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**The Professional Role and Technology Use Among Physical
Therapists in Tokyo
A Qualitative Interview Study**

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ABSTRACT

Background

The role of physical therapists are affected by several aspects including the therapeutic relationship, inter-professional relations, workloads, autonomy and their relations to everyday tasks. In particular, the latter of these is a topic of interest in regards to Japanese physical therapists since healthcare in Japan has shown tendencies toward the adoption of new technology. This, the Japanese physical therapists' use of technology, as well as their professional role has presently not been studied.

Purpose

The objective of the study was to describe Tokyo based physical therapists' views on their professional role as well as their use of technology.

Study design

Semi-structured interviews.

Methods

Five male and two female Japanese physical therapists with a mean age of 37 were recruited by a combination of snowball and convenient sampling. All of the informants pursued work in the Tokyo–Yokohama metropolitan area and had a mean professional experience of 12 years. In addition they all had licensure from the JPTA. Seven semi-structured interviews with an average length of 55 minutes were conducted on site with the aid of a translator and were later processed by a qualitative manifest content analysis.

Results

Five main categories emerged from the data: interprofessional relations; heavy workloads – overtime and scheduling; usage of technology; opinions on technology; and the therapeutic relationship.

Conclusions

Subdued in a power hierarchy that levitates physicians to the top, practitioners of physical therapy in Tokyo seemingly struggle to claim autonomy and independence over their work. The precise origins of this remain to be thoroughly studied but could possibly be attributed to legislative measures.

There were grounds to suggest that physical therapists were overworked and the workload of physical therapists in Tokyo still means overtime for many. Whether or not the physical therapists in Tokyo stand out from the norm in Japan remains unclear.

The physical therapy work force in Tokyo appears amply informed of new and novel technology where it concerns their profession. Yet, that quality is contrasted by their somewhat skeptic perspective to it. In our study, most of the therapists expressed doubt towards the efficiency as well as efficacy of technology in treatment.

Key words

Physical therapy specialty, physical therapy modalities, professional autonomy, workload, Japan, qualitative content analysis.

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BACKGROUND

Irrefutably the core of physical therapy is its practitioners: the physical therapists who ultimately administers the examinations and interventions of physical therapy. To understand physical therapy in Japan has therefore become synonymous to understanding those practicing it there – a perspective which encompasses several different aspects of the profession. This topic can be approached in many ways and, in order to be adequately described, require a breadth of methodology; as discussed above, however, research is scarce on the topic, which makes it difficult to locate a suitable point of focus. One possibility then is to pick an explorative avenue in order to map the landscape and so provide future research with an array of possible points of interest.

The pulp of what it entails to be a physical therapist is made out by a number of things; some which are concrete in nature: tasks you spend your day with, your schedule, the hours you put in and some which are rather more abstract, for example: relationships with patients and coworkers, autonomy and workload. All of these require attention in research as they together – and only together – form the complete picture. Some of these aspects origin from the individual characteristics of the physical therapists, while some arguably represent extensions of the cultural context – an idea which has surfaced previously (1). Japan is a culture with deep roots in history and arguably shape the perspectives of its people and its workforce – including the physical therapists that live and work there. It is thus unlikely that existing research about the professional aspects of physical therapists as they appear in other contexts is applicable to Japan.

Physical therapists in Japan is a group that has received little attention in research – that which exists is mainly conducted in Japan as well as presented in Japanese and thus remains more or less inaccessible to the international audience. Inversely, the Japanese population is arguably often hindered from acquiring academic knowledge from English publications. A survey published in 2007 over Test of English as a Foreign Language Internet Based Test TOEF iBT test scores, which measure proficiency in academic English of non-native speakers applying for higher education in the U.S., had Japanese students score an average of 65 – the lowest among all Asian countries (2). In another report from 2013, also on English language proficiency, an overall decline in proficiency is noted as well as – and perhaps more alarmingly – a decrease in the number of students choosing to study abroad from 83,000 in 2004 to less than half of that in 2010 (3). In contrast to this, however, the need for physical therapy to bridge international gaps has been acknowledged by many pundits. Indeed, it is widely accepted that the subject both in terms of its knowledge base and its practitioners have much to gain from cross-pollination of knowledge and experience (4). In addressing the need for this it falls unto research to facilitate understanding of physical therapy in the variety of contexts in which it happens.

Technological advancement in the field of physical therapy has accelerated during the last few years and, as a result, attention to a variety of technological apparati has boomed. This is demonstrated, amongst other things, by the recent upsurge of robotics and motion capture technology (1). Some of these advancements have been happening in Tokyo where studies on bionics, among other things, have been undertaken (5). Earlier research has suggested that the methods of physical therapists may vary vastly in terms of geography and culture (6) – and thus, the technological advancements in the field of physical therapy might potentially be adopted differently in Japan as opposed to the norm.

The professional role

Physical therapist is a protected title in Japan and is acquired by passing *the National Physical Therapy Exam*. As of 2012, approximately 90,000 Japanese physical therapists (7)

had done so successfully and a majority at 80% (8) were members of Japan's official body for physical therapy: *Japanese Physical Therapy Association (JPTA)*, which constitutes a branch of the *Ministry of Health, Labour, and Welfare*. Statistically this results in one therapist per 1,400 citizens – whereas, in comparison, the respective figure for another developed nation, Sweden, is 645 (9). Presently, however, the physical therapy population in Japan is surging fast. In 2009 approximately 73,862 physical therapists were actively pursuing careers as such – in 2011, that figure had inflated to 90,710 (10).

Japanese education for physical therapists has been constructed by a multitude of disparate curricula: a four year bachelor's degree, three or four year college program, or alternatively, three year diploma program (8). Among these, the diploma program has been the popular choice, while bachelor and master level students have been comparatively few at 13% and 0,5% respectively (8). JPTA has on this subject expressed a need to further standardize the schools' curriculums – i.e. beyond the present standards maintained by the ministry. This progress, however, has arguably been hindered by an overreaching agenda to increase the nationwide supply of physical therapists (11). Ogiwara and Kurokawa argued in a review that these curricular differences have made defining the role of the Japanese physical therapy problematic (12).

The physical therapy exam in Japan is a written exam and contains neither oral nor practical components (13). In absence of an examination form which scrutinizes the practical ability of its undertakers, the role of doing have fallen unto the systems of education. Schools in Japan, however, are presently accredited only once (13) and thus have few means of auditing and restructuring their respective curricula if and when that becomes necessary. Further up the ladder, higher-level university education for physical therapy in Japan has been made increasingly available over the years. Yet, specialization status still lacks a national accreditation process (11, 13). Nonetheless, some progress has been underway as suggested by Tsushima and Takahashi in their review on the topic in which they mention a specialized study group inside the JPTA, supposedly administering one such accreditation system (11).

Autonomy

Physical therapy has a long-winded history of subservience to the medical community (14, 15) – a position that it is increasingly trying to shrug off in order to gain independence and autonomy as a profession. Indeed, autonomy was picked as a priority issue during the 2011 WCPT conference which prompted a policy statement stipulating goals and highlights of the issue (16).

The idea of professional autonomy can be separated into a pair of subsets: *technical* and *socioeconomic control*; the former translates into the control over the practical and technical aspects of one's work and the latter the power to move economic resources so as to fulfill the job description. In the opposite corner of this are the external and internal forces that serve to diminish, rather than empower, the profession (15).

One of the challenges to adequate technical autonomy is the lack of direct access and patient self-referral to physical therapy. As it stood in 2012, direct access was estimated to apply to 58% of WCPT's members (17). Unfortunately, however, this figure was not seen as representative to Asian countries due to low response rates from that region. However, according to WCPT's web page and as of 2012, direct access has yet to be implemented in Japanese health-care (7, 15) – the effect of this on Japanese physical therapists has however gone largely undocumented.

