

The Physiotherapist-Doctor Relationship: An Ishikawa Physiotherapists' Perspective

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Abstract. The purpose of this study was to identify attitudes and opinions about the physiotherapist-doctor relationship dyad as perceived by physiotherapists in Ishikawa Prefecture, Japan. The authors present an analysis of the responses of a sample of 176 physiotherapists to the Likert-type Physiotherapist-Doctor Relationship Scale. This scale consists of 17 statements in the context of the controversy concerning the appropriate relationship between physiotherapy and medicine. Findings of the study revealed that: 1) the respondents' view of the degree of the doctors' understanding of physiotherapy and mutual collaboration between physiotherapists and doctors was moderate; 2) the majority of the respondents wished to have lectures and short courses given by doctors; and 3) the relationship between physiotherapists and doctors becomes more collegial as the former gains professional experience. There was a tendency on the part of the respondents to perceive doctors as viewing physiotherapists foremost as technicians rather than professional colleagues. The results point to a need to strive for the ideal team that is structured, collegial and flexible, which can be achieved through academic and clinical education.

Key words: Physiotherapist-doctor relationship (PDR), Likert-type PDR scale

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INTRODUCTION

The objective of the healthcare professional is to restore a client's physical and psychological functions to their optimal well-being. A number of healthcare team members are required to accomplish this objective and they need to work in unison¹. A client's expectation focuses itself on the expertise and competence each healthcare professional possesses. One factor that demonstrates whether the expertise offered by professionals benefits clients is the viable working relationship among these healthcare professionals. This brings into question the important factor of the current professional socialization process of physiotherapists during undergraduate training, the

conditions of which hardly prepare them adequately for a role with an appropriate relationship with doctors or other team members.

According to the physician-nurse relationship in Japan, nurses are generally dissatisfied with the lack of understanding shown by doctors of the nursing profession and attribute this to lack of autonomy on their part¹⁻³). However, two other studies carried out by the nursing profession showed a subtle change over time in 'the doctor-nurse game' into a more collegial relationship²), though half of the respondents stated that the relationship with doctors was still biased in the doctors' favour³).

A 1988 study carried out in the United States on the physician-physiotherapist relationship resulted in it being good or at least showing improvement⁴).

The therapists concluded from this study that physicians were beginning to respect them more and to realise that 'their expertise was complementary to medicine'. They also stated that they have increasingly received more responsibility and trust from physicians over time.

In Japan there is a dearth of studies on the physiotherapist-doctor relationship (PDR). It is debatable but probably true that of all the 'professions auxiliary, supplementary or complementary to medicine', physiotherapy is one of the closest to medicine in terms of clinical skills and personal responsibility⁵). This is best exemplified in professional practice where a doctor will refer a client to a physiotherapist to be assessed and treated individually. This one-to-one relationship between therapist and doctor is conducive to the enhancement of the clients' quality of care. However, anecdotal evidence shows a need for the improvement of relationship, but there has been no initiative taken to change this relationship on the part of either physiotherapists or doctors. As physiotherapy in Japan has recently moved towards attaining professional status through a post-baccalaureate level of study, the establishment of baseline data against which to measure the PDR is necessary. Thus, we believe that the current assessment of this relationship through our study in Ishikawa Prefecture was appropriate. The purpose of this study was to assess the professional relationship between physiotherapists and doctors as perceived by physiotherapists. The results of a study such as this would shed light on one aspect of physiotherapists' professional conduct and clarify factors influencing such a relationship between physiotherapists and doctors.

METHODS

Instrumentation

This survey was a descriptive, cross-sectional study of the attitudes of practicing physiotherapists towards the PDR. The questionnaire method was chosen because it was the most practical way to assess the aforementioned relationship. The authors modified a closed-question format used in a Canadian study⁶) into Likert-type statements, culminating in the PDR Scale. The questionnaire consisted of 17 statements concerning doctors' understanding of the physiotherapy profession, collaboration between physiotherapists and doctors

on client care, and expectation on the part of physiotherapists for in-service education by doctors (Appendix).

Included in the questionnaire was a column on demographic data that was used to collect information on the amount of professional experience and personal characteristics of the respondents. The physiotherapists at the University of Kanazawa Hospital, Department of Physical Therapy critically examined the questionnaire for its wording and phrasing.

