The Effect of Constitutional Mantra Meditation on Mindful Attention Awareness Scale

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Abstract

Since the advent of transpersonal psychology, studies have been actively conducted on the verification of the effectiveness of meditation, a long-standing self-discipline system in the East. The purpose of this study is to examine the effect of mantra meditation on mindful attention and awareness, and whether there are differences in mindful attention awareness according to the distinction of Ayurvedic constitutions. This study was conducted on 40 office workers in D city recruited by random sampling. This study used the Korean version of the Mindful Attention Awareness Scale(K-MAAS), which consists of a single factor in mindfulness: attention and awareness. The results of this study are as follows: first, through the mantra meditation, the degree of mindful attention awareness increased by an average of 8.67, and; second, the effects of mindful attention awareness through constitutional mantra meditation increased in the order of Pitta(11.00), Vata(7.83), and Kapha(7.34). Since this study targets a small number of people in a specific city, it seems to need to study a variety of groups across the country and different age groups. The subsequent study could conduct a study in detail on how the sub-factors of mindfulness influenced by constitutional mantra meditation are different.

Keywords: Mantra Meditation, Mindful Attention Awareness, Vata, Pitta, Kapha

1. Introduction

In the late 1960s, a new form of psychology emerged in the world of psychology. It is Transpersonal Psychology, which attempts the most extensive and profound exploration of human consciousness, encompassing Eastern and Western traditions and knowledge[1]. By this current, studies have been being actively conducted on the verification of the effectiveness of meditation, the long-standing self-discipline system of the East[2]. Meditation is used to promote stability by focusing on one's inner self[3].

Meditation can be divided into insight meditation and concentration meditation according to

Received(April 7, 2020), Review Result(1st: May 14, 2020, 2nd: June 30, 2020), Accepted(July 27, 2020)

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its internal process. Insight meditation is a meditation method that opens to all stimuli and looks at it and concentration meditation is a meditation method that focuses attention on a particular target. Generally, mindfulness meditation is classified as insight meditation, and meditation using a holy word or mantra is classified as concentration meditation.

Mantra is an important and most direct remedy for healing the mind spoken in Ayurveda, which is traditional Indian medicine[4]. Mantra meditation is a method of meditation that enters the essence of existence through sound[5]. People increase their concentration through mantra recitation[6]. The sound of human speech has a vibrating effect on the entire nerve and endocrine system of our body and mantra resonates with the human body's breathing and nervous system or brain waves[7]. Not only the organs of the body, but also the waves of the psychological, emotional, and spiritual state of consciousness resonate with the vibration of the sound[8]. Sound waves create energy for natural healing; so mantra can be a tool to activate natural healing power.

Looking at the previous studies, Park Jung-hyun[9] presented the appropriate types of mantra for each stage of counseling and the effects of physical, psychological and spiritual treatment. Kim Jae-ok[10] revealed that mantra meditation was effective in increasing positive emotions, reducing negative emotions, and promoting psychological well-being among elderly people with depression and loneliness. In addition, Kim Tae-bun[8] and Lee Kyung-soon[7] discussed the effects of the sound waves of mantra recitation on the healing of the mind and body. Kwon Hee-sook and Cheong Mee-sook[11] found that mantra meditation increased self-compassion and decreased stress of office workers.

There are many different kinds of mantra, and Ayurveda explains the mantra that is suitable according to the constitutions. In Ayurveda, the constitution is classified into three categories according to the three biological substrates called Vata, Pitta, and Kapha in Sanskrit, which are sources of the physical life[6].

Vata refers to the temperament of the air, and is very active and hates sitting in one place for a long time. This constitution is quick to understand but short of memory and weak of will[12]. Vata is sensitive to stress, has great emotional agitation, and feels a lot of anxiety and fear[13]. Pitta is a temperament of fire, has good learning and concentration, and uses his/her energy and behavior efficiently[12]. Pitta is competitive and goal-oriented but tends to be angry and aggressive or wielding others under stress[6]. Kapha shows the temperament of water, and its movement and reaction are the slowest. But once Kapha starts anything, he/she never give up easily because Kapha is patient[12]. There is a lot of greed or obsession in stressful situations, and it is easy to feel depressed or lethargic[13].

