

ORIGINAL PAPER

NURSING STUDENTS' ATTITUDES TOWARDS THE ELDERLY IN THE CZECH REPUBLIC

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Abstract

Aim: The aim of the cross-sectional study was to assess attitudes of nursing students towards the elderly and to determine whether they are influenced by their age, field, type and current year of study. **Design:** Cross-sectional study. **Methods:** The research sample comprised 459 nursing students (nursing assistants, and nursing students on a bachelor's and master's degree course). To collect data we used the *Kogan's Attitude towards Old People Scale* (KAOP) which is designed to measure attitudes toward the elderly. Good psychometric properties were found in the Czech version of KAOP (Cronbach alpha > 0.7). **Results:** The attitudes towards the elderly were quite balanced; 55% of nursing students reported a slightly positive attitude and 42 % demonstrated a slightly negative attitude toward the elderly. The highest KAOP score was recorded in students on the master's degree course. A statistically significant difference was found in students' attitudes towards the elderly according to their level of education ($p < 0.01$) and age ($p < 0.05$). **Conclusion:** Nursing education should include programs and interventions focusing on improving attitudes of students towards the elderly and their motivation for working with them.

Keywords: aging, attitudes, nursing students, old people.

Introduction

The aging of the world's population is an important social, demographics, public health and economic problem. According to Czech demographic prognoses and the United Nations Organization, in the middle of the 21st century, the Czech Republic, together with Italy and Greece, may have the highest number of elderly adults in the world (MPSV, 2013). The number of people over 80 years of age is expected to have quadrupled. For this reason, the National Action Plan of Preparation for Aging in the Czech Republic for the period from 2013 to 2017 includes, as its primary objectives, a focus on intergenerational cooperation, strengthening intergenerational relations, and increasing respect for the old. The document is based on international principles laid down as long ago as 2002 in the Madrid International Action Plan on Aging, which also emphasizes recognition of the social, cultural, economic, and political contribution of elderly people and society's attitude towards them.

To promote intergenerational solidarity and cooperation, and to provide high quality social and

health care for the elderly at a time when the population is aging, it is relevant to focus on the nursing students' attitudes and other social and health fields of study, and thereby to prevent prejudice and ageist attitudes towards the older generation.

Health care workers (including nurses) are the risk groups for developing ageist attitudes. They care for a lot of ill or dependent elderly (Doherty, Mitchell, O'Neill, 2011). Ageist attitudes towards elderly people among nurses, healthcare professionals or doctors negatively affect the health of elderly and patient care. It can create problems of communication (Harwood, Williams, 1998; Zverev, 2013). It is reason why is very important to learn about aging for nursing students (Zhang et al., 2016). As early as 1985, Melanson and Downe-Wamboldt pointed out that nurses do not elect to work with the old people. The attitudes of nursing students toward the elderly are thought to influence their decision whether or not to work with them (In McCracken et al., 1995). Nursing students' motivation for working with the elderly should be strengthened in curricula. The study of the health-care needs of the elderly and human aging should form part of the undergraduate curriculum (Muangpaisan, Intalapaporn, Assantachai, 2008). The training programs and their changes or official academic curricula should be established on the best available evidence (Bernardini Zambrini et al., 2008).

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In the Czech Republic, nurses are trained in both non-university and university (bachelor's, master's, and other postgraduate degree) and non-university (practical nurse) programs. Part-time courses are open to working nurses who need to complete their higher education. Subjects focusing on the promotion of positive attitudes towards the elderly are included in all levels of study, especially in the master's degree course in Geriatric nursing. Research into nursing students' attitudes towards the elderly has not yet been implemented in the Czech Republic.

An attitude is defined by social psychologists as: "a tendency to evaluate an entity with some degree of favour or disfavour, ordinarily expressed in cognitive, affective, and behavioural responses" (Eagly, Chaiken, 1993). It is needed to measure attitudinal responses by using standardized and well-tested instruments (Matarese et al., 2013). Several scales have been developed to evaluate attitudes towards the old people. The Kogan's Attitude towards Old People Scale – KAOP (1961) has been used quite frequently. It was created in English (Kogan, 1961), and was then validated in Turkish (Kiliç, Adibelli, 2011), Italian (Matarese et al., 2013) and Swedish versions (Söderhamn, Lindencrona, Gustavsson, 2001). Its language reflects how society viewed elderly people almost 40 years ago (Hilt, 1999).

