

Putting Work on Hold: The Impact of Team-Level Agreements on Telepressure and Psychological Detachment Among Nurses

MSc Thesis by Janneke Jansink

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Abstract

Nurses are under strain. Telepressure, the urge to respond to work-related messages after working hours, exacerbates this. Nurses are contacted daily after working hours to fill in or shift schedules. As a result, nurses are constantly connected to their work and their team. This makes it difficult for them to psychologically detach. Previous studies on telepressure conclude with the recommendation to establish clear norms and agreements at the team level for sending and receiving work-related messages outside working hours. However, this has not been systematically studied. This study examines if team-level agreements indeed have an impact on the level of telepressure and psychological detachment among nurses. A survey (n=142) and qualitative focus groups indicate that team-level agreements are negatively associated with telepressure and consequently, positively associated with psychological detachment. It is therefore crucial for nursing teams to convert unwritten rules and expectations into clear and explicit team-level agreements concerning work-related messages after the workday has ended.

Keywords: telepressure, psychological detachment, team-level agreements, nurses.

Introduction

Healthcare is under pressure. The gap between the number of professionals and the demand for care continues to widen. More care needs to be delivered with fewer people (Health and Social Care Committee, 2022). In particular, there is a severe shortage of nurses. This causes longer waiting times, increased work pressure and consequently more absenteeism (Ford, 2022).

Besides greater workloads during work hours, work extends beyond specific timeframes and physical locations, due to the widespread use of ICT devices for work (Towers, Duxbury, Higgins & Thomas, 2006). This can result in telepressure: the urge to respond immediately to work-related messages outside of working hours (Barber & Santuzzi, 2015). For nurses, this is particularly reflected in the fact that they are constantly contacted after working hours to fill in or shift schedules. Nurses feel pressure to respond, as they worry about peer workload and patient care if they do not pick up a particular shift (Vergeer, 2022).

The consequence of telepressure is that it prevents employees from detaching themselves psychologically from work. Psychological detachment refers to an individual's ability to mentally disconnect from work outside of working hours (Etzion, Eden, & Lapidot, 1998). For nurses, this means they are constantly connected to their work and their team and thus are constantly in a heightened state of readiness (RCN, 2023; Nationale Zorggids, 2023). Telepressure then can have negative consequences for work-life balance and a variety of employee well-being outcomes, such as burnout and poor sleep quality (Barber, Conlin & Santuzzi, 2019; Cambier & Vlerick, 2022; Pfaffinger, Reif & Spieß, 2022).

It is important to examine factors that influence telepressure and psychological detachment to reduce the negative association with well-being outcomes (Santuzzi & Barber, 2018; Sonnentag & Fritz, 2015). Research has shown that norms and expectations from the work environment play a major role in experiencing telepressure (Grawitch, Werth, Palmer, Erb & Lavigne, 2017). The literature, therefore, calls for making clear agreements and explicit expectations at the team level about responding to work-related messages outside working hours. An example is agreeing that an employee will not respond to work-related messages during vacation (Perlow & Porter, 2009). These team-level agreements are promising for reducing the pressure to always be responsive (Barber & Santuzzi, 2015; Barber et al., 2019; Cambier, Derks & Vlerick, 2019;

Pfaffinger et al., 2022). However, it has not yet been systematically studied whether team-level agreements actually reduce telepressure and increase psychological detachment from work.

Therefore, the aim of this study is to examine whether agreements on the team level reduce telepressure and increase psychological detachment. The research question is: *‘What is the impact of team-level agreements on nurses’ levels of telepressure and psychological detachment?’*

Telepressure is an important concept to investigate as it affects staff well-being (Barber & Santuzzi, 2015). This research is conducted among nurses, who are already currently under significant pressure. There is a growing shortage of nurses, while the demand for care only continues to rise (WHO, 2022). More than half of nurses find the workload too high and feel overworked and concerned about staff shortages (Mitchell, 2022). Nurses often have to work overtime and find it difficult to psychologically detach from work when they are at home. This makes it harder for them to recover from work and contributes to a high incidence of burnout among nurses (Kilroy, Bosak, Flood & Peccei, 2020; Chen, Davis, Daraiseh, Pan & Davis, 2014). Telepressure plays a role in this: many nurses experience the urge to respond to work-related messages after working hours (IZZ, 2023). This pressure causes more emotional exhaustion and greater intention to leave the healthcare profession. Especially young nurses leave the profession when they are only a few years into their career (RCN, 2023). Clear agreements at the team level about telecommunication can ensure that nurses feel less pressure after working hours and are better able to psychologically detach from their hard work. This contributes to improving nurses’ mental well-being. Indeed, sustainably employable nurses are important for the functioning of the healthcare sector now and in the future (WHO, 2022).

In addition to its societal relevance, this research is also scientifically relevant. The research contributes to knowledge about telepressure, a relatively new concept in the scientific literature (Barber & Santuzzi, 2015). This study is innovative, as it looks at a critical target group: nurses. IZZ’s member panel (2023) and Vergeer’s qualitative master’s thesis (2022) show that telepressure plays a major role among nurses. It is therefore important to investigate this phenomenon further in this target group. Besides, this research focuses on factors influencing telepressure, rather than the consequences that previous studies have primarily focused on. Specifically, this study responds to the call from the literature to look at team-level agreements, rather than individual or organisational measures. It is consistently argued that this can make a

difference in the level of telepressure (Barber & Santuzzi, 2015; Boswell, Olson-Buchanan, Butts & Becker, 2016). However, this has not yet been studied. If clear agreements and expectations at the team level make a significant difference to the levels of telepressure and psychological detachment, teams can implement them directly.

Theoretical framework

Telepressure

Information and communication technologies (ICT), such as phones, tablets and laptops, are increasingly prevalent in the communication of organisations. As a result, engagement in work is no longer limited to specific hours in a specific location, also known as work-extending technology. On the one hand, this brings benefits: it provides flexibility in the timing and location of work and makes it possible to combine work and private life. On the other hand, it creates higher expectations: managers and colleagues expect employees to be available to do work almost all the time, leading to an increased workload and making it easier for work to intrude on private time (Towers et al., 2006).

For this negative side of work extension technology, Barber and Santuzzi (2015) developed the concept of workplace telepressure. They define this as *'the preoccupation with and an urge to respond quickly to work-related electronic messages'* (Barber & Santuzzi, 2015, p. 173). When employees experience high levels of telepressure, they will feel the urge to respond immediately to asynchronous communication, such as emails or apps, similar to what is expected in a synchronous, face-to-face request. This can result in employees neglecting the necessary recovery periods from work. Outside designated working hours, this shifts the perception of ICT resources from 'flexible access to work' to 'inevitable work'. Telepressure is thus a psychological state: it concerns feeling the need to respond quickly to work-related ICT messages outside working hours, rather than actually performing work tasks outside working hours (Barber & Santuzzi, 2015).

