Physiotherapists’ Perspectives on Professional Practice in Comparison to Occupational Therapists’

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Abstract. A survey was conducted to investigate attitudes towards professional practice of physio/occupational therapists. Participants were from a sample of 1,017 physiotherapists and 1,006 occupational therapists. The instrument consisted of 22 statements and various demographic variables. The final response rate was 57.7% for physiotherapists and 50.3% for occupational therapists. The respondents ranged in age from 23 to 72 years for the physiotherapists and from 22 to 65 years for the occupational therapists. The statements were organised into six dependent variables. The majority of respondents generally supported a humanistic approach to care with less concern shown for the socio-psychological problems of the client. Gender differences in opinion on professional practice were small, but women generally favoured a more holistic view of treatment. The physiotherapists placed more emphasis on the client’s personal responsibility, while occupational therapists endorsed a more holistic view of treatment and promotion of the client’s individual resources and coping skills, although professional differences were negligible. Occupational therapists working in non-medical institutions placed more emphasis on the client-therapist relationship, while physiotherapists promoted the coping skills of their clients. In conclusion, the view of regarding therapy as a caring profession was generally prevalent amongst the therapists. Key words: Professional practice, Paradigm, Attribution theory, Physiotherapist, Occupational therapist

INTRODUCTION

There are two paradigms for the theoretical basis of physiotherapy practice1, 2. One is the traditional biomedical disease model or applied biomedical science3–5) with a methodology of three theories: human machine theory, specific aetiology theory and stochastic theory6). The other paradigm, known by various names such as a caring profession7, 8), a holistic model6), life model9, 10) and psychosocial model, approaches the client holistically. On which model are today’s physiotherapists in Japan practicing their profession? Since the establishment of the Japanese physiotherapy profession in 1966, the biomedical disease model has dominated the education and training of physiotherapists. However, the question is whether it can be substantiated for today’s treatment methods.

In terms of medical sociology there seem to be four aspects (two exemptions and two responsibilities) concerning the institutionalized expectation system relative to the sick roles: one exemption is from normal social role responsibilities; the other is the institutionalized definition that the sick person cannot be expected by pulling himself together to get well by an act of
decision or will\textsuperscript{11}). However, these two exemptions, when applied to a passive recipient of care, do not always correspond to the present goal of physiotherapy that aims for physical mobility. Therefore, emphasis may be placed on the viewpoint of the caring profession as a client-therapist relationship, and the clients themselves establish the goal for their good health, which is achieved by recognizing improvement in and maintenance of their condition (The two responsibilities have been omitted because of their irrelevancy to this study).

The physiotherapist’s question \textit{why does physiotherapy work} can be interpreted within the context of the attribution theory\textsuperscript{12, 13}). The central idea of this theory is that attributions can be external or internal to the behaviour or event one is trying to explain.

The idea of utilising a client’s responsibility, client-therapist interaction and holistic treatment model seems, to some extent, to be related to the belief of the physiotherapist being the reason for the efficacy of treatment\textsuperscript{8}). In this study, therefore, the issue focused on the belief system of physiotherapists, not the actual efficacy of their treatment.

The role of the physiotherapist is often related to specific musculoskeletal or biomechanical problems of the client, which require appropriate methods and techniques. In contrast, the goal of the occupational therapist is directly related to assessing a client’s present life situation in the context of the local community and dealing with life skills such as working, changing clothes, cooking and shopping. This study, therefore, also examined the physiotherapists’ views of professional practice and contrasted these with those of occupational therapists. Specifically, the following were compared: a) The degree of involvement of physiotherapists with the view of physiotherapy being a caring profession; and b) The comparison of professional practice between physiotherapists and occupational therapists.

