



MASTER THESIS

# The Influence of Covid-19 on Physician Well-being Through Sudden Changes in Organizational Routines

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## **PREFACE**

This master thesis presents the results of a research undertaken to be able to finalize my master Business Administration (HRM) at the University of Twente. The subject of the thesis stems from my specific passion for the field of health sciences that developed over the years. By receiving the opportunity to conduct research on the well-being of physicians, a topic being more accurate than ever, I was able to operate at the intersection of management and health sciences. In truth, I would not have been able to achieve the results I did without the support and dedication of the people involved. First, I wish to express my deepest appreciation to my supervisor Prof. dr. T. Bondarouk who provided me with her valuable guidance, advice, and support throughout this entire research process. Second, I would like to thank Myra van der Goor for our pleasant collaboration and all her efforts in facilitating this research. Also, I would like to extend my sincere gratitude to Dr. R.P.A. Loohuis for being my second supervisor. And finally, I cannot thank my family and friends enough for always supporting me. Not only during this master thesis, but throughout all my years as a student at the University of Twente. Thank you all for your unwavering support which allowed me to make the most out of this thesis and my overall student career.

## ABSTRACT

**Purpose** This research aims to decrease the knowledge gap regarding physician well-being, especially now that the crisis of Covid-19 has put physicians under even greater pressure than ever before. The decrease of the existing knowledge gap is achieved by answering the research question of how sudden changes in organizational routines, caused by Covid-19, affect physician well-being. **Design** This study can be categorized as an in-depth document study making use of a pre-established dataset which included the carefully administrated changes in organizational routines as indicated by 857 physicians ranging over 42 different medical specializations. The answers from physicians to one question from both the IFMS and Groepsmonitor Zelfevaluatie, two surveys developed by the Federation Medical Specialists (FMS), formed the pre-established dataset. **Findings** The findings of this research consist out of two different sections. The first section elaborates on seven general factors that were identified as impacting the well-being of physicians regardless of the presence of Covid-19. These included personal development, private circumstances, extra-curricular tasks, quality patient care, team dynamics, management affinity, and departmental connections. The second section of this research reveals the six changes in organizational routines, as a result of Covid-19, which consequently impacted physician well-being. These six organizational routine changes included from hospital to home office, digital patient communication, rescheduling due to understaffing, scaling down regular care to assist IC, extra-curricular tasks, and stagnation of departmental developments/projects. Overall, it was found that an actual change in an organizational routine is dependent upon the category of physicians, the subsequent influence on hedonic and/or eudaimonic well-being differs per routine, and this influence can be either negative, positive, or both. **Research Limitations/Implications** The pre-established dataset asked for the interpretation of the answers given, which limited us in fully reaching the performative aspect of the routine. Future research should incorporate this performative aspect more extensively by studying the altering organizational routines, due to Covid-19, of physicians in real-life. Furthermore, data obtained before September 2020 was left out due to confidential matters. Incorporation of this data in future research can be valuable in analyzing the impact of different waves of Covid-19. **Practical Implications** Physicians, the function of HRM, and various layers of management can benefit from the practical insights presented by this study. The results can raise a feeling of unitedness among physicians which may eventually facilitate an open culture when it comes to physician well-being. HR can revise organizational HR policies by paying more attention to the very nature of the medical profession, thus incorporating the micro-level perspective focusing on organizational routines as presented in this research. And finally, management can benefit as they are in the ultimate position to make physician well-being part of the organizational agenda. Besides, management and physicians should also better collaborate to align company interest and patient interest, which are now mostly perceived as two separate objectives. **Originality Value** The originality of this research lies in the incorporation of Covid-19 when analyzing physician well-being, while also making use of the broadest definition of well-being that comprises both the hedonic and eudaimonic aspect.

## 1. INTRODUCTION

This research aims to contribute to existing knowledge by studying the influence of changing organizational routines, due to the rise of Covid-19, on the well-being of physicians. Although the well-being of physicians has been neglected until recent decades, increasingly researchers recognize the importance of studying this concept as declining physician wellness is a growing concern within the profession of medicine (Wong, 2020; Babenko, 2018; Wallace et al., 2009). Regardless of the field of specialty in which physicians operate, evidence has been pointing towards numbers between 25% and 60% of physicians reporting exhaustion (Gazelle et al., 2014). In comparison, the job stress and emotional distress experienced by physicians is greater than for the general working population (Dyrbye et al., 2006; MsManus et al., 1999). Tyssen et al. (2009), for example, showed that physicians are confronted with lower life satisfaction in comparison to non-physicians, again reminding the urgency of research in this field. The profession of physicians differentiates itself from many others in that the ability to make a difference in the life of others is almost nowhere so literal. Apart from their position in the frontline during times of Covid-19, physicians are vital in ensuring a healthy world population, which cannot be ignored in all aspects of life. Their professionalism demands a sense of responsibility to be dedicated to their patients and a moral obligation, also known as beneficence, to act in their best interests as well (Wong, 2020). And although there are factors being beyond their control (e.g., chronic illnesses, complications, and negligent patients), physicians often feel personally responsible for their patients. Besides, events such as witnessing the suffering of others can lead to many negative emotions (Wong, 2020). The neglect of the well-being of physicians is, in retrospect, remarkable now that recent analyses have shown that the declining well-being of physicians is not only of concern to physicians themselves but also to their patients and the public as the provision of safe and effective patient care are highly dependent upon the well-being of the providers (Ariely & Lanier, 2015). The causes underlying the relatively low wellness among physicians vary from highly dependent upon personal characteristics (Patel et al., 2018; Taku, 2014) to more professional factors, such as the nature of the medical profession in which widely diffused stigma and constant adaption to the rapidly evolving practices are important contributors (West et al., 2018; Wong, 2020). On the brighter side of these worrying figures, are the interventions developed and implemented to turn the tide and improve physician well-being in the medical profession (Petrie et al., 2019; DeChant et al., 2019). And whereas researchers were slowly but surely mentioning the payoffs of research and the subsequent interventions (Dechant et al., 2019), the introduction of a worldwide virus has reshuffled all cards. As mentioned earlier, the profession of medicine has always been subject to ever-evolving practices. However, with the highly impacting,

rather unexpected, rise and spread of Covid-19, physicians are this time faced with a restructuring of their practices of such a scope which most of them never experienced before. Only a selection of these changing practices is indirect patient contact, longer working days, moral tradeoffs, and an unintended form of job rotation for most physicians. Due to the short timespan gone by, research on the influence of changing practices, as a result of Covid-19, on physicians' well-being is still limited. Most analyses tend to return to old patterns where the primary subject of analysis is again the patient. Even though there should be no way in which the position of the patient remains unresearched, there is a direct need to also research how Covid-19 caused the work of physicians to change and how that eventually affects their well-being. Research diving into physician well-being is now even more important as it is obvious that in this time, both quantity and quality of physicians are needed more than ever. Especially now that we are aware of the significant effect of the well-being of physicians on the well-being of patients (Panagioti et al., 2018; Scheepers et al., 2015). And whereas eventual increased physician well-being is the primary goal of providing dedicated attention to the position of physicians in the middle of this pandemic, the potential for positive side effects on the provision of quality patient care is just as crucial. It deserves acknowledgment that there is, although comparatively limited, a set of literature describing the effect of Covid-19 on physicians (Galbraith et al., 2020; Liu et al., 2020; De Kock et al., 2021). Among others, previously identified effects of Covid-19 on physician well-being include increased psychological distress, anxiety, and depression, all factors that have the potential to lead to long-term mental illness (Watkins et al., 2021; DeSio et al., 2021). However, so far earlier research remains rather limited in two ways. First, a large stream of literature solely focuses on how organizational routines of physicians from different medical sub-sections (e.g., surgery, gynecology, etc.) are altered due to Covid-19, failing to incorporate the subsequent influence on well-being. And second, where this well-being is incorporated, most studies show similarities to pre-Covid-19 studies, not capturing the full complexity of the concept of well-being in times of a severe health crisis. While a large integer of well-being studies before the rise of Covid-19 were primarily focusing on burn-out as a catchy term being the main indicator of well-being (Sanchez & Wolfe; 2019, Taku, 2014; Grow et al., 2019), this turns out to be the case for studies introduced after the rise of the virus as well (Morgantini et al., 2020; Dobson et al., 2020; Bradley & Chahar, 2020). Acknowledging the modifying practices for physicians in current times, we believe that a connection can be established between these changing practices and the well-being of physicians, and that the description of well-being in only the term of burnout, remains too simplistic, yet leaving this research field with more aspects to be discovered. Therefore, we argue that the term of well-being, in modern times introduced by

Ryan and Deci (2001, p. 141), described as ‘the complex construct that concerns optimal experience and functioning’, is a much more elaborate explanation of the concept of well-being. Within this definition, the theory makes a distinction between hedonic – and eudaimonic well-being, which will function as the framework of reference for this research. Hedonic well-being views the concept as consisting out of pleasure or happiness (Kahneman et al., 1999), whereas eudaimonic well-being is reached when one fulfilled or realized its true nature, lying in the actualization of its human potential (Waterman, 1993). A practice lens is adopted to explain the altering organizational routines due to Covid-19. By adopting such a lens, the centrality of people’s action is recognized as it focuses on the everyday activity of organizing in both routines and their improvised forms resulting from physicians’ specific actions that are dependent upon their specific context (Orlikowski, 2010). With the introduction of these theories, we propose that the altering organizational routines of physicians, initiated by Covid-19, will not only change their happiness or pleasure encountered in their job, but also the ability to perform in line with their full potential, being it either of positive or negative influence. To derive evidence-based results regarding this proposition, the following research question needs to be answered:

*“How is the well-being of physicians influenced (positive or negative) through sudden changes in organizational routines in the face of an imminent health crisis?”*

Answering the research question will lead to a three-fold of contributions. First, we build further on earlier research by identifying the important factors that influence physician well-being. Second, we aim to create new insights by analyzing what and how changing organizational routines, as a result of Covid-19, impact physician well-being. And third, we generate new insights as we aim to research the impact of changing organizational routines while taking into account the broadest definition of well-being, encompassing both hedonic and eudaimonic well-being. This study starts with outlining the background of existing literature on well-being and practice theory, after which the relation between the two concepts is explained. In the methodology section we will outline the research strategy used to conduct this research. After the methodology, the results are presented. The final section covers the discussion and conclusion in which we interpretate our findings regarding the influence of changing organizational routines, due to Covid-19, on the well-being of physicians.

## 2. THEORETICAL BACKGROUND

### 2.1 The concept of well-being

For some decades now, the construct of human well-being (not only employee well-being) is under debate by many scientists and disciplines as the construct is more complex

and controversial as was thought in first instance (Kashdan et al., 2008). A well-defined, comprehensive understanding and conceptualization of well-being is important as it influences theoretical considerations as well as practical implications, e.g., in the field of education, therapy, and governmental initiatives (Ryan & Deci, 2001). Over time two distinct philosophies, based on different views of human nature, have emerged with the goal to define well-being (Ryan & Deci, 2001). The first one of these, known as hedonism (Kahneman et al., 1999), focuses on the aspects of pleasure or happiness to determine whether someone is feeling well. Eudaimonism (Waterman, 1993; Ryff, 1989), on the other hand, assesses well-being by measuring to what extent a person actualizes its full potential. The tendency to choose one of the philosophies over the other has dominated for a long time. Past research has mainly focused on hedonic well-being even though much of the evidence points towards eudaimonia as being the most important predictor of well-being (Delle Fave et al., 2010; Peterson et al., 2005; Steger et al., 2008). Although the terms are evidently distinct, as hedonic enjoyment might rise in the absence of eudaimonia (Waterman, 1993; Waterman et al., 2008), findings by Waterman (1993) showed that there are in fact also positive correlations between the two (eudaimonic activities being highly associated with hedonic enjoyment), making the concepts overlapping as well. This initiated a stream of research that agreed upon using the terms in tandem, in a synergistic way also known as ‘flourishing’ (Huppert 2009; Huppert & So 2013; Keyes 2002), rather than making a trade-off between the two. And whilst this stream of research using it in integration is still in its infancy, literature has shown that the greatest degree of well-being is achieved by having a life consisting out of both hedonic and eudaimonic pursuits, instead of lives solely motivated by either hedonic or eudemonic foundations (Huta & Ryan, 2010; Schotanus-Dijkstra et al., 2015). An example of an integrated approach embracing both types of well-being is the measurement instrument that was developed in 2005 by Peterson and his colleagues, the so-called Orientations to Happiness (OTH) scale. In our research, aspects of both hedonic and eudaimonic well-being are used to capture the complexity of well-being. The next two sections give a more detailed overview of hedonic and eudaimonic well-being before applying it to the case of physicians.

#### 2.1.1. Hedonic well-being

The initial theory about the concept of hedonic well-being was brought forward by the Greek philosopher Aristippus (c. 435–c. 356 B.C.E.) (cited in Baselmans & Bartels, 2018). Aristippus spread the idea of experiencing the maximum amount of pleasure as a determinant in reaching the goal of life. Following his ideas, this maximum amount of pleasure could only be achieved by finding a balance between good and bad. The most important indicators of good and bad are pleasure and pain respectively, where Aristippus suggested people to seek

pleasure and avoid pain as much as possible (Kay Smith & Diekmann, 2017). More specifically speaking, philosophers viewing well-being from a hedonic perspective, equate well-being with positive, affective states that are focused on the satisfaction of human desires, incorporating experiences of carefreeness, enjoyment, and pleasure (Diener, 2009). Waterman (1993) found that hedonic activities are often associated with feelings of happiness, relaxation, excitement, and forgetting of one's personal problems. Most philosophers operating from a hedonic perspective believe that the individual itself is in the best position to determine their level of happiness (Henderson & Knight; 2012). It is also for this reason that the theory of hedonic well-being is often mentioned as subjective well-being as identified by Diener (2009). The concept of hedonic well-being consists out of two components: 1) an affective component predominating positive experiences over negative experiences, and 2) a cognitive component referring to the personal judgment part that one must perform in order to identify the satisfaction one has with life as a whole (Diener, 2009). The latter judgment part allows the definition of subjective well-being to generally translate itself to the definition of hedonic well-being. Whereas well-being captures a relative magnitude of happiness, the source of this happiness, as well as the functioning of the individual remains unknown (Ryan & Deci, 2001) The source of this happiness turned out to be often found in eudaimonic activities, leaving researchers to consider eudaimonia as a predictor, whereas hedonia is considered as the true outcome (Vittersø, 2003, 2004). Ryan & Huta (2009) further elaborated on this in their research by stating that hedonic well-being can thus be an important indicator of wellness, but only when incorporating context in the sense of values, functioning, and behaviors that give rise to feelings of pleasure, which is also known as the eudaimonic side of well-being. Now, we turn to eudaimonic well-being.