There are several factors that contribute to experiencing telepressure. These factors can be divided into individual characteristics and work environment characteristics. Employees with a high level of public self-consciousness experience significantly more telepressure because they want impressions of themselves to be positive (Barber & Santuzzi, 2015). In addition, workers with a high level of workaholism experience more telepressure because they feel guilty when

they are not engaged in work. This shows that telepressure is partly driven by one's personality and internal drive to stay connected to the organisation at all times (Grawitch et al., 2017). In the work environment, prescriptive norms play a role in experiencing telepressure, for instance, prescriptive norms on availability outside of work hours. Furthermore, perceived ICT demands are important, such as the perceived expectation to respond when a message is received. This shows that perceptions about what someone should do are important for the level of telepressure among employees (Barber & Santuzzi, 2015; Grawitch et al., 2017).

Psychological Detachment

A concept related to telepressure is psychological detachment. Etzion et al. (1998) define this as '*an individual's sense of being away from a work situation*' (p. 579). Thus, psychological detachment is a subjective experience that goes beyond physical distance from a workplace. When a person is psychologically detached from work, they stop thinking about or worrying about problems or opportunities related to that work (Sonnentag & Bayer, 2005). Psychological detachment can therefore be seen as a recovery experience, where employees can recuperate from work in their free time, also called switching off mentally (Sonnentag & Fritz, 2007).

Stressors during work cause lower psychological detachment among employees. In particular, heavy workload and high time pressure are strong predictors of low psychological detachment. Heavy workload and high time pressure increase employees' overall level of arousal, making it difficult for them to relax when they leave their workplace at the end of the working day. Instead, they remain cognitively engaged in work-related matters. Moreover, the combination of heavy workload and high time pressure causes tasks to remain unfinished when workers leave the workplace, which increases their tendency to keep thinking about work-related issues (Sonnentag, 2012).

Psychological detachment is strongly associated with positive well-being outcomes. For instance, more psychological detachment produces positive mood and low fatigue (Sonnentag & Bayer, 2005). Also, employees with high levels of psychological detachment are more satisfied with their lives and experience less psychological strain and emotional exhaustion. This is not at the expense of their engagement for work (Sonnentag, Binnewies & Mojza, 2010; Sonnentag, 2012). In addition, Etzion et al. (1998) found that psychological detachment leads to reduced stress and burnout.

To explain the relationship between telepressure and psychological detachment, I use the Job-Demand Resource Model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001) and the Stressor-Detachment Model (Sonnentag & Fritz, 2015). According to the Job-Demand Resource Model, there are demands and resources in every job. Demands are ‘the things that need to be done’. They are the physical, psychological, social or organisational aspects of work that require cognitive and/or emotional effort. As a result, they are associated with physical and/or psychological costs. While demands are not negative per se, they can become stressors when meeting them involves high costs that trigger negative reactions such as depression, anxiety or burnout. Examples of demands are high workloads, complex tasks or high emotional strain. Resources are the physical, psychological, social or organisational aspects of work that reduce job demands and the associated physical and psychological costs. They are functional in achieving work goals and encourage growth and learning. Examples of resources include autonomy and meaningful work (Demerouti et al., 2001; Schaufeli & Bakker, 2004).

According to Barber & Santuzzi (2015), telepressure can be seen as a stressor. Work-related ICT messages place unique demands on employees. Responding to them requires effort and therefore comes at a physical and/or psychological cost. With telepressure, these demands become stressors because an employee constantly feels the pressure to respond to the ICT messages, even outside working hours. This results in high effort and high costs that have negative consequences such as stress and burnout (Barber & Santuzzi, 2015; Demerouti et al., 2001).

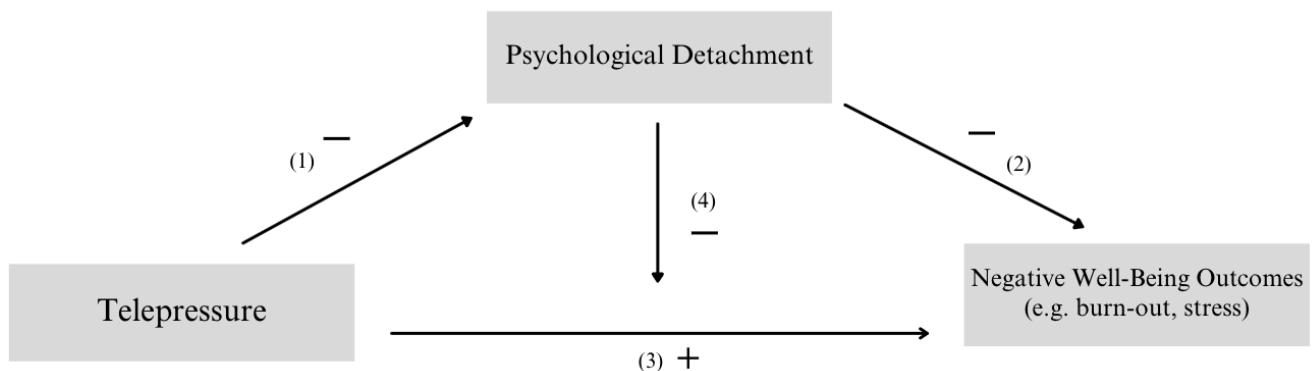
Sonnentag and Fritz (2015) developed an integrative framework for the relationship between stressors and psychological detachment: the Stressor-Detachment Model. This model states that job stressors, such as workload, cause low levels of psychological detachment. In turn, a lack of detachment causes poor well-being outcomes, such as burnout and lower life satisfaction. Psychological detachment is both a mediator and moderator in the relationship between job stressors and impaired well-being: it explains the relationship between job stressors and impaired well-being, and it moderates the effect of a job stressor on impaired well-being (Sonnentag & Fritz, 2015).

