Attitudes of the Citizens of Kanazawa and Its Vicinity towards the Physically Challenged

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Abstract. Public attitudes towards disability and the resulting prejudicial behaviour affects the lives of physically challenged persons. This article explores the attitudes of residents of a provincial city in Japan towards physically challenged persons. It involved measurement of attitudes on the 20-item, Form O of the ‘Attitudes Toward Disabled Persons (ATDP) Scale’. The 211 respondents consisted of 142 female and 68 male non-physically challenged adults with a mean (and standard deviation) age of 47.30 (15.98) years. The respondents were asked to answer certain statements about physically challenged people and to indicate how much they agreed or disagreed with each of the statements on a 6-point Likert scale. The mean ATDP score of all respondents was 68.84. The highest mean ATDP scores were the 30’s age group, followed by 20’s, 40’s, 50’s, 60’s, and 70’s age groups. Those with a more positive ATDP were either pursuing a helping profession or had experienced such work. The males and females showed no difference in ATDP. Physiotherapists should be aware of the gap in perception between the ideal attitude that health professionals would like society to have and the reality. They should, therefore, endeavour to promote a ‘barrier-free’ mind among members of the community.

Key words: Attitude, Physically challenged person, Non-physically challenged person.

INTRODUCTION

Attitudes towards people with disabilities are learned, emotionally toned predispositions that represent values and beliefs1). The importance of investigating attitudes to people with disabilities has recently been recognised in Japan2, 3). Attitudes are contributing factors to behaviour, and may have a strong influence over it under some conditions. The attitudes and behaviour of lay community members, health professionals, and the behaviour of clients are interconnected in ways which have important implications for social integration, and hence, for the prevailing philosophy of human services.

Background of the study

Normalization (working, living, and receiving education and health services in the community alongside non-physically challenged persons) has increasingly become a goal in Japan for all people with disabilities and for those providing services for the physically challenged. Emphasis on normalization has brought these two communities closer together than previously, suggesting a need for a better understanding of the dynamics underlying reactions to the physically challenged. There is a need, then, for studies that reflect the influence of attitudes on reactions to people with disabilities in the context of increasing frequency of contact. This especially applies to the general
public because laypersons’ attitudes may also have an impact on the way the physically challenged person interacts with his/her external environment.

Statement of the problem
There is a requirement for increased awareness among the non-physically challenged persons of the City of Kanazawa and its vicinity to recognise the needs of people with disabilities. Given the importance of attitudes, the importance of their appropriate measurement is self-evident. Therefore, the present study was conducted to provide data on some available attitude measures to assess laypersons’ attitudes towards the physically challenged.

Review of the literature
The attitudes of health professionals and others towards people with disabilities have only recently been the subjects of discussion in Japan. Study of both health and welfare professionals and administrative personnel of medical and welfare institutions revealed that the persons in hands-on professions held positive attitudes towards persons with disabilities. In another study a survey, using the ‘Attitudes Towards Disabled Persons (ATDP) Scale’, was conducted among 225 first-year students from five health professions—nursing, radiography, laboratory technology, physiotherapy, and occupational therapy—regarding their knowledge about people with disabilities. The results indicated that the nursing students had a positive ATDP and that the ATDP of females was more positive than that of males. In addition, the ATDP of freshmen and transfer students did not differ, suggesting that the latters’ past clinical placements and clinical experience following qualification as health professionals did not seem to influence their ATDP in any positive way.

METHODS
Design
This was a descriptive, cross-sectional study of the attitudes of non-physically challenged adults towards the physically challenged, as measured by the aforementioned ATDP scale and the relationship of selected demographic variables and aspects of the respondents’ occupational background to ATDP scores. Underlying the rationale of the ATDP is the assumption that there are at least two views towards the physically challenged. One of these views is that the physically challenged person is “different from” the non-physically challenged person, suggesting that the disability of the physically challenged person pervades the total personality and influences certain characteristics which are separate from the disability. The other view is that, although the physically challenged person may be limited in certain aspects physically, he/she does not, in general, differ significantly from the non-physically challenged. Implicit in the design of the ATDP is the assumed direct relationship between attitudes of “acceptance” of the physically challenged and those that the physically challenged person does not differ significantly from the non-physically challenged person; or, in a negative sense, an assumed direct relationship between attitudes of “non-acceptance” of or prejudice towards the physically challenged and those that the physically challenged person is different from the non-physically challenged.