Aim

The aim of the present study was to assess attitudes of nursing students towards elderly and to determine whether they are influenced by their age, field, type and current year of study. The assessment of attitudes is important for planning the nursing students' geriatric education.

Methods

Design

A cross-sectional study.

Sample

The survey sample comprised 459 nursing students. It was made up of students from the Health-care assistant study program ($n = 213$) from two secondary schools and full-time and part-time students on a bachelor's degree course in Nursing ($n = 116$) and a master's degree course in Nursing ($n = 130$) at two universities in the Czech Republic.

Data collection

To collect the data we used the *Kogan's Attitude towards Old People Scale* (KAOP), which was designed to measure feelings toward the elderly. The scale was developed by Kogan in 1961. It does not

contain medical terminology, but has a social context (Kogan, 1961). As well as being used for health workers, it is also used to determine the attitudes of society. The scale consists of 17 items that reflect negative sentiments toward elderly people and another 17 items which are the reverse of these. The first subscale (Kogan's Attitudes towards Older People negative: OP-) contains items making unfavorable statements about older people. The second subscale (Kogan's Attitudes towards Older People positive: OP+) contains matched favorably worded items. The score of OP- and OP+ ranged from 17 to 119. The KAOP was designed as a Likert scale with six-point response categories ranging from 1 (strongly disagree) – 7 (strongly agree), with a neutral score of 4 assigned in case of failure to respond to an item. The total score ranges from 34 to 204, with higher total scores indicating more positive attitudes. We translated the scale into Czech, using a backwards and forwards translation method.

There were a series of questions to compile demographic information, which included age, gender, and type of study.

Data analysis

A version of SPSS, v. 21 was used for data analysis. The distribution of attitude score was subjected to tests of normality (The Shapiro-Wilk test of Normality). The Shapiro-Wilk test of Normality ($p = 0.082$) indicated normality of the distribution of total score. To compare the mean total score (OP+ and OP-) of the various groups of respondents, the t-test and ANOVA were used. A two-tailed p value of less than 0.05 was considered to be statistically significant. A correlation analysis (Spearman's correlation coefficient, r_s) was performed to investigate the relationship between age, year of study, and the overall attitude score (OP+ score and OP- score).

Internal consistency of the Czech version of KAOP was determined using Cronbach's alpha (α): acceptable minimum 0.7 (Terwee et al., 2007) and the corrected item-total correlation: acceptable minimum 0.4 (Ware, Gandek, 1998).

Results

Students' sociodemographic characteristics

The mean age was 23.0 years ($SD = 7.8$; range 17–55 year). The proportion of males ($n = 11$) and females ($n = 448$) reflected the actual gender ratio of students in the colleges in the Czech Republic. Differences between the three study groups are summarized in Table 1. The mean age of full-time nursing students was 19.5 ($SD = 2.3$) years and of part-time nursing

Table 1 The demographic characteristics of the sample (n = 459)

	Nursing assistant n (%)	Nursing: bachelor degree n (%)	Nursing: master degree n (%)	Total n (%)
Gender				
female	205 (96.2)	115 (99.1)	128 (98.5)	448 (97.6)
male	8 (3.8)	1 (0.9)	2 (1.5)	11 (2.4)
Age (mean – SD)	18.0 (0.8)	27.6 (8.5)	27.1 (8.6)	23.0 (7.8)
≤ 18 years	166 (77.9)	2 (1.7)	0 (0)	170 (37.0)
19–24 years	47 (22.1)	59 (50.9)	81 (62.3)	185 (40.3)
≥ 25 years	0 (0)	55 (47.4)	49 (37.7)	104 (22.7)
Type of study				
present	213 (100)	45 (38.8)	86 (66.2)	344 (74.9)
part-time	0 (0)	71 (61.2)	44 (33.8)	115 (25.1)

SD – standard deviation

students 33.7 (SD = 8.7). The age differences were statistically significant ($p < 0.001$).

