Journal for Re Attach Therapy and Developmental Diversities
eISSN: 2589-7799
2023 February; 6 (2s): 83-93

Relative Effects of Mindfulness and Subjective Quality of Life of Medical Trainers and Clients Applying Actor Partner Interdependence Model

Do-Jin Kim[1], Jong-Hyuck Kim[*2], Kyung-Tae-Eo[3], Ja-Ok Kim[4], A-Young Park[5], Dong-Cheol-Chi[6], Yong-Gu Kang[7]

[1]Assistant Professor, Department of Rehabilitation Sport, Bucheon University, 25 Sinheung-ro 56 beon-gil, Bucheon-si Gyeonggi-do, 14632, Republic of Korea
[*2]Assistant Professor, Department of Medical Beauty Care, Junwon University, 85 Munmu-ro, Goesan-eup, Goesan-gun Chungbuk, 367-700, Republic of Korea
[3]Adjunct Professor, Division of Sport Science, Hanyang University, Republic of Korea
[4]Associate Professor, Department of Nursing, Wonkwang Health Science University, 514 Iksandae-ro Sinyong-dong Iksan-si, Jeollabuk-do, 54538, Public of Korea
[5]Associate Professor, Department of Nursing, Gwangju University, 277 Hyodeong-ro, Hyodeok-dong, Nam-gu, Gwangju,61743, Public of Korea
[6]Ph.D. Candidate, Department of Sport Convergence, Korea University Sejong Campus, 2511 Sejong city, 30019, Public of Korea
[7]Technical Delegate, Asian Handball Federation, South Surrah, Al-Salam Area, Block 7, Street No. 705, Villa 508, Kuwait
taehab@hanmail.net[1], jhkim4170@hanmail.net[*2], ukt007@hanmail.net[3], jjaoki-93@wu.ac.kr[4], ayoung@gwangju.ac.kr[5], hsbc311@naver.com[6], dydrn3979@naver.com[7]
Corresponding author[*]: mobile Phone: +82-010-8013-5210, jhkim4170@hanmail.net

Received: 27-November-2022
Revised: 02-January-2023
Accepted: 12-February-2023

Abstract

Background/Objectives: This study applied the Actor Partner Interdependence Model (APIM) to verify the relationship between mindfulness and subjective quality of life in the medical trainer-customer relationship. **Methods/Statistical analysis** Data were collected from medical trainers and customers in the form of couple data for the application of the interdependence model.

Findings: As a result, the following findings were obtained. First, as a result of verifying the self- and relative effects between the present awareness factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the customers' subjective quality of life. Second, as a result of verifying the self- and relative effects between the attention factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the medical trainers' subjective quality of life. Third, as a result of verifying the self- and relative effects between the critical acceptance factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the medical trainers' subjective quality of life. Fourth, as a result of verifying the self- and relative effects between the decentralized attention factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the medical trainers' subjective quality of life.

Keywords APIM, medical trainer, customer, mindfulness, subjective quality of life

1. Introduction

With the generational change brought by the 4th industrial revolution, people around the world have begun to pay greater attention to their health. In particular, rehabilitation exercise and treatment following medical treatment are deemed important in recovering the body to the normal state, as it is considered that rehabilitation has a large influence on people's bodies and is deeply related to later life along with medical treatment.

emphasized that damaged caused by individuals' loss of physical functions is not only physical but also psychological trauma. Jung also highlighted the importance of emotional and psychological rehabilitation as well as the development of rehabilitation processes that can visualize the effects of rehabilitation along with rehabilitation treatment focused on the level of physical damage and functions[1]. According to the research findings of[2], defects in cognitive and physical functions found in rehabilitation patients may have a greater impact on reducing patients' motivation than being a mere functional problem. Also, reported that patients participating in rehabilitation exercise programs experience limitations due to exercise interfering factors[3]. These call for the need to identify the factors relevant to patients' participation in rehabilitation exercises. In particular, psychological factors found in the relationship between medical trainers and patients, or customers, created during the rehabilitation exercise based on medical diagnosis also have an influence on the rehabilitation progress. [4]referred to such a relationship as a functional process and a psychological tool to motivate patients to participate in rehabilitation exercises.

Hence, this study aimed to look at the relationship between medical trainers and customers created during rehabilitation exercises. The researchers particularly put the focus on 'mindfulness' and 'subjective quality of life.'