The independent variables were age, gender, and work experience of the respondents in the helping professions. The dependent variable was the score obtained on the ATDP.

Five hypotheses were presented. Hypothesis one: The ATDP of the non-physically challenged persons in the City of Kanazawa and its vicinity, Japan, would be less accepting than those in the United States of America (U.S.). Hypothesis two: The younger the respondents of the population designated in this study, the more accepting the ATDP would be. Hypothesis three: There would be no difference in ATDP between females and males within the population designated in this study. Hypothesis four: Within the population designated in this study, those who were working would have more positive ATDP than those without work. Hypothesis five: Within the population designated in this study, the persons in the helping professions at present or in the past would have a more positive ATDP than those in non-helping professions.

Sample
The respondents consisted of 220 non-physically challenged adults living in the City of Kanazawa and its vicinity, Ishikawa, Japan. The survey was identified by code numbers. The physically challenged population in this geographic region was excluded from the survey because it had been
shown in the test conducted in the U.S that physically challenged persons consistently score high4).

The survey
Attitudes towards physically challenged persons were measured by the ATDP-Form O scale developed by Yuker and his associates9), and it has a 20-item Likert scale (Table 1). Of the three forms developed by the above authors, Form O is the most valid one compared to Forms A and B, and it is a general form, non-specific to any certain disability. The respondents were asked to express the extent of their agreement with each item on a scale ranging from (+3) I agree very much to (–3) I disagree very much. The neutral option is not explicitly provided.

Four procedures have been used in evaluating the reliability of the ATDP4): test-retest, split-half, equivalence, and alpha. Reliability values for the ATDP range from 0.66 to 0.96 with a median of 0.80. Construct validity of the ATDP was assessed by examining the relationship of ATDP scores to scores on other variables.

The instructions to respondents included a guarantee of confidentiality, the need to respond to every item and the absence of ’right’ answers. The ATDP takes approximately 15 min to complete.

In scoring the ATDP the first step is to change the signs of the items with positive wording; specifically, statements 2, 5, 6, 11, and 12. Then, the algebraic sum of all the item scores is obtained. The sign of the sum is then reversed, from negative to positive or positive to negative. The total scores obtained in this fashion could range from –60 to 60. To eliminate negative values a constant or 60 is then added to make all of the scores positive. The resulting score range is from 0 to 120 with a high score reflecting positive, accepting attitudes; low scores reflecting negative, rejecting attitudes. If more than 10 per cent or three of the items are left blank the test is considered not scorable. If 10 per cent or fewer items are omitted, the completed items

<table>
<thead>
<tr>
<th>Table 1. Attitudes Toward Disabled Persons (ATDP) Scale - Form O</th>
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<tbody>
<tr>
<td>ATDP - Form O</td>
</tr>
<tr>
<td>Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2,+3, or –1, –2, –3: depending on how you feel in each case.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>+3: I AGREE VERY MUCH</th>
<th>+2: I AGREE PRETTY MUCH</th>
<th>+1: I AGREE A LITTLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>–1: I DISAGREE A LITTLE</td>
<td>–2: I DISAGREE PRETTY MUCH</td>
<td>–3: I DISAGREE VERY MUCH</td>
</tr>
</tbody>
</table>

1. Parents of disabled children should be less strict than other parents.
2. Physically disabled persons are just as intelligent as non-disabled ones.a
3. Disabled people are usually easier to get along with than other people.
4. Most disabled people feel sorry for themselves.
5. Disabled people are the same as anyone else.a
6. There shouldn’t be special schools for disabled children.a
7. It would be best for disabled persons to live and work in special communities.
8. It is up to the government to take care of disabled persons.
9. Most disabled people worry a great deal.
10. Disabled people should not be expected to meet the same standards as non-disabled people.
11. Disabled people are as happy as non-disabled ones.a
12. Severely disabled people are no harder to get along with than those with minor disabilities.a
13. It is almost impossible for a disabled person to lead a normal life.
14. You should not expect too much from disabled people.
15. Disabled people tend to keep to themselves much of the time.
16. Disabled people are more easily upset than non-disabled people.
17. Disabled persons cannot have a normal social life.
18. Most disabled people feel that they are not as good as other people.
19. You have to be careful of what you say when you are with disabled people.
20. Disabled people are often grouchy.