\section*{METHODS}

\textit{Instrument}

A survey, originally devised by Stenmar and Nordholm\textsuperscript{8}), was implemented in this study. Part A of the questionnaire consisted of a Likert-type attitude scale to measure views for professional practice of physiotherapy (see Appendix). Because the questionnaire incorporated issues that were also of concern to occupational therapists, the instrument had content validity for use with both professionals\textsuperscript{14}). The statements in the questionnaire consisted of 22 items, the content of which was to search for the type of attributions that were conceived by physio-/occupational therapists as a means to explain their treatment outcomes. The content of the instrument included attributes for the knowledge and technical aspects of physio-/occupational therapy, holistic approach to healthcare, client characteristics, client-therapist relationship and professional practice. Items in the questionnaire used the terms physiotherapy/occupational therapy and physiotherapist/occupational therapist, whereas the generic terms therapy/therapist are used in this article when referring to both professional groups. Several filler items were included in the statements to increase the credibility of the questionnaire.

Part B of the questionnaire included background information about respondents’ age, gender, years of professional experience, workplace setting, academic qualifications and current work status.

\textit{Scoring}

Three attributional dependent variables were defined amongst the statements according to the following combination: \textit{Technique attributions} consisted of statements 1, 6 and 17, reflecting attributes of knowledge and treatment techniques necessary for a successful treatment outcome. These statements reflect the biomedical science perspective of therapy. Similarly, \textit{client attributions} consisted of statements 3, 9 and 16, reflecting views that the clients themselves are the essential factor for the treatment outcome. \textit{Interaction attributions} consisted of statements 4, 12 and 18, expressing views that the interaction between client and therapist is responsible for a successful treatment outcome. The items were scored in such a way that a score of 5 indicated agreement with the attribution and a score of 1 indicated disagreement. The score range for each dependent variable was from 3 to 15, with higher scores indicating respondents’ high compliance with the attribution.

The three attitudinal dependent variables were as follows: \textit{Holistic attitude} consisted of statements 7, 13 and 22, reflecting a holistic treatment model with
high scores strongly endorsing a holistic perspective. Client resources attitude consisted of statements 5, 8, 14 and 19 involving focusing on the problems of the client versus the positive resources and reserves of the client such as motivation and coping skills, which distinguish between the biomedical perspective of therapy and the humanistic/holistic perspective. Finally, statements 2, 11 and 15 were combined to form work domain attitude that dealt with the extent to which therapists should concern themselves with the socio-psychological problems of their clients.

Procedure

The original English version of the questionnaire was translated into Japanese by the author. This was, then, critically examined by a group of therapists in the University of Kanazawa Hospital Departments of Physical Therapy and Occupational Therapy for its wording and phrasing.

Using a systematic sampling method, 1,017 respondents were selected from the Japanese Physical Therapy Association Member List for the year 2000 and 1,006 respondents from the Japanese Occupational Therapy Association Member List for the year 2001, with their number eventually being reduced to 984 for practicing physiotherapists and 994 for practicing occupational therapists due to various reasons of non-compliance to the questionnaire. A letter explaining the purpose of the study accompanied the anonymous questionnaire with a code for issuing reminders as well as a return stamped addressed envelope. The code was removed upon receipt of the questionnaire. The study was carried out during March and April of 2002.

The rate of return for physiotherapists was 57.7%, from which 12 incomplete questionnaires were excluded from analysis and for occupational therapists 50.3%, with 16 incomplete questionnaires excluded. Thus, the final sample consisted of 568 physiotherapists and 500 occupational therapists.

Statistics

The mean, standard deviation, range and 95% confidence interval of the dependent variables were calculated. Pearson product-moment correlation coefficients were calculated for each professional group in order to verify the intensity of the relationship amongst dependent variables. Using the unpaired t-test the relationship amongst dependent variables, gender and workplace setting were also verified for each professional group. The reliability coefficient, or Chronbach’s alpha, was calculated for total statements, and it was 0.57. An alpha level of 0.05 was selected for statistical significance in this study, using computer software Microsoft Excel 2001 for the data analysis.

