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Raaphorst, N.

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An empirical conceptualization of front line enablement by performance management

Nadine Raaphorst 

Faculty of Governance and Global Affairs, The Institute of Public Administration, Leiden University, The Hague, The Netherlands

ABSTRACT

The unintended effects of curtailing performance regimes are well-documented. Less is known about how street-level workers are enabled by hybrid performance regimes having a control and learning function. The aim of this study was therefore to conceptualize enablement by such performance regimes. For this purpose, an empirical study was conducted in two frontline contexts characterized by hybrid performance regimes: hospital nursing and prison guarding. Drawing on 31 interviews, 35 informal conversations, and 58 observation hours, this research finds that performance measuring enables street-level workers by providing them with different forms of knowledge helping them in different aspects of the job.

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KEYWORDS Enablement thesis; street-level bureaucracy; performance management; interviews and observations

Introduction

Performance management reforms, involving managerial discretion, continuous measuring of performance and accountability for results, have significantly changed the way street-level work is governed (Destler 2017). Most studies on performance management and street-level workers have shown how performance management systems curtail street-level workers' use of discretion (curtailment thesis), or how workers resist such influences (continuation thesis). There is less attention to how performance management, involving both the collection of data at the frontline, and the management based on indicators, *enables* street-level workers in fulfilling their task (Buffat 2015; Hupe and Buffat 2014; Møller and Hill 2021). It is important to understand these mechanisms, as existing research suggests that on-the-ground experiences of and perspectives on performance measuring systems matter in how workers use those systems, which ultimately has implications for the quality of the performance information and effectiveness of performance management (Destler 2017; Gassner, Gofen, and Raaphorst 2022; Høybye-Mortensen and Ejbye-Ernst 2019; Petersen 2020; Petersen, Laumann, and Jakobsen 2019).

CONTACT Nadine Raaphorst  n.j.raaphorst@fgga.leidenuniv.nl

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Moreover, as hybrid performance regimes not only serve an external control function, but are also geared towards internal development through learning (Jakobsen et al. 2018; Kerpershoek, Groenleer, and de Bruijn 2016), we would expect street-level workers in such regimes to perceive performance systems and numbers, albeit partly, as beneficial in carrying out their daily job with citizen-clients. We however lack an understanding of the different ways in which this could happen. Therefore, this study sets out to conceptualize enablement, led by the following research question: *how may performance management enable street-level workers to fulfill their tasks?* For this purpose, two street-level contexts in the Netherlands both characterized by hybrid performance regimes were studied: the frontlines of hospital nursing and prison guarding. Despite this core commonality, the contexts differ in many other respects such as level of professionalism, type of core task and type of client, contributing to the main objective of conceptualizing enablement. A multimethod (semi structured interviews and observations) and multisource (hospital nurses, prison guards, managers) research design was used. Following the work of Gassner and Gofen (2018), street-level work is understood as not only involving direct interactions between street-level workers and citizen-clients, but also comprising of the work of street-level managers, who invest in reciprocal relationships with the broader clientele, and thereby facilitate frontline workers' functioning.

This study contributes to existing scholarship in several ways. First, research on the impact of performance management systems on street-level work typically focuses on pure external control systems, with strong and direct incentives related to budget allocations, and uncovers the negative impact on street-level behaviour, such as gaming and cherry-picking (Dias and Maynard-Moody 2007; Soss, Fording, and Schram 2011), and street-level workers by crowding out their intrinsic motivation (Moynihan 2010). Less is known about the impact of performance management systems that have a more hybrid character, combining external control with dialogue (Jakobsen et al. 2017), which characterizes the two research contexts of this study. More importantly, especially within hybrid performance regimes that lean more on street-level workers' autonomous motivation, it becomes all the more relevant to explore the 'supply side' of such systems, i.e. the action resources these systems produce for street-level workers which help them in fulfilling their tasks (Hupe and Buffat 2014). For hybrid performance systems to work, we need to go beyond avoiding the well-documented negative effects, to strengthen the potential positive outcomes for frontline workers. While there is insight into how performance data that is aligned with professionals' expertise could spur dialogues and learning (Jakobsen et al. 2018; Moynihan et al. 2020), we still lack an in-depth understanding of the ways in which frontline workers within such regimes experience enablement.

Second, this article contributes to the limited research on street-level enablement (Buffat 2015; Hupe and Buffat 2014). By conceptualizing enablement by performance management regimes grounded in the experiences of frontline workers, this study contributes to the rather underexplored concept of 'management-by-enabling' (Brodtkin 2011, 1274). The general assumption is that 'professionals require little direction and supervision. What they do require is protection and support' (Mintzberg 1998, 146). Existing research has shown how professionals could be supported in carrying out hybrid roles, involving both professional and managerial tasks (Giacomelli 2020). Moreover, taking a design perspective, Jakobsen et al. (2018) develop a macro-level performance system – the internal learning regime – based on

existing insights on the motives and behaviours of public sector workers. Building on this, this research holds that in order for management to support frontline work (management-by-enabling), knowledge is needed on what exactly constitutes enablement by hybrid performance regimes from the perspective of frontline workers, including both the input and output sides of such systems. This will not only provide practical knowledge valuable for the design of performance systems and managerial support, but also contributes to scholarship by providing a conceptualization of enablement useful for future research on the effects of hybrid performance regimes on the frontlines of public service delivery.

In what follows, I will discuss existing research on the three theses just outlined. After that, the research contexts and methods will be discussed. This will be followed by the findings and, lastly, a conclusion and discussion.

Performance measuring and frontline discretion: three theses

Curtailment thesis

Research on the impact of NPM-style reforms, firstly, shows how street-level workers' use of discretion is *curtailed*. Focusing on how street-level discretion is controlled, this thesis holds that performance measures transfer decision making power from the street level to bureaucrats higher in the organization, such as managers (Buffat 2015)¹. Applied to this context, curtailment can be defined as complying with requirements of performance measuring systems because of strong incentives or pressures which make alternative options not worth considering. Thus, the bureaucratic rules, procedures or incentives embedded in performance measuring systems limit workers' ability to influence outcomes (Wastell et al. 2010). Studies show how performance targets are hard to reconcile with being responsive to citizen-clients' needs (Broadhurst et al. 2011; Soss, Fording, and Schram 2011), and that the cost of responsiveness is higher for workers than complying with performance pressures (Brodtkin 2011), or that they have too few resources available to provide alternative solutions to citizen-clients' needs (Soss, Fording, and Schram 2011). A closer look at research on how performance measuring limits street-level workers' action possibilities reveals how they are governed by a specific type of performance management systems geared towards external control (e.g. Brodtkin 2011; Dias and Maynard-Moody 2007; Soss, Fording, and Schram 2011). These so-called external accountability regimes combine externally set goals with high-powered incentives, leading to a range of unintended consequences such as gaming and goal displacement (Jakobsen et al. 2018), shifting administrative costs to citizen-clients, and simplification strategies that enhance speedy case handling (e.g. Brodtkin 2011; Soss, Fording, and Schram 2011).

