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Analysis of managerial strategies for employee motivation in the healthcare sector.

A thesis presented by

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To Enrica.

To Maurilio.

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Executive summary

This dissertation is a collection of three papers aiming at analysing which are the strategies and managerial levers to motivate employees in the healthcare sector.
Chapter 1 offers a brief overview of the main theories dealing with motivation, it also introduces the logical connections between the research questions investigated through the three papers.

Chapter 2 summarizes the findings of the literature (focusing on empirical studies) on the levers used in the healthcare sector to motivate workers, with a particular focus on the impact of management control tools on motivation.

Chapter 3 analyses the relationships between job satisfaction and labour contract in 70 Tuscan Nursing Homes. It considers labour contract as the variable to measure working conditions. It is an innovative perspective because of the peculiar Italian normative context on collective labour contracts. Indeed, many of studies on nursing homes focus on US context and monitor wage, extra hours and other factors separately.

Chapter 4 explores the implementation of procedures aiming at listening to the employee voice within Italian public healthcare organizations. Italian public healthcare organizations administer questionnaires referring to organizational wellness, organizational climate or safety framework. In particular, this chapter discusses the differences among the three theoretical perspectives, the techniques adopted and the way of reporting results of employee surveys.

CHAPTER 1

Introduction

1. Motivation

Managerial studies tend to focus on tools and strategies adopted by the heads of the organizations in order to orient employee behaviour. Literature includes many examples of works aiming at understanding the way people react to environmental, cultural and often organizational changes. Many authors showed a crucial correlation among high performance, customer satisfaction and organizational climate (Goleman, 2000). In general, employee satisfaction has been found to be very crucial in order to orient the functioning of the whole organization. Therefore, it has a direct and positive impact on organizational performance (Schneider, 1987; Judge et al., 2001; Dawson et al., 2008). Both scholars and practitioners have been promoting managerial tools to orient individuals and organizations.

In general, people's behaviour depends on several variables that can be divided into three main groups. First, there is bounded rationality. This represents the idea that in decision-making rationality of individuals is limited by the information received, by cognitive limitations of human mind and, at the same time, the limited amount of time available to make a decision (Simon, 1955; 1991). From this point of view, people, when taking any decision, generally seek a satisfactory solution rather than the optimal one (which is theoretically unattainable). Thus, rationality represents the way people tend to optimise.
At the same time, motivation certainly affects human behaviour. For this reason, many theories have been developed since the mid '50s, in order to understand the motivational element. Both scholars and practitioners have been pushed by the willingness to study the inner workings and the drivers of people motivation (above all, workers). Moreover, they usually aim at the comprehension of the way motivation and satisfaction affect people behaviours.

Some of the studies on motivation have represented a real milestone from a managerial perspective. Maslow's theory of needs ("*A theory of human motivation*", 1943), for example, considers motivation as the reaction to people inclination in

order to satisfy different kind of needs, ranked according to a sort of "wish list". Hence, the first level of need satisfaction implies the arising willingness to satisfy different (and often more demanding) kind of needs. People's basic needs are physiological (food, water, reproduction, shelter); safety needs (protection); social (belonging, acceptance); ego related needs (status, appreciation); self-actualization needs (need to exploit their own potential).
Physiological needs, such as feeding, clothing and reproducing, are really basic and universal. Safety needs, in turn, tend to ensure people and organizations achievement of planned results. Subsequently, individuals are pushed by solidarity feelings towards those belonging to their community. Therefore, motivation depends on common purposes and emotions: individuals play their role in order to be effectively part of their group. Self-actualization need is on the top of the hierarchy and it is very common with post-industrial society individuals. It represents humans' willingness to establish themselves and express their personality.

Also Herzberg's two factors theory echo ("*The motivation to work*", 1959) has been rather relevant. In particular, referring to employment related relationships, two kind of factors can be identified. On the one hand, intrinsic factors that directly contribute to satisfaction in the full sense. These factors are based on psychological growing needs, grounded on work contents, and include goals achievement, recognition, aims, responsibility, professional advancement and promotions. On the other hand, extrinsic factors (hygienic factors), implicating that working environment is mostly free of dissatisfaction causes. They are related to physical, social and organizational environment and consist of working conditions, interpersonal relationships, compensation, safety, wellness and monitoring procedures.

People needs have been again considered by McClelland (1987) with some new features: they are considered according to a dynamic perspective. Needs can, indeed, vary on the basis of individuals personal reminders and development. McClelland's theory recognises three kind of needs. First, there is the need for success that is the personal willingness to establish oneself in compliance with general excellence standards and best practices. Furthermore, the need for power that implies that human beings tend to influence each other, according to their own aims and necessities. Finally, the need for affiliation that leads people to establish, maintain or restore positive interpersonal relationships.

People expectancies, instead, have been highlighted by Vroom (1966). According to this theory, people motivational process originates from their expectation to obtain different kinds of rewards. However, motivational process pushes people to behave in a way that helps them to achieve expected results.

Adams (1965) studied the existing relationships between motivation and equity. Motivation, indeed, would depend, as a consequence, on how much people feel to be equitably treated by the organization they work for. The perpetration of unfair actions would lower individuals' motivation. Hence, when people are treated badly or iniquitously, they react with undesirable behaviours. They reduce their diligence, effort or concentration, with a self-esteem decrease or, on the contrary, they ask for greater monetary or non-monetary rewards. Moreover, they tend to make comparisons with other people in order to test the solidity of equity principles and to influence negatively other people.

In conclusion, it is necessary to mention the public service motivation theory (PSM). This has been conceived for the first time in 1982 by Rainey. Nevertheless, Perry & Wise (1990) with their article "The Motivational Bases of Public Service" highlighted the need for specific research focused on the motivation of public sector workers. Private and public workers, indeed, are motivated by different factors. In particular, those belonging to the second group have a desire to serve the public and link their behaviour with the overall public interest. This does not mean that public workers are benefactors and that private ones are selfish. However, there are substantial differences in the credit given to the common good.

Among the above mentioned kinds of factors affecting people's behaviour, we chose to focus on motivation because of its relevant implication that is very interesting from a managerial point of view. Organizational performance has been seen, indeed, as critically dependent on employee motivation. Desirable outcomes are all directly mediated by the willingness of the employee to fulfil their tasks. From a managerial point of view, theories about motivation have been recently considered, together with traditional management accounting tools. Non-accounting control (i.e. personnel forms of control) has been found to be strongly related to organization effectiveness (Abernethy & Brownell, 1997). Furthermore, another explanatory study has been designed to assess how authority structures, in a large teaching hospital, influence the

use of accounting information by physicians appointed to manage clinical units (Abernethy & Vagnoni, 2004).

Management accounting tools and implementation are based on a preliminary knowledge of psychological-based variables, because of their crucial influence on decisions and human behaviours (Macinati, 2013). This statement represents the starting point of behavioural management accounting studies. These are, indeed, focused on the relationship between managerial control and human capital. Hence, the former can be seen as a tool to guide and motivate the latter. People's inclinations, feelings, behaviours, responses to available information and desired results are essential factors to be considered in order to verify the degree of success and effectiveness of managerial strategies and tools, adopted by different organizations. Control systems and traditional accounting management principles could be profitably used to measure and evaluate behavioural and motivational indicators trend. Therefore, these represent, at the same time, important starting points and outcomes of well-functioning organizations. On the one hand, the more managerial choices and strategies are proper, the more people are satisfied. On the other hand, when people are motivated, they are fruitfully pushed to work accurately and behave in the right way.

2. Orienting behaviours in the healthcare sector

In the health care field, the achievement of specific objectives crucially depends on the provision of effective, efficient, accessible, viable and high-quality services (Lambrou et al., 2010). Motivation can play an essential role in many challenging issues affecting healthcare (Ratanawongsa et al., 2006).

The healthcare workforce has a number of typical and unique characteristics, such as education, expertise and relationships with patients that should be carefully considered. Moreover, health professionals' engagement is very important. Indeed, they represent the means through which patients primarily relate to the health system. Many aspects of the overall healthcare system, indeed, effectively originate from the physician behaviour (Gosfield & Reinertsen, 2003). Professionals are the base of the clinical service delivery, so that their performance is the crucial factor of

the service value delivered to the patients (Schwartz et al., 2000). Bini (2015) described organizational hierarchies by means of a pyramid scheme. In fact, traditionally ideas and directions primarily flow from top to bottom, that is from the executive to the worker level. Moreover, public organizations are often structured according to the traditional hierarchic model too. Although the strategic choices are clearly adopted to satisfy the requests and needs of the population (corresponding to the base), the strategies are mostly implemented on the basis of a top-down logic. Conversely, healthcare organizations are characterized by a different structure and, as a consequence, a different approach. Decisions are, as a rule, taken by the employees (i.e. nurses and physicians) who are in touch with patients and their families. Instead, top managers and executives control and supervise their actions in order to orient their behaviours (Mosley & Pietri, 2014). This kind of hierarchy structure (mostly characterizing innovative organizations) depends on the predominance of the work of many highly specialized professionals, crucially influencing strategic and organizational decisions.

Physicians have a wide range of autonomy and they effectively use their independence in their everyday decisions. Their degree of autonomous control is mostly higher than that characterizing staff in formal managerial positions. The majority of operational choices affecting both patients' health and the use of resources within organizations depends on professionals' decisions. For example, physicians are responsible for about the 75% of the costs currently supported by healthcare organizations (Tjosvold and MacPherson, 1996). This is the reason why health professional involvement is relevant for the creation of value for patients through the expense reduction and care quality improvement.

For this purpose, Henry Mintzberg (1989; 1996) explained the specific division of labour and operation resorting to the dual professional bureaucracy. In a few words, healthcare organizations are specifically characterized by a sort of twofold hierarchy: authority is shared by top management and specialized employees. Managerial power, indeed, does not remain only in the hands of people formally appointed as managers. Physicians could be even considered as a sort of "shadow hierarchy", since they play a fundamental role from a managerial and decision-making perspective (Pool, 1991). Nowadays, it is possible to register an essential trend towards shared decision-making models. Managers are becoming more aware of the characteristics of clinical activities (there is a number of measures designed to ensure healthcare top

managers' expertise), while physicians are constantly educated to better understand managerial techniques and to assimilate managerial skills (Freidson, 2002). At the same time, health professionals are more and more involved in leadership roles; nevertheless, this condition often does not imply a desirable increase in the engagement level (Denis et al., 2013).

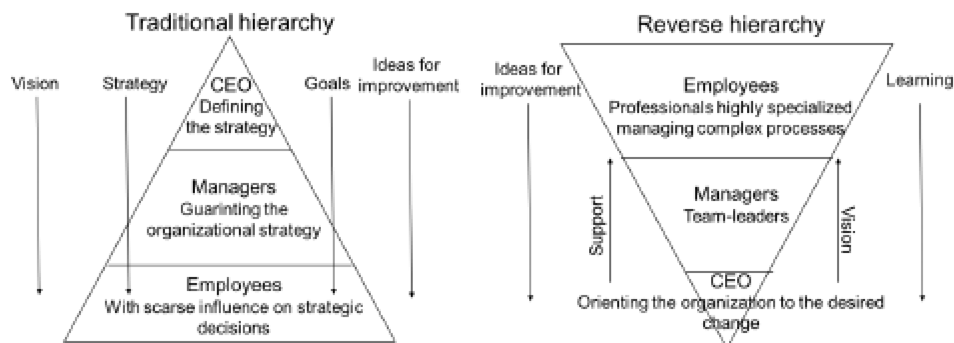

Figure 1: Traditional and reverse hierarchy (figure by Bini, 2015).

3. The research questions

Motivation of healthcare professionals is defined by Franco et al. (2002) as the willingness to exert different levels of effort towards the achievement of organizational goals and satisfaction of existing needs. It is also considered among the main outcomes of the work by Hackman & Oldham (1976), together with absenteeism and performance, in turn influenced by critical psychological states. Motivation can be considered as "a key factor for performance of individuals and organizations" (Hornby & Sidney, 1988). However, nowadays, contrasting evidence on the effects produced by motivational factors exists. For example, financial incentives could be recognized as a priority for health professionals (Shortell & Kaluzny, 2006) or, on the contrary, as demotivating factors (Whoolhandler et al., 2012). Moreover, some scholars observed a trade-off between extrinsic rewards and motivation (Perry & Wise, 1990; Wright, 2007).

The factors influencing motivation can be divided into two main groups: the so called control mechanisms (Flamholtz et al., 1985; Ferreira & Otley, 2009) and other

mechanisms that are often analysed by social and psychological disciplines too (e.g. Human Resource Management) such as job design, interpersonal relationships, team work features (Hackman & Oldham, 1976; So et al., 2011; Savič & Robida, 2013). Motivation in turn has an influence on both individual and organizational performance. In addition to this main motivation-centred flow, there are other endogenous and exogenous factors acting as moderators, affecting the strength of the relation between the variables considered. These factors influence, on the one hand, the relationship between control mechanisms or other factors and motivation; on the other hand, the relationship between motivation and performance. Therefore, the first part of this work aimed at answering the following research question:

RQ1: what is the impact of control mechanisms on motivation?

The introduction of "New Public Management" principles (Kettl, 2000; Pollitt, 1995) has promoted a number of reforms in public services organizations in order to improve their performance. These can be divided into two main groups: performance measurement systems (PMS) and compensation plans, such as pay for performance (Gruening, 2001; Petersen et al., 2006; Locke et al., 1981). Among the different managerial strategies, health care organizations and systems have concentrated their efforts on performance measurement tools and financial incentives throughout initiative such as pay for performance. As regard financial incentives, including compensation, salary supplements, benefits and allowances, contrasting evidence has been from time to time highlighted. A short digression on the specific topic of the health organizations CEOs compensation will be concisely outlined in the appendix to this chapter.