Mindfulness refers to a state where a person purposely brings one's attention to the present moment, not judging the momentary experience, observing and perceiving all thoughts, feelings, and emotions[5].

When one enters the state of mindfulness, they are able to take an observer's perspective on their emotions, thoughts, behaviors, and motives, boosting the efficiency of self-control and helping them adaptively control their ideas, feelings, and behaviors[6]. Hence, mindfulness plays a direct role in improving psychological well-being as one can make considerate decisions instead of responding automatically or habitually in stressful situations[7].

In short, mindfulness can be referred to as taking a third person's stance to look at one's state put in different situations and responding to it. This, in other words, is perceiving one's bodily feelings more broadly, learning how one had different thoughts or feelings in daily life, and accepting such experiences to control stress[8].

Subjective quality of life can be referred to as an individual's perceived level of life satisfaction. This is a composite evaluation of cognitive happiness and subjective assessment of one's life; how much positive evaluation one can give about their life while having psychological well-being with no or less anxiety and depression can also be called subjective quality of life[9]. Various factors can affect the subjective quality of life, such as gender, age, family, and social and economic factors, and people's daily experiences can also play a pivotal role in it. Here, [10]reported that quality of life is a comprehensive idea that encompasses both objective and subjective psychological states in life including economic state, subjective psychological satisfaction, overall satisfaction in life, and subjective level of welfare. added that quality of life is determined by numerous factors which are mutually interrelated with each other. Moreover, stated that people should pay greater attention to perceived feelings and satisfaction, reporting that the relationship between objective conditions and subjective satisfaction in terms of quality of life is not linear, and a negative correlation is also found where better objective conditions reduce subjective satisfaction[11].

In sum, when medical trainers and customers form a physical and psychological community while carrying out rehabilitation exercise programs, they tend to influence each other through behaviors applied to one another. The study aims to interpret the findings through the Actor and Partner Interdependent Model (APIM). The team determined that the relationship between mindfulness and subjective quality of life is an important factor that can pose either a positive or negative impact on the continuance of rehabilitation exercise in the model. Here, the study was conducted to identify the self- and relative effects of such a relationship found in rehabilitation exercise programs through couple data.

2. Materials and Methods

2.1. Characteristics of the subjects

In order to verify the relationship between mindfulness and subjective quality of life of medical trainers and customers, the researchers conducted a survey at hospitals, rehabilitation centers, and fitness centers (PT,

Pilates, conditioning, etc.) that provide rehabilitation services based on the diagnosis of doctors working in the metropolitan area. Composed of a team of researchers and assistants, the surveyors explained the purpose of the study to the participants in detail by phone call prior to the visit and checked whether they provide rehabilitation exercise programs, have rehabilitation patients, and are available for a brief survey. Here, to apply the APIM model, the data from medical trainers (physical therapists, rehabilitation trainers, etc.) and customers were collected in the form of couple data (type A and B), which made 208 couples (416 copies in total). Among the collected data, insincere responses and non-response data (approximately 20% or more) were excluded from the analysis, and missing values were replaced with the average. The analyzed characteristics are shown in Table 1.

Table 1. Characteristics of the subjects

Characteristics	Category	A		B	
		Frequency	%	Frequency	%
Gender	Male	159	76.4	119	57.2
	Female	49	23.6	89	42.8
Age	20s	90	43.3	32	15.4
	30s	91	43.7	73	35.1
	40s	27	13.0	89	42.8
	50s or above	-	-	14	6.7
Educational Status	High school graduate	44	15.9	17	8.2
	College graduate	131	63.0	166	79.8
	Graduate school graduate	33	21.1	25	12.0
Career	Less than 5 years	69	33.2	-	-
	5-10 years	98	47.1	-	-
	10 years or longer	41	19.7	-	-
Frequency /per week	1-2 times	-	-	89	42.8
	3-4 times	-	-	98	47.1
	5 times or more	-	-	21	10.1

*A=medical trainer, B=customer

2.2. *Tools*

The survey conducted to verify the relationship between mindfulness and subjective quality of life of medical trainers and customers consisted of the following: 5 items about general characteristics, 20 items about mindfulness, and 8 items about subjective quality of life. The collected data were put through validity and reliability verification based on item analysis (average, standard deviation, skewness, and kurtosis) and correlation analysis.