Continuation thesis

The continuation thesis, which is developed in the field of social work, stresses 'the continued existence of professional discretion in social services bureaucracies' (Evans and Harris 2004, 873). Applied to this particular context, this means that instead of succumbing to the performance pressures, street-level workers retain some of their professional discretion. Research suggest that street-level workers or their managers find ways to protect their professional autonomy from organizational control

(Kitchener, Kirkpatrick, and Whipp 2000; Tummers 2011; Tummers and Van de Walle 2012; Wastell et al. 2010). Research suggests that resistance may happen both more overtly, by simply avoiding certain time-consuming tasks (Anderson 2008), or more covertly, by working around tight timescales and continuing using professional categorizations (Wastell et al. 2010), or making ‘incorrect’ registrations to lessen the detrimental outcomes of the performance management system for citizens (Kerpershoek, Groenleer, and de Bruijn 2016). Resistance to managerial requirements at the frontline has primarily been studied in professional contexts, such as social work, nursing and police (Carey and Foster 2011; Evans 2011; Gofen 2014; Wastell et al. 2010). The underlying assumption is that these professionals are more likely to experience a conflict between policy imperatives and occupational norms (Gofen 2014; Møller and Hill 2021). Because of strong identification with their professional background and knowledge, street-level workers find ways to work around bureaucratic control systems so they can still deliver the services they feel is in the best interest of citizen-clients.

Enablement thesis

While the curtailment and continuation theses are a reaction to the ‘external control’ function of performance management systems, these systems could also serve an ‘internal development’ function (Kerpershoek, Groenleer, and de Bruijn 2016). Given the negative, unintended consequences of systems with a strong focus on externally set goals and incentives, interest in how performance management systems could enable organizations to learn and improve processes has risen (Jakobsen et al. 2018; Moynihan, Baekgaard, and Jakobsen 2020). Existing research has given insight into how performance-based learning tends to take place when professionals are engaged in setting goals and/or interpretation of measures (Moynihan and Kroll 2016; Moynihan et al. 2020). Recognizing this need for autonomy, but also the need for account-giving, Jakobsen et al. (2018) have conceptualized a performance regime type at the macro level, the internal learning regime, which combines professional and performance features. While research has shown that performance management systems may be used as accountability tool when clients file complaints (Høybye-Mortensen and Ejbye-Ernst 2019), or as a tool to legitimize decisions towards clients (Buffat 2015), we still lack an in-depth understanding of what enablement by performance management systems may entail at the micro level from the perspective of frontline workers.

Research design

This study employed an abductive qualitative research design, including two professional contexts both characterized by hybrid performance regimes: the frontlines of prison guarding in prisons of the Dutch Custodial Institutions Agency, and the frontlines of nursing in Dutch hospitals. This research has an abductive approach, as it consists of a combination of inductive and deductive aspects (Ashworth, McDermott, and Currie 2019). The first inductive phase was warranted because there is a lack of prior research on what enablement by performance management could entail from the perspective of frontline workers. While mainly inductive in exploring enablement from the perspective of frontline

workers, the research made use of existing literature in interpreting the different ways workers feel enabled by hybrid performance regimes, e.g. in making the leap from specific instances found in the data to concept development (Ashworth, McDermott, and Currie 2019).

Different sampling strategies were chosen to serve the general objective of conceptualizing enablement by hybrid performance regimes. First, following a purposive sampling strategy, the two contexts are selected because they are characterized by *hybrid performance management regimes*, involving the collection of quantified information of a range of activities street-level workers are involved in, combining characteristics of both external accountability and professional regimes. Pure external accountability (EA) regimes are characterized by strong external incentives and externally set goals, while pure professional regimes are characterized by internal, low-powered incentives and goals set by professionals themselves (Jakobsen et al. 2018). Hospital nurses work with performance indicators which the Health and Youth Care Inspectorate use as control tools to signal risks around quality of care (EA regime characteristic). At the same time, the set of indicators is meant as a tool to monitor and improve the quality of care by hospitals themselves (Wallenburg et al. 2019). The professional nursing association (V&VN) has been involved in the development of the indicators since 2015, in collaboration with the Health and Youth Care Inspectorate and other medical associations. While prison guards are not themselves involved in the development of performance indicators, these indicators are also used for both control and development purposes, where hierarchical accountability for performance (EA regime characteristic) is combined with facilitating learning and dialogue about substantive direction and motivations (professional regime characteristic) (Custodial Institutions Agency 2016a).

Second, while the two contexts are both characterized by hybrid performance regimes, they differ in many other respects, such as professionalism, type of core task, gender balance, and type of clients. This variation sampling contributes to the main objective focused on conceptualization, as it allows for identifying common characteristics of the concept of enablement that cut across variations (Weiss 1994). Whereas nurses are part of a profession, controlling a body of knowledge that is acquired through formal education and having oversight of the legitimate practice of the occupation (Noordegraaf 2020), prison guards are not. The nursing profession is legally recognized under the Individual Healthcare Act, meaning that the title of nurse is protected, so that only those qualified and registered can use the title and perform certain actions. The professional nursing association (V&VN) has over 100,000 members, established national standards for maintaining expertise, a quality register, and accredited trainings. Prison guards lack such a professional embeddedness. Moreover, the contexts differ in core task (Jensen 2018), with nurses mainly being service providing in responding to individual clients' needs, while prison guards combine service provision with regulatory tasks focused on maintaining order and guaranteeing safety, serving the general public interest. Hence, the type of client these workers encounter also differs; patients are more powerful and constructed as more deserving than detainees, who are less powerful and negatively constructed by the public (Schneider and Ingram 1993). In addition, while the nursing occupation is dominated by women, the majority of staff in prisons is male. If common patterns are found despite the differences between

the contexts, this contributes to establishing core characteristics of enablement by hybrid performance regimes.

Dutch prison guarding

Prison guards are responsible for the custody, security and daily supervision of detainees, and work in close contact with detainees within penal facilities (Custodial Institutions Agency 2020). They are detainees' first point of contact (Molleman 2011). It is their job to 'contribute to a humane execution of detention, limiting detention damage, and preventing recidivism' (Custodial Institutions Agency 2020). Their core task involves a range of activities, involving a high degree of discretion, such as supporting and informing detainees in their daily living situation, intervening in violent or crisis situations, and observing detainee behaviour and drafting reports (Paanakker 2019). Prison guards have completed in-service education or vocational education in the field of social work or counselling of specific target groups. They are supervised by a head of department, also called operational manager, who is usually in charge of managing one or more wings at the penal facility. Operational managers supervise around fifteen prison guards and are responsible for the primary processes on the ground, implementing detention policies and staff planning. As such, they are also responsible for meeting the performance requirements set at the central level.