RESULTS

Description of the respondents

Amongst the physiotherapists the number of men slightly exceeded the number of women, but for the occupational therapists two thirds were women. The majority of the respondents were working in medical institutions. The mean (and standard deviation) age of the physiotherapists was 32.9 (8.4) years, ranging from 23 to 72, and for the occupational therapists, 30.9 (7.5) years, ranging from 22 to 65. The mean number of years of professional experience for the physiotherapists was 9.8 years with a standard deviation of 7.4, ranging from 1 to 36, and for the occupational therapists, 7.8 years with a standard deviation of 6.8, ranging from 1 to 34. One hundred and sixty-eight (30.0%) of the physiotherapists had held various levels of managerial positions for an average of 4.6 years. Sixty-two (12.3%) occupational therapists had held managerial positions for an average of 6.4 years. The overwhelming majority of the respondents held the qualification of a diploma. Table 1 shows, in detail, the gender, workplace setting and academic qualifications of the respondents.

Analyses of the attributional and attitudinal variables

The mean score for each dependent variable was calculated by dividing the score by the number of statements that constituted each dependent variable; therefore, the possible range of each score was from 1 to 5 (Table 2). The mean scores for all the dependent variables except for work domain attitude exceeded the midpoint of 2.50 for all the respondents.

There was a weak correlation between interaction attributions and client attributions, between client resources attitude and client attributions for both professional groups, and between work domain attitude and technique attributions for the
physiotherapists. A significant correlation was obtained amongst seven of the items for both professional groups (Data not shown). However, for the occupational therapists, there was no significant correlation between holistic attitude and other dependent variables, and the same applied to the physiotherapists except for a significant correlation between technique attributions and holistic attitude (Data not shown).

In a comparison of the dependent variables the physiotherapists showed significantly higher mean scores for client attributions and work domain attitude than the occupational therapists who showed significantly higher mean scores for holistic attitude and client resources attitude (Table 3, left).

In a comparison between genders amongst the 1,068 respondents the women showed significantly higher mean scores for client resources attitude (Table 3, right). Amongst men, the physiotherapists showed significantly higher mean scores for client attributions and work domain attitude, while the occupational therapists showed significantly higher mean scores for holistic attitude (Table 4, left). Amongst women, the physiotherapists showed significantly higher mean scores for technique attributions and client resources attitude (Table 4, right).

A significant difference in the mean score was

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found on interaction attributions and client resources attitude (Table 5). The former dependent variable was significantly higher for the occupational therapists working in non-medical institutions, and the latter was significantly higher for physiotherapists working in non-medical institutions.

**DISCUSSION**

**Background of the respondents**

Most of the respondents were relatively young in their early thirties, this being due to the history of the education and practice of therapists in Japan being less than 40 years. Although the practice of physiotherapy is gradually expanding into various healthcare institutions, the majority of therapists are employed in medical institutions, and this trend continues nation-wide. In addition, unlike physiotherapists in many other countries, Japanese physiotherapists have no right to engage in private practice, which is a big controlling factor on these figures. The number of diploma holders was large because the majority of schools of physiotherapy are still pursuing only the diploma programme.
Importance of knowledge and technique in treatment

The mean scores for technique attributions appear to be too low to be used as a factor for deciding a successful treatment outcome in order to support the knowledge and treatment techniques of the physiotherapist. This finding may be interpreted as evidence of uncertainty of and/or low credibility of the physiotherapists’ own self-evaluation of their treatment technique. Certain physiotherapy modalities lack scientific evidence for their efficacy with some of them not having even been subject to verification. Although physiotherapists may be uncertain at times on the role science plays in physiotherapy, they may feel more reassured in their understanding of the art component of physiotherapy15). However, failure to attribute perceived treatment success to treatment technique may be due to the fact that physiotherapists themselves have perceived that their treatment technique may be ineffectual. Therefore, it cannot be determined that physiotherapists strongly support a biomedical disease model. This is also true for the occupational therapists whose mean scores did not surpass the mid-point of 0.05 for technique attributions. This finding is a little surprising, because, according to the attribution theory, people tend to seek attribution for their success on the effort made, so that the technique attributions scores should, in this case, be overwhelmingly high.

