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Work environment, governance and service quality in Japanese healthcare

Abstract

Objectives: This paper explores the contribution of governance to work environment and service quality in Japanese healthcare.

Research design: Data for this project was collected by giving questionnaires to the staff at eight cooperative hospitals across Japan in 2016 and compared with similar data from the staff at two public hospitals in Osaka in 2017. The staff sample from these 10 hospitals was a total of 6,859, with a response rate of 72.1%.

Findings: Based on the "demand, control, support" model of Karasek & Theorell, we found that more staff control over their daily work life resulted in greater staff satisfaction and promoted better service quality. Governance proved to be an intervening factor of significant importance and this paper considered three differentiated models for governing the provision of healthcare in Japan. They were distinguished in terms of the autonomy given to the staff in their everyday work life as well as patient inclusion in hospital discussions and decision-making.

Implications: Greater staff autonomy and more patient inclusion can have a positive effect both on work environment and service quality. Governance models can, therefore, contribute to or detract from goals of achieving greater staff autonomy, better service quality and more patient inclusion.

Contribution: This study tapped into Japan's unique healthcare system, with two user-owned co-operative healthcare providers that manage nearly 200 hospitals with almost 50,000 beds, in order to explore work environment, governance and service quality. Questionnaires given to nearly 7,000 hospital employees allowed us to explore in depth the contribution of governance to work environment and service quality in Japanese healthcare. These results can serve as a best practice for other healthcare providers in Japan and elsewhere.

Article classification: research article.

Keywords: work environment, demand & control, governance, service quality, healthcare, co-operatives, social enterprises.

JEL classification: I12 & L31.

Introduction

Weber's ideal of modern public bureaucracy was based on a military-like hierarchal command-

Victor A. Pestoff Ersta Sköndal Bräcke University College Box 11189, SE-100 61 Stockholm victor.pestoff@esh.se ORCID: 0000-0001-8877-2731 and-control model. This model became the central point of reference for the development of the public sector for most of the 20th Century. It was also adopted as a key organisational concept by industry and manufacture in advanced countries and dominated business administration until recently. Yet it is increasingly apparent that it is both inadequate and inappropriate in the 21st Century,

when services and work in the services sector have become the predominant form of production and employment. Ostrom (1996) and Osborne et al. (2013) underline the differences between producing goods and providing services. Unlike goods, services often require an input or active contribution from users or clients in the production process itself. This makes them co-producers of such services. Personal social services are often considered "relational goods" by economists. If they are long-term or "enduring welfare services", dissatisfied users will often have few, if any, options to exit. This makes voice more important for expressing consumer dissatisfaction and/ or making suggestions to improve the service experience (Pestoff, 1998).

Healthcare in Europe and many other developed countries is now facing a complex and partly contradictory mix of challenges. Fiscal strains combined with a New Public Management agenda have caused cutbacks and calls for improved efficiency in publicly funded healthcare. This development is a significant contributor to the growing concern about service quality in healthcare. Other developments, such as increased demand due to aging populations and an increased level of individualisation of services, also add to the mix. The proposed solutions to these challenges in European healthcare help illustrate the severity of the problems. One solution suggested by market proponents is to further concentrate resources in larger production units and increase efficiency in order to "provide more care with better quality". The problem with this solution is that the Scandinavian countries already have some of the most streamlined healthcare sectors in the world and there is probably a limit to how "efficient" you can make healthcare services while maintaining acceptable levels of service quality. Another possible solution would be to increase public funding, but most European countries already have the highest taxes in the world. Thus, given these alternatives, a key issue for future healthcare in Europe is to find a way to provide high quality services to a greater number of patients at a reasonable and socially acceptable cost.