This model can be applied to telepressure as a job stressor (see Figure 1). Research shows that employees who feel pressure to respond to work-related ICT messages outside working hours have more difficulty psychologically detaching from work (Cambier et al., 2019; Kotera,

Marxwell-Jones, Edwards & Knutton, 2021; Santuzzi & Barber, 2018; Van Laethem et al., 2018) (arrow 1). Psychological detachment in turn reduces burnout, stress, emotional exhaustion and fatigue among employees and increases life satisfaction and positive mood (Etzion et al., 1998; Sonnentag, 2012; Sonnentag & Bayer, 2015; Sonnentag et al., 2010) (arrow 2). The literature also shows that telepressure itself causes work-life imbalance, stress, burnout, poor sleep quality and physical and cognitive exhaustion (Barber & Santuzzi, 2015; Barber et al., 2018; Cambier & Vlerick, 2022; Grawitch et al., 2017; Hu et al., 2019) (arrow 3). Psychological detachment plays a role as a mediator and moderator in the relationship between telepressure and well-being outcomes: it explains the relationship between telepressure and negative well-being outcomes (arrows 1 and 2), and it moderates the effect of remote pressure on negative well-being outcomes (arrow 4) (Santuzzi & Barber, 2018; Pfaffinger et al., 2022; Ward & Steptoe-Warren, 2014; Dettmers, 2017; Eichberger, Derks & Zacher, 2021).

Figure 1

Applied Stressor-Detachment Model on Telepressure (Adapted from Sonnentag & Fritz, 2015)



Based on the literature, the following hypothesis can be formulated:

H1: Telepressure is negatively associated with psychological detachment

Team-Level Agreements to Reduce Telepressure and Increase Psychological Detachment

The above information indicates that a lot of research has been conducted on the (negative) effects of telepressure. However, there is limited knowledge on the factors that influence telepressure, that could potentially be modified. One such factor is team-level agreements.

Indeed, numerous studies on telepressure end with the recommendation to formulate team-level agreements on telecommunication outside working hours. For example, Barber and Santuzzi (2015) argue that within organisations, there should be discussions in teams about expectations around ICT use outside working hours. From there, teams should establish agreements independently of each other. Similarly, Pfaffinger et al. (2022) argue that team managers should make agreements with employees about responses outside official working hours. Cambier et al. (2019) suggest that colleagues should make mutual agreements, such as indicating in a message sent outside working hours that a quick response is not necessary and can wait until the next working day. Indeed, Giurge and Bohns (2021) show that recipients of messages outside working hours overestimate how quickly the sender expects a response. With communication and agreements in this regard, expectations become explicit rather than implicit. This can help reduce stress about work-related messages outside working hours. Studies thus suggest that rather than implementing general policies for the entire organisation, it is important to develop clear internal agreements and norms at lower levels. In this way, the pressure of always having to be available can be reduced and employees can better psychologically detach from their work (Barber et al., 2019; Boswell et al., 2016).

In Vergeer's (2022) study, nurses themselves propose similar measures at the team level, as well as measures at the organisational and individual level (see Appendix 1). These measures were quantitatively tested among healthcare workers by IZZ (2023) and they ranked team-level measures significantly higher than individual- or organisation-level measures (see Appendix 2). Examples of team-level measures include 'Only respond to messages if you can contribute to the solution' and 'Mutually agree that setting boundaries is acceptable and that it is permissible to say no to a request'.

While these team-level norms and agreements are promising, it has not yet been examined whether establishing team-level agreements actually leads to decreased telepressure and increased psychological detachment. Looking at the schematic representation, I am going to

test whether team-level agreements have an impact on the level of telepressure. I am also going to test whether team-level agreements impact the level of psychological detachment, and whether this relationship occurs via the reduction of telepressure. So, in this research, I am not looking at the moderating role, which is also reflected in Sonnentag and Fritz's (2015) model. Instead, this research focuses on the mediating role.

Based on this, the following hypotheses can be formulated (see also Figure 2):

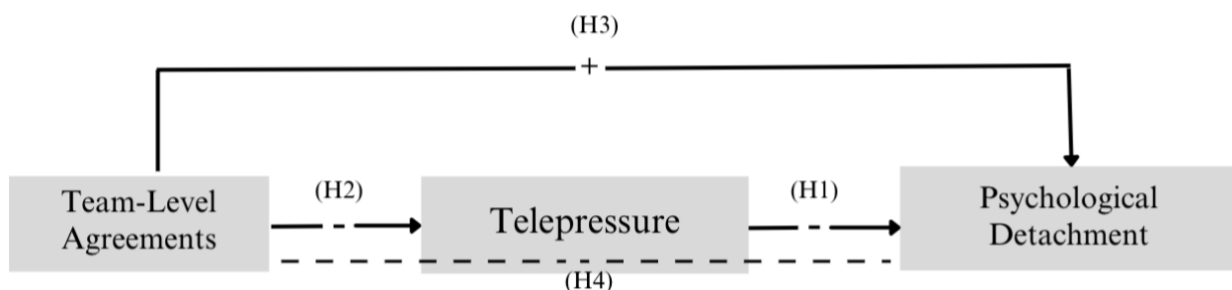
H2: Team-level agreements are negatively associated with telepressure

H3: Team-level agreements are positively associated with psychological detachment

H4: Telepressure mediates the relationship between team-level agreements and psychological detachment

Figure 2

Predicted Relations Between Variables in the Study



Method

Research Positioning

This study primarily uses quantitative methods to answer the research question. It examines the impact of team-level agreements (independent variable) on telepressure and psychological detachment (dependent variables). This makes the study deductive, as it tests hypotheses derived from theory (Bryman, 2016). In addition, the study has an inductive element through the qualitative part of the study involving focus groups and open-ended survey questions. Here the emphasis is on exploring and understanding the phenomenon in a more open-ended manner

(Clark, Creswell, Green & Shope, 2008). The aim is to understand telepressure among nurses and how team-level agreements play a role in this. The scientific philosophical positioning of the study is positivistic: standardised measurement instruments are used, and the emphasis is on collecting quantitative data and aiming for generalisable conclusions. Since the focus groups and open-ended questions are analysed qualitatively, there is an interpretative element to the study, understanding what meaning nurses give to telepressure (Risjord, 2014).

Research Design

The research primarily employs a cross-sectional research design. In this design, variables are measured across multiple cases at a single point in time (Bryman, 2016). This design is appropriate for this study because it seeks to examine the relationship between an independent variable (team-level agreements) and dependent variables (telepressure and psychological detachment). This is measured using a quantitative survey (see Appendix 3). Cross-sectional research designs are suitable for collecting data on the relationships between variables quickly and efficiently (Levin, 2006).