In particular, studies focusing on the relationship between pay and motivation in the healthcare sector are chiefly referred to the North American context. The definition of monetary and non-monetary elements of compensation is mostly included in the terms specified in European labour contracts or civil law regulations (Nickell, 1997). Clauses and conditions are mainly in the form of guidelines or framework. The employment relationship could end at any time; hiring and stipulations between individuals and the organization are negotiated and renegotiated. This is a significant difference from the way American labour contracts are structured. Consequently, studies on nursing home services focusing on North American labour dynamics and

considering wages and labour market characteristics or working conditions may not consider the influence of the contract itself. This study presents important novelty features. Compensation, indeed, is valued thanks to a sort of "all-inclusive" factor. It has been possible because collective agreements are binding for the contractor and in practice in the majority of southern and central European countries, they are also applied to not-unionized workers. In addition, the extent to which collective agreements are extended to non-unionized parties varies according to circumstances, such as the decentralization of bargaining process, the size of employers and the decline of government employment and shares. However, in Tuscany and clearly in Italy, collective bargaining is factually based on universal coverage, so that compensation is mostly preconditioned for all the considered workers. Therefore, this study also aimed at answering the following research question:

RQ2: what is the impact of collective labour contracts on employee satisfaction in healthcare service?

The final part of this Ph.D. dissertation is based on the analysis of motivation according to the workers' perspective. Overall, they can be considered as the real object of this work; thanks to their effort, it will be possible to provide high-quality, sustainable and equitable health services. Besides the financial lever, indeed, healthcare professionals' involvement has been more and more studied as a crucial factor in order to enhance motivation. Among motivational indicators, engagement is actually considered as a critical factor for health system reform and organizations clinical and financial performance (Reinertsen et al., 2007; Spurgeon et al., 2011; Clark, 2012). The more organizations develop and spread measurement tools, the more employees are accustomed to be engaged (Nuti, 2008).

In particular, organizational climate, that is the result of the perceptions and feelings of the people involved, has been found to be really important. It considerably influences the functioning of the team and the organization's performance (Spector, 1986). Organizational climate can be organically defined as "the quality of the internal environment of an organization" (Tagiuri, 1968). Moreover, it influences people behaviour and can be described in terms of the value of a specific group of features and qualities of the organization. Nevertheless, few studies specifically focus on the importance of the climate in the healthcare sector, so that further research is

needed in order to better understand these complex organizations (Rojas Torres, 2013).

This exploratory analysis originates from the recognition of the crucial relevance of employee involvement in order to allow decision-makers to take the right decisions. Therefore, in the present work, the following research questions have been answered:

RQ3: How much do healthcare organizations implement procedures focused on employee involvement?

Several studies highlighted, indeed, the importance of organizational climate in the healthcare context (i.e. Clarke et al., 2002; Stone et al., 2006; Wienand et al., 2007). An overall positive and profitable climate has been found to be crucially related to worker satisfaction, commitment, turnover and loyalty towards the organization. Studies on the organizational climate has been focused on several kind of organizations and professionals. However, this analysis, deeply explained in chapter 4, represents a sort of starting point, in order to test the diffusion of a productive culture.

4. How to answer the research questions

In order to answer to the above mentioned research questions some analysis have been carefully carried out. Studies have been developed thanks to the work of the proactive research team of the MeS Laboratory of the Institute of Management, Sant'Anna School of Advanced Studies.

First of all a systematic review of the literature has been carried out in order to draw an overview about the state of the art of the existing literature. The review, that has been already published on the Journal of Hospital Administration, focuses on empirical studies on motivation developed since 1990. It is expressly referred to studies contextualized in European, North American and Oceanian developed countries. This choice depends on the structural and cultural differences between

these countries (and health systems) and those belonging to different geopolitical areas, such as Far East and Africa.

After that, the effects of collective labour contracts on workers motivation have been examined through a multilevel analysis. In particular, this study focused on a significant category of health workers (nursing aides) employed by a specific kind of organization (nursing homes). From a methodological point of view, we were able to get required data from the results of the Organizational Climate's survey that was administered via Computer Assisted Web Interview (CAWI). This involved, from a census base, all employees working in Tuscan nursing homes who joined the network of the performance evaluation developed by the MeS Lab (Nuti & Rosa 2014). The survey was conducted in 2015 and included 62 organizations (2648 workers).

A multilevel analysis has been performed to analyse possible influences on motivation exerted by both individual (i.e. gender, age, citizenship, level of education, and employment relationship) and organizational factors (i.e. collective agreements and the facility size measured as the number of beds). Thanks to this model, it has been possible to observe the variation of motivation both across and within nursing homes and to measure the effects of both individual and nursing home factors. We also obtained information on motivation variability, explained through the characteristics of employee and the labour contract applied by the nursing home.
Finally, an exploratory analysis has been carried out, aiming at understanding the level of diffusion of employee survey in the Italian healthcare organizations (Local Health Authorities, autonomous hospitals, teaching hospitals and IRCCS) and the theoretical framework taken into consideration. Data related to the application of employee survey were gathered throughout the 238 official websites of the Italian healthcare organizations. Two regression analyses have been conducted in order to understand factors influencing the propensity to listen to employee voice and the rate of participation. Among variables explaining the difference there are the theoretical perspective and regional participation to the performance benchmarking network promoted by research centers.
The following table sums up the research questions, methods and the main findings obtained by the research carried out during the Ph.D.

RQ	Title [Chapter]	Methods	Findings	Paper advancement	Co-authors
What is the impact of control mechanisms on motivation?	Motivating health professionals through control mechanisms: A review of empirical evidence. [Chapter 2]	Systematic review of the literature. Classification based on Flamholtz *et al*. model (1985)	A few studies considered compensation strategies and monetary rewards as a driver of health care workers' motivation. Most of the studies highlighted the importance of the relationship with patients and colleagues as a crucial factor affecting workers' motivation.	Published on the *Journal of Hospital Administration*.	Milena Vainieri
What is the impact of collective labour contracts on employee satisfaction in healthcare service?	The role of collective labour contracts on job satisfaction in Tuscan Nursing homes. [Chapter 3]	Survey administered via CAWI (Nuti & Rosa, 2014). Multilevel analysis (Leeuw & Meijer 2007).	Organizational characteristics explain 16% of the variation. Labour contract with the worst conditions is not associated to lower motivation. For individual characteristics, foreign and temporary workers emerge as more satisfied than others.	Submitted to the *Health Care Management Review*.	Milena Vainieri, Antonella Rosa & Kathleen Carroll
How much do healthcare organizations implement procedures focused on employee involvement?	A comparative analysis on approaches and perspectives to listen to employee voice in the Italian healthcare	Content analysis and regression analysis.	The propensity to listen to employee voice is around 40%. The regional variable about belonging to a regional network significant influence the propensity to	To be submitted.	Milena Vainieri

	organizations. [Chapter 4]		administer and publish in a transparent way employee survey. The different theoretical approaches underpinning questionnaires do not influence the response rate.		

Table 1: Ph.D. outcomes.

Appendix

In addition to the works representing the core of the Ph.D. that have been accurately illustrated in previous chapters, other researches on human resources in the healthcare sector have been conducted. In particular, two of them have been carried out with the colleagues of the Management and Health Laboratory of the Institute of Management and published in an Italian journal and a book.

The first study I had the possibility to work on focuses on the general managers' compensation. The study analysed the factors influencing the variation throughout a multilevel model. This contribution was published on the oldest Italian journal of business organization, "*Sviluppo & Organizzazione*" (*La Variabilità di retribuzione dei DG nella sanità italiana*, by Milena Vainieri, Letizia Ravagli, Luca Pirisi, Leonardo Gezzi, Nicola Sciclone and Pierluigi Smaldone). The main finding is that the only variables with a statistically significant influence on the variation of the compensation is the institutional status of the organization and the regional financial performance: the poorer Regional financial performance the lower CEOs' compensation. At both national and regional level, policy makers should think about this evidence to avoid detrimental effects on the attractions of high skilled managers in unbalanced Regions.

Another research concerns a specific and very complex category of healthcare workers, that is medical residents. On the one hand, they are our future professionals and therefore strategically important. This category of healthcare professionals is distinctive due to its twofold nature. They are effectively medical doctors; therefore the residents can be included among all the highly specialized professionals of the healthcare sector. On the other hand, they are clearly students, involved in a demanding and selective education program.

This analysis has been published as a chapter of a book about the organization and management of teaching hospitals (*Le AOU luogo di formazione: la situazione italiana* by Milena Vainieri & Pierluigi Smaldone, edited by Sabina Nuti & Tommaso Grillo Ruggieri). The chapter focuses on the role of medical residents, their admission, agreements and the difficult balance between their tasks and responsibility.

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CHAPTER 2

Motivating health professionals through control mechanisms: a review of empirical evidence.

Abstract

This paper summarizes the findings of the literature on the levers used in the healthcare sector to motivate workers, with a particular focus on the impact of management control tools (such as Performance Measurement Systems (PMS) and Pay for Performance) on motivation. A review of the literature was carried out using the ISI Web of Knowledge, Pubmed and JSTOR search engines on the topic of motivation of healthcare workers, including, if possible, all the involved categories of employees. The research focused on empirical studies published in Europe, North America and Oceania from 1990 to 2015. Developing countries were intentionally excluded because of their specific needs and motivation perspectives that mainly focus on recruitment or retention strategies to ensure services provision. Studies on motivation generally focus on three main perspectives: (1) Employee satisfaction and emotions; (2) Retention; (3) Motivation or attitudes to carry out specific tasks or to behave appropriately. A few studies considered compensation strategies and monetary rewards as a driver of health care worker motivation. These studies did not report the crowding out effect of external locus of causality on motivation. On the contrary, most of the studies highlighted the importance of the relationship with patients and colleagues as a crucial factor affecting worker motivation, in particular referring to job satisfaction. Despite the large number of articles on the topic of employee motivation, there have been very few studies on the impact of the most popular managerial mechanisms introduced since the mid 1990s in health care systems.

1. Introduction

Organizational performance has been usually seen as critically dependent on employee motivation, with service quality, efficiency, and equity, all directly mediated by the willingness of employees to apply themselves to their tasks. Indeed, since the mid 1990s, both scholars and practitioners have been promoting managerial tools to orient individuals and organizations. In particular, on the way of New Public Management, there has been a growing recourse to private tools in the public sector. These can be divided into two main groups: performance measurement systems (PMS) (Gruening, 2001) and compensation plans (i.e. P4P) (Petersen et al., 2006; Scott et al., 2008; Locke et al., 1981). Among the different managerial strategies, health care organizations and systems have concentrated their efforts on performance measurement tools. Goals (as well as PMS) affect performance because they direct attention, mobilize effort, enhance persistence, and motivate strategy development. Therefore, goal setting contributes to improve task performance when goals appear specific and sufficiently challenging (Locke et al., 1981). Employees feel more satisfied and involved in their activities when the goals are sufficiently clear and thoroughly defined. Therefore, goal setting is one of the most influential tools used by managers have to motivate their workers. At present, there is an ongoing debate on the role of financial incentives. Unfortunately, different and sometimes contrasting evidence of the influence of financial incentives on workers' motivation is available. On the one hand, money is sometimes seen as a physicians' priority (Shortell & Kaluzny, 2006) while, on the other hand, financial incentives are associated with negative effects or with intrinsic motivation reduction after extrinsic motivation elicitation (Woolhandler *et al*. 2012; Frey, 1997; 2000). Policy makers have often relied primarily on financial incentives. There is, however, even if there is substantial debate on the prospects for and effectiveness of performance-related pay in public sector contexts (Nunberg & Nellis, 1990). Even when financial incentives are not explicitly used to promote higher productivity, the underlying philosophy of many health sector reform programs often implies that money is a key motivator in the work context (Franco *et al*., 2002). Nevertheless, it seems clear that financial incentives alone can't resolve motivation problems, although they should be factors that decisively influence workers motivation. Scholars and practitioners should keep in mind that it is scientifically impossible to draw univocal

conclusions about the positive or negative effect of the financial lever on both motivation and performance. As a matter of fact, managerial strategies purely founded on financial incentives could also exercise unfavorable effect on staff motivation (Woolhandler *et al*. 2012). Rather, the prospect of reaching monetary rewards could be perilously placed before the achievement of organizational goals in health care or, in general, public service provision (Giacomini *et al*., 1996). For this reason, workers could overestimate financial rewards compared to other types of reward. The literature sometimes shows differences in the implementation of financial incentives for different professionals. For example, general practitioners do not feel a decrease in their internal motivation, while nurses do (McDonald *et al*., 2007). Academic debate about the supposed tradeoff between extrinsic rewards, such as financial incentives, and motivation, has been heated in the past decade (Perry *et al*., 2010; Wright, 2007). Some authors have highlighted the crucial influence of nonmonetary factors on motivation, such as reputation or learning (Kolstad 2010; Hibbard *et al*., 2003). Resource availability and worker competence are necessary but not sufficient to ensure desired organizational performance. Franco *et al*.'s conceptual framework considers several motivational factors operating at the individual level in health care workers. These factors are divided into two main groups: the extent to which workers adopt organizational goals ("will do") and the extent to which workers effectively mobilize their personal resources to achieve joint goals ("can do"). According to their origins, determinants can be based at the individual level, at the immediate organizational context level , and at the cultural context level. Hence, Franco *et al*. itemize individual level determinants, such as individual goals, self-concept, expectations, and experience of outcomes, in turn coupled with worker's technical and intellectual ability to perform and with the physical available resources. By focusing on the organizational context, they also consider organizational structures, resources, processes, and culture, as well as organizational feedback on performance, as contributing to the individual motivational processes. Finally they take into account cultural and community influences, through two main dimensions: the relationship between organizational functioning and societal culture, and the effect of the interactions and links with assisted patients on professionals' behavior. The conceptual model has also clarified how health sector reform can positively affect worker

motivation. Health sector policy makers can operate in order to implement goal congruence (workers/organizations relationships) and improve worker motivation by considering the following in the policy design process: addressing multiple channels for worker motivation, recognizing communication and leadership importance, identifying both cultural and organizational values to facilitate or impede reforms, and understanding that reforms may have differential impacts on various health workers settings. This paper summarizes the findings of the literature on the levers applied to the health care sector to motivate workers with a particular focus on the impact of management control tools (such as Performance Measurement System) (Nuti, 2008). Both internal and external drivers are examined in order to highlight their effects on motivation. This is defined considering its possible meanings and nature, such as workers job satisfaction level, retention strategies success, turnover dynamics. On the basis of previous research, we were able to focus on retention as a sign of organizational attractiveness and individual fulfillment. Thus organizations able to retain their workers longer de facto reveal their capability to motivate them to the permanence. In a few words, motivated and satisfied personnel is clearly less inclined to leave the current job. As shown in Figure 1, the factors influencing motivation can be divided into two main groups: the so called control mechanisms (Flamholtz *et al.*, 1985; Ferreira & Otley, 2009) and the other mechanisms that are usually analyzed by social and psychological disciplines (e.g. Human Resource Management [HRM]) such as job design, interpersonal relationships, team work features (So *et al.*, 2011; Savic & Robida, 2008; Hackman & Oldham, 1976). Motivation in turn exercises its influence on both individual and organizational performance. In addition to this main motivation-centered flow, there are other endogenous and exogenous factors which act as moderators, affecting the strength of the relation between the variables considered. These factors influence, on the one hand, the relationship between control mechanisms or other mechanisms and motivation; on the other hand, the relationship between motivation and performance. Hence, this review aims at answering to the following research question: what is the impact of control mechanisms on motivation?

