

# The Effect of Disability Awareness Improvement Program of University Students on Reducing Prejudices and Increasing Positive Attitude toward People with Disabilities

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## Abstract

The purpose of this study was to investigate the effectiveness of disability awareness improvement program of university students on reducing prejudice and increasing positive attitudes for the people with disabilities. 20 students who participated in the educational program for the improvement of disability awareness were selected in experiment group and 19 students who have not taken program were selected in control group. First, according to the results of the pre-test and post-test comparison on the effectiveness of the educational program for the improvement of disability awareness, there was no significant difference in the prejudice and positive attitude for the people with disabilities between pre and post-test in control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness, there was a significant difference in prejudice and attitude between the pre and post-test in experiment group. Second, before program, there was not significant difference in prejudice and positive attitude for the people with disabilities in the comparisons between the control and experiment group. However, after 15 weeks of educational program for the improvement of disability awareness, there was significant difference in prejudice and positive attitude between the control and experiment group ( $p < 0.001$ ). It is required to provide disability awareness improvement program for university students to reduce prejudices and increase positive attitude for the people with disabilities.

**Keywords:** Disability Awareness Improvement Program, University Students, Prejudice, Attitude

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## 1. INTRODUCTION

The number of people with disabilities is expected to increase further in the future due to the increase of traffic accidents, industrial accidents, the expansion of the types of disabilities through an aging society due to an extension of life expectancy and expansion of social participation. In spite of the increased number of people with disabilities, social perception for the people with disabilities is negative, and physical disabilities are considered as having emotional and psychological problems, or as being inferior to those without disabilities [1]. Because this prejudice for the people with disabilities is widespread in the society, it is difficult to maintain continuous social activities. In order to decrease prejudice for the people with disabilities, improving awareness of the people with disabilities is the top priority. The ultimate goal of welfare for the people with disabilities is to achieve social integration through full social participation. In addition, in order for people with disabilities to live a life as a healthy member of society, we need to help them to develop one's abilities and realize social integration.

In many studies, people with disabilities are perceived as defective, incompetent, and pathological, or those who has needs [2]. Due to the distorted perceptions and negative attitudes for the people with disabilities, the violations of human rights for the people with disabilities have been a hindrance to social integration.

According to the report of February 2018, 16.6% of high school graduates entered university. Although these are not a high proportion among all students with disabilities, the rate increased three times

compared to the rate of 5.2%, high school graduates with disabilities who entered university in 1998. Many studies have reported the problem such as university adaptation of students with disabilities. Specifically, it was found to be experiencing a lack of teaching and learning support, difficulty in adapting to college daily life, and difficulties in interpersonal relationships [3] [4]

Above all, university students play various roles as experts in society after graduation. In the workplace, they are likely to work with the people with disabilities in school, public institution as customers, supervisors, and co-workers [5].

The college student period corresponds to the early stage of adulthood, when college students grow out of a uniform framework and become independent subjects. It is time to establish one's ideology and ideas through various meetings and experiences. Therefore, how to perceive the people with disabilities during college students is likely to have a significant influence on the attitudes for the people with disabilities [6] [7]. Therefore, a program for improving college students' awareness and attitudes for the people with disabilities is essential. This is because a negative social perception leads to social distance and social prejudice and it prevents the social integration of the people with disabilities into society [8] [9].

The purpose of study was to investigate the effectiveness of disability awareness improvement program for university students for reducing prejudice and increasing positive attitude for the people with disabilities. Through educational program for the improvement of disability awareness for 15 weeks, students have learned causes of disability, definition of disability, characteristics of disability, education strategy for the people with disabilities. The specific purpose of the study is as follows.

1. What is the effectiveness of disability awareness improvement program for reducing prejudice for the people with disabilities?
2. What is the effectiveness of disability awareness improvement program for increasing positive attitudes for the people with disabilities?

