

# Effects of Physical Therapists' Psychological Empowerment on Burnout and Organizational Commitment

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## 물리치료사의 심리적 임파워먼트가 소진과 조직몰입에 미치는 영향

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**Abstract** This study was undertaken to analyze the effects of psychological empowerment on burnout and organizational commitment in a sample of Physical Therapists. A convenience sample of 227 PTs working in a hospital participated in the study. Burnout was measured using the MBI-GS (a psychological empowerment scale developed by Spreitzer) and an organizational commitment scale. Results showed that level of PT empowerment had a higher than medium, and hierarchical multiple regression analysis showed empowerment had a negative effect on burnout and a positive effect on organizational commitment. With the exception of competence, three dimensions of psychological empowerment had positive effects on organizational commitment. Among the sub-variables of empowerment, self-determination had the largest effect, and meaningfulness and influence also affected. The results showed that when PT empowerment is high, burnout is low. In summary, enhancing physical therapist empowerment was found to reduce burnout and enhance organizational commitment.

**요 약** 본 연구는 물리치료사를 대상으로 임파워먼트가 소진과 조직몰입에 미치는 영향을 살펴본 것으로, 편의표집을 통해 표집된 병원에서 근무하는 물리치료사 227명을 대상으로 설문조사를 실시하였다. 측정도구로 소진은 MBI-GS, 심리적 임파워먼트는 Spreitzer(1995) 척도가 사용되었다. 연구 결과, 물리치료사의 임파워먼트 수준은 중간값 이상으로 나타났으며, 다중회귀분석 결과에 의하면 임파워먼트는 소진에 부(-)적 영향을 미치고 조직몰입에는 정(+)적 영향을 미치는 것으로 나타났다. 유능감을 제외한 나머지 임파워먼트의 세 하위요인들은 모두 조직몰입에 영향을 미치는 것으로 나타났으며, 따라서 임파워먼트가 높을수록 소진을 줄여줄 수 있음을 알 수 있다. 임파워먼트의 하위요인들 중에서 자기결정권이 조직몰입에 가장 강한 영향을 미친다. 연구결과를 종합해 보면 물리치료사의 임파워먼트를 강화함으로써 소진을 줄여줄 수 있고 조직몰입은 더 높일 수 있음이 확인되었다.

**Keywords** : Empowerment, Burnout, MBI-GS, Organizational Commitment, Physical Therapist

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## 1. Introduction

Health care require close contact between the service provider and recipient and is inherently emotionally draining and stressful particularly in relation to chronic conditions [1]. With the managed care practice environment constantly changing, health care professionals face increased potential role stressors. These conditions have in most situations resulted in the problems of job dissatisfaction, errors, stress and burnout the work setting [2].

Burnout is prevalent among human service professions such as nursing, teaching, and physical therapists in which client interaction revolves around a provider-receiver relationship [3]. Burnout among service providers not only affects the individual, but also the workplace and client treatment. It is a systems issue, not a personal issue. Service providers report feeling drained, unable to give of themselves anymore, and cope by decreasing client contact and adopt a negative attitude toward their job and subsequently towards their clients [1]. Burnout was present in the majority of physical therapists sampled and was most frequently associated with decreased self-worth, morale changes, loss of meaning, and thoughts of job change [4]. Burnout is a state of emotional, mental, and often physical exhaustion brought on by prolonged or repeated stress in employees who are worked in human-service professions such as nursing and physical therapists [3].

Therefore, establishing factors related to physical therapists' burnout can be said to be a task very important to patients, medical institutions, and the development of the profession physical therapists and the area of rehabilitation. As measures to overcome burnout as such, empowerment and organizational commitment are being discussed. Empowered individuals can be a catalyst for change in their organizations [5]. The empowerment model basically focuses

on reinforcing individuals' capability and maximizing environmental resources and opportunities [6]. Spreizer et al defined empowerment as intrinsic motivation manifested in four cognition reflecting an individual's orientation to his or her work role. The four cognitions are meaning, competence, self-determination, and impact [7].

According to Tebbitt, empowerment means creating and sustaining a work environment that speaks to values that facilitate the employees' choice to invest in and own personal actions and behaviors resulting in positive contributions to the organization's mission [8]. She suggested that the empowerment of staff is a critical factor in an organization's achievement of its mission, vision, and strategic directions, particularly in the face of organizational change. Empowerment can improve organizations' performance because organization members pursue changes and performance by committing themselves to work further [9-11].