(aChange algebraic sign of response.)

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are scored as usual with the customary constant added to eliminate negative values. This is equivalent to assigning a neutral value to the omitted items.

Included in the questionnaire was a column on demographic data that was used to collect information on the occupational background and personal characteristics of the respondents.

**Procedures**

The questionnaire was administered to 220 respondents during a period from June to November 1999. The twenty English-written statements in Form O had previously been translated into Japanese by one (SO) of the authors\(^3\). The method of the study was explained to the respondents before the survey took place, and their written informed consent was obtained.

**Data analysis**

Data were analysed using descriptive statistics, the one-way analysis of variance (ANOVA), and Student’s \( t \) test. Differences among age groups were examined with ANOVA. The difference in ATDP with age was determined by comparing mean ATDP scores of each age group using Student’s \( t \) test. Student’s \( t \) test was also used to examine the gender and occupational differences in ATDP. The level of significance was set at 0.05. Following the data collection, nine (4.1%) incomplete questionnaires were excluded from the analyses.

**RESULTS**

The ratio of female vs. male of 211 (95.9%) respondents was 142 to 68 with one person of unknown gender. The mean age of the respondents was 47.30 years, with a range of 20 to 79 years, and a standard deviation of 15.98 years. The number (and percentage) of 20’s age group was 32 (15.2%), 30’s 49 (23.2%), 40’s 31 (14.7%), 50’s 35 (16.6%), 60’s 44 (20.9%), and 70’s 20 (9.5%), respectively (Fig. 1). One hundred and sixty-two (78.7%) respondents were working, of whom 40 (19.0%) were engaged in the helping professions or had experienced such work. Twenty-seven (12.8%) respondents were without work, and 18 (8.5%) did not indicate whether they were in work or not (Fig. 2). The descriptive statistics on the ATDP are shown in Table 2. The mean ATDP score for all the respondents was 68.84 with hypothesis one accepted.

**Comparison among age groups**

The highest score on the ATDP was obtained by a 45-year-old female nursing assistant and a 63-year-old retired woman, and the lowest score by a 73-year-old retired woman. The highest mean ATDP score was obtained by the 30’s age group, followed by 20’s, 40’s, 50’s, 60’s, and 70’s age groups, respectively. The one-way ANOVA indicated a large variance among the six age groups, necessitating the comparison of each age group using Student’s \( t \) test. Thus, the result demonstrated that the 30’s age group showed a significantly higher ATDP score than the other age groups that, in turn, showed a significantly higher ATDP score than the 70’s age group (Table 3). There was no significant difference in the mean ATDP scores among the 20’s, 40’s, 50’s, and 60’s age groups. Thus, hypothesis two was generally accepted.

**Comparison between genders**

There was no significant difference in the mean ATDP scores between females and males (\( t=0.55, \) Table 2). Thus, hypothesis three was accepted.
Comparison using occupational status

Those who were working showed a significantly higher mean ATDP score than those without work ($t=0.00$, Table 2), thus, hypothesis four was accepted. The number and percentage of job-holders and jobless are shown in Fig. 2.

Comparison between experienced and non-experienced in the helping professions

Those who were in the helping professions or had experienced such work showed significantly higher mean ATDP scores than those without such experience ($t=0.00$, Table 2). Thus, hypothesis five was accepted.

**DISCUSSION**

**On overall ATDP scores**

The mean ATDP score for females was 69.35 and for males 68.09, both of which were several points below those of the respective scores obtained in the U.S. 35 years ago. The Americans would quite possibly score higher today because of the positive change in the underlying psychological attitudes and assumptions concerning the worth and place of physically challenged people in U.S. society today. Thus, this result demonstrates that the ATDP of the non-physically challenged persons in the City of Kanazawa and its vicinity is slightly less accepting.
than that of the U.S. citizens 35 years ago.

In the realm of health care it is generally known that Japan trails behind the West by 20 to 30 years. The findings of this study suggest that the same can be said for the ATDP. In fact, only in the last few years have the governments at national, regional and local levels begun promoting a barrier-free environment, though it is, at present, limited to ‘hardware’ such as some public facilities. What we need, at the same time, is a ‘barrier-free’ mind of the people, that is to say, both the hardware and software must work in unison to effect harmonious development for normalization of the physically challenged.