2.2.1. Mindfulness

The survey for mindfulness used the scale developed by[12] after modification and supplementation. This scale is composed of a total of 20 items, covering 4 factors of present awareness, attention, critical acceptance, and decentralized attention. Present awareness factors measure the current experience occurring in the body and mind, while attention factors measure how one focuses on the present experience or task and maintains that focus. Also, critical acceptance factors refer to a behavior where one accepts an experience as it is instead of making subjective evaluations, and decentralized attention factors mean looking at the current situation

from an observer's perspective. Representative items include "It is difficult to focus on assignments" and "It is difficult to notice emotional changes," and the answer to the question was collected on a 5-point Likert scale ranging from "Strongly disagree" to "Strongly agree."

The results of the confirmatory factor analysis conducted on the collected data (416 copies) showed a relatively good fitness of $\chi^2(164) = 364.86$, RMSEA= .054, SRMR= .061, TLI= .922, and CFI= .947. Here, each sub-factor's composite reliability (CR) was found to be .77, .76, .81, and .69, respectively.

2.2.1. Subjective quality of life

The Index of Well-being scale developed by[13], adapted by[14], and used by[15], [16]was used to measure the subjective quality of life. Composed of a single-factor cognitive assessment that measures emotions about the recent experience using an adjective semantic differential scale (eg. 'It is fun – It is boring'), a higher score refers to having more positive feelings towards one's life.

The results of the confirmatory factor analysis conducted on the collected data showed a relatively good fitness of $\chi^2(20) = 43.71$, RMSEA= .054, SRMR= .048, TLI= .931, and CFI= .955; the factor coefficient showed a range of .52-.79, and the single-factor CR was .88.

2.3. ***Data Analysis***

The collected data were analyzed as follows using the IBM SPSS 26.0 and AMOS 26.0. First, descriptive statistics were applied for frequency analysis and item analysis. The frequency analysis was conducted on the general characteristics of the subjects, where the average, standard deviation, skewness, and kurtosis of each item were reviewed. Second, confirmatory factor analysis was conducted to verify the validity and reliability of the collected data, and composite reliability (CR) was measured. Third, correlation analysis was conducted using the composite scores of each sub-factor to identify the relationship between mindfulness and subjective quality of life. Lastly, path analysis was performed using composite scores to verify the self- and relative effects of mindfulness and subjective quality of life. Furthermore, the scores of the medical trainers and customers were standardized as Z-Score for reasonable interpretation of the model. The significance level of the analysis was $\alpha = .05$.

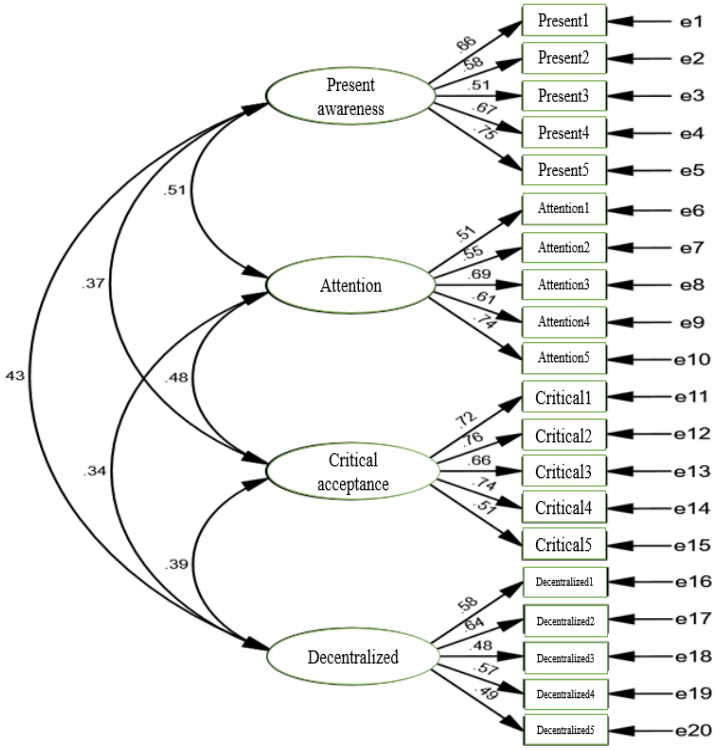

Figure 1. CFA results of mindfulness

3. Results and Discussion

3.1. Correlation between factors and descriptive statistics

Correlation analysis and descriptive statistics based on the composite scores of sub-factors were performed to identify the relationship between mindfulness and the subjective quality of life of medical trainers and customers. The results are shown in Table 2. First, regarding the correlation between sub-factors of mindfulness, medical trainers showed a significant positive correlation (.43-.64), while customers also showed a significant positive correlation (.32-.56). Second, the correlation between sub-factors of mindfulness and subjective quality of life was found to be significantly positive among medical trainers (.20-.37) as well as customers (.18-.34).