In addition, this research incorporates an in-depth element, where I use focus groups and open-ended questions in the survey to see how the variables in this study play a role among nurses. Specifically, in brainstorming sessions, nurses reflect on post-work telecommunication and team-level agreements on this. This involves a bottom-up approach: instead of rules being imposed, nurses actively think about these subjects in a brainstorming session with their team (see Appendix 4). This approach is empowering and helps to build support for changes as individuals have played a role in this themselves (Baum, MacDougall, & Smith, 2006). Through the focus groups, participants collectively develop knowledge and understanding about telepressure, psychological detachment and team-level agreements on this (Boeije, 2014). The focus groups increase understanding of the concepts in this study and the relationships between them. It provides meaning to the quantitative data (Tummers, Steijn & Bekkers, 2012). Consequently, the research adopts a mixed-methods approach, employing different methods to capture various aspects of the subject, thus creating a more comprehensive understanding of the topic (Boeije, 2014).

Participants and Setting

The research group consists of nurses within hospitals in the Netherlands. For the survey, nurses from various hospitals were approached to obtain a comprehensive picture of telepressure among nurses. I distributed the survey through social media, emails, personal contacts and physical in departments of the Erasmus Medical Centre (see Appendix 5 for the poster). An a priori power analysis was conducted through G*Power (target power = 0.95, effect size = 0.15), resulting in a minimum sample size of 119. Ultimately, 142 nurses participated in the survey. The main data can be accessed on the Open Science Framework (https://osf.io/546gr/?view_only=b187e8a7d5404bc8b6026005ba62a3e7). The focus groups were conducted among nurses within different departments of the Erasmus MC. The brainstorming sessions lasted between 20 and 30 minutes, involving a total of 24 nurses (6-7 nurses per focus group). I recorded and transcribed the focus groups (see Appendix 6).

Nurses from 31 different hospitals participated in the survey. The average age of the sample is 35.3 years. The average age of nurses in hospitals in the Netherlands is 40.1 years (CBS, 2023). This falls just outside the 95% confidence interval (L:33.1; H:37.5), which means the average age of nurses in this study is significantly lower than the average age of nurses in the Netherlands. In the sample, 11.8 per cent of nurses are male. In the population, 14.1 per cent of nurses are male (CBS, 2017). The Chi-square test (0.95 (df=1)) revealed no significant association between gender and the distribution ($p > 0.05$), indicating that the distribution by gender is representative.

Operationalisation

The constructs were operationalised based on (different) existing scales. Subsequently, a factor analysis was conducted for each construct, with factor loadings needing to be at least 0.4 to ensure strong and meaningful associations between the factor and observed variables. The KMO should be at least 0.6, and Bartlett's test significant ($p < 0.001$) (see Appendix 8). Additionally, a reliability analysis was conducted for each construct, with the Omega coefficient requiring to be at least 0.7 (see Appendix 8). These requirements ensure construct validity.

Team-Level Agreements: To measure the construct of team-level agreements, two scales are combined and applied to the context of this research. First, Anderson and West's (1996) scale

for 'Team Climate Inventory' is used, specifically the subscale 'Vision', because this is about team members' views on the clarity, sharedness and value of team agreements. In addition, Lenberg and Feldt's (2018) scale for 'Team Norm Clarity' is used, to measure if the team norms are clear and well accepted. The scale consists of a total of seven items. An example item is: 'With the team, we have clear agreements for sending and receiving work-related messages outside working hours.' All items were rated on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The factor analysis reveals factor loadings greater than 0.6 for all items (KMO=0.836; Barlett's test $p < 0.001$). The Omega coefficient is 0.881, indicating good reliability of the scale, which does not increase if an item is removed.

Telepressure: To measure the construct of telepressure, Barber and Santuzzi's (2015) scale with six items is adopted. An example item is: 'Outside working hours, I can concentrate better on other tasks once I've responded to work-related messages.' All items were rated on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Since it is also important to measure ICT demands themselves, a subscale from Day, Paquet, Scott and Hambley (2012) is used and applied to the context of this study, with four items. Specifically, the scales for 'Response expectations' and 'Availability' were used. An example item is: 'I am approached frequently about work-related matters outside working hours.' All items were rated on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The abovementioned two scales have been combined to measure the concept of telepressure. All factor loadings are greater than 0.4 (KMO = 0.837, Bartlett's test $p < 0.001$). The Omega coefficient is 0.846, which does not increase when an item is removed.

Psychological Detachment: To measure the construct of psychological detachment, Sonnentag and Fritz's (2007) scale with four items is adopted. An example item is: 'I don't think about my work at all outside working hours.' All items were rated on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The factor analysis indicates that one factor loading is not greater than 0.4 and the reliability analysis shows that the Omega increases when this item is removed. With the removal of item 1, the factor loadings are greater than 0.6 (KMO = 0.677, Bartlett's test $p < 0.001$). The Omega coefficient is 0.795 and does not increase when an item is removed.

In a cross-sectional survey, there may be variables that confound the relationship between the independent and dependent variables. To minimise this, I added control variables to the

analysis. The control variables include years of experience as a nurse and having a work phone. Additionally, demographic variables such as the hospital in which they work, age, gender, work hours per week, and participation in a work-related WhatsApp group are included.

The full survey can be found in Appendix 3.

Data Analysis

I conducted several analyses in SPSS version 29 that align with my research design. I analysed the cross-sectional survey using descriptive and inferential statistics. I used descriptive statistics to get an overview of the characteristics of the data, such as means and standard deviations. I used inferential statistics to test the hypotheses. Specifically, I conducted regression analyses to examine the relationships between the variables, including the control variables. I also examined the mediating role of telepressure in the relationship between team-level agreements and psychological detachment, using a Hayes Macro PROCESS (Hayes, 2022).

I analysed the focus groups and the open-ended questions of the survey by means of a thematic analysis in NVivo. After transcribing the brainstorming sessions, I axially and selectively coded them, along with the open-ended questions in the survey, based on the theoretical concepts (Boeije, 2014).

Ethics

When conducting research, it is important to consider the ethical implications of the research. First, it is important that no physical or mental harm is caused to participants (Bryman, 2016). In this study, no harm is done to participants in the survey or focus groups. Instead, the study may give nurses more insight into telepressure and the impact of team-level agreements. Second, informed consent is important: participants should be given enough information to make an informed decision about participation in the study (Bryman, 2016). In this study, participants receive information about the purpose of the study and what is expected of them. Additionally, nurses in the focus groups fill out an informed consent form (see Appendix 7). Third, privacy is a crucial ethical principle: participants' data should be treated confidentially (Bryman, 2016). In this study, I anonymised the names of participants in the focus groups. Furthermore, the survey is completely anonymous; the answers cannot be traced back to individuals. Lastly, participants should not be deceived during the research (Bryman, 2016). In this research, respondents are given accurate information and are not led to believe otherwise.

Results

Descriptive Statistics

The descriptive statistics in Table 1 show that 89% of the respondents are female and 11% are male. The average age is around 35 years, the nurses work on average around 30 hours per week and have an average of 12 years of experience as a nurse. Most nurses are in WhatsApp groups for work but do not have a work phone.