Ogiwara et al. published a study in 2008 that aimed to study the autonomy of Japanese physical therapists and concluded that physical therapy was ill-defined as a profession and required work in several areas including decision making, education and self-evaluation (12).

Inter-professional relationships

Interdisciplinary collaboration is an increasingly prevalent component of modern health-care practice; and is so justifiably as the format improves patient outcomes, costs of healthcare (18) as well as individual satisfaction (19). Several things are required for interdisciplinary collaboration – White et al. identified the following key themes as important in this regard: communication, collaboration, experience, education, and knowledge of roles. (19). Some of these topics are best served to be studied in an interprofessional context while some, such as the definition of one's role, experience and education are well-suited to a single-person interview.

In the Japanese setting, few studies have been published on the relationship between physical therapists and other health-care personnel. Two studies have described the relationship between physical therapists and doctors and found that the doctors did not fully regard physical therapists as colleagues (12, 20). Another study focusing on nurses' attitudes to physical therapy noted that many expressed a satisfaction about physical therapy and the author emphasized communication as a key to fruitful teamwork in healthcare (21).

Therapeutic relationship

The therapeutic relationship has previously been defined as the "trusting connection and rapport established between therapist and client through collaboration, communication, therapist empathy and mutual understanding and respect" (22). A positive therapeutic relationship has proven to consistently show positive effects on pain, disability, physical and mental health, and satisfaction with treatment (23).

In one article the views of physical therapists and occupational therapists on professional aspects of their work, including the personal and socio-psychological problems of their clients were studied. Physical therapists were described as lacking the requisite interest or time to listen to their clients' narratives (24). Another study comparing Australian and Japanese physical therapists on similar issues found Japanese physical therapist to, at one hand, emphasized their clients' personal responsibilities, while at the other, showed less concern for their socio-psychological issues (25). No study that directly researched the therapeutic relationship in a Japanese context was found.

Schedule & overtime

The division of working hours on the tasks of the work day is subject to some discussion. Controversy has arisen recently on the surging chunks of time spent tending to patient journals rather than actual time face-to-face with patients; time as a resource is scarce and an efficient allotment of it is sure to yield real results in the clinical environment. Consequently, overtime has increasingly become the norm for workers in healthcare and has been of significant concern due to its detrimental effects on care quality (26) and worker health alike (27).

Japan is historically infamous for its taxing work environment. *Karoshi* is a coined term in Japan and roughly translates into *death from overwork*. Since being acknowledged in the 70's and 80's policy changes have seen a decline in working hours for the Japanese in general (28). Notwithstanding, however, Japan still stands out among other developed nations with 54.2 per cent of employees often working overtime as well as 33.7 doing so occasionally (29). Nothing documented on the incidence of overwork in the physical therapist population in Japan were found.

Use of technology

Motion capture

Gait analysis is an elementary concern for physical therapists and in many cases constitute the bulk of the examination. In that regard observational analysis has remained the primary choice due to its low cost, availability and time efficiency. Gait analysis of this kind has, however, been subject to large variability in inter-subject reliability (30, 31) and has previously demonstrated only slight to moderate inter-rater reliability (32). Moreover the analytic terminology of analysts – particularly between those of different specialties – has proven to offer inconsistent measurements between different clinicians' ratings (30).

Electronic systems for motion capture analysis have existed for some time but has in the past been unattainable to most clinics in due to their high cost. Recently, however, such technology has been made more readily available through new affordable alternatives that offer similar performance as other older and costlier devices (33).

Motion capture aided analysis as opposed to regular observer analysis has shown to elicit better results in terms of inter-subject reliability (34).

Pressure mapping

Technologies for pressure mapping has been in use for some time and for various purposes including posture and gait analysis as well as for providing visual feedback on ergonomic aspects of seated positions. Several technologies are available that range from expensive, as in the case of GAITRite, to affordable, as in the example of TekScan's MatScan. The latter has proven reliable for double limb standing in patients with Parkinson's syndrome (35) as well as having shown moderate to good reliability in plantar pressure mapping of healthy subjects during barefoot walking (36). The former system, GAITRite, has been studied for sub-acute stroke patients and demonstrated good test-retest (37, 38) and interrater reliability (37).

Robotics

Another novel venue of technology which has made headlines recently, both where it concerns physical therapists and the larger public, has been robotics. Technology such as the Gait Trainer (GT II; Rehasim, Berlin, Germany) has for patients with sub-acute stroke, in addition to conventional therapy, shown long term results on several functional independence scores and out-performs conventional therapy alone (39). Moreover, the robotic suit HAL (Hybrid Assistive Limb) has been able to grant improvements in gait speed and balance in chronic stroke patients (40). For other patient groups, the effects of robot assisted gait training has shown less effect, equaling those of the less costly treadmill based therapy for Parkinsonian patients (41) as well as for healthy people where only small changes could be seen after treadmill walking with the robotic suit HAL (42).

Conventional therapy for gait rehabilitation in stroke patients commonly entails physically taxing work and non-ergonomic conditions for the physical therapist. The work strain resulting from this could potentially be alleviated by robotic systems. In this regard the Lokomat – an electric gait orthosis – has shown promising effects both for patients' rehabilitation outcome and the therapists' ergonomic conditions in a prospective, blinded and randomized study (43).

PURPOSE

The objective of the study was to describe Tokyo based physical therapists' views on their professional role as well as the use of technology related to their clinical practice.

METHOD

A qualitative method with a manifest content analysis approach was picked and the chosen phenomena were studied by an inductive approach. This meant that the intention was to base theories and conclusions on the collected data rather than form a hypothesis prior to data collection – which, contrastingly, is the framework for a deductive approach. An inductive methodology was suitable for the study due to the sparse and unsatisfactory research available on the topics (44).

The interviews were conducted with the aid of an interview guide in the form of a color-coded flowchart in order to provide suggestions and hints of possible topics (see Appendix 1). This type was selected because of its flexible nature. A semi-structured interview has the possibility to extract narrative data of considerable detail plus the advantage, compared to other methods, of enabling the interviewer to switch focus when confronted with new data surfacing during the talks.

SAMPLING

A combination of snowball and convenient sampling techniques (44) were used to recruit the population for the study. The sample included seven physical therapists with a mean age of 37; five males and two females with an average professional experience of 12 years. This is summarized in *Table 1*. Individuals were eligible for inclusion if they were licensed by the JPTA and working in Tokyo-Yokohama metropolitan area. There were no specific exclusion criteria.

Table 1. Informant characteristics

<i>Inter-view</i>	<i>Workplace</i>	<i>Age</i>	<i>Gender</i>	<i>Length of education (years)</i>	<i>Technical school</i>	<i>University</i>	<i>Master's degree</i>	<i>PhD</i>	<i>Exp-erience (years)</i>
1	Hospital	46	M	4		x	x	x	25
2	Clinic	36	M			x			13
3	Hospital	43	F			x			17
4	Clinic	25	M	4	x				2
5	Hospital	42	M	4		x			10
6	Hospital	32	F	4		x			10
7	Hospital	40	M	3	x		x		10

The first candidates were recruited by a snowball sampling method. An established contact was approached, who enlisted a second person who was then able to help by setting up interviews and mediating contacts with whom further meetings could be booked. Furthermore, contact was established with a few physical therapists on site and in the various settings in Tokyo, which then were recruited for the study. All interview subjects were sent or

otherwise forwarded, a letter of invitation including all of the necessary information on the study (see Appendix 2). This letter was translated from English into Japanese (see Appendix 3), and included information about data handling, their possibility to withdraw at any time, the topic and objective of the study as well as the technicalities involved in conducting and recording the interview. They were also told to pick a time and place of their choosing for the interview and they were then held during a time span of 12 days. No special permits were obtained for the study as such not deemed necessary.