A different kind of solution is reflected in the growing interest in and practice of increasing public participation in healthcare. More than a decade ago the World Health Organization (WHO) maintained that there were basically three ways or mechanisms to channel public participation in healthcare governance: "choice", "voice" and "representation". Choice mostly applies to individual decisions when selecting insurance providers and/or services. Voice tends to be exercised at the group or collective level to express public or group views. Representation implies a formal, regulated and often obligatory role in the process of healthcare governance (2005). In the United Kingdom it was recently argued that public and patient engagement in healthcare is "an idea whose time has come" (Hudson, 2014), while the Office of Public Management states that "co-production is the new paradigm for effective health and social care" (Alakeson et al., 2013). Moreover, co-production can potentially combine choice, voice and representation, by actively engaging citizens in the provision of public services, at the site of service delivery (Pestoff, 2008 and 2009).

Peters (1996) states that mobilising and harnessing resources beyond the command and control of leaders in the public and private sectors is becoming increasing crucial for the sustainability of society and the achieving of both public and private goals. Citizens provide critical resources today, so we need to consider how best to mobilise and harness their resources, both in their role as professional service providers and user/citizen or co-producers of public services. Moreover, he argues that in order to mobilise vast latent or currently unused resources in the public sector a participatory administration model should focus on empowering the lower echelons of the service providers and their clients, which would decentralise much of the decision-making to them. This should be reflected in their work environment, work satisfaction and how they perform their daily tasks.

Given the relational nature of many services, including healthcare, our study is premised on the assumption that work environment and service

quality are closely related or linked to each other. An employee who has tossed and turned all night worrying about work related problems, who feels tired and exhausted when he/she wakes in the morning, who dreads the idea of going to work because he/she has little or no control or influence on the what, when, why, where and how of his/her daily routines, who has little chance to learn new things or advance at work, such an employee will not provide as good quality service as one who has the opposite experience and feeling about his/her work. Likewise, a client who experiences an unhappy, stressed or disgruntled service professional will not experience as good service quality as one being served by an employee with the opposite feelings. We hope to shed more light on the importance of such mechanisms for the relationship between the staff and their clients and on how this is reflected in service quality in healthcare.

The optimal setting for exploring greater citizen participation in healthcare would be found in user-owned and controlled healthcare services. Unfortunately, there are very few examples of such services in Europe; however, Japan has a unique healthcare system with not just one, but two user-owned healthcare providers (United Nations, 1997). They are: the Agricultural Co-ops (Japan Agriculture, JA), or its health and social service affiliate, Koseiren, which mainly provides healthcare in rural areas; and the Medical Co-ops, which mostly provides healthcare in major urban areas. Koseiren provides healthcare services for its members and the public at 114 hospitals and 66 clinics nationwide, with a capacity of nearly 35,000 beds. Almost 40% of their hospitals are located in municipalities with populations of less than 50,000 people (Kurimoto, 2015 and 2018). In 2010 the Japanese Health and Welfare Coop Federation (HeW CO-OP) brought together the medical co-ops associated with the Japanese Consumers' Co-operative Union (JCCU). Today it runs 75 hospitals with more than 12,000 beds nationwide. The Medical Co-ops also operate 267 clinics, 70 dental clinics and 187 visiting nurse stations nationwide.

Comparing these two user-owned health care groups with public providers of health care in Japan, enables us to identify and isolate the factors that facilitate greater staff control over their work life and active patient participation in their own healthcare. This research project on Co-production, Work Environment and Service Quality in Japanese Healthcare relies on several data sources. First is an organisation study that is comprised of interviews conducted in May 2013 with the CEOs and board members of the eight co-operative hospitals that agreed to take part in our study. Second is a staff study based on questionnaires developed to explore the relationship between work life and service quality at these eight co-operative hospitals in 2016 and the staff of two public hospitals in Osaka in 2017. In all we received 6,859 staff responses from these 10 hospitals, with a response rate of 72.1%. Third is the data collected by a patient study and volunteer study in 2017, also through questionnaires, at four of the co-operative hospitals included in the organization study and staff study. The patient study includes 631 respondents and the volunteer study resulted in 236 completed volunteer questionnaires being gathered at the four co-operative healthcare providers.¹

Previous research on work environment

This project proposes to explore the interplay between four meta variables in the provision of Japanese healthcare: work environment; service