The relationship between burnout and organizational commitment is of particular interest, owing to its practical significance [12]. The impact of organizational commitment on employees' job attitudes and performance has drawn much attention [13,14]. Weiner defined organizational commitment as the totality of normative pressures to act in a way which meets organizational goals and interests [15].

Therefore, in this study, the relationship among physical therapists' burnout, empowerment, and organizational commitment will be examined to seek for directions to reduce physical therapists' burnout.

## 2. Subjects and Method

### 2.1 Data Collection

A survey design was used in order to collect cross-sectional data. A total of 300 copies were distributed to all levels of hospital, including

university hospital and 244 copies were collected, but 227 copies were used for the final analysis, excluding 17 copies with many non-responses and consistent responses. The sample size followed the general criteria for effect size suggested by Cohen [16]. Structured questionnaires were used for the analysis. An explanation of the study was given and oral and written consent was obtained from the participants when the questionnaires were distributed. In the introductory page on the questionnaires, the purpose of the study was outlined and the participants were informed about the study, including the fact that anonymity and confidentiality were assured and that they could withdraw at any time.

## 2.2 Measurement

**2.2.1 Empowerment :** The Psychological Empowerment Scales by Spreitzer [17] measured the individuals perception of their psychological empowerment in the workplace. There were four dimensions in this scale and each dimension had three items. The items were rated on a five-point Likert-scale. Alpha reliability in this study was .91.

**2.2.2 Burnout :** Burnout was measured by a scale developed by Maslach and Jackson [3]. This MBI-GS scale has a three sub-scales (EE, PA and DP) and 15 items, seven-point Likert scale. Emotional exhaustion (EE) consists of six items that measure reduced energy, emotional aspects, and cognitive distancing from the job. Depersonalization (DP) consists of four items that measure cynicism, a lack of engagement, and distancing from the patients and treating the patients as inanimate, unfeeling objects. Personal accomplishment consists of five items that measure the perception of having an influence on others, working well with others, and dealing well with problem. High levels of emotional exhaustion and depersonalization and low levels of diminished personal accomplishment indicate

burnout [18]. Average scores greater than three on the emotional exhaustion sub-scales are indicative of burnout. Internal consistency reliability were 0.87 for EE, 0.75 for PA and 0.71 for DP.

**2.2.3 Organizational Commitment :** Allen and Meyer [19] organizational commitment scale, which included three dimensions of commitment: affective, continuance and normative was used. Each dimension had six items, and was based on a self-assessment rating on a five-point Likert-scale. In this study, the reliability was .94.

## 2.3 Data Analysis

Data were analysed using SPSS software (ver. 26k). Reliability analyses (Cronbach's alpha) were conducted for the measures of all the variables. Descriptive statistical analyses, Pearson's correlation analyses, and hierarchical multiple-regression were used to answer the research questions.

## 3. Result of Analysis

### 3.1 Data Collection and Participants

Table 1 shows that the demographic characteristics variables of the respondents included gender, age, marital status, education level, and daily number of patients. Among the 227 respondents, 107 were male (47.1%), and 120 were female (52.9%). 62.6% of the participants' ages were between 20 and 29, 32.2% of the participants' ages were between 30 and 39, and 7 participants (3.1%) were over 40 years old. The mean year of respondents was 28.7 (SD 4.3). In terms of educational level, 45.4% of the respondents graduated from four-year university courses. 82.4% of the participants were unmarried. The mean year working in PT was 4.5 (SD 3.81). More than half (n=148) of PTs were working between 10 and 14 patients per day.

Table 1. Demographic characteristics of the respondents

|                              |                 | n   | %    | mean (SD)  |
|------------------------------|-----------------|-----|------|------------|
| Gender                       | Male            | 107 | 47.1 | -          |
|                              | Female          | 120 | 52.9 |            |
| Age (year)                   | 20~29           | 142 | 62.6 | 28.7 (4.3) |
|                              | 30~39           | 73  | 32.2 |            |
|                              | 40≤             | 7   | 3.1  |            |
| Marital status               | Not Married     | 187 | 82.4 | -          |
|                              | Married         | 38  | 16.7 |            |
|                              | College         | 70  | 30.8 |            |
| Education                    | Bachelors       | 103 | 45.4 | -          |
|                              | Graduate course | 42  | 18.5 |            |
| Daily number of patients (n) | 1~9             | 22  | 9.7  | 14 (7.1)   |
|                              | 10~14           | 148 | 65.2 |            |
|                              | 15≤             | 45  | 19.8 |            |