Three hypotheses were presented. Hypothesis one: The degree of understanding doctors have of the physiotherapy profession would be low. Hypothesis two: The degree of collaboration of doctors with physiotherapists would be low. Hypothesis three: The desire of physiotherapists for in-service or continuing education by doctors would be high.

Scoring

The items were scored in such a way that a score of 5 indicated agreement and a score of 1 indicated disagreement with the statement. A neutral option of 3 was explicitly provided. The scores for statements 8, 9, 10 and 16 were reversed because these statements had negative connotations concerning the PDR. Thus, the total scores obtained in this fashion ranged from 17 to 85. If more than 10 per cent, or two of the items, were left blank, the questionnaire was discarded.

Three dependent variables were defined among nine of the statements according to the following combination: 'Understanding' consisted of statements 1, 2, 3 and 6 with a score ranging from 4 to 20. The higher the score, the better the doctor's understanding of the physiotherapy profession would be. Similarly, 'collaboration' consisted of statements 4, 5 and 7 with a score ranging from 3 to 15. The higher the score, the better the collaboration would be between physiotherapists and doctors. 'In-service education' consisted of statements 11 and 12 with a score ranging from 2 to 10. The higher the score, the higher the number of physiotherapists there would be who would like to have more lectures, clinics and short courses from doctors.

Participants and procedures

Two hundred and ninety-seven respondents were selected from a convenience sample of physiotherapists practising in Ishikawa Prefecture.

Because of the relatively small numbers of physiotherapists making up the total membership in the prefecture, almost all of the members were selected. The physiotherapists who were excluded from this study were those who were either involved in teaching and research or were inactive at the time of the survey.

Surveys were mailed to the individual respondents with a letter of explanation concerning the purpose of the study, together with a stamped addressed envelope. The questionnaires were anonymous.

The instructions to respondents included a guarantee of confidentiality, the need to respond to every item and the absence of a right or wrong answer. The survey took approximately 15 min to complete.

The rate of return was 60.6 per cent without any reminder being necessary. Four incomplete questionnaires were excluded from the analysis. Thus, the final sample consisted of 176 respondents.

Statistics

The demographic data of the respondents was first compiled, followed by the calculation of the median, range and quartile deviation (QD) of the score for each statement. Reliability of the PDR scale was calculated as a measure of internal consistency with the Cronbach's alpha coefficient. Upon obtaining an alpha value of higher than 0.7 for each dependent variable, the median, range and QD of the score were calculated. Then, using the median test⁷⁾, the percentage of the PDR scores were compared for the significance with the reference value of 60.0, or score of 3/5=60.0 (%), that was defined as a neutral response with the statement. As for the remaining statements, the responses "I agree" and "I slightly agree" were combined into group *A* and those "I slightly disagree" and "I disagree" into group *D*, respectively. Then, these two groups were compared employing the chi-squared test, and, after having obtained a statistical significance, it was interpreted that the respondent either 'agreed' or 'disagreed' with the statement concerned. Spearman's rank correlation coefficients were calculated for the numbers of years of professional practice of the respondents in order to verify the intensity of the relationship among the dependent variables and remaining statements. An alpha level of 0.05 was selected for statistical significance in

Table 1. Median, range and quartile deviation of the score for each statement (n=176)

Statements	Median	Range	QD
1	3.31	1-5	.85
2	3.23	1-5	.81
3	3.17	1-5	.81
4	2.76	1-5	.89
5	3.13	1-5	.76
6	2.92	1-5	.85
7	3.02	1-5	.79
8	2.77	1-5	.76
9	2.52	1-5	.69
10	2.22	1-5	.71
11	3.66	1-5	.71
12	4.08	1-5	.71
13	2.25	1-4	.70
14	3.45	1-5	.67
15	4.40	1-5	.61
16	3.38	1-5	.76
17	2.72	1-4	.60

QD: quartile deviation.

this study, using the computer software Microsoft Excel 2000 for the data analysis.