All penitentiary institutions in the Netherlands are public organizations, directly governed by The Dutch Custodial Institutions Agency, which is part of the Ministry of Security of Justice (Wassenaar, Gradus, and Molleman 2017). The agency works with performance indicators to periodically evaluate and compare the performance of the different custodial agencies. A key indicator which directly impacts the daily working routines of prison guards, is the percentage of inmates for which a digital Detention and Reintegration Plan is determined. The norm is that at least 90% of the inmates should have such a plan within one month after entrance (Custodial Institutions Agency 2016b). The percentage of detainees who actually achieve the goals that are set in their plan is also measured. This plan is essential for the personalized detention policy, implemented in 2014, allowing detainees to take responsibility for their own detention (Custodial Institutions Agency 2014). Prison guards play an important role in the promotion and degradation of detainees to the different programmes which differ in degrees of freedom, as they act as mentors, but also observe and record detainees' behaviour. In line with a so-called traffic light model, they assign colours to this behaviour, with good (green) behaviour, could-be-better (orange) behaviour, and unwanted (red) behaviour. This means that prison guards closely observe and record the behaviour of detainees they are mentoring, and regularly hold mentor conversations with them. This is also done by the other professionals in the Multidisciplinary Consultation, and together they advise the director who makes a decision to promote or degrade a detainee.

Dutch hospital nursing

Hospital nurses' primary responsibility is taking care of patients, which involves monitoring patients, bathing and changing patients, administering medicines, putting in an intravenous line, catheter, or stomach pump. Besides these nursing tasks, they are also responsible for administrative and informative tasks, such as recording medical

information, informing patients and their families, and consulting with colleague nurses and specialists. Some nurses also supervise less experienced colleagues. Nurses are also street-level workers who have discretion to make decisions related to patient care (Hoyle 2014; Varjus et al. 2011). Within the nursing profession, there are different job profiles, that mainly differ based on level of education, which could be in-service education, vocational nursing education, or higher professional nursing education.

In 2006 the Health Insurance Act was implemented establishing a regulated health care market through one basic insurance covering common medical care, for every citizen or employee. The system is based on social solidarity, as everyone pays for the overall costs of healthcare. Depending on personal circumstances, additional (non-mandatory) coverage could be sought. While Dutch citizens are obliged to have a basic health insurance, including consulting a GP or hospital treatment, they are free to choose their private health insurance provider. The idea behind the Health Insurance Act is that health providers, such as hospitals, are incentivized to improve their performance, as insurers selectively buy care (Botje et al. 2016). Dutch hospitals self-report their performance indicator scores to various external parties, such as the Dutch Health Care Inspectorate, health insurers, and the Dutch Health Care Transparency programme (Botje et al. 2016). Each of those parties uses their own set of performance indicators, for which scores are collected and computed by hospital employees themselves. Examples of indicators related to nursing care are postoperative indicators, pressure sore prevention indicators, Short Nutritional Assessment Questionnaire (SNAQ), delirium indicators, and MRSA bacteraemia indicators.

Methods

Data collection

Within this strategic selection of the two research contexts by means of purposive and variation sampling, a convenience sampling strategy was used to select respondents. This sampling strategy is suitable as this research does not aim to generalize to a broader population (Weiss 1994), but is focused on conceptualizing enablement by hybrid performance regimes for which workers were needed who had the time and were willing to talk about this topic. Access to prisons was acquired by writing to directors of different custodial agencies, who gave permission to visit prisons for a few days. These visits were necessary in order to come in contact with prison guards and managers, who are harder to find on e.g. online social networks. Different prisons were contacted, in order to spread the time investment that was asked from prison guards over different prisons. Respondents were recruited during those day visits based on who was available. As prison guards work with tight time schedules, only one or two per day were available. As hospitals are not closed institutions, nurses could be recruited directly without the need to first acquire formal access. Personal networks were used, though no close acquaintances were recruited. Nurses and managers from different hospitals – academic and non-academic – were contacted.

Semi-structured interviewing focused on eliciting real-life examples was the main method that was used. This method is suitable to study the experiences and values of street-level workers in context (e.g. Maynard-Moody, Musheno, and Musheno 2003; Zacka 2017). Questions clustered around several themes, such as the use, experience

and appreciation of performance measuring systems in practice, how it affects their room for manoeuvre and the central values they hold in performing their task (see interview guide in [Appendix A](#)). Probes were used to encourage respondents to share examples of their experiences. Before each interview, informed consent was verbally asked and recorded. Most interviews were conducted at the work place during work hours, some also in a public space after work hours. All interviews have been transcribed verbatim. In total 31 respondents were interviewed, from 2017–2019: 10 prison guards, 7 frontline prison managers, 8 hospital nurses, and 6 hospital managers. [Appendix B](#) provides an overview of the interviewed respondents using pseudonyms, the type of department/unit, and characteristics of the organization. In both the hospital and prison context, there is much variation in years of work experience respondents have in the respective sectors, ranging from less than 10 years to over 30 years. The organizations are anonymized to protect the identities of respondents. In both the prison and hospital context, various organizations, located in smaller cities, bigger cities and villages throughout the Netherlands are covered. The interviews lasted between 17 and 74 minutes.

To increase the validity of the findings, different steps were taken in the collection of the data (Krefting 1991; Nowell and Albrecht 2019). First, *multiple data sources* were used; besides frontline workers who have daily interactions with citizen-clients, also prison and hospital managers were interviewed. Frontline workers have daily interactions with citizen-clients, and need to record data (on patients and detainees) into the performance systems. Frontline managers are responsible for the daily management of those performance systems, and the translation of performance outputs to frontline workers. In addition, they are supervising frontline workers and often involved in operational issues involving citizen-clients. As such, frontline work is done by both street-level bureaucrats and street-level managers (Gassner and Gofen 2018), making it worthwhile to include both roles in studying frontline enablement by hybrid performance management systems. Second, *multiple methods* were used. Besides semi-structured interviews, also on-site observations were conducted. As recruiting respondents in prisons could only be done on location, formal permission was given for daily visits. This allowed for observing prison-guards in their daily work routines, and the role of performance measuring systems in practice. A comprehensive note-taking strategy was used, using an observation guide with a pre-specified list of concerns that served as reminders, such as actors, space, activities, acts and conversations (Spradley 2016). Small notes were taken during the nonparticipant observations, which were written out as descriptive and reflective fieldnotes directly after the on-site visits. Fieldnotes were written in a chronological order, and included observations of prison guards' behaviours at work in the general office, using computers and telephones; interactions with detainees; the physical environment including white boards, documents and printed guidelines; interdisciplinary meetings; and the informal conversations they had with me in which they shared specific experiences or opinions. Around 58 hrs of observations and 35 informal conversations were conducted in prisons at different locations, spread over 8 days in total. [Appendix C](#) provides an overview of characteristics of the observed locations. The fieldnotes, especially on the informal conversations, were also analysed on possible experiences of enablement. The observations of behaviours and interactions mainly served to deepen my understanding of the daily activities, and the role of recording practices and performance numbers therein. Third, the data collection process involved *different*

investigators² and phases, reducing investigator bias and increasing data quality by allowing for refinement of the interview guide (Nowell and Albrecht 2019).

