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Differences in Perception and Needs for Continuing Education according to the Career of Physiotherapists

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Abstract

Purpose : The purpose of this paper is to review the continuing education (CE) for physiotherapists and especially to draw attention to the perception and need of the education so that the present study aimed to provide information for improving the education program.

Methods : The study obtained information from CE of the Korea Physical Therapy Association held in Gwangju on April 12 and July 19, 2015 to understand the perception and needs of CE. Present study showed that 431 out of 563 people who answered to the survey, with a 76.5 % response rate. Among them, 350 people were selected for the final analysis, except for questionnaires whose responses were insufficient. Among them, the level of perception of CE was 238, excluding 112 people who did not receive an education in 2014.

Results : The perception of CE according to experience showed a weak positive correlation in questions 1 (r=.244), 5 (r=.244) and 10 (r=1.129) ($p<.05$). There was no significant correlation in questions 2, 3, 4, 6, 7, 8, and 11 ($p>.05$). The needs of CE according to experience showed weak negative correlations in musculoskeletal system (r=-.141), nervous system (r=-.136), geriatric (r=-.117), oriental physical therapy (r=-.130), and other new technologies (r=-.232) ($p<.05$). Basic education, pediatric, cardiopulmonary system, sports, physical agents, and women's fields were not significantly correlated ($p>.05$).

Conclusion : There was little or no significant correlation between perception and needs for the CE based on physical therapists' experiences. Current research suggests that for a CE for physical therapists, the perception of education should first be renovated, and then the quality of education should also be improved based on the need of them.

Key Words : continuing education, needs, perception, physiotherapist

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Ⅰ. Introduction

Continuing education (CE) is the education provided to the health care providers to maintain and improve their job competency. In general, the education is created ad hoc and implemented without tests or assessments. In providing such education, educators are troubled by limited information or data (Hartley et al., 2019). An article showed that a combination of theory and practice is beneficial for healthcare providers. For example, 305 people who working in the emergency and trauma departments were trained on burns. As a result, they achieved significant improvements in the capabilities and competence. The research shows that significant improvement in knowledge of emergency management of burns incidents found in percentage of correct answers from 48.2 % to 71.6 %. In addition, they remarkably improved emergency practical skills and using emergency medical devices (Lam et al., 2018). These results indicate that a well-organized CE offers great benefits.

Various kinds of people are familiar with physiotherapy that is related to many factors such as heat, electrotherapy, hydrotherapy, phototherapy, exercise program and prevent advices (Celenay et al., 2019). One aspect of people is old ones who have been suffering from disorders, pain, and other causes because of aging process. As a result, they are already used to the intervention. The others are young ones who are suffering from disease such as cerebral palsy, spina bifida, torticollis, and so on. Since physical therapy is directly related to the health of the people, education of physical therapists is important not only for college courses but also after graduation. In order to become a proficient physiotherapist, high levels of skill, training, and experience are necessary (Pinto et al., 2014). New physical therapists can benefit from the structured mentoring, additional training and clear career pathways, particularly those inherent in the health care system (Slade et al., 2019). This process should be carried out as a continuous process over a period of time, and one of the methods is the CE. In doing so, consumer-focused care can proceed more effectively, and this is an important factor for the development of physical therapy.

Well-prepared and well-equipped programs may improve the awareness and satisfaction of CE to health care personnel. For example, the education that simulation approach in pharmacists was well received. They reported that the education increased 62.3 % in knowledge level and 37.0 % in comfort (Katoue & Ker, 2019). In another study, it pointed out that the low approach of clinicians to specific methods of intervention for chronic fatigue syndrome because of low in knowledge and awareness of that intervention. To solve the issue, the study suggested the online education programs for CE, and did evaluate the effect of the subjects' participation (Li et al., 2017). It means that the education affects awareness and satisfaction of subjects. This result showed that analysis of existing the CE is important, and by preventing duplicate contents, it can facilitate evidence-based learning strategies and save valuable time (Hartley et al., 2019). However, there is still a lack of presenting standardized processors or developing protocols for CE (Pinto et al., 2014). Therefore, the purpose of this paper is to review the CE for physiotherapists and especially to draw attention to the perception and need of the education so that the present study aimed to provide information for improving the education program.

Ⅱ. Methods

1. Subjects

The study showed that 431 out of 563 people who participated in the CE conducted at the Gwangju Metropolitan City of the Korea Physical Therapy Association on April 12, 2015 and July 19, 2015, answered to the survey, with a 76.5 percent response rate. Among them, 350 people were selected for the final analysis, except for questionnaires whose responses were insufficient. Among them, the level of

awareness of CE was 238, excluding 112 people who did not receive an education in 2014. The general characteristics of participants in the experiment are as follows (Table 1).

