Attitudes of nurse professionals and nursing students towards children with disabilities. Do nurses really overcome children’s physical and mental handicaps?

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Background: Many health professionals and nurses, who are involved in the care of disabled children, do not exhibit the essential sensitivity and appropriate attitudes towards them, resulting in a poor quality of nursing care.

Aim: The objective of this study was to investigate the attitudes of nurse professionals (paediatric nurses) and nursing students towards disabled children.

Patients and methods: The present study is a comparative study. The sample consisted of 228 first-year nursing students, 90 post-diploma nurses attending MSc degree course and 123 nurse professionals who are employed in paediatric hospitals. After obtaining permission from the hospitals and the educational settings and informing about the subjects of the study, data were collected using the paediatric Attitude Towards Disabled Person Scale (ATDP).

Results: Overall nurses’ attitudes appeared to be poor (mean ATDP score 61.7 ± 14.2). However, the post-diploma nurses had significantly higher ATDP scores than first-year students and paediatric nurses (*P* < 0.001). In addition, first-year students had significantly higher scores than paediatric nurses (*P* = 0.047).

Across the sample, females hold significantly more positive attitudes than males (*F* = 9.5, *P* = 0.002), while age did not have any significant effect.

Conclusions: Carefully designed curricula can influence the attitudes of nursing students towards children with disabilities. Special courses for treating disabled children should be integrated to the basic nursing studies. Moreover, continuing hospital education can change paediatric nurses’ attitudes towards children with disabilities.

Keywords: Attitudes, Disabled Children, Greece, Nursing Students, Paediatric Nurses

Introduction

Sources of information from ancient times suggest that people with disabilities have always been treated differently, in relation to the rest of the community. In Greek mythology, Homer, in his
famous epic called 'Iliada' (8th century BC), reports that God
Hephaestus was thrown out from Olympus mountain by his
mother Goddess Hera, because he was physically disabled
(Kazantzakis & Kakridis 1997). In ancient Sparta, children with
disabilities were left to die in an abyss. Even today, our society,
despite scientific progress and technological development, treats
disabled children with prejudice, stigma and labelling (Holmes

Review of the literature
The problem is worsened when even health professionals and
nurses, who are involved in the care of disabled children, do not
exhibit the essential sensitivity and appropriate attitudes towards
them. Negative attitudes of nursing staff towards disabled people
are well documented. Such attitudes can inhibit children’s adap-
tation to disability and they can act as barriers to the rehabilita-
tion process (Cervantez-Thomson et al. 2003; Holmes 1999/
2000; Saw 1995; Schwartz & Sivan 2001; Scullion 2000; Tait &
Purdie 2000). White & Olson (1998) explored and compared
attitudes of various categories of health professionals. They
found that occupational therapists had significantly higher
scores as compared with nurses or physical therapists (White &
Olson 1998). Packer et al. (2000) examined the attitudes to dis-
ability in Russia and compared the attitudes of three groups of
students. The findings reported that occupational therapy and
post-diploma nursing management had significantly more posi-
tive scores than the other groups.

Zaromatidis et al. (1999) found that the Greek–Americans had
more positive attitudes towards persons with disability than the
Greeks. In a 3-country study, respondents in the USA had the
most positive attitudes, followed by respondents from Denmark
different aspects of medical student attitudes towards persons
with disability from Canada and USA. The results indicated that
there were no differences between the medical groups.

Greek people do not have the essential knowledge to handle
individuals with disabilities or help them properly. Also, many
health care professionals do not know the proper way of taking
care of these persons. Families of disabled children complain of
communication problems and poor relationships with health
professionals, delays in detection and treatment, insufficient
information, guidance and support, inadequate specialized
holistic care and lack of home care services (Kottaridi 2000).
Moreover, in a study that evaluated young persons’ attitudes
wards persons with disability, such attitudes were ranged from
negative to neutral (Moschovi et al. 1998).

No study has been performed to examine nurses’ attitudes
towards persons with disability in Greece. Therefore, awareness
of such attitudes seems to be of utmost importance.

Aim of study
The aim of the present study was to investigate nurses’ attitudes
towards children with disability at various educational levels and
professional status. The term ‘disability’ in this study refers to any
kind of physical or mental disability observed in children.

Methods

Sample
A comparative descriptive design was used for this study. A total
of 441 nursing students and professional paediatric nurses were
selected. Subjects for this study were 228 first-year nursing stu-
dents from the Faculties of Nursing from National and Kapode-
striyan University of Athens and Higher Technological and
Educational Institute of Athens (52% of the total sample),
90 (20%) post-diploma nurses attending MSc Degree course
at the University of Athens and 123 (28%) nurse professionals
employed in two public paediatric hospitals in Athens.

Ethics
Prior to the completion of the instrument, permission was
obtained from the hospitals and the educational settings. The
participants were informed regarding anonymity and confiden-
tiality of data. The questionnaire was administered to the three
groups of participants on separate days. A short explanation for
completion of the Attitude Towards Disabled Person (ATDP)
scale was given to the participants. The respondents were asked
to circle the number indicating their agreement or disagreement
with each statement on a 0–5-point scale. Each of the three
sample groups took approximately 20–25 min to complete the
questionnaire.

