Factors affecting physical therapists’ job satisfaction: questionnaire survey targeting first-year physical therapists

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Abstract. [Purpose] The survey aimed to clarify the factors that affect physiotherapists’ job satisfaction. [Subjects and Methods] To examine factors affecting physical therapists’ job satisfaction using a cross-sectional study with a questionnaire survey. Subjects were 193 first-year physical therapists who participated in a newcomer orientation at Hiroshima Prefectural Physical Therapy Association. The questionnaire comprised items concerning physical therapists’ satisfaction with their work, motives for becoming physical therapists, education in school, internships, the workplace, and comfort in the workplace. [Results] Subjects were divided into two groups according to their satisfaction with their occupation. The “high satisfaction” group included 157 subjects, and the group “low satisfaction” group included 36 subjects. Using logistic regression analysis, items concerning comfort in the workplace, motives for becoming physical therapists, and learning in school were analysed. [Conclusion] Factors affecting physical therapists’ job satisfaction were primarily influenced by previous experience and working conditions.

Key words: Job satisfaction, First-year physical therapists, Questionnaire survey

INTRODUCTION

Job satisfaction is reported to be related to job performance1). Therefore, the level of job satisfaction a physical therapist experiences during the first year is important for determining the future of their career.

There are many studies regarding the career satisfaction of medical professionals2–4), however few exist on the job satisfaction of physical therapists. Stihl et al.5) researched physical therapy students’ satisfaction, and reported that satisfaction was best explained by factors in the interpersonal domain and by student gender. In studies on levels of career recognition experienced by physical therapists, there are reports that differences in career success and expectations depend on gender6,7), and in other studies on the levels of career recognition, there is a relationship between personality characteristics and career goals8). In these previous studies on the career recognition of physical therapists, there is little investigation of the impact of past experiences on physical therapists’ job satisfaction.

We hypothesized that factors affecting physical therapists’ job satisfaction would be previous experience and working conditions. This study examines this hypothesis using a cross-sectional study in the form of a questionnaire.
Table 1. Question items in this study

| Satisfaction with physical therapy as a job |
|---------------------------------------------|
| SP1 I am satisfied with the profession of physical therapy. |
| SP2 If I relived my life, I would still want to become a physical therapist. |
| SP3 I would like it if my relatives became physical therapists. |

| Factors affecting physical therapists’ job satisfaction |
|---------------------------------------------------------|
| MP1 I can make use of my experience and ability as a physical therapist. |
| MP2 I want to acquire professional knowledge and skills. |
| MP3 It is a challenging task. |
| MP4 Physical therapy is a job that can be used in life. |
| MP5 I would like to be useful to people suffering from diseases and disabilities. |
| MP6 I wanted to get a job offering direct contact with people. |

| Learning in school |
|-------------------|
| LS1 There were many faculty members worthy of respect. |
| LS2 I often heard interesting stories from the faculty that could be used in clinical practice. |
| LS3 While listening to the faculty, I became concerned that I would not be able to work in future if I did not take my studies seriously. |
| LS4 I talked enthusiastically about physical therapy with my friends. |
| LS5 I gained the ability to personally investigate and resolve things that I did not understand. |

| Learning in internship |
|------------------------|
| LI1 I want to work as a physical therapist without a moment’s delay. |
| LI2 There were many physical therapists who made me think, “I want to be a physical therapist.” |
| LI3 I felt that many physical therapists continued their lifelong learning even after graduation. |
| LI4 I was thanked by patients for my involvement as a student. |
| LI5 I felt that physical therapy was based on scientific evidence. |

| Learning in the working environment |
|-------------------------------------|
| LW1 I feel that the job of physical therapy is a worthwhile challenge. |
| LW2 I feel that new employee education and training are substantial. |
| LW3 I can imagine growth as a physiotherapist in the future. |
| LW4 I can consult with seniors about anything I do not understand or whenever I am in need. |
| LW5 There are many senior physical therapists who I respect. |

| Comfort in the workplace |
|--------------------------|
| CW1 I feel that relations between staff are good. |
| CW2 I am satisfied with my salary. |
| CW3 It seems that the work is physically easy. |
| CW4 It seems that I can take a vacation when I want. |
| CW5 It seems that it is easy to work even after marriage and childbirth. |

**SUBJECTS AND METHODS**

Subjects were 245 physical therapists who participated in newcomer orientation at Hiroshima Prefectural Physical Therapy Association. Questionnaires were distributed and 221 responses (response rate: 90.2%) were obtained, of which 204 were completed questionnaires. Of the complete responses received, 11 respondents were not first-year physical therapists, while 193 respondents were first-year physical therapists. In this study, the 193 first-year physical therapists were analyzed.