Reliability of the KAOP (Czech version)

First, the reliability of the KAOP in Czech version was evaluated. Cronbach's alpha > 0.7 was found for all scales (total KAOP: $\alpha = 0.778$; OP- scale: $\alpha = 0.744$; OP+ scale: $\alpha = 0.741$). The item-total correlation ranged from 0.37 to 0.56 in the OP- scale; from 0.34 to 0.53 in the OP+ scale; and from 0.39 to 0.59 in the total KAOP scale. The item total correlation $r_s < 0.4$ was established in two items, namely in question 18

(One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences) and question 34 (Most old people need no more love and reassurance than anyone else).

The evaluation of students' attitudes towards the elderly

Most nurses reported a slightly positive (55.3 %) or a slightly negative attitude (42 %) towards the elderly. Negative attitude towards the elderly was found in only four students, on the bachelor's degree course (Table 2).

Table 2 Nursing students' attitudes towards older people

KAOP	Nursing assistant n (%)	Nursing bachelor degree n (%)	Nursing master degree n (%)	Total n (%)
very negative (34–62.3)	0 (0)	0 (0)	0 (0)	0 (0)
negative (62.4–90.7)	0 (0)	4 (3.5)	0 (0)	4 (0.9)
slightly negative (90.8–119.1)	105 (49.3)	42 (36.2)	46 (35.4)	193 (42.0)
slightly positive (119.2–147.5)	105 (49.3)	68 (58.6)	81 (62.3)	254 (55.3)
positive (147.6–175.9)	3 (1.4)	2 (1.7)	3 (2.3)	8 (1.8)
very positive (176–204)	0 (0)	0 (0)	0 (0)	0 (0)

KAOP: Kogan's Attitudes towards Older People

Table 3 Results of analysis of variance of comparison the KAOP score in three study groups

	Sum of squares	Df	Mean square	F	p-value
OP-	717.479	2	358.739	5.803	0.003
OP+	345.590	2	172.795	3.561	0.029
KAOP total	2019.050	2	1009.525	7.239	0.001

OP+: Kogan's Attitudes towards Older People (positive); OP-: Kogan's Attitudes towards Older People (negative); KAOP: Kogan's Attitudes towards Older People

Table 4 Comparison of KAOP scores for the three nursing study groups

	Nursing assistant (1) n = 213 mean (SD)	Bachelor degree (2) n = 116 mean (SD)	Master degree (3) n = 130 mean (SD)	The statistical comparison between three study groups		
				1 x 2 p-value	1 x 3 p-value	2 x 3 p-value
OP-	61.9 (7.7)	63.4 (8.2)	64.9 (7.8)	0.104	0.001	0.151
OP+	57.5 (6.7)	59.0 (7.2)	59.4 (7.2)	0.057	0.014	0.667
total score	119.5 (11.3)	122.5 (12.5)	124.3 (11.9)	0.028	0.000	0.234

OP+: Kogan's Attitudes towards Older People (positive); OP-: Kogan's Attitudes towards Older People (negative); KAOP: Kogan's Attitudes towards Older People; SD – standard deviation

Tables 3 and 4 show the results in the three groups (significance determined by ANOVA – Table 4). There was a significant difference between groups in all scales.

Nursing assistant students had worse mean scores in all KAOP scores compared with students on the master's degree course in nursing, and in the total KAOP score compared with students on the bachelor's degree course in nursing (Table 4).

We found statistically significant differences according to age in negative attitudes OP-, and in the total KAOP score; and also in total KAOP score according to type of study. Students aged over 25 and part-time students more often reported positive attitudes towards the elderly (Table 5). Spearman's correlation coefficient indicated a weak correlation between age and total KAOP score ($r_s = 0.149$; $p < 0.01$) and year of study and total KAOP score ($r_s = 0.184$; $p < 0.01$).