DATA COLLECTION

Prior to each interview, a letter of consent (containing the same information as the letter of invitation) plus a short questionnaire (see Appendix 4) was offered each informant to fill out – some of its data is presented in Table 1; the goal being to collect some basic data in advance of the actual interview. Five of the interviews were conducted in accordance with the planned semi-structured format and followed the previously mentioned interview guide (see Appendix 1); the other two followed a structured format due to an absence of interpreters, which limited the possibility for give follow-up questions. Of the interviews, all except one were conducted in Japanese; the remaining one in English. Four of the Japanese interviews had a translator present while the remaining two were subsequently translated by a native Japanese speaker – during those interviews, some and most of the interview questions had been translated prior to the meeting and were presented by one of the authors. Excluding the translator used for the two un-interpreted interviews, three different translators assisted during the interviews of which all were Japanese-English bilingual. The interviews themselves were conducted by both of the authors, recorded doubly and kept first on password protected cellphones, and later, during analysis, on similarly secured private computers. Moreover, notes were taken during the interviews but were later destroyed in a measure to preserve confidentiality. The mean duration of the interviews was 55 minutes, with a range of 13 to 78.

All of the interview sites were selected by the informants; they were located in the Tokyo-Yokohama metropolitan area and, in all but one case, were conducted in the locales of the clinic or hospital; one was conducted in a restaurant. Of the seven interview settings, only three were secluded; and moreover, in three of the interviews, someone not directly related to the interview was present.

DATA ANALYSIS

The data was analyzed in accordance with *content analysis* as outlined by Kristensson (44) and which is exhibited in *Figure 1*. Content analysis is a method that is well purposed for identifying patterns, differences and similarities between different sets of data (44).

Prior to the analysis, to get an overarching picture of the material, the interviews were read several times by the authors. The interviews were then transcribed and the resulting text was organized in a database with the identities of the informants and the translators redacted. This information was kept on an internet based storage drive accessible to the authors only. Work then proceeded to identify *content elements* in the database; this process was initially done by both of the authors separately. In some cases, the content elements constituted large parts of the data, in others only parts of a single phrase.

Next, the content elements were translated into codes – condensations of the content elements, yet still reflecting the entirety of the original content element. It was undertaken by the authors; at first separately, then jointly for a single interview in order to develop a common coding scheme. After this step the supervisor evaluated and coded the same transcription in an attempt to achieve greater credibility by means of triangulation (47).

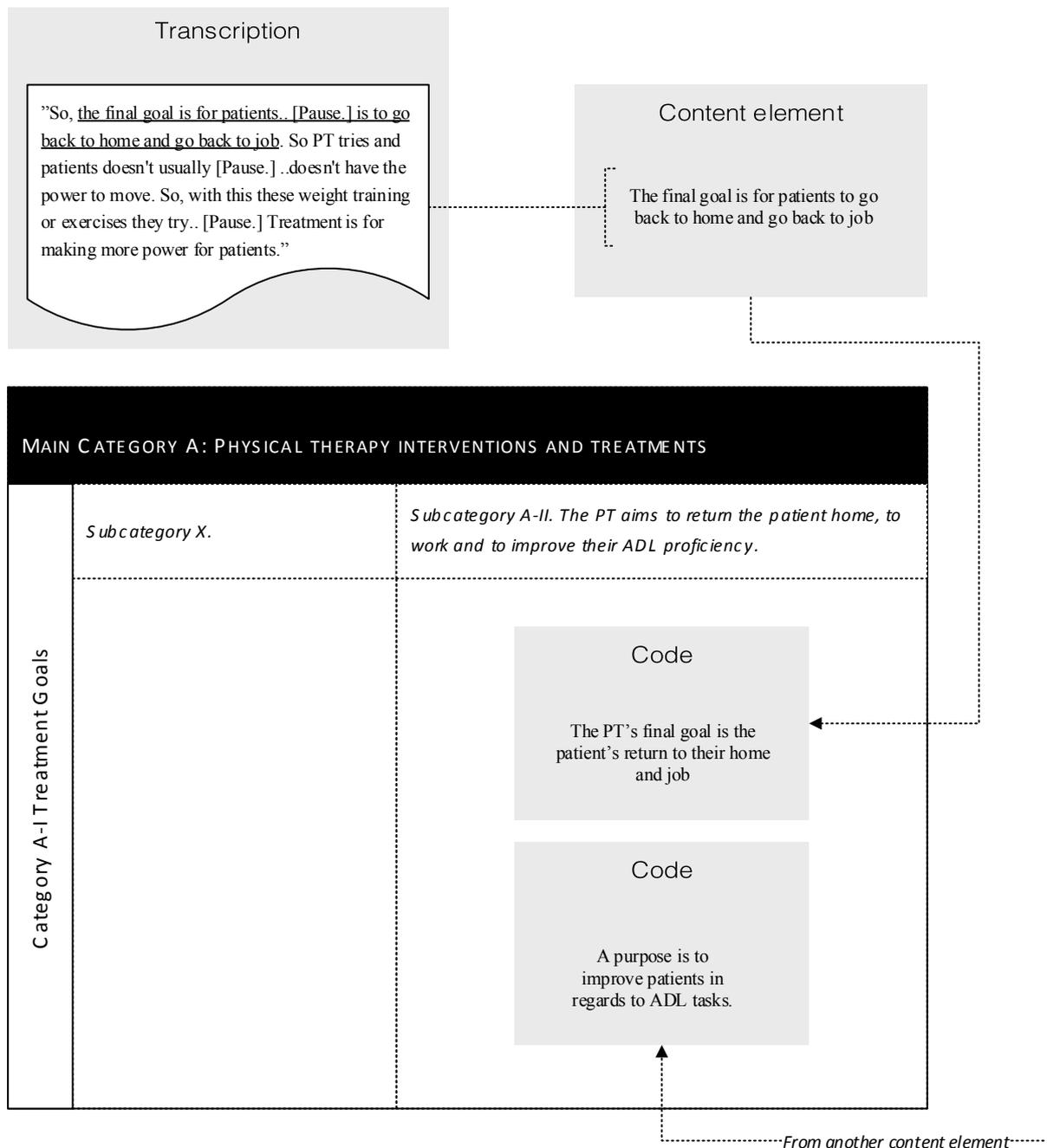


Figure 1. Content analysis in example, © Johan Larsson, 2014

The authors then continued to categorize the data into topics in accordance with the essay's purpose. Subsequently the data was structured and restructured into *categories* and, where applicable, *subcategories* and in so doing, underwent a process of abstraction. In the final venture, all the interviews were re-read as well as their divisions into categories and subcategories and analyzed for emerging patterns and underlying themes, which have been represented as *main categories*. An example of this process is provided in *Figure 1*.

ETHICAL CONSIDERATIONS

The study was conducted in accordance with the *autonomy, beneficence, non-maleficence* and *justice* principles of ethics (44). The autonomy principle required that the informants were given autonomy over their participation. They were given detailed information on the study's purpose and design as well as the option to at any time opt out without any consequences on their behalf. Informed consent was acquired from every informant and the letter of consent was translated into Japanese by a native Japanese speaker in order to provide accurate and true information to the informants.

The beneficence principle concerns the necessity of the perceived positive outcomes of the study to outweigh the possible inconvenience caused its informants. The motives of the study have already been discussed at length. Furthermore, no signs that the interviews provoked any discomfort on the part of the subjects during the course of the study could be found.

