

# Generation Z undergraduate social work students' knowledge of and attitudes towards older persons: Implications for professional training

Stephan Geyer & Liebie Louw

## **Corresponding author:**

L.S. (Stephan) Geyer

Associate Professor, Ph.D. (Social Work)

Department of Social Work and Criminology, University of Pretoria, Pretoria, South Africa

[stephan.geyer@up.ac.za](mailto:stephan.geyer@up.ac.za)

+27 12 420 2648

ORCID: <https://orcid.org/0000-0002-3765-3051>

E.M. (Liebie) Louw

Senior Lecturer, Ph.D. (Mathematical Statistics)

Department of Statistics, University of Pretoria, Pretoria, South Africa

[liebie.louw@up.ac.za](mailto:liebie.louw@up.ac.za)

ORCID: <https://orcid.org/0000-0001-6789-8079>

## **Abstract**

Appropriate gerontological social work services are, amongst others, dependent on social workers' knowledge of and attitudes towards older persons. The current cohort of students, known as Generation Z, are global citizens. This study determined and described South African undergraduate social work students' knowledge of and attitudes towards older persons. A cross-sectional survey was undertaken with B Social Work students ( $N = 395$ ) at two universities. Data collection included the three scales of *Palmore's First Facts of Aging Quiz in multiple-choice format* (1996) and four scales of *Fraboni's Scale of Ageism* (1990). Age and five categorical factors were considered to determine their simultaneous impact on each of the seven scales/subscales of the two instruments by performing multi-way ANOVA models. An unexpected finding was that the factor 'completed a course in gerontology' did not have any impact on any scale. Year level of study, area of childhood residence and consideration to work exclusively with older persons after graduation simultaneously impacted respondents' 'overall attitude' towards older persons. Two factors (i.e., year level of study and area of childhood residence) mutually impacted respondents' 'overall knowledge' of aging. Recommendations for the training of Generation Z students are offered concerning course content and pedagogical interventions.

*Keywords:* Generation Z, social work students, older persons, Palmore's Facts of Aging Quiz, Fraboni's Scale of Ageism

## Introduction

Older populations are increasing across the globe in both developed and developing countries (World Health Organization [WHO], 2017). Globally the population of older persons is expected to increase from 11% of the world population in 2000 to 22% in 2050 - an estimated two billion older persons (WHO, 2017). By the year 2025, the African continent is expected to have around 67 million older persons of whom the majority will reside in sub-Saharan Africa (WHO, 2017). In South Africa, a country in sub-Saharan Africa and the research site of the study reported on, the overall population is estimated at 58.78 million with 9% ( $\pm 5.2$  million) being older persons (that is, male and female 60 years and older) (Statistics South Africa [StatsSA], 2019). Accompanying the growth in older populations the needs of older persons for caregiving, finances (including social security), medical care due to illness, and social services are increasing (Gellis, Sherman & Lawrance, 2003). One of the professions pertinently concerned with the welfare of older persons is social work. Unfortunately, the literature consistently confirms that there is a shortage of professionals, including gerontological social workers, to render services to older persons (Schroepfer, Berg-Weger, & Morano, 2019; Wang & Chonody, 2013).

Irrespective of the country, a plethora of reasons are forwarded for the limited involvement of social workers, including social work students, in gerontological social work. These reasons include ageism (i.e., "a systematic stereotyping of and discrimination against people because they are old ...", Butler, 1969 in Lin & Bryant, 2009, p. 412); inadequate knowledge about older persons and old age as a life stage; negative attitudes towards older persons and concomitant avoidance of positions which entail working with older persons; a perception that working with children or adolescents are of higher status; a belief that lower salaries are paid to social workers in gerontological settings; limited contact with older persons; and that working with older persons is not challenging or rewarding (Boswell, 2012; Chonody, Webb, Ranzijn, & Bryan, 2014; Mansfield-Green, Morrisseau, Valliant, & Caswell, 2015; Wang & Chonody, 2013).

In this paper, it is argued that undergraduate social work students require appropriate knowledge of and attitudes towards older persons to consider social work with older persons. Equally important is to take note of the unique characteristics of the current cohort of undergraduate students, colloquially known as Generation Z (people born between 1995 and 2012).