Client-therapist relationship

Since physiotherapists interact with clients, endorsement of client attributions and interaction attributions can be regarded as evidence supporting the role of the physiotherapists and a necessary attribution for a successful therapy outcome. Medico-socially speaking, therefore, it can be stated that physiotherapists are actually helping clients perform their own sick role3, 11). Concerning the client-health professional relationship, an empowerment model has been advocated in the United States since 1990’s16). In this model, it is the client who solves and treats his problem. This model could be implemented as a new fundamental concept for client education in Japan. Health professionals who respect a client’s autonomy can bring about a successful therapy outcome both physically and mentally16). This is in agreement with the concept of health promotion 17), and this model could be applied to a client-therapist relationship.

In a qualitative study two main perspectives were confirmed on the relationship between the physiotherapist and the client18). One is that the relationship is based on a dialogue which aims to discover the client’s own conception of his problems and strategies to solve them18). The second perspective is that the physiotherapist perceives herself as the authority18). From the findings of the present survey a large number of the therapists seem to advocate the former perspective, and they seem to practice their profession with a
considerable degree of autonomy.

Concerning the client-therapist relationship in occupational therapy it is important for the occupational therapist to regard herself as a friend of the client, and, only in the context of such a relationship, can the knowledge and technique of occupational therapy be useful 19).

One of the major complaints of clients about today’s healthcare is a lack of communication between themselves and health professionals 20). Effective communication skills are required for physiotherapists and such a skill, in addition to treatment techniques, requires a certain amount of learning. Naturally, non-verbal communication is also included for communication in the helping relationship between therapists and client 21, 22). Nearly 25% of physiotherapists’ time is devoted to listening or talking with clients 23). Courses, such as social skills training programmes, that cover non-verbal communication skills should be part of the basic curriculum for physiotherapy education 24).

Healthcare in Japan has been instituted mainly from a provider’s viewpoint, but seems to be gradually changing to one from a client’s viewpoint 20). A service-oriented approach in a doctor-client relationship could set a precedent for the client-physiotherapist relationship. Disclosure of physiotherapy assessment and treatment records to the clients, called an open chart, could be one factor that contributes to a better client-physiotherapist relationship 20).

Holistic attitude of therapists

The mean scores for holistic attitude of physiotherapists were the second lowest amongst the six dependent variables and significantly lower than that for the occupational therapists. Therefore, supporting the holistic approach does not seem a priority for the majority of physiotherapists. There was no gender difference in holistic attitude for the occupational therapists, this being due to the fact that they have traditionally pursued a holistic approach 25, 26). In rehabilitation following hip fractures, occupational therapy intervention based on personally meaningful tasks in contrast to the biomechanical rehabilitation model has led to greater skill performances specific to the task and resulted in more efficient outcomes and greater client satisfaction 27).

In Thornquist’s descriptive analysis of a physiotherapist’s assessment and the communication between physiotherapist and client, the biomechanical way of thinking was contrasted with the idea of the client as an active participant and social equal 28). It was revealed that, within the biomechanical framework, effect(s) of the injury on the mind and its resulting feedback to the body was not considered. It was concluded that biases became clear in findings and clinical reasoning, and, consequently, the treatment may have been insufficient. This led Thornquist to recommend that physiotherapists should extricate themselves from Descartes’ mind-body dualism and convert the treatment approach in such a way that the client would be an active participant in his treatment.

Involvement of therapists with client characteristics and client’s own resources

In the education of physiotherapists and clinical practice of physiotherapy, emphasis is placed on a client’s motivation and competency as being important factors for a successful treatment outcome. The fact that the mean scores for client attributions and client resources attitude were higher than that for technique attributions suggests that client characteristics were emphasized by both professions. Thus, therapists seem to be dealing with clients, the majority of whom are unaware of being endowed with their own resources and reserves.

The major component of today’s physiotherapy concerns mobility of clients through exercise therapy for which client’s understanding and cooperation are indispensable. Therefore, it is reasonable for client attributions to have been nominated highest amongst the dependent variables. In contrasting a resource-oriented strategy with a physiotherapist-oriented one (or authoritarianism 11) or paternalism 29) the former is regarded as a humanistic approach and the latter a behaviouristic (or a carrot and stick 6) approach. The former emphasizes the activation of the client’s competency to use his own resources and reserves other than the disability.