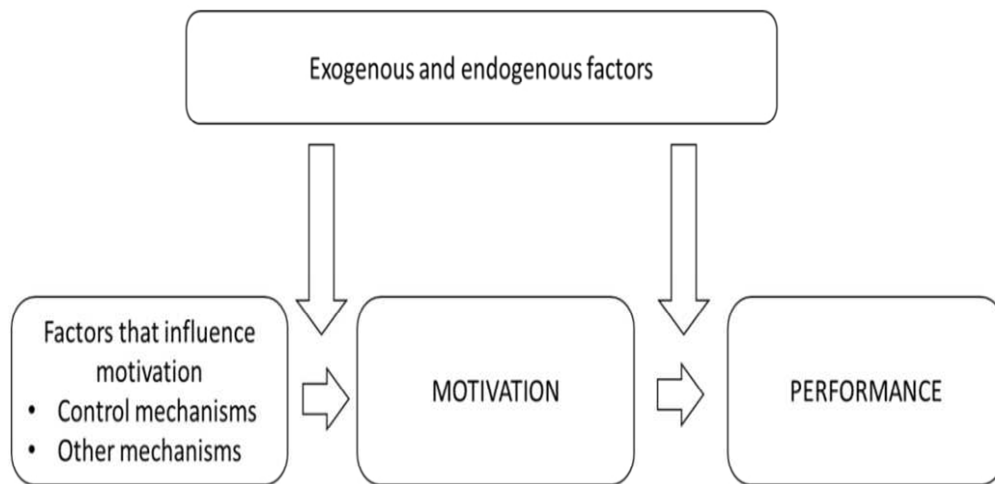

Figure 1: Relationships between operational mechanism, motivation and performance.

2. Framework

Our literature review is mainly based on Flamholtz *et al*. "integrative framework of organizational control". It allows us to recreate the process in figure 1. Moreover, the framework focuses on both individual and organizational perspectives; it illustrates the relationship between drivers, motivation and performance. Indeed, by considering factors affecting motivation, it highlights the difference between control mechanisms (Flamholtz *et al*., 1985; Ferreira & Otley, 2009), directly regulated by managers, and other mechanisms usually analyzed by social and psychological disciplines (e.g. HRM) such as job design, interpersonal relationships and team work features (So *et al*., 2011; Savic & Robida, 2008; Hackman & Oldham, 1976). The original model is based on four core control mechanisms (planning, measurement and information process, feedback, evaluation reward) that seek to influence the behavior of individuals within the organization. They constitute the so-called core control system that interacts with the other operational subsystem and outcome element of the organization. The above-mentioned core control system is embedded in a wider control context. It involves external elements on which managerial tools can't directly exercise their influence. The core control system is influenced by the control context: external environment, the organizational culture and structure. The control context can facilitate or inhibit the effectiveness of the core control system in coordinating

human efforts toward the attainment of organizational goals. "It may facilitate control effectiveness by the additional control that is imparted by several dimensions in the various contextual factors" (Flamholtz *et al*., 1985). Therefore, according to the perspective of our review, the control mechanism can be identified as the core element of the model.

2.1 Drivers affecting motivation and, in turn, performance

In order to answer the research question our analysis refers to the cybernetic process of goal and standard setting, measurement and comparison, evaluation and feedback for corrective actions (Wiener, 1954). Hence our review specifically focuses on four core control mechanisms: planning, measurement, feedback and evaluation reward elements. First of all, planning involves the setting of work goals for each key functional area and the set of standards for each goal. It is an ex ante form of control because it produces the information needed to guide individual or collective behavior. This control mechanism is the main vehicle for promoting goal congruence between individuals and their organizations (Flamholtz *et al*., 1985). Next, measurement and the management information system involves numbers assignment to objects according to rules, then it influences work behavior with the information produced as well as with process of measurement (Flamholtz, 1979). The element considered carries out an important twofold task: on the one hand, its informational function is a form of ex post control, and, on the other hand, its behavioral or process function may be considered an ex ante control. The feedback element refers to the information provided on employees behavior and work outcomes. Feedback can control the work behavior of organizational members either in a directional or motivational way. Therefore, feedback directs behavior by providing the information needed for corrective action and, at the same time, it motivates by serving as a promise for future rewards (Annett, 1969; VandeWalle *et al*., 2000). The evaluation-reward element involves the assessment of individual or collective performance against pre-established goals and standards, based upon the information gathered and shown by the measurement system and the personal observation of managers. It represents a form of ex post control. Rewards are outcomes of

behavior which are desirable to a person and which can be either extrinsic or intrinsic.

2.2 Motivation

Motivation is usually related to the job satisfaction of an employee (Herzberg *et al.*, 1986; Lawler, 1973). It has been identified by several perspectives and meanings. It can be broadly defined as the willingness to exert different degrees of effort towards achieving organizational goals and satisfying existing needs (Franco *et al*., 2002). Moreover it represents a key factor for the performance of individuals and organizations (Hornby & Sidney, 1988), so that it is unanimously analyzed as an important variable to be profitably adopted by health care managers. Besides, it is often weighted out through retention strategies success, including its various displays, such as intention to quit, intention to stay, recruitment, turnover, absenteeism. Indeed, previous studies have considered motivation as a significant predictor of intention to quit workplace (Alihonou, 1998; Hasselhorn *et al*., 2004). Hence, in this review, motivation has been defined as: job satisfaction, retention, and work attitude. In particular, work attitude was defined by Flamholtz (e.g. commitment, alienation) as an outcome element constituent. In this paper, motivation has been identified and defined by merging two different approaches: (1) Flamholtz *et al*.'s integrative framework of organizational control which considers motivation as an outcome; (2) The job characteristic model (Hackman & Oldham, 1976) measures motivation through job satisfaction, absenteeism, work motivation and performance, in turn, influenced by critical psychological states affected by five job characteristics (i.e. skill variety, task significance, feedback. . .) impact. The two above-mentioned models include, in the outcome element, performance (e.g. sales volume, productivity, profit margin), motivation (e.g. satisfaction, commitment, work attitude), turnover and absenteeism. Nevertheless, we have concentrated on the motivation item.

3. Methodology

The review was carried out using the ISI Web of Knowledge, Pubmed and JSTOR search engines on the topic of health care employee motivation. Articles written (in English) from 1990 to 2015 were searched, in order to find almost all current empirical studies published in Europe, North America and Oceania. Developing countries were intentionally excluded because of their specific needs and motivation perspectives which mainly focus on recruitment or retention strategies in order to ensure services provision. Only empirical studies were selected while previous literature reviews and positional papers were excluded. Our research algorithm also comprised several kinds of health care or assistance organizations, such as hospitals, university hospitals and nursing homes. We refined our set of retrieved articles by following these three main steps: (1) title; (2) abstract; (3) full text reading.

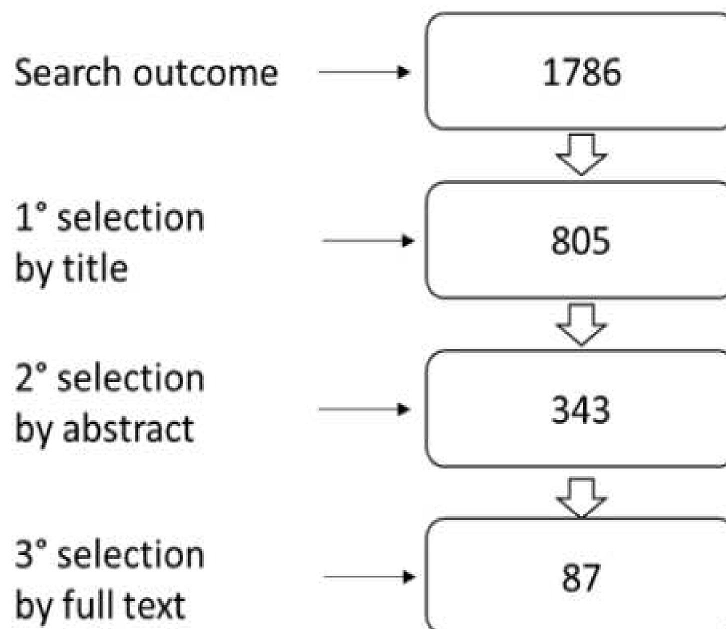

Figure 2: The selection process for the review.

We first refined a 1,786 set of articles. In the first step, we obtained 805 articles by using titles as refinement factor. In the second step 343 articles were selected to be read. Finally, in the third step, 87 articles were obtained. We examined the definitive set of articles to draw useful inferences and subsequently some

conclusions from different points of view. The results were grouped considering the previously mentioned drivers (see Figure 2).

4. Results and discussion

According to the geographical distribution of the papers, it is possible to observe that the papers considered are almost equally distributed between Europe and North America. Indeed, forty articles focus on North America and thirty-four on Europe. Three papers are from Oceania and only one from Israel. Four studies compare systems or organizations located within different countries. This selection allowed us to draw some preliminary considerations on health care worker categories which are generally involved in studies dealing with motivation: nurses and then physicians are the most analyzed professionals. A few studies focus on specialists, such as anesthetists, cardiologists or academic staff and only four of them concern general practitioners and primary care physicians (Pathman *et al*., 1999; Roberts *et al*., 1995; Martínez-Iñigo *et al*., 2009; Warren *et al*., 1998). From a general perspective, the majority of the articles deals with the relationship between the operational subsystem (managers behaviour and leadership styles, contacts between colleagues, relationships with patients, etc...) and the professionals' satisfaction. On the contrary, only a few studies consider compensation strategies and monetary rewards as very crucial drivers. In addition, very few studies analyzed the effect of the relationship between both control context and core control system variables on performance. As shown in Figure 3, many studies (sixty-three) explain how control context factors (external environment; organizational culture; organizational structure) may influence motivation. These studies are in whole or in part focused on contextual factors together with control mechanisms or on their own. Sixty-four studies consider the relationship between motivation and operational subsystem elements (i.e. interpersonal relationship, leadership style, teamwork). Within the core control system, eighteen studies explain the planning process influence on motivation, positively associated to goal standards identification. Moreover, nine studies are based on evaluation and, above all, on the reward system as a managerial choice

to inspire personnel. Lastly, nine papers deal with the measurement and information process and two of them consider feedback to enhance motivation of healthcare workers. As above mentioned, in this review we focused on findings related to the four control mechanisms. The majority of the studies, included into the review, focus on two or more control mechanisms. At the same time, the studies often consider the influences exerted by both control mechanisms and different factors (i.e. external environment, operational subsystem, personal relationships, *etc*...). Some inferences are drawn, at a later step to understand the correlations between control mechanisms and motivation measures, taking into account the influences exercised by internal and external factors operating as moderators.