Previous research focused on the knowledge of and/or attitudes towards older persons among undergraduate students enrolled for diverse study fields (e.g., health sciences, psychology, social services, and social work) as well as MSW students in numerous countries, such as Australia, Canada, Spain, Turkey and the USA (Boswell, 2012; Chonody et al., 2014; Daşbaşı & Kesen, 2015; Gellis et al., 2003; Goel, 2019; Mansfield-Green et al., 2015; Van Dussen & Weaver, 2009; Zambrini,

Moraru, Hanna, Kalache, & Nuñez, 2008). As far as could be determined, only three studies were conducted on the African continent. Ntusi and Ferreira (2004) determined South African medical practitioners' attitudes towards older persons; Okoye and Obikeze (2005) explored Nigerian youths' attitudes towards older persons; and, Zverev (2013) focused on the attitudes of medical and nursing students in Malawi. After a careful review of various international and national research databases, e.g. EbscoHost, GoogleScholar, Social Work Abstracts, and Sabinet, it was confirmed that previous research excluded South African undergraduate social work students' knowledge of and attitudes towards older persons.

Therefore, this study aimed to explore and describe South African undergraduate social work students' knowledge of and attitudes towards older persons. Moreover, the study aimed to answer the following two research questions: (1) What is the impact of six factors (i.e., age, year level of study, the area of childhood residence, growing up with an older person, completed a course in gerontology, and consider working exclusively with older persons after graduation) individually and simultaneously on South African undergraduate social work students' overall knowledge of aging, as well as positive and negative bias?; and, (2) What is the impact of the same factors, individually and simultaneously, on South African undergraduate social work students' attitudes towards older persons, including their antilocution, discrimination, and avoidance of older persons?

The paper offers an overview of older persons in South Africa, the characteristics of Generation Z students, and the modernization theory as the conceptual framework underpinning the empirical work. Thereafter an overview of the research methods, the results, a discussion and finally conclusions and recommendations, follow.

### **Older persons in South Africa**

The life expectancy in South Africa is 62.4 years. The older population comprise of more females (59.9%) than males (40.1%). The majority of older persons identify themselves as African Black (64.7%) with the minority Indian/Asian (3.7%). Most of the older persons reside in urban areas (65.1%); however, more than half of Black African older persons reside in rural areas. In terms of living arrangements, 10.2% of older persons live alone, while two-thirds of African Black older persons live in an extended family household (StatsSA, 2017). Furthermore, 50.7% of older persons live in a household without employed members. As such, many households rely on the 3.1 million beneficiaries of the Old Age Grant (ZAR 1780, ±US\$ 119 per month) to sustain their livelihoods. Female older persons often live in skip generation households (14.4%) (i.e., a household consisting of grandchildren and grandparents without biological parents) and serve as foster parents for grandchildren who were left orphaned. About 13% of households headed by an older person live in a

backyard shack or an informal dwelling without access to tap water or proper sanitation (StatsSA, 2017). Most of the older persons in South Africa did not attend formal schooling, which is a reflection of the unjust educational system of the pre-1994 Apartheid government (Lombard & Kruger, 2009). Only 47% of older persons are functionally literate. Older persons suffer mostly from hypertension, diabetes, and arthritis with most deaths related to diseases of the circulatory or respiratory system and neoplasm (StatsSA, 2017). As reflected in the overview, older persons experience social problems that require professional services, such as assistance with foster care placements, social grant applications, and poverty alleviation. One way to ensure the provision of appropriate gerontological social work services in South Africa is to prepare undergraduate social work students for social work with older persons during the Bachelor of Social Work (BSW) degree<sup>1</sup>.

The BSW is a four-year professional undergraduate program that comprises of electives as well as social work in theory and practice training (i.e., Work-Integrated Learning [WIL]) as well as research. The program covers 27 Exit Level Outcomes (ELOs) with their Associated Assessment Criteria (AACs) to the value of 480 credits (that is, 4 800 notional hours of teaching and learning) (South African Qualifications Authority [SAQA], 2003). In South Africa, both student social workers from the second year of study and social workers after graduation register with the South African Council for Social Service Professions (SACSSP) in terms of the Social Service Professions Act 110 of 1978, as amended, to practice social work in South Africa (Lombard, 2015). In April 2019, the SACSSP had 44 270 registered social workers on their system (SACSSP, 2019). Anecdotal evidence suggests that the majority of social workers have completed the BSW program and are working in child and family welfare settings with limited numbers in corrections, drug treatment centers, and gerontological settings. Social workers working in gerontological settings commonly work at community social service agencies, independent and assisted-living settings and nursing homes (Schultz, 2015). The current cohort of BSW students is known as Generation Z who present with unique needs and expectations for teaching and learning.