2. Data collection

The tools used in this study were based on questionnaires on CE for other health care personnel and were modified and supplemented for physical therapists through preliminary surveys of 20 physical therapists from February to April, 2015. The study was obtained from a CE at the Gwangju Metropolitan City of the Korean Physical therapists' Association conducted on April 12 and July 19, 2015. A questionnaire was distributed and retrieved after obtaining

Table 1. General characteristics of subjects (n=350)

	n	%
Gender		
Male	102	29.1
Female	248	70.9
Educational background		
College (2 years)	17	4.9
College (3 years)	195	55.7
University	114	32.6
Master's course	3	0.9
Master	18	5.1
Doctorial course	2	0.6
Doctor	1	0.3
Career		
less than 3 years	83	23.7
More than 3 years and less than 5 years	76	21.7
More than 5 years and less than 10 years	113	32.3
More than 10 years and less than 15 years	46	13.1
More than 15 years	32	9.1
Workplace		
University hospital	6	1.7
General hospital	42	12.0
Hospital	69	19.7
Geriatric Hospital	48	13.7
Clinic	120	34.3
Medical Center for nursing	8	2.3
Center	4	1.1
Others	53	15.1
Are you satisfied with your current job?		
Very satisfied	11	3.1
Satisfied	93	26.6
Normal	179	51.1
Not satisfied	54	15.4
Not very satisfied	13	3.7
Do you want to continue your current work?		
Very yes	18	5.1
Yes	118	33.7
Normal	149	42.6
Not really	52	14.9
Very not	13	3.7

consent from the subjects with explanations that the purposes of the study, personal confidentiality, and research results were used only for the study.

The questionnaire used for this study consists of general characteristics, experience in the CE, perception of the education, and need of the education. The experiences of CE and awareness of the education were based on Lee (2005) that the research was revised and supplemented based on Hwang (1993) questionnaire. The experience of CE was divided based on whether or not they received the education in 2014. A total of 11 questions were set up to respond to the five-points Likert scale. On the Likert scale, five points are “very yes”; four points are “yes”; three points are “normal”; two points are “not”; one point is “very not”. The higher score on the question means that the superior awareness (Table 2).

The demand for CE was revised and supplemented based on the study of three researchers (Jung, 2014; Lee, 2005; Lee, 2007). To find out the need for the education, each of the 11 topics was selected using the Likert scale, with five points for "not very necessary," four points for "not needed," three points for "normal," two points for "necessary" and one point for "very necessary." The lower score means that it is the greater desired subject of the future education (Table 3).

3. Data analysis

All data collected were compiled with IBM SPSS version. 21.0 (IBM, Chicago, IL). The general characteristics of physical therapists were analyzed for frequency. Descriptive statistics were performed for knowing the awareness and demand of CE by those with experience in the education before. Pearson correlation analysis was conducted to correlate the perception and need of the education. The significance level α was set at .05 with a two-tailed statistical test.

Ⅲ. Results

For physical therapists who have experience in the past in CE, the degree of the perception of the education according to their experience is as follows. Questions 1 (r=.244), 5

Table 2. A study on the perception of continuing education according to the career experience (n=238)

Questions	Perception	r	*p*
Q1 Do you think that regular CE is required for PTs?	3.13±0.92	.244	.000*
Q2 Do you think that CE is necessary for rapid acceptance of the medical system and environmental changes?	3.30±0.90	.124	.560
Q3 Do you think that CE is more necessary for new PTs?	3.41±0.98	.101	.119
Q4 If there is a cyber CE on the Internet, do you willingly use it?	3.95±0.88	-.034	.598
Q5 If there is a plan to provide a CE anywhere, do you participate?	2.85±0.95	.244	.000*
Q6 Did you discuss the contents of the program after receiving a CE?	2.35±0.9	-.003	.963
Q7 Does CE make you feel confident in your job performance?	2.37±0.87	.098	.130
Q8 Does CE encourage active work performance by making work interesting?	2.41±0.90	.114	.079
Q9 Does CE help to educate other medical and health professionals and promote them for consultation?	2.54±0.91	.128	.049*
Q10 Do you satisfy with the current CE?	2.62±0.88	.129	.047*
Q11 Do you satisfy with the current level of CE?	2.60±0.86	.070	.284

M±SD, *p<.05, Q ; Question, CE ; Continuing Education, PT ; Physical Therapist

(r=.244), 9 (r=.128), and 10 (r=.129) showed a weak positive correlation (p<.05). There was no significant correlation in questions 2, 3, 4, 6, 7, 8, and 11 (p>.05)(Table 2).

