Survey on Physical Education Student Teachers' Attitudes toward Teaching Students with Special Needs

(overview essay)

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Abstract: *With the implement of revised Regulations on Education for Persons with Disabilities on May 1. 2017, more and more students with special needs will be educated in general schools in China. As a psychological tendency, attitude affects the behavior to a certain degree (Zhang Hong-tao & Wang Er-ping. 2007). As physical education teachers in the future, PE student teachers' attitude toward individuals with special needs will affects their behaviors to some extent. In order to predict the reserve of primary and secondary school PE teachers, it is necessary to investigate the attitudes of PE student teachers toward students with special needs. The survey was carried in three universities, Beijing Normal University, Shaanxi Normal University, and Southwest University, and the participants are freshmen and senior students majored in physical education. Out of the 485 participants that responded, only 2 (0.004%) had taken special education courses, and none had taken adapted physical education courses. However, out of the 470 participants that responded, 173 (36.8%) have been around or studied with individuals with special needs. Results indicate that PE student teachers have more positive attitude to teach students with obesity, which followed by physical disabilities and other health impairments; the female had more positive attitudes than male. Especially, a statistically significant difference was found that attitudes toward obesity between genders, $p<.05$; freshmen had a more positive attitude to teaching students with special needs in general PE class. A statistically significant different ($p<.05$) was found between the PE freshmen and senior student teachers in attitude toward teaching students with obesity and students with other health impairments. A very high statistically significant different ($p<.01$) was found between PE freshmen and senior student teachers in outcomes of teaching students with obesity in regular classes.*

Keywords: *student physical education teachers, students with special needs, attitudes, general school*

1 Introduction

At present, the population of individuals with disabilities is about 85 million in China. The educational situation remains at low level for many years. With the development of society and economy, this issue attracts more and more attention recently (Huang Zhi-cheng, 2003; Chen Shu, Luo Yong-hua, & Huang Yi-zhu, 2012). Equal rights for individuals with disabilities have become a focus in China (Deng & Manset, 2000). According to Deng and Manset, at least 210,000 new special schools are required to establish for meeting separate education of nearly 5 million children with disabilities. Currently, enrolling students with disabilities in general schools may be an enforceable approach. In addition, the State Council of China recently announced the revised Regulations on Education for Persons with Disabilities, which will be implemented on May 1, 2017 (REPD-2017: the revised Regulations on Education for Persons with Disabilities, 2017). It is a sound support for individuals with special needs to receive education and improve their educational level in mainstreaming schools. Article 17 in REPD-2017 stipulates that, in accordance with the provisions of the Compulsory Education Law of the People's Republic of China, if the individuals with disabilities can adapt to the ordinary schools life or can be educated in ordinary schools, they should enter the general school to accept compulsory education.

Inclusion confers many benefits in terms of socialization and curricular access, while brings challenges for teachers who may not be adequately prepared to teach students with special needs. Article 58 in REPD-2017 stipulates that "inclusion education refers to integrate the education of students with disabilities to the greatest degree into general education." In《A Teacher's Guide to Including Students with Disabilities in Regular Physical Education》 by Martin E. Block (1994), we can also find the very like statement: "inclusion is the practice of educating all students, including students with disabilities, in regular education and regular classes"(p19–20). However, inclusion is a long time needed process. It is generally accepted that studying together in regular education and regular classes benefits for individuals with and without special needs.

For PE student teachers, the attitudes formed during training and education are likely to affect their behavior during their teaching careers (Hastings & Oakford, 2003). Another research argued that inadequate training regarding students with disabilities caused teachers to exhibit negative attitudes toward students with disabilities and toward the practice of inclusion (Subban & Sharma, 2005). In addition, Antonak & Larrivee (1995) think that teachers' negative attitudes toward students with disabilities created an expectation for low achievement for those students, as well as lowered social status for those students.

PE student teachers' attitude toward individuals with special needs

Physical education is important to promote health-related lifestyle of individuals with and without special needs. A quality school physical education program can play a key role in individuals' health since it provides opportunities for participation in physical activity. But many students with special needs are not active included during physical education classes. With the increasingly included situation of students with special needs in general physical education classes, the role of PE teachers is very important in the development of PE programs for students with special needs in general physical education.