### **2.1.2. Eudaimonic well-being**

The stream of research advocating for eudaimonic well-being is as ancient as that of hedonic well-being (Ryan & Deci, 2001; Waterman, 1993). Despite this, more ambiguity is surrounding the term of eudaimonic well-being, especially with the exact translation to the field of psychology, leading to more diverging theories and approaches around this concept (Kashdan et al., 2008; der Kinderen & Khapova, 2019). This concept also has its roots in ancient Greek philosophy. Aristotle founded the principles of eudaimonic well-being as he counter-reacted Aristippus by stating that striving for nothing but happiness per se is a rude idea, making humans slaves of their own desires (Ryan & Deci, 2001). Instead, the pathway to well-being should be found in doing what is worth doing, comparable with the expression of virtue and contemplation (Norton, 1976; McDowell, 1980). Core concepts of eudaimonic well-being also appeared in theories of personality such as self-actualization theory

(Maslow, 1968) and self-determination theory (Deci & Ryan, 1985). Both theories found their important path in the HRM and organizational psychology research (Gagne, 2009; Marescaux et al., 2012; Benson & Dundis, 2003). Waterman (1993) suggested that people's life can best be identified as eudaimonic when the activities they are engaging in are in congruence with deeply held values. It is 'the striving for perfection that represents the realization of one's true potential' (Ryff, 1995, p.100). Ryff and Keyes (1995) proposed the term of psychological well-being (PWB) to operationalize human actualization, while diverging from subjective well-being, making psychological well-being a multidimensional approach consisting out of 6 dimensions: life purpose, mastery, autonomy, personal growth, self-acceptance, and positive relatedness. Scholars argue that eudaimonic well-being fundamentally diverges from hedonic well-being in two ways. First, eudaimonic philosophers argue that for people to experience true happiness, they should distinguish subjectively felt desires from needs rooted in human nature (Fromm, 1981). The eudaimonic approach lets experts define how well someone is doing, making it an outside approach, while hedonic well-being allows people to tell experts what makes their life good, referring to a more self-judgment approach (McDowell, 1980; Diener et al., 1998). Gradually, the discussion even developed towards subjective vs. objective well-being, where hedonic well-being was predominantly seen as subjective (self-assessed), but eudaimonic – as objective (assessed by an observer). Consequently, researchers started to talk that the realization of objectively valid needs would bring human growth (Fromm, 1981), one that significantly diverges from that of hedonic well-being. Whereas the maximization of pleasure and minimization of pain leads to the achievement of short-term goals, sometimes even at the cost of others (Ryan et al., 2006), eudaimonic pursuits have been found to contribute to long-term well-being, therefore, being an essential element in completing the term of well-being (McMahan & Renken, 2011; der Kinderen & Khapova, 2019). Although we do not side the subjective-objective discussion in our research, we agree with eudaimonic advocates who argue that happiness is not reducible to hedonism, as it is also derived from the attainment of goals (Diener et al., 1998). However, they recognize the value of hedonic well-being as an important dimension in creating a comprehension of the complexity of well-being, which causes psychologists to increasingly see the strengths of both philosophies despite past disagreement (Henderson & Knight, 2012). Now that we know the concepts of hedonic and eudaimonic well-being, we need get an understanding of why they are important. This will be addressed in the following section.

### **2.1.3. Importance of studying hedonic and eudaimonic well-being**

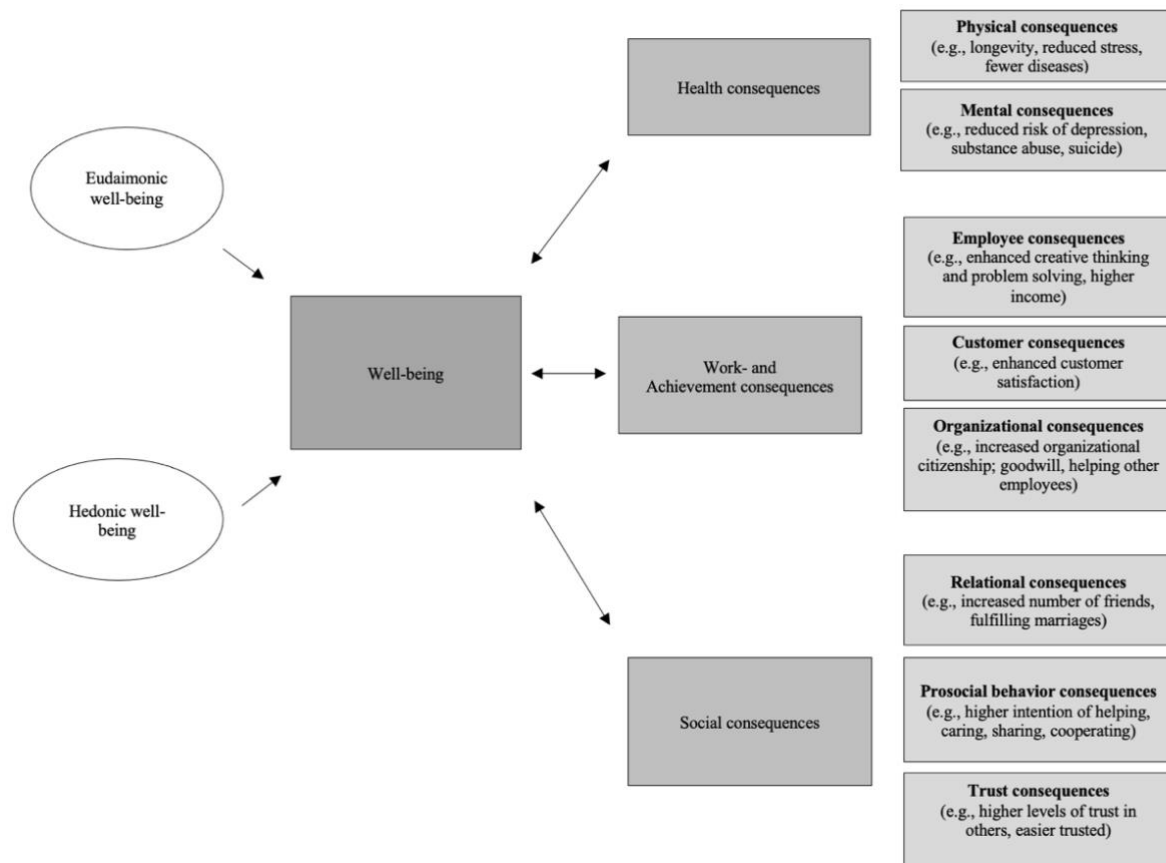
Since the recognition of the two-sided coin of well-being, much research has been conducted into the consequences

of both hedonic and eudaimonic well-being. And although the phenomenon of well-being has been the subject of investigation for many different disciplines (sociology, economics, psychology, HRM, health sciences, etc.), in general, the consequences of well-being can be divided into three categories: health, work and achievement, and social. Each overarching category has its subcategories. We have composed a schematic overview to illustrate the importance of well-being (Figure 1). To go into greater detail about the well-being consequences, evidence is provided for each of the dominant categories and their related subdomains. It deserves some attention to say that we do not assume the relationships to be straightforward and unidirectional, but that it is instead reciprocal, meaning that well-being and its consequences mutually affect each other.

**Health** One of the most researched domains is that of health. The question that stands central in this side of the literature is: does well-being affect personal health? Studies have found that people who perceive high levels of their own well-being experience the benefits of having a stronger immune system, fewer diseases, and even greater longevity (Pressman & Cohen, 2005; Diener & Chan, 2011; Vazquez et al., 2004). Besides that, greater well-being eases recovery, reduces stress, and lowers the perception of pain (Kopp et al., 2003; Smith et al., 2001; Keefe et al., 2001). On the other hand, strong evidence suggests that unhappiness accelerates mortality and exacerbates illness (Sirgy, 2012). About the latter, it needs to be explicitly stated that results do not suggest that ailing

people can be healed in case of illness, but that well-being rather protects one against becoming ill (Veenhoven, 2007). One of the mechanisms that contributes to happy people being healthier is healthy behavior and lifestyle, as they are more focused on a healthy weight, raise the alarm when they perceive symptoms, and are more engaged in sports (Veenhoven, 2007; Schulz & Decker, 1985; Ormel, 1980). On a mental level, happy people have shown to be more mentally happy than their unhappy opposites. There is enough evidence to state that these people are less exposed to mental disorders such as depression, schizophrenia, substance abuse, and even suicide (Verkley & Stolk, 1989; Koivumaa-Honkanen et al., 2004; Peterson et al., 1998).

**Work and Achievement** As work fills a great part of people's waking hours in today's society, also much attention has been dedicated to answering the following question: are happy people better than their less happy peers regarding job-related and performance achievements? Research has discovered that employees who feel well have greater chances of being creative thinkers and problem solvers (Ashby, Isen & Turken, 1999; Diener & Seligman, 2001). Furthermore, well-being was found to predict higher income (Lucas et al., 2004; Pinguart & Sorensen, 2000) and receipt of relatively better supervisor evaluations (Staw et al., 1994). A finding from the eudaimonic side is that happy people tend to secure 'better' jobs that are characterized by higher levels of autonomy, variety, and meaning (Staw et al., 1994). Also, well-being influences relationships with co-workers,



**Figure 1**  
Schematic overview importance of well-being

as it leads to greater cooperation and reduces the risk of conflict among colleagues (Barsade et al., 2000; Van Katwyk et al., 2000; Diener & Seligman, 2004). When it comes to job satisfaction, it is something mostly identified among happy people (Tait et al., 1989; Weiss et al., 1999). As a result, they show less job withdrawal in the form of job burnouts, absenteeism, and turnover (George, 1989; Hayes, 2002; Judge, 1991; van Katwyk et al., 2000). These high levels of job satisfaction have an important stake in explaining why it is that happy people have been found to be more productive and performative (Wright & Cropanzano, 2000). The customer perspective may not be denied, as positive affect and realizing true potential have been found to be an independent predictors of customer satisfaction (George, 1995). Harter et al. (2002) revealed the positive correlation of well-being with customer loyalty. A particularly interesting finding for this research is of Swaroff (2000), who found that satisfaction among both physicians and patients correlated positively with the financial returns of hospitals. Finally, well-being is found to be important for organizations, as the well-being of workers predicts positive organizational citizenship behavior (Diener & Seligman, 2004). Organizational citizenship behavior, that is acting beyond the call of duty, brings organizational benefits such as spreading goodwill and helping other employees (Hurtz & Donovan, 2000; George & Brief, 1992). Positive affect reduces bad organizational citizenship such as stealing from the organization (Bateman & Organ, 1983).

*Social* Are people who feel well more social than less happy people? Research confirms that this is indeed the case. Happiness does not only bring out the best in people in terms of health and their professional career, but it also contributes much to social life. Happiness leads to people being more social, cooperative, and ethical (Forgas, 2001, 2002, 2006). Friendship shows one of the highest correlations with happiness (Campbell et al., 1976). Many researchers identified an association between happiness and the number of friends happy people have (Philips, 1967; Baldassare et al., 1984). Likability plays a role here as most people like happy people much better than unhappy people. They are judged to be more friendly (Schimmack et al., 2004), physically attractive (Mathes & Kahn, 1975), intelligent and competent (Schimmack et al., 2004), and less selfish (Rimland, 1982) In the field of marriage, longitudinal studies suggest that individuals doing well report to have fulfilling marriages and are also more satisfied with their marriages (Headey et al., 1991). People scoring high on happiness also show increased pro-social behavior, that is action intended to benefit others, such as sharing, helping, caring, and cooperating (Carpraro, 2019). Multiple correlational studies provided evidence for happy people tending to act in a prosocial, cooperative manner (Rigby & Slee, 1993; Lucas, 2001). Finally, trust is an aspect of sociability that is enhanced when well-being increases. This relationship is reciprocal as happy people do not also trust more than unhappy people, they are also more trusted by others (Dunn &

Schweitzer, 2005). Tov and Diener (2009) confirmed this by showing an analysis of the World Value Survey indicating that generalized trust, volunteerism, and democratic attitudes are positively correlated with nationwide high scores on well-being. Now that we have learned about the concept of well-being and its importance, we turn to the practice theory which will teach us about organizational practices. After that, we will elaborate on the connection between the concepts of well-being and practice theory.

## 2.2 Practice theory

As organizations in today's world are faced with dynamic, distributed, mobile, and transient conditions, 'organizing', as underlying the continuance of organizations, has become a complex concept to understand, requiring theories that are able to fully capture such complexity. The adoption of practice theory, which roots date back to the 90s, assists in our view in dealing with this complexity because it views organizational phenomena as part of social life, being an ongoing production, which emerges through people's recurrent actions (Feldman & Orlikowski, 2011). In this theory, practices are central to the production of this social, and therefore organizational reality. Following Feldman and Orlikowski (2011) in adopting the practice lens, we question the status quo of organizational phenomena under our research – well-being of physicians, to gain a detailed understanding of their activities in the workplace and the subsequential relations among working, knowing, innovating, and organizing. Feldman and Orlikowski (2011, p. 1241) refer to the structuration theory of Giddens (1984) where practices are defined as 'those social actions that recursively produce and reproduce the structures that constrain and enable actions.' We have picked up this definition because it highlights two principles of practice theory. The first one is that of 'everyday actions being consequential' (Fieldman & Orlikowski, 2011) resulting in consistent production of social orders, e.g., social structures (Giddens, 1984) and habitus (Bourdieu, 1991). The second principle central to the practice theory is the 'relationality of mutual constitution' (Fieldman & Orlikowski, 2011). Mutual constitution implies that the understanding of agency is vital in conceiving the production of social regularities, as agency is shaped by but also creates, reinforces, or alters its structural conditions. In the case of our research subject, an application of these two principles means that the practices performed by physicians are recurrent to a certain extent and that the human agency physician's exercise is contributing to this recognized recurrent pattern of practices so that these produced structures are in turn shaping agency of physicians. Having explained that practices are ongoing accomplishments being (re)produced and that they may be transformed with every action, we emphasize that reproduction of practices within organizations serves to create a certain amount of stability, which enables these practices to be viewed as socially



recognized and accepted ways to perform certain activities, a phenomenon also known as an organizational routine (Gherardi, 2009; Feldman & Pentland, 2003; March, 1991). Therefore, we now turn to explain organizational routines.

### **2.2.1 Organizational routines**

Much of organization theory has been concerned with how to coordinate the activities of people in organizations (Taylor, 1911; Fayol, 1916; Weber et al., 1947; McGregor, 1960; Weick, 1969). The concept of routines is not a new one and originates back in the 1960s. Routines have been described as a form of coordination allowing organizations to accomplish much of what they do (Cyert & March, 1963; March & Simon, 1958; Nelson & Winter, 1982). Researchers claim that organizational routines minimize variety (March, 1991), costs, and conflict (Nelson & Winter, 1982), while maximizing organizational legitimacy and economies of scale (Meyer & Rowan, 1977; Feldman & March, 1981). For this study, we borrow the definition of routines given by Feldman and Pentland (2003, p. 95) where organizational routines are viewed as ‘a repetitive, recognizable pattern of interdependent actions, involving multiple actors.’ Earlier comparisons of organizational routines to metaphors as individual habits (Stene, 1940; Simon, 1945), programs (March & Simon, 1958), and genetic material (Nelson & Winter, 1982) have contributed to the image of routines as fixed, unchanging objects, requiring no conscious thought. Scholars claim that viewing routines as solely contributing to organizational stability ignores the role of human agency and may create negative consequences at the individual and organizational level (Feldman & Pentland, 2003; Howard-Grenville, 2005). Thus, it has been shown that at the individual level, routines can lead to inertia (Hannan & Freeman, 1983), mindlessness (Ashforth & Fried, 1988; Langer, 1987), deskilling (Leidner, 1993), and demotivation (Ilgen & Hollenbeck, 1991). At the organizational level, handling routines solely as a source of stabilization can result in threatening situations where actors remain highly committed to established routines, even though the situation asks for reflexivity by abandoning or altering the existing routine (Staw et al., 1981; Gersick & Hackman, 1990). An increasing body of research has shown that in fact, organizational routines are also an important source of organizational flexibility, innovation, and change due to the role of human agency (Hutchings, 1991; Adler et al., 1999; Naduzzo et al., 2000). Hence, we argue that in times of rapid change, particularly attributed to new technologies, the global economy, crisis, and post-crisis global situations, organizations need to build on routines to coordinate but also to adapt their activities (inspired by Feldman & Rafaeli, 2002). In the 2000s, scholars found an explanation of the ability of routines to facilitate both stability and organizational change. This unique ability of routines is shown to be routed in the existence of two aspects of routines: ostensive and performative aspects

(Feldman & Pentland, 2003). These two, mutually constitutive aspects are fundamental for this study as they help us in grasping a complex dynamic of the “process of becoming” of organizational reality, in our research – of well-being of physicians through organizational routines. In other words, we will consider the well-being of physicians as being influenced by organizational routines, both having ostensive and performative aspects; and we will study their dynamics. But first, we will explain these two aspects.