## 2. SUBJECT AND METHODS

In this study, 39 university students were selected as research subjects. 20 students who have taken educational program for the improvement of disability awareness were selected in experiment group and then 19 students who have not taken educational program for the improvement of disability awareness were selected in control group. In the first class, the instructor explained the purpose of the study in relation to the educational program for the improvement of disability awareness. The characteristics of the participants in the study are as follows.

Table 1. General Characteristics of the Subjects

	Experiment Group (n=20)	Control Group (n=19)
Male/Female	14/6	3/16
Age (yrs)	22.3±1.2	22.9±1.1
Values are shown as the mean±SD.		

In order to investigate the effect of disability awareness improvement program for reducing prejudices and improving positive attitude that university students have for the people with disabilities, the survey questionnaire of Yang Jieun[1] was modified.

The survey questionnaires were developed as three parts, which include demographic information, prejudice for the people with disabilities, and attitudes for the people with disabilities.

Part I included demographic questionnaires of the research participants. Part II included survey questionnaires for evaluating prejudice for the people with disabilities such as appearance of people with disabilities, symptoms of disability, marital life & nurturing child, employment and relationship with coworkers, performing daily tasks, social human right, NIMBY syndrome, social service and government's support. The survey consists of a 5-point likert scale questionnaire that can assess university students' prejudice and attitudes for the people with disabilities. If university students have a positive recognition for the people with disabilities, university students get a low score in the prejudice domain and attitude score in the positive attitude score. Part III includes a questionnaire that evaluates participants' attitudes for the people with disabilities.

In order to investigate the effectiveness of disability awareness improvement program, 20 students who participated in the educational program for the improvement of disability awareness were selected for the experiment group and 19 students who have not taken education program were selected for the control group. Then, the surveys were implemented for assessing prejudices and attitudes for the people with disabilities.

The contents of the education program include the causes of disability, definition of disability, characteristics of disability, educational strategies for the people with disabilities. The survey for investigating the prejudices and attitudes for the people with disabilities was implemented in the first class of education program for the improvement of disability awareness and the same survey was conducted again at the end of the education program to improve disability awareness.

The lower the value of the prejudice against people with disabilities, it can be interpreted as having a lower prejudice. The higher the value of attitude for the people with disabilities, it can be interpreted as having a positive attitude. Then the results of survey were compared. The contents of education program are as follows

Table 2. Content of educational program for the improvement of disability awareness

Week	Content of Program
1	Inclusion of people with disabilities
2	Causes of intellectual disability, definition of intellectual disability, characteristics of intellectual disability, educational strategies for people with intellectual disabilities
3	Causes of learning disability, definition of learning disability, characteristics of learning disability, educational strategies for people with learning disabilities
4	Causes of emotional and behavior disability, definition of emotional and behavior disability, characteristics of emotional and behavior disability, educational strategies for people with emotional and behavior disabilities
5	Causes of autism spectrum disorder, definition of autism spectrum disorder, characteristics of autism spectrum disorder, educational strategies for people with autism spectrum disorder
6	Causes of communication disorder, definition of communication disorder, characteristics of communication disorder, educational strategies for people with communication disorder
7	Causes of hearing impairment, definition of hearing impairment, characteristics of hearing impairment, educational strategies for people with hearing impairment
8	Causes of visual impairment, definition of visual impairment, characteristics of visual impairment, educational strategies for people with visual impairment
9	Causes of physical disability, definition of physical disability, characteristics of physical disability, educational strategies for people with physical disabilities

10	Definition of the gifted person, characteristics of the gifted person, educational strategies for the gifted
11	How to use assistive technology as educational approach
12	Cooperative strategies for the improvement of inclusion and social participation
13	What is universal design
14	What is behavior support of people with disabilities
15	The intro of law and policy for supporting people with disabilities

### 3. RESULTS

First, according to the results of the pre and post-test comparison on the effectiveness of the educational program for the improvement of disability awareness, there was not significant difference statistically in the prejudice domain for the people with disabilities between pre-test( $2.4 \pm 0.3$ ) and post-test( $2.3 \pm 0.3$ ) in control group. However, 15 weeks of participating in the educational program for the improvement of disability awareness, there was a statistical difference between the pre-test( $2.2 \pm 0.1$ ) and post-test( $1.7 \pm 0.3$ ) in experiment group( $p < 0.001$ ).