Shelley E. Taylor, Letitia Anne Peplau, and David O. Sears (1994) point that having direct personal experience with an issue gets us to think and talk about it more than if it is remote to us. So attitude-behavior consistency will be greater when we have direct experience with the attitude object than when we only hear about it from someone else or read about it.

The PE student teachers' attitudes will have an impact on the future educational process whatever they are negative or positive. Especially their attitudes toward teaching students with special needs appear to effect on students. Usually, these students have little or no experience in working with individuals with disabilities (Rizzo & Vispoel, 1992). Ajzen, the America researcher, in his theory of Planned Behavior states that an individual's experiences influence and molds one's attitude and actions towards others (Icek Ajzen, 1991). Rizzo and Vispoel (1992) also suggested that teachers with more experience working with students with special needs seem to have more favorable attitudes toward the students with special needs than did teachers with less related experience.

As future teachers, PE student teachers' attitude toward individuals with special needs will affect their behaviors to some extent. Research on their attitudes was for preparing future PE teachers to successfully integrate students with special needs into appropriate educational environments. In order to predict the reserve of primary and secondary school PE teachers, it is necessary to investigate the attitudes of PE student teachers toward students with special needs. Based on these, this study carried out for measure the attitudes that PE student teachers hold toward teaching students with special needs.

2 Methodology

Participants

The participants of the current study were purposive sampling, including freshmen and seniors at the Southwest University, Shanxi Normal University, and Beijing Normal University in China. PE student teachers participation in the study was voluntary.

Each PE student teacher signed and dated the informed consent form attached to the survey. All the participants were preparing to be mainstreaming teachers in all over the country. A total of 485 PE student teachers participated in this study, 80% (n= 393) were male and 20% (n=92) were female (see Table 1). There are 8.9% (n = 43) from Beijing Normal University, 45.6% (n = 221) from Shanxi Normal University, and 45.6% (n = 221) from Southwest University.

Table 1: *Demographic information of the questionnaire sample (n = 485)*

Variables	Category	Frequency	%
Gender	Male	393	81.0
	Female	92	19.0
Grade	Freshman	239	49.3
	Senior student	246	50.7
University	Beijing Normal University	43	8.9
	Shaanxi Normal University	221	45.6
	Southwest University	221	45.6

Survey Instrument

Data were collected using the PEATID-III (Sherry L. Folsom-Meek & Terry L. Rizzo, 2002). For reflecting the composition of students with special needs in general schools of China, the labels of disabling conditions and demographic section were modified. The instrument was translated into Chinese and validated before data collection. According to expert comments, the original types of disabilities were adjusted to three types of special needs in this study (i.e., obesity, physical disability, and other health impairments).

The PEATID III questionnaire was composed of 12 items answered on a five-point Likert-type scale (i.e., 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree). It measured three areas: (a) outcomes of teaching students with special needs in regular classes (6 items); (b) effects on student learning (4 items); and (c) need for more academic preparation to teach students with special needs (2 items). Six items are positively phrased and six are negatively phrased. The negatively worded questions were converted to positive scores in the statistical analyses. Scale mean scores are based on the sum of the item scores. To derive proper scale means, the scores for statements that are negatively phrased are reversed (i.e., 5,6,7,8,9, and 10).

The outcomes of teaching students with special needs in regular classes was composed of: (5) would not be accepted by peers, (6) would disrupt harmony of the class, (7) would cause unfair burden on teachers, (9) would cause more work for the teacher, (10) should not be taught in regular classes as require too much teacher

time, and (12) should be taught in a regular class whenever possible (Folsom-Meek & Rizzo, 2002). If respondents scored low on this area, it would indicate that the outcome of teaching students with special needs in the regular classroom was not viewed to be ideal. If respondents scored high, it would indicate that teaching students with special needs in the regular classroom was viewed as ideal for the teacher or for the students. That is, respondents believed students with special needs should be taught in the regular classroom.

The effects on student learning represented students with varying abilities learning together in physical education (Folsom-Meek & Rizzo, 2002). These four items were: (1) both groups of students work together, (2) working together motivates students without special needs, (3) students with special needs will learn more rapidly in classes with peers, and (4) students with special needs will have more positive self-concept as a result of students being successful in regular classes. Higher scores would indicate that respondents viewed students with varying abilities as benefitting from learning together in physical education. A low score would indicate that respondents viewed students with special needs in regular classes with typical students as not benefitting from learning together (i.e. low positive self-concept, students not working together).