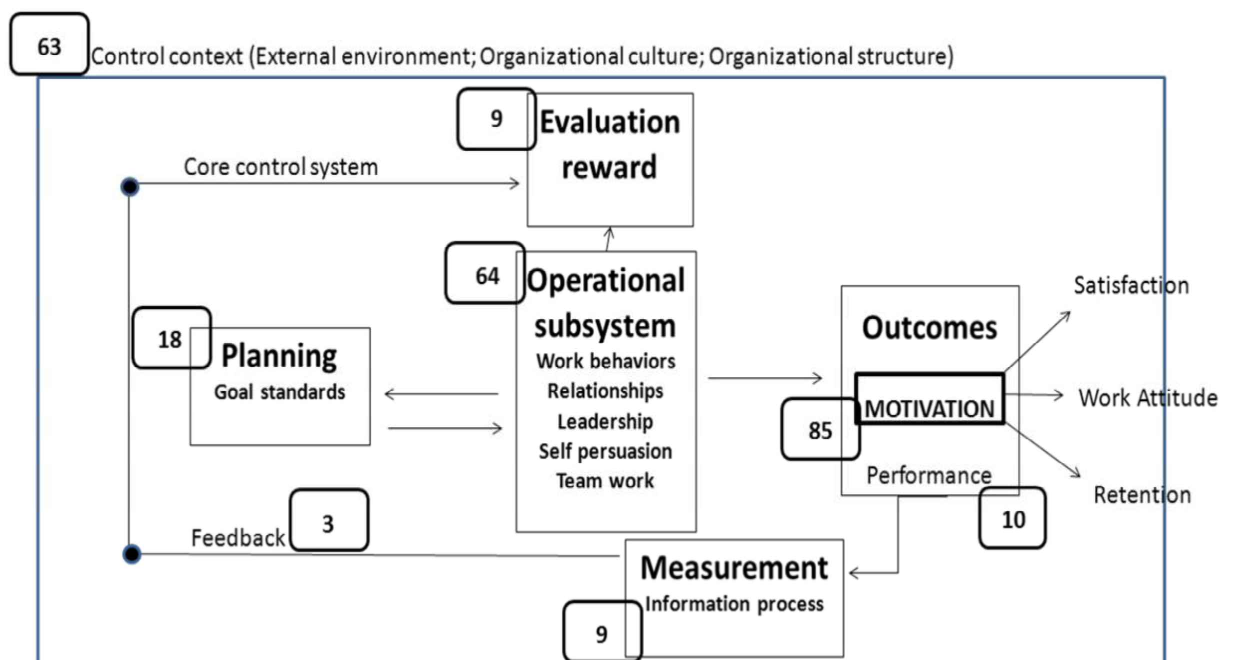

Figure 3: Results within the framework adapted from Flamholtz et al.

4.1 Planning and motivation

At the end of the review process, we noted that eighteen articles consider the effects of planning elements on motivation through goal standard settings. Planning elements are fundamentally associated with motivation to be interpreted both as job satisfaction (thirteen studies) and retention (six studies). The influence of this mechanism on motivation is mainly presented by scholars as moderated by internal factors. Connolly *et al*. (2014), for example, consider the

training on tools embedded within organizational plans, motivation to use this tool and the worker outcome expectancy. They found a positive effect of expectations on motivation as well as Papadatou *et al*. (1994). Other effects can be exercised on organizational and professional withdrawal intent. For instance, the reduction time to plan is associated with an increase in long-term sick leave, and a negative effect on retention strategies success (Petterson *et al*., 2008). Conversely, a positive impact of job content clarity, jointly with team structure and job design, on employee well-being measured as job satisfaction and job stress has been observed (So *et al*., 2011). Goals determination and clarity of duties (considered among job attributes such as authority, creativity opportunities, job control or decision-making) can be assumed as motivators too (Lambrou *et al*., 2010). Finally, organizational goals and values harmony together with professionals' attitude can be considered crucial factors affecting job satisfaction as well as recruitment and retention (Cross *et al*., 2006). Moreover, professionals turnover intentions and responsibility feelings. Hence, these factors should be carefully contemplated by managerial planners. For instance, the use of self-scheduling (considering also the ability of staff members to choose the day and shift of work) could increase retention degree, following predetermined criteria that ensures appropriate unit staffing (Bluett, 2008). Goal clearness and downsizing process seems to be crucially relevant too. Focusing on Norwegian employed nurses, Røed & Fevang (2007) highlighted relevant repercussions on the level of sickness absence and professionals well-being. Studies focusing on organizational context were included within this section. Among the eighteen articles demonstrating a correlation between the planning factor and motivation, eleven consider the influence exercised by other factors such as the work-force and laboratory reduction or the shifts of personnel. All these elements are clearly under managerial control, aimed at promoting goal congruence between the individuals and their organizations.

4.2 Evaluation-rewards and motivation

Nine articles deal with the evaluation-reward element (i.e. merit pay) whose effect on satisfaction should be higher for older employees than for younger ones (Scott *et al*., 2008). Seven articles mainly focus on motivation, measured as job

satisfaction, while three studies also considered retention. Financial incentives seem to be only one of the several factors influencing both motivation and quantity decisions in service provision. These studies do not find a negative effect on motivation (Hennig-Schmidt *et al*., 2009; Lambrou *et al*., 2010). Concerning evaluation and reward element analysis, it turns out that health care worker satisfaction and retention are positively influenced by rewards. Lambrou *et al*. (2010) presented a main motivators rank: remuneration seems to be at the second place, after achievement factors (job meaningfulness, interpersonal relationships, *etc*. . .). The other motivators are co-worker elements referring to the relational work environment, while job attributes are placed last. Lambrou *et al*., at the same time, have highlighted that the remuneration factor would have been more influential with female doctors and nurses and with accident or emergency outpatient doctors. Another evidence on financial incentives relates to teaching activities: financial compensation is studied as only one of the several factors motivating preceptors in teaching activities; however the powerful level is the high value preceptors have on intrinsic reasons (i.e. they enjoy teaching) rather than extrinsic rewards (Latessa *et al*., 2007). Temple *et al*. (2009), focusing on nursing assistants working in American nursing homes, highlight the important role played by compensation among several factors influencing turnover intentions. Specifically, the provision of competitive wages and benefits (particularly health insurance) and involvement of nursing assistants in resident care planning could potentially reduce their turnover, as it could maintain high levels of nurse staffing. Moreover, payment models can somehow affect employee behavior and professional choices (especially general practitioners). Some authors maintain that physicians working in fee-for-service financed organizations are encouraged to overserve patients. On the contrary, patients seem to be underserved in the capitation payment system. Nevertheless, financial incentives aren't the only motivators for physicians' quantity decisions, grounded on patient benefit (Hennig-Schmidt *et al.*, 2009). Furthermore, the job satisfaction level is lower for those paid according to a third party payer's fee-for-service schedule (Warren *et al*., 1998). If we focus on the relationship between reward element and the success rate of retention strategies, the remuneration level seems to be the key reason for leaving a location. Meanwhile, for others it is the "last straw" if they had feelings about the deficiency of their work environment

(Mathews *et al.*, 2012). Finally, external events or exogenous factors within the control context, influence worker motivation according to different perspectives. Mathews *et al*. found out that older generation physicians, although limited in number, are sensible to the institutional and cultural context. Hence, they are pushed to leave in response to political events and policies.

4.3 Measurement-information system and motivation

Measurement-information processes are discussed in nine papers and all of them focused on motivation to be interpreted as employee satisfaction. A positive association between the measured monitoring factor and organizational performance was found. The measurement tool is mostly considered together with feedback-seeking promotion and, clearly, with reward strategy as its natural consequence. Moreover, the studies included within this section usually seemed to be unresponsive to the control context, which is more importantly concentrated on internal dynamics. Evidence of a positive influence of external practice monitoring and feedback-seeking promotion on motivation by supervisors was found (Bose & Gijselaers, 2013). The management information system and role specification factor greatly influence professionals' satisfaction. In addition, evidence of a positive correlation with the measured collaboration value between pharmacists and physicians has been found (Zillich *et al.*, 2005). Supervisors or managers support and ex post control, as well as perceived distributive justice, positively influence employee satisfaction, especially in nurses (Monroe & DeLoach, 2004). Interpersonal communications and employer-provided support programs are also found to be protective against nurses' job dissatisfaction (Wilkins & Shields, 2009). The importance of communication between physicians and managed care organizations is illustrated in the strong relationships between communication variables (problem reporting) and managed care decisions. Communication variables, in particular, have been measured thanks to the evaluation of problem reporting (Lammers & Duggan, 2002; Bergus *et al.*, 2001). However, employees' perception of communication and organizational culture seem to be decisively influential on several kind of outcomes, such as job satisfaction, commitment, occupational alienation, perceptions of patient care) (Harber *et al.*, 1993). More than anything else, the

strong influence of practice monitoring on job satisfaction has been demonstrated mostly in organizations where practice is monitored by someone else (Lammers & Duggan, 2002).

4.4 Feedback and motivation

Feedback and its promotion by supervisors seemed to be significantly correlated with the motive to seek feedback for professional self-improvement in medical residents. The three articles considered the influence of feedback on job satisfaction. Besides one article stressed the influence exercised by other internal or external factors such as job design or the institutional characteristics of the health care organization. This control mechanism has been appreciated by the feedback-seeking measurement. Indeed, focusing on health professionals on training, feedback is actually essential to assure their professional development, together with the monitoring process and fruitful evaluation mechanisms (Bose & Gijselaers, 2013). Professionals seems to be more satisfied and mostly reassured when they receive feedback about their work (Conway & Kearin, 2007). At the same time, scope and role clarity play an important role, especially considering different professionals cooperation and team working dynamics. Performance-avoid goal orientation represents another important factor according to the feedback motivational perspective. It has been defined as the desire to avoid looking incompetent in front of colleagues and, above all, supervisors (Vande Walle & Cummings, 1997). Performance-avoid goal orientation turns out to be highly and consistently associated with concerns to ask for feedback. Moreover, it may hinder medical residents in their professional development. From a gender perspective, women significantly show more concern on ego protection than the opposite sex. Within academic organizations, giving importance to their specific environment as control context, physician research involvement and jointly research funding level, play an important role in reaching job satisfaction (Mohr & Burgess, 2011). Broadly, when the academic affiliate is located within walking distance, there are significant effects on performance feedback, skill development opportunities and work and family balance.

5. Conclusions and limitations

In conclusion, the first consideration coming from this review is that, even though there are many articles analysing the association between the operational subsystem, work environment and professionals' satisfaction, only few studies focus on the effects of motivation on performance considering the four core control systems. Indeed, in this last 25 years, the majority of empirical studies (64 on the 87 selected) have focused on the relationship between the operational subsystems, mainly linked to HRM and organizational labor, and employee motivation. Hence, despite the great relevance of New Public Management reforms, that involved US as well as other western health care systems, few management scholars investigated the impact of management control mechanisms on employee motivation. While there is a flourishing health care literature on the framework adopted and the results obtained by the introduction of new management tools, less interest has been put on the influence on these tools on motivation. In particular, the majority of the articles dealing with the four core control mechanisms focus on planning strategies. Empirical evidence on this control mechanism highlights that there is a positive influence on the correct use of (long and annual) planning strategies with motivation: goals clarity has positive effect on job satisfaction while the reduction of time to plan is negatively associated with retention to stay. However, these studies also put on evidence the important mediating effect of internal factors such as the outcome expectation. With regard to the argued topic of the impact of monetary mechanism, showed that compensation strategies and monetary rewards are very crucial drivers. No evidence on the so-called crowding out effect of financial rewards have been found. However, the majority of the studies suggest that intrinsic motivation play a decisive role as workers behaviors guide, somehow independently from adopted control mechanisms. In particular, many of the empirical studies of this section focus on the impact of financial incentives on retention to stay of healthcare professionals. Due to these results, is interesting that yet most of studies analysing reward system focus attention on monetary reward rather than on reputation or learning process. This kind of reward could be more important in the health care sector which is characterized by high professionalism. Although money should be still used as a factor influencing motivation, more evidence is needed to suggest how to combine this element with other levers (such as for instance the public

disclosure). Studies related to measurement mechanisms highlighted the importance of communication strategies. It is not sufficient to put in place measurement tools, these should be disclosed in the right way throughout the organization. Indeed, visual management tools are more and more spreading within the organizations to boost the beneficial cognitive effect of measurement tools. Finally, very few studies deal with feedback of the control mechanism process with motivation in the healthcare sector. In particular they refer to other forms of feedback and to the presence and relation of health care workers with supervisors. In general, we find many studies based on employee motivation considered as the attitude to do something or to behave somehow, referring to a specific task or a peculiar conduct. However, we do not find crucial differences based on the selected geographical areas referring to analyzed control mechanisms or to considered levers belonging to operational subsystem group of factors. Studies from the U.S. seem to be more focused on the retention element among possible motivation measures (about 30%, compared to 20% in other geographical areas). This predominance could be due to the features of the American health system where services are largely provided by private actors and turnover dynamics are relevant. Hence, American scholars and practitioners are more interested in measuring and analyzing the retention control mechanism rather than motivation. In this review we analysed the influence of several factors characterizing different kinds of health care or assistance organizations (hospitals, nursing homes, etc. . .) and employees' categories (nurses, physicians, aides, etc. . .). In depth analyses could focus on the differences across employees' categories or organizations (private vs. public) to highlight whether there is any relationship between specific control mechanism and the professional area of employees. Additional analyses could be done considering papers written in different languages (not only in English) to detect strategies pursued by other countries with a non-western culture such as Asian, African and South.

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CHAPTER 3

The role of collective labour contracts on job satisfaction in Tuscan nursing homes

Abstract

The role played by remuneration strategies in motivating healthcare professionals is one of the most studied factors. The effects vary on the basis of gender, type of services, disciplines and professional profile, country, type of employment and sector. This paper investigates the relationship between the labour contracts applied in 70 Tuscan nursing homes and aides' job satisfaction with two aims: to investigate the impact of European contracts on employee satisfaction in healthcare services; and to determine possible limitations of research not incorporating these contracts. We apply a multilevel model to data gathered from a staff survey administered in 2014 to all employees of 70 nursing homes to analyse two levels: individual (employee) and organizational (nursing home). Labour contracts were introduced into the model as a variable of the nursing home. Although working conditions play a relevant role in the job satisfaction of aides, labour contracts, even with poor terms, appear not to affect job satisfaction, suggesting results of research not incorporating contracts as a variable may extend to European labour markets. Surprisingly, aides of the nursing homes with the contract having the best conditions register a significantly lower level of satisfaction compared to the nursing homes with the worst contract conditions. This suggests that organizational factors such as culture, team work and other characteristics, not explicitly considered in this study, are more powerful sources of worker satisfaction than are the labour contracts.