Questionnaires were created specifically for this study. Questions regarding the job satisfaction of physical therapists were prepared with reference to a previous study4). Questions of confidence about lifelong learning were prepared with reference to the social cognitive approach to career development9,10). As for factors affecting satisfaction with the physical therapy profession, several more questions were created which addressed the motives for becoming a physical therapist: education in school, internships, and the working environment, and comfort within the working environment (Table 1). Answers ranged on a five-point Likert Scale (strongly agree, agree, undecided, disagree, strongly disagree).

Subjects were divided into two groups according to their level of satisfaction with physical therapy as a profession. Cluster analysis was used for division. In order to verify whether or not it was possible to properly divide participants into two groups, a Mann-Whitney U test was conducted. In order to analyze the influence of physical therapists’ job satisfaction, a logistic regression analysis was carried out. Two groups, divided into high satisfaction and low satisfaction, were each set as a response variable, and all items of the factors affecting satisfaction with their occupation were set as explanatory variables of the stepwise AIC method. Goodness of fit in the logistic regression model was calculated with Nagelkerke’s R². All statistical analyses were performed with R 3.4.0 for Mac, with the significance level set at 5%.

This research was conducted with the approval of the Research Ethics Committee of the Hiroshima Prefectural Physical Therapy Association (approval number 29–0023). All subjects were informed of what they were participating in, and only subjects who agreed to share their information were provided with the questionnaire.
RESULTS

All three questions regarding job satisfaction indicated significant differences between the two groups (Table 2). Prior to the logistic regression analysis on the level of job satisfaction reported by the physical therapists, seven items were selected using the stepwise AIC method. On items selected by the stepwise AIC model in the two groups, the number of respondents at each level is shown in Table 3. In the analysis of logistic regression, MP3 (challenging task), MP6 (direct contact with people), LS1 (many faculty members worthy of respect), CW1 (relations between staff are good), and CW2 (satisfied with my salary) were significant explanatory variables (Table 4).

| Table 2. Group division according to physical therapists’ job satisfaction |
|---------------------------------------------------------------|
| **HSG, n (%)** | **LSG, n (%)** | **r** |
|-----------------|-----------------|------|
| **157 (100)**   | **36 (100)**    |      |
| 1               | 2               | 3    | 4   | 5 |
| SP1 | 0 (0) | 0 (0) | 13 (8.3) | 112 (71.3) | 32 (20.4) | 4 (11.1) | 5 (13.9) | 27 (75.0) | 0 (0) | 0 (0) | 1.00 *** |
| SP2 | 13 (8.3) | 35 (22.3) | 74 (47.1) | 29 (18.5) | 6 (3.8) | 15 (41.7) | 18 (50.0) | 3 (8.3) | 0 (0) | 0 (0) | 0.48 *** |
| SP3 | 19 (12.1) | 38 (24.2) | 74 (47.1) | 21 (13.4) | 5 (3.2) | 16 (44.4) | 12 (33.3) | 8 (22.2) | 0 (0) | 0 (0) | 0.37 *** |

HSG: High Satisfaction Group; LSG: Low Satisfaction Group; r: effect size of Wilcoxon rank sum test.
5: strongly agree; 4: agree; 3: undecided; 2: disagree; 1: strongly disagree. ***p<0.001.