Therapists’ involvement with clients’ personal and socio-psychological needs

The mean scores for work domain attitude of the therapists was the lowest, which meant that most of them did not advocate involvement with the client’s socio-psychological problems. The number of new
health professions has increased in parallel with the development of health science and medicalization of people’s expectations with the consequent establishment of a division of labour in today’s healthcare. Therefore, with such a limited attitude concerning their work domain it helps explain the professional practice of acceptance of an appropriate division of labour amongst health professionals.

When considering socio-psychological, cultural or ethical approaches to chronic pain sufferers healthcare practice becomes practically meaningless if we do not listen to narratives of such clients. Such narratives include those of people close to the client such as his family or guardian. Today’s therapists may not have enough interest or time to listen to clients’ narratives and wish to leave this aspect of care to other professionals such as clinical psychologists and/or social workers.

In a clinical situation physio-/occupational therapists are often involved with a client simultaneously, as well as their physical work environment being in close proximity to one another. Thus, physiotherapist’s expectations of occupational therapist’s contribution to a client’s physical mobility is transmitted both explicitly and implicitly through their daily interactions such as meetings and case conferences, which may not be conducive to fostering a work domain attitude for the occupational therapists.

In some countries, physiotherapists who are engaged in private practice have free-access to clientele. Those therapists especially make an effort with the socio-psychological aspect of their clients due to business competition. However, there may be a lack of motivation for today’s institutionally employed physiotherapists concerning this matter. The low mean scores for work domain attitude may indicate a question concerning the way the socio-psychological involvement on the part of the therapists has been appraised and developed, and this does not seem apparent to them from these results.

Relationship between workplace setting and attitudes towards professional practice

Therapists working both in medical and non-medical institutions generally showed high mean scores for client attributions, interaction attributions and client resources attitude. Due to the overwhelmingly large numbers of therapists working in medical institutions (Table 1), a discrepancy concerning the accuracy in the statistical comparison with those working in non-medical institutions became apparent. For example, a null hypothesis cannot be rejected, when a large difference exists between the numbers of the two groups: in this study 8.3 times larger for the physiotherapists and 5.0 times larger for the occupational therapists. Nevertheless, the fact that the occupational therapists working in non-medical institutions showed significantly higher mean scores for interaction attributions and the physiotherapists working in non-medical institutions showed significantly higher mean scores for client resources attitude indicates a discrepancy in these two dependent variables between therapists working in the two different institutions. These findings were unexpected, because such an attribution or attitude is required for therapists directly involved with client care. Despite the aforementioned concern, it was ascertained that therapists relatively emphasized their knowledge and technique. There is a possible alternative interpretation for this finding. The important requirement of knowledge and technique by physiotherapists in nursing homes is low, so that the relative importance of interaction attributions and client resources attitude can be high, since the aim of physiotherapy for the nursing home residents has as its goal mobility and re-organisation of their life style.

Gender differences in the attitude towards professional practice

Women therapists were found to foster a holistic attitude, although there was no significant difference in gender. Also inconclusive was the result comparing workplace setting. In a comparison within identical workplace settings men physiotherapists significantly endorsed their knowledge and technique. Specifically, the mean (standard deviation) scores for technique attributions of men was 2.94 (0.76) vs. that of women 2.74 (0.72), t=3.12, p<0.01, with women occupational therapists significantly favouring client characteristics as an essential factor for a successful treatment outcome. Specifically, the mean (standard deviation) scores for client attributions for women was 3.95 (0.61) vs. that of men 3.80 (0.68), t=−2.42, p<0.05. Thus, the physiotherapists supported reductionism, and the
occupational therapists excelled in their own nurturing skills.

Limitations of the study
The 22 statements used in this survey were translated from English to Japanese, and the accuracy of their original meaning cannot be conclusive. Consideration should be given to the fact that a cross-cultural measure was used in this study, the measure which Swedes and Australians share. Further, this research was a cross-sectional study, so that its findings may be changeable prospectively.