1. Introduction

In healthcare services performance is the result of a synergistic combination of several intangible elements related to human, relational and structural factors of the organization. Professionals with their knowledge, skills and abilities are employed by the institution to deliver quality care to patients (Beveren 2003; Yavas and Romanova 2005): the overall performance of the organization depends most on the performance

of its employees, which itself is based on their capabilities, behaviour and motivation. In this context intangible resources are the drivers of outstanding performances in hospitals (Brannon et al. 2002; Douglas and Ryman 2003; Zigan, Macfarlane, and Desombre 2007). Some research has found that factors enhancing motivation are connected to relational factors such as the provision of a clear sense of vision and mission; respect shown by employers, good relationships with supervisors; well organised job design; and adequate wage and working conditions (Bishop et al. 2009; Henderson and Tulloch 2008).

Research indicates that income appears to be one of the top five priorities for physicians, due to the enormous investments of time and money in their training (Shortell and Kaluzny 2006). The role played by remuneration strategies in motivating healthcare professionals varies on the basis of gender, type of services, disciplines and professional profile, country, type of employment and sector (Igalens et al. 1999). Broader definitions of compensation include both monetary and nonmonetary rewards (Gomez-Mejia, Berrone, and Franco-Santos 2010; Martocchio 1998). Monetary rewards include base and variable pay while nonmonetary rewards include benefits, work holidays, working conditions, etc.

The definition of both monetary and non-monetary elements of compensation typically are included in the terms specified in European labour contracts or, in general, civil law regulations (Nickell 1997). European contractual clauses and conditions are mostly in the form of general guidelines and framework, where the employment relationship could end at any time, and where hiring and contract stipulations are negotiated (and may be from time to time renegotiated) between individuals and the organization. This is a significant difference from the way American labour contracts are structured As a consequence, studies of the nursing home services that focus on North American labour dynamics and consider wages and labour market characteristics or working conditions but may not consider the influence of the contract itself[1]. In the European countries collective agreement is recognized as a legal institute. All in all, collective agreements are adopted for two-

[1] We recognize that the principal-agent literature includes examination of contract design and how employees in some situations respond to alternative contract structures and incentives. However, our focus here, as we demonstrate below, is on relational factors, particularly those most relevant to nursing home services, which are the primary consideration of that literature.

thirds of overall European workers (Visser 2008). Typically collective agreements are binding for the contractor and in practice in the majority of southern and central European countries they also are applied to not-unionized workers.

Beyond the legal framework and validity of collective agreements another important difference in the influence of compensation dynamics (Crouch and Keune 2013) is unionization. The unionized coverage rate represents the share of negotiation between employers and unions rather than the single employee. The extent to which collective agreements are extended to non-unionized parties varies according to circumstances, such as the decentralization of bargaining process, the size of employers and the decline of government employment and shares.

Previous studies of the effect of unionization on job insecurity among Swedish health care employees refer to the (Hirschmann 1970) framework. These studies show that union members were less inclined to make use of the Hirschman exit and voice options than were non-unionized co-workers. (Sverke and Hellgren 2001) show that union members tended to express loyalty to the organization. This suggests that the collective support derived from union membership could make individual voice expression less important, essentially privileging membership shared values. Other research highlights the finding that unionized worker are more satisfied with financial compensation and job security than non-members. On the other hand, unionized workers seem to be less happy with the quality of their jobs than non-union workers (Meng 1990). The Union Membership Statistics (Visser 2008) provides evidence on the differences in influences exerted by unions and the bargaining process among Western countries: the bargaining coverage rate in 2004 was only 13.8% in the USA (about 30% in Canada), while in nine European countries the rate is almost 80% (min 35% in UK and max 99% in Austria).

In Italian labour markets, collective agreements are the main source of stipulating and regulating conditions of nearly every aspect of employment relationships. Indeed, these agreements represent the result of the regulation process developed with participation of both unions and employers' federations. From a legal point of view collective agreements do not have the power of law but de facto they are considered equivalent by all parties. Collective agreements define and regulate working rules, conditions and worker's compensation, as the outcome of an organized hierarchical bargaining process.

In Italy, a collective labour agreement *per se* does not bind either employers or employees. Nevertheless, an organization's subscription to (or membership in) one of the several federations implies compulsory adoption of the collective labour agreement signed by that federation. In this case, the agreement acquires an effectively legal status or value. Thus, a number of factors directly or indirectly derive from managerial strategies and choices (i.e., compensation, overtime, holidays, working hours and shifts, etc.), so that the working conditions that result derive from the peculiar power, that is, the effective legal status, of this agreement.

Given the significant role of labour agreements in nursing home services, it is important to understand the influence of these collective agreements on aides who have the most direct contact with patients in providing these services. Our study contributes to this understanding by analysing the influence of collective agreements on employee motivation. We use the technique of multilevel analysis with specific application to the situation of aides working in Tuscan nursing homes.

2. Nursing homes characteristics and Tuscan context

Since the 1990s, nursing homes and geriatrics units have been spreading out across almost all the developed countries. This phenomenon consistently registers a growing trend, both from a dimensional and public-private expenditure perspective (Kane and Kane 1994). Moreover, service and caregiving organizations have specific and peculiar features related to affected staff and residents' necessities as well as a balance in interpersonal relationships. Some authors have warned about the lack of attention given to this area because workers do not need a high profile to assist elderly (Basford, Lynn 2003). The main actors of nursing homes staff are aides and nurses. They daily face groups of institutionalized older people who often are passive, withdrawn, disengaged or apathetic, and they are responsible for caring for these patients' physical needs "bed and body work" (Wood and Gubrium 1977).

The growing demand for nursing homes and the high turnover affecting these services require attention in how to motivate this kind of worker. In particular, some authors find that the high rate of turnover among nurse aides employed in nursing

homes has been commonly associated with the low job status and the poor job benefits accorded to workers (Bishop et al. 2009). Hence, several studies have been carried out in order to obtain evidence about personnel features or motivation and to analyse possible relationships among measured engagement and other factors that may operate as positive or negative influences (i.e. interpersonal relationships, burnout, wages, working time...). For example, some authors (Harrington and Swan 2003) show that wages were positively associated with total nurse staffing hours, considering the predictors of total nurse and registered nurse staffing hours per resident. Institutional loyalty was studied as an attitudinal proxy for job turnover, through testing its relationship to a number of job-related factors. Consequently, the quality of the social environment of the nursing home was found to be as important as attitudes toward job benefits in accounting for institutional loyalty (Grau et al. 1991). Moreover, (Zinn 1993) showed that staffing levels were valued higher in markets with a higher percentage of self-pay nursing home residents and a lower percentage of for-profit nursing homes.
(Cowin 2002) has also shown that pay is an important component for the retention of nurses. She found that if they feel a lack of equity in pay exists between their profession and other professions, they were more dissatisfied and disappointed with their profession. Less pay as compared to work done is one extrinsic factor which is responsible for job dissatisfaction (Langton, Robbins and Judge 2013). The literature on nurse aides highlights that professionals' reasons for continuing to work include, above all, monetary needs, relationships with residents, working environment, training opportunities and gratification (Sung, Chang, and Tsai 2005). Indeed, a sizable number of papers clearly considered wage levels and their differences as important influencers of both motivation and turnover of nursing homes staff (Zinn 1993). Labour conditions, in the public sector, are regulated by collective agreements that can be defined as the tools used to regulate salaries and working conditions (holidays, working hours…) at an industrial level (Feldman and Scheffler 1982). Despite the great importance played by wage levels, procedural justice and working conditions on motivation and retention of nurses and aides, few papers explicitly examine the influence of labour regulation and collective agreements.

National reports (MEF 2014) provide evidence that two-thirds of the cost of long term care (LTC) derive from elderly care, in particular for residential services. While acute care in Italy (in particular in Tuscany) is provided mainly by public facilities,

long term care, with a focus on residential homes, is provided by a wide range of organizations: local health authorities (LHAs); municipalities; private sector; religious organizations or not-for-profit organizations (NPOs) in general. Of these, LHAs and religious or NPOs together account for 70% of long term care services, with LHAs at 16% and religious and NPOs at 54%. (Istat, 2013). This diversity of provider organizations has led residential homes to apply alternative forms of contracts. In Italy it is possible to identify 7 distinct labour contracts with different conditions. Table 1 reports the labour contracts conditions valid during the analyses.

Labour contracts	**Date of the last update**	**Pay (per month)**	**Working hour (per month)**	**Vacation days (per year)**	**Increase of pay for Sunday working (%)**	**Increase of pay for night working (%)**	**Overtime hours (per year)**
Misericordie	31/12/2014	€ 1.427	165	28	24	24	150
Agidae	22/11/2010	€ 1.497	165	33	15	15	120
Anaste	10/11/2008	€ 1.297	164	26	15	20	160
ARIS	05/12/2012	€ 1.417	165	30	27	32	180
Uneba	08/05/2013	€ 1.328	164	26	15	20	160
Coop	16/12/2011	€ 1.432	165	26	15	10	100
Municipalities	31/07/2009	€ 1.327	156	30	30	30	180

Table 1: Working conditions of different labour contracts.

As shown in Table 1, contracts exhibit wide variations in all categories with the exception of base-level monthly working hours (164-165) as shown in column 4, with only one (Municipalities) showing a lower level (156). The factors for which wide variations do occur include monthly wage (200 euro: 1,297-1,497, a 15.4% difference); 4 working days more of vacation days (7 days: 26-33, a 26.9% difference); and overtime hours (80 hours: 100-180, an 80% difference). Additionally, these data show wide variation in the percentage of pay increase for special periods: 15 percentage points (15%-30%, a 100% difference) for Sunday; 22 percentage points (10%-32%, a 220% difference) for night working.

Tuscany provides an interesting scenario because it recently carried out and publicly reported a detailed map of the 301 organizations located across the region. Of these, 91 organizations (around 30%) provide residential care exclusively under the system of the institutional agreement between the organization and the Regional Health

System (not necessarily the Tuscan Health System), based on social dues payment; 21 organizations (7%) provide residential care exclusively under the system of a free market, based on daily fee payment; and 189 organizations (about 60%) provide residential care under both the institutional agreement and free market system.
Nursing homes staff provide a variety of residential care services. In addition to nurses and aides, the types of workers employed include podiatrists, hairdressers, barbers, entertainers, and concierges, as well as voluntary workers.

3. Methodology

3.1 Data collection

Data for the measures of nursing aides' motivation and personal characteristics were obtained from the Organizational Climate's survey administered via Computer Assisted Web Interview (CAWI) from a census base to all employees working in the Tuscan nursing homes that joined the network on comparing performance developed by the MeS Lab (Institute of Management, Sant'Anna School of Advanced Studies of Pisa).The survey was conducted in 2015 (from 16 March to 30 June) and included 2648 workers in 62 nursing homes. In particular, the participation in the census was offered to all those who, at the time of its launch, were working in the facilities for at least three (3) months independently of their employment status (full time, part time, at fixed, permanent, temporary, freelance etc ...), their labour contracts, and their professional area. The response rate was of 58,5 %. Data for control variables are extracted from (Nuti and Rosa 2015). The nursing homes which participated in the organizational climate survey represent 19,1% percent of the total facilities settled in the Tuscany Region.
The Organizational Climate survey is multifactorial, developed from the periodic survey administered in the health units of the Tuscany Region (Nuti 2008; Pizzini & Furlan 2012) and surveys conducted in other countries on similar sectors (Laschinger, Finegan, and Shamian 2001). The survey is used as an internal tool to understand organization cognitive appraisal and for the diagnosis of the organizational climate useful to identify the successful and critical factors against which action to reinforce the results or promote change can be taken. All survey questions are in the form of a five-point Likert scale and respondents were asked to rate their top management and working practices and context. For the analysis, the

five-point scale was transformed to a 100-point scale for comparability reasons following the approach adopted by others (Hann et al. 2007; Murante et al. 2014) on the analysis of questionnaires.
Our study focuses on the employee category of aides because they are the main actors of the staff that currently interact with and provide most care for the users. The analysis includes the 1128 both partially or totally completed questionnaires returned voluntarily by nursing aides.

3.2 Analysis

To test the effect of the labour contract on motivation, we performed a multilevel analysis as suggested by scholars (Glick 1985). After analysing the variability of motivation at individual and residential level through an empty model, we introduced the characteristics of employees and then the labour contracts as explanatory variables.

We performed multilevel analysis because survey data are characterized by two integrated levels of observation: employee at the lower level of analysis are nested within residential nursing home at the higher level. Due to this hierarchical structure, we can (i) observe if motivation varies both across and within nursing homes, (ii) measure the effects of both individual characteristics and nursing home factors on employee motivation, and (iii) return separate information on motivation variability explained by the characteristics of employee and the labour contract applied by the nursing home.

The multilevel model we have developed is the appropriate technique for data with a hierarchical structure such as we have described. Similar to those defined as hierarchical models (Leeuw and Meijer 2007), our model provides the ability to take advantage of the hierarchical structure of the data and to incorporate this analytically. Our multilevel model has the following form:

$$Y_{ij} = \alpha + \sum_{k=1}^{K} \beta_k x_{ijk} + u_j + \varepsilon_{ij} ,$$

(1)

where Y_{ij} is the dependent variable for individual i in group j, α is the intercept, x_{ijk} is the kth explanatory variable (measured at the first or second level), with coefficient β_k, u_j is the residual of the first level and ε_{ij} is the residual of the second level. The residuals ε_{ij} and u_j are by hypothesis non observable causal variables, independent and normally distributed, with mean of zero and variance equal to σ_ε^2 and σ_u^2. The Intercept of a multilevel model is not a constant, but varies for each group j. In particular, the intercept is composed of a fixed component that is the same for all individuals, α, and one that varies by membership u_j. The variation of the component of the error is both from level 1, *within* the group, that is the individual part, and from the level 2, *between* the groups, that is the organizational part, in this case the nursing homes. The total variation of the dependent variable is equal to the sum of these two variations.