### **Generation Z students**

The Pew research study conducted in the USA identified Generation Z as “digital natives” (i.e., youth who never knew life before the internet)<sup>2</sup> who multitask while using multiple technological devices simultaneously and are often exposed to numerous cultural perspectives (in Turner, 2015). In this paper, the authors argue that undergraduate students in South Africa, as a

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<sup>1</sup> At the time of data collection, the described BSW program was in operation. New standards were developed for the BSW program as per CHE requirements (cf. CHE, 2015) and are implemented since 2018. Following the BSW, training makes provision for the Master of Social Work (both course work and research programs) and the Doctor of Social Work (Sewpaul & Lombard, 2004).

<sup>2</sup> Within the South African context the concept “... ‘native’ is synonymous with colonialism, apartheid, and denomination and does not connote images of superiority and the future” (Brown & Czerniewicz, 2010, p. 3). Therefore the authors agree with Brown and Czerniewicz (2010) and prefer a respectful alternative, i.e., *homo sapien digitalensis*.

developing country, do not necessarily have access to computers, smartphones, and satellite television as their counterparts in the developed world, such as the USA (cf. Turner, 2015). Factors such as high data costs (e.g., 1 GB = US\$7.84), the relative poor value of the South African rand to buy technology, and poverty among a great percentage of the student population are reasons for this situation (Czerniewicz & Rother, 2018; Payi, 2019). Nonetheless, it could be reasoned that Generation Z students in South Africa have similar preferences for education as their peers in the developed world, such as the use of images and not only text, they prefer online learning, digital learning tools, and videos; and interactive activities and collaboration with peers (Kozinsky, 2017).

### **Modernization theory**

The main premise of the modernization theory is that the status and support to older persons decline as society modernizes (Aboderin, 2004). Modernization of the developing world, such as South Africa, brings about individualism and secularization which is characterized by the erosion of traditional norms (such as taking care of older persons in the extended family) as well as a decline in respect and value for older persons in society (Aboderin, 2004; Chow & Bai, 2011).

In 1979, Cowgill identified four key drivers of modernization that caused the diminished status of older persons: health technology, economic and industrial technology, urbanization and mass education (Aboderin, 2004; Chow & Bai, 2011). In this paper, it is argued that these drivers of modernization have a distinct impact on the South Africa society and have the potential to influence undergraduate social work students' knowledge of and attitude towards older persons.

Firstly, improvements in health technology result in a growing older population, which consequently leads to intergenerational competitiveness in the labor force (Moody & Sasser, 2012:9), including in South Africa where the unemployment rate is estimated at 29% with the youth who are most often job seekers (StatsSA, 2019). Secondly, the impact of advanced economic and industrial technology increases older persons' dependency on others, further diminishing their perceived value in society (Lynott & Lynott, 1996). The rapid development in economic and industrial technology brings about significant changes in production processes, ultimately rendering older persons' specific skills and expertise unnecessary (Lynott & Lynott, 1996; Moody & Sasser, 2012) which could lead to negative attitudes towards older persons. Thirdly, South Africa witnessed the migration of younger people to cities to secure jobs while older persons remain in rural areas even before South Africa's democratization (Fakier & Ehmke, 2014). Industrialization and urbanization had a significant impact on the family structures in South Africa, resulting in geographic separation and decreased support for older persons (Lombard & Kruger, 2009). Lastly, older persons in South Africa often experience diminished social status, because compulsory schooling for all

children up to 15 years or Grade 9 appears to have replaced the traditional role of older persons as sources of wisdom (Lombard & Kruger, 2009).

South Africa, as a developing country and a young democracy, undeniably experiences development similar to modernization (Huang, 2013). Hence, the modernization theory was considered appropriate to guide this study. The modernization and democratization of the South African society afforded younger generations better *education* (including at university level) than older persons. Furthermore, families often move to urban *areas* to attract better job opportunities while older family members remain in rural *areas*. As such, *contact* between younger generations and older persons decrease with fewer extended families where young people *grow up with older persons in the household*. Modernization brings about the diminished value, social status and respect for older persons that could create a situation where *working with older persons* is less desirable among Generation Z social workers. Consequently, this study aimed to explore and describe, amongst others, whether undergraduate social work students' year level of study at university, their area of childhood residence, growing up with an older person in the household and their consideration to work exclusively with older persons after graduation had an impact on their overall knowledge of aging and attitude towards older persons. Based on previous studies, the authors added two additional factors for consideration, namely age, and whether students completed a course in gerontology (cf. Boswell, 2012; Van Dussen & Weaver, 2009).