In specific, there was not significant difference in the prejudice domain of symptoms of disability between pre-test( $3.0 \pm 0.5$ ) and post-test( $2.3 \pm 0.4$ ) in control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness, there was a statistical difference between the pre-test( $2.1 \pm 0.8$ ) and post-test( $1.6 \pm 0.4$ ) in experiment group( $p < 0.001$ ). There was not significant difference statistically in the prejudice domain of marital life & nurturing children between pre-test( $2.4 \pm 0.5$ ) and post-test( $2.4 \pm 0.6$ ) in control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness, there was a significant difference statistically between the pre-test( $2.2 \pm 0.4$ ) and post-test( $1.6 \pm 0.6$ ) in experiment group( $p < 0.05$ ). There was not significant difference statistically in the prejudice domain of employment and relationship with their colleagues between pre-test( $2.2 \pm 0.6$ ) and post-test( $2.1 \pm 0.5$ ) in the control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness, there was a significant difference between the pre-test( $2.4 \pm 0.5$ ) and post-test( $1.8 \pm 0.6$ ) in experiment group( $p < 0.01$ ). There was no significant difference statistically in the prejudice domain of performing daily tasks between pre-test( $2.3 \pm 0.5$ ) and post-test( $2.2 \pm 0.3$ ) in the control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness, there was a significant difference statistically between the pre-test( $2.4 \pm 0.5$ ) and post-test( $1.9 \pm 0.5$ ) in experiment group( $p < 0.01$ ). There was not significant difference statistically in the prejudice domain of NIMBY syndrome between pre-test( $2.1 \pm 0.6$ ) and post-test( $2.1 \pm 0.4$ ) in the control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness, there was a significant difference statistically between the pre-test( $2.0 \pm 0.4$ ) and post-test( $1.5 \pm 0.5$ ) in experiment group( $p < 0.05$ ). There was not significant difference statistically in the prejudice domain of social service and government's support between pre-test( $2.4 \pm 0.6$ ) and post-test( $2.8 \pm 0.7$ ) in the control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness, there was a significant difference statistically between the pre-test( $2.5 \pm 0.6$ ) and post-test( $2.0 \pm 0.6$ ) in experiment group( $p < 0.05$ ).

Also, there was no statistically significant difference in the positive attitudes of university students for the people with disabilities between pre-test( $3.9 \pm 0.5$ ) and post-test( $3.8 \pm 0.7$ ) in the control group. However, after 15 weeks of participating in the educational program for the improvement of disability awareness,

there was a significant difference statistically between the pre-test( $4.2 \pm 0.5$ ) and post-test( $4.6 \pm 0.6$ ) in experiment group ( $p < 0.001$ ).

Second, before program, there was not significant difference statistically in the prejudice for the people with disabilities in comparisons between the control and experiment group. However, after 15 weeks of educational program for the improvement of disability awareness, there was a statistical difference in the overall prejudice for the people with disabilities between the control and experiment group ( $p < 0.001$ ). In specific, there was not significant difference statistically between two groups before the experiment in terms of prejudice on symptoms of disability, employment and relationship with their colleagues, performing daily tasks, social right of people with disabilities, and NIMBY syndrome, however there was a significant difference statistically after the experiment in those variables between control and experiment group.

Also, before program, there was not significant difference statistically in the positive attitudes for the people with disabilities in the comparisons between two groups. However, after education program for the improvement of disability awareness, there was a significant difference statistically between control and experiment group ( $p < 0.001$ ).