Table 1

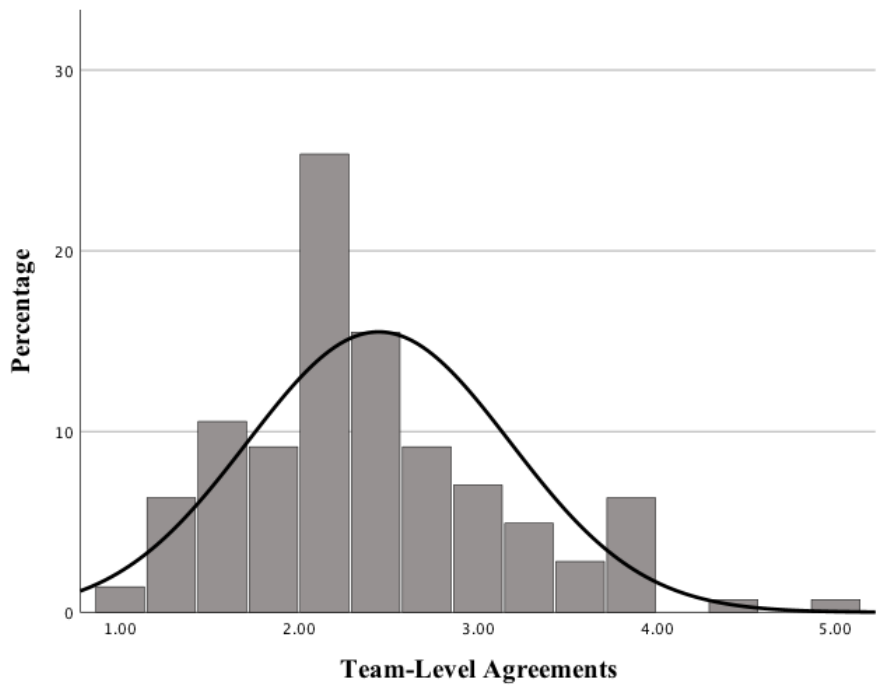
Descriptive Statistics for the Variables in the Study

Variable	n	M	SD	Omega
<i>Control and demographic variables</i>				N/A
1. Gender (0=M, 1=F)	142	0.89		
2. Age	142	35.31	13.21	
3. Years of experience as a nurse	142	12.30	12.10	
4. Work hours per week	142	29.72	5.59	
5. Work phone (0=no, 1=yes)	142	0.11		
6. (WhatsApp) groups for work (0=no, 1=yes)	142	0.97		
<i>Constructs</i>				
7. Team-level agreements	142	2.45	0.73	0.88
8. Telepressure	142	3.08	0.70	0.85
9. Psychological detachment	140	2.71	0.80	0.80

To gain a better understanding of the constructs beyond the mean and standard deviation, they are plotted below. Figure 3 shows that the distribution for team-level agreements is skewed to the left, indicating that most respondents score low on team-level agreements. Nearly 30% of nurses score a 2 or lower, and more than 60% of nurses score lower than 2.5. Only 2 respondents scored higher than 4 (1.4%).

Figure 3

Histogram for Team-Level Agreements



In Figure 4, the distribution for telepressure leans slightly to the right. Around 40% score below 3 on telepressure, while around 60% score above 3 on telepressure. This indicates that respondents score predominantly high on telepressure.

Figure 4

Histogram for Telepressure

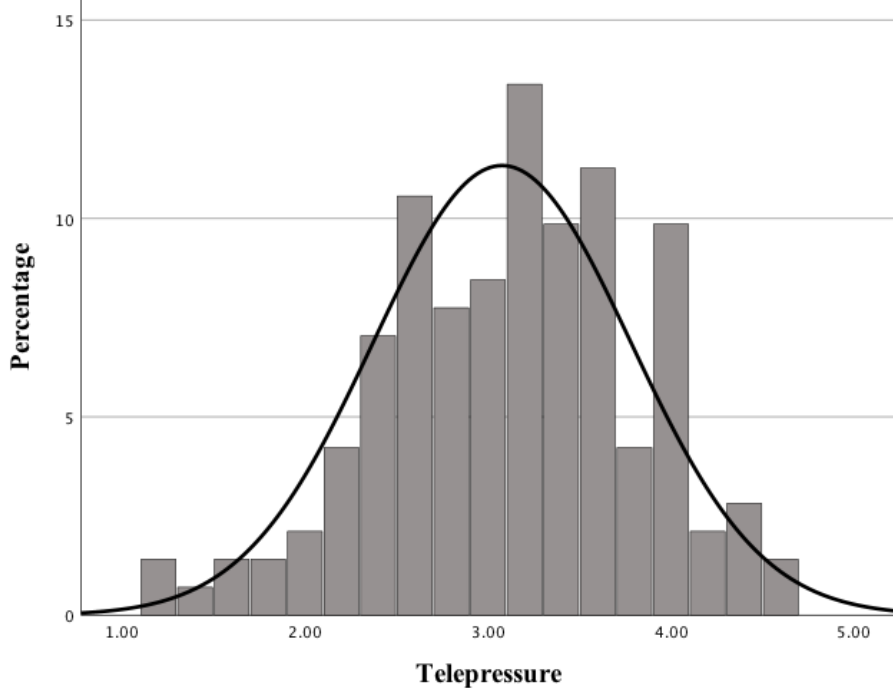
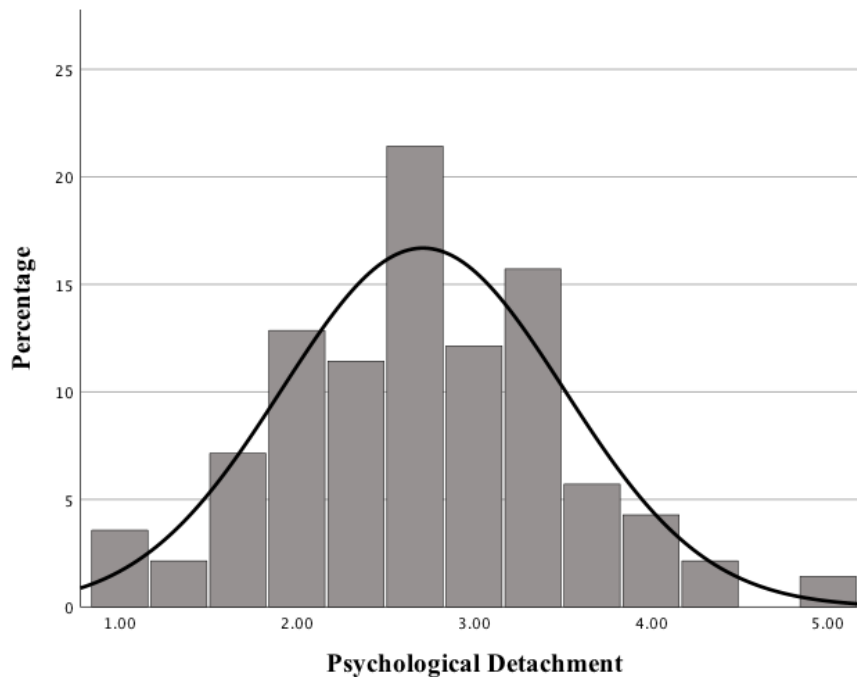


