



# Study of the attitudes and future intentions of nursing students towards working with older people: an observational study

Stefania Galzignato<sup>1,2,4</sup> · Nicola Veronese<sup>2,3</sup> · Riccardo Sartori<sup>4</sup>

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## Abstract

**Background** Older people are increasing in the world leading to the fact that many nursing students will work in geriatric care setting. It was also reported the lack of knowledge and interest in working with older people by many nursing students. Therefore, the aim of the study is to explore the attitudes, wills, and intentions for the care of older people from nursing students.

**Methods** A sample of 383 students (mean age between 17 and 24; females: 76.2%) was divided according to the year. A questionnaire and three scales investigating the attitude for working with older persons (Kogan, Aday-Campbell, Nolan scales) were administered. Simple correlations across the three scales and the comparisons in means by year of graduation were reported.

**Results** Of the 383 students, 69.7% would take care of an older person, with the previous experience with older patients being the most important determinant in positive attitude of students in working with older people. The Kogan scale revealed a relatively positive attitude towards older people of the students involved; the Aday's scale a reasonable willingness to take care of the older people; the Nolan scale a fair intention. Aday's scale significantly correlated with Nolan's scale and with Kogan's scale as well as the Nolan scale correlated with the Kogan scale.

**Conclusion** Our study suggests that the quality of care provided to older people is related to the attitudes of health professionals indicating that nursing educators should adopt effective strategies to increase and promote students' positive attitudes to older people.

**Keywords** Knowledge of ageing · Attitude · Nursing students · Older people

## Introduction

Due to the demographic change in the population, many current nursing students will work with older people after the graduation. There is therefore a growing need for motivated nurses to provide adequate care for older people. It is

known that most nursing students have little knowledge and interest in this branch and the resulting quality is influenced by their attitudes.

Ageing is not a disease. However, growing health problems and decreased functional abilities are some of the potential problems of ageing [1]. It is known that as we age, the likelihood of developing health problems and chronic diseases linearly increase [2, 3] and consequently the demand for health resources might increase [4, 5].

Hence, large numbers of nurses in hospital settings will need to care for these older persons [2, 6]. This growing demand comes against the backdrop of a shortage of qualified healthcare professionals globally (Engstrom and Fagerberg 2011), but more importantly, it comes up against a lack of interest or desire on the part of these professionals to work with older adults [7–9]. It is evident that current nursing students will encounter large numbers of older patients, who might have various and multiple medical conditions [10, 11]. Therefore, it is imperative that health professions

✉ Stefania Galzignato  
stefania.galzignato@aullss3.veneto.it;  
stefania.galzignato@unipd.it

<sup>1</sup> Bachelor of Science in Nursing, University of Padova, Padua, Italy

<sup>2</sup> Azienda ULSS [Unità Locale Socio Sanitaria] 3 "Serenissima", Dolo-Mirano District, Piazzale Garibaldi 2, Mirano, 30035 Venice, Italy

<sup>3</sup> Geriatric Unit, Department of Internal Medicine and Geriatrics, University of Palermo, Palermo, Italy

<sup>4</sup> Work and Organizational Psychology, Department of Human Sciences, University of Verona, Verona, Italy

students are trained to work with seniors to meet their specific needs [12].

The phenomenon of the scarcity of nurses in Italy is well known, being and is a source of concern for health professionals, citizens, and politicians. In previous research, it was estimated that 68,000 nurses are nowadays missing, particularly in some areas, such as home care services, long-term care, nursing homes [13]. In this sense, the database of the Organization for Economic Cooperation and Development (OECD) 2020 confirms the data of the State of Health in the Europe 2019 report: in Italy, there are far fewer nurses (5.5 per thousand inhabitants) than the OECD average (8.9 per thousand inhabitants) [14]. Therefore, there is an alarming shortage of nurses who have specialist skills in the care of older people. The nurse's negative perception of older patients is one of the key factors contributing to the shortage of nurses in the care of older people [15].

One of the barriers to providing quality of services to older adults is found in negative attitudes and stereotypes, which in turn negatively affect health care outcomes and reduce service efficiency [16, 17].

The quality of health services provided to the older subjects is strongly influenced by the attitude of health workers towards them [18–20]. Furthermore, the attitudes of health-care professionals towards older people are shown to be significantly associated with their intentions to work with this type of population [21–23]. Those who had positive attitudes towards older people demonstrated greater willingness to care for and work with older people [24].