### 3.2 Descriptive statistics

Table 2 shows the means values and SD of the major variables in this study. The level of the PTs' overall empowerment had a higher than medium (mean=3.42, SD=.53). But, impact was a lower than any other sub-scale of empowerment (mean=2.81, SD=.71). Also, the level of the overall burnout was 3.26 (SD=.68) out of 7. But, emotional exhaustion was high than any other sub-scales, indicating that the respondents were experiencing emotional exhaustion. And the level of organizational commitment had a higher than medium (mean=3.18, SD=.72).

Table 2. Descriptive Statistics of the major variable

| Variable                           | Mean±SD   | Min  | Max  | Skewness | Kurtosis |
|------------------------------------|-----------|------|------|----------|----------|
| Empowerment (total)                | 3.42±.53  | 1.92 | 5.00 | .24      | .56      |
| meaning                            | 3.97±.68  | 2.00 | 5.00 | -.41     | .18      |
| competence                         | 3.53±.65  | 1.67 | 5.00 | .13      | .21      |
| self-determination                 | 3.36±.71  | 1.00 | 5.00 | -.07     | .01      |
| impact                             | 2.81±.71  | 1.00 | 5.00 | .02      | 1.17     |
| Burnout (total)                    | 3.26±.68  | 1.60 | 5.67 | .26      | -.63     |
| Emotion exhaustion                 | 3.93±1.29 | 1.17 | 7.00 | .20      | -.82     |
| Depersonalization                  | 2.25±1.01 | 1.00 | 6.00 | 1.07     | 1.11     |
| Diminished personal accomplishment | 3.26±1.09 | 1.00 | 6.20 | .28      | -.53     |
| Organizational Commitment          | 3.18±.72  | 1.17 | 5.00 | .35      | .29      |

### 3.3 Correlation Analysis

Empowerment was negatively related to the burnout( $r=-.51, p=.000$ ) and positively related to the organizational commitment( $r=.54, p=.000$ ). It means that high empowerment can reduce the PTs' burnout and increase the organizational commitment.

Furthermore, all factors of empowerment showed statistically significant negative correlation with burnout: meaning ( $r=-.55, p=.000$ ), competence ( $r=-.45, p=.000$ ), self-determination ( $r=-.18, p=.000$ ), impact ( $r=-.50, p=.000$ ). Also, empowerment was significantly positively correlated with the organizational commitment ( $r=.54, p=.000$ ), as indicated in Table 3.

### 3.4 Hierarchical multiple regression analysis

To test the research question 2 of this study, hierarchical multiple regression analysis was used. Table 4 illustrates the results of hierarchical multiple regression of psychological empowerment on burnout and subscale. In step 1, to control demographic variables, gender, age, marital status, education, and daily number of patient were entered. These control variables accounted for 6% of the variance in burnout. Age was found to be significant( $\beta=-.22, p<.01$ ). That is, the higher an employee's age, the lower the PTs' burnout. In step 2, the main effects of the four dimensions of psychological empowerment explained an additional 30% of the variance in burnout. Except for competency, three dimensions of psychological empowerment turned out to be significant: meaning ( $\beta=-.36, p<.001$ ), self-determination ( $\beta=-.25, p<.001$ ), impact ( $\beta=-.29, p<.001$ ). Meaning indicated a stronger effect size than impact and self-determination.

Table 5 illustrates the results of hierarchical multiple regression of psychological empowerment on organizational commitment. In step 1, control demographic variables accounted for 3% of the variance in organizational commitment, but

Table 3. Pearson's correlation Matrix

| Variable                             | ①       | ②       | ③       | ④       | ⑤       | ⑥       | ⑦       | ⑧       | ⑨       |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ① Empowerment                        | 1       |         |         |         |         |         |         |         |         |
| ② meaning                            | .77***  | 1       |         |         |         |         |         |         |         |
| ③ competence                         | .79***  | .51***  | 1       |         |         |         |         |         |         |
| ④ self-determination                 | .74***  | .41***  | .54***  | 1       |         |         |         |         |         |
| ⑤ impact                             | .77***  | .45***  | .59***  | .52***  | 1       |         |         |         |         |
| ⑥ Burnout                            | -.51*** | -.55*** | -.45*** | -.18*** | -.50*** | 1       |         |         |         |
| ⑦ Emotion exhaustion                 | -.36*** | -.38*** | -.31*** | -.13*** | -.38*** | .88***  | 1       |         |         |
| ⑧ Depersonalization                  | -.42*** | -.50*** | -.37*** | -.16*** | -.34*** | .74***  | .58***  | 1       |         |
| ⑨ Diminished personal accomplishment | -.52*** | -.49*** | -.49*** | -.23*** | -.48*** | .64***  | .38***  | .31***  | 1       |
| ⑩ Organizational Commitment          | .54***  | .44***  | .44***  | .49***  | .44***  | -.28*** | -.28*** | -.16*** | -.34*** |