The following is the needs for physical therapists' the education according to their experience. It showed weak negative correlation in musculoskeletal system (r=-.141), nervous system (r=-.136), geriatric (r=-.117), oriental physiotherapy (r=-.130), and other new technologies (r=-.232)(p<.05). Basic education, pediatric, cardiopulmonary system, sports, physical agents, and women's fields were not significantly correlated (p>.05)(Table 3).

Table 3. A study on the needs of continuing education according to the career experience (n=350)

Subjects	Need	r	*p*
Basic education	2.39±0.83	-.073	.173
Musculoskeletal	1.89±0.70	-.141	.008*
Nervous	2.01±0.71	-.136	.011*
Pediatric	2.26±0.77	-.058	.279
Cardiopulmonary	2.34±0.77	-.044	.412
Sports	2.17±0.78	-.078	.148
Geriatric	2.15±0.75	-.117	.029*
Physical agents	2.31±0.80	-.103	.054
Woman	2.44±0.76	-.031	.558
Oriental physiotherapy	2.71±0.90	-.130	.015*
Other new technologies	2.21±0.85	-.232	.000*

M±SD, *p<.05

Ⅳ. Discussion

The high-quality education can improve the level of therapists, thereby increasing both the satisfaction of the patients and the caregivers. According to the results of the study, 81.4 % are estimated to continue their current work. Interestingly, the satisfaction (80.8 %) and sustainability of the work proved to be similar (Table 1). In other words, Authors think that the work can be continued when the work is satisfactory, and that a well-prepared CE can increase its satisfaction. Therefore, it is appropriate to look at the awareness and demand of the education.

Overall, the perception of the CE was low, as well as there was little or no correlation between degrees according to experience. Authors inferred that the result of the present study will show positive or negative correlation based on the carrier the experience of physical therapy. The results of the investigation differ from our expectation. We can interpret this strange phenomenon as follows. First, the expectation of the education is very low. Since Nov. 23rd, 2014, in Korea, all medical technicians are required to report their status and employment to the Minister of Health and Welfare every three years from the initial receipt of the license. This means that if someone does not report a license, the physiotherapist will not be able to work at the hospital or clinic until the license is suspended and re-issued (Moon et al., 2016). Many physiotherapists try not to listen, but to avoid the disadvantages to the license declaration system (Na, 2012). Second, because of the environmental constraints of the physical therapy unit has too many. For example, in Korea

system, they are proposed to do simple things by doctor's prescription and have limitations because they have only a small place to treat patients, an old and little equipment for intervention. This environment deprives them of the desire to learn new things from their duties. Third, the satisfaction level of the education has decreased since the instructors. According to a paper on the CE research on nurses, 10.1 % of the learners chose professors as appropriate instructors, and 40.4 % said they wanted professional nurses to do this (Kim et al., 2017). The situation of physical therapy is not that different either (Moon et al., 2016). We think it's because professors don't fully understand the situation in the field. Therefore, it would be possible to supplement this section further if professors and professional physical therapists teach on the same topic together. Thus, to summarize, we suggest that first analyze the three causes and then acknowledged the need to change the perception of CE for physiotherapists in priority over the content or quality of education.

Another interesting point is that the score for question four is the highest. Furthermore, the result of question six showed that there is rare opportunity to discuss the contents again for the CE. This is seen as a call to make the education available on-line. We think that Internet-based video training is an attractive way to solve this requirement and problem. The general public or health-care workers frequently have been accepted Internet-based information such as YouTube® and WebSurg® (Ferhatoglu et al., 2019). However, there is still a trust issue with accuracy in data on the Internet (Kocyigit et al., 2019). Authors propose that this is an effective way to put proven medical data by experts and then upload the video clips on the Web.

The demand for CE was high, but there was little or no correlation among demands based on the experiences. Given that musculoskeletal systems have the highest demands, they seem to be related to the area in which physical therapists work the most in clinicians. The result shows that they still acknowledge the need for education, even though the satisfaction level of CE has declined (Moon et al., 2016). The most important reason for carrying out the CE is the improvement and development of the job competency of those who have completed it (Bryant & Posey, 2019). According to a survey of nurses, 76.7 % of them want to survey their needs each year and select subjects for the education (Kim et al., 2017). Interestingly, the study's findings on basic medicine were not very demanding. However, in other studies, 92 % of physiotherapists felt a potential or actual need for anatomy-related CE (Wilson et al., 2018). This result shows that it is better to examine the demands by presenting more specific terms than the slightly vague expression of basic medicine. Thus, the subject matter of the future program should be relevant to the current task and be applicable to field practice. And the demands of educators will also draw more attention only by making efforts to implement the survey that what do they want to learn. Limitation of this study is that the perception and demand data of CE just acquired in Gwangju, South Korea. It also did not take into account the location, cost or duration of education that could affect the level of awareness and demand for the education (Wilson et al., 2018). In addition, if we had investigated the perception and demand of the education according to distinction in gender and academic background, we might have seen different results.