¹ The data collection was financed by the Japanese Society for the Promotion of Science (JSPS) and the Mitsubishi Foundation, and it was supervised by Prof. Yayoi Saito, Osaka University and the Consumer Co-operative Institute of Japan (CCIJ). The project is conducted within the framework of an established co-operation between senior researchers at Ersta Sköndal Bräcke University College in Stockholm (Prof. V. Pestoff & Dr J. Vamstad) and the Faculty of Human Sciences, Osaka University (Prof. Y. Saito). This interdisciplinary group of Swedish and Japanese researchers is supported by a reference group of the relevant cooperative healthcare providers in Japan, Koseiren and the Japanese Health and Welfare Co-operative Federation HeW CO-OP JAPAN.

quality; models of stakeholder governance; and co-production. This report only deals with the first three of those; co-production will be considered in more detail elsewhere. Here we will begin our theoretical discussion with work environment and service quality. Karasek & Theorell (1990) note that work life stress is related both to physical illness and lower productivity. They developed a twodimensional demand/control model to understand, analyse and explain the work environment and its physical and psychosocial impacts on workers and organisations. Combining these two dimensions results in the four-fold classification of jobs illustrated below, where demands are expressed by the columns. Low demands combined with high levels of control result in low-strain jobs, while low demands and low levels of control lead to passive jobs. High demands combined with high levels of control result in active jobs, but when control is low it produces high-strain jobs. The latter are usually considered most debilitating in work life.

They expand their model by adding a third dimension, "social support" at work. That refers to overall levels of helpful social interaction available on the job from both co-workers and supervisors (ibid. p. 69). They note that social support appears to provide buffering mechanisms between psychological stressors at work and adverse health outcomes. Thus social contacts and social structure affect the basic physiological processes important both to the maintenance of long-term health and the acquisition of new knowledge. Accordingly, they note that "... together, these three dimensions of work activity - demand, control and social support – are capable of predicting much of the range of total variation in depression symptoms in the US population". Such symptoms

increase in probability from 6% to 41%, given the right or wrong combination of these factors. (Karasek & Theorell, 1990, p. 72). Later a fourth work-life dimension concerning the nature and intensity of contacts with clients was proposed by Pestoff (1998).

Governance at the macro, meso and micro levels

Governance became a buzz word about 25 years ago. Today it is used in many different contexts. It is employed differently at the macro, meso and micro levels, yet there are some notable similarities between the usage at various levels. From a macro perspective participatory governance is related to concepts such as network governance, New Public Governance and co-governance and it concerns public policy-making. In a multi-level European context it is seen as "a method or mechanism for dealing with a broad range of problems or conflicts in which actors regularly arrive at mutual satisfactory and binding decisions by negotiating with each other and co-operating in the implementation of these decisions." (Schmitter, 2002, p. 53). It is posited on horizontal forms of interaction between actors who are sufficiently independent of each other so that neither can impose a solution on the other and yet sufficiently interdependent that both would lose if no solution were to be found. Their regular interaction results in trust and mutual accommodation (Schmitter, 2002, p. 53). Participatory governance usually emerges as an attractive, yet second-best solution when there is significant market and/or state failure. (Schmitter, 2002, p. 54). It implies flexible combinations of both public and private authority by representatives

Work life demands and decision latitude or control:	Low	High
High	low strain	active
Low	passive	high-strain

Figure 1. Psychological demand/decision latitude model

Source: Karasek & Theorell, 1990, p. 32.

of those collectivities that will be affected by the policy adopted, many of whom will be found in civil society. (Schmitter, 2002, p. 56) However, other roles than citizenship come into focus in participative governance, including those of rights-holders, stakeholders, shareholders, etc.