RESULTS

The number of women respondents was 99 (56.3%) and men respondents 76 (43.2%) with one respondent's gender unknown. The mean age (SD) of the respondents was 31.7 (7.9), ranging from 21 to 56 years. Respondents' professional experience ranged from 0 to 36 years with a mean (SD) of 8.6 (7.3). However, three respondents failed to make an entry for this item; thus, the number of respondents amounted to 173 for the calculation involving the respondents' professional experience. Educational background of the respondents was as follows: 79 (44.9%) held a diploma, 49 (27.8%) an associate degree, 39 (22.2%) a baccalaureate degree and 9 (5.1%) a master's degree. One hundred and fifty-five (88.1%) respondents were working in hospitals, 10 (5.7%) in facilities and institutions for the elderly, 8 (4.5%) in paediatric facilities and institutions, and 3 (1.7%) were engaged in home care services.

The scores for the individual statements are shown in Table 1. The median, range and QD was 12.56, 5-20 and 3.31 for 'understanding', 8.93, 3-15 and 2.44 for 'collaboration', and 7.63, 2-10 and 1.42 for 'in-service education'. Cronbach's alpha

Table 2. Percentages of scores for the three dependent variables (n=176)

Dependent variables	%
Understanding	62.8
Collaboration	59.5
In-service education	76.3*

*: p<.01.

Table 3. Relationship between the years of professional practice and individual scores (n=173)

Statements	CC
1	-.003
2	-.091
3	.018
4	.095
5	.226
6	-.036
7	.087
8	-.052
9	.023
10	.145
11	-.068
12	-.230
13	-.194
14	-.093
15	.043
16	-.016
17	.127

CC: correlation coefficients.

coefficients for the three dependent variables were .836 for 'understanding', .703 for 'collaboration', and .724 for 'in-service education'. As for the median rate of the score for each dependent variable, 'understanding' was 62.8, 'collaboration' 59.5, and 'in-service education' 76.3 per cent. In other words, there was no difference between the reference value and the median rate of the scores for 'understanding' and 'collaboration', but for the 'in-service education' scores it was significantly high (Table 2). However, the scores for the former two dependent variables were over 60, so hypotheses one and two were discarded. However, hypothesis three was accepted.

Concerning the analysis of the individual statements, the respondents significantly agreed

Table 4. Relationship between the years of professional practice and the three dependent variables (n=173)

Dependent variables	CC
Understanding	-.030
Collaboration	.167
In-service education	-.167

CC: correlation coefficients.

with statements 14, 15 and 16 ($p<.0001$). However, they significantly disagreed with statements 8, 9, 10, 13 and 17, the level of significance of which was .0001, with the exception of statement 8, for which it was .01 (data not shown).

The relationship between the years of professional experience and the statements was such that statement 5 showed a weak positive correlation and statement 12 a weak negative correlation (Table 3).

As for the dependent variables, 'collaboration' showed a slightly weak positive correlation and 'in-service education' a slightly weak negative correlation (Table 4).

DISCUSSION

The homogeneity was sufficient with a Cronbach's alpha $>.70$ for the PDR scale.

Concerning doctors' understanding and appreciation of the physiotherapy profession, the following points are of interest⁸⁾: 1) lack of undergraduate education of medical students concerning the field of physical medicine and rehabilitation (PM&R); 2) shortage of PM&R specialists; and 3) the majority of doctors in Japan are not cognizant of PM&R. In this study, however, the respondents' perception of the degree of doctors' understanding of the physiotherapy profession was moderate. In other words, the reason why the respondents did not consider this dependent variable as high may be because the above-mentioned problems are still in existence.

The degree of collaboration between physiotherapists and doctors has been shown to be significantly higher than between other healthcare professionals and doctors⁹⁾. However, there may be a lack of information exchange between physiotherapists and doctors due to the latter being

not easily accessible to physiotherapists¹⁰⁾, and this may have resulted in the respondents preferring to respond neither positively nor negatively to the dependent variable, 'collaboration'. This point can be further verified by the respondents wishing to increase their opportunities of information exchange with doctors as shown in statement 10. In addition, the fact that statement 5 yielded a score higher than the reference value and statement 4 yielded a lower score than the reference value implies that the respondents have tried to confer with doctors, but not likewise. The above finding, to some degree, supports the results of the investigation by Hulme et al. that: 1) "physical therapists want increased accessibility to and communication with physicians" and 2) "physicians want brief communication with clear objective data provided by the therapists"⁴⁾.