The non-maleficence principle stipulated that the study was not to do harm. Thus the authors were adamant to prevent linkage in the data back to the informants and keep informant confidentiality throughout data processing. The interviews were therefore held in areas that were, when possible, private and participation by persons outside the interviews were kept to a minimum and always with the informant's consent. The data that we gathered was stored on mobile devices that were password protected and thereby accessible only to the authors. When transcribed, the names, places, times and other data that might have revealed the identity of the informant were redacted from the transcriptions. The transcriptions were thereafter, and still are, located on a password protected computers. By the end of this study, the audio recordings, transcriptions and letter of consents are planned for destruction. No permissions were necessary to conduct the study.

The last principle specified that informants were to be treated equally and justly. All of the interviews were conducted on the same premises; the informants all received the same information and were offered equal conditions during the interviews. In summary no issues in this regard could be found.

RESULTS

Through the analysis the data were divided into five main categories.

- A. Interprofessional relations
- B. Heavy workloads – overtime and scheduling
- C. Usage of technology
- D. Opinions on technology
- E. The therapeutic relationship

A. INTERPROFESSIONAL RELATIONS

Interprofessional relations could be divided into six categories, namely: A-I. *Expectations on the physical therapist*; A-II. *The origins of conflicts and their resolutions*; A-III. *Doctors have limited time for patients and colleagues*; A-IV. *Interprofessional power hierarchies*; A-V. *Occupational therapists and physical therapists have overlapping tasks* and A-VI. *Information is shared readily among professions*. Some of these categories consisted of several subcategories; these as well as the categories are displayed in Table 2.

Table 2. Main category A. Interprofessional relations

<i>Main category A. Interprofessional relations</i>						
Category	A-I. Expectations on the physical therapist	A-II. The origins of conflicts of interest and their resolutions	A-III. Doctors have limited time for patients and colleagues	A-IV. Interprofessional power hierarchies	A-V. Occupational therapists, nurses and physical therapists have overlapping tasks	A-VI. Information is shared readily among professions
Subcategories		Conflicts that are resolved by discussions, empirical proof or not at all		Doctors limiting the physical therapists impact on patient care The doctor is on top of the hierarchy Fruitful relationships between the doctor and the physical therapist Nurses who claim superiority over physical therapists Relationships with nurses that work well	Conflicts arise between physical therapists and nurses because similarities in work tasks	Physical therapists are involved in both discussions and sometimes decisions regarding patient care

In *Category A-I. Expectations on the physical therapist* there were some data on the expectations the physical therapists felt his or her colleagues had on them – slight indications that there were some expectations, first on the physical therapist to develop his professional skills and secondly to care for and improve the conditions of the patients. Moreover, it was stated that the colleagues expected the physical therapist to improve the atmosphere of the workplace.

"His colleague may expect his physiotherapy skill is improving and maybe his patients expect physiotherapist make the patient... the patient getting better." – Interview 6

Category A-II. The origins of conflicts and their resolutions included disparate accounts of either situations where conflicts were resolved through discussions or instances when resolutions meant executive decisions by the doctor. A strategy which was mentioned as means of resolving conflicts was by presenting empirical evidence of the results of one's interventions; in this case the physical therapists.

They try to let the nurse and the doctor to see the patients doing the rehabilitations so that they can see that they are not ill that much when they are exercising. – Interview 3

It surfaced that conflicts could occur for different reasons and relate to different matters – for instance different ways of thinking and ideals as well as other matters regarding rehabilitation extensions and treatment goals.

Another category, *A-III. Doctors have limited time for patients and colleagues* related to doctors and their limited time for both colleagues and patients. There was data of moderate strength to suggest that doctors both were pressed on time as well as frustrated on account of it.

"Very short, because doctor is always busy. Nurse and physio is fine, like 30 min one hour discussion but doctor is always busy so he come, talk, and go." – Interview 1

A sizeable portion of the data could be categorized as relating to *A-IV. Inter-professional power hierarchies*. This item was divided into a set of sub categories displayed in *Table 2*. Instances of doctors limiting the physical therapists impact on patient care were described and there were indications that the physical therapists had trouble getting their way in matters of conflicting opinions and consequently were overruled.

"[...] in Japan doctor have really strong power or strong opinion and strong influence to the patients so it is sometimes hard to tell the physical therapists opinions to the patients." – Interview 1

Category A-IV. Interprofessional power hierarchies further revealed that the doctor held significant power in the hierarchy. Physicians were portrayed as handing out orders, having the last call on patient treatments, meaning: exercise prescriptions and controlling time frames for rehabilitation. Furthermore, the doctors were described as having obvious responsibility in patients with declining conditions. Likewise, it was mentioned that physical therapists in Japan were tied to doctors in public institutions as well as private business enterprises by legislation that prevented physical therapists from opening their own clinics.

“And that’s the also the problem of the Japanese medical relations between physical therapists and doctors. Because physical therapists cannot open their clinic in Japan and they always need to be in this hospital and be with doctor and they cannot... they have no rights to negotiate.” — Interview 1

Contrastingly, some data suggested fruitful relationships between physical therapists and doctors. One physical therapist described the doctor in his team as “helpful”. Another subcategory was nurses who claim superiority over physical therapists. Some of the testimonies seemed to suggest that nurses, in some cases, attempted to assert authority over the physical therapists – sometimes by handing out orders. On the opposite there were also accounts of *relationships with nurses that work well*. In this subcategory good relationships as well as such of mutual benefit were depicted.

In category A-V. *Occupational therapists and physical therapists have overlapping tasks and information is shared readily among professions* conflicts that arose between physical therapists and nurses were accounted for and were attributed to similarities in work tasks and competitions for salaries. Moreover the tasks of occupational therapists and physical therapists were portrayed as overlapping.

“[...] there is a bit of overlap between what physical therapists and occupational therapists do.” — Interview 4

Information was shared readily among the different professions constituted category A-VI. Meetings were commonplace in the respective work environments and were held on several topics but most prominently on patient discussions. In some cases the meetings were directly related to decisions regarding the patients, for example: where they would be sent after their hospital or clinic stay.

“[...]they talk about what to do for patients if they need to go back home or they can go to other clinics or other – not the clinic – but there is a place that if patients have no place to go back they can go back to.” — Interview 2

B. HEAVY WORKLOADS – OVERTIME AND SCHEDULING

This main category contained four categories: B-I. *Grievances over time spent on meetings*, B-II. *Heavy patient loads*, B-III. *Overtime* and B-IV. *Scheduling*, of which overtime contained two subcategories.

Category B-I. *Grievances over time spent on meetings* contained mentions of meetings taxing the schedules of the physical therapists; some ambivalence was noted, however, as one physical therapist explained that while meetings were important in sharing information they were taking up too much time.

“Too many meeting, not good. But I need too many informations. If we do not have meeting...” — Interview 7

Table 3. Main category B. Heavy workloads – overtime and scheduling

Main category				
Heavy workloads – overtime and scheduling				
Category	B-I. Grievances over time spent on meetings	B-II. Heavy patient loads	B-III. Overtime	B-IV. Scheduling
Subcategories			Physical therapists work overtime on a regular basis	
			The schedule is crammed and as a result it becomes necessary to work overtime	

Patient loads were described as heavy in *Category B-II. Heavy patient loads* and one physical therapist had regularly experienced daily patient loads of and around 20 people.

"[...] but they usually have a lot of patients so they usually do overworking after five also." — Interview 5

Overtime, as reported in *Category B-III. Overtime* was a frequently recurring concern. A couple of hours were common for many of the therapists and, for some, 11-hour workdays were not unheard of. Though officially, the work hours for physical therapists stipulated a start at 08.30 and an end at 17.00, those figures were described as unrealistic. One of the reasons for overtime that showed up in the transcriptions was an overload of tasks – there was simply too much to do in a day to be managed by the therapist during regular work hours. Some of these tasks were conferences, transportation between wards in the hospital and, particularly prevalent, was the need to write journals. Lastly there was mention of unpaid overtime.