\*\*\*p<.001

Table 4. Regression Results for burnout

| Independent Variable    | Burnout   |         |      |           |          |      | Burnout Subscale |          |      |                  |          |      |          |          |      |
|-------------------------|-----------|---------|------|-----------|----------|------|------------------|----------|------|------------------|----------|------|----------|----------|------|
|                         | Model 1   |         |      | Model 2   |          |      | EE               |          |      | DP               |          |      | PA       |          |      |
|                         | $\beta$   | t       | VIF  | $\beta$   | t        | VIF  | $\beta$          | t        | VIF  | $\beta$          | t        | VIF  | $\beta$  | t        | VIF  |
| (Constant)              |           | 7.43*** |      |           | 10.35*** |      |                  | 5.91***  |      |                  | 6.97***  |      |          | 10.53*** |      |
| Gender (M)              | .06       | .83     | 1.06 | .07       | 1.09     | 1.10 | .17              | 2.53     | 1.11 | -.06             | -.89     | 1.10 | -.03     | -.43     | 1.09 |
| Age                     | -.22      | -2.25** | 1.84 | -.12      | -1.46    | 1.89 | -.06             | -.65     | 1.87 | -.03             | -.31     | 1.88 | -.17     | -2.05*   | 1.09 |
| Marital Status (N)      | .02       | .22     | 1.52 | -.01      | -.13     | 1.54 | .01              | .15      | 1.52 | .03              | .41      | 1.53 | -.10     | -1.38    | 1.55 |
| Education               | -.02      | -.31    | 1.13 | -.02      | -.33     | 1.14 | -.02             | -.31     | 1.14 | .04              | .60      | 1.10 | -.05     | -.84     | 1.14 |
| Daily number of patient | .04       | .63     | 1.10 | .02       | .32      | 1.11 | .04              | .62      | 1.10 | -.06             | -.94     | 1.10 | .03      | .51      | 1.10 |
| Meaning                 |           |         |      | -.36      | -4.87*** | 1.52 | -.24             | -3.00**  | 1.53 | $-\frac{4.2}{1}$ | -5.36*** | 1.53 | -.21     | -2.71**  | 1.52 |
| Competence              |           |         |      | -.11      | -1.38    | 1.65 | -.02             | -.17     | 1.67 | -.11             | -1.36    | 1.66 | -.20     | -2.59**  | 1.64 |
| Self-determination      |           |         |      | -.25      | -3.63*** | 1.34 | -.21             | -2.83**  | 1.35 | -.22             | -2.97**  | 1.35 | -.12     | -1.78    | 1.34 |
| Impact                  |           |         |      | -.29      | -4.13*** | 1.46 | -.27             | -3.46*** | 1.45 | -.11             | -1.45    | 1.45 | -.21     | -2.90**  | 1.46 |
| R2 (Adj. R2)            | .06 (.04) |         |      | .36 (.32) |          |      | .21(.17)         |          |      | .24(.20)         |          |      | .31(.28) |          |      |
| $\Delta$ R2             | -         |         |      | .30       |          |      | -                |          |      | -                |          |      | -        |          |      |
| Durbin-Watson           | -         |         |      | 1.68      |          |      | 1.42             |          |      | 1.80             |          |      | 1.93     |          |      |
| F                       | 2.53*     |         |      | 11.21***  |          |      | 5.42***          |          |      | 6.58***          |          |      | 9.64***  |          |      |

\*p<.05, \*\*p<.01, \*\*\*p<.001

Note1: Gender 0=Female, Marital status 0=Married

Note2: Demo= Demographic characteristics, Emp= Empowerment

Note3: EE=Emotion exhaustion, DP=Depersonalization, PA=Diminished personal accomplishment

nothing was found to be significant. In step 2, the main effects of the four dimensions of psychological empowerment explained an additional 30% of the variance in organizational commitment. Except for competence, three dimensions of psychological empowerment turned out to be significant: meaning( $\beta=.22$ ,  $p<.001$ ), self-determination( $\beta=.34$ ,  $p<.001$ ), and impact( $\beta=.21$ ,  $p<.01$ ). Self-determination had a stronger effect size than other subscale.