In a seminal review, in seven studies that examined the relationship between students' attitudes and readiness to work with seniors, the results revealed that students with positive attitudes were more willing than those with negative attitudes to work with older adults. Senior citizens [25].

Caring for older people is complex and challenging due to their physical, psychological, and social needs. To know the attitude and the interest of students in nursing for older people can be of importance, to better tailor their curriculum. Given this background, the purpose of this study was to explore the attitudes, the will and the intentions towards the care of older people by the nursing students.

## Methods

### Sample

Informed consent to study was requested from the President of the Paduan University degree course in Nursing, using as only inclusion criterion to be enrolled in the nursing degree course at Mestre/Mirano (Venice, Italy) during 2019/2020. Therefore, the sample consisted of first, second, third year

students and undergraduates. Among 394 possible eligible students, 383 participated to this research.

The students were informed regarding the purpose of the data collection, of the anonymity and that they could withdraw at any time without giving any reasons, being voluntary participation.

The questionnaire was administered during classroom lessons, to encourage adhesion. The membership rate among those present was 100%. Three questionnaires were eliminated because they were not completed for several steps.

### Questionnaires

The students' attitudes towards older people were measured through a questionnaire consisting of several tools:

1. *Demographic questionnaire* gender, age, marital status and children, level of education, presence of an older member in the family, contacts with experiences with older individuals and their frequency, knowledge, interest in working with older people.
2. *Work preferences* these domains were measured by asking nursing students to rank their preferences in providing nursing care to patients representing seven age categories: infants (0–1 year), preschool children (2–12 years), adolescents (13–19 years), young adults (20–39 years), middle-aged adults (40–55 years), young seniors (56–74 years) and very old people (75 or more)). They were asked to rank their preferences from 1 to 7, where 1 corresponds to the preferred choice and 7 the least preferred
3. Kogan's original scale or KAOPS (Kogan Attitudes Old People Scale) [26], measures students' attitudes for older persons. The questionnaire consists of 34 articles, or 17 pairs of positive (KAOPS + appreciation) and negative (KAOPS – prejudice) affirmations, concerning attitudes towards older adults. The questionnaire used a 6-point Likert-type scale ranging from "strongly disagree" to "strongly agree", the score ranging from 34 to 204 with higher scores indicating more favourable attitudes. The negative articles were coded on the contrary, the positive and negative statements were mixed, to reduce the altered response given by the prejudice, as recommended by the author. Kogan investigated the reliability of the scale with the Spearman–Brown confidence coefficient, tested the scale in three separate studies, and achieved confidence coefficients of 0.76, 0.73, and 0.83, and the inter-item scales ranged from 0.46 to 0.52 [26]. Cronbach's alpha reliability of this scale and its translated versions in studies conducted by Doherty et al. [27], The Kogan's attitude for older people, applied to Italian nursing students, showed a good internal consistency [28].

4. The modified Elderly Patient Care Inventory (EPCI) developed by Aday and Campbell in 1995 is used to examine willingness to care for older people. This scale includes 12 statements on the positive and negative aspects of willingness to take care of older people. The responses were organized on a Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with 3 representing "undecided or neutral". For negative declarations, the coding is inverse. The range of possible scores is between 12 and 60. A higher average score indicates a greater willingness to care for older persons. Cronbach's alpha coefficient reveals a value of 0.71, indicating a moderately strong internal consistency [29].
5. The Intent to Work with Older People (PWOP) questionnaire, developed and used by Nolan et al. specifically to focus on nursing students' intention to work with older people, is composed of 15 statements and across a Likert scale from 1 (strongly disagree) to 5 (strongly agree), with 3 representing undecided or neutral [30]. Of the 15 statements, 9 are formulated negatively and therefore have been coded backwards. The minimum score is 15 and the maximum is 75, where higher scores indicate greater intention to work with older people.
6. The questionnaire, including demographic information and the three scales mentioned before, took about 20–25 min to complete.

### Statistical analysis

All data were analysed with IBM's SPSS 21.0 statistical analysis program. Descriptive statistics were carried out to clarify socio-demographic characteristics and attitudes. Group comparisons were performed with one-way ANOVA and Pearson's correlation coefficient to examine the relationship between scales (Aday-Campbell, Kogan, Nolan) and between other variables. The level of significance was set at  $p < 0.05$ .