Ji Su-hyun[11] confirmed that there are differences in volume, thickness and degree of damage of hair depending on the Ayurveda constitution. Cheong Mee-sook[14] conducted a basic study on the diseases by Ayurveda constitution of Koreans. In addition, Baek Jong-woon and Cheong Mee-sook[15] revealed through an empirical analysis that personality types based on Ayurveda's constitution affect work performance. Lee Jae-Gyeong and Cheong Mee-sook[16][17] studied on job satisfaction and job engagement of CPA, and on learning motivation of caregiver trainees according to Ayurveda personality type.

According to a study on the existing psychotherapy process, psychological pain is known to occur in the process of avoiding experience to suppress negative emotions rather than negative emotions themselves[18]. Mindfulness focuses on accepting negative emotions through attention and awareness rather than trying to circumvent or change them[19]. Mindfulness is perceived by accepting the present moment as it is. As such, the key attributes of mindfulness are attention and awareness of what is happening now.

Many studies have been conducted on the verification of the effectiveness of mindfulness' attention and awareness through mindfulness meditation. So, this study seeks to verify the effectiveness of mindfulness's attention and awareness through mantra meditation. This study also wants to analyze whether there is a difference in the attention and awareness through the constitutional distinction in Ayurveda.

2. Methods of Study

2.1 Subject

Initially, the study recruited 50 respondents through random sampling. Among them, 36 qualified for the first round of application and 10 on the second round. Six of them dropped out of the program due to personal reasons, thus, leaving the study with 40 participants. The respondents were office workers in D city, who agreed to participate in the study. The general characteristics of the study subjects are shown in [Table 1].

[Table 1] The General Characteristics of the Study Subjects

		N	%
Sex	Male	20	50.0
	Female	20	50.0

Age	30s	2	5.0
	40s	9	22.5
	50s	21	52.5
	60s	8	20.0
Academic background	University	32	80.0
	graduate school	8	20.0

2.2 Design of Study

This study was conducted from July 1, 2019 to February 29, 2020. In July, the researchers collected data, set up programs, and selected subjects for this study and received their consent. The study program ran from August 5 to November 20, 2019, once a week, from 7p.m. to 9p.m., with a total of 12 sessions.

In the intervention stage (1st and 2nd sessions), the researchers introduced this program and guided the Mantra meditation. Subjects examined the constitution, and tested Mindful Attention Awareness Scale. Then, they practiced the mantra, such as Shrim, Aim, and Sam, according to their own constitution.

In the awareness stage (3rd to 6th sessions), subjects did mantra 10 Om, 20 Shrim or Aim or Sam by constitution, and 10 Om. They realized their breathing and the tension or pain of their body and mind by performing a mantra that suits one's constitution. At this stage, the subjects noticed the causes by being aware of the pain in the body and recognizing the emotions that occur in the mind connected to the pain.

The healing stage(7th to 10th sessions) is the stage of empathy and healing of the recognized body and mind. subjects performed 3:2:2 (Breathing In: Staying Breathing: Breathing Out) 2:2:3 or 3:3:3 to suit their constitution, with 30 om or Shrim, or Aim.

Finally, the inner growth stage(11th and 12th sessions) is the stage of integrating body and mind healed through mantra meditation into one. Subjects tested the Mindful Attention Awareness Scale after the program.

2.3 Measurement Tool

This study used the Korean version of the Mindful Attention Awareness Scale(K-MAAS)[20] as the measurement tool. It translated Mindful Attention Awareness Scale(MAAS) developed by Brown and Ryan to suit the Korean culture. They saw that mindfulness had already included

an attitude of acceptance to the subject. Thus MAAS is a clear single factor: attention and awareness, unlike other measurements that are mindful of other attributes of mindfulness. The K-MAAS had a high internal agreement coefficient (α) of .87, and the correlation coefficient between question and total points also showed moderate strong correlation of .24 to .68. The questionnaire has a total of 15 questions, and it is required to evaluate how often the persons experience the situations corresponding to each question in their daily lives.

Ayurveda-type test paper developed by Hwang Sun-deok[21] was used for classification by Ayurveda constitution. The questionnaire consists of 8 physical questions and 12 psychological questions in three constitutions, with a total of 60 questions. Ayurveda-type test paper was shown the high reliability coefficient (α) of 0.761. Test papers are evaluated on a six-point scale of "not applicable", "sometimes applicable", and "mainstream".