"He comes to workplace at 08.00 and starts seeing patients from 08.45 [...] If they are early and there are less patients they can just finish in 18.15. And... But it will usually finish around eight. And they are not paid special overwork from 18.15 'til eight but a lot of people and a lot of times they work late... overworking." — Interview 4

In *Category B-IV. Scheduling* more data to suggest that the physical therapists' schedules were overburdened was found. It surfaced that it had sometimes become necessary to spend lunch writing journals in order to have time for meetings.

"So in case she knows that there is going to be some conferences in the day and she plans to do it, squeeze the schedule in somehow, with finishing early, or she writes the documents and cards for the patients during lunchtime, while eating lunch sometimes." — Interview 3

Moreover, there was some indications to suggest that actual treatment in fact had become affected by the lack of time.

C. USAGE OF TECHNOLOGY

Usage of technology was divided into six categories that are presented in *Table 4*. Some of these categories were further separated into subcategories; also displayed in *Table 4*.

Category C-I. Computer usage varies from being used solely for technical lab data to being used as a communication tool, knowledge source and common access point to patient data was divided into two subcategories: *Digitized patient information is readily available to everyone on staff* and *In some clinics computers are primarily used for journal keeping, communication and lab results*. In some cases all of the staff had access to patient data electronically and in some cases all other data, such as lab results, were also available by computer access.

"So all the information that the patients have in paper-form, can be digitalized, can be stored on the network for instance. So all the information relating to patient is available to that particular patient." — Interview 2

There was heavy use among the physical therapists of computers as a means of writing and reading patient journals while there was strong – yet lesser – prevalence of computers as a tool for lab data, measurement values and other results of clinical tests. Additionally, but to less extent, computers were used to research new knowledge.

The second category, *C-II*, was *In cardiac physical therapy pulmonary gas analysis is used to evaluate patient fitness level*. There were some, but few, reports of the use of pulmonary gas analysis in a clinical environment; when mentioned, however, it was described as the most advanced form of technology in Japan for cardiac rehabilitation.

"[...] most higher technological is cardio pulmonary exercise testing system. Like gas analysis, breathing gas analysis. In Japan especially, in Japanese cardiac rehabilitation situation, for the exercise prescription we usually use anaerobic threshold, this is anaerobic threshold point. So we evaluate the patient's fitness, cardio respiratory fitness level with gas analysis." — Interview 1

Category C-III. Measurement technologies such as CYBEX or pressure mats were available to a few of the clinicians and were used for patient feedback informed that measurement technologies such as CYBEX or pressure mats were available to a few of the clinicians and were used for patient feedback that was objective and could present progress that patients could effectively process.

"So this is used to look at the pressure mapping, pressure mapping of different postures in a wheelchair for instance and also in case of a one sided paralysis, of half paralysis, how that would look, how the pressure would be distributed. In that case and using this technology you can show objectively to the patients and also choose subjectively what kind, how to treat this patient." — Interview 2

Table 4. Main category C. Usage of technology

<i>Main category C. Usage of technology</i>						
Category	C-I. Computer usage varies from being used solely for technical lab data to being used as a communication tool, knowledge source and common access point to patient data	C-II. In cardiac physical therapy pulmonary gas analysis is used to evaluate patient fitness level	C-III. Measurement technologies such as CYBEX or pressure mats were available to a few of the clinicians and were used for patient feedback	C-IV. Movement analysis is often aided by the use of video recordings or VICON	C-V. Robotics have been used in clinical as well as research environments	C-VI. There is a wide variety of technological devices used in treatment
Subcategories	Digitized patient information is readily available to everyone on staff In some clinics computers are primarily used for journal keeping, communication and lab results			VICON is a common tool for movement analysis but is used sparingly and sometimes considered inefficient Video recordings are digitized, put in databases and accessible on the network	HAL has found some clinical use Some clinicians have used HAL on a trial basis	Ultrasound is still used, sometimes to cull inflammations

Motion analysis was discussed to a moderate extent by the informants. *Category C-IV. Movement analysis is often aided by the use of video recordings or VICON* was divided into *Video recordings are digitized, put in databases and accessible on the network* and *VICON is a common tool for movement analysis but is used sparingly and sometimes considered inefficient*. In the few cases where video recordings for movement analysis were used, the data was always available digitally and stored on networks available to the entire staff. VICON was a motion analysis tool used by a considerable portion of the physical therapists. When used, however, it was often considered too time consuming to be efficient and was often considered only for experiments or research and not regular patient care.

"[...] he didn't know how to use efficiently. So, he said he have to think about using it in the future more effectively. [...] right now just it can collect basic data, not use for treatment, not yet." — Interview 5

Robotics have been used in clinical as well as research environments (Category C-V) was divided into the two subcategories *HAL has found some clinical use* and *some clinicians have used HAL on a trial basis*. HAL was widely recognized by the informants; in a few instances they had also come in contact with it personally. HAL was the only type of robotics mentioned in the interviews; when used it was mostly in relation to research although some indications of clinical use for patients with "dysplasia" [sic.] emerged.

"Now they are researching about HAL but they are collecting data of only healthy people, not patients. But they try to use HAL for only one patient, who has dysplasia. [sic.]" — Interview 5

The last category, VI. *There is a wide variety of technological devices used in treatment*, contained a single subcategory: *Ultrasound is still used, sometimes to cull inflammations*. That category seemed to account for the idea that ultrasound therapy was used in a few cases and reportedly to, among other things, treat inflammations.

D. OPINIONS ON TECHNOLOGY

Opinions on technology consisted of two categories: D-I. *Perspectives toward the use of technology* and D-II. *The development of technology*, which were divided into four and one subcategory respectively; of which both are presented in *Table 5*.

Table 5. Main category D. Opinions on technology

Main category D. Opinions on technology		
Category	D-I. Perspectives toward the use of technology	D-II. The development of technology
Subcategories	Positive perspectives Ambivalent perspectives New technology is inefficient and/or expensive Technology cannot be used to actually treat patients	It is necessary

Category D-I. Perspectives toward the use of technology was partly constructed by positive perspectives to new technology. Computers, for example, were described as absolutely necessary by some, and by others as useful for communication, scheduling and lab results. Similarly, the portability of gas analysis equipment was lauded. Other perspectives were more ambivalent toward new technology, portraying it as important but inefficient time-wise; one therapist described it as important yet unnecessary. In another case communication by e-mail was presented as convenient but also unsatisfying in terms of expressing your thoughts properly. Rather more negative perspectives were also expressed. HAL, VICON and CYBEX were all depicted as inefficient, expensive and time-consuming.

"He, they, think it is important to have the technology; to use the technology but they don't have much budget to buy the new technologies. [...] also there is so many patients so each patients doesn't have much time to be treated. And also, like, technology like HAL take time to wear and also it's for individual so it's not efficient." — Interview 5

Furthermore, other negative accounts focused on technology as ill-adapted to actual treatment of patients.

In *Category D-II. The development of technology* one subcategory was found: *It is necessary*, which suggested that some therapists considered technological developments crucial. One person surmised that the aging society, in fact, demanded progress in technology.

"So – in light of the problem of the aging society and so forth, the betterment of technology and the research and development of new technologies is a necessity and there are also cases of using robotics, robot technology." — Interview 2

E. THE THERAPEUTIC RELATIONSHIP

The therapeutic relationship contained two categories: E-I. *Inefficiencies regarding the access to the adequate therapist/care* and E-II. *Patients' expectations on the physical therapist*; the latter contained three subcategories. These categories are displayed in Table 6.