Ⅴ. Conclusion

There was little or no significant correlation between perception and needs for the CE based on physical therapists' experiences. Current research suggests that for a CE for physical therapists, the perception of education should first be renovated, and then the quality of education should also be improved based on the need of them. In addition, authors propose that the education program offer in the web so that physiotherapists can easily assess and study in their convenient time. Efforts are needed to expand using a new technology for the education. It will bring them an understanding of the latest medical information and a

qualitative improvement in the technology.

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References

Bryant T, Posey L(2019). Evaluating transfer of continuing education to nursing practice. J Contin Educ Nurs, 50(8), 375-380.

Celenay ST, Kaya DO, Ucurum SG(2019). Adding connective tissue manipulation to physiotherapy for chronic low back pain improves pain, mobility, and well-being: A randomized controlled trial. J Exerc Rehabil, 15(2), 308-315.

Ferhatoglu MF, Kartal A, Filiz AI, et al(2019). Comparison of new era's education platforms, YouTube® and WebSurg®, in sleeve gastrectomy. Obes Surg, Printed Online, Doi: 10.1007/s11695-019-04008-x.

Hartley H, Smith JD, Vandyk A(2019). Systematic review of continuing education interventions for licensed nurses working in psychiatry. J Contin Educ Nurs, 50(5), 233-240.

Hwang MH(1993). A study on the recognition and actual condition of inservice educationa of the nurse in charge of medical insurance in hospital. Graduate school of Ewha Woman's University, Republic of Korea, Master's thesis.

Jung JY(2014). A study on the evaluation of management of continuing education programs for the improvement of the job performance of dental hygienists. Graduate school of Dankook University, Republic of Korea, Doctoral dissertation.

Katoue MG, Ker J(2019). Simulation for continuing pharmacy education: development and implementation of a simulation-based workshop on medicines reconciliation for pharmacists. J Contin Educ Health Prof, 39(3), 185-193.

Kim SJ, Ji HR, Kim NY, et al(2017). Study on the current state and demand on the nursing continuing education in Gwangju. Korean Journal of Learner-Centered Curriculum and Instruction, 17(7), 575-596.

Kocyigit BF, Koca TT, Akaltun MS(2019). Quality and readability of online information on ankylosing spondylitis. Clin Rheumatol, Printed Online, Doi: 10.1007/s10067-019-04706-y.

Lam NN, Huong HTX, Tuan CA(2018). Preparation for major burns incidents: evaluation of continuing medical education training courses for professionals. Ann Burns Fire Disasters, 31(4), 322-328.

Lee YJ(2005). The research on the reality and recognition relayed to inservice education of the nurse. Graduate school of Andong National University, Republic of Korea, Master's thesis.

Lee YK(2007). A study on the need for continuing education programs for nurses working in medium-sized hospitals. Graduate school of Yonsei University, Republic of Korea, Master's thesis.

Li SH, Sandler CX, Casson SM, et al(2017). Randomised controlled trial of online continuing education for health professionals to improve the management of chronic fatigue syndrome: A study protocol. BMJ Open, 7(5), Printed Online, Doi: 10.1136/bmjopen-2016-014133.

Moon SR, Kim MC, Lee JC(2016). The analysis on continuing education in physical therapy : In 2014~2015. J Korean Soc Integrative Med, 4(3), 101-108.

Na JM(2012). A study on medical practitioners' perceptions on continuing medical education. Graduate school of Keimyung University, Republic of Korea, Master's thesis.

Pinto WA, Rossetti HB, Araujo A, et al(2014). Impact of a continuous education program on the quality of assistance offered by intensive care physiotherapy. Rev Bras Ter Intensiva, 26(1), 7-12.

Slade SC, Hay-Smith J, Mastwyk S, et al(2019). Attributes of physiotherapy continence clinicians: a qualitative perspective. Physiotherapy, Printed Online, Doi: 10.1016/j.physio.2019.01.018.

Wilson AB, Barger JB, Perez P, et al(2018). Is the supply of continuing education in the anatomical sciences keeping up with the demand? Results of a national survey. Anat Sci Educ, 11(3), 225-235.