| Table 3. Selected items by stepwise AIC model in the two groups divided according to job satisfaction |
|---------------------------------------------------------------|
| **HSG, n (%)** | **LSG, n (%)** |
|-----------------|-----------------|
| **157 (100)**   | **36 (100)**    |
| 1               | 2               | 3    | 4   | 5 |
| MP3 | 1 (0.6) | 1 (0.6) | 12 (7.6) | 76 (48.4) | 67 (42.7) | 4 (11.1) | 4 (11.1) | 9 (25) | 13 (36.1) | 6 (16.7) |
| MP6 | 3 (1.9) | 11 (7) | 34 (21.7) | 58 (36.9) | 51 (32.5) | 7 (19.4) | 7 (19.4) | 10 (27.8) | 11 (30.6) | 1 (2.8) |
| LS1 | 4 (2.5) | 13 (8.3) | 21 (13.4) | 69 (43.9) | 50 (31.8) | 6 (16.7) | 3 (8.3) | 8 (22.2) | 13 (36.1) | 6 (16.7) |
| LI3 | 2 (1.3) | 6 (3.8) | 14 (8.9) | 49 (31.2) | 86 (54.8) | 2 (5.6) | 2 (5.6) | 7 (19.4) | 15 (41.7) | 10 (27.8) |
| LI5 | 0 (0) | 12 (7.6) | 35 (22.3) | 81 (51.6) | 29 (18.5) | 1 (2.8) | 5 (13.9) | 21 (58.3) | 5 (13.9) | 4 (11.1) |
| CW1 | 0 (0) | 3 (1.9) | 10 (6.4) | 63 (40.1) | 81 (51.6) | 2 (5.6) | 4 (11.1) | 6 (16.7) | 15 (41.7) | 9 (25) |
| CW2 | 14 (8.9) | 24 (15.3) | 47 (29.9) | 54 (34.4) | 18 (11.5) | 11 (30.6) | 10 (27.8) | 11 (30.6) | 2 (5.6) | 2 (5.6) |

HSG: High Satisfaction Group; LSG: Low Satisfaction Group.
5: strongly agree; 4: agree; 3: undecided; 2: disagree; 1: strongly disagree.

| Table 4. Analysis of logistic regression in the two groups divided according to job satisfaction |
|---------------------------------------------------------------|
| **OR** | **95% CI** | **p value** |
|-------|-----------|-------------|
| MP3   | 2.67      | 1.38, 5.18  | 0.004 |
| MP6   | 1.73      | 1.02, 2.95  | 0.043 |
| LS1   | 1.61      | 1.00, 2.58  | 0.049 |
| LI3   | 0.58      | 0.31, 1.07  | 0.083 |
| LI5   | 1.72      | 0.86, 3.43  | 0.124 |
| CW1   | 5.56      | 2.37, 13.02 | <0.001 |
| CW2   | 2.66      | 1.53, 4.63  | <0.001 |

OR: Odds Ratio; CI: Confidence Interval. Stepwise regression analysis was executed according to AIC and seven items were extracted (AIC was 109.6). Goodness of fit in this logistic model was 0.61 calculated with Nagelkerke's $R^2$. 

RESULTS
DISCUSSION

In the group division, none of the respondents in the small satisfaction group indicated that they were satisfied with three questions about satisfaction.

In analyzing the factors which affect the job satisfaction of physical therapists, it became clear that better human relations and higher salaries increase satisfaction. Results were similar to previous studies on the relationship between salary and job satisfaction for healthcare workers\(^\text{10}\), the relationship between interpersonal domain and job satisfaction\(^\text{5}\), and the relationship between organizational climate and job satisfaction\(^\text{11}\). Some questions regarding the motive for becoming a physical therapist (MP3, MP6) were also related to satisfaction. It was suggested that altruistic motives for entering the profession had a positive impact on job satisfaction. Responses to the question of learning in school indicate that only the presence of faculty members worthy of respect had an influence on satisfaction. Since the questions related to learning through internships were not an explanatory factor of satisfaction, it was thought that a positive attitude towards others and learning something new might have influenced satisfaction in this case, as opposed to the internship itself.

The limitation of this study was that, as a cross-sectional study, there is the possibility that subjects could not accurately remember their motives for becoming physical therapists. Additionally, the small sample size of the low satisfaction group with respect to the number of explanatory variables could also be considered a limitation. Further studies are necessary to address these limitations.

Conflict of interest

None.

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