Table 6. Main category E. The therapeutic relationship

Main category		E. The therapeutic relationship
Category	E-I. Inefficiencies regarding the access to adequate care	E-II. Patients' expectations on the physical therapist
Subcategories		Patients expect physical therapists to relieve their pain and/or perform passive treatment Patients do not have much expectations about the physical therapy Patients have misconceptions about physical therapy

The first category, *E-I. Inefficiencies regarding the access to adequate care* reflected issues where patients would end up in the wrong part of the healthcare system and with an inappropriate specialist.

"Japan doesn't have that system and so patient comes to... If patients have problems or disease if they think and they come to hospital but it... [Pause.] maybe, it may not be the right person to ask." — Interview 7

In *Category E-II. Patients' expectations on the physical therapist* some informants described patients who has vague ideas – sometimes misconceptions – about the work of physical therapists, which seemingly affected their patience and willingness to commit to rehabilitation.

"[...] there is not a clear understanding of what a physical therapist does or what a physiotherapist is, so the image that the patients usually have coming to the clinic is probably very vague – very abstract." — Interview 1

"Patients are almost half forced to do rehabilitation without really knowing what to do. So they don't really have it – patience and they don't know what expectations should be." — Interview 3

Some of the expectations on the tasks of the physical therapist included passive treatments and pain relief.

"[...] what the constant patient expect for the PT is to take away the pain and also to be able to [Unintelligible.] move the joints." — Interview 4

DISCUSSION

The results of the seven interviews as well as the method of data collection and analysis are discussed during the following sections: *discussion of method* and *discussion of results*. The former is an attempt at clarifying and discussing the strengths and weaknesses of the method in relation to the purpose of this study. The latter is an effort to assess and interpret the results presented previously in relation to existing research.

DISCUSSION OF METHOD

Aptness

Our chosen method accommodated parts of the objectives well and other parts of it less so. The interview format was arguably well-suited to research the opinions and perspectives of its subjects – in other words: on the topics of the thoughts, ideas and values of our informants we were able to supply a full-bodied product. That aspect was relevant to the study since it started out with an arguably inconclusive picture of the issue at hand, the authors being students from Sweden – albeit one of us having previously resided in Tokyo for a shorter time.

However, in terms of generalizing the therapists' use of technology, in particular as it concerns the different types of it, the interview format was inefficient and would in hindsight, perhaps, have been better served by an altogether different method.

Issues

The semi-structured interview format we selected enabled us to mold the interview to adapt to elements of the topics that were, coming in to the interview, unknown to us. This resulted in data that was diverse and could be focused to the topics that held the respective informant's interest. The backside, however, became apparent when we emerged from our interviews with data that was deep and diverse on the one hand, but at the other, difficult to categorize and effectively discern patterns out of. Moreover, this meant that topics surfaced during the interviews that we were unprepared for and could not be linked to the study's objective. Consequently, some of this data failed to make it through analysis and was discarded. The results of the study, however, is nevertheless comprehensive and would likely not have profited from a wider scope.

A weakness in the interview methodology was the use of non-professional translators. It is common ground that translating across languages takes its toll on the message – particularly when the translator is inexperienced. It is therefore unfortunately likely that some things were lost in translation. Likewise, two interviews were held in Japanese by one of the authors who only have limited fluency in the Japanese language. This prevented adequate follow-up and supplementary questioning based on the answers the informants gave throughout the interview and, debatably, produced weaker data.

We initially intended to strategically select informants to vary as greatly as possible in terms of educational status, geographical location, experience, gender, age and ethnicity. In the start we envisioned that we would reach out to physical therapists in Japan through their official body for physical therapy. With this intention we therefore reached out to JPTA to ask for assistance in contacting physical therapists for our study but was unable to recruit their help. Our second choice was to approach the physical therapists directly by contacting them by e-mail; however, due to the inherent difficulties of language as well as cultural barriers we were unable to make contact. Finally, we opted to approach a previously established contact and were able to, through a snowball methodology, recruit a number of physical therapists.

Moreover, whilst in Tokyo, we were able to approach a few practitioners that we encountered during our visit and so completed our quota. The goal to summon a varied population remained but we were forced, due to time constraints, to pick convenient candidates for our study – in the end, this resulted in some unfortunate similarities between the individuals in our group.

We had intended to perform a pilot interview to test our format and, most of all, evaluate our interview guide; eventually, however, we opted not to. The reason being, first and foremost, that the circumstances under which one could be conducted in Sweden would not adequately represent those of the live meetings. In Tokyo, the interviews would be conducted by an interpreter, which is positively game changing on its own. More importantly, however, the interview guide was designed for Japanese physical therapists and the results of a pilot interview on Swedish professionals would arguably have been of little, if any, value. Not being able to try out the interview guide in advance, however, resulted in some issues. It became apparent that some of the questions were ill-designed and, in effect, resulted in the interview guide being used less than we originally had intended. In retrospect the study would have benefited from a pilot interview done on site, prior to the actual interview, which unfortunately was discounted for practical reasons. On a positive note, however, the semi-structured format gave us the possibility to diverge from the interview guide and, in the end, we do not necessarily believe that the results of the study have suffered.

Systemic errors

The duration of our interviews was, more or less, the same for most of our interviews. There were however a couple which ran notably shorter than the mean and a couple that ran longer. This had the result of affecting the quantity of the data; in effect, some informants ended up representing a larger portion of the data compared to some of the others. In particular, this became evident for one informant who was able to reply to most of our questions in English. Spending almost no time translating we were able to interview that person both more in depth and on a greater range of topics.

Trustworthiness

Per *Graneheim* and *Lundman's* suggestions, trustworthiness in qualitative research can be broken down into three key concepts: *credibility*, *dependability* and *transferability* (45).

Credibility refers to the results' truthfulness and to which extent it is based on the collected data (44) as well as the analysis' confidence in addressing the study's objective (45). In this study, credibility was strengthened by a varied sample, which meant that the topic could be confronted from an array of differing perspectives. Additionally, the study's method of analysis has been documented in detail, which allowed for transparency and, consequently, improved credibility. On the other end of the spectrum, credibility was arguably hurt by the short and varied durations of our interviews as well as the data's lack of depth owing to losses in translation and non-professional interpreters.

Dependability concerns the durability and endurance of the gathered data over time (44) as well as the consistency of the data collection from one interview to another (45). The dependability of this study has conceivably been aided by the short time span of the data collection (12 days) as well as the use of an interview guide which helped the interviewers maintain focus throughout. In spite of this, there is reason to believe that the focus of the data collection diverged somewhat during the process due to the emergence of new topics, which influenced subsequent interviews. This, in the opinion of the authors, might have produced a negative effect on the dependability – and, by proxy, the trustworthiness – of the data.

The third concept, *transferability*, is the extent to which the findings can be transferred to others settings or groups (45). It is difficult to assess in what ways the results given here will have bearing in other settings – a qualitative study design is ill-purposed to make such comparisons. Moreover, this study does not contain background that is specific to Tokyo based physical therapists and thus hampers the possibility for the reader to adequately put the results in context. Possibly, the trustworthiness of the essay could have been boosted by an extended background specific to the nature of the physical therapy profession in Tokyo. On the plus side, however, there is cause to believe that the rigorous and extensive presentation of the results provided herein has increased transferability to some degree. Nevertheless and ultimately, it remains for the reader to decide upon the level of transferability this essay has managed to achieve.

DISCUSSION OF RESULTS

Our results suggest that Tokyo based physical therapists consider their professional autonomy lacking, are encumbered by considerate workloads and have a conflicted relationship towards new technology; the latter being characterized by considerate access to novel innovations yet contrasted by a hesitant perspective towards such.