At the meso level interactive governance refers to jointly managed networks and/or collaborative governance, co-management, etc. Ostrom (1993) maintains that citizenship was confined for too long to voting and consumption of public services. She notes that limiting citizens either to being voters or clients constrains them to passive roles that leave them in the hands of others, rather than being something which they can control. The latter can be achieved when citizens are attributed a more active role as co-producers of public services. Therefore, she proposes a more collaborative and functional governance model that emphasizes a horizontal, two-way relationship among various participants in the community-local process, in contrast to the traditional hierarchal command-and-control model of public administration (Ostrom, 1993, p. 230). Sicilia et al. (2016) provide a good illustration of co-planning in a multi-level setting between different authorities providing services to parents with autistic children in Italy. Edelenbos & v. Meerkerk (2017) introduce three perspectives on interactive governance, particularly in an "Era of Big Society". Those comprise: an instrumental perspective found in public administration literature, with a focus on effective governance and efficiency; a cultural perspective found in sociology and social psychology, with a focus on group dynamics and relationships; and a democratic perspective grounded in political science, with the objective of promoting legitimacy, democratic control and accountability in decision-making. However, they note that interactive governance is often subject to the "push and pull" of processes between citizens and governments. This leads them to distinguish between two main forms of interactive governance: government-induced and citizen initiatives. The former is a top-down process that relies on "citizen participation", but is highly organized and constrained by governments, while the latter is based on bottom-up citizen initiatives and civic engagement that often stems from their dissatisfaction with government policy and action. (Edelenbos & v. Meerkerk, 2017, p. 3)

At the micro level, or governance at the point of service delivery, the multi-stakeholder and coproduction concepts are relevant. Governance at the micro level refers to systems and processes concerned with ensuring the overall direction, supervision and accountability of an organisation (Cornforth, 2004). Spears et al. (2014) present six different models of corporate governance for non-profit organisations, including principle-agent theory, democratic theory, stakeholder theory, resource dependency theory and managerial hegemony theory (Spears et al., 2014). Both control and collaboration are essential elements of these theories. Accordingly, control helps to overcome human limitations through vigilance and discipline, while collaboration taps individuals' aspirations via co-operation and empowerment. But there is always a need to balance them (Spears et al., 2014). However, research shows that more than one governance model can exist side by side in the same NPO (Reuters & Wijkström, 2018).

Moreover, Sacchetti (2013) argues that both governance and decision-making practices can be divided into inclusive and exclusive categories. Inclusive governance co-ordination structures embody awareness of the effects generated on specific stakeholders or "publics" and on society more broadly, and they take into account both the outcomes and impacts of decisions on these "publics". By extending impacts to encompass broader society, inclusive governance structures can activate resources from participating "publics" and produce durable networks based on reciprocity and trust, as well as producing innovate outcomes. (16) Sacchetti's combination of the inclusive/ exclusive categories results in four different types of organisations that correspond roughly to three of the four types of healthcare providers found in this study of Japanese healthcare. The inclusive/inclusive are found in the Medical Coops, the inclusive/exclusive are seen in Koseiren, the exclusive/inclusive are seen in the medical corporations (which are not included in this study) and the exclusive/exclusive are found in public sector hospitals.

Governance can play an important role in developing new methods and models to improve work environment in healthcare in Japan. The three most central and relevant governance models for studying co-operative and public healthcare in Japan are the command-and-control model, the stewardship model and the democratic, multistakeholder model. The command-and-control model is based on the Weberian ideal for public bureaucracy. The stewardship model assumes that managers want to do a good job and will act as effective stewards of an organisation's resources, in collaboration with the main stakeholders. As a result, senior management and the stakeholders or members of an organisation are seen as partners. The role of the board is primarily strategic: to add value to important decisions and improve organisational performance. Here board members are selected on the basis of their professional expertise, skills and contacts and they should receive proper training. By contrast, the democratic model includes ideas of open elections on the basis of one member one vote, pluralism, representation of different interests and accountability to its members. The board is often recruited from lay members and its main function is to represent the diverse interests of the organisation's members (Cornforth, 2004).