In a multilevel analysis one generally begins with consideration of the empty model in which only the general intercept α is presented and the two error components. The empty model allows for estimating the variance of the two error components and to determine the intra class correlation coefficients, given from the reported variation between groups and the comprehensive variation across groups (2):

$$\rho = \frac{\sigma_u^2}{\sigma_u^2 + \sigma_\varepsilon^2}.$$

(2)

When the variation between results is statistically different from zero, then one proceeds with the estimation of the model in which the covariance of the first level is added. Successively one estimates a model with the covariance both of the first level with that of the second level.

3.3 Dependent Variable

Job satisfaction has been measured in several ways, often using multiple metrics (Cantarelli, Belardinelli, and Belle 2015). As a proxy for motivation at work we built an indicator considering the following survey questions: i) How satisfied are you with your current job? ii) Are you proud to be part of the organization you work for? and

iii) Would you recommend the nursing home they work for to a friend? Taken together, these questions provide an indicator or measure that considers both overall feeling about job satisfaction and specific facets related to organizational commitment as well as pride and willingness to recommend which can be considered part of organization image (Eskildsen, Kristensen, and Westlund 2004).

Nursing assistants reported their job satisfaction on a 5-point scale: *extremely satisfied, somewhat satisfied, neither satisfied nor dissatisfied, somewhat dissatisfied, extremely dissatisfied*. They reported their pride in being part of the organization they work for on a separate 5-point scale as: *strongly agree, agree, undecided, disagree, strongly disagree*. The nursing assistants reported their willingness to recommend the nursing home to a friend on a 5-point scale with the responses: *strongly recommended, recommended, undecided, discouraged, strongly discouraged*. Applying reliability analysis, we found that the Cronbach's alpha of the motivation at work scale was a value of 0.86.

We converted the answers to these three questions into a 0-100 score using a transformation where 1 totally disagree=0; 2=25%; 3=50%, 4=75%, 5=100%), with higher scores indicating a more satisfied employee. This approach is similar to those applied by others (Hann et al. 2007; Murante et al. 2014) For each employee, the motivation indicator score was calculated as the average of the scores on these three questions.

3.4 Independent and control variables

We develop independent variables at both the individual and organization levels, reported in Table 2. Our analysis incorporates these as control variables. All values come from the organizational climate survey and are operationalized as shown in the second column under Independent Variables in Table 2 below.

<table>
<tr><th>Level</th><th colspan="2">Independent Variables</th><th>Bibliography</th></tr>
<tr><td rowspan="2">Level 1</td><td>Gender</td><td>F, M</td><td rowspan="2">Sung et al. (2005), Harrington & Swan (2003), Brannon et al. (1988), Simon et al. (2009), de</td></tr>
<tr><td>Age</td><td>< 35 years
35-49 years</td></tr>
</table>

Employee characteristics		> 50 years	Graaf-Zijl (2012), Grau *et al*. (1991), Igalens & Roussel (1999), Bishop *et al*.(2009), Landsbergis (1988).
	Level of education	Primary school High school Graduated	
	Employment relationship (work)	Permanent Cooperative Contingent/short term	
	Citizenship	Italian, Foreign	
Level 2 Nursing home characteristics	Collective labour agreement	Municipality Misericordie Agidae Anaste Aris Uneba Coop	de Graaf-Zijl (2012), Sung *et al*. (2005), Bishop *et al*. (2009), Grau *et al*. (1991), Comondore (2009).
	Facilty size (number of beds)	# < 30 30 < # < 50 50 < # < 80 # > 80	

Table 2: Independent variables and operational values by levels 1 and 2.

At the individual level, we include as independent variables gender, age, citizenship, level of education, and employment relationship (work). These are consistent with characteristics of nursing assistants previously reported in other studies, shown in the right-hand column of Table 2.

At the organizational level we consider: collective agreements and the facility size. This is measured as the number of beds and is reported as one of four levels, as shown in Table 2. As noted above, a number of factors and effects (i.e. referring to compensation, job design, social support, overtime, *etc*...) derive from trade unions agreements and arrangements. The trade union agreement or arrangement is the key variable we introduce into the model to detect the influence of these factors on motivation. There are different types of agreements in place as noted in the table. The Anaste form of contract is take to be the base, or reference, agreement because it reports the lowest base pay. The effect of any other contract form is measured relative to the Anaste reference contract.

4. Study Results

4.1 Data and descriptive statistics

The motivation indicator we have constructed has a mean score of 79.34, or approximately 80, with large variability across the 62 nursing homes: indicator values range from 50 to 100. The indicator scores for each nursing home that resulted from our construction are provided in Table A1 in the Appendix.

The number of data values and percent of total variable category, including missing data, are provided in Table 3 for independent variables at both the individual and organizational levels.

We included both fully completed and partially completed surveys in our analysis. Fully completed surveys are those where the employee answered every question; partially completed surveys have some answers missing. Although we recognize that incomplete data often result in analytical difficulties, in our analysis, focused on personal and intangible characteristics, the missing answers are themselves revealing: which questions were left unanswered provide insight into motivations and incentives of those employees who volunteer to participate in the survey. Accordingly, we note below missing values which may be interpreted behaviorally.

At the employee level we focused on gender, age, citizenship, education level (qualification), employment relationship of the respondents. Up to 70% of personnel completing the surveys were female. As shown in Table 3 for this variable, there is a

high percentage of missing values (about 21%); this may reflect male workers who consciously abstain from answering this identifying question. The variable age shows that that about eight percent are considered younger. The majority of responders were in the mid-range of the age category, while about thirty percent were in the high age group. About 24 percent were missing values. The variable of citizenship indicates that eight percent of responders were Italian. About fifteen percent were missing values; as we have noted for the gender variable, this could conceal a significant number of foreign workers who do not wish to be identified.

The most prevalent level of education declared was the high school diploma followed by primary school. Only five percent of responders have an education level greater than a high school diploma which suggests that the greater part of the missing values for education (around 25 percent) belongs to this group. The employment relationship indicates a tangible influence exerted by job security, duration and conditions on workers motivation. For this reason, we distinguished between permanent workers (almost 38 percent), cooperative society employees (more than 42 percent), and freelancers or other temporary workers (2.66 percent). There were fewer than two hundred missing values for the employment relationship variable (about 17 percent). In these cases it most probably reflects the categories of contingent workers who are either temporary or from cooperatives; many of these may be concerned with being identified.

Variable	**Metric**	**Number**	**Percent**
Gender	Female	792	70.21
	Male	94	8.33
	Missing	242	21.45
Age	under 35	91	8.07
	35-49	428	37.94

	over 50	332	29.43
	missing	277	24.56
Employee relationship (Work)	permanent work	427	37.85
	cooperative	475	42.11
	contingent work	30	2.66
	missing	196	17.38
Education	primary school	379	33.6
	high school	406	35.99
	graduated	60	5.32
	missing	283	25.09
Citizenship	Italian	901	79.88
	Foreign	57	5.05
	Missing	170	15.07
Contract	Municipalities	320	28.37
	Misericordia	35	3.1
	Agidae	17	1.51
	Anaste	65	5.76
	Aris	17	1.51
	Uneba	230	20.39
	Coop	444	39.36
Facility size	# < 30		

	30 < # < 50		
	50 < # < 80		
	# > 80		

Table 3: Independent variables: metrics and data descriptors.

4.2 Multilevel results.

Variation in motivation is significantly explained both at the individual and the nursing home levels when analysing an empty model and without any explanatory variables (see Table 5. Most of the total variance in motivation is explained by individual characteristics. However, the nursing home level explains almost 16% of variation; this is quite high for organization.

We then introduce the explanatory variables at the levels of employee (level 1) and the nursing home (level 2).. First, we observe that gender, education, citizenship and type of work are significantly associated with motivation. Specifically, motivation values decrease when aides do not want to report their gender or school education and increase when aides come from outside of Italy or they do not want to declare their citizenship. Missing values seem to be associated with the categories we would expect, as they present the same sign of the category we identified (male, less satisfied; graduated less satisfied and foreign more satisfied).

Moreover, our results show that aides with a temporary position are more motivated than those with a permanent position (Table 4). This appears to be a conflicting result because contingent work is related to job insecurity; this is generally perceived as a threat of job loss, and in turn expected to negatively affect job satisfaction. Indeed, our results provide additional support for earlier research that found that job security is not correlated to job satisfaction (Buonocore et al., 2009; Cantarelli et al. 2015). The positive relationship of temporary workers suggests that aides value positively continuing to work for the company and believes that the company will continue to hire her/him in the case of a good performance, hence s/he will have a higher motivation on the job (Wheeler and Buckley 2001). Concerning education, the

one significant category is the missing one that we imputed to graduated positions. Indeed other research has highlighted the finding that registered professional nurses have a higher level of intention to leave the long term care services work relative to others (McGilton et al. 2013).

At the organizational level we focus exclusively on two variables: the collective agreement adopted by each nursing home and the facility size. The first variable, collective agreement, essentially represents a sort of all-embracing variable of labour conditions and level of wage as reported in Table 1. Incorporating collective agreements and facility size into the model helps to reduce the unexplained variance across 639 nursing homes ($\sigma^2_{u_{0j}}$) of about 11% (i.e., when comparing the level 2 variance with the level 2 variance of the empty model).

Controlling for some individual characteristics (see Table 4, e.g., gender, age...), we find that work motivation in nursing homes seems to be not influenced by contracts. The only exception is for the case of the Agidae contract. Surprisingly, that Agidae registers a significant lower level of satisfaction: the base pay is higher than 200 per month with the respect to Anaste (the reference). These findings are in contrast with the results of the other studies on job satisfaction which found that pay is positively related to job satisfaction, (Bishop et al. 2009; Cantarelli et al. 2015), although this research focus is on public administration rather than nursing homes.

Variables	**Empty model**	**Individual level**	**Organizational level**
Constant	79.9*	82.95*	76.49*
Gender (Female vs Male)		1.43	1.02
Gender (Missing vs Male)		-6.78*	-6.55*
Age (35-49 vs under35)		1.71	1.59
Age (over 50 vs under35)		1.77	1.63
Age (missing vs under35)		-0.975	-1.13
Education high school vs primary school		-2.36	-2.7
Education graduation vs primary school		-4.071	-4.21
Education missing vs primary school		-5.44**	-5.65**
Work (cooperative vs permanent)		-2.072	-2-15
Work (short-term vs permanent position)		9.43**	9.62*
Work (missing vs permanent position)		-5.182	-5.27*
Citizenships (Foreing vs Italian)		9.44*	9.38**
Citizenships (missing vs Italian)		6.12**	5.93**
Contract (Municipality vs Anaste)			-7.51

Contract (Misericordie vs Anaste)			-12.68
Contract (Agidae vs Anaste)			-27.51**
Contract (Aris vs Anaste)			2.86
Contract (Uneba vs Anaste)			-1.08
Contract (Coop vs Anaste)			-2.70
Beds (30-50 vs <30)			4.12
Beds (50-80 vs <30)			-0.34
Beds (>80 vs <30)			8.05***
Random effects			
Level 2 variance: nursing homes	102.03	82.03	57.91
Level 1 variance: employees	537.14	508.95	509.86
Intra Class Correlation (% Level 2)	16	13.88	10.20

*1% Sign.

**5% Sign.

***10% Sign.

Table 4: Results.

Facility size also shows a statistically significant effect. When nursing homes have more than 80 beds, employees' motivation is 8 times higher than for nursing homes with fewer than 30 beds. This perception may be due to a more structured approach to human resource management in general in a facility with capacity to serve more patients(Brannon et al., 2002). This finding, however, contrasts with other studies (Banaszak-Holl et al. 2013; Bishop et al. 2009) that analysed the relationship using the number of beds per personnel.

5. Conclusion

Our analysis highlights the finding that the overall satisfaction level of nursing homes workers is relatively high. In fact, operators' satisfaction measures, on average, about 80%. The multilevel analysis, allows us to evaluate the sources of satisfaction that can be explained by different factors belonging to each level. Accordingly, our analysis has value as a management tool: the results provide insights on characteristics that affect employee incentives which can be used to develop or alter work conditions that yield more satisfied and productive employees.

Our results that indicate a relatively small influence of labour agreements on the job satisfaction of nursing aides may reflect an impression that employees at that lower skill level may feel they have a limited ability to affect the terms of the agreements. This also indicates that for this level of employee, results of research that does not explicitly take into account these influences are broadly useful in labour markets where these exist, as they do in Europe.

An interesting and unexpected finding in our study relates to the type of employment relationship: temporary workers, (including interns, apprentices, occasional workers) seems to be more satisfied than their colleagues with a permanent contract. This suggests that permanent employees may have different expectations for nonmonetary work conditions and employment environment or organizational climate than do temporary employees. This would be consistent with some research findings that certain job and organizational factors of employment may contribute to lower turnover of nursing professionals, although to a lesser extent to nursing aides.

Similarly, non-Italian workers turn out to be more satisfied than their Italian colleagues. This latter finding seems to be confirmed by the occurrence of missing data that most likely reflects the existence of foreign workers who may be concerned about being identified. Hence, higher levels of job satisfaction may depend on the versatility of foreigners or time of work. These two results are unexpected. Indeed, a possible explanation is that, in this period of financial crisis and large rate of unemployment, people who are less skilled or at the boundaries between employed/unemployed feel rewarded simply to be employed regardless of the working conditions. In this case the fact of having a job is seen as a need factor that positively affect motivation only to those whose ability to earn any income is at stake. This also implies that organizational climate (team work, culture and other dimensions) and individual characteristics outweigh the effect that labour contract conditions may play. Further studies are needed to confirm these effects.