The need for more academic preparation to teach students with special needs includes two items to identify the need for more additional coursework and academic preparation. These two items were: (8) do not have sufficient training necessary to teach students with special needs, and (11) need more course work and training before feel comfortable teaching both students with and without special needs. Higher scores would indicate that teachers feel they do not need more academic preparation in order to teach students with special needs effectively. If respondents had lower scores on this area, this would indicate that teachers felt they need more academic preparation in order to teach students with special needs effectively.

Definition of Terms

PE student teachers. In order to encourage more young people to being a teacher, the Chinese government implemented the Fee-Waiver Policy for teacher training programs in six normal universities that are supervised by the Ministry of Education, including Beijing Normal University, Shanxi Normal University, Southwest University, East China Normal University, Central China Normal University and Northeast Normal University from the year of 2007. The PE student teachers in this study are students who enrolled in Physical Education undergraduate academic degree programs in three of these six universities for professional educators whose training and education prepares them to teach.

3 Results

It is important that scales are reliable when selecting scales to include in the study. There are a number of different aspects to reliability. One of the most commonly used indicators of internal consistency is Cronbach's alpha coefficient. Ideally, the Cronbach's alpha coefficient of a scale should be above. 7. (Julie Pallant, 2001). The Cronbach's alpha coefficient in this case is. 906, so the scale can be considered reliable.

The influence of experience with and without studying with individuals with special needs

The participants have positive attitudes toward teaching students with special needs in this study. The average score of the three categories of special needs is higher than the average score of PEATID III (36). The mean to obesity is 42.03, which is the highest score, followed by the mean to physical disability (40.25) and the mean to other health impairment (39.92) (see table 2). Out of the 485 participants that responded, only 2 (0.004%) had taken special education courses, and none had taken adapted physical education courses. However, out of the 470 participants that responded, 173 (36.8%) have been around or studied with individuals with special needs. A t-test was conducted to look at the differences between the independent variable be around or study with individuals with special needs (be and not be around or study together) and the dependent variable PEATID III toward three categories of special needs. The result shows no statistically significant.

Table 2: *Mean, Standard Deviation and T-test for categories according to experience*

Categories of special needs	Experience	N	Mean	Std. Deviation	Std.Error Mean	T
Obesity	no	302	42.08	5.609	.323	.277
	yes	168	41.93	6.074	.469	
	total	470	42.03	5.768		
Other health impairments	no	302	39.87	5.128	.295	-.335
	yes	168	40.04	5.091	.393	
	total	470	39.92	5.115		
Physical disability	no	302	40.23	5.057	.291	-.147
	yes	168	40.30	5.236	.404	
	total	470	40.25	5.111		

The differences between genders

The differences between gender (male and female) were found in all three areas of PEATID III by t-test. The female attitude scores higher than male in general what-

ever toward teaching students with obesity, physical disabilities and other health impairments (see table 3). It means the female had more positive attitudes than male. Especially, a statistically significant difference was found in attitudes toward obesity between gender ($p < .05$). The attitude of female was significantly better than male. The mean of the attitudes toward types of special needs from high to low were: obesity (male, 41.64; female 43.10), physical disabilities (male, 39.96; female, 40.87), and other health impairments (male, 39.71; female, 40.37). This means that PE student teachers, including male and female, have more positive attitude to teach students with obesity, which followed by physical disabilities and other health impairments.

Table 3: *Mean, Standard Deviation and T-Test for variables according to genders*

Variables	Gender	N	Mean	Std. Deviation	Std. Error Mean	T
Outcomes1	male	393	22.10	3.846	.194	-1.541
	female	92	22.77	3.235	.337	
Effects1	male	393	13.00	3.161	.159	-1.604
	female	92	13.58	2.829	.295	
Need1	male	393	6.53	1.212	.061	-1.553
	female	92	6.75	1.219	.127	
Total 1	male	393	41.64	5.828	.294	-2.206*
	female	92	43.10	5.233	.546	
Outcomes2	male	393	20.64	3.391	.171	-1.034
	female	92	21.04	3.224	.336	
Effects2	male	393	12.54	2.907	.147	-.322
	female	92	12.65	2.771	.289	
Need2	male	393	6.52	1.182	.060	-1.102
	female	92	6.67	1.130	.118	
Total 2	male	393	39.71	5.198	.262	-1.121
	female	92	40.37	4.530	.472	
Outcomes3	male	393	20.68	3.463	.175	-1.366
	female	92	21.22	3.116	.325	
Effects3	male	393	12.77	2.839	.143	-.426
	female	92	12.91	2.768	.289	
Need3	male	393	6.51	1.111	.056	-1.796
	female	92	6.74	1.088	.113	
Total 3	male	393	39.96	5.221	.263	-1.540
	female	92	40.87	4.478	.467	