2.4 Data Analysis

The IBM SPSS statistics 24.0 was used for data analysis. To verify the effects of mantra meditation on the mindful attention awareness, paired t-test was conducted using results of pre- and post- tests.

3. Results

3.1 The Effect of Mantra Meditation on the MAAS

To verify the effect of mantra meditation on the mindful attention awareness, the difference in mindful attention awareness scale of the pre- and post-test was analyzed, and the results were as shown in [Table 2].

[Table 2] Verification of Differences in the Effect of Mantra Meditation on the MAAS

		N	Mean	SD	<i>t</i>	<i>p</i>
Mindful Attention Awareness	Pre-test	40	60.78	8.19	-11.989	.000***
	Post-test	40	69.45	8.25		

*** $p < .001$

[Fig. 1] Graph of the Mean Value Change in [Table 2]

It increased by 8.67 from an average of 60.78 to an average of 69.45 with statistically significant differences ($t=-11.989$, $p<.001$). It can be said that the mantra meditation had a positive effect on the mindful attention awareness.

3.1.1 The Age-specific Effect of Mantra Meditation on the MAAS

The difference for each age on mindful attention awareness scale was analyzed to verify the age-specific effect of the mantra meditation on the mindful attention awareness scale. The results were as shown in [Table 3].

[Table 3] Verification of Age-specific Differences in the Effect of Mantra Meditation on the MAAS

Age		N	Mean	SD	Change	<i>t</i>	<i>p</i>
Under 40s	Pre-	11	57.82	8.931	+8.91	-6.123	.000***
	Post-	11	66.73	10.753			
50s	Pre-	21	60.67	7.605	+9.66	-10.101	.000***
	Post-	21	70.33	6.621			
60s	Pre-	8	65.13	7.661	+5.75	-4.112	.005**
	Post-	8	70.88	8.493			

** $p<.01$, *** $p<.001$

[Fig. 2] Graph of the Mean Value Change in [Table 3]

Those in their 40s and younger increased by 8.91 from 57.82 on average for pre-test to 66.73 on average for post-test. Those in their 50s increased by 9.66 from an average of 60.67 to an average of 70.33. Finally, those in their 60s increased by 5.75 from average of 65.13 to average of 70.88. All age groups had statistically significant differences ($p < .01$, $p < .001$). Depending on age, people in their 50s had the most positive impact on the mindful attention awareness scale, followed by those in their 40s or younger and those in their 60s.

3.1.2 The Effect by Educational Background of Mantra Meditation on the MAAS

The difference by educational background on mindful attention awareness scale was analyzed to verify the educational effect of the mantra meditation on the mindful attention awareness scale. The results were as shown in [Table 4].

[Table 4] Verification of Differences by Educational Background in the Effect of Mantra Meditation on the MAAS

Educational background		N	Mean	SD	Change	<i>t</i>	<i>p</i>
University	Pre-	32	60.97	8.716	+8.75	-11.140	.000***
	Post-	32	69.72	8.833			
Graduate school	Pre-	8	60.00	6.000	+8.38	-4.389	.003**
	Post-	8	68.38	5.630			

** $p < .01$, *** $p < .001$

[Fig. 3] Graph of the Mean Value Change in [Table 4]

University graduates increased by 8.75 from 60.97 on average to 69.72 on average, and graduate graduates by 8.38 from 60.00 to 68.38, all with statistically significant differences

($p < .01$, $p < .001$). According to educational background, university graduates have a slightly more positive effect on the mindful attention awareness than graduate school graduates.

3.2 The Effect of Constitutional Mantra Meditation on the MAAS

To verify the effect of constitutional mantra meditation on MAAS, the difference between pre-test and post-test was analyzed for each body type. The results are as shown in [Table 5].