#### **2.2.1.1 The ostensive aspect**

The ostensive aspect is the routine in principle, the schematic form of a routine (Feldman, 2000). A routine can be seen as a taken-for-granted form of organizational procedures, which participants may use to guide, refer to, and account for the more specific performances of a routine (Feldman & Pentland, 2003). The hiring process, including the steps of attracting, screening, and choosing, is a widespread example to visualize the concept of a routine. As most organizations move along the same steps when hiring, the overall pattern is often similar for many organizations, giving constancy to the abstraction (Feldman & Rafaeli, 2002). However, researchers argue that it would be a mistake to conceptualize a routine as a single, unified object (Feldman & Pentland, 2003; Pentland & Feldman, 2005). That is, routines cannot be separated from the subjective understandings of the multiple, and diverse actors incorporated. This subjective understanding of a routine depends on the participant’s embedded knowledge and the interpretation of this knowledge, often linked to their organizational role and point of view (Feldman & Pentland, 2003). In the case of the hiring example, a physician will view the hiring routine from a different perspective than a corporate recruiter. Ironically, even though these divergent point-of-views make the existence of a single ostensive understanding of the organizational routine very unlikely, it is the eventual alignment of multiple perspectives that causes the ostensive aspect to gain in objectivity and abstraction. As it remains essential for a routine to interact with context-specific situations, it is impossible for the ostensive aspect to incorporate specific situated performances. The empirical, situated context of a specific routine is separated from the ostensive aspect, and has been referred to as the performative aspect (Feldman & Pentland, 2003).

#### **2.2.1.2 The performative aspect**

What stems from the previous section is that there is no need to doubt current knowledge of routines being repetitive sequences of actions. But it is a mistake to assume that being repetitive equals being fixed. Observational empirical data have shown that routines are not necessarily fixed, nor do they remain unchanged (Feldman & Pentland, 2003). Instead, they are temporal, meaning that the performance of a routine cannot persist indefinitely (Feldman et al., 2016). When observing

routines in a specific context, one analyzes the ad hoc, embodied aspect that is also incorporated in routines, something also known as situated action (Suchman, 1987; Dourish, 2004). To uphold a particular routine, action is required. This action performed by actants, necessary to enact the routine, is always connected to the specific times and specific places in which it occurs, leading to the definition of situated action (Feldman et al., 2016). Thus, routines cannot be separated from their socio-material context (Feldman & Pentland, 2003). By acknowledging the idea of routines as repetitive streams of situated actions, resulting out of the interpretations of many different actants, the performative aspect of routines is incorporated (Feldman et al., 2016). Whereas the ostensive part is the idea of the routine, the performative part comprises the actual enactment. (Feldman & Pentland, 2003). The performative aspect considers the specific actions taken by specific people at specific times when they engage in an organizational routine. As these practices are also carried out against different backgrounds of rules, expectations, intentions, and orientations, there is an occasion for variation each time a routine is enacted (Feldman et al., 2016, Howard-Grenville, 2005). So, on purpose or not, individuals have a natural tendency to depart from the standard practices as specified by routines in the first place (Howard-Grenville, 2005). This explains why the same routine allows for a variety of actual performances (e.g., the previously mentioned hiring example between physicians and corporate recruiters). However, although agency explains the different actual performances of the routine, more is needed for a routine to actually change. In fact, whether a routine can change over time depends upon the embeddedness of the routine in the organizational structure and upon the power and position of those who engage in routines (Howard-Grenville, 2005). When a routine is weakly embedded in the overall organizational structure, a change in a routine is more convenient and easier to accomplish. Here, a change in one structure is relatively inconsequential for the other structures. On the contrary, when an embedded routine highly overlaps with other structures, it may be quite hard for that routine to change over time as it affects many other routines as well. When this is the case, the power and position of those who engage in routines becomes influential. Their access to resources can turn exceptional performances into the new, accepted norm (Howard-Grenville, 2005).

### **2.3 Bringing theoretical knowledge together**

The past few sections have given a concrete overview of the concepts of well-being and organizational routines. In this section, we will review the interrelatedness of these concepts in greater detail, while incorporating the dynamics being brought forward by a crisis. When being confronted with a crisis, many overstate the importance of spontaneity, and see improvisation as a magical solution at the expense of misunderstanding the relationship between improvisation and planned action in the form of

routines (Vera & Crossan, 2005). As earlier elaborated, the performative aspect of a routine enables situated action, allowing routines to be adjusted to specific contexts (Feldman & Pentland, 2003). In fact, with operational routines being generative systems enabling adaptation and change, they have been indicated to be the only means to respond to dynamic, uncertain, and fast-changing environments (Adrot & Robey, 2008). In responding to a crisis, actors involved can initiate the change necessary for an organization to survive by enacting the routine so that it adapts to the situation. A well-established routine then serves as a reference point for many actants from which those adjustments may be made. Thus, even in times of severe crisis, routines can stimulate intra-organizational cohesion which can enhance the success of the improvisational activities being performed (Adrot & Robey, 2008). Although volatile environments might lead to the envisioning and exploring of alternative ways so that the performative aspect eventually changes, this does not necessarily mean a change in the ostensive aspect as well (Feldman & Pentland, 2003). As an example, research conducted by Andersson and Pamin (2021) on the effect of Covid-19 on daily routines showed how employees made a shift to a digital way of working, in which the abstract structure of the routine remained constant, only changing the performative aspect as the same work was now performed digitally. Now that we became aware of how crises may benefit from routines, we still need to increase our knowledge on how routines eventually affect well-being. Although the literature on the effects of routines and feelings of well-being is scarce, there is certainly evidence that demonstrates how routines, and subsequent changes in routines, can affect both hedonic and eudaimonic well-being. As earlier mentioned, viewing well-being from a hedonic perspective is associated with the presence of positive, affective states which equals the predominating of positive experiences over negative experiences (Diener, 2009). When changes in routines happen, the exposure to new stimuli leads to changes in affect towards those stimuli (Monahan et al., 2000; Murphy et al., 2001). Repeated exposure to stimuli enhances positive feelings and can be even intensified when people are not aware of the exact stimuli (Bornstein, 1989; Bornstein et al., 1987). Routines are believed to offer people predictability and comfort, and therefore the positive affect that is meant when talking about hedonic well-being. (Rytterström et al., 2010). By showing the presence of positive affects in the form of safety, confidence, and comfort, because of routines, Kahneman and Miller (1986) clearly indicated the effect that routines have on the hedonic side of well-being. The association between routines and feelings of safety, confidence, and security were confirmed in a study of Avni-Babad (2011). Said in another way, when changes in routines occur, for example in the cases of a crisis or emergency situation, people are most likely to be confronted with negative affect by feeling unsafe, unconfident, and uncomfortable. It was even found that

people with low levels of routinization had higher chances of feelings of negative affect (e.g., distress), whereas, on the contrary, highly routinized participants showed lower levels of psychological distress (Williams, 2000). The automatic nature of routines seems to explain this as routines provide spaces for feelings of relaxation or for conserving energy that allows for the allocation of resources to more pressing activities (Dunn & Hayes, 2000). As with most other phenomena in social life, there are also downsides that have been discovered when actively engaging in routines. Still taking in terms of hedonic well-being, some evidence has been found for the increase of negative effects (e.g., anxiety, and depression) when living a life filled with routines (Bouisson, 2002). On the other side of the spectrum, studies support the idea that routines can also contribute to the full actualization of human potential, a finding that is in coherence with the eudaimonic side of well-being (Watermann, 1993). Among many other things, mundane routines are recognized as contributing to making a life meaningful (Heintzelman & King, 2019). This is built on the three cornerstones of a meaningful life: significance, purpose, and coherence (Martela & Steger, 2016). First, routines can be seen as significant as they are an accepted standard within a certain social context (Gallimore & Lopez, 2002). In this way people are connected to a larger cultural, sociohistorical context, promoting a sense of meaning (Ludwig, 1997). Second, routines facilitate purposefulness in the form of stimulating goal-oriented pursuits and creating direction in life through providing a pathway to enacting chronically important goals (Heintzelman & King, 2019). And finally, the fact that routines are built on reliable connections creates a feeling of comprehensibility, which enhances meaning in life and purposeful behavior (Kay, et al., 2014). Of course, also here, some counterarguments have been brought up in the past. Doing things in a way they always have been done might reduce the ability of people to make an impact and to pursue goals. To make an impact and to achieve goals, flexibility and creativity are deemed necessary – and especially those cognitive achievements seem to be limited in any routine (Heintzelman & King, 2019). Altogether, the evidence mentioned above makes a case for why routines have the potential to affect human well-being.

### 3. METHODOLOGY

The primary goal of this research is to develop an in-depth understanding, getting the how and why of the organizational routines that physicians engage in and how it influences their well-being if these routines are affected by Covid-19. Taking this primary goal into account, the research can be qualified as one of a qualitative nature (Bryman & Bell, 2011). Next to the qualification of this study as a qualitative one, we further categorize it as explorative seen the fact that existing issues (physician well-being and organizational routines) are now

researched under new circumstances (Covid-19) (Mason et al., 2010).

#### 3.1 Data collection

This research can be classified as an in-depth document study using a pre-established dataset which included carefully administrated changes in organizational routines and many clues to analyze the subsequent influence on well-being in times of Covid-19. The rationale underlying the decision to make use of a pre-established dataset is based on two grounds. Firstly, although hoped for otherwise, the Covid-19 pandemic is already lasting for almost one-and-a-half years, including multiple waves. A wide timespan as this one also asks for data gathered over a longer period to incorporate the different developments that have taken place over time. The pre-established dataset used allowed for such data collection over a greater timespan. The data used for this research was collected between September 2020 and June 2021. Second, as we wanted to incorporate a large sample size that ranges over multiple specializations to also allow for space to identify similarities or differences between different departments, a pre-established dataset had the preference. The data received were gathered by a company specialized in the collection of data from medical specialists for purposes of scientific research. The data were obtained via self-reflections, both on the individual level and on a team level. For this research, we made use of the IFMS (Individueel Functioneren Medisch Specialisten) and the Groepsmonitor Zelfevaluatie. The IFMS is a well-established method including biennial conversations in which the medical specialist evaluates his own functioning based on 16 statements. The objective linked to this method is to continuously improve the professional actions of medical specialists to safeguard and further improve the quality of patient care (FMS, n.d.). The Groepsmonitor Zelfevaluatie corresponds with the IFMS, however, it is instead rather focused on evaluating the functioning of a specific team, medical partnership, or department based on 26 statements. Both surveys consist out of multiple statements that include topics of clinical care, operations, technologies, and an evaluation of performance. We have chosen the latter aspect only, focusing on one question of the IFMS, and one question of the Groepsmonitor Zelfevaluatie as being relevant for our research:

IFMS: *'Which matters have influenced your performance in a positive or negative way over the past period? What specific achievement, project or initiative are you proud of?'*

Groepsmonitor Zelfevaluatie: *'Which matters have influenced your group in a positive or negative way over the past period? What specific achievement, project or initiative are you proud of?'*

These questions give respondents the ability to talk about the impact of certain events on their well-being, in both hedonic and eudaimonic terms, while also precisely indicating which exact events were the cause of effects on well-being.

### 3.2 Data Analysis

Upon receipt, the dataset consisted out of 1064 lines of answers in an Excel document that also still included double answers or empty lines of answers. To ensure that every respondent was only incorporated once, we eliminated all duplicated answers. Also, blank cells were deleted as these were seen as unusable for our qualitative research. After such data cleaning, the Excel file contained 857 useful lines of answers, from which 718 respondents answered the question belonging to the IFMS and 139 respondents answered the question of the Groepsmonitor Zelfevaluatie. A demographic categorization of the data showed that in total 127 male respondents (M), 152 female respondents (F), and 578 respondents whose gender is unknown (O) were involved in this research. The average calculated age of all respondents was 47,77 years old, (SD = 8,90 years). The 857 responses were provided by physicians ranging over 42 different medical specializations. Over the past few years, scientific research in the field of health science has recognized it as common practice to make a distinction in specializations of medicine based on three categories. To further continue with this practice, which eventually supports analysis purposes, each of these 42 different medical specializations was categorized as being either a 'B' (Contemplative), 'S' (Cut), or '1' (Supportive). Physicians of specializations falling under category B are physicians marked as contemplative, who do not perform surgeries, but rather redirect patients to the right surgeon when needed. Examples of these types of specializations are neurology, psychiatry, radiology, and dermatology. Category S physicians are the physicians that perform actual surgeries. Examples of these are physicians who specialized in surgery, gynecology, and orthopedics. The primary goal of respondents belonging to category 1 is to perform laboratory research for diagnostics and treatment. Specialisms falling under this category are among others clinical physics and pharmacy. After categorization of answers according to the specialty (1, S, or B), we derived three different tables of data (answers). One table containing 95 answers of respondents belonging to category 1, one table containing 273 answers of physicians adhering to category S, and a final table containing 489 answers provided by physicians belonging to a specialism marked as category B. An exact overview of all descriptive statistics can be found in table 1.

To make the large datasets manageable, we continued the process of coding the data in several steps. After categorization, we read each line of answer separately for every category to determine the important parts relevant for our study and filtered out those parts of answers for further analysis. Both the IFMS and GMZ ask for positive

and negative aspects influencing performance and for a specific initiative raised by the individual or group that makes one feel proud. Therefore, as a second step, to gain a better understanding of the data, we analyzed the nature of each answer and identified pieces of answers as either positive or negative. Some respondents only shed a light on their positive experiences and what they were proud of, whereas others remained limited to highlighting what causes their performance to be negatively influenced. A part of the respondents answered the entire question,

**Table 1**

*Descriptive statistics*

<b>Gender of respondents</b>	
Male	127
Female	152
Gender unknown	578
Total	857
<b>Number of respondents per survey</b>	
IFMS	718
Groepsmonitor Zelfevaluatie	139
<b>Number of respondents per category</b>	
No. of respondents category B	489
No. of respondents category S	273
No. of respondents category 1	95
<b>Age (in years)</b>	
Average age	47,77
Standard deviation age	8,90

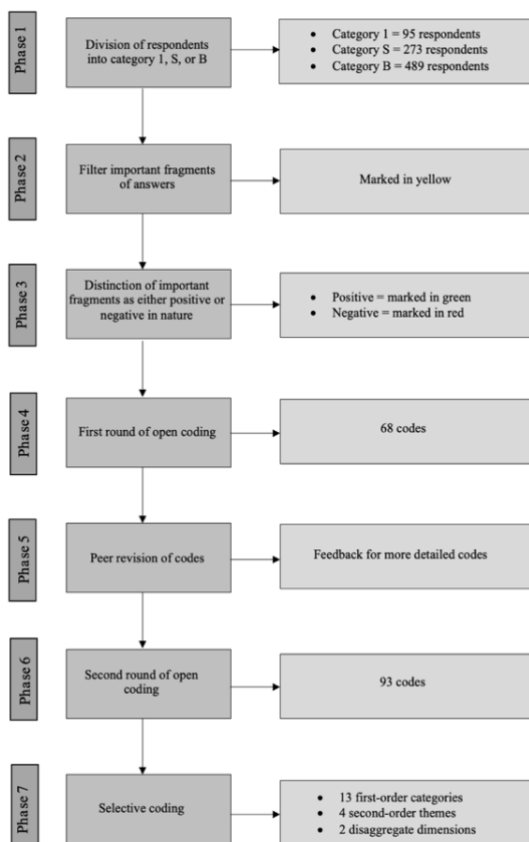
incorporating both negative and positive aspects, and what makes them feel proud. After we identified the important fragments of text deserving further notice and their character, we quantified the data even further by attaching labels to it. Considering the exploratory nature of this research, the data was coded using the inductive coding method, meaning that the codebook was not determined on beforehand, but rather developed throughout the process of analyzing data to develop concepts and themes through the interpretation of information (Thomas, 2006; Boyatzis, 1998). Initial open coding efforts provided us with 68 labels identified over all three datasets. However, this was not a straightforward process, as we revised codes multiple times. To provide an example; we started coding the answers of respondents belonging to category 1. One respondent in category 1 mentioned the connections with colleagues from other departments as having a positive influence on functioning. This piece of text was labeled as 'departmental connections.' While analyzing category S, we noticed another respondent underlining the importance of connections with partners outside the hospital. Again, a departmental connection but on a different level. As a result, it was decided that the initial code 'departmental connections' deserved revision as it was not specific enough, resulting in two new labels 'interdepartmental collaboration' and 'network collaboration'. To increase the trustworthiness of interpretations, the 68 labels identified so far were reviewed by someone else.