Appendix

Nursing home #	Work motivation Indicator	Nursing home #	Work motivation Indicator	Nursing home #	Work motivation Indicator
1	85.86	22	95.83	43	89.39
2	85.78	23	82.69	44	86.21
3	75.00	24	69.74	45	91.67
4	64.58	25	78.33	46	67.71
5	58.33	26	84.52	47	95.83
6	74.51	27	78.92	48	100.00
7	91.43	28	59.72	49	71.97
8	98.41	29	75.38	50	78.03
9	90.91	30	64.08	51	70.83
10	87.50	31	66.67	52	77.38
11	69.87	32	85.96	53	83.33
12	73.46	33	70.37	54	61.40
13	76.78	34	66.67	55	50.00
14	75.38	35	100.00	56	89.33
15	55.88	36	79.17	57	71.08
16	78.95	37	84.62	58	92.26
17	76.43	38	97.04	59	94.91
18	72.62	39	98.96	60	56.25
19	71.94	40	54.86	61	87.82
20	89.16	41	96.67	62	87.50
21	80.77	42	92.42		

Table 5: Constructed values of work motivation indicators by nursing home.

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CHAPTER 4

A comparative analysis on approaches and perspectives to listen to employee voice in the Italian healthcare organizations.

Abstract

Nowadays, organizational and managerial literature often highlights the importance of procedures based on employee involvement, in order to measure their satisfaction and, in general, organizational climate. Therefore, it is considered predictor of good performance, especially in healthcare sector. The importance given to this issue was acknowledged also by the Italian national laws, that required public institutions to publicly disclose all performance trends and conduct a periodic survey to be administered to all the employees. This paper aims at understanding how much Italian public healthcare organizations have been listening to employee voice in a structured way, focusing on the differences among the approaches and the perspectives trying to figure out which factors may influence the implementation of employee surveys.

1. Introduction

Listening to employee voice has been widely acknowledged in the organizational and managerial literature. Indeed some authors suggest that satisfied employees tend to be more productive, creative and enthusiastic. Employee satisfaction has a direct and positive impact on the functioning of the whole organization and it strongly affects the organizational performance (Dawson, González-Romá, Davis, & West, 2008; Goleman, 2000; Judge, Thoresen, Bono, & Patton, 2001; M. Patterson, Warr, & West, 2004). Meanwhile, other authors specifically address the organizational climate as predictor of good performance (Brown & Leigh, 1996; M. G. Patterson et al., 2005) and, as regards the health sector, some authors have discussed their relevance as drivers of outstanding performances in hospitals (Douglas & Ryman, 2003; Mannion,

Davies, & Marshall, 2005; Zigan, Macfarlane, & Desombre, 2007). This is particular true for healthcare services where performance is the result of a synergic combination of several intangible aspects. Moreover, healthcare organizations can be represented by a reverse hierarchy (or inverted pyramid), in which key decisions are made by the employees (as physicians) in direct contact with patients, while senior management positions support and control their activities and try to orient their actions (Bini, 2015).

In a recent review on control mechanisms motivating professionals in healthcare, the authors found that studies focusing on managerial tools, almost always jointly consider social, cultural and relational factors, such as team working, leadership, work environment and safety, hygiene and interpersonal relationships (Smaldone & Vainieri, 2016). Hence, listening to employee voice is a mean to understand which are the perception and feelings of personnel involved within organizations.

The importance given to this issue was acknowledged also by Italian national laws, that few years ago (l.150/2009) required public institutions to disclose all performance trends and conduct a periodic survey to be administered to all employees. The authority with the role to promote transparency and accountability within public organizations suggested in 2012 a questionnaire to help institutions compare results or at least detect the same dimensions. This initiative was named by the law as the organizational wellness analysis. The involvement and the attention on employees wellness were already object of a previous Italian law (d.lgs. 81/2008) that asked organizations to analyse employee safety at work, burnout and other psychological states throughout surveys and questionnaires. Even though the laws provide the framework, institutions are free to administer the specific questionnaire or use a different one. Indeed, in the same period, on a voluntary basis and according to a bottom-up approach, some healthcare authorities, stewarded by Regions or independently, administered employee surveys. However they are focused on different aspects that could be brought to the concept of organizational culture, safety and wellness. With these premises, Italian public organizations received many stimuli highlighting different (although related) perspectives about how to listen to employees' voice. After brief definitions of the approaches that can be taken in conducting employee surveys, this paper aims at understanding how much Italian public healthcare organizations have been listening to employee voice in a structured

way, looking for the differences among the approaches and the perspectives that try to figure out which is the predominant vision and which factors may influence the implementation of employee surveys.

2. The perspectives and approaches of employee voice in the organization performance management

In general, theories related to the approach of employee involvement can be divided into three main groups.

First of all, some studies focus on wellness. Employee wellness can be, in wider terms, defined as an advantageous state and, jointly, a dynamic process, involving both physical and psychological health, across seven dimensions: physical, social, emotional, spiritual, intellectual, career and environmental (WHO, 1998). Thus, organizations usually develop policies and interventions concurrently addressing multiple risk factors and health conditions and acting on multiple levels, such as individual employee behaviour change, organizational culture, and the worksite environment. Clearly, from a managerial perspective, wellness promotion could be seen as a halfway goal, in order to achieve proper organizational goals.

In particular, some studies found a crucial relationship between the wellness of workers specifically employed within the health care sector and the performance of organizations. For example, physicians' wellness might not only benefit the individual worker, while, it could also be vital to the delivery of high-quality health care (Shanafelt et al., 2005; Wallace, Lemaire, & Ghali, 2009; Williams & Skinner, 2003). At the same time, the importance of regular measurement of employee wellness by health systems has been highlighted. Moreover, employers who choose to adopt health promotion programs should use best practices to maximize the likelihood of achieving positive results. The success of these programs is also enhanced whether their implementation is associated with a profitable organizational culture (Goetzel et al., 2014).

Consequently, organizations, usually implement wellness measurement tools and processes focusing on different dimensions. This choice depends on the hermeneutic

option used, on a scientific basis, by the management or probably upstream by the creators of the adopted tool (mostly surveys).

The second group of studies is based on the notion of organizational climate. This can be defined as a multidimensional construct that encompasses a wide range of individual evaluations of their work environment (L. A. James & James, 1989). It reflects the employees' perception of the organization's culture, consisting of values, norms and basic assumptions of a given organization (Hemmelgarn, Glisson, & Dukes, 2001; Schein, 1992). The way personnel experience and feel the organizational culture has implications for their perception of the organizational climate (Schneider, Brief, & Guzzo, 1996). While climate is measured as a perceptually based description of what the organization is like in terms of practices, policies, procedures, and routines, the understanding of organizational culture could be useful in order to investigate the underlying mechanisms and reasons why these things occur in an organization based on fundamental ideologies, assumptions and artefacts (Ostroff, Kinicki, & Tamkins, 2003).

Organisational climate may refer to the general dimensions of the environment, for example leadership, roles or communication (L. R. James & McIntyre, 1996) or to specific dimensions such as safety and the climate related to customer service (Neal, Griffin, & Hart, 2000). It may also affect service quality and organisational commitment. Furthermore, general organizational climate can influence worker perception of safety-related climate, thus influencing safety performance through the effects exerted on knowledge and motivation.

The first dimension can be surely considered the most important, from a managerial point of view. In fact, many studies revealed an increasing interest in the relationship between organizational constructs and health service outcomes, as well as in measurement instruments (Gershon, Stone, Bakken, & Larson, 2004). Both organizational culture and climate may be evaluated through qualitative and quantitative methods. However, it has been suggested that qualitative methods are better suited to measure culture, while quantitative methods are mostly appropriate to measure climate (Hemmelgarn et al., 2001). In conclusion, both constructs are based on the notion of shared meanings or a shared understanding of aspects related to the organizational context and play a crucial role in understanding individual as well as collective attitudes, behaviour, and performance (Ostroff et al., 2003).

Finally some studies tend to give importance to work-related stress and burnout. This option is based on the assumption that worker moral, stress and burnout rates are related with care quality issues (Corrigan et al., 1994; Eastburg, Williamson, Gorsuch, & Ridley, 1994). Since it is based on workers' feelings and job satisfaction measurement, this perspective is grounded in a psychological approach. Organizations are also evaluated emphasizing safety at work. Hence, personnel wellbeing is seen as a physical health and accident consequence. Effects exerted on employee satisfaction and dissatisfaction by risks and safety lack, could be probably assimilated to the well-known relation theorised in the so called two-factor theory (Herzberg, Mausner, & Snyderman, 1959).

The risk of work injury has been seen, indeed, as strongly related to psychosocial, ergonomic or organizational factors at work (D'Errico, Punnett, & Cifuentes, 2007; Thomas, Brown, & Hodges, 2006). Consequently, organizations are usually concerned with the implementation of successful prevention programs in order to reduce injury claims, often calibrated on obvious differences among health workers' categories (Bell, Collins, Wolf, & Al., 2008).

3. Governance and employee voice of Italian public health organizations

Among the healthcare systems, the Italian National Health Care System (NHS), which follows the Beveridge model, is a public health system taht provides universal coverage for comprehensive and essential health services thorough general taxation (Ferré et al., 2014; France, Taroni, & Donatini, 2005). Universal coverage should be the premise for a uniform capacity of response to the citizens. This characteristic is usually considered the added value of a welfare system financed by tax revenues with centralized structures in charge of the healthcare system governance. Actually, a Beveridge public system should ensure the achievement of equitable access to health care, irrespective of the individual ability to pay or other characteristics such as income and the region of residence. However, the Italian NHS, despite the universal coverage for a fairly comprehensive set of health services, has still a long way to go before the objective of horizontal equity, that is the provision of equal healthcare services for equal needs, is achieved. There are, in fact, wide differences in practice patterns, health outcomes and resource use within Italian regions that cannot be

justified by differences in patient needs (Fedeli et al., 2009; Mangano, 2009; S. Nuti, Vainieri, Zett, & Seghieri, 2012; Toth, 2014).

As a result of the ongoing power devolution process, the Italian NHS is currently organized on the basis of three levels: the central government, which has planning and funding responsibilities and ensures that all citizens have uniform access to health care, and the 21 regional governments that organize and supervise the provision of health care services within their jurisdiction and allocate overall financial resources to the productive units and Independent Hospitals across the country. The third level, the local one (LHAs and Independent Hospitals), under the supervision of the respective regional government, is directly responsible for the provision of comprehensive care to its entire resident population, regardless of income or occupational status (Ferrario & Zanardi, 2011). On the basis of the current institutional arrangement it is possible to identify four types of institutions: 1. LHAs are organizations connected to a specific geographical area, appointed to provide for acute care, primary care and prevention services; 2. Independent Hospitals, instead, are public authorities, located throughout the entire country; they are independent from the LHAs because of their size, specialization and relevance. 3. Teaching hospitals are comparable to Independent Hospitals, but they combine the research and educational mission with clinical service provision. Finally, the 4. IRCCS are highly specialized hospitals, focusing on specific research issues and partially financed by the central government.

Italian healthcare organizations have adopted different questionnaires to listen to employee voice. Searching for the published questionnaires, in English and Italian journals as well as in grey literature, Italian healthcare organizations adopted nine different models: Anac, Fiaso, HSE, Cantieri PA, Cattolica, ICONAS, MOHQ, OSI and SSSUP. The first model, ANAC, refers to the legislative framework and focuses on organizational wellness. It consists of six sections, for a total of 82 6-point Likert scale questions. Another model refers to the FIASO study. FIASO is the Italian federation of health authorities and hospitals. These studies focus on the employee wellness evaluation, thanks to different tools (i.e. surveys, focus groups etc.) (FIASO, 2012). They are characterized by a variable number of questions and often resort to focus groups. The OSI, HSE were mentioned also by governmental authorities (such as ISPELS and INAIL, the Italian government agency for the insurance against work-

related injuries) dealing with employee safety. Another model is the MOHQ that mainly focuses on psychological consequences of safety. Cantieri PA is, instead, a governmental program aiming at the implementation of benchmarking, evaluation and innovation processes for Italian public administrations, mainly based on employee wellness. The SSSUP questionnaire was developed and validated in the second half of 2000 (Sabina Nuti, 2008; Pizzini, S., & Furlan, 2012). Since then it was applied to an increasing number of healthcare institutions as part of a wider performance measurement and evaluating system (S. Nuti et al., 2012), with the aim of monitoring and assessing the organizational climate of healthcare organizations. Finally, another model was developed by the Cattolica University and applied in some Italian healthcare organizations. It consists of eight sections, mainly focusing on organizational culture. Other questionnaires were applied, mainly based on empirical cases or on the validation of certain models. For example, some years ago, Wienand, Cinotti, Nicoli, & Bisagni, (2007) tested a standardised questionnaire (50 items, each with a scale from 1 to 10), by means of the ICONAS project, in order to quantify the organizational climate. The instrument has been also applied by other institutions.

Moreover, other Italian experiences are mentioned in the literature and in sporadic studies, such as Abernethy & Vagnoni (2004). They published an empirical study about the impact of authority structures on the use of accounting information systems (AISs) for decision control and decision management, in a large teaching hospital and, more recently Carlucci & Schiuma (2014) wrote on healthcare workers perception of organizational climate, considered in itself and as a performance driver to be assessed and managed. Hence, they conducted a survey on a sample of more than 500 workers that turned out to be aware of why and how organizational climate can improve individual and organizational performance.

As it emerges from table 1, almost all the models include sections about tasks, assignments, personal relationships and work environment. However, based on the background reported by the articles focusing on the approach and the core questions, it is possible to classify the models into three groups: 1- a group oriented to safety issues; 2- a group oriented to organizational climate; 3- a group oriented to wellness, referring to physical and psychological health. The following table highlights the different models, commonly adopted by healthcare organizations in Italy. Bibliographical references, the investigated section and core perspectives are shown in the table.