Professional autonomy

Our results suggest that Tokyo based physical therapists experience a lack of autonomy in their role as healthcare practitioners. The experiences ranges from feelings of being unable to forward opinions about, or take authority on treatments, to their lack of possibility to open their own business enterprises or private practices. Decisions regarding the amount and content of rehabilitation, extensions of rehabilitation time as well as the last word on matters regarding rehabilitation, the physical therapist have a limited possibility to decide since the doctor is always ultimately in charge of these decisions. As described by *Sandström* a countervailing force to autonomy in one's profession is professional domination by others (16), and these findings imply that this *technical autonomy* is largely impacted by the *power domination* of Japanese physicians.

There is a restricted amount of research regarding the autonomy of Japanese physical therapists, but these findings are partly underlined by the works of Ogiwara et al. (12), which reported that Japanese physical therapy lacks both entirety and decision making. In contrary, and in contrast to our findings, the same study reported that Japanese physical therapists in general believed they could freely decide on treatment strategy, freely choose a specific treatment method as well as freely initiate it.

The reports of the limitations on private practice and the negative aspects associated with the inability to start their own physical therapy clinics also suggest a lack of *socioeconomic autonomy*. The control of autonomy by organizing work into systems that is regulated by policies has been described as a *rationalization* (15), which shifts the trust between patient-provider to exist in the rules and organization of the system. This is evident in the Japanese medical system, where physical therapists by national legislation prohibits private practice and direct access (46).

To conclude whether Japanese physical therapists are autonomous or not in relation to physical therapies in other countries, further comparative studies are needed.

Workloads

A common idea throughout our data was physical therapists working long hours and overtime at often poor conditions. While much of the expressed grievance was directed

towards the different tasks at hand, such as keeping patient journals, attending meetings and heavy patient loads, our interpretation is that overtime and schedule conflicts is an issue on its own terms. It became evident in our analysis that the ultimate result of the crammed schedules was persistent overtime – yet perhaps to greater interest, that this did not seem to present an issue and was not considered inordinate. In summary, the recurrence of both crowded schedules and overtime exhibited a tendency for Tokyo based physical therapists to be burdened by heavy workloads. What might be more alarming, however, is the suggestion that such work loads are met with little or no resistance and in effect seem to have become the norm.

Recent reports seem to support the idea that while Japanese people in general seem to work average to above-average working hours, those that do work overtime do so to great extent (29) – this, as our results would suggest, might hold true also for the Japanese physical therapist population. In a 2002 survey study on burnouts among physical therapists in a prefecture in Japan, some of the respondents specified a need for increased time to attend patients and keep records (47).

However – and in contrast – the same study also showed only a slight correlation between the numbers of patients seen each day and burnout measurements. Another study that questioned physical therapists about overwork, suggested that they, indeed, were more satisfied than not in regards to the issue (48).

Our study has shown some hinted that the work situation for physical therapists in Tokyo, similarly to that of the Japanese work force at large, presents taxing workloads with a high prevalence of overtime and busy schedules. That high workloads have real and negative consequences have been previously confirmed (27) but remains to be studied specifically to the context of Japanese physical therapists.

Technology

Physical therapists are often in charge of selecting treatment strategies for patients and the chosen approach has real consequences for treatment outcome. The gold standard for treatment is evidence based interventions grounded in current and scientific research; preferably randomly controlled studies (RCTs) – or better still: meta analyses of such. Evidence based therapy is vital to physical therapists because it acts as a safeguard for defunct treatment – particularly such that might be harmful – and reinforces the confidence of and in therapists; furthermore, it enables deeper understanding of intervention themselves: their mechanisms, prognoses and challenges. The results of technology assisted therapy has been referenced earlier in this study and there is evidence for its positive consequences for both patients and therapists.

Nevertheless, the general availability and knowledge of such technology was met with a mixture of skepticism and hopefulness by our informants. Although some therapists will have adapted technology to aid in everything in and between interprofessional communication and treatment, others have found little if any use for it – for example choosing to keep analog journals instead of computerized ones. In so doing, these therapists are arguably failing to take advantage of some of the more positive aspects digital documentation, which were highlighted by parts of our sample as improving communication and scheduling among other things.

As far as knowledge of new technology – such as HAL or VICON – was concerned, however, our informants were generally informed and most held strong opinions on the matter. Although those opinions varied, a majority held a skeptic perspective toward new technology, mostly related to a perceived inefficiency of the different technological apparatus. In general, the opinion seemed to be that technology was ill-fit to actually treat patients and was better designed to perform research or as a gimmicky tool to provide feedback. Feedback,

it turned out, was seldom considered as part of the interventions. Notwithstanding, a more positive perspective was held toward the development of new technology, which some mentioned as an absolute necessity.

Despite our findings we could not find any research that supported, refuted or in fact had studied the perspectives of Tokyo based physical therapists toward new technology.

There appears to be a considerable discrepancy between the perspectives and uses of technology between different physical therapy practitioners in Japan. We were unable to find national directives on new technology and some of it was treated with skepticism by physical therapists, regardless of the fact that evidence exists to support some of its use – even in regards to actual treatment of patients. Our findings promote a need for future studies on the topic, particularly in English, so as to make them available to a wider audience.

CONCLUSIONS

Little seems to have changed since research was last conducted on the professional autonomy of physical therapists in Japan. Subdued in a power hierarchy that levitates physicians to the top, practitioners of physical therapy in Tokyo seemingly struggle to claim autonomy and independence over their work. The precise origins of this remain to be thoroughly studied but could possibly, and as was hinted at in this study, amongst other things be attributed to legislative measures, which seemingly acts to fortify the physicians' positions of power.

As there were reasons to suggest that doctors are overworked, so were there grounds to suggest that physical therapists were as well. *Karoshi* might be a thing of the past but the workload for physical therapists in Tokyo still means overtime for many. Whether or not physical therapists in Tokyo stand out from the norm in Japan, however, remains unclear.

The physical therapy work force in Tokyo appears amply informed of new and novel technology where it concerns their profession. Yet, that quality is contrasted by their somewhat skeptic perspective in regards to it. In our study, most of the therapists expressed doubt towards the efficiency as well as efficacy of technology in treatment; it was often portrayed as expensive and time consuming. On the account of the physical therapists' use of technology, an overview would perhaps be better served by an altogether different study design.