## Results

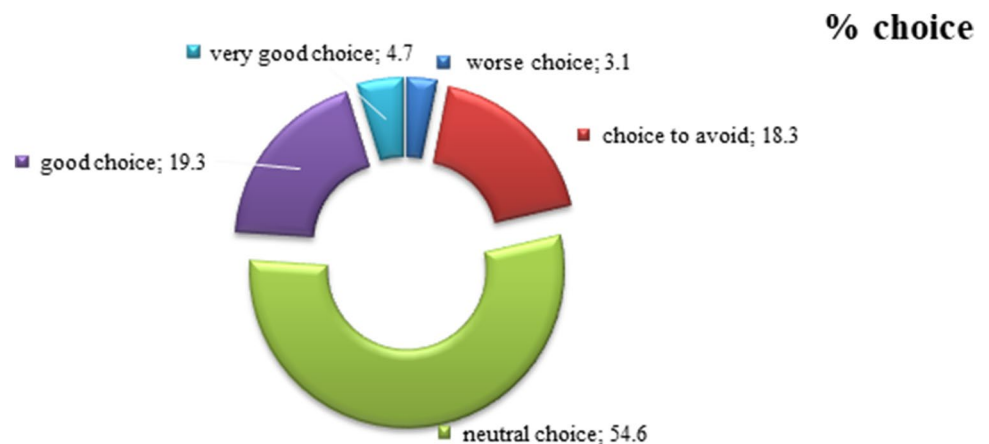
### Demographic characteristics

The sample consisted for a total of 383 subjects, of which 292 were females (76.2%). 90.9% of the sample aged between 17 and 24 years. In the demographic questionnaire, we noted that only 4.7% of the included sample considered to work with older people as an excellent choice, 19.3% a good choice as reported in Fig. 1. Moreover, when asked what they think is the factor that can act positively on the student and that favours the choice of assistance to older people, the sample replied for 45.4% that it is previous experience with older patients, 23.8% have future clinical experience with older patients, 17.5% have positive tutorial references towards older subjects, 11.2% a gerontological teaching, the remaining 2.1% speak of experience with au pair groups.

Regarding the Kogan scale, the mean total score was 131.92 (standard deviation,  $SD \pm 12.218$ ) (range 100–169) points, which represents a relatively positive attitude towards older people. On the other hand, as regards the Aday-Campbell scale, the average value was 40.19 ( $SD \pm 4.693$ ), which represents a reasonable willingness to take care of older people. The minimum score was 24 and the maximum was 53. Finally, the mean total score for the Nolan scale was 54.25 ( $SD \pm 6.3$ ) (range 36–71), which represents a fair intention to work with older people.

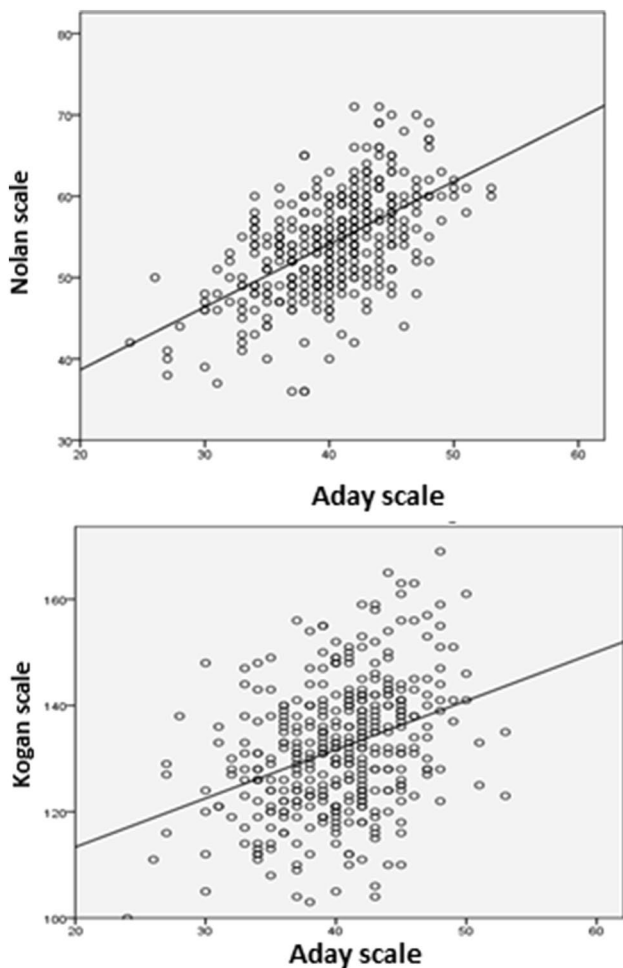
Linear correlation analyses between variables report data with Pearson's correlation coefficient to examine the relationship across scales (Kogan, Nolan and Aday-Campbell) are reported in Table 1 and, graphically, in Fig. 2. The Aday scale significantly correlated with the Nolan scale ( $R = 0.576$ ;  $p < 0.0001$ ) (moderate strength of the association) and with the Kogan scale with  $R = 0.352$ ;  $p < 0.0001$ ) (weak strength of the association). Finally, the