Data analysis

To gain insight into the question how frontline workers feel enabled by performance management systems, a thematic analysis was conducted (Braun and Clarke 2006). This involves some procedures from the Grounded Theory methodology, such as inductive coding, constant comparison and memo-writing, but with no aim to develop a full grounded theory. As the aim was to conceptualize enablement, thematic analysis is appropriate. The interviews were transcribed verbatim and analysed using ATLAS.ti. Guided by the research question, a thematic analysis was conducted involving specific coding steps (Braun and Clarke 2006). As a first step, the transcripts were inductively coded, staying close to the meaning of what was said. As a second step, the codes were collated into potential broader, overarching themes, which were then reviewed in relation to the data fragments. Lastly, the themes were named and defined. Constant comparison was part and parcel of the coding process, comparing codes and themes both *within* and *between* the two professional groups. Appendix D provides the coding table of the enablement implications, with the overarching themes and subthemes. In the findings section, empirical material in the form of interviewee quotes and researcher observations will be used to illustrate how workers are enabled by hybrid performance systems.

Findings

As hybrid regimes are oftentimes not the result of deliberate design (Jakobsen et al. 2018), it remains to be seen how the performance regimes at the frontline look like. The first part, therefore, describes how the interviewed frontline workers and their managers experience the performance regimes, with a particular focus on goal autonomy, punishment and rewards, and incentives (Jakobsen et al. 2018). This will provide the needed context to interpret the experiences of enablement, which will be conceptualized in the second part of the findings.

Hybrid regimes in practice

First, some nurses indeed use their professional autonomy to claim ownership of and responsibility for indicators. While nurses still also produce performance data for external actors, the relevance of taking responsibility is stressed: *'it starts by taking back responsibility by saying that they [numbers] are yours'*, and that *'you have to show responsibility if there is, for instance, a lot of pressure sores. We have to do something about that. That's not the inspectorate's party'*. (HN1). Some nurses actively work to *'join the conversation'* (HN1) and are involved in decision-making about indicators. A transition is observed whereby nurses take more responsibility and acknowledge: *'I am not doing it for the inspection, or the NIAZ, the institute that checks whether we comply with the quality norms. I am not doing it for the management board, no, I do it to deliver good and quality care to my patient'* (HM3). This also resulted in choosing an indicator that was not required by the inspectorate anymore, but which nurses collectively decided to keep, because they *'find it [this indicator] actually really important'* (HM3). At the prison frontline, to the contrary, interviewed workers do not feel performance indicators are for them: *'For the primary processes on the shop floor, we*

actually don't do a lot with them [scores], that's more at the level of directors' (PM5), and 'the higher you get [in the organization], the more it is about numbers. Numbers simply work there, but not at the shop floor' (PG5). This is echoed by a frontline prison manager who feels pressure to produce numbers for higher-ups: 'I am not into the numbers. (...) Some numbers I have to do though, because it makes our director happy' (PM4). The sense of ownership of performance indicators that was found in the nursing context, was not found in the prison context. The interviewed prison guards and managers do not feel numbers are produced with and for them to improve the quality of primary processes.

Second, in both contexts it was mentioned that performance measures were generally not connected to direct and strong punishments or rewards, which is to be expected in more hybrid regimes focused on both learning and control (Jakobsen et al. 2018). Nurses mention they do receive feedback when their performance scores are below the norm. They do not experience any punishments, but need to account for these numbers. Sometimes this results in discussions about the validity of indicator scores among nurses – 'is this score actually correct?' (HM3), concrete action points for improvement (HN7), or even a workgroup focused on improving recording practices (HN6). One nurse mentions that while they do not experience strong punishments when scores are low, constantly hearing the performance is too low when also dealing with a staff shortage 'can weigh us down and make us despondent' (HN1). Prison guards mention that they generally do not discuss performance scores during team meetings (PG2), but do sometimes hear about it through the newsletter (PG10), or get general feedback from directors, that they are 'doing good compared to other [departments]' (PG8), or that 'the percentage of green detainees is too high here' (PG6). The feedback is however considered too general to do something with it: 'if he [the director] thinks it's too high, then he needs to come with conclusions (...). Are we doing something wrong? Come up with something concrete' (PG6). As such, the interviewed prison guards do not experience strong consequences of indicator scores. This is echoed by a prison manager, who argues that it does not really matter if a department scores red, orange or green, because 'there's no pressure behind it' (PM5). However, combined with announced cutbacks and closing of facilities, the incentives to score well on performance indicators became much stronger in some contexts: 'in recent years I have communicated that it is really important to score well (...) to make sure we could stay open' (PM2). While measures were not connected to direct consequences, the fear of closing, in some contexts, served as a highly powered external incentive to produce good numbers.

Third, many respondents stress that they prioritize direct care (nursing context) or guaranteeing safety (prison context) over recording for indicators when there is a lack of time, or when they face demanding situations. A nurse mentions:

If you have three patients who need a lot of attention, and we need to fill out a scoring list for patient four, well believe me, I really do not know what we have recorded there at the end of the day. Not because I do not want to, but simply because it has no priority (HN3).

This was also mentioned in the prison context, where a respondent prioritizes intervening in a fight over filling out recordings, 'because I think that's my responsibility' (PG8). When this results in not recording for performance indicators, interviewed nurses and guards do not experience problems with their managers, but do need to be able to explain this. This shows that, in their daily work, they are driven by their own conceptions of what it means to be a good nurse or a good prison guard. This aligns

with the internal incentive characteristic of the professional regime (Jakobsen et al. 2018).

From the experience of the interviewed frontline workers and their managers, both the nursing and prison contexts are indeed characterized, albeit differently, by a hybrid performance regime, where characteristics of external accountability and the professional regime are combined (Jakobsen et al. 2018). The interviewed prison guards feel no ownership over performance indicators and work with external incentives, but mostly these incentives are low-powered and workers have leeway to fare on their own judgements. While nurses also work with external, though low-powered incentives, the studied nursing context leans more towards the professional regime, as nurses have deployed their professional autonomy to claim ownership of a part of the performance indicators. In the remainder, it will be explored how workers within these hybrid regimes feel enabled by performance management systems.