Third, mindfulness of medical trainers and subjective quality of life of patients (customers) were found to be in a positive correlation (.11-.26), while customers' mindfulness and medical trainers were also found to be in a positive correlation (.09-.21). Fourth, the subjective quality of life of both medical trainers and customers was found to be significant (.23). Lastly, mindfulness of medical trainers and customers was found to be in a positive correlation (.08-.27). In addition, the findings were in a normal distribution, as the skewness and kurtosis of the composite scores were ±1.0 or below.

Table 2. Correlation matrix between sub-factors and descriptive statistics

Category	Factor	1	2	3	4	5	6	7	8	9	10
Medical trainer	Present awareness	1.00									
	Attention	.64**	1.00								
	Critical acceptance	.43**	.52**	1.00							
	Decentralized attention	.52**	.48**	.44**	1.00						
	Subjective quality of life	.20**	.26**	.37**	.31**	1.00					
Customer	Present awareness	.17*	.19**	.15*	.16*	.20**	1.00				
	Attention	.20**	.21**	08	.11	.09	.49**	1.00			
	Critical acceptance	.13	.08	.27**	.10	.21**	.44**	.56**	1.00		
	Decentralized attention	.09	.11	.08	.11	.13	.32**	.41**	.49**	1.00	
	Subjective quality of life	.15*	.25**	.11	.26**	.23**	.33**	.34**	.20**	.18**	1.00
	M	3.92	3.79	3.82	3.73	3.56	3.96	3.99	3.72	3.76	3.89
	SD	.69	.68	.73	.69	.71	.72	.70	.71	.73	.69

3.2. Mindfulness and subjective quality of life: self- and relative effects

To verify the relationship between self- and relative effects of mindfulness and subjective quality of life in the medical trainer-customer relationship, the APIM was applied using AMOS25.0. Also, to compare the self- and relative effects found in the medical trainer-customer relationship affecting their mindfulness and subjective quality of life, the results were analyzed by comparing the effects measured by the basic analysis model and the comparative model (χ^2_D) that restricted relative effects.

3.2.1. Self- and relative effects between present awareness and subjective quality of life

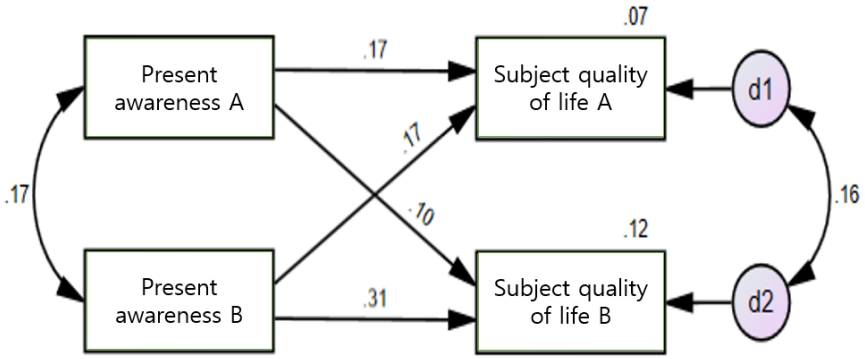

Figure 2. Relationship between present awareness and subjective quality of life

The verification findings of self- and relative effects between present awareness and subjective quality of life factors – sub-factors of mindfulness – are shown in Figure 2. First, the self-effects of present awareness and subjective quality of life were shown to be statistically significant in both the medical trainers' group (A) and customers' group (B), but relative effects were only significant in the customers' group (B). Second, the self- and relative effects of medical trainers' subjective quality of life were found to be $\chi^2_D(1) = .001$ and $p = 1.00$ between the basic and constrained models, which were not statistically significant. Third, the self- and relative effects of customers' subjective quality of life were found to be $\chi^2_D(1) = 4.531$ and $p = .033$ between the basic and constrained models, showing a significant difference.