#### 4. Discussion

The purpose of this study was to examine the effects of workplace empowerment on burnout and organizational commitment in a sample of Korean PTs where burnout rates are high and reducing them is an important managerial issue. Detailed findings are discussed below.

First, to review the level of physical therapists' empowerment and the levels of their burnout

and organizational commitment, although empowerment shows levels higher than the median value, sub factors show some differences. Whereas meaningfulness is high, influence shows levels lower than the median value indicating that although therapists recognize that the works performed by them are important; their recognition that their behavior in the process of work performance could affect other parts of the organization is low. The feeling of low importance is considered attributable to the fact that the processes of treatment of patients are not limited to the one area, physical therapy but are implemented together with many experts in the health care system such as doctors, nurses, and drug treatment. In particular, physical therapists seem to think that although their works are meaningful, their influence is low because patients who use physical therapy departments are mostly chronic disease patients and thus therapeutic progress does not easily

appear.

In this study, burnout showed levels lower than the median value. In a study conducted by Noh [20], among the sub-scales of burnout, emotional exhaustion showed high levels and the degree of burnout showed low levels. Therefore, it can be said that, although the degree of physical therapists' burnout is not high, they frequently experience emotional exhaustion. Emotional exhaustion is a phenomenon that appears the most clearly as a stress reaction and therapists experiencing it intentionally stay away from service receivers in order to maintain their control over service receivers' demands. Although the diminished personal accomplishment appears as a result of emotional exhaustion or depersonalization, it is also known to occur simultaneously with emotional exhaustion or depersonalization [21,22]. Previous studies reported that when the stress of subjects who use physical therapy departments were higher, therapists' burnout was also higher [23] and that occupational therapists' burnout was related to the number of patients indicating that physical therapists' burnout is closely related to patients. This study showed that the level of organizational commitment was higher than medium. The results are similar to a study conducted by Jang [24] indicating that physical therapists' organizational commitment was shown to be higher than the median value.

Second, it can be said that when empowerment is higher burnout should be lower and organizational commitment should be higher and that when burnout is higher, organizational commitment should be lower. These results are generally consistent with results appeared in many previous studies [20].

Third, differences in empowerment, burnout, and organizational commitment relative to demographic characteristics were analyzed and the results were generally consistent with the results of previous studies [24,25]. That is, the higher an employee's age, the lower the PTs'

Table 5. Regression Results for Organizational Commitment

| Independent Variable | Model 1                               |           |          | Model 2   |         |      |      |
|----------------------|---------------------------------------|-----------|----------|-----------|---------|------|------|
|                      | $\beta$                               | t         | VIF      | $\beta$   | t       | VIF  |      |
| (Constant)           |                                       | 6.26***   |          |           | 3.87*** |      |      |
| Gender (M)           | -.12                                  | -1.64     | 1.05     | -.11      | 1.75    | 1.10 |      |
| Age                  | .12                                   | 1.22      | 1.83     | .04       | .57     | 1.88 |      |
| Dem<br>o             | Marital<br>Status (N)                 | .00       | .01      | 1.53      | .04     | .63  | 1.54 |
|                      | Education                             | .01       | .09      | 1.13      | -.02    | -.31 | 1.14 |
|                      | Daily<br>number of<br>patient         | .01       | .14      | 1.01      | -.01    | -.11 | 1.10 |
| Emp                  | Meaning                               |           |          | .22       | 3.04*** | 1.52 |      |
|                      | Competence                            |           |          | .10       | 1.34    | 1.66 |      |
|                      | Self-determi<br>nation                |           |          | .34       | 4.90*** | 1.35 |      |
|                      | Impact                                |           |          | .21       | 2.87**  | 1.45 |      |
|                      | R <sup>2</sup> (Adj. R <sup>2</sup> ) | .03 (.01) |          | .33 (.29) |         |      |      |
| $\Delta R^2$         | -                                     |           | .30      |           |         |      |      |
| Durbin-Watson        | 1.63                                  |           | 1.80     |           |         |      |      |
| F                    | 1.36                                  |           | 10.34*** |           |         |      |      |

\*p<.05, \*\*p<.01, \*\*\*p<.001

Note1: Gender 0=Female, Marital status 0=Married

Note2: Demo= Demographic characteristics, Emp= Empowerment

Note3: VIF= Variance Inflation Factor

burnout. Although the results of previous studies indicated that females are more likely to be subject to burnout, this study did not show any particular difference.