From a business administration perspective, governance models usually focus on the relationship between the board and top management of a TSO or co-operative. However, employing a more

holistic or encompassing approach, based on different academic perspectives, such as political science, social work or sociology, would call for broadening the focus. The CEO and board do not provide the whole picture, so we intend to include other major stakeholders in our purview. However, the CEO and board do provide a natural starting point and they were interviewed, with a semi-structured interview schedule, in May 2013. These eight co-op healthcare providers comprise the organisational study of this project. Preliminary results suggest that agricultural coops and the Koseiren comprise a stewardship model of governance, while the consumer and Medical Co-ops embody a democratic model. However, it is worth noting that these concepts are initially considered heuristic tools and how they actually differ in terms of the governance of their healthcare organisations and the role they attribute to other stakeholders, such as the staff, patients and volunteers, remains an empirical question.

These three models can be distinguished by the degree of autonomy given to the staff in terms of their everyday work life and the degree of inclusiveness of various stakeholders in discussions and decision-making. Differences between them can be visualised and summarised by the step-stool figure below, where staff autonomy is represented by the vertical and inclusiveness on the horizontal axis. The higher up a governance model is on the stool the more the autonomy it gives to the staff, while the lower down on the stool the less autonomy given to the staff.

The first step is a hierarchal command and control, top-down model that allows for little autonomy or discretion to either the staff or clients.

Command	Stowardskin	Democratic, Multi-stakeholder
Command	Stewardship	Trutti Stanciforder
& Control		
Low	Medium	High

Figure 2. The staff's autonomy in different governance institutions

Source: Pestoff, 2018.

Traditional public services embody the hierarchical model. The middle step is a corporatist model based on a 70-year public private partnership in Japanese health care that started at the end of World War II. It provided healthcare for more than seven decades to large groups of citizens in rural areas residing well beyond the reach of public services. Finally, multi-stakeholder organisations are found on the top step that represents the highest level of autonomy and greatest inclusiveness. They embody a bottom-up democratic, multi-stakeholder model of governance that has evolved in Japan for nearly 100 years. It is worth noting that differences between these three steps or models do not simply involve the staff or the service users, but both groups together.

Exploring the combined effect of the Demand/Control Model for 10 Japanese hospitals

By combining the two main variables in the Karasek/Theorell working life model, demands and control, we can explore their joint effect on work environment of the 10 Japanese hospitals in our study. The figure below shows the combined effect of demand and control for the staff at these hospitals. The number and proportion of respondents/staff is also indicated.

In general, about a third of the staff/respondents working at the 10 Japanese hospitals in our study are classified as having low strain jobs and another third as having high strain jobs, while the remaining third is divided between passive or active jobs. High strain jobs carry the most risk in terms of negative health consequences for individual employees. They

can also have negative effects in terms of service quality, according to our expectations.

In addition, more than one of eight respondents are classified as having a passive job, which is characterised both by low demands and low control over daily tasks, while fewer than one of five has an active job. In the latter category high demands are combined with high discretion or control over the execution of daily tasks. This is considered the most beneficial work life situation and it usually results both in good working conditions and also a healthier and longer life.

We will now examine the relationship between these four work life situations and the indices of work environment employed by this study. The table below provides an overview of seven work environment indices that were calculated for three to six items each, for a total of 29 work environment items. It only reports the proportion of staff giving a high value for these 29 items. These work environment indices were divided into three roughly equal parts, where a score well above or below 33.3% is noteworthy. It also indicates the difference between the highest and lowest scores in these indices (Dif. h–l).

The difference between the highest and lowest scores in most of these work life indices is greatest for the staff found in the low respective high strain categories. This general pattern suggests that the difference between the proportion of staff reporting low or high strain determines the overall satisfaction of the staff and the quality of the service they provide. The goal of management and human resource officers should, therefore, be to move staff out of a high strain into an active and then, if possible, into a low strain work life situation.

Demands/Control	Low	High
High	low strain 35.1% (2,407)	active 17.1% (1,170)
Low	passive 14.3% (992)	high strain 33.5% (2,248)

Figure 3. Demands and control on/by the staff at Japanese hospitals

Source: Pestoff, 2018.