Specific results comparing prejudice and positive attitudes of university students for the people with disabilities are presented in the table 3, figure1, figure2.

Table 3. Comparing prejudice and attitude between the pre and post-test within the Groups

		Experiment Group (n=20)		Control Group (n=19)	
		Pre	Post	Pre	Post
Prejudice	Appearance of people with disabilities	2.7(0.5)	2.3(0.7)	2.4(0.6)	2.6(0.8)
	Symptoms of disability	2.1(0.8)	1.6(0.4) *	3.0(0.5)	2.3(0.4)
	Marital life & nurturing child	2.2(0.4)	1.6(0.6)*	2.4(0.5)	2.4(0.6)
	Employment and relationship with their colleagues	2.4(0.5)	1.8(0.6)**	2.2(0.6)	2.1(0.5)
	Performing daily tasks	2.4(0.5)	1.9(0.5)**	2.3(0.5)	2.2(0.3)
	Social right	1.6(0.8)	1.7(0.4)	2.1(0.4)	1.8(0.5)
	NIMBY syndrome	2.0(0.4)	1.5(0.5)*	2.1(0.6)	2.1(0.4)
	Social service and government's support	2.5(0.6)	2.0(0.6)*	2.4(0.6)	2.8(0.7)
	Total	2.2(0.1)	1.7(0.3) ***	2.4(0.3)	2.3(0.3)
Positive attitude toward people with disabilities		4.2(0.5)	4.6(0.6)*	3.9(0.5)	3.8(0.7)
Values are shown as the mean(SD).					
Significant difference within the groups * $p < 0.05$ , ** $p < 0.01$ , *** $p < 0.001$					

Figure 1. Comparing the sub-variable of prejudice and attitude between the pre-test and post-test in control group

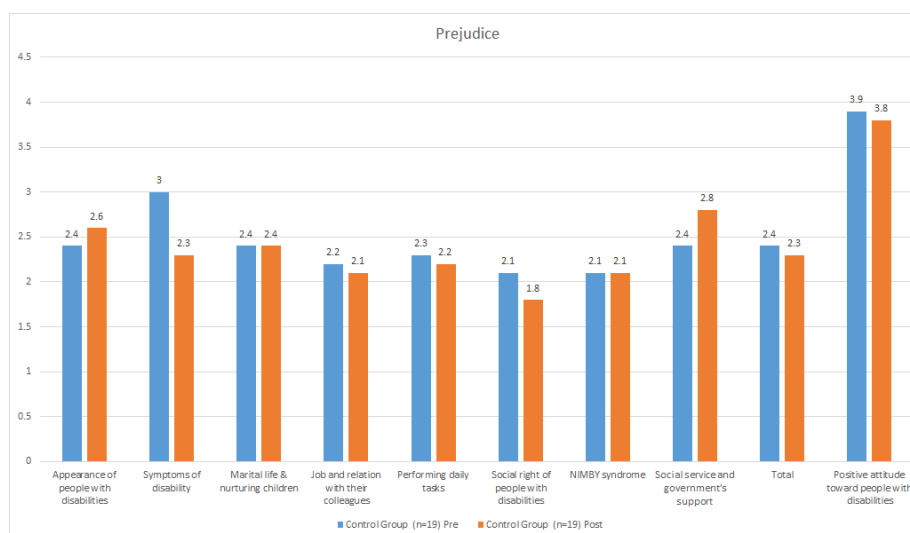
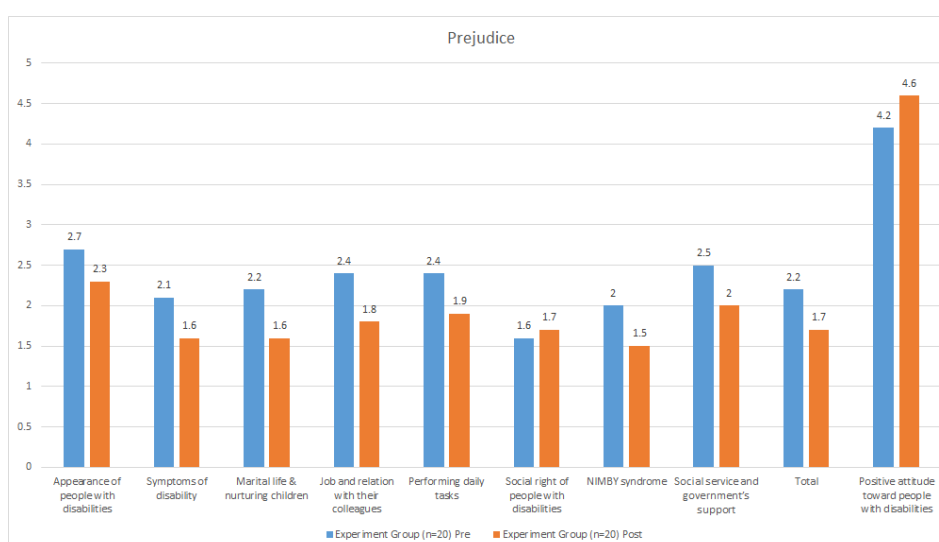