Types of enablement by performance management

Two core additional action resources were found, which I categorized as knowledge-that and knowledge-how (Møller 2022), only in the later coding phase where themes were named and defined. Knowledge-that refers to declarative knowledge, that can be verbally expressed and can be acquired through for instance education, formal rules or guidelines (Møller 2022). It is an explicit form of knowledge, that can be codified, stored and shared rather independently of 'knowing subjects' (Lam 2000; Polanyi 1962). Knowledge-how refers to skill or expertise acquired through experience on the job (Møller 2022). This form of knowledge is rather inarticulate, but may still be verbalized to some extent (Møller 2022). In this context, both recording for performance indicators and resulting numerical outputs enable nurses and prison guards in providing them with three types of knowledge-that and a range of skills that are grouped as different types of knowledge-how (see Appendix E for table with types, descriptions and examples of frontline enablement for the input and output side of performance management systems). While the overarching types of enablement (knowledge-that and knowledge-how) are defined using existing literature, the different underlying subtypes described below are constructed based on the empirical findings. As common patterns in two very distinct empirical contexts strengthen the conceptualization, similarities found between the two professional contexts will be central. When differences are found in the ways enablement is experienced, these are also described.

Knowledge-that

Performance measuring could yield knowledge-that which is used by frontline professionals to decide about the treatment of a client. The act of recording gives insight into clients' behaviour (prison guards) or their health condition (nurses). Nurses stress the importance of recording for performance measures, as it gives insight into the health situation of a patient. When talking about the malnutrition indicator (SNAQ), a nurse stresses the relevance of it for their treatment plans: *'I think it is very good, because you immediately know someone's nutritional condition at arrival, and you can make improvements right away'* (HN4). Another nurse, stresses that it is important *'because one wants to keep an eye on a patient's health situation and to timely observe a sudden change'* (HN7). One prison guard mentions he values recording for performance measuring because it provides a broad overview of detainees' behaviour, which is highly important for future freedoms during their imprisonment: *'you need to have*

facts. Something has to be written down about his [a detainee's] behaviour, whether that's positive or negative. (...) If you need to reward someone, then he has to deserve it' (PG6).

The signalling function of recording is another enablement experienced, although more prevalent in the nursing context than in the prison context. One prison guard mentions that recording could give insight into risky behaviour of detainees: *'you can learn from certain behaviour; if someone is showing that behaviour, he is probably busy with that' (PG7).* For nurses, recording for performance measures plays an important role in prevention: *'preventing (...) malnutrition, because that could cause a wound not to heal well, increasing the risk of pressure sores, a patient getting weaker, and of a patient falling, etcetera. Yeah, they [the indicators] are good for prevention' (HN3).* The signalling of potential health risks by indicator scores for individual patients was more broadly shared by nurses.

Performance measuring is considered useful by some as it provides knowledge-that to evaluate how a department is doing (prison context), and the quality and safety of care (hospital context). One nurse tells that performance numbers on a more aggregate level could help in assessing errors:

if structural mistakes are made, or if things go wrong structurally in using a particular tool, then we can assess whether this tool is still reliable enough, or whether we need to find another tool. Is it still safe? Isn't it better to remove it from our care system completely? (HN5)

Also other nurses and managers stress the importance of performance management for evaluating the quality of care. In the prison context, only managers mention they use benchmarks to assess their performance *'in relation to other departments' (PM5).* Prison guards do not mention this type of evaluative knowledge-that.

Knowledge-how

Cognitive skills. Recording and using performance information could also enable frontline workers in using cognitive skills that are considered relevant for the job: observing and reflecting. Both these skills refer to being involved a conscious intellectual activity, involving the processing of information. Observing refers to an individual, embodied skill (Lam 2000) that is considered of key importance for the nursing job, as nurses need to stay alert to possible changes in health conditions of patients and may not forget to perform certain actions. Recording helps them in staying alert:

It really makes me think. Sometimes I am reporting something, and thinking, hmm I cannot write it down like this, because I didn't do anything about it. So I go back to the room and ask again, or if someone has a pain score of 8 and calls to say he's in pain, then I go and ask a [colleague] nurse why he didn't get anything against the pain, because he scores an 8 (HN8).

In the prison context, observing is mentioned less often, and in a different way. Not talking about the act of recording as such, but about the discussion of the recordings on performance indicators in the multidisciplinary meeting, a prison guard tells:

I found it very interesting. You discuss every detainee and you are asked: "how do you see that guy"? While you are not a mentor of that person. That makes you sharp, like, I also have to watch the other guys too (PG7).

Reflecting, the other cognitive skill that is encouraged by performance measuring, here refers to a more collective form of knowledge-how, i.e. embedded knowledge that resides in organizational routines and shared norms (Lam 2000).

In this case, it involves a team discussion of performance information when certain norms are not met, with the aim to understand why this happened and to improve practices. In talking about performance indicators related to pain scores and delirium, a hospital manager stresses: *'We use those numbers to assess our teams: we have missed a couple of patients, why is that? (...) How are we going to improve that together?'* (HM2). In the prison context, some managers tell that if numbers are low compared to other departments, they *'discuss them together'* within their teams (PM2; PM3), and try to figure out *'Why is that? Where does that come from'* (PM2), and stress that they *'have to score better'* (PM3), and *'try harder and make sure to achieve it [indicator norms]'* (PM5). In the nursing context, this sometimes happens more deeply and on the initiative of nurses themselves, as they can choose the indicator they want to reflect and improve upon: *'We have team performance indicators, which we make if we notice (...) that something is not going well (...). Then we count to keep track of how we are doing each day'* (HN7). This nurse stresses that indicators *'not necessarily come from above'*, but also from their own *'working groups that assess those scores, and sometimes make a team performance indicator'* (HN7). Thus, while reflecting on numbers to improve practices was mentioned in both contexts, nurses do so less with a focus on improving the numbers themselves, and more proactively with a focus on improving work practices.

At the same time, it was stressed that there is a lack of resources to produce high-quality performance data and to actually learn and improve practices. While nurses seem to have more control over the choice of (a part of the) indicators, and also collectively reflect on scores, *'if you need interventions and possibilities to change them, we often get stuck in time and money'*, and hear from higher-ups: *'yes, you can think about it, but in your spare time'* (HN1). Relatedly, it was mentioned that the digital systems are not always designed well to extract outcomes of the indicators, so they experience a barrier in *'generating outcomes and to present them clearly to the people that need to work with them'* (HM3). In the prison context, the problem of resources seems even more pervasive, as a manager considers his staff underqualified to write high-quality reports and correctly interpret the behaviour of detainees. He argues that these vocationally trained guards should get extra training, but still wonders whether these competences may be expected from them (FN2). In both contexts, moreover, frontline workers experience a heavy workload and a lack of time to properly record for the indicators, and sometimes feel that they are simply ticking off indicators.

Social skills. Performance measuring at the frontline could enable certain social skills, which are used to interact and communicate to others, in this case peers, superiors and clients. Three types were found: relating, collaborating, and account-holding. Just like observing, relating refers to an individual, tacit skill. The insights that workers acquire from recording could help them in empathizing with clients. A prison guard tells:

The positive thing about it is that you are having a conversation with a detainee about the things you write. You have a look at how he has been lately. If it is a negative picture, he will ask me why I think it's negative. Then you can talk with him about it, and also about his view. He often has a very different view. The positive thing about that is that you can explain (...) what he needs to work on (PG10).