## **Materials and methods**

### **Research approach and design**

A quantitative research approach was adopted to explore and describe undergraduate social work students' knowledge of and attitudes towards older persons (Babbie, 2017). In line with the exploratory and descriptive research purposes of the study, a cross-sectional survey was conducted (Maree & Pietersen, 2016).

### **Participants**

Through purposive sampling two South African universities offering the BSW degree were selected to form the research population. From these two universities, a sample of 395 BSW students ( $N = 395$ ) was recruited through convenience sampling (Rubin & Babbie, 2017). To ensure that no student felt compelled to participate in the study, the authors made use of a research assistant (an MSW candidate at each university) to recruit voluntary respondents at the end of a specific social work theory lecture. The inclusion criteria, according to which the students were recruited, were as follows:

- Students had to be adults (older than 18 years).
- Students had to be registered for the first, second or third year of the BSW at one of the two universities. Final year, that is the fourth-year, students were excluded from the study, as they are mostly off-campus due to WIL.
- Students had to volunteer their participation and sign an informed consent form.

### **Data collection and materials**

Data were collected through a group-administered questionnaire. All the potential respondents received the same verbal introduction to the aim of the study, while the research assistant was available to clarify any item in the questionnaire which respondents found unclear (Adler & Clark, 2015). The questionnaire comprised of four sections:

(1) The first section explored the profile of respondents, such as age, sex, current year level of study, and predominant area of childhood residence (i.e., rural, semi-urban, urban, and other).

(2) The second section focused on the respondents' contact with older persons with items exploring whether the student grew up with an older person in the household, how often the student had contact with an older person, whether the student completed a course focusing on social work with older persons, and whether the student considered to work exclusively with older persons after graduation.

(3) The third section determined the respondents' overall knowledge of aging (including negative and positive bias embedded in the answers) using a well-known instrument, namely *Palmore's First Facts of Aging Quiz in multiple-choice format* (abbreviated as FAQ1) with 25 items (Harris, Changas, & Palmore, 1996). Each item offers four possible answers: the correct answer and other options reflecting incorrect answers as positive or negative bias or a neutral position. Minor changes had to be made to adapt the items for South African conditions. For example, the original Item 19 reads as follows: "The proportion of the U.S. population now age 65 or over is: a. 3%, b. 13%, c. 23% or d. 33%". The correct answer is b. In South Africa, the proportion of older persons (60 years and older) in the country was 8% at the time of data collection. Hence, Item 19 was phrased as follows: "The percentage of the South African population now age 60 or over is: a. 3%, b. 8%, c. 23% or d. 33%." Based on the calculation of point biserial correlations and discrimination indices, Harris et al. (1996) concluded that the FAQ1 in multiple-choice format had lower reliability (Cronbach  $\alpha = 0.15$ ,  $p < .05$ ) than the original true/false version (Cronbach  $\alpha = 0.28$ ,  $p < .01$ ). In the present study, the Cronbach  $\alpha$  was 0.17 over the 25 items of the FAQ1 (see Table 1). This value of reliability is in line with that of Harris et al. (1996). The rationale for using FAQ1 in multiple-choice format included the following: respondents are less likely to guess the correct answer; it enables the researcher to

determine the respondents' overall knowledge of aging and to identify positive and negative bias towards older persons, and the instrument was previously used effectively in studies of this ilk (Boswell, 2012; Chonody, 2015; Harris et al., 1996; Wang & Chonody, 2013). A higher FAQ1 score indicates a better knowledge of aging (individual scores range from 0-25) (cf. Harris et al., 1996). When incorrect answers are chosen, the respondents' positive bias towards older persons (scores range 0-12) or negative bias (scores range 0-18) could be determined. With negative bias, the lower the score, the more desirable the answers are considered.