Feedback on these codes showed that codes were still seen as rather general which led to the creation of codes that were more detailed. After this final round of code revision, we concluded the coding process with a total of 93 codes. Eventually, via selective coding, we derived at 13 first-order categories, 4 second-order themes and 2 aggregate dimensions. For each first-order category, we summed up the answers of all the codes belonging to that specific first-order category in a separate document. While doing this, we kept the distinction between the different categories. In the end, we had 13 documents in which each document showed the lines of answers (positive and negative in nature) per category (1, S, or B) of the codes related to a specific first-order category. The 13 first-order categories led to the further identification of 4 second-order themes: personal factors, job factors, departmental factors, and routine changes. The 2 aggregate dimensions formed the basis for the section of findings, that resulted in the distinction between different influential factors on well-being before the crisis of Covid-19 and influential factors as a result of the pandemic. Figure 2 provides a schematic overview of the coding process. By combining existing knowledge on eudaimonic and hedonic well-being with outcomes from our data, we were able to derive new insights about what pre- and post-factors influence the well-being of physicians. Finally, we used these insights to draw a conclusion on how sudden changes in

organizational routines as a result of Covid-19 influence the well-being of physicians.

### 3.3 Trustworthiness of the data

When conducting qualitative research, it is important to provide the reader with a clear indication of the trustworthiness of the study (Elo et al., 2014). Seen the fact that we used an inductive coding method, in which we build-up categories and themes from scratch, it is even more crucial to show the reader that the findings are worth paying attention to, by understandably indicating how this qualitative content analysis was performed (Elo et al., 2014). We aimed to increase confidence in our findings in several ways. By discussing the aim and goal of the research with the provider of the data prior to obtaining the data, we were able to increase confidence in how well the suggested data fitted the intended research focus (Polit & Beck, 2012). This step contributed to the increased credibility of the data collection stage. In the organization phase of the data, the credibility of the data was enhanced via extensive, iterative coding rounds. To ensure that findings were led by the data and not by the researchers' own predispositions, discussions with two senior researchers were held on a regular basis. This allowed for increased confirmability as in the end, after the resulting revision of several codes, congruence on the data's meaning and relevance between multiple independent people was achieved (Lincoln & Guba, 1985). In reporting the data, we made use of quotations to ensure that the data accurately represents information as provided by the respondents, and was not invented by the researcher, which again increases confirmability (Sandelowski, 1995a). And finally, as reflected upon in this methodology section, the analysis process was extensively reported to accommodate readers to draw their conclusions regarding the trustworthiness of this study. Finalizing this methodology section with reflecting on the efforts made to ensure a high level of trustworthiness now allows us to move on to the findings of this research.



**Figure 2**  
*Seven-step analysis process*

## 4. FINDINGS

In this section, we will present the main findings flowing from the qualitative data analysis. The main goal of this section is to elaborate on the specific effect of Covid-19, in terms of routine changes and the subsequent influence on physicians' well-being. Prior to this, the different factors contributing to the well-being of physicians in general are discussed as gaining an understanding of this is seen as essential before discussing the impact of the ad-hoc crisis event of Covid-19.

### 4.1 General factors affecting physician well-being

The qualitative analysis performed, with the aim of identifying factors being important for physician well-being, resulted in the identification of three overarching categories: personal factors, job factors, and departmental factors. Each of the factors, and their effect on hedonic and

eudaimonic well-being, will be separately discussed in the upcoming sub-sections.

#### 4.1.1. Personal factors

We identified two personal factors as being important indicators for physician well-being: personal development and private circumstances.

##### The double-sidedness of personal development

On an individual level, many physicians indirectly stressed the important role that personal development plays when relating it to their well-being. The overarching category of personal development is derived from the mentioning of specific achievements such as study, expansion of personal specialization, research, increased experience, expertise, promotion, and acquiring new functions. Personal development is most of the time expressed as positively connected with well-being. Going into greater detail, from the data it stems that the eudaimonic half of well-being is better addressed by personal accomplishments than hedonic well-being. Especially, the feeling of accomplishment, meaning, elevation, and delving deeper into personal interests, some topics closely connected to eudaimonic well-being, make doctors feel good. It is often expressed that personal development is one factor that causes such feelings to thrive.

*“I think it is good of myself that I almost finished it [KP study], even on schedule. (even though I maybe should have been more proud when I allowed myself 3 months of delay).” - (Respondent 789, Category 1)*

For some doctors, the realization of potential sounded to go hand in hand with states of positive affect, such as feeling energetic, enjoyable, proud, and happy. This is where the hedonic side achieved by personal developments comes into play, even suggesting a flourishing situation.

*“Our scientific output is good which gives me energy.” - (Respondent, Category S)*

*“I am proud of the fact that I, together with my team, put our research on the map globally, not just scientifically, but also socially.” - (Respondent, Category 1)*

Although positive affect is pre-dominating, it cannot be stated that there is an overall absence of negative affect when talking about personal development. Some mentioned feelings of stress and pressure, often coming forward due to increased workload, that negatively contributes to their hedonic well-being.

*“Currently, I am busy with my study MBCT and a book chapter, which gives me pleasure but also additional stress.” - (respondent, category 1)*

*“I experience active education as well as scientific research as unsatisfactory and stress-increasing factors.” (respondent, category 1)*

Overall, based on the expressions of physicians, we felt that personal development was mostly affecting eudaimonic well-being in a positive way via feelings of being meaningful, achievement, and deepening of interest. Respondents mentioned the positive emotions that they experienced due to personal development, while some physicians also experienced negative emotions after being engaged in activities that aim to enhance personal development, showing the connection between personal development and hedonic well-being.

##### Vulnerability of private circumstances

While studying the well-being of physicians, also the influence of events circulating in the private sphere, that is factors outside organizational boundaries, appeared to have a stake. We were impressed by the openness that the doctors took to express it. Work-life balance is one of the dimensions belonging to the overarching category of private circumstances. Overall, there appears to be an equal division between doctors having an equal work-life balance and doctors struggling with the combination of work and private, still marking it as a point of attention. However, doctors do not deny the importance of work-life balance as the data underlines it in two ways. On the one hand, a healthy work-life balance was often said to have a positive effect on performance. And intuitively, on the other hand, an unhealthy work-life balance was then again named as a matter negatively affecting performance. It appeared however that this negative effect is more present when being overcharged with non-priority tasks such as administrative tasks and reporting than for patient care.

*“Positive influence on functioning: good work-life balance.” (respondent, category B)*

*“Sometimes I find it hard to find a balance and to commit myself on both fronts (home and work) for a full 100%.” (respondent, category B)*

Next to this rather eudaimonic outcome of work-life balance, consciously balancing work with private life is also bringing benefits in terms of hedonic well-being, namely happiness and pleasure that is often the result of relaxation activities such as sports and holidays. Other private circumstances influencing well-being are developments in the private sphere (e.g., rehousing, diseases of family members, etc.) and personal health (e.g., burnout, illness because of covid-19 infection, etc.). Issues related to the private sphere or personal health were associated with the reduction of carefreeness, the increase of pain, the loss of energy, tiredness, and an increase in stress. The effect of such events also influences eudaimonic well-being. Here, based on the findings, we identified two streams. Some physicians noticed the

deterioration of their performance or could not cope with all tasks due to stress and tiredness, which thus disabled them from reaching their full potential.

*“Private circumstances caused, among others, tiredness. This forced me to make choices (that I preferably did not make) and that I couldn’t take on all the work.” - (respondent, category 1)*

Others were proud to be able to continue their tasks and/or their performance despite the negative events taking place in their environment raising a sense of resilience that can in fact enhance eudaimonic well-being via the concept of environmental mastery.

*“I guided myself through a very difficult private situation without my professional functioning being influenced.” - (respondent, category B)*

Although sometimes assumed otherwise, developments in the private atmosphere do not leave physicians unbothered. As can be derived from the above, regardless of the kind of issues, when negative private circumstances are present, there is a risk of both hedonic and eudaimonic well-being being negatively affected. Whenever the private environment is acknowledged to be satisfactory, this again has the potential to be of positive influence on both hedonic and eudaimonic well-being.

#### **4.1.2. Job factors**

Besides the personal factors characterized by personal development and the private atmosphere, medical specialists pointed towards the effect that factors related to the content and essence of the job have on their personal well-being. The two job factors described next are extra-curricular tasks and patient care.

#### **Extending focus to extra-curricular tasks**

It did not require much effort to identify that many medical specialists feel confronted with a heavy workload. Although we identified many factors contributing to this, the most workload is experienced through tasks other than direct patient care that require attention. In this, we identified a broad distinction between administrative tasks and non-administrative extra-curricular tasks. The administrative burden, characterized by extensive reporting, diagnostics, and adhering to privacy regulations, is seen as (unnecessarily) making up a great part of the workload, and this disproportionality seems to be increasing even further. Without an exception, the increase of involuntary, administrative tasks is only negatively influencing well-being. Generally avowed, the hedonic part suffers from reduced work satisfaction, whereas a reduction of accuracy in these administrative tasks negatively affects physicians functioning, therefore contributing to a reduction of realizing full potential, and thus a reduction of eudaimonic well-being.

*“I increasingly experience a heavy workload mainly related to the disproportionate increase in administrative tasks.” - (respondent, category B)*

*“A lot of administrative pressure, especially from the Wvggz, have harmed my job satisfaction.” - (respondent, category B)*

And whereas some physicians reduced their workload by starting to work part-time, by refraining from certain tasks, or by reducing their attention to only patient care, we see that other physicians often involve themselves in more voluntary side duties other than just providing medical care. Next to their primary duty of delivering quality care, we found that many physicians expand their tasks either in the form of a management/board position or as a mentor for AIOS (medical specialist in training), by contributing to policy and quality visitations, or by getting involved with departmental developments and projects. Occupying a management or board position, be it in addition to medical substantive tasks, is most often recognized as a source for obtaining additional skills, and thus enhances personal growth.

*“It was good to be the department chair again to finetune my managerial skills.” - (respondent, category S)*

Coaching medical specialists in training, said in other words being a mentor, makes physicians feel meaningful by transferring their knowledge to others. The same feeling of being meaningful is also pre-dominating when physicians initiate departmental projects or contribute to policy and/or quality visitations that eventually result in enhanced patient care.

*“I am proud of the fact that we managed to install a PET/CT camera in both ZMC and in the Amstelland hospital. This provides a significant improvement for local care, diagnostics, and treatments.” - (respondent, category B)*

Although clearly contributing to eudaimonic well-being, the hedonic well-being of physicians seems to be less affected by these kinds of side-duties. Only the dissemination of knowledge by obtaining a mentor position was seen as providing rise to positive feelings such as pride, fun, and work satisfaction.

It deserves attention that extra-curricular tasks of this kind did not always enhance positive affect and functioning. We understood that in quite some cases, a higher variety of work led to an imbalance of medical and non-medical tasks and fragmentation of focus, negatively affecting the outcomes of the tasks. The subsequent feelings of stress and unrest increased the level of negative affect.

*“Extra pressure due to managerial duties may have a (negative) influence on professional actions.” - (respondent, category B)*

*“What can negatively affect my functioning is the multitude of projects I am involved in, which means that my time becomes fragmented, and I work less efficiently and experience more stress.” - (respondent, category 1)*

Our overall impression is that non-voluntarily extra-curricular tasks with an administrative character always negatively influence the full spectrum of well-being. However, if one decides to get voluntarily involved with tasks other than core medical care, with a few exceptions there, extra-curricular tasks seem to influence eudaimonic well-being in a positive way, with evidence pointing in the direction of extra-curricular tasks contributing to hedonic well-being as well.

### **The importance of quality patient care**

The provision of quality patient care came clearly forward as a topic influencing both functioning and feelings of pride. From earlier factors addressed, the value that physicians attach to the quality of care they provide could not be overemphasized enough. For some physicians, their contribution to departmental developments and projects was already seen as something they were proud as most of these developments contributed to the provision of quality care. Personal development factors were shown not only to increase a sense of achievement, but also touched upon a sense of being meaningful as personal development also benefitted the patient in the end. The overload of administrative tasks appeared to not only reduce work satisfaction but also medical functioning, whereas the latter holds true for other identified extra-curricular tasks as well. Although these were the rather indirect factors showing the importance of quality patient care, the results of the survey also showed the direct effect of quality care on physician's well-being. When the quality of care is high and feedback of patients is perceived as positive, some physicians find this to have a positive influence on their performance, whereas others feel proud about it. Some physicians indicate to build true, positive relationships with their patients, again underlying the effect that patient care has on eudaimonic well-being.

*“Positive: built good patient-physician relationships with multiple patients and received positive feedback from patients” - (respondent, category B)*

Physicians also mentioned to be proud of the fact that they sometimes deviate from medical guidelines (e.g., using own personal experiences to clarify matters or the provision of a private phone number to always function as a standby) if it seems to be in the interest of the patient, for which they again received positive patient feedback in return. This ability to be able to change the routine adheres

to the concept of environmental mastery which can be attributed to eudaimonic well-being.

*“For example, telling something about yourself that contributes to the recovery of the patient, that is not by definition mentioned in the guidelines or law, deviating from the guideline with reasons. I have noticed that this is being appreciated by patients. I am proud that I feel a bit freer when it comes to these matters.” - (respondent, category B)*

On the other side, negative functioning is sometimes said to be the result of not having the ability to spend enough time on patient care.

*“Due to a lot of patients in little time, I have the feeling to not have enough time for the patient and reporting.” - (respondent, category B)*

Next to that, several doctors agreed on two other factors related to patient care as being of influence on well-being, namely patients with serious complications and disciplinary cases resulting from formal patient complaints. This was influencing medical performance in particular.

*“Three complications are still having an impact on me” - (respondent, category 1)*

*“I was negatively affected by a complaint procedure that we had to go through as a large group this year.” - (respondent, category S)*

The importance of quality care stems from the increase in hedonic and eudaimonic well-being when physicians can indeed enhance patient care. Further, it was stated that specific occasions hindering such provision can cause eudaimonic well-being to be reduced.

### **4.1.3 Departmental factors**

As a final group of factors, medical specialists referred to mechanisms related to the overall department functioning that cannot be ignored when assessing their performance and feelings. These were categorized as team dynamics, management affinity, and departmental connections.

### **The ever-recognized influence of team dynamics**

In evaluating their functioning, almost all physicians indicated the important role that team dynamics have. Team dynamics comprised the sub-categories of team collaboration, team atmosphere, team psychological safety, and staff turnover. Both an adequate team collaboration and a pleasant team atmosphere affect positive feelings such as joy, happiness, and work satisfaction. Interesting to note is that positive team collaboration is often called together with a good atmosphere, suggesting for the potential that team



collaboration might affect team atmosphere and/or vice versa.