A prison manager mentions it helps him in having smooth conversations with detainees:

We report about a detainee much more than ever, so we know a lot more about him. This also makes that you can adjust yourself while interacting with a detainee, to cause as little aggression as possible (PM3).

A hospital manager tells that patient reported outcomes help in communicating with patients: *'you discuss with patients what they expect from this treatment, and [how] are we going to take care of it together. The international patient reported outcome indicators help enormously in this'* (HM4).

Collaborating and account-holding refer to embedded practices, which are largely led by routines and shared norms on how professionals should work together. Recording properly enables them to inform the next shift or colleagues at other departments about clients. A prison guard mentions it is important to share knowledge between professionals, to tailor to the needs of detainees. Referring to different living areas, such as daytime activities, work, housing, and care, he tells:

it is important for another [professional] to know how someone [a detainee] manifests oneself here. Just like it is important for us to know how he manifests himself outside. To look at what someone needs to help him, and what he can do himself (PG9).

A hospital nurse stresses how using the malnutrition indicator sets in motion a collaboration between different disciplines: *'the moment the score is three or higher, a dietician is consulted, who then comes the same or following day to, well, dig into that. That's great, the collaboration with other disciplines, which is also good for the patient'* (HN4). Important to note is that while recording, also more generally, is seen as essential for collaborating between professionals, respondents in both contexts mention they sometimes experience their recordings are not read by other departments, either because they use a different system, or because they prioritize their own recordings.

A frontline nurse, who is also the chair of the nurse advisory board of that hospital, mentions that performance numbers could serve as a common language to talk with higher managers and directors:

'Numbers could help us, especially if you want to speak the language of others who do talk about money (...); and (...) you need to say something meaningful and to talk in the [right] language, higher in the organization. If we do not understand that language, then we are not taken seriously, right?' (HN1).

At the same time, this respondent acknowledges that, while this is improving, nurses are not skilled enough yet in using those numbers as common language, as they are differently trained.

Recording for performance measuring has also enabled frontline professionals to hold each other accountable. A hospital nurse stresses that it is not possible anymore to not keep the preventative scores: *'Nurses could go about their business for a long time here, but that's not allowed anymore. Things are clear, you agree upon things together, and you need to be able to give arguments'* (HN1). Prison guards stress recordings on detainees' behaviour contribute to less biased and more trustworthy decisions, as it is more difficult for detainees to get in the favour of guards (PG6; PG10).

Tactical skills. Besides cognitive and social skills, performance measuring at the frontline could enable professionals by empowering them. In this case, recordings and performance numbers are used in a tactical manner, i.e. to gain an advantage vis-à-vis other social actors. Two types of tactical skill were found: protecting and influencing. In the nursing context, recording is seen as essential to protect oneself from possible complaints:

The moment we have someone [a patient] who is unable to mobilize, we always hope someone [a nurse] generates an order, like, mobilising or decubitus prevention, or something. This often comes back [in the system] as a stimulus to not forget, so there are possibilities here to cover yourself and to make sure everyone is working on it (HN4).

The relevance of recording for protection is mentioned by almost all nurses, and also something that nurses learn early on the job: *'It is being imprinted on us, young nurses, very heavily: if you don't trust it, record it'* (HN3). For nurses, this makes it then also an embedded practice, led by shared social norms. In the prison context, the protective function of recording for performance indicators is not mentioned by prison guards, but only by one manager.

Performance measuring could also provide professionals with leverage to press for changes. By using performance numbers, workers could exert an influence on decision making by higher managers or directors. In both the nursing and prison context, it is mentioned that numbers were used as means to show higher-ups that there is a shortage of resources to perform the job well. Prison guards used performance feedback as *'a cry for help: we need more people'* (PG7). In the nursing context, the system was even used proactively to collect data about indicators nurses themselves created, to acquire proof of the high workload they would like to change: *So we are going to score this at the end of our shifts. Day, evening, night shifts, how this is experienced, so the computer systems indicates what the workload is, and how many employees we need for that, and whether that corresponds with our experience'* (HN4). In the hospital context, two respondents furthermore mention that numbers could serve as proof for the quality of care to external stakeholders, which is deemed important for finances.

Conclusion and discussion

The aim of this study was to conceptualize frontline enablement by hybrid performance management systems. Drawing on in-depth qualitative research among hospital nurses, prison guards and managers, this research found that performance measuring, including both recording practices and the resulting performance numbers, provides the frontline with additional action resources. Both the production of performance recordings (input) and resulting performance numbers (output) generate various forms of knowledge deemed valuable for improving the quality of service provision. Hybrid performance systems do not only generate forms of knowledge-that, useful for signalling, evaluating and decision making, but also various forms of knowledge-how, ranging from cognitive, social and tactical skills. Notwithstanding differences in manifestations, the different forms of knowledge were found in two very distinct street-level contexts. This indicates they are common characteristics of frontline enablement that cut across variations. The conceptualization of frontline enablement provides a building block for further theorizing on the impact of (hybrid) performance management systems on frontline work.

These findings have implications for existing scholarship. First, this study builds on the limited research on street-level enablement (Buffat 2015; Høybye-Mortensen and Ejbye-Ernst 2019), by conceptualizing different types of enablement by hybrid performance management systems. In doing so, it contributes to the rather underexplored concept of ‘management-by-enabling’ (Brodin 2011, 1274; Elmore 1979), that is relevant for hybrid performance regimes, focused on control and development (Jakobsen et al. 2018). Low constraints on the demand side, i.e. prescribed courses of action (Hupe and Buffat 2014) by not using strong punishments and rewards, do not automatically lead to enablement. While nurses’ professional involvement in the choice of indicators could have affected their experiences of enablement, this study has however shown that this is not enough. In both contexts it was stressed that there was a lack of resources, such as time and training, to produce good-quality performance data and to work on improving processes based on performance scores. To let performance management systems work for frontline workers, investing in the ‘supply side’ (Hupe and Buffat 2014) is also of key importance.

Second, the findings underline the importance of studying street-level workers’ professional agency and different forms of knowledge in frontline work (Cecchini and Harrits 2022; Møller 2022). While research on the impact of performance management systems on frontline work often focuses on the power dimension, by showing how workers are curtailed by or how they resist such systems (Buffat 2015), this study has shown how the impact can also be understood from a knowledge perspective (Møller 2022). From this perspective, we have learned that hybrid performance management systems could generate different forms of knowledge—that and knowledge-how, considered valuable in daily work with citizen-clients and colleagues. This brings a more nuanced perspective, as this research has shown that experiences of curtailment by performance systems (adding to heavy workload, limiting time to spend on clients), while interrelated, do not preclude experiences of enablement in other regards. Moreover, reflecting on the differences between the two professional contexts, this study has found how the studied nurses are embedded more deeply in reflection practices based on indicators, and use the system to their advantage in more ways than prison guards. To the contrary, the studied prison guards and their managers feel performance management systems mainly generate knowledge for higher-ups. As such, working with those systems adds to their workload, but with only minimal connection to and perceived benefits for knowledge uses in primary processes. While this research is not able to explain these differences in breadth and depth of enablement experiences between the two contexts, it is likely that the power that comes with professional autonomy could help in making the systems work at the frontline, i.e. generating meaningful knowledge that is valued for fulfilling aspects of one’s task. This then points to the added value of a combined focus on the power and knowledge dimension of frontline work, and calls for research on how professional power plays a role in the integration of various sources of knowledge in service delivery.