Figure 2. Comparing the sub-variable of prejudice and attitude between the pre-test and post-test in experiment group



## 4. DISCUSSION AND CONCLUSION

There was a significant difference in the degree of prejudice and positive attitude between university students who were educated about the causes of disability, definition of disability, characteristics of disability, education strategy for the people with disabilities and students who were not educated through disability awareness improvement program. There was not significant difference in prejudice among university students before starting the education program, but the students who participated in the education program showed a significant difference statistically compared to the university students who have not taken the education program. University students who have taken the education program showed significant differences in their prejudice against symptoms such as personality and characteristics of the people with disabilities, and also the prejudices related to social adaptation, responsibilities of people with disabilities, passive attitude, and independent living skills [5]. There were also differences in prejudice against the social rights of the people with disabilities and against NIMBY syndrome such as the construction of welfare facilities or special schools. [6]. Also, there was significant difference in the positive

attitudes toward people with disabilities between university students who have taken education program to improve disability awareness and those who have not. Students who have taken an education program are more likely to feel that they can work with people with disabilities, spend time together, or make friends with people with disabilities. [7] [8].

Experiment groups that applied human rights education programs were found to be more effective in improving anti-biasing than comparative groups that did not apply human rights education programs during the same period. These findings are lined with studies that lower the prejudice of students through human rights education in schools and bring positive changes in the perception of the people with disabilities [9]. Experiment groups that applied human rights education programs were found to be more effective in improving anti-biasing than comparative groups that did not apply human rights education programs during the same period. These findings are lined with studies that lower the prejudice of students through human rights education in schools and bring positive changes in the perception of the people with disabilities [8].

Currently, in our society, the incidence of not only congenital disabilities but also acquired disabilities is rapidly increasing. Therefore, it is recognized that education program for improving disability awareness is significant for integration of people with and without disabilities. If physical integration is carried out without proper understanding of disability education, a lack of understanding of each other can lead to negative experiences in communication or interpersonal relationships, which can deepen the negative image of people with disabilities. By accurately evaluating the effectiveness and efficiency of existing educational program for understanding disabilities, we need to develop better education methods (audio-visual data, education materials related to characteristics of persons with disabilities, and programs suitable for the level of education subject.

In conclusion, it is required to provide educational program for the improvement of disability awareness including the theoretic and practical knowledge about the causes of disability, definition of disability, characteristics of disability, education strategy for the people with disabilities for the university students to reduce the prejudices for the people with disabilities and improve positive attitudes of university students for the people with disabilities. Furthermore, if it is possible, a network can be formed around the main institutions in charge of these educational program for improving disability awareness, so that all data are shared, and various ideas are exchanged to develop a lot of data to improve the quality.

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