**Fig. 1** Percentage definition chosen to work with seniors



**Table 1** Pearson's correlation to the three scales

	Aday scale	Nolan scale	Kogan scale
Pearson's correlation (Aday Scale)	1	0.576 ( $p < 0.0001$ )	0.352 ( $p < 0.0001$ )
Pearson's correlation (Nolan Scale)	0.576 ( $p < 0.0001$ )	1	0.478 ( $p < 0.0001$ )

**Fig. 2** a, b Linear correlations between scales of interest

Nolan scale is related to the Kogan scale with  $R = 0.478$  with  $p < 0.001$  (weak strength of the association).

As shown, in Fig. 3, there is an increase trend in the three scales analysed and the year of study, even if significant only for the Aday and Nolan scale ( $p$  for trend  $< 0.0001$ ), indicating that the attitude and the willingness of nursing students for working with older people, linearly increases with the knowledge regarding this topic. Moreover, as shown in Table 2, the subjects who answered that working with older people could be a bad choice or not to be made

(121 subjects; 31.6%) reported a lower average than their counterparts.

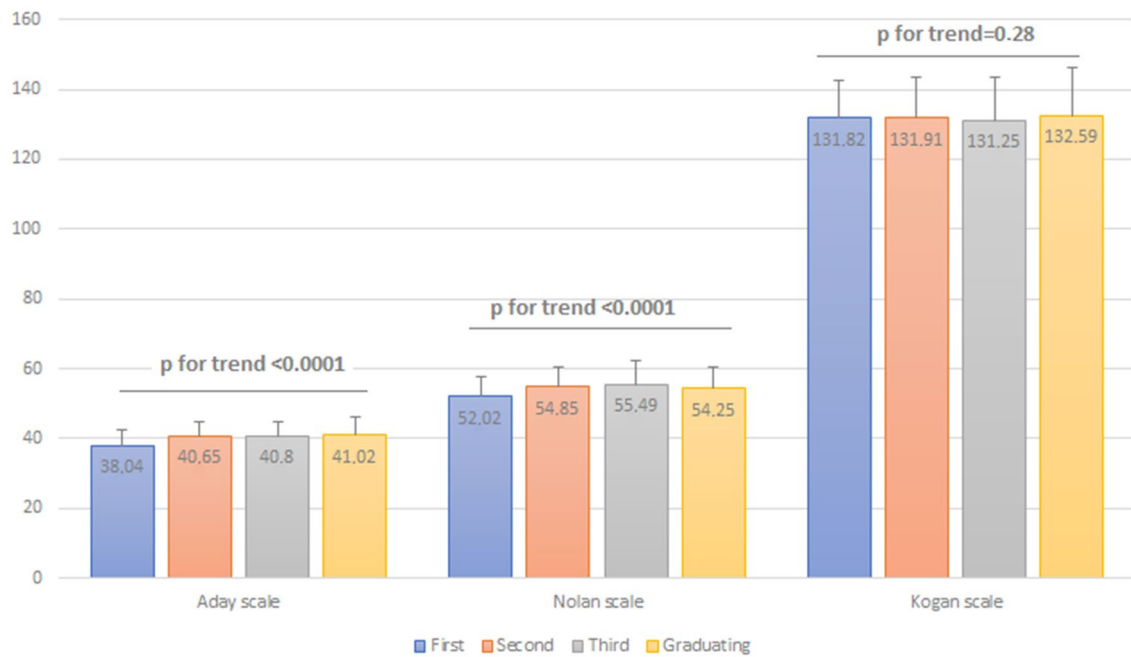
## Discussion

In this study, we reported our experience with a large cohort of nursing students attending the University of Padua. In general, the propensity of students towards older people is fair as well as their propensity to work with this population. The scales that investigate the propensity towards the older people as well as the aptitude for work correlate significantly, albeit with different degrees.