*“Creating a good collaborating team pays off positively regarding the working atmosphere.” - (respondent, category B)*

As the data showed, physicians experience psychological safety when they perceive space to be present for personal development, discussing sensitive (personal) issues, personal recognition, and appreciation, taking seriously the opinions of others, and asking for help easily. When these factors are perceived as present, it is linked to hedonic feelings of appreciation, self-confidence, and work satisfaction.

*“I received a lot of space from my colleagues to develop myself further, which gave me a lot of confidence.” (respondent, category S)*

For some physicians, a proud feeling arises when they perceive that their individual contribution is essential for the team spirit. This can be on multiple aspects, for example bringing out the best in colleagues, emotionally supporting colleagues in tough times, and actively contributing to the team atmosphere.

*“I am also proud of my contribution to a good working atmosphere and cooperation within the team (until I dropped out).” – (respondent, category S)*

Whereas the positive feelings related to higher levels of hedonic well-being are well-represented, eudaimonic well-being seems to profit from delicate team collaboration, team atmosphere, and team psychological safety as well. Although many respondents leave the answer by highlighting that team spirit has a positive influence on functioning, some provide more detailed reasoning of how it is that team dynamics make them perform well. Positively influencing performance happens when colleagues experience that they can build on each other. Some physicians experienced personal health issues or events in the private sphere that forced them to turn more to the ‘life side’ of the work-life balance equation. The flexibility and resilience shown by colleagues caused by a thorough adherence to the feeling of supporting each other in times of need and is acknowledged by many. Therefore, knowing that you can unconditionally count on your team is perceived as contributing to positive functioning.

*“Feb 2021: concussion. Few months dropout (still recovering). I noticed that I am positively influenced by the great department that I am in, who completely unburdened me as far as patients concerned.” - (respondent, category B)*

Others dedicate explicit mentioning to the impact that learning from colleagues, receiving space for development, and positive feedback has on functioning properly.

*“The atmosphere has had a positive influence on my performance. I feel very much at home in the department and in the hospital.” - (respondent, category B)*

A fruitful collaboration in a positive experienced atmosphere creates positive relationships in which colleagues can count on each other and learn from each other. Receiving time and space to develop oneself is vital for self-growth. The feeling of being home in a team, the perceived state of self-connectedness, and performing in a setting that allows for personal growth contribute to eudaimonic well-being.

A logical counterpart of the positive effect that positive team spirit has on feelings and functioning, is the negative effect of a lack of team spirit. The eudaimonic well-being of physicians can be decreased when overall team collaboration, team atmosphere, and team psychological safety are discerned as unsatisfying and therefore negatively influencing the role of a medical specialist. At the roots of this, causes such as varying motivation and opinions among team members, different future visions, and no perceived peer support can be found. We understood that this can influence functioning in two ways. First, teams get stuck in endlessly discussing disagreements while not deriving at outcomes, so that they no longer get to the core of the medical profession. And second, teams avoid the confrontation that causes the team collaboration, team atmosphere and team psychological safety to suffer.

*“There is no real unity in the group (yet). Lots of division on different topics. A lot is put on the back burner, left unspoken. This then continues to “heat”.” – (respondent, category B)*

As indicated by physicians, a negative relation with only one colleague can already be detrimental to professional performance. All these causes can be rather attributed to personal characteristics which cause people to differ. Where teams perceive team dynamics as positive, varying personalities are regarded as effective for group outcomes, whereas in a team confronted with negative dynamics they are seen as one of the main causes leading to dispersion. Besides the personality-related factors causing friction, there is also again the factor of workload affecting both team collaboration and team atmosphere. With workload being extremely high, many physicians notice to have less to no time for consultation or collegiality.

*“Confronting was the fact that some people completely efface themselves in favor of others. And that some continue to fight for their own interests with a view to*

*infinity, without understanding or compassion for the situation of others.’ - (respondent, category B)*

*“The workload is too high due to a vacancy in the FACT-LVB teams. As a result, I have less time and attention for colleagues and I am harder to reach.”- (respondent, category B)*

Hedonically speaking, well-being decreases because of negative team dynamics as team friction leads to insecurity, stress, unrest, and energy loss.

*“The atmosphere within our department gives me negative energy. We don’t get to the actual content of the field.” - (respondent, category 1)*

Finally, there is much to be found in staff turnover. New employees can both positively and negatively influence functioning. New colleagues are recognized for bringing along positive energy, new knowledge, additional working hours that reduce workload, all contributing to team spirit in a positive way. Other physicians see new colleagues as the cause for a reduction in their performance. Staff turnover is viewed as time-consuming, time that is in most cases not even there, making it an obstacle for successful performing. Others see new colleagues as a threat, especially when it concerns scaling up (e.g., because of merger or lateralization), as it leads to more anonymity, subsequently damaging team collaboration or team atmosphere. Long-lasting sick colleagues often bring stress to the remaining team members. However, overall, it makes physicians proud when they have managed to deal with any form of staff turnover by continuing to provide care for patients, while also being flexible to colleagues. It can be viewed as an overall feeling of resilience.

*“Negative; a lot of drop-outs/illness which has caused stress on several fronts, but the fact that we were able to bridge that also makes us stronger in the end.” - (respondent, category 1)*

Based on the results, team dynamics are double-sided. Once it is experienced as positive, it will benefit well-being. Once it is experienced as negative, it can initiate the actual reduction of well-being.

#### **The perceived lack of management affinity**

Another rather restraining departmental factor is the perceived relationship between physicians and management. All physicians who referred to managed affinity indicated to have little affinity with hospital management and the decisions they bring forward. First, physicians feel undervalued as it is frequently stated that hospital management does not recognize the value of employees.

*“The hospital does not show that we are important. On the other hand, it is difficult to make yourself important and indispensable within the hospital.” (respondent, category S)*

Second, management is perceived as unattainable due to the hierarchical structure that prevails. Decisions are said to be made without input from the work floor through which physicians are discouraged to raise awareness and act for the interests they have. Also, decisions made to facilitate the austerity culture are perceived as negative as they hamper the provision of quality patient care. Some even agree on management putting company interest over patient interest. This can be recognized as a hindering factor preventing doctors to act in line with deeply held values as the eudaimonic well-being definition prescribes.

*“The increasing bureaucracy discourages me to take action, it hinders me.”- (respondent, category 1)*

*“I notice that I can become frustrated under company interests when this is put first over patient interests.” - (respondent, category B)*

Financial cutbacks are mostly experienced when it comes to the provision of support or the actual lack of it. Physicians do wish for additional support on three levels; support for innovation, support for administrative or secretarial tasks, or support in the form of a coach to offer mental support when needed. The receipt of secretarial support was only confirmed once, whereas all other respondents indicated support initiated by management as absent and therefore negatively contributing to performance.

Overall, based on these results, low management affinity is influencing eudaimonic well-being via decreased feelings of autonomy, environmental mastery, and personal growth. On the other side, negative emotions such as frustration, stress, and unrest are indicated to negatively affect hedonic well-being.

#### **Transcending departmental connections**

Besides the already recognized stake of team dynamics, collaboration transcending direct colleagues is also deemed as important. This collaboration occurs at two different levels: interdepartmental collaboration, the collaboration between different hospital units, and network collaboration, the cooperation beyond the walls of the hospitals involving regional or national partners.

It is indicated that both interdepartmental collaboration and network collaboration have a positive influence on functioning as these efforts primarily result in new cross-curricular projects and solutions that benefit patient care. In the main, physicians acquire feelings of energy, joy, pleasure, motivation, and happiness as an outcome of cross-curricular collaboration. Specific feelings of pride

arise when individuals feel that their input is necessary for establishing or maintaining positive connections with other departments.

*“I get energy from projects in which I look beyond my own IC shop and collaborate with other disciplines. My work for the new construction company is good for that.”*  
-(respondent, category B)

*“I am proud of how the development of the therapy unit is going, I have taken many steps in a short time, in which I believe I work well with many other disciplines.”*  
- (respondent, category B)

*“I am proud of maintaining all kinds of contacts in the Antoni van Leeuwenhoek hospital, resulting in good collaborations.”* - (respondent, category S)

Sometimes, an interdepartmental collaboration or network collaboration is experienced as negatively influencing performance. For interdepartmental collaborations, this is explicitly felt when physicians do not feel to receive back the same input from the ones they give it to, or when communication in its broadest sense is seen as a point deserving interest.

*“Negative: the relationship with the anesthesiologists remains a point of attention, help is not willingly given (in the end it is done).”* - (respondent, category B)

Only one respondent saw cooperating with external partners as impacting performance in a negative way, as it was seen as energy-consuming.

*“I think that regional cooperation is energy-consuming.”*  
- (respondent, category S)

Now that the results of all general factors impacting physician well-being have been provided, we will move the discussion to the primary focus of this research: the impact of changing organizational routines, initiated due to the rise of Covid-19, on the well-being of physicians. All findings related to this focal point will be discussed in the next section.

#### **4.2 Covid-19 influencing physician well-being**

After data interpretation, it became clear that Covid-19 plays a large part in influencing the performance of physicians. Many respondents named Covid-19 as a factor influencing their performance. However, although the overall effect of Covid-19 on today's world is known to be critical, the impact that it has on physicians does not necessarily seem to be negative. In answering both the IFMS and Groepsmonitor Zelfevaluatie, physicians indicate both the positive and negative consequences of Covid-19 on their professional- and private life. Most consequences brought forward are disruption of daily, organizational routines that subsequently influence

performance and feelings. However, in the analysis of the data, we recognized that some people mentioned Covid-19 as being of impact without given further details, leaving the actual why for interpretation. Besides that, some answers of how Covid-19 influenced well-being were of importance but could not be characterized as specific organizational routines. Seen the importance of the topic, those changes cannot be left unmentioned, which is why we start this section with two general findings of how Covid-19 is able to influence physician well-being without those changes being indicated as organizational routines per se. First, without respondents going into greater detail, it is mostly mentioned that Covid-19 causes the entire workflow of hospital employees to alter. Evident is how Covid-19 is indicated to contribute to an even greater workload mostly impacting functioning in a negative manner. Physicians feel less productive, and in some cases, the increased workload leads to a general atmosphere of chaos and unrest. This observation is by some immediately counter reacted by admitting that the feeling of resilience and flexibility shown by the team on multiple facets provides fulfillment. A second result that cannot be put away under the guise of organization routine, but remains important to mention, is the reduced opportunity for leisure activities due to government measures. Though this shortcoming is not a change in an organizational routine and is also experienced by many people outside the medical profession, a lot of physicians indicated this shortcoming to negatively influence their well-being as there is no space to recover from work which can be of great impact. Luckily, for the purpose of this research, there were also many medical specialists detailly providing reasons of how Covid-19 caused their functioning and feeling to be affected. As a result of this analysis, we were also able to identify six specific changes in the organizational routines of physicians that will be discussed below.

##### **4.2.1. Routine changes**

In total, we have identified six routine changes: from hospital to home office, digital patient communication, schedule changes, scaling down regular care to assist IC, participating in Covid-19 side duties, and stagnation of departmental developments/projects. Each of the routines and their impact on well-being is described in detail below.

##### **Routine change 1: From hospital to home office**

Due to Covid-19, the transition to working from home instead of going to the office daily is a recognized measure implemented for many professions. This turned out to be no different for physicians as it was the most named specific routine change, as a result of Covid-19, noticed in professional life. Many physicians from categories 1, S, and B, exchanged their hospital office for a workplace at home. However, working from home was not only affecting the ones working from home, but also the ones still allowed to work at the hospital who felt left alone in

often empty polyclinics. Although some only noticed the change but no specific subsequent effects, others had more difficulties in dealing with the new setting. Most physicians experienced the negative effects of this on their functioning. To start with, working from home resulted in a significant reduction of peer contact. Notwithstanding the fact that digital conferences and meetings among physicians (e.g., via videoconference tools such as skype and teams) became the new standard, the decrease in direct contact was stated as a vital part of the job now being missed. The lack of colleague contact resulted in deteriorating team collaboration and team atmosphere. Specifically, team performance was noted as disadvantaged considering that a lot of information is lost during telephone transfers, colleagues cannot keep each other sharp via peer feedback, and can control less for each other's well-being.

*"Being less on the work floor together (covid, scheduling) results in less frequent peer contact as well. This affects personal meetings, but also peer feedback and keeping each other sharp regarding the medical profession." (respondent, category B)*

Besides decreased team collaboration, team atmosphere seems to be suffering from the routine change working from home in most cases as well. The solitary nature of working from home makes the maintenance of adhesion between teams difficult. Here, especially the informal opportunities for teambuilding are being missed. This is also experienced by new colleagues who need both formal and informal moments to find a place within the team and organization.

*"Negative Covid: few opportunities for team building, after expanding the department. I miss a day to spar and fun moments to learn each other better." (respondent, category B).*

For many physicians, working from home also puts the work-life balance at stake, which they saw as negatively influencing their functioning. Some relate working from home to a decrease in efficiency, requiring them to make longer working days. Particularly, the ones with children at home, who need to constantly switch between professional-, parental-, or sometimes even mentor duties, feel stressed, pressured, and tired. Also, overall work satisfaction can suffer in some cases. These negative effects lowering hedonic well-being are most of the time accompanied by a decrease in eudaimonic well-being when aimed productivity cannot be realized.

*"COVID-19, less present in the hospital. For me, working from home is much less efficient, so longer working hours, especially on days when I am at the hospital." (respondent, category B)*

*"The past period has been marked by the fact that I wanted more time for my family and myself, but now this freed up time has gone entirely into care around COVID and taking care of the children at home. This has put a strain on my performance and enjoyment, and I feel exhausted." (respondent, category S)*

Against all negative consequences, there are still several positive boosts because of working from home. Whereas the vast majority experiences working from home as undesired, some see it as enrichment as it either increases their productivity and efficiency or ensures a better work-life balance due to decreased travel time.

*"Commuting distance initially burdensome, but clearly improved with current opportunities to work from home." (respondent, category I)*

Furthermore, while acknowledging the negative feelings associated with the home office, many immediately balance this with positive feelings of resilience for dealing with the situation as it is, for making the new digital way of working their own, and for appreciation for the few real-life contact moments that are there.

*"Combination of homeschooling and clinical work was intense, but succeeded without either one of them losing out." (respondent, category B)*

### **Routine change 2: Digital patient communication**

The second routine change identified concerned the shift from patient consults conducted in real-life to virtual consults. If at all consults were continued digitally, they were conducted either via video calling or by telephone. Some physicians did this from home, whereas others still managed to do so from their hospital office. Again, most respondents bringing up digital patient communication, saw it as an undesired result of Covid-19 negatively impacting functioning as it led to suboptimal patient contact and quality of care. No further specific reasons were given for why they believed that virtual consultants led to suboptimal patient contact and quality of care. Although it proved to negatively affect medical performance, there were no other specific negative feelings related to digital patient communication.

*"Due to corona, I had most of all telephone contact and therefore less satisfactory patient contact." (respondent, category B)*

*"Covid, working from home does not have my preference, which resulted in a negative influence to stay in good contact with colleagues and patient." (respondent, category B)*

Also here, in contrast to the negative experiences, there were physicians who linked their positive functioning to a brighter side of digital patient communication. Most

prominent was the idea of environmental mastery, which resulted from the feeling of being able to continue care within the possibilities of measures, so that patients could still receive the care they needed. On a hedonic level, this was accompanied by feelings of pride. The performance of some was so positively influenced by new opportunities outside their comfort zone, such as video calling, that this might also even be continued in the future.

*"I am proud that we set up video calling in diabetes care. In this way, we were able to keep care optimal."*  
- (respondent, category B)

It deserves a final remark that the provision of digital patient communication was only being named by doctors belonging to category B.