Table 1. Proportion of staff scoring "high" in indices of work environment, by demand & control categories of Karasek & Theorell (Note: these figures don't add up to 100%, either column- or row-wise)

WE Index	Passive	Low strain	Active	High strain	Dif. (h-l)*
Work Satisfaction	25.4	49.2	34.4	14.0	35.2
Social Support	28.1	51.9	32.2	14.7	37.2
Influence	19.1	57.0	41.4	12.9	44.1
Pers. & Prof. Dev.	28.9	54.4	47.8	24.2	30.2
Work/Life Balance	30.1	47.6	32.4	19.5	28.0
Networking	20.3	30.2	31.7	21.5	8.7
Service Quality**	46.1	63.3	47.0	27.2	36.1

^{*} Difference between staff categories with the highest and lowest scores in work life indices.

Source: Pestoff, 2018.

This can be achieved by providing them with more control over the "nuts and bolts" of their daily work tasks, i.e. more control over what they do and how and when they do it. Organisations that best meet this challenge will not only provide its staff a healthier work environment, but they will have a more satisfied staff, and healthier staff members. Thus one of the most important lessons of the Karasek/Theorell model is the necessity of giving the staff more autonomy over the contents of their daily work as a way of improving the work environment and hopefully the service quality as well.

The low strain category is noted for having a much larger proportion of high scores in the following work life indices: work satisfaction; social support; influence; professional and personal development; work/life balance; and service quality. The high strain category, by contrast, has a much lower proportion of high scores on the same indices. Their high score is only half or a third of the low strain staff on work satisfaction, social support, influence, personal and professional development, work/life balance. In particular, their score in service quality is noteworthy. High strain staff rate their hospital's service quality less than half of what low strain staff do. They clearly feel the pressure of high strain at work

in terms of their lack of satisfaction with the quality of the service they provide.

Introducing the hospitals: work environment and service quality

Taking this analysis one step further, we will now control for organisation type or the hospital group where the staff work. This enables us to focus on the difference between hospital groups in a given demand/control category. Figure 4 introduces the specific patterns found when controlling for this in the Karasek/Theorell Demand/Control model. A separate note exists for the difference between the highest and lowest scores, dif. (h–l) in the figure below.

A quick overview shows that there is not much difference between the staff at these 10 hospitals in terms of either passive or active jobs. A nearly equal proportion of staff at all three types of hospitals are classified as having passive or active jobs, and the difference between hospital groups is rather small, only 0.7 or 2.8 percentage points for these two types of work environments. By contrast, the difference between hospitals is much larger when it comes to low strain and high strain jobs. In the former category, low strain jobs, we note a difference of 20.5 percentage

^{**} This index was dichotomised, rather than divided into high, medium and low, as was the case for the other indices.

points between the highest and lowest hospital group, while a similar difference is noted for high strain jobs (19.3 percentage points). In both these situations, the staff at Medical Co-ops are clearly in the most beneficial situation in terms of their work environment. More of them have low strain jobs and fewer of them have high strain jobs. By contrast, the staff at public hospitals is much less fortunate. Fewer of them have low strain jobs, while many more have high strain jobs. Staff at the Koseiren hospitals falls in between the Medical Co-ops and public hospitals, both in terms of low strain and high strain jobs.

The same work environment indices mentioned in Table 1 earlier were also applied to the different hospital groups. The Medical Co-ops rated highest on all these indices, Koseiren came much lower, while the public hospitals ranked lowest on all but one of them.

Elsewhere we have reported in greater detail on the relation between work environment and service quality (Pestoff & Saito, 2018). There we discussed the relation between five of the work environment indices and the index of work satisfaction. They all had a medium Spearman's Rho correlation that varied between .525 and .439. We concluded, therefore, that it can serve as a surrogate for the other work environment variables. Then we considered the relationship between the index of work satisfaction and the index of service quality.