Cronbach’s alpha reliability coefficient for the statements used in Stenmar and Nordholm’s study was 0.81\(^8\), while for Adamson and Nordholm’s study it was 0.70\(^5\). However, consideration should be given to the fact that Cronbach’s alpha coefficient in the former was calculated from the four dependent variables only (technique attributions, client attributions, interaction attributions and holistic attitude). A reliability coefficient of 0.80 would normally be required for the statements to be reliable, and so 0.57 obtained in the present investigation was considerably low. Therefore, it may be necessary to further examine wording and phrasing of each statement, as well as to increase the number of items listed. Concerning the validity of attributional and attitudinal statements, the fact that these were used in three previous studies\(^8, 14, 34\) justified their use in this study.

Future studies
It will be necessary through further studies to clarify the relationship between clients’ and physiotherapists’ views regarding professional practice. In addition, with development of appropriate and scientifically based assessment methods of treatment outcomes, it will be required to collaborate these assessments with professional practice of physiotherapy. A Japanese version of a Professional Practice Attitude Scale suitable for healthcare in Japan should be developed in the future. Because people’s attitude and consciousness can change with the times and situation, it would be interesting to examine the transition of attitude for professional practice of physio-/occupational therapy by re-surveying, for example, in 10 years time. This survey could also be replicated to examine professional practice of other healthcare disciplines.

CONCLUSION
Professional practice of physio-/occupational therapy based on a caring profession was generally prevalent, though the majority of therapists are ambivalent about their views on the knowledge and techniques of their respective professions. Consequently, due to an increase in the aged population, chronic diseases and severely disabled individuals in Japan, therapists are becoming increasingly aware that knowledge and technique based on science alone cannot be solely responsible for solving the more diverse problems with which today’s clients present. Therapists must incorporate into their treatment additional knowledge from the fields of the social sciences and humanities. Such a progression of thought will be required to enable advancement of the two professions into true scientific disciplines.

We may well ask the question: Will these perspectives on a caring profession and those on a biomedical model of physio/occupational therapy come into conflict? Professionals who participate in human services must come to a realisation that scientific humanism and humanistic science are complementary\(^10\). By incorporating these two different models into the therapist’s basis of treatment it will become truly comprehensive, together with continued scientific verification and evidence-based practice.

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REFERENCES
Appendix
Attitude statements on professional practice

1. A physiotherapist’s treatment method is the most decisive factor responsible for the client’s recovery.
2. A physiotherapist should not become too concerned with the client’s personal problems.
3. For physiotherapy to succeed, the most important component is that the client is motivated.
4. It is the interaction between client and therapist that is most important in physiotherapy.
5. Physiotherapy should promote the health of the client and not emphasize the diagnosis.
6. The physiotherapist’s knowledge and technique are what make physiotherapy work.
7. The physiotherapist should not treat just part of a person or body part but must be interested in the whole person.
8. Physiotherapy should be oriented toward the client’s resources, rather than the client’s problems.
9. It is the client’s own capacity for recovery that makes physiotherapy work.
10. Physiotherapy is above all an aid to self-help.
11. The client’s social problems should be the concern of another allied health professional such as a social worker or counselor.
12. During the first therapy session, the interaction between physiotherapist and client starts a process that will make physiotherapy work.
13. Physiotherapists should work with both the body and the mind of the client.
14. The physiotherapist should place less emphasis on the client’s diagnosis and more emphasis on enhancing the client’s coping skills.
15. The psychological problems of the client should be of concern to the psychologist, not the physiotherapist.
16. Physiotherapy works through eliciting the client’s own ability to change and improve.
17. The client’s problem can be cured by physiotherapy techniques.
18. The interaction that occurs between client and physiotherapist has no bearing upon a successful treatment outcome.
19. The most important factor in physiotherapy is the client’s own coping abilities.
20. Physiotherapy can cure tendinitis.
21. The client’s diagnosis should be the central focus of attention in physiotherapy.
22. Many clients can be successfully treated without the physiotherapist necessarily having a holistic view of the client.