### **Routine change 3: Rescheduling due to understaffing**

Another routine being influenced by the dynamics of Covid-19 is the one of scheduling. With not only patients but also employees being infected with the virus, many departments experienced high rates of employee absenteeism due to illness or suspicion of illness. Whereas it was indicated that a great part of these departments already experienced understaffing prior to the pandemic, this situation became even more pressing now that occupation was even further narrowed. Frequent schedule changes were common to continuously deal with bottlenecks of staff shortage. There were even physicians mentioning the full closure of their clinic after an outbreak. First things first, the results of the survey showed that physicians who got infected with Covid-19 were already negatively influenced in their performance as their personal health deteriorated which resulted in less carrying capacity to invest in patients and colleagues. Then, the other physicians who dealt with colleagues becoming ill were not left uninfluenced. Although most physicians agreed on the frequent schedule changes being frustrating, the eventual impact on functioning differed. Some indicate that it negatively influenced their performance in the form of less efficient patient care or even patient stops, and negative emotions such as a short temper, less job satisfaction, unrest, and stress.

*"Due to the covid pressure, it has not always been possible to give specific projects sufficient attention (e.g., aftercare). In addition, the forced fragmentation in the schedule has sometimes led to less efficient patient care."*  
- (respondent, category B)

On the contrary, positive functioning as expressed by other physicians was again caused by feelings of resilience and flexibility. Knowing that one was able to keep on delivering quality patient care despite the inconveniences of schedule changes, positively influenced functioning, again in relation to the eudaimonic concept of environmental mastery. Besides that, many physicians experienced positive emotions of pride for the flexibility

and commitment of the team to cope with frequent schedule changes repeatedly. This was often paired with an extreme boost in the togetherness of the team, enhancing positive relationships via team collaboration and team atmosphere, therefore also being of positive influence on functioning.

*"The challenges of a pandemic with changed working methods, changing schedules, difficulties with childcare, etc. have had little effect on the quality of care I have been able to provide."* - (respondent, category S)

*"I am proud of our department that we have stood our ground, have been flexible, have shown commitment to do our part."* - (respondent, category B)

### **Routine change 4: Scaling down regular care to assist IC**

A routine change felt by many physicians is the scaling down of regular care to pull out all the stops necessary to scale up care for Covid-19 patients. Immediately standing out is how physicians from only category S voiced their concerns regarding reduced availability of the operation theatre and the associated waiting lists for patients. Operation theatres were in many cases converted into intensive care units to accommodate as many patients as possible, which resulted in the minimization of elective care. As performing surgeries is the focus of attention for physicians belonging to category S, it makes sense that they specifically voiced the impact of reduced time at the operation theatre on their functioning. The effect of waiting lists as a result of reduced available time in the operation theatre, and the amount of care needed for only one specific group of patients, raised united negative feelings. Physicians belonging to category S felt diminished job satisfaction, stress, frustration, and impotency to not be able to help people other than covid-19 patients who are still in need of help. All of this negatively influences hedonic well-being.

*"What I have experienced as negative is the frustration due to the Covid crisis with an endless waiting list of people waiting for an operation not being able to help them."* - (respondent, category S)

Furthermore, when specifically looking at performance, two reasons were given that pointed towards a negative impact of reduced surgery time on functioning. First, less time for surgeries has led to fewer opportunities to practice the profession, limiting personal growth. And second, reduced time at the operation theatre was experienced to cause mutual friction between colleagues, negatively affecting personal relationships. Based on these two reasons, the impression appeared that also eudaimonic well-being seemed to decrease for some due to scaling down regular care.

*“I am really bothered by the scaling down of elective care and the huge shortage of OR time. This takes away the opportunity to practice the profession well, and takes away a nice part of the work.” - (respondent, category S)*

Besides the limited surgeries being performed, physicians from categories 1 and B noticed scaling down as well. This was mostly experienced by the closure of polyclinics and the routine shift to digital patient communication as mentioned earlier. Nevertheless, scaling down regular care to have enough capacity at intensive care units was not recognized as negative by everyone. The positive side brought forward by some doctors was truly evident as well. Their hedonic well-being increased by feeling happy to be of assistance to their colleagues at the various Covid-19 departments, and by knowing that their team handles crisis events like this one with flexibility. The impression gained from the data is that also eudaimonic well-being was not per se disadvantaged in all cases. The functioning of some was positively influenced by continuing regular care despite restrictions. For others, with seeing fewer patients, additional attention and time are freed up for the patients that were seen, or for other tasks such as administration, education, and departmental meetings.

*“Negative influence of COVID, but it is also a mixed feeling. It sometimes also provides more space for consultations about outpatient clinics that you would otherwise have no time for.” - (respondent, category S)*

#### **Routine change 5: Extra-curricular tasks**

As discussed earlier in the general findings that preceded this section, most doctors are involved in various side duties besides the core medical tasks they perform. The data showed that this was no different during the period of Covid-19 and that many physicians from all three categories even extended their tasks with different assignments that specifically flowed from the event of Covid-19. Physicians indicated to participate in varying side duties. Among others, this included for example setting up an ad hoc emergency intensive care, contributing to specific Covid-19 policies, and facilitating the transition to digital working. However, no matter what additional Covid-19 related task it was that physicians carried out, voluntarily or not, not one of them positioned this in a negative light. All extra-curricular tasks executed to enable the provision of Covid-19 care were identified as positively contributing to emotions or functioning. Even though most respondents remained rather general, a few went into greater detail about how these tasks influenced their performance and emotions. Feeling proud to be of help for others, either colleagues, patients, or both, was an emotion being evident as it was mentioned multiple times. Another specialist mentioned how her self-confidence increased now that the pandemic forced her to pick up tasks outside her comfort zone. These positive feelings clearly show how extra-curricular tasks as a routine change affect hedonic well-being.

*“I am proud of introducing an ad-hoc emergency intensive care unit.” - (respondent, category B)*

*“During the corona time, I picked up work that is outside my comfort zone. This has been good in making me feel more confident in my position as a psychologist in a hospital.” - (respondent, category 1)*

The positive feeling of being proud seems to stand in relation to functioning. From the answer of the respondent, it can be implied that participating in tasks outside one's comfort zone, does not only lead to self-confidence but also personal growth. Based on this, we had the impression that in this case, extra-curricular tasks led to flourishing of well-being. Also, helping others was mentioned as improving functioning. All provide evidence for how extra-curricular tasks related to Covid-19 improved eudaimonic well-being.

*“During the 1st Covid-19 wave, I collected many useful documents and information for my profession and my interns.” - (respondent, category B)*

A couple of physicians mentioned how their Covid-19 related side duties also incorporated the collaboration with colleagues from different departments. All who experienced this indicated it as positively influencing their performance, and thus again increasing the eudaimonic side of well-being.

#### **Routine change 6: Stagnation of departmental developments/projects**

The previous section describing the routine change of extra-curricular tasks showed how Covid-19 led to an increase in non-medical tasks for physicians to successfully manage the situation around Covid-19. And whereas these were all assignments arising because of the pandemic, physicians also aired their fears for the departmental developments and projects initiated before the pandemic being shut down to ensure enough capacity at Covid-19 departments. In the section on job factors, it was already discussed how departmental developments and projects, as part of extra-curricular tasks, influence the well-being of physicians. Especially, eudaimonic well-being appeared to do well from departmental developments and projects as it often contributed to the improvement of patient care, subsequently allowing doctors to act in line with their values of being meaningful to patients. Now, with the current situation putting a hold on many of these projects, physicians express to feel negatively affected. It is indicated that overall, regular developments and projects, such as the development of protocols and the implementation of new methods and equipment, either have not gotten off the ground yet or have been delayed due to the scaling down of regular care. Positing this in the light of well-being, it seems that our respondents feel that stagnation of departmental

developments and projects is negatively affecting their functioning as they feel they are being held back from realizing opportunities that eventually optimize patient care, therefore restricting them to realize part of their purpose in life.

*“We have had less time for projects and protocols, only for Covid-19 protocols.” - (respondent, category B)*

*“Intention to introduce PECS blocks. However, due to COVID, we have not yet been able to find a passage.” - (respondent, category B)*

Whilst a decrease in functioning clearly stems from the analysis of the data, physicians do not mention the presence of negative emotions, suggesting that despite the stagnation of departmental development and projects, hedonic well-being remains rather stable.

All the above-mentioned routine changes show us that Covid-19 has impacted physicians in many ways, both negative and positive. In the upcoming discussion section, prior to drawing conclusions, we will elaborate on these results considering what was already known from earlier literature, while also explaining the new understandings that emerged from this study.

## 5. DISCUSSION

Increasingly, the topic of physician well-being has been under a microscope after both practice and research revealed the worldwide, worrying state of the profession when it comes to physician wellness. An extreme feeling of responsibility, constantly changes practices, and an increasing administrative burden is only a handful of the factors causing physicians to show declining levels of well-being. Existing findings showing the direct impact that declining physician wellness has on both physicians and their patients underline the importance of the topic. And now, with the event of Covid-19 causing all eyes to be turned towards the hospitals, there is a widespread recognition for the fact that the medical profession is undeniably under even greater pressure than before. And still, despite the overall recognition for the enormous strain on the healthcare profession, research aimed to find out how physician well-being is affected by Covid-19 remains limited. Therefore, in this paper, we decreased the knowledge gap regarding physician well-being, especially with the rise of a crisis event, by answering the research question of how physician well-being is affected by sudden changes in organizational routines influenced by Covid-19. We adopted a practice lens allowing for the identification of specific changes in organizational routines initiated by Covid-19, while also making use of the broadest definition of well-being, capturing both the hedonic and eudaimonic aspect. Admitting that the primary goal of the research was to explore the impact of Covid-19 on physician well-being, our dataset also allowed for the reveal of factors influencing physician

well-being that were not specifically bound to Covid-19, nor could be recognized as changing organizational routines. These factors were included as part of the results considering the urgency of research for overall physician well-being and as they were seen as a valuable way to prepare the grounds, and to gain pre-knowledge, for the consequent Covid-19 related organizational routine changes affecting physician well-being.

In the first section of our findings, which discussed the general factors influencing physician well-being, we found three overarching categories of factors impacting physician wellness: personal factors, job factors, and departmental factors. Personal factors included results on how personal development, as well as private circumstances, have the potential to be of influence on well-being. Job factors could be further categorized into extra-curricular tasks and quality patient care. And finally, the section on departmental factors considered the impact of team dynamics, management affinity, and departmental connections. The main results showed the effect of each of these factors on hedonic well-being and eudaimonic well-being. Hedonic well-being, with its focus on positive affect over negative affect, was indicated to specifically benefit from personal development, pleasant private circumstances, extra-curricular tasks, the provision of quality patient care, a pleasant team spirit, and various departmental connections. Frequently mentioned emotions associated with increased hedonic well-being were pride, feeling energetic, happiness, work satisfaction, self-confidence, and motivation. However, data analysis showed that in quite some cases hedonic well-being could also turn to a more negative side if it was affected by these factors. Personal development opportunities resulting in a heavy workload, unpleasant private circumstances, extra-curricular tasks of a particular administrative nature, troublesome team dynamics, and a lack of management affinity all contributed, for their part, to feelings of stress, unrest, reduced energy, tiredness, insecurity, and frustration. While the effect of most of these factors are not unsurprising or new as they can already be partly explained by using common sense, the distinction in impact between administrative extra-curricular tasks and non-administrative extra-curricular tasks is interesting. Extra-curricular tasks with an administrative touch were unitedly felt as reducing work satisfaction. Opposed to this, extra-curricular tasks on a voluntary basis, were never of an administrative nature and led to increased work satisfaction. What we derive from this is that medical specialists do not shun from putting extra efforts in their work, besides the medical core duties they perform, but that these side duties need to provide some sense of meaningfulness or space for development that should either benefit the physician himself or his patients. On this basis, it can be interpreted that when performing extra-curricular tasks that are not of an administrative nature, this factor may be looked at through the factors of personal development and quality patient care that were also found

to enhance hedonic well-being in most cases. By analyzing the dataset, we also found physicians indicating the effect of factors that either enhanced or prevented the realization of their full potential. For this eudaimonic side of well-being, physicians expressed the factors of personal development, pleasant private circumstances, extra-curricular tasks of a non-administrative nature, quality patient care, pleasant team dynamics, and pleasant departmental connections to have a positive effect. As in most cases, physicians remained limited to explaining how factors influenced their functioning, we interpreted their answers in terms of eudaimonic dimensions. The factors identified as having a positive impact on eudaimonic well-being appeared to do so via the increase in eudaimonic concepts of meaningfulness, deepening of interests and values, environmental mastery, and positive relationships. Logically, eudaimonic well-being can also be negatively influenced. This especially appeared to happen in the case of unpleasant private circumstances, extra-curricular tasks, lack of quality patient care, unpleasant team dynamics, lack of management affinity, and unsatisfactory departmental connections. Although most of the time respondents limited their answer to the negative impact on functioning, some answers enabled us to identify the explicit negative effect on the eudaimonic facets of not being able to act in line with deeply held values, reduced autonomy, reduced environmental mastery, and lack of personal growth. The further interpretation of findings brings us three additional remarks worth mentioning. Although personal development was understood to reduce hedonic well-being for some doctors, it was never identified as decreasing eudaimonic well-being. This underlines the importance of personal development, that although sometimes accompanied by negative affect, it is very unlikely to reduce performance, showing the essence of the factor. Another important result that can be drawn from this is that effects of most factors are twofold, meaning that when the factor is experienced in a positive light it contributes positively to hedonic and/or eudaimonic well-being, and when the factor is perceived as negative, it will also decrease hedonic and/or eudaimonic well-being. However, there is one exception to this which is the factor of management affinity. The issue of management affinity was not mentioned once as favoring hedonic and/or eudaimonic well-being. All respondents bringing up this topic immediately associated it with perceived negative emotions or with a decline in functioning. The knowledge we obtain from this is that management affinity is a unitedly felt obstacle in achieving physician well-being and much can still be earned by positing the position of management in a positive daylight. Finally, it turns out that there are quite some factors that influence hedonic well-being as well as eudaimonic well-being. Although respondents themselves sometimes indicated better functioning to result in positive emotions, this was not always the case. However, due to the overlap in factors influencing both sides of well-being,

we believe in the potential presence of flourishing well-being in our dataset. Whereas we prepared the ground for our research with the first section of findings, the second part is the most vital part for answering what the effects of changing organizational routines influenced by Covid-19 are on the well-being of physicians. And although a study diving into the state of physician well-being resulting from Covid-19 would already contribute to existing knowledge, we expanded the scope by adopting a specific practice lens to research the topic. With this study, we aimed to do not only identify the effects of Covid-19 on the well-being of physicians but to also grasp the reasoning of how and why physician well-being got affected due to Covid-19. Said in another way, we were interested in what disturbed doctors and what caused their pattern of work to change? Prior to getting this research started, it was already evident for many that the pandemic caused hospitals and physicians to adjust their way of working. However, to fully capture the complexity and logic behind such an altering way of working, we needed a theory that enabled us to explain the dynamics taking place. A practice lens, with its primary focus on organizational routines, was the foundation for our theoretical background as earlier research on organizational routines already showed how these are an important part of explaining organizational change. Evidence of earlier studies showing how stability or flexibility in organizational routines can affect not only hedonic well-being but also eudaimonic well-being, gave us the opportunity to establish links between all concepts that eventually formed the basis of this research. Besides that, with the adoption of a practice lens to analyze the organizational change in hospitals resulting from Covid-19, we were able to not only look at the factual results in terms of well-being but also to consider the process surrounding routine changes. The analysis of organizational routines gave us the opportunity to also look at possible linkages between organizational routines, to identify the dynamics over the time span of the dataset as routines are ever-evolving, and to identify the role and position of the different actors in the process. Finally, uncovering the rationale underlying changes in physician well-being is vital to know if one is willing to act because of the findings. Now that we have justified the use of a practice lens once again, let us turn to the actual summary and interpretation of the findings of this section of our research. In total, we identified six organization routine changes that explained the change in physician well-being from a hedonic- and eudaimonic perspective: from hospital to home office, digital patient communication, rescheduling due to understaffing, scaling down regular care to assist IC, extra-curricular tasks, and stagnation of departmental developments/projects. As mentioned earlier, organizational routines are characterized by a performative aspect and an ostensive aspect. The ostensive aspect is the conceptual idea of a routine, offering constancy to the abstraction. The performative aspect allows for a routine to be dependent on context-dependent factors such as a specific person, place, or time