Demands/Control	Low	High	
High	low strain	active	
	MC: 43.1%	MC: 17.1%	
	K: 33.9%	K: 16.9%	
	Pub.: 22.6%	Pub.:17.6%	
	Dif. (h-l) 20.5%	Dif. (h-l) 0.7%	
Low	passive	high strain	
	MC: 13.4%	MC: 26.5%	
	K: 16.2%	K: 33.0%	
	Pub.: 14.0%	Pub.: 45.8%	
	Dif. (h-l) 2.8%	Dif. (h-l) 19.3%	

Figure 4. Demand and control by hospital group

Source: Pestoff, 2018. Key: MC = Medical Co-ops, K = Koseiren, Pub. = Public

Table 2. Work satisfaction and service quality

Work satisfaction	Service quality*	Percent	dif. (h–l)
High	High	71.6	
Low	High	23.0	48.6

^{*} Only shows the high values of Service Quality. It was dichotomised.

Source: Pestoff, 2018.

We expect work satisfaction will be positively related to service quality. Healthcare is a typical relational service, so the service provided to clients will depend to a large extent on the relationship between the staff and their clients, as too will the perceived service quality. Satisfied staff will provide better quality services to their clients than stressed staff, or those suffering from chronic pain, etc. So, our expectation was that higher worker satisfaction leads to better service quality. For various levels of Work Satisfaction we will only take the high category of service quality into account for the sake of simplicity and to reduce the amount of data to absorb. The Spearman's Rho correlation between work satisfaction and service quality is .482. Going from the high level of work satisfaction to the low, we note a sharp reduction in the percentage of respondents who report a high level of service quality. It decreased from a high of 71.6% to a low of 23.0%, a decrease of almost 50 percentage points, which is a rather sharp drop. Work satisfaction seems to be related to service quality in a fashion that confirms our expectation. The staff at Medical Co-op hospitals report a higher level of service quality, while the staff at Koseiren and public hospitals report a notably lower one.

Governance models: demand, control and influence

As noted previously, command-and-control governance institutions are exclusive and hierarchal in their nature. They leave little room for staff

autonomy and allow very little degree of freedom for staff to use their own initiative to solve everyday problems and/or improve service quality. Moreover, there is no need for a dialogue with clients or making efforts to get their input, since "the experts know what is best" for their clients. Stewardship governance institutions are more inclusive and can be found in user-owned organisations that allow more room for staff autonomy and accept a larger degree of freedom for the staff to use their own initiative to solve everyday problems. However, long-term public-private partnerships may erode some of their autonomy and these governance institutions can gradually assume the character of command-and-control governance structures. Finally, democratic, multi-stakeholder governance institutions are most inclusive, they give staff the greatest amount of autonomy and offer them the largest degree of freedom to use their own initiative when solving everyday problems and/ or making efforts to improve service quality. Moreover, various stakeholders have both a voice and vote in deciding important strategic matters and everyday issues, as well as improving service quality (Vidal, 2013).

We expect that these different governance institutions will promote more or less participatory governance. In order to explore this we will examine two indices of participatory governance from the staff study, i.e. the index of influence and the index of control at work. Note that only the high scores are reported here. However, they speak volumes about the governance institutions found in the hospitals included in this study. The democratic, multi-stakeholder model clearly rates best in terms of control and influence at work, the command-and-control model is weakest in terms of staff control and influence at work, while the stewardship model falls in between the other two in terms of staff control and influence at work.

Finally, by examining the frequency of staff discussions with key stakeholders about important issues concerning the hospital, we can construct the index of contact. It is reported in the table below.

As might be expected, staff working at democratic, multi-stakeholder institutions report a much higher level of frequent contacts with patients, volunteers and local community groups about issues related to their hospital than the staff at command-and-control hospitals. Just over one

Table 3. Governance institutions, control and influence at Japanese hospitals*

Hospital governance institutions & indices	Democratic, multi-stakeholder**	Stewardship***	Command & control***
Index of control	40.1	33.3	22.9
Index of influence	42.2	31.6	23.8

^{*} Percentage giving a positive response (agree & agree somewhat) to the points included in these indices; ** Medical coops; *** Koseiren; **** Public.

Source: Pestoff, 2018.

Table 4. Index of frequency of contacts at Japanese hospitals*

Frequency of staff contact	Democratic, multi-stakeholder**	Stewardship***	Command & control****
Index of contact	35.1	21.0	16.2

^{*} Percentage giving a positive response (always and sometimes) to the points included in these indices; ** Medical co-ops; *** Koseiren; **** Public.