Note. Outcomes= outcomes of teaching students with special needs in regular classes; effects= effects on student learning; need= need for more academic preparation to teach students with special needs. 1= obesity; 2= other health impairments; 3= physical disability, * $p < .05$

The difference between freshmen and senior

The average score in PEATID III of PE freshmen is higher than the average score of PE senior student teachers. It indicated that freshmen had a more positive attitude to teaching students with special needs in general PE class. From a grade perspective, the participants, including freshmen and seniors, have a more positive attitude to teach students with obesity, which followed by physical disabilities and other health impairments (see table 4). A statistically significant difference ($p<.05$) was found between the PE freshmen and senior student teachers in attitude toward teaching students with obesity and students with other health impairments. A very high statistically significant difference ($p<.01$) was found between PE freshmen and senior student teachers in outcomes of teaching students with obesity in regular classes.

Table 4: *Mean, Standard Deviation and T-Test for variables according to grades*

variables	Grade	N	Mean	Std. Deviation	Std.Error Mean	T
Outcomes1	freshman	239	22.94	3.369	.218	4.173**
	senior	246	21.54	3.963	.253	
Effects1	freshman	239	13.39	2.762	.179	1.996*
	senior	246	12.83	3.392	.216	
Need1	freshman	239	6.45	1.136	.073	-2.179*
	senior	246	6.69	1.279	.082	
Total1	freshman	239	42.78	5.37		
	senior	246	41.07	5.975		
Outcomes2	freshman	239	21.04	3.056	.198	2.080*
	senior	246	20.41	3.610	.230	
Effects2	freshman	239	12.71	2.588	.167	1.075
	senior	246	12.43	3.136	.200	
Need2	freshman	239	6.47	1.129	.073	-1.556
	senior	246	6.63	1.211	.077	
Total2	freshman	239	40.21	4.723		
	senior	246	39.47	5.390		
Outcomes3	freshman	239	21.05	3.036	.196	1.749
	senior	246	20.52	3.713	.237	
Effects3	freshman	239	12.96	2.603	.168	1.252
	senior	246	12.64	3.019	.192	
Need3	freshman	239	6.56	1.071	.069	.158
	senior	246	6.54	1.148	.073	
Total3	freshman	239	40.58	4.538		
	senior	246	39.70	5.562		

Note. Outcomes= outcomes of teaching students with special needs in regular classes; effects= effects on student learning ; need= need for more academic preparation to teach students with special needs. 1= obesity; 2= other health impairments; 3= physical disability, * $p<.05$; ** $p<.01$.

4 Discussion

Article 44 and 45 in REPD-2017 stipulate that Normal Universities and comprehensive universities with a discipline of teacher education should set special education courses, so that students have the basic knowledge and skills of special education to meet the needs of the attendance of students with disabilities. In addition, it should increase the proportion of special education content and knowledge related in the ordinary teacher training, and improve the general teachers' special educational ability. While at present, collegiate physical education programs in most of universities of China have not supported introductory adapted physical education courses to promote competencies with regard to teaching students with special needs.

Although attitudes toward persons with disabilities have improved in recent years, negative attitudes such as social rejection and greater social distance still exist, and are recognized as barriers to success for people with special needs in social, educational, and vocational contexts. Most PE student teachers in the study agreed with including students with special needs in general physical education classes, but were only willing to accept students with mild special needs in their own classes.

PE student teachers' attitudes reflect some stereotype about individuals with special needs in social context. Differences between subgroups become more important than differences among individuals within categories as the basis of impression formation (Marilynn B. Brewer, 1996). Affected by the social environment, inclusive education still need a long time in China.

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