Instrument
Data were obtained by administering the ATDP-form and a
demographic data sheet. The ATDP-form was developed and
designed by Yuker et al. (1960) in order to generally measure
attitudes towards disabled people (Yuker et al. 1960). The ATDP-
form is a questionnaire that is frequently used to identify the
attitudes towards disabled persons. It is a well-tested, valid and
reliable tool; it consisted of a 20-item, 6-point Likert-type scale;
and is generic, with non-specific sections for a certain disability
(Yuker et al. 1962). In the present study, the ATDP-form was
found to be internally consistent, stable and reliable with split-
half reliability coefficients ranging from 0.75 to 0.85, and test–
retest reliability values that ranged from 0.66 to 0.89.

Ratings of the questions have a range from +3 (agree very
much) to −3 (disagree very much). Range of scores was calcu-
lated from 0 to 120 in this study. For participants without dis-
ability, higher scores represent a more accepting and positive attitude towards children with disability. The questionnaire has been translated into more than 20 languages, including Greek, and over the years has been used in Greek studies (Moschovi et al. 1998).

Statistics
All statistics were calculated with Statistical Package for Social Sciences (SPSS Inc., Chicago, IL, USA), version 13.0 for Windows. Descriptive statistics were calculated to describe the groups within the sample. Continuous data which followed the normal distribution are summarized as mean ± standard deviation (SD). The Kolmogorov–Smirnov test was used to test the normality of the distribution of the continuous variables. The internal consistency of the items used to form the ATDP scales was assessed by calculating the Cronbach’s alpha. An alpha ≥0.8 was regarded as satisfactory. Independent t-tests were used to compare ATDP scores between groups. Two-factor analyses of variance (ANOVA) were used to compare mean attitude scale scores and the interaction of gender and professional status. Two-tailed P values of less than 0.05 were considered to indicate statistical significance. The goal of the study was to determine if there were differences in attitudes towards children with disabilities on the basis of professional status, referred in this study as professional status, the very effect being measured. However, to examine the relationship for the entire sample, age was ignored in further analyses. The mean ATDP score for female was 62.4 ± 14.3, while for male it was 58.8 ± 13.8. An independent t-test was calculated for males and females of the entire sample, and it was found that females held significantly more favourable attitudes than did males towards children with disabilities (t(11006) = 2.1, P = 0.04). Thus, the effects of gender were controlled in subsequent analyses.

To determine differences in attitudes towards children with disabilities between first-year nursing students, post-graduate nursing students and nurse professionals, two-factor ANOVA’s were used to compare the three groups controlling for gender. There were significant differences in ATDP scores among the groups and each of the factors (professional status and gender) was significant in controlling for the other. The mean ATDP score for the first-year nursing students was 61.2 ± 15.7 and for the post-graduate students 69 ± 15.7 and for the nurse professionals 57.4 ± 12.7. Scheffe’s post hoc comparisons were performed to determine which professional groups were different from the others.

Findings
The internal consistency of the items was calculated as 0.80 (Cronbach’s alpha = 0.80). The mean age ± SD of all subjects was 24.6 ± 9.3 years. Demographic characteristics of the population studied are shown in Table 1. The mean ATDP score was 61.7 ± 14.2 (range 26–101).

It was necessary to examine age as a possible predictor of attitudes. However, to examine the relationship for the entire sample would be meaningless because age would be highly correlated with professional status, the very effect being measured.

Because first-year nursing students and post-graduate ones had relatively narrow age ranges, to obtain an accurate measure of the age effect it was necessary to isolate the sub-sample of nurse professionals. A Pearson’s correlation coefficient was calculated for age and ATDP scores for the nurse professionals (r = -0.10, P = 0.2). The nurse professionals were then separated into male and female groups because gender is related to attitudes towards children with disabilities. Age was not significantly correlated with ATDP scores in either sub-sample (males: r = -0.004, P = 0.99; females: r = -0.13, P = 0.17). According to these findings, age was ignored in further analyses. The mean ATDP score for female was 62.4 ± 14.3, while for male it was 58.8 ± 13.8. An independent t-test was calculated for males and females of the entire sample, and it was found that females held significantly more favourable attitudes than did males towards children with disabilities (t(11006) = 2.1, P = 0.04). Thus, the effects of gender were controlled in subsequent analyses.

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Table 2 Scheffe’s post hoc comparisons according to educational and professional status

<table>
<thead>
<tr>
<th>Professional status</th>
<th>Mean difference</th>
<th>95% Confidence interval for mean difference</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-diploma nurses MSc (c)*</td>
<td>First-year nursing students</td>
<td>7.8</td>
<td>3.6–11.9</td>
</tr>
<tr>
<td>Post diploma nurses MSc (c)†</td>
<td>Paediatric nurses†</td>
<td>11.6</td>
<td>6.9–16.1</td>
</tr>
<tr>
<td>First-year nursing students</td>
<td>Paediatric nurses</td>
<td>3.8</td>
<td>0.04–7.5</td>
</tr>
</tbody>
</table>

*MSc degree candidates.
†Nurse professionals, employed in paediatric hospitals.
First-year nursing students had significantly higher ATDP scores than nurse professionals ($P = 0.047$). The mean ATDP score for females was 62.4 ± 14.3, while for males was 58.8 ± 13.8. Gender was a significant factor with females having more positive attitudes than males ($F = 9.5, P = 0.002$). There is no significant professional status by gender interaction ($F = 1, P = 0.4$).