[Table 5] Verification of Differences in the Effect of Constitutional Mantra Meditation on the MAAS

Constitution		N	Mean	SD	Change	<i>t</i>	<i>p</i>
Vata	Pre-	12	62.42	9.100	+7.83	-7.406	.000***
	Post-	12	70.25	8.946			
Pitta	Pre-	13	61.38	6.265	+11.00	-8.521	.000***
	Post-	13	72.38	6.526			
Kapha	Pre-	15	58.93	9.035	+7.34	-6.102	.000***
	Post-	15	66.27	8.405			

*** $p < .001$

[Fig. 4] Graph of the Mean Value Change in [Table 5]

Vata increased by 7.83 from 62.42 on average for pre-test to 70.25 on average for post-test, Pitta by 11.00 from 61.38 to 72.38, and Kappa by 7.34 from 58.93 to 66.27, with all three types having statistically significant differences ($p < .001$). Among the three types of constitution, Pitta had the highest mindful attention awareness effect through the mantra meditation, followed by Vata and Kapha.

3.3 Interpretations

To interpret the results of 3.1.1. and 3.1.2., an interpretation of the results of 3.2 is required. So, This study interprets 3.2. first. Before the program's implementation, the attention and awareness index was in the order of Vata, Pitta, and Kapha. Vata is sensitive to stress and that emotional agitation is large[13], so Vata recognizes one's condition the fastest. Kapha is apt to feel depressed or lethargic in a stressful situation[13]. It seems the result because depression affects cognitive decline[22]. Pitta's degree of change is much greater than the two constitutions. This can be attributed to Pitta's good learning and concentration, and goal-oriented characteristics[6][12].

For 3.1.1., the ratio of Vata by age is in the order of 40s or younger(27.3%), 50s(28.6%) and 60s(37.5%). Therefore, the index of mindful attention and awareness before the program is implemented is in the order of those in their 60s, 50s, and 40s or younger. The degree of change in the index after the program consists of an order of those in their 50s, 40s or younger, and 60s. This is the same order in which Pitta takes up the proportion of that age(42.8%, 27.3%, 12.5%). Also, Kapha is in reverse order of percentage in that age group(28.6%, 45.4%, 50%).

For 3.1.2, Vata's university graduation rate is 31.3% and the graduate school graduation rate is 25%. Therefore, before the program is implemented, the attention and awareness index of university graduates is higher than that of graduate school graduates. While in university graduates, Kapha's ratio(40.6%) is higher than in Pitta's ratio(28.1%), in graduate school graduation Pitta's ratio(50%) is twice that of Kapha(25%). Therefore, it is believed that the lack of significant differences in changes since the implementation of the program has been affected by the proportion of these members.

4. Conclusions

The purpose of this study is to find the effect of mantra meditation on MAAS. First, the index of the MAAS after mantra meditation increased with 8.67. The p-value is less than .001, so it can be determined that it is statistically significant. Therefore, it can be judged that mantra meditation is effective in improving the index of the MAAS. Since there is no prior study of mindfulness using mantra meditation, this study was compared with researches on the utilization of mantra. The studies of Lee Kyung-soon[5], Kim Tae-bun[6], Kim Jae-ok[8], and Kwon Hee-sook and Cheong Mee-sook[9] showed that mantra meditation reduced stress,

increased psychological well-being and positive emotions, and decreased depression and loneliness. It is consistent with the results of this study because it has been confirmed to have a positive effect of mantra meditation.

Second, because of the different applications of the mantra by Ayurveda constitution, the index of MAAS increased by 7.83 on average for Vata, 11.00 for Pitta, and 7.34 for Kapha. Therefore, by constitution, the index of MAAS improved in order of Pitta, Vata, and Kapha. Regarding Ayurveda constitution, the study by Cheong Mee-sook and Baek Jong-un[13] revealed that the Pitta type performed better than expected. The study by Cheong Mee-Sook and Lee Jae-Gyeong[15] showed that 72.8% of self-development cases were of the type Pitta. The greatest improvement in Pitta's mindful attention awareness is the result of Pitta's goal-oriented and achievement-oriented tendency.

The limitation of this study is that it is limited to one region and a few subjects. Therefore, future studies should have more study subjects and respondents should vary from across the country. The suggestions of this study are as follows. First, this study used a scale focused on attention and awareness of mindfulness. Therefore, it is deemed necessary to study which factors constitutional mantra meditation influences through research using a scale composed of multidimensional factors. Second, in Ayurveda, the recommended mantra varies depending on the constitution. Thus, it would be good to divide the experiment group by constitution, use different mantras for each group, and check the most suitable mantra by verifying the attention and awareness of mindfulness.

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