Source: Pestoff, 2018.

third do so, which is more than twice as many as the staff at command-and-control hospitals. Staff working in the stewardship model fall in between the other two.

Conclusions

The Karasek/Theorell demand/control model of work environment presented in Figure 1 proved highly relevant for exploring the relationship between work environment and service quality in Japanese hospitals. It has clear heuristic and predictive value. Combining these two variables in Figure 3 we found a pattern where nearly one third of the staff at these ten Japanese hospitals have low strain jobs, one third high strain jobs, while the remainder are divided between passive and active jobs. Table 1 documented the impact of the four work life or job categories on the work environment indices employed by this study. In general, the low strain category preformed much better on all of them than the high strain category. Moreover, they had a clear impact on service quality, where three of every five staff members with low strain jobs reported high service quality, while only one of every four staff with high strain jobs made the same report. Then, figure 4 introduced the three hospital groups in terms of these four demand/control job types.

We maintained that work satisfaction could serve as a surrogate for the six other work environment indices. Table 2 showed that work satisfaction was closely related to service quality. More than two thirds of the staff who were highly satisfied with their jobs said that the service quality was high, while less than a quarter of those who were least satisfied claimed high service quality. Our data clearly shows that work environment and service quality are positively related. Thus, a healthy work environment not only results in greater work satisfaction, but it promotes better service quality.

Furthermore, we argued that governance systems can help explain some of the most notable differences in work environment, work satisfaction and service quality. Governance systems can be

viewed from various angles. A key perspective is the degree of autonomy given to staff and clients to interact and resolve by themselves certain issues related to service provision and service quality. Also, the degree of inclusiveness of various stakeholders or "publics" is important to consider. We noted that three governance models embody different levels of autonomy and inclusion in decision-making for both the staff and clients, as illustrated in Figure 2. First is a hierarchical command-and-control model that is usually associated with traditional public administration and was first articulated by Max Weber. Second is a stewardship model where the leaders and representatives of the group served make decisions on their behalf. It clearly involves more autonomy and inclusion than the first model, but not as much as the last one. Third is a more horizontal, multi-stakeholder model that attributes greater autonomy to both the staff and their clients to resolve some key issues about service provision and quality, together, themselves.

The first step is a hierarchal command-andcontrol top-down model that gives little autonomy or discretion to either the staff or clients. Traditional public services embody the hierarchical model. The middle step is a corporatist model based on a 70-year public private partnership in Japanese health care that started at the end of World War II to provide health care to large groups residing well beyond the reach of the public services. Finally, multi-stakeholder organisations are found on the top step, which that represents the highest level of autonomy. They embody a bottom-up democratic model of governance that has existed and evolved in Japan for nearly 100 years. It is worth noting that differences between these three steps or models do not simply involve the staff or the service users, but both groups together. To achieve the highest level of autonomy and become viable they both need to be present and actively involved.

Then Table 3 considered control and influence at Japanese hospitals in relation to governance models. Democratic multi-stakeholder models promoted greater control and influence than either the stewardship or command-and-control model. Finally, Table 4 presented data about the frequency of contacts with three key stakeholder groups: patients, volunteers and the local community. It demonstrates that staff at a democratic multistakeholder model have more inclusive discussions with its key stakeholders about hospital affairs than the staff at the other hospital groups.

It follows from this configuration that the governance model had an impact on the work environment. Staff with greater autonomy was more satisfied than those with less autonomy, as seen in some of the tables presented in this paper. That, in turn, can have a positive or negative impact on perceived service quality. It suggests that governance models are an important intervening variable between work environment and service quality. Thus, governance models, rather than ownership per se, appear to require closer attention in research on work environment and service quality in healthcare and other public financed services. However, different ownership constellations might learn from the best practices found in these separate governance models. Moreover, in the next round of analysis, we intend to consider the patient and volunteer data to confirm or reject the picture provided by the staff concerning service quality.

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