Discussion
The results of the present study highlight a generally negative attitude towards disabled children among this sample of Greek nursing students and nurse professionals who are employed in paediatric hospitals, as the mean scores obtained from participants were around the middle of the measurements. In a previous study that was performed 10 years ago in Greece among high school, senior medical students and young parents with healthy children, it was found that attitudes ranged from negative to neutral (Moschovi et al. 1998). These results are comparable with that of the present study, showing that negative attitudes towards children with disabilities are rather characteristics of the Greek society as a whole, and have not improved over the years.

While nurses’ attitudes may reflect those of the society, nurses have a role and a ‘heavy’ responsibility to influence behavioural change towards disabled people through education and caring action. The results of this study indicate that post-diploma nurses, through their continuing education, became more favourable towards children with disabilities. It has been suggested that carefully designed curricula can alter the attitudes of nursing students towards children with disabilities (Antonak & Livneh 1988; Chenoweth et al. 2004; Seccombe 2007; Wai & Man 2006). On the contrary, the scores of the nurses who are employed in paediatric hospitals were significantly lower than those of post-diploma and even first-year nursing students. This finding might be because of the well-documented shortage of nursing staff in our country that reflects on a very difficult and stressful working environment. Concerns about how this issue can be addressed should be raised. Probably, there is a need for an immediate increase in the proportion of nursing staff according to patients’ number. Moreover, educational programmes that focus in sustenance of the positive attitudes developed through the educational process are necessary.

In this study, it seems that women had significantly higher attitude scores in comparison with men. Earlier research on this matter has been inconclusive. Yuker et al. (1960) reported that in a total of 13 studies, five resulted in higher ATDP scores for women and two resulted in higher ATDP scores for men. There were also six studies that found no gender-related differences (Yuker et al. 1960). However, more recent studies among students of medical or nursing schools, found that women express more favourable attitudes towards individuals with disabilities (Au King & Man 2006; Tervo et al. 2002; Thompson et al. 2003). These findings in combination with the fact that women are the majority among nursing students suggest that educational interventions to change these attitudes positively may capitalize on this difference. Female nursing students must be encouraged to be leaders in those portions of nursing school curriculum that deal with persons with disability (Chenoweth et al. 2004; Seccombe 2007).

Limitations
The present study contains certain limitations that must be mentioned. The sample used was limited to educational and work settings located in the area of Athens. Therefore, it might not be representative of the entire nurse professionals and nursing students in Greece. Also, other variables, such as previous work or other experience and contact with disabled persons, were not examined. A further limitation of our study was its cross-sectional design. Longitudinal studies assessing the effects of nursing education and other intervening variables on students’ attitudes towards children with disabilities are necessary to fully understand how attitudes are created, sustained and most importantly, maintained.

Nursing implications
In our study, there was a poor score indicating nursing students’ and paediatric nurses’ attitudes towards children with disabilities. This finding may reflect the lack of the nursing education to prepare nursing students for treating children with disabilities. Thus, interventions for changing nurses’ attitudes towards children with disabilities should target two groups: (a) nursing students and (b) nurses as professionals, especially those who work in paediatric hospitals or in the community. Nursing educators should have the responsibility to inspire and empower nursing students through appropriate courses handling these children. Furthermore, continuing education through hospital seminars based on children with disabilities may result in the adoption of a positive attitude towards them. We also found that female nurses held significantly more favourable attitudes than male nurses towards these children. Nursing used to be a traditionally ‘female occupation’. However, a lot of males decide to work as nurses, resulting in an increased number of male nurses in the near future. Based on the finding of our study, it will be of great importance for male nurses to attend special courses for treating children with disabilities as a part of their basic nursing studies. Future studies may include comparisons of nursing students’ or paediatric nurses’ attitude towards children with disabilities before and after taking courses or seminars for treating such people.
Conclusions

Our findings suggest that there is a negative attitude towards children with disabilities from both nursing students (pre- and post-diploma) and paediatric nurses. As nursing students’ as well as paediatric nurses’ attitudes may reflect the behaviour of the majority of the Greek society towards these individuals, there is an urgent need for changes. It is of great importance to enrich nursing educational schedules with special courses for treating and handling children with disabilities. Therefore, nurses will be the pioneers whose positive attitudes towards children with disabilities can change the behaviour of the majority of the Greek society and these individuals can achieve a worthy quality of life.

Author contributions

V. Matziou and H. Brokalaki provided supervision. P. Galanis was responsible for data analysis. Both E. Gymnopoulou and P. Perdikaris collected data, and P. Perdikaris wrote the article.

References