These findings can be interpreted that the present awareness factors of medical trainers ($\beta_{AA} = .17$) and customers ($\beta_{BA} = .17$) are in a same-level positive correlation in terms of medical trainers' subjective quality of life and that the present awareness factors of medical trainers ($\beta_{AB} = .10$) and customers ($\beta_{BB} = .31$) are in a positive correlation on different levels when it comes to customers' subjective quality of life.

3.2.2. Self- and relative effects between attention and subjective quality of life

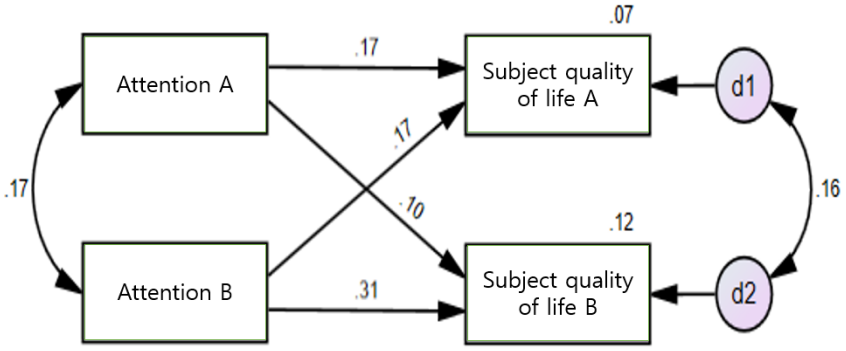

Figure 3. Relationship between attention and subjective quality of life

The verification findings of self- and relative effects between attention factors and subjective quality of life – sub-factors of mindfulness – are shown in Figure 3. First, the self-effects of attention and subjective quality of life were found to be statistically significant in both the medical trainers' group (A) and the customers' group (B), while the relative effects were only found significant in the medical trainers' group (A). Second, the self- and relative effects of medical trainers' subjective quality of life were shown as $\chi^2_D(1) = 4.027$ and $p = .045$ in the basic model and the constrained model. Third, the self- and relative effects of customers' subjective quality of life were found to be $\chi^2_D(1) = 1.243$ and $p = .265$ in the basic model and the constrained model, not showing a significant difference. These findings can be interpreted that the attention factors of medical

trainers ($\beta_{AA} = .25$) and customers ($\beta_{BA} = .04$) are in a positive correlation but on different levels when it comes to medical trainers' subjective quality of life. It can also be interpreted that the attention factors of medical trainers ($\beta_{AB} = .19$) and customers ($\beta_{BB} = .30$) are in a same-level positive correlation regarding the customers' subjective quality of life.

3.2.3. Self- and relative effects between critical acceptance and subjective quality of life

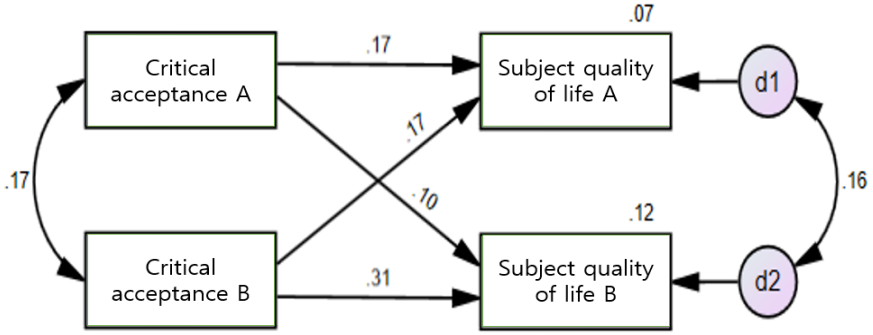

Figure 4. Relationship between critical acceptance and subjective quality of life

The verification findings of self- and relative effects between critical acceptance factors and subjective quality of life – sub-factors of mindfulness – are shown in Figure 4. First, while the self-effects of critical acceptance and subjective quality of life were found to be statistically significant in both the medical trainers' group (A) and the customers' group (B), relative effects were not found significant. Second, the self- and relative effects of medical trainers' subjective quality of life were found to be significant in the basic model and the constrained model showing $\chi^2_D(1) = 4.227$ and $p = .040$. Third, the self- and relative effects of customers' subjective quality of life were found to be $\chi^2_D(1) = 1.197$ and $p = .274$ in the basic model and the constrained model, showing no significant difference. Such findings can be interpreted that the critical acceptance factors of medical trainers ($\beta_{AA} = .34$) and customers ($\beta_{BA} = .12$) are in a positive correlation but on different levels when it comes to medical trainers' subjective quality of life. It can also be interpreted that the critical acceptance factors of medical trainers ($\beta_{AB} = .06$) and customers ($\beta_{BB} = .18$) are in a same-level positive correlation regarding customers' subjective quality of life.