Empowerment indicated a stronger effect size than impact and self-determination. Burnout decreases when individual organization members recognize that the works performed by them are very important and have more roles in which they make decisions. These results provide an important implication for the prevention of burnout indicating that although systems or interventions are necessary in organizations for the prevention of burnout, among others, giving the sense of duty and the authority to make decisions to physical therapists is necessary. If the authority to make decisions by themselves while performing their works is not given and thus they act passively according to instructions from bosses, physical therapists will experience a feeling of powerlessness and frustration and when this experience is accumulated, they will reach burnout. Therefore, enhancing autonomy is more important than anything else [26].

Fourth, among the effects of empowerment on organizational commitment, self-determination had the largest effects and meaningfulness and influence also had effects. In this study, demographic characteristics such as age, whether married, and education did not affect empowerment or organizational commitment. These results are different from the results of previous studies [25,27].

When the results of this study were put together, the fact that burnout can be reduced and organizational commitment can be enhanced by enhancing physical therapists' empowerment was identified. Among the sub-variables of empowerment, self-determination had the largest effects and meaningfulness and influence also had effects. Therefore, improvement should be made so that physical therapists' authority and responsibility are shared by organization

members and physical therapists' right to make decisions for their works is acknowledged. The self-determination of physical therapists in relation to the applicability of physical therapy and the meaningfulness and influence that can be felt by identifying patients' recovery through physical therapy can be said to be measures to overcome burnout and reinforce organizational commitment. The physical therapists' roles under the subordinate and vertical relationships in medical institutions in Korea rejected and physical therapists' work area should be acknowledged as open horizontal relationships. Furthermore, guaranteeing physical therapists' independent management and business rights and the national level is considered to be a concrete method for enhancing physical therapists' empowerment. This method is considered to contribute to the enhancement of national health by achieving the development of not only individual physical therapists but also the profession physical therapists and the area of rehabilitation.

This study has certain limitations. First, self-reported data is subject to common method variance. Second, as we used a cross-sectional design, we could not arrive at a definitive conclusion about causality.

## REFERENCES

- [1] J. A. Balogun, "Prevalence and Determinants of Burnout Among Physical and Occupational Therapists". *Journal of Allied Health*, 31(3), pp. 131-139, 2002.
- [2] T. P. Sarmiento, H. K. Laschinger, and C. Iwasiw, "Nurse educators workplace empowerment, burnout, and job satisfaction: testing Kanter's theory", *Journal of Advanced Nursing*, 46, pp. 134-143, 2004. DOI: <http://dx.doi.org/10.1111/j.1365-2648.2003.02973.x>
- [3] C. Maslach and S. E. Jackson, "The measurement of experienced burnout," *Journal of Occupational Behavior*, 2, pp. 99-113, 1981. DOI: <https://doi.org/10.1002/job.4030020205>
- [4] D. S. Neil, L. N. David, and Q. Carolyn, "Burnout Among Physical Therapists", *Physical Therapy*, 64(3), pp. 299-303, 1984.