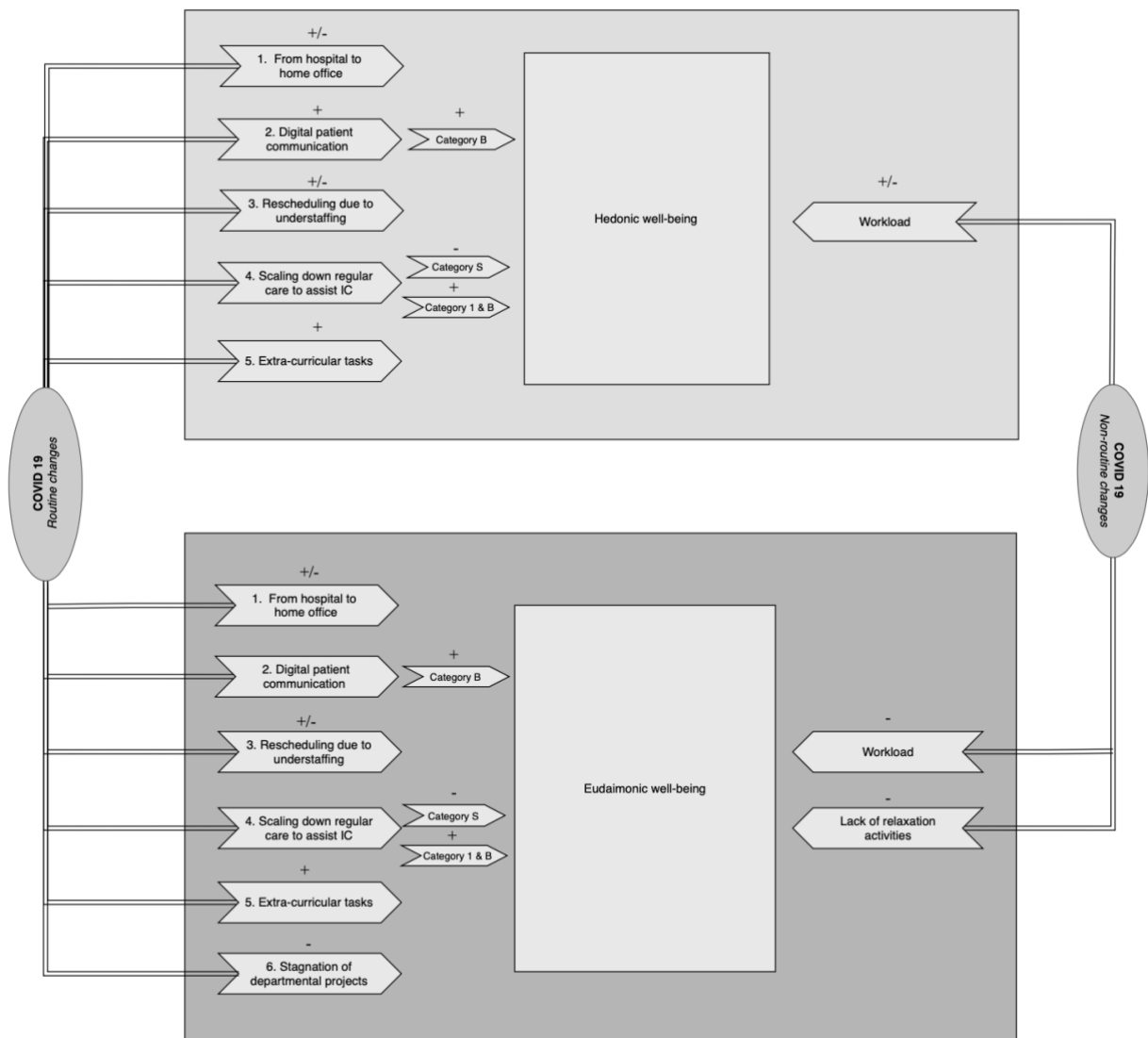


creating variations in established routines. We believe that for all routine changes identified, only the performative aspect altered. For example, in the case of digital patient communication, patient consultations were still performed, but only the means via which they were conducted changed. For other routine changes, such as scaling down regular care to assist IC and stagnation of departmental developments/projects, an enduring hold on actions normally performed almost let us believe that these routine changes have become the new norm, implying a change in the ostensive aspect. However, our common sense needs us to acknowledge the temporary nature of this downscaling and stagnation as the actions normally belonging to this routine need to be performed again in the future again. This again brings us to the conclusion of solely the performative aspect of the routine being changed. Just as with the general factors influencing physician well-being, the organizational routine changes resulting from Covid-19 were found to be no exception in impacting the wellness of doctors. Five of the six organizational routine changes discovered impacted the hedonic side of well-being. The shift from a hospital to home office led to positive emotions for some physicians, whereas others experienced it as a negative change. Some physicians felt the positive emotion of resilience being released as they were still able to enhance their work-life balance while providing quality care to patients despite a new way of working. Physicians experiencing a more negative impact on emotions felt this in terms of increased tiredness, pressure, stress, and reduced work satisfaction. Digital patient communication caused a feeling of pride among many for being able to keep providing quality patient care by digital means or as they mastered how to work with digital technologies in the first place. Doctors' hedonic well-being was not indicated to suffer from digital patient communication. It was interesting to note that digital patient communication was only mentioned by physicians from category B. From this, we imply that doctors belonging to category I and S were either not able to continue their work via digital communication causing them to lay down some tasks, or their work was not laid down as it was so essential that they could continue to perform their duties at the hospital. As a third organizational routine change rescheduling due to understaffing was recognized. Also here, pride because of resilience and flexibility, shown by the entire team, to fill the work schedule was a dominating hedonic feeling. Understandably, for many others, the increased workload resulting from a pressing, understaffed schedule created negative feelings of short temper, reduced work satisfaction, unrest, and stress as well. To have all hands-on deck at intensive care units, many of the physicians also had to refrain from their regular duties. This routine change was recognized as scaling down regular care to assist IC. Here we identified a split in how this organizational routine change affected the well-being of physicians from different categories in different ways. Physicians belonging to categories I and B experienced

happy emotions resulting from the fact that they were glad to assist their colleagues at the intensive care in these times. On the contrary, all physicians from category S mentioned the presence of negative affect as their time at the operation theatre was being reduced through which waiting lists increased. This contributed to diminished work satisfaction, stress, and frustration to not be able to help non-covid-patients. Although category I and B experienced positive affect against the negative affect felt by category S, both versions of affect stand in relation to the provision of quality care again indicating the ever-returning importance of this point. Physicians from categories I and B are pleased to assist at other departments to ensure quality care, whereas surgeons feel frustrated for not being able to provide non-covid-patients with the care they need. Finally, Covid-19 gave rise to the creation of extra-curricular tasks specifically related to the pandemic. As earlier indicated, general extra-curricular tasks of an administrative nature were experienced as negative by all physicians. However, physicians participating in extra-curricular tasks related to Covid-19 all felt positive affect in the form of proud feelings and an increase of self-confidence, leading to an increase in hedonic well-being. As not all physicians indicated the exact content of their Covid-19 extra-curricular task, the explanation for this discrepancy in affect between general extra-curricular tasks and Covid-19 extra-curricular tasks might lie in the fact that these tasks of the latter were never of a (complete) administrative nature making the tasks feel more meaningful. No evidence was found for how the stagnation of developments/projects as a sixth organizational routine change either decreased or increased hedonic well-being. All organizational routine changes were also found to impact eudaimonic well-being in specific ways. Replacing the hospital for a home office had different effects. One group of medical specialists increased their efficiency and ensured a better work-life balance which was said to positively influence their functioning. Other's functioning was negatively affected because of lack of team dynamics, less efficient communication, and an unsatisfactory work-life balance. The consequences of digital patient communication for eudaimonic well-being were again only felt by contemplative physicians. The ability to continue patient care by new means and the capability to master new communication technologies such as video calling are closely related to the concept of environmental mastery enhancing eudaimonic well-being. Continuing quality care was not felt by everyone as some acknowledged to experience suboptimal quality care which hindered them from realizing their full potential as a medical specialist. Rescheduling as a third organizational routine change touched upon the eudaimonic concept of positive relationships. Functioning was found to be positively influenced by the flexibility shown among colleagues to fill in pressing schedules eventually creating a sense of solidarity. The negative impact of rescheduling due to

understaffing was not neglected. Physicians who had to work additional shifts or had to compensate for sick colleagues by increasing their productivity often experienced a decrease in the quality of patient care or even had to put in place a patient stop. As was already evident when discussing hedonic well-being resulting from the shift to IC, eudaimonic well-being also experienced a division in affect between categories 1, B, and S. Supportive and contemplative physicians saw potential in assisting the IC as it provided them with new opportunities for personal growth, whereas surgeons indicated the opposite as their personal growth was declining due to reduced time at the operation theatre. The organizational routine change of extra-curricular tasks related to Covid-19 was besides positively impacting hedonic well-being, also positively impacting eudaimonic well-being. Physicians saw this as an opportunity to step out of their comfort zone and develop themselves further via side duties. From an eudaimonic perspective, well-being thus seemed to enhance via the concept of personal growth. Also, these tasks often raised an increased sense of being connected to colleagues and patients, thus boosting positive relationships. The sixth and final

organizational routine change was identified as the stagnation of departmental developments and projects because of Covid-19. All physicians in our dataset speaking about this theme only named how it reduced their opportunities for increasing quality patient care as these were often the primary goal of issued departmental developments and projects. Not being able to provide quality patient care is a barrier for medical specialists, which best adheres to the eudaimonic concept of a reduced ability to chase their purpose in life. In the general findings section, we already presented the finding of how voluntary duties such as departmental projects were likely to increase eudaimonic well-being, allowing us to conclude that it makes sense that eventual stagnation in departmental developments causes eudaimonic well-being to decrease. Figure 3 shows a complete overview of the effect of each of the organizational routine changes caused by the pandemic on both aspects of well-being. Now that we have detailly reviewed our findings, we can draw some overall interpretations from the second section focusing on the effect of Covid-19 on physician well-being, including both hedonic and eudaimonic well-being. First, Covid-19 is not per se experienced as negative among physicians.



**Figure 3**  
Schematic overview effect of organizational routine changes on well-being

Of course, although recognizing that it leads to organizational routine changes sometimes causing negative feelings to arise, or functioning to be decreased, there are also a lot of positive side effects such as space for personal growth, development of fruitful relationships, and a sense of euphoria as pressing situations are dealt with properly. Besides that, we noticed differences among categories of physicians based on two grounds. The theoretical categorization of supportive, contemplative, and cutting physicians indeed proved to be useful, as several distinctions between how changing organizational routines affected categories of physicians were identified. Especially, the routine change of digital patient communication that only seemed to affect doctors from category B showed that the way of working is dependent upon the specific job of the physician. This also shows that actors are needed to act upon an organizational routine for the routine to change, something which was not done (enough) by physicians from the other two categories. Furthermore, we saw a clear distinction between doctors admitting the pressure of the situation but making a positive comeback by referring to a strong feeling of resilience that caused them to feel well, whereas other doctors were dragged into a negative spiral causing declining levels of hedonic and/or eudaimonic well-being. The exact reason of the difference between the two perspectives remains unknown but can have multiple explanations. As a third interpretation, we saw the relation between the impact of some pre-Covid general factors and Covid-19 organizational routine changes. The long-recognized importance of personal development was especially found back in the organizational routine changes of scaling down regular care to assist IC and extra-curricular tasks as these allowed for personal development that caused well-being to thrive in most cases. Also, the importance of team dynamics as a general factor was again brought forward in the routine changes of moving to home offices, rescheduling due to understaffing, scaling down regular care to assist IC and extra-curricular tasks. All these routine changes had the potential to enhance positive relationships with colleagues from which the urgency was earlier recognized in the section of team dynamics. And maybe most important, the significance of the earlier recognized core theme of providing high-quality patient care stemmed from all organizational routine changes as the (dis)ability to provide quality care caused by a change in an organizational routine always impacted physician well-being in some way. As a final interpretation, we want to highlight the identified coherence between hedonic well-being and eudaimonic well-being. The direction of impact of an organizational routine, either being negative, positive, or both, appeared to always be the same for hedonic and eudaimonic well-being. This means that whenever an organizational routine change was indicated to positively contribute to hedonic well-being, it could only contribute to eudaimonic well-being in a positive way as well. However, the presence of an effect on both well-

being concepts was not identified for all organizational routine changes. In the case of stagnation of departmental projects, this change was expressed to affect eudaimonic well-being, whereas hedonic well-being was left uninfluenced.

#### **Answering the research question**

Overall, we can answer our research question by concluding that the changing organizational routines influenced by Covid-19 have positive and negative effects on both the hedonic and eudaimonic well-being of physicians, although not all categories of physicians are experiencing the same effects caused by the routine changes. The six changing organizational routines identified were: from hospital to home office, digital patient communication, rescheduling due to understaffing, scaling down regular care to assist IC, extra-curricular tasks, and stagnation of departmental developments/projects. Hedonic well-being was indicated to be positively influenced by the shift to home offices, digital patient communication (only category B), rescheduling due to understaffing, scaling down regular care to assist IC (only category 1 & B), and extra-curricular tasks. For others, the shift from hospital to home office, rescheduling due to understaffing, and scaling down regular care to assist IC (category S) was felt as raising negative emotions, thus decreasing hedonic well-being. Eudaimonic well-being, on the other hand, turned out to increase via the routine changes from hospital to home office, digital patient communication (category B), rescheduling due to understaffing, scaling down regular care to assist IC (category 1 & B), and extra-curricular tasks. However, the shift to home offices, rescheduling due to understaffing, scaling down regular care to assist IC (category S), and the stagnation of departmental projects appeared to be an obstacle for the performance of others, therefore decreasing their eudaimonic well-being. Our findings show that the changing organizational routines resulting from Covid-19 are not per se negative, show potential for flourishing well-being, show the different impact among different categories of physicians, and are in the end in line with factors that were identified as impacting well-being regardless of the presence of the pandemic.