3.2.4. Self- and relative effects decentralized attention and subjective quality of life

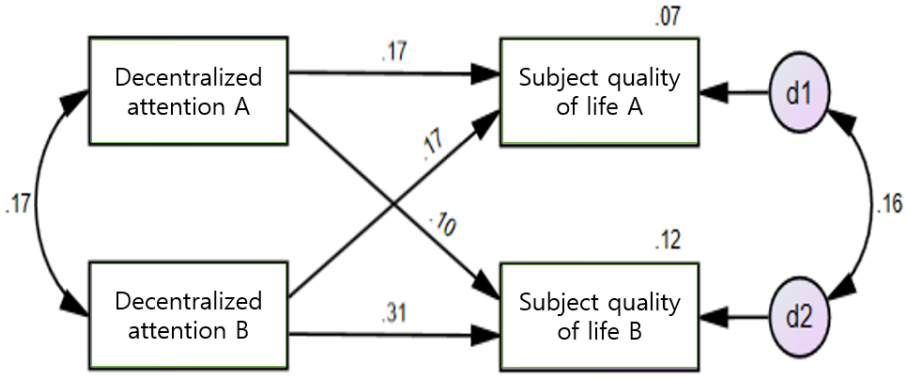

Figure 5. Relationship between decentralized attention and subjective quality of life

The verification findings of self- and relative effects between decentralized attention factors and subjective quality of life – sub-factors of mindfulness – are shown in Figure 5. First, the self-effects of decentralized attention and subjective quality of life were found to be statistically significant in both the medical trainers' group (A) and the customers' group (B), but relative effects were only found to be significant in the medical trainers' group (A). Second, the self- and relative effects of medical trainers' subjective quality of life were

$\chi^2_D(1) = 4.227$ and $p = .041$ in the basic model and the constrained model, showing a significant difference. Third, the self- and relative effects of customers' subjective quality of life were $\chi^2_D(1) = .817$ and $p = .366$ in the basic model and the constrained model, showing no significant difference. These findings can be interpreted that the decentralized attention factors of medical trainers ($\beta_{AA} = .30$) and customers ($\beta_{BA} = .10$) are in a positive correlation but on different levels regarding medical trainers' subjective quality of life, and that the attention factors of medical trainers ($\beta_{AB} = .24$) and customers ($\beta_{BB} = .15$) are in a same-level positive correlation when it comes to customers' subjective quality of life. However, it was notable to see how, regarding customers' subjective quality of life, the relative effects posed a greater influence on the decentralized attention factors than self-effects. This can also be seen through figures .26 and .18 in Table 2.

When a medical trainer and a customer develop a mutual physical and psychological relationship through rehabilitation exercise programs, they tend to affect the overall behavior of each other as well as their own behavior. If such a relationship can motivate patients to continue participating in rehabilitation exercises and remove relevant negative elements from the perspective of mindfulness and subjective quality of life among various psychological factors, it is considered to be able to pose a positive influence on the operation of relevant centers or organizations. Furthermore, the study analyzed the data collected from medical trainers and customers adapting the Actor Partner Interdependence Model (APIM) and looked at the relationship between present awareness and subjective quality of life, which are both factors of mindfulness. The findings showed that the self-effects of subjective quality of life were significant in both the medical trainers' group and the customers' group, and relative effects were only significant in the customers' group. On the other hand, the self- and relative effects of medical trainers' subjective quality of life did not show a significant difference, while those of customers showed a significant difference. Hence, it is considered that present awareness influences the subjective quality of life of both medical trainers and customers. Present awareness refers to a clear and instant recognition of the experiences occurring in both the mind and body in the present moment[17]. [17]reported that a higher level of mindfulness and greater social support lead to better satisfaction, mindfulness is considered to be highly associated with quality of life.

