.m., and older ones who are content with the current arrangement because it is convenient for them. Additionally, the fatigue and the feeling of being neglected by their manager, as well as the lack of departmental projects for nurses and career development, are all significant challenges.

Our research has several theoretical implications. It not only connects two different areas of organizational studies: temporality management and collective competency, but it also sheds light on the study of temporality in the healthcare context. Additionally, we applied this approach to the care team's temporal management. Our perspective provides an empirical approach that goes beyond the dichotomies in the social literature on this concept. Our conceptual framework combines an empirical and theoretical approach to understand the challenges and context of managing care temporalities.

As for the empirical implications our study, the two case studies highlight the challenges of temporality in two different time structures (schedules and work cycles) and the lack of

management guidance that leads to tensions. However, in the second case study, we see that collective competency is mobilized due to the contingencies and challenges of temporality management (absence, intervention problems, manager turnover). With this very autonomous care team.

In conclusion, the care team, particularly in our second case study, managed their temporal challenges by mobilizing and developing their collective competency for one purpose: the continuity of patient care.

### **Conclusion**

Finally, we would like to highlight the contributions of our research. First, it has practical implications that can help care teams and healthcare managers in the temporality management. Indeed, this research provides a better understanding of the tensions that a care team experiences when developing its work cycles, as well as the day-to-day challenges it faces in managing its schedule. Our research examines how healthcare managers meet these challenges to ensure an efficient flow of work across services, and how care teams harness their collective competency to cope with these challenges and daily contingencies.

From a theoretical perspective, the research takes as its framework the work on collective competency. Based on two case study on working time issues of care teams, the research links up with the literature on temporality in organizations. To our knowledge, this approach is unprecedented in management research. It opens new theoretical perspectives on the collective competencies' role in the organisational temporality management.

In this research, we focused on two situations involving the temporality management for care teams (creation of a new work cycle and daily management of schedules) within two departments of the same healthcare establishment. It could then be useful to observe the conception of the annual schedule and its monthly variations, which takes place between the creation of work cycles and the daily management of schedules. That would allow us to observe

the emergence of collective competency in all situations of time management of care teams. It might also be appropriate to extend the research to other departments and other healthcare establishments, since it can be assumed that practices linked to the temporality by care teams and healthcare managers are quite dependent on a very specific context.

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