Based on these premises, the aim of this paper is to analyse how much Italian healthcare organizations listen to employee voice and which are the factors affecting the diffusion of these procedures.

Model	References	Sections	Focus
"ANAC"	*ANAC* (2013,2014)	Safety & health, Discriminations, Equity, Professional development, My tasks, Colleagues, Work context, Group identity, Image of the management.	Wellness
"Cantieri PA"	(Avallone & Bonaretti, 2003)	Stratification, Characteristics of the work environment, Safety, Characteristics of the tasks, Wellness & malaise indicators, Inclination for innovation, Suggestions.	Wellness
"Cattolica"	Agenas, Cattolica, WWELL (2014)	General satisfaction with the overall climate, Performance cycle, Managerial efficacy of individual goals, Communication and learning efficacy, Pay efficacy, Working efficacy, Psychophysical effort.	Organizational climate
"FIASO"	(Pietrantoni & Prati, 2008);(Ragazzoni, Baiardi, Zotti, Anderson, & West, 2002); FIASO (2012)	Organizational identity, Social identity, Goals sharing & psychological Empowerment in work context, Turnover intentions, Psychosocial wellness, Coping strategies, Working conditions e family/work relationships.	Organizational climate
"HSE"	(Kerr, McHugh, & McCrory, 2009); (Natali, Martini, Ronchetti, Rondinone, & Iavicoli, 2010); *ISPESL* (2010)	Sentinel events, Work environment & equipments, Tasks planning, Workloads, working time, Function and organizational culture, Position in the organization, Professional development, Decision-making autonomy, Interpersonal relationships, Family/work relationships & private life/work armonization.	Safety
"ICONAS"	(Wienand et al., 2007); *ICONAS* (2006)	General questions on the corporatization process, The organization and the management, Operating units.	Organizational climate
"MOHQ"	(Avallone & Paplomatas, 2005)	Comfort, Goals, Promotion, Listening, Information, Conflict, Relationships, Practicality, Equity, Stress, Social utility, Safety, Tasks, Inclination for innovation, Negative indicators, Positive indicators, Psychophysical malaise indicators.	Safety
"OSI"	(T., Cooper, Williams, & Williams,	Sentinel events, Biography, What do you think about and what do you feel of your work, Current state of health, How do you	Safety

	1990);(Osipow, 1998); (Sirigatti & Stefanile, 2002)	usually behave (stress),How do you interpret surrounding events, Pressure sources in your work, How do you face stress.	
"SSSUP"	(Nuti, 2008); (Pizzini & Furlan, 2012)	Working conditions, My organizations, My tasks, The management, Education communication & information, Conclusions.	Organizational climate

Table 1: Models of employee perception measurement.

4. Methodology

Using the 2015 dataset of the Italian Healthcare units published in the Ministry of Health portal we were able to visit Italian healthcare official website, in order to look for data, reports or institutional documents about employees' survey. It is worth to mention that Italian public health care institutions are required by law, not only to listen to employees but also to publish obtained results in a transparent way (150/2009 and 101/2012 Act; ANAC resolution,5/29/2013). In fact, all the investigated organizations built their websites, including a special section called "Transparent Administration" that could be easily consulted. Within this section, there is a specific sub-section for the "Organizational wellness". Hence, we consider the publication on this section as a proxy of the real execution of employees' surveys. However, it has to be noted that the lack of information on wellness and organizational climate should not necessarily imply the lack of tools or projects involving personnel. Thus, to collect more data and eventually reduce the loss of information due to a partial update of the websites, we have also checked the study centres of healthcare management. Hence, we analysed public documents and deliveries of Agenas, the institutional agency for healthcare services; Fiaso, the Italian federation of health authorities and hospitals, that was interested in this topic for a long time and the websites of Italian academic centres of health care management: Sant'Anna School of Advanced Studies of Pisa (MeS Lab); Bocconi University (CERGAS); Cattolica University (ALTEMS, CE.RI.S.Ma.S.) and Torvergata (C.R.E.A.).

After searching in these websites (research period: may-june 2016) and downloading published documents we carried out a content analysis.

To analyse how many organizations have listened to employees voice and which were their perspectives, we have classified the information gathered considering:

- whether the organization published or did not publish any data or report, specifying the year of detection or release;
- the unit or external entity delegated to survey and analyze data;
- the survey reference model;
- the number of survey questions;
- whether the organization adopted a sample or a census analysis;
- whether they presented and published the results in comparison.

We collected data and then carried out two different models based on two regressions. After descriptive statistics, we carried out a multilevel regression to detect factors that may influence organizational choices about employees involvement. Model 1 has been carried out in order to test the influence of factors on propensity to publish organizational climate reports. Thus, a multilevel model has been developed, so that it has been possible to focus on two integrated levels of observation: organization and region level (De Leeuw & Meijer, 2008). Organizational level variables includes the type of the organizations, according to their mission and governance (Local Health Authorities, Autonomous public hospital, Teaching hospitals and I.R.C.C.S), the frequency of performance reports publication (none, once, more than once) and the number of employees. Moreover the regional level was considered because of the crucial influence exerted on the organizations by the governments of the regions they belong to. The diffusion of a profitable measurement culture is often crucially dependent of forward-looking regional policymakers' choices. An example is represented by a network of Italian regions that systematically compare the performance of their healthcare organizations (Nuti et al., 2012).

We also carried out an additional analysis in order to understand the degree of involvement of the employees. Hence, model 2 uses as dependent variable the response rate while the independent variables are: the organizational mission (L.H.A., teaching hospital, hospital, I.R.C.C.S), the size of organizations, the survey focus (wellness, organizational climate and safety), the survey extent (population or sample); the survey administration span, data collection, analysis responsibility (intra-organization/outsourcing) and involvement in any performance evaluation system.

MODEL 1 (multilevel analysis)	
Dependent variable	
Published report on organizational climate	Yes, No
Independent variables	
Type of organization	L.H.A., Autonomous public hospital, T.H., I.R.C.C.S.
Published report on performance	None, Once, More than once
Number of employees	Continuous variable
Belonging to benchmarking process PES	Yes, No
MODEL 2 (regression)	
Dependent variable	
Response rate	Continuous variable
Independent variables	
Type of organization	L.H.A., Autonomous public hospital, T.H., I.R.C.C.S.
Approach	Wellness, Organizational culture, Safety, Other.
Number of employees	Continuous variable
Survey extent	Population, Sample
Survey administration appointment	Intra-organization, Outsourcing

Table 2: Analysed models and variables.

5. Results

The majority of healthcare organizations did not publish any document in the "Organizational wellness" sub-section that appears as an "empty room".

Focusing on the organizations that declared to carry out surveys (100 out of 238, around 40%), the most recurrent approach (40%) was wellness related, just like the normative suggested, while 32% decided to adopt the organizational climate approach. The 12% have a safety focus and the 16% of the institutions administered questionnaires without any explicit reference to a specific approach or theory.

There is a quite different distribution about the type of institutions that conducted a survey. Table 3 shows the ratio between the overall number of organizations, divided according to their mission and governance, and the number of those that at least once published reports or data (even incomplete) on their website. As we can easily notice, I.R.C.C.S. are characterized by the highest percentage of data or reports publication (50%). The percentage of publications by local health authorities is 47%. Instead, teaching hospitals and autonomous public hospitals publication rates are, respectively, 39% and 28%.

Type of institution	Organizations that published reports	Number of organizations	% of organization that published reports
Autonomous public hospital	16	56	28%
I.R.C.C.S.	7	14	50%
Teaching hospital	11	28	39%
L.H.A.	66	140	47%
Total	100	238	42%

Table 3: Publication of reports or data. Organization divided according to their mission.

The differences related to geographical distribution (the Regions) are wider: there are some Regions where all the healthcare organizations implemented procedures based on employee involvement, while others where none or less than 20% of the organizations have administered surveys.

As regards the way healthcare institutions conducted the survey and published results, we found no differences: half of the institutions appointed external subjects (generally universities) while the other half do it internally. The propensity to do it outside the institutions can be related to the need to ensure a sufficient degree of privacy but also of competencies developed in conducting survey and manage data. The large majority of healthcare organizations while conducting the survey decided to involve the whole population of employees, less than 30% instead opted for samples of variable size. Finally, as shown in table 4, the majority of the organizations that implemented processes aiming at listening to employee voice, does not provide for comparisons among the obtained data. Hence, benchmarking procedures that enable both managers and academics to draw useful inferences are quite disregarded (Gruening, 2001; Purbey et al., 2007; Nuti, 2008).

Type of institution	Benchmarking evaluation system involvement	Benchmarking evaluation system involvement (%)
Autonomous public hospital	3	18,75
I.R.C.C.S.	1	14,29
Teaching hospital	4	36,36
L.H.A.	23	35,38
Total	31	31,31

Table 4: Benchmarking evaluation system involvement.

The importance of the regional level and the measurement culture are highlighted also by the multilevel analysis. Indeed, the 2% of variability is explained by the Regional level.

The participation in a wider performance measurement system significantly influences the propensity of healthcare organizations to carry out employee surveys. Other variables that seem to affect the propensity to carry out employee surveys are the number of employees and the type of organization. In particular, concerning this aspect, autonomous public hospitals, according to our multilevel analysis, seem to be less inclined to publish collected data or reports than local health authorities. The

frequency of performance measurement reports, instead, does not significantly affect the dependent variable.

Variable	Empty model	Organizational level	Regional level
Constant	-0.21	-0.59	-1.1787**
Type of organization (L.H.A. is the reference)			
Autonomous public hospital vs L.H.A.		-0.919*	-0.9233336**
Teaching hospital vs L.H.A.		-0.12	-0.12
IRCCS vs L.H.A.		1.03	0.86
Published report on performance (none is the reference)			
Once vs none		-0.28	-0.27
More than one vs none		0.43	0.40
Number of employees		0.00	0.00
Belonging to the regional network on performance			1.28592**
Intra Class Correlation	3,4%	3,9%	2,2%
Standard deviation	1,06	1,14	0,84

*1% Sign.

**5% Sign.

***10% Sign.

Table 5: Model 1, multilevel analysis.

Thanks to the second model, we aimed at understanding how organizations carried out programs to measure employee feelings. The average response rate is about 33%.

The approaches of wellness, organizational culture and safety seem not to affect the degree of participation to the survey; nevertheless, when managers chose to develop tailor made questionnaires that do not refer to any theory the response rate is higher.

The response rate is neither affected by the body in charge of conducting the survey. At the same time, there are not significant differences as regards the organizational mission, apart from a lower response rate for the autonomous public hospital.

The dimensions of the organizations are negatively correlated to the survey degree of success. In general, the bigger are the organizations, the lower is the response rate.

This perception may be due to the extensiveness and smoothness of information flow of restrained organizations.

Response rate	**Coef.**	**P>ItI**
Type of organization (Local Health Autorities is the reference)		
Autonomous public hospitals vs Local Health Authorities	-0.1307	0.074
Teaching hospitals vs Local Health Authorities	-0.0592	0.440
IRCCS vs Local Health Authorities	0.0023	0.984
Focus of the questionnaire (wellness is the reference)		
Organizational climate vs wellness	-0.022	0.78
Safety vs wellness	0.162	0.129
Other vs wellness	0.143	0.087
Number of employees	-0.00003	0.014
Sample vs population	0.096	0.137
External body vs internal body	0.055	0.416
Constant	0.389	0.000

Table 6: Model 2, regression analysis.

6. Discussions and Conclusions

On the basis of our results, employee voice is mainly taken into account when organizations are embedded in a wider "measurement" culture. The more organizations develop and spread measurement tools, the more employees are accustomed to be engaged (Nuti, 2008). This represents a virtuous cycle. Moreover, the implementation of a profitable organizational culture at both the employees and managerial level may enhance the success of procedures of employees involvement. Managers should keep recognizing the importance of surveys on working conditions and climate, already acknowledged in other western countries. In the U.S.A., for example, almost all the healthcare organizations adopted tools to measure employee feelings). As it emerged from the analyses, the regions and the central government levels covered a crucial role in spreading out the importance of measurement and evaluation culture. Clearly, the nudge given by the central government to take into account employee voice was important, however, also the regional level played a pivotal role. Indeed, as it was demonstrated for other issues, the stewardship function of the upper government levels (such as Region or Nation) is relevant to improve performance and implement new procedures (Veillard et al., 2011).

As regards the approaches, most of the organizations (40%) adopted questionnaires detecting wellness, consistently with governmental agency guidelines, suddenly followed by organizations (32%) that applied questionnaires related to organizational culture. Instead, safety centred procedures seem to be less diffused. We did not find out fundamental differences in response rates. Only when organizations adopted tailor made surveys, the response rate slightly increases, probably due to a greater involvement and pressure exerted by managers on the people involved. Managers should guide healthcare organizations throughout this cultural maturation process, also thanks to the appropriate relational and communication strategies. At the same time, it could be more advisable to adopt universally recognised models, based on validated theories. Thus, professionals in charge should be able to safeguard the reliability of questionnaires and to fill possible abstention gaps, thanks to strategies to enhance personnel engagement and communication effectiveness.

The development of systematic measurement programs could be really useful in order to instill employees involvement into organizational culture. Clearly, the adoption of comparable questionnaires, based on effective approach, will push both practitioners and organizations towards the achievement of their goals. At present, very few organizations published documents that are effectively comparable with those published by others. This issue is almost irrespective of the adopted measurement approach. Benchmarking for this kind of results helps to better understand whether the perception is good or bad. From the descriptive statistics we found out that those organizations that published their results in comparison with other organizations are very limited and related to the presence of a third body in charge of the collection and anlysis of data. The inclusion in institutionalized research groups, may help the implementation of benchmarking processes, so that, best practices could be more easily highlighted.

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