Second, as the study looked at the relationship between attention factors and subjective quality of life, the self-effects of subjective quality of life were found to be statistically significant in both the medical trainers' group and the customers' group, but relative effects were only found to be significant in the medical trainers' group. The self- and relative effects of customers' subjective quality of life did not show a significant difference. [17]referred to attention as the ability to focus on the present experience or task and remain focused, and [18]reported that a greater level of mindfulness increases positive emotions and decreases negative emotions. Also, [19]reported that if one has a high level of mindfulness, they are better able to recognize their feelings, taking more adaptative emotion regulation strategies. Meanwhile, regarding attention factors, it is considered that medical trainers are more subject to the relative effects depending on the level of customers' attention as they have a duty to provide service in their relationship with customers.

Third, while the self-effects of critical acceptance and subjective quality of life – sub-factors of mindfulness – were found to be statistically significant in both the medical trainers' group and the customers' group, relative effects were not found to be significant. Also, the self- and relative effects of medical trainers' subjective quality of life were shown to be significant, while those of customers did not show a significant difference. Critical acceptance can be referred to as the attitude of accepting one's inner experience as it is without making subjective evaluations or judgments[17]. Baer[20] and Germer[21]]reported that critical acceptance is in the strongest negative correlation with stress among the sub-factors of mindfulness, adding that mindfulness can be characterized as the ability to pay attention to the present moment, critically recognizing and accepting one's experiences. This can explain why medical trainers and customers show differences, as they are in different stances. Also, it is considered that medical trainers would be able to provide considerate care to customers by understanding the characteristics of each factor of mindfulness.

Fourth, the self-effects of decentralized attention factors and subjective quality of life were found to be statistically significant in both the medical trainers' group and the customers' group, but relative effects were only found to be significant in the medical trainers' group. Also, while the self- and relative effects of medical

trainers' subjective quality of life were found to be significant, those of customers did not show a significant difference. Decentralized attention refers to an act of looking at a situation from an observer's perspective without being overwhelmed by the state of mind[17]. As customers – or patients – participate in rehabilitation exercises after experiencing physical or psychological anxiety, medical trainers must make sure that they provide rehabilitation exercise programs to customers in a more stable state. [22]reported that mindfulness and acceptance influence each other in the relationship between stress and psychological well-being, found out how one reaches the state of mindfulness after experiencing emotional cognition and acceptance, ultimately reaching psychological well-being[23]. added that it is necessary to focus on the emotional part among the various objects of mindfulness as emotional fluctuation influences psychological well-being. Also, [24]reported that Mindfulness-Based Cognitive Therapy (MBCT) boosted the expected level of one's satisfaction with life and reduced negative emotions, thereby improving their subjective well-being. In addition, it was found that cognitive and emotional mindfulness give a positive influence on subjective well-being through emotional relief, positive interpretation, and active response[25]. Considering these aspects, mindfulness is considered an important factor as it can either positively or negatively affect medical trainers' and customers' subjective quality of life.

4. Conclusion

This study applied the Actor Partner Interdependence Model (APIM) to verify the relationship between mindfulness and subjective quality of life in the medical trainer-customer relationship. Data were collected from medical trainers and customers in the form of couple data. The researchers visited the participants at an agreed time after making a reservation prior to the visit and gave a detailed explanation of the purpose of the study, which was then followed by the survey. The collected data were put through the validity and reliability verification test through item analysis, correlation analysis, and confirmative factor analysis, and then analyzed by using IBM SPSS and AMOS 26.0. The findings of the collected data are as follows:

First, the results of the correlation analysis conducted to identify the relationship between mindfulness and subjective quality of life of medical trainers and customers showed that they were in positive correlation with all variables. Also, the correlation matrix of the two groups' self- and relative effects appeared to have similar patterns. However, regarding the decentralized attention factors of customers' subjective quality of life, medical trainers' relative correlation was found to be .26, which was higher than that of customers (.18).

Second, as a result of verifying the self- and relative effects between the present awareness factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the customers' subjective quality of life.

Third, as a result of verifying the self- and relative effects between the attention factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the medical trainers' subjective quality of life.

Fourth, as a result of verifying the self- and relative effects between the critical acceptance factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the medical trainers' subjective quality of life.

Fifth, as a result of verifying the self- and relative effects between the decentralized attention factors of mindfulness and the subjective quality of life, a significant difference was found in the self- and relative effects of the medical trainers' subjective quality of life.

The findings of this study suggest the need to understand oneself and another in order to motivate customers, or patients, to take a greater interest in and participate in rehabilitation exercises on top of physical activities carried out with medical trainers. Also, the study calls for further research to be conducted on variables related to subjective quality of life.