Ototake, himself congenitally and severely disabled, states: ‘Understanding minority groups such as the physically challenged and foreign nationals in Japan requires much exposure on the part of the native people…. Appreciation of others is, at the outset, needed to remove psychological barriers against the disabled…. People in multi-culturally and multi-racially diverse societies such as the U.S. can live more harmoniously because they accept individual differences and characteristics as positive traits of the person; if one started demanding unitary conformity in such a society it could not function…. Meanwhile, Japan, which used to be an agricultural society, experienced geographical and, consequently, psychological isolation in the past, which was conducive to sameness and conformity, so that being different from the other person is considered a negative trait…. Thus, the people tend to be afraid of anybody, including the physically challenged, whom is different from themselves, which leads to prejudice and discrimination’. If we consider the less acceptable ATDP of the respondents in this survey, we may ask: “Are they 35 years behind those in the U.S.?”

In terms of industrial development the City of Kanazawa has remained behind the rest of Japan since the Meiji Restoration of 1868. On the one hand, this situation has preserved well the traditional way of life; on the other hand, conservatism and exclusivism have largely remained intact, possibly reflected in the results of the ATDP scores of the people. It may be interesting to investigate the ATDP in terms of regional characteristics of Japanese society.

Another factor for a less positive ATDP of the people in Kanazawa and its vicinity may be the geographical and climatic characteristics of this region. The City of Kanazawa is situated on the side of the Japan Sea and has high precipitation including heavy snow during the winter months, which has originated the saying “Do not leave your umbrella behind, even if you have forgotten to take your packed lunch with you”. The attitude underlying this saying is not conducive for the physically challenged to venture out, and limits contact with members of the community. It may be interesting to compare the ATDP of Kanazawa residents with those in a similar city facing the Pacific Ocean where the climate is much milder.

On age groups and occupational status

In this survey the number of jobless people accounted for a quarter of the 60’s and three quarters of the 70’s age groups. These people, therefore, are most likely retired individuals and unemployable people because of their more advanced age. Thus, the skewed ratio of the results for occupational status and age group may have had a strong influence on the least acceptable ATDP from the older generation. Not working outside one’s home may be less conducive to socialization. Further, psychological resistance to change grows with advancing age, so that it may be difficult for the older generation to develop the notion of a ‘barrier-free’ mind. Therefore, ATDP may be influenced not by age alone, but by other factors such as non-socialization, which is in agreement with Hakuno’s finding. Thus, the existence of more negative and stereotypic attitudes as proven by the present investigation may be a function of lack of information and contact on the part of Kanazawa residents.

On gender

The fact that there was no gender difference in the ATDP score is in agreement with Hakuno’s study, but not with Ogiwara’s. This discrepancy should be interpreted as almost the same as the age difference because there was a large discrepancy in the average age of respondents in the latter’s study and the present one; that is, 23.21 (SD=3.76) vs. 47.30 (SD=15.98) years.

Experienced helping professionals

Concerning the influence of experience in the helping professions over the people’s attitude, Hakuno states that those who are engaged in
hands-on professions have positive ATDP, and the result of our present study confirmed this fact. The reason for this is two-fold: The respondents must have had sufficient contact with the physically challenged, and/or they possibly had an affinity towards the helping professions because of their positive ATDP.

CONCLUSION

The results of the present study do not warrant optimism. However, although statistically not significant, the younger generations tend to have a positive ATDP. The authors would ideally like the general public to score a minimum of 75 to 80 points on the ATDP-O scale because, based on the authors’ past experience, people with this level of ATDP tend to get on well in a health care environment. Therefore, we, as physiotherapists, must endeavour to promote modification of the ATDP of the public in general. Such a strategy could include inculcation of a positive ATDP in relatives, acquaintances, and friends of clients, through the mass media, and campaigns conducted during our annual ‘Physiotherapy Week,’ etc. In this way, the underlying psychological attitudes and assumptions concerning the worth and place of physically challenged people in society would change gradually in the future.

Limitation of the study

Because verbal solicitation was employed in this study, participation of some respondents may not have been entirely voluntary. Further, some of the respondents, especially those over 40’s or more, stated that they had difficulty in understanding some of the questionnaire, though they seemed reluctant to admit to their inability to interpret the statements.

REFERENCES