Third, this research contributes to literature focusing on bottom-up performance management and street-level entrepreneurship (Arnold 2021; Cohen and Aviram 2021; Gassner, Gofen, and Raaphorst 2022; Gofen and Gassner 2022). Studies on bottom-up performance management show how the workings of performance measuring systems are the result of an interplay between top-down implementation and bottom-up influence and adaptation, in which middle managers have a key role. The current study shows how street-level workers themselves could also try to exert bottom-up influence by using the system to their advantage, adapting the system to their own needs, and claiming a seat at the management table. It also showed that the introduction of a performance management

system not automatically implies collective reflection practices focused on improving, nor its tactical use by street-level workers. Future research could further examine the role of street-level policy entrepreneurs, those who invest time and energy to innovate work processes and outcomes, and to convince others to adopt those innovations (Arnold 2021; Vinzant and Crothers 1996), in facilitating enablement by performance measuring.

This research also has limitations which need reflection. A first limitation relates to the empirical generalizability of the findings. In order to conceptualize enablement, the study focused only on hybrid performance regimes that also focus on internal development. It is likely that in settings where street-level workers are curtailed by performance measurement systems to a greater extent, they experience less enablement. In addition, this research is not able to generalize the findings to the broader population of Dutch prison guards, nurses and their managers, due to the sample size and use of a convenience sample. While this sampling technique suited the core aim of conceptualization, it does not allow for empirical generalizations. Future research should use larger samples and randomized sampling techniques to examine the extent to and ways in which the different types of enablement represent broader populations of frontline workers.

Second, to be able to build a conceptualization of frontline enablement, this research has studied two very distinct professional contexts in order to find common patterns that cut across variations. However, this selection did not allow for examining explanations of differences in enablement experiences. While professional involvement in the choice of indicators could play a role (see also Petersen 2020; Moynihan, Baekgaard, and Jakobsen 2020, on the relationship with frontline learning), there are many other variations between the contexts that could affect the breadth and depth of frontline enablement by hybrid performance regimes. One such variation is the target group. Patients are more powerful and constructed as more deserving than detainees, who are less powerful and negatively constructed by the public (Schneider and Ingram 1993). As such, it is possible that performance management systems are better designed to serve patients than detainees. In addition, while prison guards and nurses both record characteristics of clients, they record different aspects using different tools. Prison guards need to record detainee behaviour, mainly using their observation skills, but also urine tests, whilst nurses have more tools at hand beside their observation skills to measure a patient's health status. The type of recording task, involving more or less mechanical (e.g. processing quantitative data) or human skills (e.g. subjective judgement) (Lee 2018), thus, could also affect how and the extent to which frontline workers experience enablement. Future research could examine the impact of characteristics of target groups and type of recording task on the design and uses of performance management systems, and hence, frontline workers' enablement. This study provided the first conceptual building blocks that allow for such future research undertakings.

Notes

1. Buffat, who distinguished the curtailment thesis from the enablement thesis, mainly focuses on discretion and e-government, but also uses examples on the impact of New Public Management and ICT tools on street-level bureaucrats' discretion.
2. While two investigators were involved in the data collection process, only one of the investigators (the author of this manuscript) was responsible for the set-up, analysis and writing of this manuscript.
3. The interview guide was adapted to the specific contexts. The interview guide for managers was mostly the same, but with an addition focusing on how they steer on performance measuring

systems and outputs. Moreover, because professionals in hospitals work with different systems and use a different jargon than professionals working in prisons, the wording of the questions differed.

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ORCID

Nadine Raaphorst  <http://orcid.org/0000-0001-6189-6451>

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Appendices

Appendix A: Interview guide street-level workers³

Overarching topics	Goal	Topics interview questions & probes
Before the interview	Explaining nature and aim of research, reassuring confidentiality, handling of data, and seeking permission and consent	● Explaining aim of research project ● Explaining handling of data ● Asking permission to audio record interview ● Asking informed consent
Introduction	Acquiring contextual knowledge Setting the scene of the interview and role expectations	● Professional background and experience ● Current job and activities
Performance measuring in daily work	Acquiring knowledge about role of performance measuring in daily work	● Kinds of indicators and systems ● Reporting activities ● Time investment
Impact performance measurement systems	Acquiring knowledge about curtailment, continuation, enablement and other consequences	● Impact of performance measuring on room for manoeuvre and available resources > More, less, the same or combination > Examples of contexts in which this is experienced ● Impact of performance measuring on social relations > Clients > Supervisors > Peers ● Perceived usefulness of indicators/performance measuring systems > Why and how > Examples of different beneficial uses
Impact performance outputs	Acquiring knowledge about curtailment, continuation, enablement	● Feedback from higher-up(s) on numbers/percentages resulting from performance measuring > How often; what; how > Examples > Reactions on the shop floor (experiences; verbal; behavioural) ● Importance of (performance) numbers in daily work > If so, why and how > If not, why not
Values in work	Acquiring knowledge on respondents' central values in performing their role Signalling the end of the interview	● What is deemed important in daily work with clients > Why > Relevance of room for manoeuvre in this > Relevance of performance systems/numbers in this ● Importance of room for manoeuvre in daily work > Why ● Importance of working with performance measuring systems > Why
Closing	Exploring other themes left unmentioned but of potential importance for the research Explaining overall planning of research project	● Any other themes that respondent would like to address ● Explaining further planning of the project

Appendix B: Interviewees’ background characteristics

Respondent ID	Organization	Department	Job position
PG1	4	House of custody	Prison guard
PG2	4	House of custody/Prison	Prison guard
PG3	5	House of custody	Prison guard
PG4	1	Prison	Prison guard
PG5	1	House of custody; Special care	Prison guard
PG6	1	Prison	Prison guard
PG7	2	Prison	Prison guard
PG8	2	House of custody	Prison guard
PG9	3	House of custody; Special care	Prison guard
PG10	3	House of custody	Prison guard
PM1	4	Security	Prison manager
PM2	5	House of custody	Prison manager
PM3	1	Security	Prison manager
PM4	3	Arrests	Prison manager
PM5	3	House of custody; Special care	Prison manager
PM6	1	Prison	Prison manager
PM7	3	House of custody	Prison manager
HN1	General hospital 4	Anonymized	Hospital nurse; Vice chair of Nurse Advisory Board
HN2	General hospital 4	Neonatology	Hospital nurse
HN3	General hospital 1	Neurosurgery	Hospital nurse
HN4	General hospital 2	Stomach, bowel, liver diseases	Hospital nurse
HN5	Academic hospital 1	Pediatrics	Hospital nurse
HN6	Academic hospital 2	Emergency room	Hospital nurse
HN7	General hospital 3	Obstetrics	Hospital nurse
HN8	Academic hospital 2	Emergency room	Hospital nurse
HM1	General hospital 4	Heart and lung	Hospital manager
HM2	General hospital 5	Pediatrics and obstetrics	Hospital manager
HM3	General hospital 4	Quality and health policy	Hospital manager
HM4	General hospital 3	Pediatrics, obstetrics, neonatology	Hospital manager
HM5	General hospital 4	General	Hospital manager
HM6	General hospital 4	Cardiology	Hospital manager