References

[1]. Jeong SA. Effect of the Application of Horticultural therapy Program by Phases of Psychological Adaptation on the Psychosomatic Rehabilitation in Stroke Patients [master's thesis]. University of Konkuk; 2005.

[2]. Lee MY. Effect of cognitive rehabilitation program in brain injury patients [master's thesis]. University of Ewha Women; 2000.

[3]. Bang HJ. Exploring of exercise adherence interruption factor structure in rehabilitation exercise participants [master's thesis]. University of Incheon; 2012.

[4]. Green MF. Cognitive remediation in traumatic brain injury: update issue. Archives Psychiatry Medical Rehabilitation. 1993; 74;204-213.

[5]. Kim JH. What Is Mindfulness?: Suggestions for Clinical and Everyday Application of Mindfulness. The Korean Journal of Health Psychology. 2004; 9(2);511-538.

[6]. Kim KH. Mindfulness, Self-Regulation, and Wisdom. The Korean Journal of Health Psychology. 2008; 13(2); 285-306.

[7]. Kabat-Zinn J. Mindfulness-based interventions in context: past, present, and future. Clinical Psychology: Science and Practice. 2003; 10(2);144-156.

[8]. The Korean Society of Stress Medicine. Stress Science. Korean medicine. Seoul. 2013.

[9]. Jung WJ. The effect of reciprocal providing family support and non-family support on subjective well-being of retired elderly [master's thesis]. University of Seoul National University; 2014.

[10]. Oh YR. Effects of work-family conflict and job stress on married female soldiers' quality of life: a case of female officers' in the South Korea Army [master's thesis]. University of Seoul National University; 2015.

[11]. Diener E, Suh E. Measuring quality of life: Economic, social and subjective indicators. Social indicators Research. 1997; 40(1-2);189-216.

[12]. Park SH. Development of the Mindfulness Scale [dissertation]. University of Catholic; 2006.

[13]. Campbell A. The sense of well-Being in America. New York: McGraw-Hill. 1981.

[14]. Lee M. S. The subjective quality of life of Korean workers and associated variables [dissertation]. University of Yonsei; 1998.

[15]. Song SH, Hong HY. The Relationship between Covert Narcissism and Anger-out in the University students: The Mediating Effect of Mindfulness and Anger-in. Korea Journal of Counseling. 2015; 16(3);325-344.

[16]. Kwak HA. Chang HA. The effect of Mindfulness on Working Alliance: Mediating effects of Emotional Clarity and Anxiety-Management Ability. Korea Journal of Counseling. 2019; 19(5);355-375.

[17]. Jeong OH. The Influence of Mindfulness, Social Support on Married Women's Stress and Marital Satisfaction [master's thesis]. University of Myongji; 2011.

[18]. Baer RA. Mindfulness training as a clinical Intervention: A conceptual and empirical review, Clinical Psychology: Science and Practice. 2003; 10(2);125-143.

[19]. Germer CK. Mindfulness: What is it? What does it matter? InC. K. Germer RD. Siegel & PR. Fulton(Ed.), Mindfulness and Psychotherapy(3-27). New York: The Guilford Press. 2005.

[20]. Brown KW, Ryan RM. The benefits of being present: Mindfulness and its role in psychological well-being. Journal of Personality and Social Psychology. 2003; 84(4);822-848.

[21]. Kim BG. Relation between of Mindfulness and Depression: Indirect(mediation) effects of Emotional Clarity, Adaptive Cognitive Emotion Regulation Strategies [master's thesis]. University of Gyeongsang National University; 2017.

[22]. Kim JJ. Mindfulness Meditation Mentoring. Bulkwang Media. Seoul. 2011.

[23]. Hyun SR. The Multiple Mediating Effects of Emotional Clarity and Psychological Acceptance in the Relationship between Mindfulness and Psychological Well-being: For Middle School Students [master's thesis]. University of Hanyang Cyber; 2019.

[24]. Kim AY, Kim JH, Kim Mirihae. The Effects of Mindfulness Meditation on Quality of Life and Attention

in Female College Students with Perennial Allergic Rhinitis. The Korean Journal of Health Psychology. 2013; 18(1);17-33.

[25]. Won DR. The Mediating Effect of Stress Coping on the relation between Cognitive and Affective Mindfulness and the Subjective Well-being of Adolescents. The Korean Journal of Health Psychology. 2010; 15(3);427-443.