(4) The final section of the questionnaire aimed to describe the respondents' attitudes towards older persons. *Fraboni's Scale of Ageism* (abbreviated as FSA), consisting of 29 items, was used as it offers a multidimensional measure of ageism and measures both cognitive and affective facets of people's attitudes towards older persons (Boswell, 2012; Fraboni, Saltstone, & Hughes, 1990; Lin & Bryant, 2009). FSA measures the overall attitude of respondents towards older persons as well as three constructs/sub-scales, namely 'antilocution' ("mere antipathetic talk") measured with 10 items, 'discrimination' ("excluding members from certain political rights, privileges, employment, educational or recreational opportunities, types of employment, residential housing, etc. ...") measured with nine items, and 'avoidance' ("avoiding members of the disliked group") measured with 10 items (Fraboni et al., 1990, p. 57). In this study, all items were tested with a 5-point Likert-scale (1 = 'strongly disagree', 2 = 'disagree', 3 = 'neutral', 4 = 'agree' and 5 = 'strongly agree'). Some items had to be rephrased to be clear to South African students for whom English is often a second or third language. For example, the original Item 3 reads as follows: "Many old people are stingy and hoard their money and possessions." It was changed to read "Many older persons are stingy, save their money and cling to their possessions." Fraboni et al. (1990) found the FSA to be a reliable instrument with a Cronbach  $\alpha = 0.86$  for the overall attitude score. The Cronbach alphas for the three sub-scales were as follows: for 'antilocution'  $\alpha = 0.76$ , for 'discrimination'  $\alpha = 0.65$ , and for 'avoidance'  $\alpha = 0.77$  (Fraboni et al., 1990). In the present study, the Cronbach alpha values were as follows: Overall attitude score ( $\alpha = 0.79$ ), 'antilocution' ( $\alpha = 0.64$ ), 'discrimination' ( $\alpha = 0.52$ ) and 'avoidance' ( $\alpha = 0.61$ ). Although the alphas are lower than in the study of Fraboni et al. (1990), the instrument was still considered reliable (see Table 1). The overall attitude is calculated with a possible range between 29 and 145. For 'antilocution', the range is 10-50, for 'discrimination' 9-45, and 'avoidance' 10-50. With FSA, a higher score across the scale/subscales indicates higher levels of ageism (negative attitude) towards older persons.



## **Data analysis**

All completed questionnaires were coded and captured in MS Excel 2016. Data were exported to SAS 9.4. Descriptive statistics were calculated primarily to draft a profile of the respondents. Based on the Kolmogorov-Smirnov tests (KS test, see Table 1), the normality of all the data was confirmed ( $p > .05$ ) (Weinbach & Grinnell, 2015). Hence, parametric statistical tests could be performed to determine the individual and simultaneous impact of six factors (i.e., age, year level of study, the area of childhood residence, growing up with an older person, completed a course in gerontology, and consider working exclusively with older persons after graduation) on each of the seven scales/subscales (i.e., overall knowledge, positive bias, negative bias, overall attitude, antilocution, discrimination, and avoidance). The correlation between the numerical variable 'age' and each of the seven scales/subscales were determined through a Pearson correlation. Through a process of model building, starting with saturated models, five significant categorical factors could be identified that had a simultaneous impact on each of the seven scales/subscales. As is often the case in social sciences, statistical significance (henceforth referred to as significant) was determined at the 5% level (cf. Weinbach & Grinnell, 2015). One-, two- and three-way analysis of variance (ANOVA models) were built to explore the simultaneous impact of significant factors.

## **Ethical considerations**

Ethical considerations such as avoidance of harm, written informed consent, voluntary participation, no deception of respondents, no compensation of respondents, and anonymity (consent forms and questionnaires were deposited in two separate boxes) and confidentiality were observed (Babbie, 2017). Both universities provided written permission for the study to be conducted. Ethical clearance was obtained from the Research Ethics Committee of the tertiary institution where the authors are employed (Ref no.: GW20170301HS).

## **Results**

This section starts with a synoptic profile of the respondents, followed by an overview of the descriptive results for knowledge of and attitudes towards older persons, respectively. The results are concluded concerning the simultaneous impact of significant factors on each of the scales/subscales.