- [5] M. Kaminski, J. S. Kaufman, and R. Graubarth, "How do people become empowered? A Case study of Union Activists", *Human Relations*, 53, pp. 1357-1383, 2000.  
DOI: <http://dx.doi.org/10.1177/a014108>
- [6] J. S. Kang, "Effects of Empowerment on the Burnout and Career Commitment of Social Worker", *Journal of Korea Contents Association*, 12, pp. 213-226, 2012.  
DOI: <http://doi.org/10.5392/JKCA.2012.12.05.213>
- [7] G. M. Spreitzer, "Social structural characteristics of psychological empowerment", *Academy of Management Journal*, 39, pp. 483-504, 1996.
- [8] B. V. Tebbitt, "Demystifying organizational empowerment", *Journal of Nursing Administration*, 23, pp. 18-23, 1993.
- [9] S. Arad, *Empowered work groups: Conceptual framework and empirical assessment of empowerment process and out comes in organization*. University of Illinois master' thesis, 1994.
- [10] S. M. Kwon and M. S. Kwon, "Effect of nurse's self-leadership, job involvement and empowerment on turnover intention", *Journal of the Korea Academia-Industrial cooperation Society*, 20(1) pp.152-161, 2019.  
DOI: <http://doi.org/10.5762/KAIS.2019.20.1.152>
- [11] E. J. Hwang and S. J. Moon, "Influence of Nursing Manager's Followership of Nurses' Perceptions on Job Satisfaction of Nurse : Focus on the control effect of Empowerment", *Journal of the Korea Academia-Industrial cooperation Society*, 20(7) pp.93-101, 2019.  
DOI: <http://doi.org/10.5762/KAIS.2019.20.7.93>
- [12] M. P. Leiter, "Coping Patterns as Predictors of Burnout: The Function of Control and Escapist", *Journal of Organizational Behaviors*, 12, pp. 123-144, 1988.  
DOI: <https://doi.org/10.1002/job.4030120205>
- [13] B. K. Joo and J. H. Shim, "Psychological empowerment and organizational commitment: the moderating effect of organizational learning culture", *Human Resource Development International*, 13, pp. 425-441, 2010.
- [14] J. J. Ma and J. S. Park, "The Effect of Employees' Education and Training Satisfaction on Organizational Commitment: The Moderating Role of HR Department's Communication Activities", *Journal of the Korea Academia-Industrial cooperation Society*, 23(11) pp.658-667, 2022.
- [15] Y. Weiner, *Commitment in organization: a normative view*. *Academy of Management Review* 7, pp. 418-428, 1982.
- [16] J. Cohen, *Statistical power analysis for the Behavior Science*, Routledge, 2013.
- [17] G. M. Spreitzer, "Psychological empowerment in the workplace: dimensions, measurement, and validation", *Academy Management Journal*, 38, pp. 1442-1465, 1995.
- [18] C. Maslach and M. P. Leiter, *The truth about burnout: How organizations cause personal stress and what to do about It*. San Francisco: Jossey Bass, pp 121-126. 1999.
- [19] N. J. Allen and J. P. Meyer, "Affective, continuance, and normative commitment to the organization: An examination of construct validity", *Journal of Vocational Behavior*, vol. 49, no. 3, 1996, pp. 252-276.  
DOI: <https://doi.org/10.1006/jvbe.1996.0043>
- [20] H. K. Noh and H. J. Park, "A Study on the Burnout of Physical Therapists and Its Influencing Factors", *Korean Journal of Physic Multi Disability*, 51, pp. 111-145, 2008.  
DOI: <http://doi.org/10.20971/kcpmd.2008.51.1.117>
- [21] C. Maslach and W. B. Schaufeli, *Historical and conceptual development of burnout*. Washington, DC, Taylor & Francis, pp 1-16, 1993.
- [22] T. Y. Nam and H. Y. Kim, "Effects Hotel Employee Burnout on Service Level", *Journal of Korean Contents Association*, 9, pp. 368-377, 2009.
- [23] M. S. Min and W. I. Cho, "A grounded theory study on burnout of physical therapists at the university hospital", *Korean Journal of Physic Multi Disability*, 52, pp. 47-68, 2009.  
DOI: <http://doi.org/10.20971/kcpmd.2009.52.3.47>
- [24] J. J. Kim, J. H. Roh and J. U. Won, "The relationship between occupational stress and burnout among occupational therapists", *Korean Journal of Occupational Environ Med*, 22, pp. 173-182, 2010.
- [25] M. S. Jang, H. K. Jang and Y. M. Jung, "Impact of Empowerment on Job Involvement and Organizational Commitment of Physical Therapists: have a Rehabilitation Medicine in Hospital", *Journal of Korean Contents Association*, 10, pp. 293-301, 2010.
- [26] J. S. Kang, "Relationship among Leader-member exchange(LMX), Burnout and Career Turnover Intention in Social Workers using SEM", *Journal of the Korea Academia-Industrial cooperation Society*, 14(8), pp. 3739-3747, 2013.  
DOI: <http://doi.org/10.5762/KAIS.2013.14.8.3739>
- [27] J. H. Shim, Y. S. Kim and T. H. Yoon, "Relationships Between Empowerment, Job Satisfaction, and Organizational Commitment Among Physical Therapists", *Physical Therapy Korea*, 15, pp. 70-79, 2008.



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