Figure 5 shows that the distribution for psychological detachment leans to the left. Around 65% of respondents score below 3, while around 35% score above 3. Only 10 respondents score 4 or higher (7.1%) against 36 respondents scoring 2 or lower (25.7%). This means that most respondents struggle with psychological detachment from work.

Figure 5

Histogram for Psychological Detachment



Inferential Statistics

Correlations: The focus groups revealed that years of experience as a nurse, age and having a work phone may matter for the level of telepressure. Since years of experience as a nurse and age are strongly correlated (.880) and thus measure almost the same, only years of experience as a nurse and having a work phone are included as control variables. Table 2 shows the correlations between the variables in this study. First, there is a correlation between having a work phone and years of experience as a nurse. This indicates that the more experience a nurse has, the more likely they are to have a work phone. Looking at the constructs, we see that team-level agreements and telepressure are significantly related. Telepressure and psychological detachment are also strongly related. The correlation between team-level agreements and psychological detachment is not significant. Also, the control variables do not show significant correlations with the constructs.

Table 2*Correlations for the Variables in the Study*

Variable	1	2	3	4	5
1. Years of experience as a nurse	1				
2. Work phone	.258**	1			
3. Team-level agreements	.089	.032	1		
4. Telepressure	-.027	-.041	-.242**	1	
5. Psychological detachment	.074	-.097	.210	-.414**	1

*Note *p < 0.05, **p < 0.01.*

Below, I will perform linear regression analyses on the correlations between the constructs to better understand the cause-effect relationship and include control variables.

Linear Regression Telepressure and Psychological Detachment: Table 3 shows that Model 1 with the control variables does not predict the level of psychological detachment. When telepressure is added (Model 2), it does predict the level of psychological detachment.

Table 3*Linear Model Predicting Psychological Detachment from Telepressure*

	Model 1 - with control variables			Model 2 - with explanatory variable		
	B	SE	β	B	SE	β
Intercept	2.660	.096	-	4.115	.283	-
<i>Control variables</i>						
Years of experience	.007	.006	.105	.006	.005	.097
Work phone	-.319	.225	-.124	-.358	.205	-1.40
<i>Explanatory variable</i>						
Telepressure				-.469	.087	-.417**
R ²	.020			.193		
Adjusted R ²	.006			.175		

*Note *p < 0.05, **p < 0.01.*

Linear Regression Team-Level Agreements and Telepressure: Table 4 shows that Model 1 with the control variables does not predict the level of telepressure. However, when team-level agreements are added to the model (Model 2), the level of telepressure is predicted.

Table 4

Linear Model Predicting Telepressure from Team-Level Agreements

	Model 1 - with control variables			Model 2 - with explanatory variable		
	B	SE	β	B	SE	β
Intercept	3.098	.085	-	3.647	.206	-
<i>Control variables</i>						
Years of experience	-.001	.005	-.017	.000	.005	.004
Work phone	-0.83	.200	-0.36	-.078	.195	-.034
<i>Explanatory variable</i>						
Team-Level Agreements				-.231	.079	-.241**
R ²	.002			.059		
Adjusted R ²	-.012			.039		

Note *p < 0.05, **p < 0.01.

Linear Regression Team-Level Agreements and Psychological Detachment: Table 5 shows that Model 1 with the control variables does not predict the level of psychological detachment. When team-level agreements are added to the model (Model 2), the level of psychological detachment is still not predicted.

Table 5*Linear Model Predicting Psychological Detachment from Team-Level Agreements*

	Model 1 - with control variables			Model 2 - with explanatory variable		
	B	SE	β	B	SE	β
Intercept	2.660	.096	-	2.395	.240	-
<i>Control variables</i>						
Years of experience	.007	.006	.105	.006	.006	.097
Work phone	-.319	.225	-.124	-.321	.224	-.125
<i>Explanatory variable</i>						
Team-Level Agreements				.111	.092	.102
R ²	.020			.030		
Adjusted R ²	.006			.009		

Note *p < 0.05, **p < 0.01.

Mediator Analysis: Hypothesis four suggests that telepressure can mediate the relationship between team-level agreements and psychological detachment. Table 6 shows that the direct effect of team-level agreements on psychological detachment is not significant. When telepressure is added, however, the indirect effect becomes significant. This means that telepressure is significant as a mediator.

Table 6*Mediation Analysis Hayes Macro PROCESS with Telepressure as Mediating Variable*

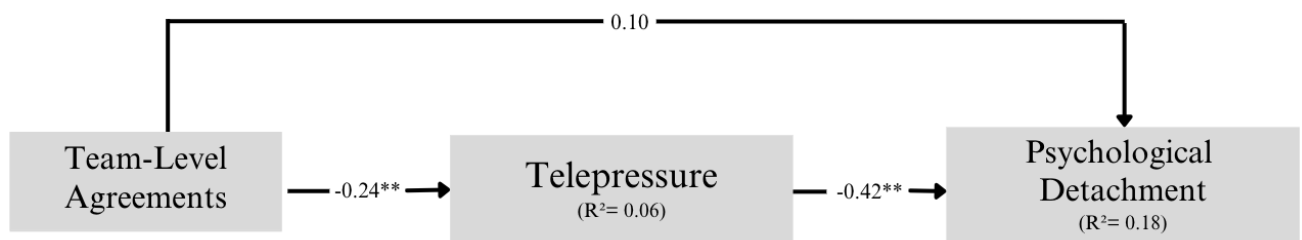
		<i>r</i>	BootLLCI	BootULCI
Psychological detachment	Direct effect	.0049	-.1671	.1768
	Indirect effect	.1107	.0187	.2325

From these analyses, the results can be summarised as follows:

	Accept/Reject
<i>H1: Telepressure is negatively associated with psychological detachment</i>	Accept
<i>H2: Team-level agreements are negatively associated with telepressure</i>	Accept
<i>H3: Team-level agreements are positively associated with psychological detachment</i>	Reject
<i>H4: Telepressure mediates the relationship between team-level agreements and psychological detachment</i>	Accept

Figure 6

Relations between Variables in the Study



Qualitative Data Analysis

To enhance understanding of the above results, I analysed the qualitative data from the focus groups (F) and the open-ended questions (Q) in the survey. This provides a deeper perspective on the interaction between telepressure, psychological detachment and team-level agreements.