Overall, very few students in nursing (less than 5%) believe that working with older people is an excellent choice, even if many of these students will work in geriatric context, from nursing homes to long-term facilities. At the same time, the practical experience with this population, particularly in the past, is one of the major determinants of the choosing of working or not with older people. Therefore, to have a positive experience in practical seminars and experiences can support the choice of working in geriatric medicine.

In the study by Bleijenberg et al., it has been argued that with current demographic changes, almost all nursing students should work with older people after graduation, regardless of whether to do so [20]. Consequently, the development of positive attitudes among nursing students is crucial in providing quality care for older people and increasing the willingness to work in geriatric care. In this study, similarly to our findings, the Kogan scale indicates a positive attitude of students for older people, being also like other studies [13, 14, 31]. A similar correspondence was found among the results of the Nolan scale, which measures intentions to work with older people, whose mean in our study is  $54.25$  ( $SD \pm 6.3$ ). In fact, in the study by Nolan et al., 2006, the average score was  $54.88$  ( $SD \pm 7.31$ ) [32], for Italy  $54.96$ . In the study by Che et al., a moderate level of intention to work with older people was found: the average score was  $39.72$  ( $SD \pm 4.38$ ). Finally, our study demonstrates a significant correlation between the scales and therefore that having positive attitudes leads to greater willingness to care for older individuals [31].

The relationship of age, sex, cohabitation, and experiences with adults, which in some studies have shown significant relationships, in this study gave results that were bordering on significance. Many authors believe that a positive work and learning environment may be crucial in attracting students to aged care [33, 34]. Acting on controlled clinical placements promotes positive attitudes of nursing students towards older people [35], encouraging compassionate care to ensure a high quality of gerontological nursing care for the seniors [36]. This strategy can



**Fig. 3** Mean values of the scales of interest by academic year in nursing students

**Table 2** Average significance bad choice versus others

Scale	Choice	N	Mean	Standard deviation	p value
Aday scale	Very bad	121	37.59	4.57	<0.0001
	No very bad	260	41.42	4.20	
Nolan scale	Very bad	120	50.6	5.52	<0.0001
	No very bad	260	55.91	5.91	
Kogan scale	Very bad	121	128.24	12.53	<0.0001
	No very bad	260	133.7	11.70	

also promote the future career of nursing students with choices towards gerontological nursing.

Finally, our results suggest that difference in the mean scores from year one students to those at the final steps of their graduation is statistically significant, but little in absolute numbers indicating that the attitude for working with older people increase over the graduation, but in limited way. In our opinion, this finding merits some justifications. First, the path foresees that they meet older people, and this justifies, as shown by the literature [33, 34], that being in contact leads to an increase in positive attitude towards this population. A second motivation could be that the undergraduates being close to graduation, and therefore short of the fact of working, they are in a certain sense predisposed or resigned to the idea of working in geriatric setting.

The results of our study must be interpreted in the context of its limitations. A limitation found in this study is to be found in the fact that the data are not generalizable: the lack of a control group must be highlighted such as the fact that the study was made only in Italy. Even with reference to studies carried out abroad, there is a lack of multicentre studies. Finally, the Italian context, due to a series of cultural, social, moral, and religious causes, is not comparable compared with other foreign realities. The social importance of older people in some sectors is higher than that of young people, an example is the political sphere.

In conclusion, our study suggests that the quality of care provided to older people is related to the attitudes of health professionals indicating that nursing educators should adopt effective strategies to increase and promote students’ positive attitudes to older people. Therefore, the educational curriculum and clinical opportunities for nursing studies should be designed to be positive and, in this, educators play an important role in shaping attitudes towards seniors and helping students see career opportunities.

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**Declarations**

**Conflict of interest** The authors have no conflicts of interest to declare that are relevant to the content of this article.

**Ethical approval** The study was approved in the context of the nurses' theses from the University of Padua.

**Informed consent** Informed consent to study was requested from the President of the Paduan University degree course in Nursing.

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