Appendix C: Characteristics of observed locations

Fieldnote ID*	Organization	Department(s)	#No units observed	#No of employees observed	Informal conversations with #no of observants**
FN1	1	House of custody; Special care	2	6	6

(Continued)

Fieldnote ID*	Organization	Department(s)	#No units observed	#No of employees observed	Informal conversations with #no of observants**
FN2	1	Prison	1	7	4
FN3	2	Prison	1	6	5
FN4	2	House of custody	1	6	5
FN5	3	House of custody	1	6	3
FN6	3	House of custody; Special care	2	9	5
FN7	3	Arrest	1	6	3
FN8	3	Arrest	2	9	4

*Each fieldnote covers a different day of observations. At some days (see FN1, FN6, FN8) multiple units were visited and observed.

**The number of observants with whom informal conversations were held varies either because of differences in the number of units observed, or because other formal interviews were planned.

Appendix D: Coding table of types of enablement by hybrid performance regimes

Types and subtypes	Content prison context	Number of respondents	Content hospital context	Number of respondents
Knowledge-that				
<i>Used to decide</i>	Insight into behaviour of detainee	4 (3 PGs; 1 PM)	Insight into condition of client	4 (4 HNs)
<i>Used to signal</i>	Insight into risky behavioural patterns	1 (1 PG)	Insight into health risks	4 (3 HNs; 1 HM)
<i>Used to evaluate</i>	Insight into how a department is doing	5 (5 PMs)	Insight into safety or quality of treatments	7 (5 HNs; 2 HMs)
Knowledge-how				
Cognitive skills				
<i>Observing</i>	Keeping one alert	2 (1 PG; 1 PM)	Keeping one alert and preventing overconfidence	5 (4 HNs; 1 HM)
<i>Reflecting</i>	Collectively reflecting to improve	4 (1 PG; 3 PMs)	Collectively reflecting to improve	6 (1 HN; 5 HMs)
Social skills				
<i>Relating</i>	Empathizing with clients	4 (2 PGs; 2 PMs)	Informing and adjusting to patients' wishes	1 (1 HM)
<i>Collaborating</i>	Facilitating information exchange	7 (6 PGs; 1 PM)	Facilitating information exchange	7 (6 HNs; 1 HM)
			Using language of numbers to talk to management	1 (1 HN)
<i>Account-holding</i>	Minimizing favouritism	3 (2 PGs; 1 PM)	Keeping each other in check	1 (1 HN)
Tactical skills				
<i>Protecting</i>	From (possible) complaints of higher ups	1 (1 PM)	From (possible) complaints of doctors and clients	3 (3 HNs)

(Continued)

Types and subtypes	Content prison context	Number of respondents	Content hospital context	Number of respondents
<i>Influencing</i>	Using existing numbers to press for bottom up changes	1 (1 PG)	Using existing numbers and numbers on self-created indicators to press for bottom up changes	5 (4 HNs; 1 HM)
			Proof of performance to external investors and/or insurers	2 (1 HM; 1 HN)

Appendix E: Different types of enablement found with examples

Types and subtypes	Descriptions	Examples input side*	Examples output side**
Knowledge-that			
<i>Used to decide</i>	Performance measuring yields insight used for decision making	<i>Prison context</i> Insight into facts needed to reward someone <i>Nursing context</i> Assessment of a patient's situation to provide the needed care	-
<i>Used to signal</i>	Performance measuring yields signalling knowledge	<i>Prison context</i> Insight into visible behaviours that signal likely invisible behaviours <i>Nursing context</i> Insight into risks of a patient developing potential health conditions	-
<i>Used to evaluate</i>	Performance measuring yields evaluative knowledge	<i>Nursing context</i> In case of a mistake, retrospective insight into why a certain decision was made	<i>Prison context</i> Insight into where department with teams are standing compared to others <i>Nursing context</i> Insight into mistakes or things that go wrong around certain tools raising questions on their reliability and safety
Knowledge-how			
<i>Cognitive skills</i>			
<i>Observing</i>	Performance measuring stimulates observation skills	<i>Prison context</i> Discussing input on detainees in multidisciplinary teams keeps one on their toes <i>Nursing context</i> Keeping score lists keeps one alert and prevents overconfidence	-

(Continued)

Types and subtypes	Descriptions	Examples input side*	Examples output side**
<i>Reflecting</i>	Performance measuring encourages collective reflection to improve practices	<i>Prison context</i> Reflecting on frontline actions because of recordings <i>Nursing context</i> Reflecting on choice of internal indicators (amount and type) in consultation with other stakeholders	<i>Prison context</i> Reflecting on 'the why' behind the scores in consultation with colleagues to discuss what can be improved <i>Nursing context</i> Reflecting on 'the why' behind scores and making care agreements or team indicators together within teams on regular basis
<i>Social skills Relating</i>	Performance measuring encourages relating with clients	<i>Prison context</i> Stimulating conversations with detainees on their behaviour and adjusting one's approach to a detainee based on assessment	<i>Nursing context</i> Communicating indicator scores on treatments to patients and adjusting to patients' wishes
<i>Collaborating</i>	Performance measuring facilitates collaboration	<i>Prison context</i> Facilitating information exchange within the organization to create a full picture <i>Nursing context</i> Facilitating transfer of information to and collaboration with other shift and disciplines	<i>Nursing context</i> Creating a common language based on numbers to talk to management
<i>Account-holding</i>	Performance measuring encourages accountability practices	<i>Prison context</i> Minimizing possibility of favouritism <i>Nursing context</i> Recording for indicators keeps everyone in check	-
<i>Tactical skills Protecting</i>	Performance measuring protects from (possible) complaints	<i>Prison context</i> Using recordings on indicators to protect from possible complaints from higher-ups <i>Nursing context</i> Using recordings on indicators to protect from possible patient complaints	-
<i>Influencing</i>	Performance measuring empowers to press for bottom-up changes	-	<i>Prison context</i> Pressing for changes using existing indicator scores <i>Hospital context</i> Pressing for changes using scores on existing or self-created indicators Providing proof of performance to investors or insurers

*The input side refers to the act of recording or discussions of specific recordings on performance indicators.

**The output side refers to the use of numerical performance output on the aggregate level of a team, department or organization.