The quantitative data indicates that approximately 60% of nurses experience telepressure. The qualitative data reveals that telepressure plays a major role for many nurses: ‘*It is indeed the case that you are always stimulated by messages from work.*’ (Q112). Nurses want to know immediately what the messages are about and prefer to read them as quickly as possible: ‘*If I see that I have group messages, even if I am off-duty, I always read them.*’ (F1, R2). Messages often come through via WhatsApp groups and mainly revolve around scheduling requests. For some nurses, it occupies their minds to the extent that they need to check the message before they continue with their day: ‘*I even pull over my car sometimes just to see what it’s about*’ (F4, R2).

Concern for patients is the main reason nurses feel the need to read work-related messages after working hours and feel pressured to respond: *'If it's about patients then I always respond.'* (F1, R3). Nurses also know that the workload of colleagues is very high and are aware of how difficult it is to be understaffed: *'I think all of us, unfortunately, have sometimes worked an evening shift or a night shift with very few staff, and you just know what kind of hell you'll have during your shift, and you don't want your colleagues to experience that. That's why you quickly take a look.'* (F4, R3). So, the pressure stems mainly from the fact that nurses feel the workload is very high and problems emerge if they do not respond: *'The pressure is immense because you know big problems will arise if you don't respond and you know you are the only one who can solve the problem.'* (Q113).

Strongly linked to telepressure is the level of psychological detachment among nurses. The quantitative data shows that the majority of respondents score low on psychological detachment, although there is a wide variation. This is also reflected in the qualitative data: some nurses find it easier to detach from work after hours than others: *'Every nurse deals with it differently.'* (Q93). Nurses who find it difficult to psychologically detach from work indicate a strong sense of responsibility: *'A sense of responsibility makes it difficult for me to detach from work, and this has been the case for years. I think this is partly my nature.'* (Q136).

Nurses unanimously agree that work-related messages after working hours reduce their level of psychological detachment. This aligns with the quantitative data. Nurses often cannot disconnect from work if they have not yet responded to a work-related message and continue to mull over it after working hours: *'I really have to delete my work email when I go on vacation. Otherwise, I'll spend my entire vacation checking my work email.'* (F1, R2).

Nurses indicate that this is partly because they don't have a work phone: *'We all use our personal phones for those group apps... You get dragged into it outside of work.'* (F2, R1). The quantitative data do not show a significant correlation between having a work phone and the level of telepressure or psychological detachment. Nurses also indicate that experience and age may play a role in the level of telepressure and psychological detachment: *'I especially see younger colleagues always responding and considering it more normal. [...] I think that through experience and age, I can and dare to limit this more.'* (Q142). The quantitative data do not show a significant correlation between age or years of experience and the level of telepressure or psychological detachment.

Almost all nurses, both in the open-ended questions of the survey and in the focus groups, indicate that there are no or few agreements regarding messages after working hours on their units: *'As far as I know, there are no agreements.'* (Q56). The quantitative data also show low scores on team-level agreements.

However, there are unwritten rules and expectations that make nurses feel pressured to respond, even though this is not explicitly stated or documented. According to nurses, it is not compulsory to respond or participate in work WhatsApp groups, but it is not appreciated if you don't: *'Despite there being no obligation to respond to work-related messages, there is unofficial pressure....'* (Q114). Nurses feel they have to respond even when they are not at work: *'I notice that the pressure to say no when I'm texted or see something in the group chat is quite high and I don't dare to say no easily.'* (Q57). Looking at the quantitative results, we see that fewer team-level agreements result in more telepressure. The qualitative findings show that the absence of explicit rules, but the presence of unwritten expectations, creates more telepressure. This aligns with the quantitative results and provides deeper insight into the relationship between the absence of team-level agreements and the higher level of telepressure.

The unwritten rules create pressure to respond to work-related messages after working hours and, as a result, hinder nurses' ability to let go of work: *'What is particularly noticeable in the workplace is that [...] you don't have to respond immediately to an open shift, etc. but you sense that this is actually expected of you, and sometimes people find fault if you don't respond immediately. That makes it hard to let go of work and those apps.'* (Q41). Telepressure is thus the factor ensuring that the absence of team-level agreements ultimately results in less psychological detachment. This is in line with the quantitative results, which indicate that telepressure is a mediator in the relationship between team-level agreements and psychological detachment.

The qualitative data reveals that nurses do not appreciate the unwritten pressure and expectations: *'Moral pressure/obligation does not feel right.'* (Q130). Nurses feel that the lack of clear rules benefits the employer because everyone feels the pressure to respond: *'Communication and guidelines are lacking, this suits the employer just fine.'* (Q127). Nurses want to help but find it uncomfortable that it is unclear what is expected of them. They would prefer to discuss this with each other and their manager(s): *'There are unwritten rules. It would be better to openly communicate what is expected of the team in this regard.'* (Q104). Nurses

would like to make this a topic of discussion within the team to establish clear agreements and communicate expectations.

In the brainstorming sessions, nurses indicate that team-level agreements could be effective. First, nurses state that it should be acceptable to be online unavailable sometimes and that it should be acceptable to say no to a schedule request. However, this is not the case in many nursing teams: *'Whether you respond in half an hour, an hour, or tomorrow, it shouldn't matter. [...] But still, I do feel that pressure.'* (F4, R2).

An agreement many units have is creating two group apps to separate scheduling matters from socializing. Nurses also suggest that sending a resolution message when a schedule request is resolved can help to reduce pressure and to release work: *'It would be really nice to receive a message in the evening saying 'resolved'. Then you know you don't have to think about that anymore.'* (F4, R5). Furthermore, approaching individuals personally instead of using the group chat works well for some nurses: *'It's not like she [the scheduler] is constantly messaging in the group chat, asking who can cover shifts. She directly contacts the person in question.'* (F1, R1). Additionally, the agreement to only respond if you can contribute to the solution can help limit the flow of messages: *'I think the agreement should be if you can, then respond. If you can't, then don't respond.'* (F3, R1). Finally, nurses consider it important to keep the barrier low for joining and leaving the WhatsApp group, so they can truly detach from work during vacations: *'If there's one thing I find annoying, it's when you're on vacation [...] and colleagues or your boss approach you.'* (F3, R3). These are examples of team-level agreements that, according to nurses, can reduce telepressure and enhance psychological detachment.