Table 5 The comparison of KAOP scores with respect to age and type of study

	OP-		OP+		Total score	
	mean (SD)	p-value	mean (SD)	p-value	mean (SD)	p-value
Age						
< 25 years	355	62.6 (7.9)	58.1 (7.5)	0.005	120.7 (12.0)	0.005
≥ 25 years	104	65.1 (7.6)	59.4 (7.5)	0.095	124.5 (11.3)	
Type of study						
present	344	62.8 (8.1)	58.1 (6.9)	0.102	120.9 (12.3)	0.033
part-time	115	64.3 (7.4)	59.3 (7.0)		123.6 (10.6)	

SD – standard deviation

Discussion

This is the first study undertaken in the Czech Republic on attitudes of nursing students towards the elderly. The KAOP scale was used widely in the last 50 years to measure attitudes. It was found a good to moderate psychometric properties in the various cultural contexts. For this reason, the KAOP scale is recommended in evaluation of nursing students in educational settings (Matarese et al., 2013). The Czech version of the *Kogan's Attitude towards Old People Scale* was found to have good psychometric properties, similar to other language versions (Söderhamn, Lindencrona, Gustavsson, 2001; Kiliç, Adibelli, 2011; Matarese et al., 2013).

The results from our study revealed that attitudes of Czech nursing students towards the older people are quite balanced. Students reported slightly positive or slightly negative attitudes towards the elderly. It is in accordance with a previous study by Zhang et al. (2016). Slightly positive attitudes towards the elderly were found among students in Britain (Doherty, Mitchell, O'Neill, 2011), Italy (Matarese et al., 2013), Norway (McCracken et al., 1995), and the USA (Mosher-Ashley, Ball, 1999).

Previous research demonstrated that many factors have an influence on attitudes of nursing workers towards elderly, including age (Downe-Wamboldt, Melanson, 1985; McCracken et al., 1995; Söderhamn, Lindencrona, Gustavsson, 2001; Tan, Zhang, Fan, 2004), gender (Söderhamn, Lindencrona, Gustavsson, 2001), type of education (Bernardini Zambrini et al., 2008; Doberty et al., 2011), and year of study

(McCracken et al., 1995). The best of findings from this study suggest that students on master's degree courses demonstrate more positive attitudes towards the older people. For nursing students it is very important to gain knowledge of aging (Zhang et al., 2016). Master's degree courses offer students subjects which can help them gain a deeper knowledge of the issues of old age and aging, and thus to eliminate some prejudices related to these issues (e.g., gerontology, nursing care in geriatrics, gerontopsychiatry, gerontagogic intervention, health and social care in geriatrics). The study program for nursing assistants and bachelor's degree courses in nursing should offer more subjects that address the issues regarding the elderly and attitudes towards them. Interventions (e.g. one-week geriatric experience, a geriatric mentoring narrative program, a mentoring program with healthy elderly adults, an aging game) could be made a part of the curriculum. Previous studies have shown that these interventions improve students' attitudes towards the elderly (Pacala, Boulton, Hepburn, 2005; Adelman et al, 2007; Duke, Cohen, Novack, 2009). Moreover, the more positive the attitudes nursing students have, the higher the chances that they will choose to pursue a career in geriatric nursing. Attitudes can play a key role in people's behaviour. In the particular case of the nurse-patient relationship, the attitudes of healthcare personnel are ultimately reflected in the quality of the services offered. Investigating different aspects of students' attitudes towards the elderly helps us to understand them better. Specific interventional strategies can improved these attitudes (Bernardini Zambrini et al., 2008).

Conclusion

Well-educated health care professionals with positive attitudes towards older adults are required in order to provide good health care for the elderly. Regarding the fact that in our sample of nursing students, nearly half of them reported a slightly negative attitude towards the elderly, it would be appropriate to include in educational curricula, especially in the lower levels of study (i.e., for nursing assistants) additional subjects aimed at improving students' attitudes towards old age and aging; and also specialized interventions improving students' attitudes towards the elderly. The effectiveness of the implemented programs should be a subject for further research.

Ethical aspects and conflict of interest

The study respect ethical recommendation. The questionnaires were completed anonymously and participation in the study was for students voluntary. The authors declare that they have no competing interests.

Author contributions

Conception and design (RB, AN), data analysis and interpretation (RB, AN), manuscript draft (RB), critical revision of the manuscript (RB), final approval of the manuscript (RB).

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