The high score obtained for the dependent variable, 'in-service education', suggests that there are many respondents who wish to have lectures, clinics and short courses given by doctors. This fact proves that there is a high motivation among physiotherapists to obtain higher learning over and above wishing to attend post-registration courses, as well as a wish for contact with doctors. We may attribute this finding to the factor of idealization of the doctor on the physiotherapists' part¹¹⁾ or professional uncertainty¹²⁾, as well as idiosyncratic factors.

The median scores for statements 15 and 16 were 4.40 and 3.38, respectively, with a weak correlation between the two. This finding implies that doctors tend to regard physiotherapists as primarily technicians rather than professional colleagues in spite of the high motivation shown by physiotherapists towards multidisciplinary intervention for their clients. Furthermore, this finding is analogous to the nurses' view of themselves as the doctors' closest liaison, but not *vice versa*²⁾.

In addition, most physiotherapists appear dissatisfied with the doctor-client relationship, for they often have to explain things to the client that they believe should have been clarified by the doctor, and also they are not satisfied with the consideration doctors give to their clients' mental state.

The relationship between years of respondents'

professional experience and approachability for a conference with doctors (statement 5) was positive. This finding suggests that, as a physiotherapist's number of years of service increases in a workplace, a more collegial relationship develops between the physiotherapist and doctor, consequently contact with the doctor becomes easier. As physiotherapists gain more professional experience, they tend to show less desire to learn from doctors, for a negative correlation existed for 'in-service education' (statement 12).

Gender differences in dependent variables and the other individual statements were analysed using the Mann-Whitney test. As a result, the men scored significantly higher for 'collaboration', statements 5, 6 and 17, and the women for statement 13. The reason why the men scored higher than women for 'collaboration' and statement 5 may be due to the fact that the men's years of professional experience was significantly longer (11.8 vs. 6.1, $p < .01$), and there is a higher ratio of doctors who are men, so that communication with the same gender may be easier. The reason for the significant differences in the other statements is unknown.

In conclusion, this study examined attitudes and opinions about the PDR dyad as perceived by 176 Ishikawa physiotherapists. The respondents perceived that the degree of doctors' understanding of the physiotherapy profession and collaboration with physiotherapists was moderate, though their wish to learn from doctors was high. However, in this study, one third of the respondents had less than 5 years of professional experience. This should be taken into consideration when interpreting these results. Moreover, the respondents tended to perceive doctors as viewing physiotherapists primarily as technicians rather than professional colleagues. Academic and clinical education, therefore, needs to be programmed to work towards an ideal team that is structured, collegial and flexible.

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APPENDIX

Statements on the Physiotherapist/Doctor Relationship

1. Doctors, in general, understand what a physiotherapist can achieve, what physiotherapy is, and results of physiotherapeutic treatment for the clients.
2. There is an adequate formal review of prescribed physiotherapeutic treatment, treatment actually carried out, and benefits to the client.
3. Doctors pay sufficient attention to available information concerning physiotherapeutic prescription, treatment and benefits from it.
4. Doctors generally consult with the physiotherapist about details of a client's condition.
5. Doctors, in general, are accessible for consultation.
6. Doctors, in general, understand the treatment carried out in occupational therapy and physiotherapy, and how the two work in liason for the client's benefit.
7. I am, in general, adequately informed about drugs the client is receiving, complications, and how these factors affect choice of treatment.
8. I sometimes have to act as an amateur social worker, or an amateur psychiatrist, while treating my clients.
9. I often have to explain things to the client that I think should have been clarified by the doctor.
10. Doctors should spend more time with physiotherapists in team conferences.
11. Physiotherapists could give better care if they observed more surgical procedures.
12. I would like to have more lectures, clinics and short courses from doctors.
13. From my knowledge of the education of medical students, they are sufficiently taught about physiotherapy.
14. It would be worthwhile for medical students to spend time in the physiotherapy department observing treatment.
15. In general I feel like part of a medical team.
16. Doctors, in general, treat me like a technician.
17. I am satisfied with the consideration doctors give to their clients' mental state (i.e., clients' anxiety about their conditions, depression).