These qualitative analyses provide in-depth insights and background to interpret the quantitative results of this study. Furthermore, the qualitative data suggest several agreements that teams of nurses can use.

Discussion and conclusion

Main Findings

The primary objective of this research was to examine the impact of team-level agreements on telepressure and psychological detachment. Drawing on literature from behavioural public administration and psychology, I developed a theoretical model. This model was tested in a survey among 142 nurses in different hospitals in the Netherlands. In addition, focus groups with 24 nurses provide qualitative interpretation of these results. The main findings are threefold.

First, the study revealed a significant negative impact of telepressure on psychological detachment. More pressure to respond to work-related messages after working hours reduces nurses' psychological detachment from work. Also, the results indicate that team-level agreements have a significant negative effect on telepressure. This means that having team-level agreements regarding the sending and responding to work-related messages after working hours reduces telepressure among nurses. Furthermore, team-level agreements were found to have no direct effect on the level of psychological detachment. However, team-level agreements do have an indirect effect on psychological detachment, through telepressure. Team-level agreements reduce telepressure, which in turn increases psychological detachment.

The focus groups revealed that the lack of agreements at the team level leads to unwritten rules and expectations, resulting in high levels of telepressure and low levels of psychological detachment from work. Nurses find this uncomfortable and would like an open conversation about this at the team level. According to them, relatively simple agreements can help alleviate pressure and enable better detachment from work.

Theoretical Implications

This research firstly adds by showing that scholars should consider not only the effects of telepressure but also the factors that influence telepressure. The theoretical framework indicates that telepressure has various negative well-being consequences (Barber & Santuzzi, 2015; Barber et al., 2018; Cambier & Vlerick, 2022; Hu et al., 2019). Additionally, some studies suggest that certain individual characteristics and environmental characteristics may matter (Barber & Santuzzi, 2015; Grawitch et al., 2017). However, further research is required to explore modifiable factors that can reduce the level of telepressure. This study demonstrates

that team-level agreements, which are consistently highlighted as an important factor in numerous studies, can make a significant difference in the level of telepressure. Thus, this research emphasizes the importance of examining underlying mechanisms and causes of telepressure, rather than solely focusing on its consequences.

Furthermore, this research reveals that telepressure, and consequently low psychological detachment, play a significant role among a critical group of employees: nurses. Nurses are distinctive in this regard, as their schedules are subject to frequent changes, and there are significant staffing shortages. Many nurses do not have work phones and are in WhatsApp groups for work with their personal phones. Due to concerns for patients and workload pressure on colleagues, they experience substantial pressure to respond to work-related messages after working hours.

Lastly, this research demonstrates that addressing telepressure should not be approached solely at an individual level but rather at the meso-level. Teams within organizations play a significant role in shaping the level of telepressure experienced by individual employees within the organisation. Therefore, this research shows it is essential to move beyond the individual and focus more on the contextual factors in which a team operates within an organisation.

Practical Implications

This research has important practical implications for nursing teams and units. The study demonstrates that team-level agreements make a significant difference in the level of telepressure and, consequently, the level of psychological detachment. The focus groups also revealed that nurses find it unpleasant that there are no team-level agreements regarding telecommunication, leading to increased pressure to respond to messages outside working hours. Therefore, it is crucial to have an open conversation at the team level to articulate expectations about telecommunication after working hours and establish clear agreements. In this way, the unwritten rules and expectations that currently exist are made explicit. This clarity will result in less telepressure among nurses and thus better psychological detachment from their demanding work. The focus groups identified several, relatively simple, team-level agreements that can help to reduce telepressure and thus increase psychological detachment. Examples include the acceptability of setting boundaries and saying no to shifts, different group

apps with one dedicated to urgent matters, resolving messages, handling personal matters individually, limiting the message flow, and leaving work-related group apps during vacations.

Since each department and team of nurses is unique, team managers should take the responsibility to initiate team-level discussions and establish agreements that fit the team. These agreements can be directly implemented by teams, making a significant difference in reducing telepressure and increasing psychological detachment. This is very important during a time when there is a significant shortage of nurses and the workload on them is extremely high.

Limitations

As with any research, this study has limitations. First, the study has a cross-sectional research design. This means that the variables are measured simultaneously at one point in time. As a result, this study shows correlations between the variables, but not yet causality (Levin, 2006). We can only state that there are significant correlations between the variables in the research.

Furthermore, this study involved 166 nurses (142 survey and 24 focus groups) from 31 different hospitals. This sample has an overrepresentation of nurses from the Erasmus MC, due to easy access. A convenience sample was used, selecting the most accessible and easily reachable participants for the study. Consequently, the results may be more representative of nurses within the Erasmus MC than nurses in other hospitals in the Netherlands.

In addition, the results would probably have been more significant with a larger sample size. Although the power analysis indicated that 119 respondents were sufficient, a larger sample would have strengthened the results. Unfortunately, this was not possible in the three-month time frame for this master's thesis.

Suggestions for Future Research

There are several recommendations for future research on this topic. First, experimental research is needed to ensure causal relationships between the variables. For instance, future research could involve randomly assigning teams of nurses to establish team-level agreements, while the other teams do not. The levels of telepressure and psychological detachment can be measured before and after the intervention. This would ensure the causal relationship between

the independent variable (team-level agreements) and the dependent variables (telepressure and psychological detachment).

In addition, future research could focus on the effects of age, experience and having a work phone on the levels of telepressure and psychological detachment. The focus groups suggested that these factors may play a role, but this was not evident in the quantitative results of this study.

Finally, more research is needed to explore the types of team-level agreements that can effectively reduce telepressure. The focus groups and open-ended questions in the survey revealed various types of team-level agreements. A promising agreement is to limit the message flow, such as having two separate group chats for urgent matters and social interactions, and only responding when you can contribute to a solution. Another promising agreement is to have the option to join or leave the group chat, for example, during vacations. Subsequent research could examine the effectiveness of these different agreements in reducing telepressure and increasing psychological detachment, considering the specific context in which they are implemented.

Conclusion

This research demonstrates that team-level agreements lead to reduced telepressure and, consequently, increased psychological detachment among nurses. Unclear and unwritten rules and expectations result in a high level of pressure to respond to work-related messages after working hours. This increased level of telepressure reduces nurses' ability to psychologically detach from their work. Clear agreements at the team level can help reduce telepressure and thereby increase psychological detachment from work, which is very important for the well-being of the nursing profession now and in the future.

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