#### **5.1 Theoretical implications**

Theoretically speaking, our findings are in line with a great part of research earlier conducted on the topics of well-being, organizational routines, the interrelation between these two, and physician well-being. The results of our research show that, as already argued by many researchers preceding us, hedonic well-being and eudaimonic well-being can be seen as two distinct topics as some general factors and organizational routine changes influenced hedonic well-being while leaving eudaimonic well-being unaffected, and vice versa. However, by acknowledging this, we certainly do not wave aside the potential for the positive correlation

between the two concepts. As a matter of fact, our results show how a general factor or organizational routine change often impacts hedonic and eudaimonic well-being in the same way, meaning that an element leading to increased eudaimonic functioning is facilitated by hedonic enjoyment as well. This adheres to earlier literature advocating for the use of the concepts in tandem as they sometimes overlap, creating a 'flourishing' situation (Waterman, 1993; Huppert 2009; Huppert & So 2013; Keyes 2002). Furthermore, our findings support theories on how organizational routines can not only create stability but also facilitate change (Feldman & Pentland, 2003; Howard-Grenville, 2005). A large part of physicians continued the provision of patient care despite Covid-19. However, by taking the specific, situated action of replacing their hospital office with their home office, part of the routine changed and eventually became the new norm. The pace at which these organizational routines could be changed proved to be vital as they allowed organizations to cope with the pandemic, showing the urgency of the possibility to adapt organizational routines in times of crisis. Another finding confirming earlier research on organizational routines is that routines are not to be separated from the socio-material context in which they are embedded (Feldman & Pentland, 2003). To illustrate this, we saw that the routine change to digital patient communication was only experienced by physicians of category B meaning that only their specific actions contributed to the change in this routine. Physicians of category I and category S did not unitedly act differently upon their taken-for-granted routine which led to those physicians not experiencing a shift to digital patient communication. This result reminds us of the importance of the performative aspects in routines as already explained in the theoretical background that allows different actants to perform different actions. Although research about the relation between organizational routines and well-being seems to be limited, our research supports some of the findings in this field. Mundane established organizational routines were found to enable the realization of full potential (Waterman, 1993). The presence of Covid-19 causes pre-established organizational routines to be disturbed. For some of these routines (from hospital to home office, rescheduling due to understaffing, scaling down to assist IC, and stagnation of departmental developments/projects) we saw that physicians felt the realization of their full potential to be hindered due to the changes in their formerly well-known routines. When an organizational routine can be performed without thinking too much about it, feelings of relaxation and conserving energy will consequently flow from this (Dunn, 2000). Our research supplements this finding by showing that once organizational routines change, time for relaxation is reduced while it requires additional energy to deal with the specific changes. Overall, this research expands on theoretical knowledge about the relationship between organizational routines and well-being as it provides a

clear, detailed overview of each of the consequences of organizational routine changes caused by Covid-19 on the well-being of physicians. Finally, there are some theoretical implications to be found when comparing the results of this study on physician well-being to earlier research studying this concept. Specifically reflecting upon our findings of physician well-being, also here we see that much is in line with what was already known. The nature of the medical profession is an exceptional one as being meaningful to another person is nowhere so literal as here. A feeling of extreme responsibility, vulnerability, and an intense form of motivation are some of the concepts that characterize the job of physicians best. Van der Goor (2021) stated the essence of being a physician to be based on two pillars: calling and comradeship. Calling is a form of motivation that goes deeper than motivation experienced in other jobs. It is about a purpose in life that feels bigger than oneself. It is the feeling of being meaningful to another that drives physicians. And whereas other people need a form of collegiality to perform well, physicians need again something more extreme than this. Physicians need a connection with colleagues on all three dimensions of mutual responsibility, connectedness, and psychological safety that establishes comradeship (van der Goor, 2021). The general factors identified in our research as impacting well-being show that most factors are rooted in the essence of calling and comradeship. In the end, factors such as personal development, private circumstances, extra-curricular tasks, and quality patient care were found to enable or hinder physicians from pursuing their calling. In our research, the importance of comradeship stems from the factors of team dynamics and departmental connections. Whereas the general factors already show to be aligned with earlier research on physician well-being, also the effects caused by the changes in organizational routines can be traced back to the fundamentals of calling and comradeship. As most changes in organizational routines affect well-being via the essence of the general factors, those organizational routine changes touch upon calling and comradeship as well. Working from home has the potential to negatively affect team dynamics which shows the essence of comradeship. The stagnation of departmental developments/projects hinders the creation of initiatives often directed at improving patient care touching upon the concept of calling. Rescheduling due to understaffing allows physicians of category I and B to assist their colleagues at other departments. This enhances team spirit which eventually can strengthen feelings of comradeship. These few illustrations show how in essence, consequences on physician well-being can be traced back to the core of being a medic, characterized by the cornerstones of calling and comradeship. Another important theoretical implication derived from this research is the critical aspect of the remaining administrative burden experienced by medical specialists. A certain extent of registration benefits patient care via monitoring and improving. However, the ever-increasing

quality registrations seem to miss the actual point of providing quality patient care as most of the registration falls under the header of accountability which leads to the current questioning of how such accountability facilitates better patient care. Besides that, it was found to reduce work satisfaction for many physicians (van der Goor, 2020; Zegers et al., 2020). Referring to the aspects of calling and comradeship, the current amount of registration seems to reduce physicians' motivation and therefore undermines the aspect of calling. Our results support this as we found a strict distinction between doctors performing extra-curricular tasks of an administrative and non-administrative nature. Administrative tasks were perceived as reducing well-being as it prevents doctors from pursuing their calling. On the contrary, other extra-curricular tasks, including the ones caused by Covid-19 were seen as increasing well-being, as the improved quality care resulting from these types of extra-curricular tasks was more evident. Finally, this research confirms earlier findings of van der Goor (2021) that highlight the distance between management and physicians caused by two different cultures. Management has its focus on the organization, whereas physicians are fully committed to the patient. Evidence for this was also found in this research as respondents indicated management to put company interest over patient interest. Also, management was perceived as inapproachable giving physicians the idea that their input and essence is undervalued, which causes management to make decisions that do not support physicians in pursuing the core of their job: ensuring quality patient care.

## 5.2 Practical implications

The results of this study provide practical insights for several parties within hospitals. With these parties, we mostly refer to physicians, the department of HR, and hospital management. The value of this research lies in the general factors and organizational routine changes identified as affecting physician well-being. First, the results can be valuable to physicians themselves. This research shows them what dynamics are generally experienced as influencing physicians' well-being, which shows them that well-being is a general concern in the medical profession. Next to that, physicians will have a better idea of how multiple dynamics come with different sides. One physician may experience a certain factor or routine change as positively contributing to well-being, whereas another may feel the opposite about it, leading to increased understanding of the situation of colleagues. More awareness among physicians of what causes their well-being to thrive or deteriorate can eventually lead to greater recognition and a feeling of unitedness as evidence piles up for the fact that many physicians seem to experience the same problems. This may again contribute to physicians creating a more open culture when it comes to talking about their wellness, by which they also get rid of their image as brooders. Eventually, it can lead to physicians increasingly recognizing the overall pressing

situation in their profession, which may result in physicians taking matters into their own hands for the development of initiatives supporting well-being among doctors. Second, the function of HRM can benefit from the findings presented in this research. Prior to elaborating on this, we need to offer an excuse to the classic HRM scholars as this research took part differently from traditional HRM literature. We acknowledge there is a lot of research in this field (Guest, 2002; van de Voorde et al., 2012; Guest, 2017; Francis & Keegan, 2006; Renee Baptiste, 2008), and it is undoubtedly true that these scholars have made a great contribution to understanding how HR practices and employee well-being are related; their findings have inspired many HR professionals and business leaders. However, HRM literature on the types of well-being discussed in this research is scarce, especially from a micro-foundational perspective. Besides, the nature of this research asked for a step back to the very grounds of the well-being research, not immediately linking it to classic HRM traditions, which stood central in our research. Viewing this from another perspective, this is immediately where the first practical implication comes in, as HR can benefit from the micro-level perspective adopted in this research. By considering the results of this research, the function of HR should be able to revise its HR policies based on the micro-level perspective we have chosen. More specifically, instead of HR primarily deploying widely diffused and accepted instrumental benefits to facilitate wellness and performance, this research goes back to the very nature of what causes physicians to thrive and shows that much can already be gained from reconsidering accepted working practices and organizational routines. With employee well-being being one of the components included in the HRM portfolio, HR managers can use both the identified general factors influencing well-being and the Covid-19 related organizational routine changes in executing HR practices and developing HR policies, so that these subsequently improve employee well-being. As most general factors identified connect to earlier findings, this research proves to be another reminder for HR to take these factors into consideration if they want to uphold physician well-being. The importance of a healthy team spirit, work-life balance, and the ability for physicians to pursue their calling of providing quality patient care has been recognized a long time ago. Yet, as we derive from our findings, a lot can still be gained for physician well-being if these factors are better incorporated by HR. Next to that, the changes in organizational routines again show how one size does not fit all, as routine changes prove to work for some, whereas they lead to negative affect or declined performance for others. Not only now, but also once the pandemic has weakened its grip on hospitals, HR should investigate how they can create the most optimal situation for every individual to ensure high levels of physician well-being.

Finally, managers ranging from lower-level management to upper management should consider this study as it has

implications for the various management positions involved. Lower-level management should be aware of the dynamics causing employee well-being to fluctuate. The effective monitoring of these dynamics combined with bringing established HR policies into practice should facilitate physicians to thrive. Also, higher-level management, including senior boards, can take these findings into account for two reasons. The first reason concerns their ability to form organizational strategies which is the ultimate position to put employee well-being as a priority concern. The results of this study show both the pain points and stimulus in terms of physician well-being that can form the basis for creating an organizational strategy targeted at the overall increase of wellness among doctors. And the other reason focuses on one of the factors being specifically related to higher management, namely management affinity. The widely perceived inaccessibility of management indicated in this study shows the urgency of how management and physicians should be better integrated with each other for organizational and well-being purposes, which is why this research shows to have direct practical implications for upper management as well.

### 5.3 Limitations

In analyzing the limitations of this research, two aspects deserve to be noted. First, as we made use of a pre-established dataset, we were not in charge of asking questions to respondents and therefore we had to deal with the texts that were given. The interpretation of answers by using the knowledge derived from our theoretical background to ensure that it could be used to answer our research question is not recognized as a limitation, but rather as a hermeneutic challenge. Instead of completely grasping the performative aspect that would have been reached when studying the situated action of physicians in real life, our given dataset limited us in extensively analyzing the performative aspect of organizational routines as all was analyzed in retrospect. However, the data provided was undoubtedly rich and came from actors who were situated in their work, which allowed us to carefully analyze the situation in-depth, still justifying the use of a practice lens. Besides this, the questions from the survey did not make an explicit distinction between hedonic and eudaimonic well-being. In some cases, less specific answers from respondents prevented us from making a clear distinction between the two. To keep up the trustworthiness of the research, these answers were only used for gaining a wider understanding of the topic and not for identifying how factors or routine changes affected the spectrum of well-being. The large size of our sample weakened this negative effect of having some answers being less relevant for the purpose of this study. Seen from another perspective, with someone else collecting the data, there were no desired answers from our side, limiting the potential for bias in the dataset. We were led by the answers of the respondents instead of the answers of the respondents being led by us which

eventually benefits the trustworthiness of the research. Another limitation that we need to acknowledge is rooted in the timespan of the data collected. Due to confidential matters, only the surveys conducted from September 2020 onwards could be released for this study. With Covid-19 making its entrance in the early months of 2020, we missed out on the surveys conducted during the early stages of Covid-19 that could have widened the perspective of this research. However, we feel that the nature of both the IFMS and Groepsmonitor Zelfevaluatie question allowed for reflection upon earlier months, and therefore still incorporated the wide range of developments surrounding Covid-19. We believe that future research on the topic of physician well-being in times of Covid-19 should be conducted as research specifically considering the dimension of Covid-19 is still in its infancy while the importance of studying physician well-being has gained ground for quite some time. Based on the challenges and limitations identified, we believe that further research should be conducted taking at least three aspects into consideration. First, in the future, researchers can study the altering organizational routines of physicians due to Covid-19 in real life (e.g., via shadowing) to consider the performative aspect of organizational routines even better. Second, when making use of surveys to further discover the topic, questions should incorporate the specific dimensions and concepts of eudaimonic well-being and hedonic well-being to acquire the opportunity of making a better distinction between the two which would be beneficial for the trustworthiness of the data. And now that this research has shed a light on the organizational routine changes taken place because of Covid-19, future research can build upon this in creating more detailed surveys that question the effect of these changes to broaden the information available. Finally, as we acknowledged the explicit lack of surveys conducted between the start of Covid-19 until September 2020, future researchers can still take initiative to also research earlier surveys so that no timeframe is left out. The significance of the research could then be even increased by studying the impact of the various Covid-19 waves on physician well-being.

### 5.4 Recommendations for HR management

Considering that most of our organizational routine changes impact well-being via the general factors associated with well-being, we aim to benefit both with our recommendations. As already mentioned in the section of practical implications, we suggest HR to put greater emphasis on the daily working routines of physicians instead of the well-known instrumental benefits as reconsidering and refining those taken-for-granted working practices can already considerably contribute to improving physician well-being. This means that HR policies should be better focused on improving the roots of the physician working environment, where instrumental benefits can be used as an add-on to further assist in ensuring physician well-being. In the section

elaborating on the general factors, positive team dynamics was experienced as vital for physician well-being. Especially the organizational routine change ‘from hospital to home office’ proved to negatively impact perceived team dynamics for some. Even though Covid-19 reduces opportunities for physical team building, team spirit can be enhanced via the implementation of online coffee moments, where feelings of connectedness to colleagues can be enhanced. Furthermore, as was shown, most general factors and organizational routine changes do have a different impact on each employee. This suggests the fact that a ‘one size fits all approach’ is not effective. As an example, some physicians showed that they prefer to work from home, whereas this is experienced as undesirable by others. Therefore, it is important for the function of HR to allow for job crafting so that everyone can shape their job towards their own needs, even once the impact of Covid-19 on hospitals declines and the situation allows it to return to normal. Via such job crafting, physicians should also receive the opportunity to have more input when it comes to personal development, work-life balance, and extra-curricular tasks as everyone has different preferences regarding these factors. Finally, whereas the negative impact of organizational routine changes needs to be reduced, not all organizational routine changes were perceived as negative. Some changes caused physician well-being to unitesly increase against expectations (e.g., digital patient communication, and extra-curricular tasks that benefit personal development). The pandemic demanded creativity and flexibility that led to new ways of working that might have remained undiscovered otherwise. The function of HR should consider, in consultation with physicians, to hold on to certain ways of working even after the pandemic.

## 6. CONCLUSIONS

With physician well-being being recognized as a critical point of attention, the crisis event of Covid-19 puts physicians under even greater pressure. As a response to the limited research available regarding this topic, this research studied the effects of changing organizational routines, resulting from Covid-19, on the well-being of physicians. As no definite conceptualization of the construct of well-being has been established throughout history, we made use of the most inclusive version, including both hedonic and eudaimonic well-being. Our research first revealed seven general factors, regardless of the presence of Covid-19, through which physician well-being is affected: personal development, private circumstances, extra-curricular tasks, quality patient care, team dynamics, management affinity, and departmental connections. After the identification of the general factors relevant for physician well-being, we analyzed the specific effects of changing organizational routines caused by Covid-19 on the well-being of physician well-being. In total, we identified six changing organizational routines that emerged from the pandemic: from hospital to home

office, digital patient communication, rescheduling due to understaffing, scaling down regular care to assist IC, extra-curricular tasks, and stagnation of departmental developments/projects. Adopting a practice lens allowed us to see differences between the extent to which organizational routines changed for different categories of physicians. As different groups of actors act differently upon situations, routines can change for some, whereas for others they don’t. The routine changes identified showed to both influence hedonic and eudaimonic well-being. The general factors distinguished in the first section explained much of how organizational routine changes impacted well-being. Organizational routine changes either strengthened or weakened the presence of certain general factors which therefore explained the fluctuation in well-being. Per organizational routine change, this was either a positive effect, a negative effect, or both where physicians disagreed on the nature of the effect. Although not explicitly derived from the answers, we recognized a potential for flourishing well-being for some organizational routine changes. Wherever an organizational routine change affected both eudaimonic and hedonic well-being, the direction of this impact proved to always be the same. In the main, what can be concluded from this research is that an actual change in organizational routines is dependent upon different categories of physicians, and that the subsequent influence on hedonic and/or eudaimonic well-being differs per routine and that this influence can be either positive, negative or both. Therefore, we would like to conclude this research by stating that although Covid-19 is experienced as a worldwide crisis event, physicians’ well-being does not only seem to suffer but in some cases even benefits from the organizational routine changes as they enhance the presence of general factors that are experienced as increasing well-being. The world of the medical profession should create policies and interventions that decrease the negative consequences of these routine changes, while they should learn from and take along the positive ones that may benefit physician well-being even once Covid-19 has loosened its grip on hospitals.

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