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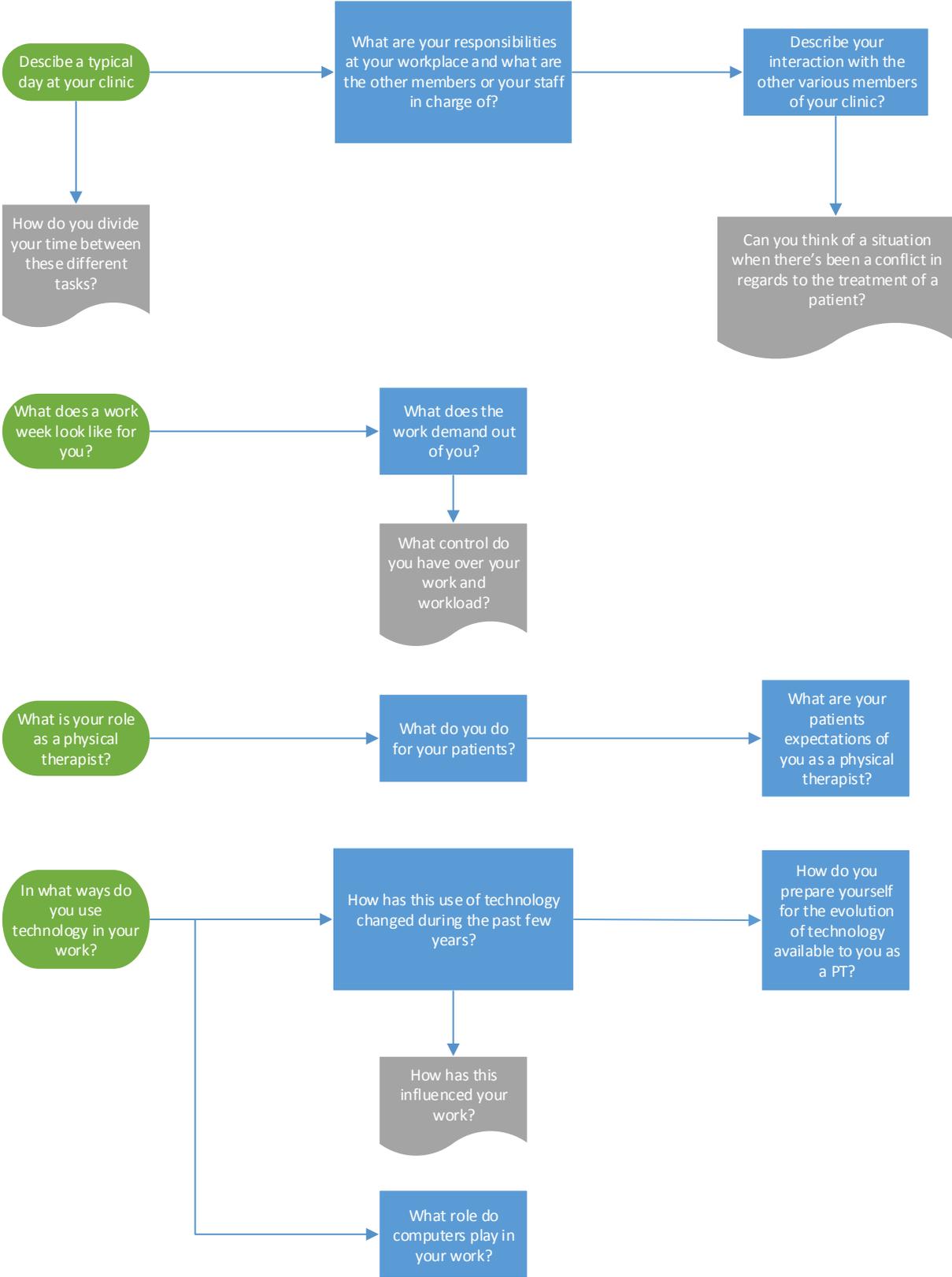
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APPENDIX 1: INTERVIEW GUIDE



APPENDIX 2: LETTER OF INVITATION (ENGLISH VERSION)

THE PROFESSIONAL ROLE, WORK ENVIRONMENT AND

TECHNOLOGY USE OF PHYSICAL THERAPISTS IN TOKYO – AN

INTERVIEW STUDY



LUND UNIVERSITY

Dear x,

You are being invited to participate in an interview study that we are undertaking as part of our Bachelor's thesis at the Institute of Health Sciences, Lund University, Sweden. We, the authors of this letter and the thesis, are two Swedish students at the Physical Therapy Programme. This letter provides you with the information you need in order to choose whether to partake in the interview or not. It is necessary for you to understand what participating in the interview will entail.

The purpose of our study is to research and describe the working environment of physical therapists currently working in Tokyo. We are interested in learning about your experiences as a physical therapist and will be questioning you two topics, namely, your role as a physical therapist and the way in which technology influences your work.

We will need to meet you for a single interview that will be attended by you, us (the authors) and an interpreter. The interview will take no more than an hour and will be recorded on tape and later used in our project. The location and time of the interview will be decided at our mutual convenience.

Participation in this study is voluntary and you are free to decline to answer any of the questions. Furthermore, should you at any point during the interview wish to withdraw you may do so without any negative impact. If you wish, a copy of the final paper will be forwarded to you after the study is completed. Complete confidentiality is guaranteed and your name will be substituted by a pseudonym in the final version. We will leave you with a copy of this consent letter and retain one copy for our own records. The only people with access to this consent letter and the recording will be us (the authors) and our supervisor Amanda Lundvik Gyllensten, associate professor PhD, RPT at the Department of Health Sciences, Lund University

If you have any questions regarding the study, you may contact us at any time. Alternatively you can reach our supervisor at amanda.lundvik_gyllensten@med.lu.se.

Thank you for your consideration.

Johan Larsson & David Najafi

johan.larsson.012@student.lu.se

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APPENDIX 3: LETTER OF INVITATION (JAPANESE VERSION)

THE PROFESSIONAL ROLE, WORK ENVIRONMENT
AND TECHNOLOGY USE OF PHYSICAL THERAPISTS
IN TOKYO – AN INTERVIEW STUDY



LUND UNIVERSITY

東京の理学療法士の役割と就業環境、理学療法の技術について

親愛なる日本の皆様

私たちはスウェーデンにあるルンド大学、健康科学学科研究生であり、この研究論文の著者となります。ジョアンラーソンと、デビットナジャフィと申します。

このたび、ご連絡さし上げたのは、このメールの最初にございますテーマに沿い、私たちの大学の研究論文のため、簡単なインタビューにぜひ、ご協力願いたいと思っております。

私たちの研究の目的は東京の理学療法士の就業環境、その現状を把握する事です。と申しますのも、我々は海外、特に日本の理学療法士の経験やその考えを研究し、よりよい進化、その普及に努めて参りたいと存じております。

インタビューの内容は大きく分けて2つで、ひとつは必ず、理学療法士の役割についてどうお考えになっているか、そして日本のテクノロジーがその仕事にどう影響を及ぼしているか、ということです。

インタビューの場所は日本で、今年12月21日以降、または年明けの8日までご都合のよろしきときに、また1時間以内に終了します。我々著者が直接、インタビューを受けて下さる方に直接、通訳者とともに伺います。そのインタビューは録音され、のちに我々の大学の論文の題材として使用させていただきます。詳細な場所につきましては都内で、相談の上、お互い無理のない場所で、1時間以内で終了するという条件のもと、ご協力願えればと存じております。

なお、インタビューに応じていただける方はボランティアのため、もちろん答える内容、発言などは自由に、答えられない事には答えられずいただいて全く問題ございません。

また、インタビュー後、万が一、削除を望まれる内容、変更を望まれる事情が生じた場合、それはきちんと削除、変更などにも応じます。日本の皆様に対し、けして否定的な論文にはなりませんので、どうぞご安心ください。論文のたたき台が仕上がった段階で、インタビュー部分の内容が大丈夫かどうか、コピーを日本語にてお渡しいたします。

ご自身の発言内容をご確認いただけます。またいずれにしましても、最終論文の段階では名前は匿名にて掲載が可能となります。

すべての情報、個人情報是我々と我々の大学、ルンド大学が責任を持って管理し、この情報にアクセスできるのは我々とルンド大学のスーパーバイザーのアマンダルドヴィック（ルンド大学健康科学学科教授）のみとなりますので、ご安心下さい。

ぜひ、インタビューに応じていただけるかどうか、お返事をいただければと存じます。お返事は日本語で大丈夫です。

またこの件に関しまして、ご質問などがございましたらいつでもご連絡下さい。

また、我々のこのメールにはもちろん、教授のアマンダに直接、ご質問いただいてもかまいません。その場合、彼女のアドレスはamanda.lundvik_gyllensten@med.lu.se.

となります。

ご検討のほど、どうぞよろしくお願い致します。

ジョアン ラーソン johan.larsson.012@student.lu.se

デビット ナジャフィ

APPENDIX 4: QUESTIONNAIRE

Name (名前)

Date (日にち)

Age (年齢)

Gender (性別)

Main professional education (学歴または資格)

Additional education (その他の資格、または学位)

Workplace (就業先、職場)

Years working as PT (勤続年数)

Nationality (国籍)

E-mail address (メールアドレス)