### **Synoptic profile of respondents**

The respondents could be categorized as young adults, with the mean age of 20.59 years ( $SD = 2.24$ ) at the time of data collection. The majority of respondents identified themselves as female

(84%) and 15.7% as male. The majority of respondents were first-year students (56.7%), followed by almost equal numbers of the second (21.4%) and third-year (21.9%) students. Both universities involved in this study are situated in metropolitan areas. Accordingly, the majority of respondents indicated that for most of their childhood they grew up in an urban area (41.4%), followed by those who indicated semi-urban (e.g., bigger towns) (34.3%), rural areas (22.1%) and other areas (2.3%). More than half of the respondents did not grow up with an older person in the household (56.1%) as opposed to 43.9% who did. Respondents who did grow up with an older person could indicate the relationship with the older person(s). In 27.8% of the instances, the respondents grew up with their maternal grandmother, paternal grandmother (10.6%) or maternal grandfather (9.4%). At the time of data collection, most of the respondents indicated that they had contact with an older person (not necessarily family-related) every month (28.4%), followed closely by those who indicated on a weekly (26.8%) and daily basis (20.3%). Some respondents indicated that they only had contact with an older person once a year (18.7%) while others selected never (3%). The overwhelming majority of respondents did not complete a course in gerontology (72.9%), while 24.8% answered in the affirmative. Just more than half of the respondents were unsure (50.4%) whether they would consider working exclusively with older persons after graduation. Yet, 23.5% decisively indicated 'Yes' and 25.8% 'No'.

### Descriptive statistics on knowledge of and attitudes towards older persons

As indicated in Table 1, the respondents' scores, based on the FAQ1 for the 'overall knowledge' of aging (out of 25), were quite meager ( $M = 8.39$ ;  $SD = 2.32$ ). In terms of the subscales determining positive and negative bias, the respondents appeared indecisive. For 'positive bias', the mean score ( $M = 4.36$ ;  $SD = 1.55$ ) was far below the midpoint of the possible range of 0-12. Similarly for 'negative bias' the mean score ( $M = 9.19$ ;  $SD = 2.42$ ) was just above the midpoint of the possible range of 0-18.

**Table 1: Descriptive statistics per scale/subscale**

Scales & Subscales	<i>N</i>	Mean ( <i>M</i> )	<i>SD</i>	Minimum	Maximum	<i>p</i> -value of KS-test for normality	Cronbach alpha
<b>Knowledge:</b> Overall knowledge	393	8.39	2.32	3	14	0.11	0.17
<b>Knowledge:</b> Positive bias	392	4.36	1.55	1	8	0.16	
<b>Knowledge:</b> Negative bias	395	9.19	2.42	3	16	0.10	
<b>Attitude:</b> Overall score	390	68.73	10.66	41	96	0.05	0.79
<b>Attitude:</b> Antilocution	395	27.12	5.55	11	43	0.06	0.64
<b>Attitude:</b> Discrimination	386	18.13	3.28	10	26	0.09	0.52
<b>Attitude:</b>	388	23.41	4.48	12	35	0.07	0.61

Nonetheless, the scores of the FSA, to determine the respondents' attitudes towards older persons appeared more positive. The mean score for the 'overall attitude' towards older persons was 68.73 ( $SD = 10.66$ ) (possible range between 29 and 145). Hostile talk about older persons, (i.e., 'antilocution') measured with a relatively low mean score of 27.12 ( $SD = 5.55$ ), while similar trends were observed for the subscales 'discrimination' ( $M = 18.13$ ;  $SD = 3.28$ ) and 'avoidance' ( $M = 23.41$ ;  $SD = 4.48$ ).

### Correlation between numerical variable age and each scale/subscale

The Pearson correlation coefficient was calculated to explore the correlation between age and each of the seven scales/subscales. The 'overall score' for attitudes towards older persons and age was found to be significantly negatively correlated ( $r(396) = -.10$ ,  $p = .05$ ). Furthermore, the subscale 'avoidance' was found to have a significant negative correlation with age ( $r(367) = -.14$ ,  $p = .01$ ). The older the respondents, the lower the score for the 'overall attitude' and 'avoidance', respectively.

### Simultaneous impact of five categorical factors on each scale/subscale

Five categorical factors (see Table 2) were considered to determine the potential impact of each of the five factors, in combination with the others, on each of the seven scales/subscales.

**Table 2: Categorical factors explored for model building**

Factor	Factor description	Categories	Frequency (n)	%
1	Year level of study	First-year	223	56.5
		Second-year	84	21.3
		Third-year	86	21.8
2	Area of childhood residence	Rural	87	22
		Semi-urban	135	34.2
		Urban	163	41.3
		Other	9	2.3
3	Growing up with an older person	Yes	172	43.5
		No	220	55.7
4	Completed a course in gerontology	Yes	98	24.8
		No	288	72.9
5	Consider working exclusively with older persons after graduation	Yes	93	23.5
		Unsure	199	50.4
		No	102	25.8

The process of the model building commenced with identifying factors from all five categorical factors having, in combination with each other, a significant impact on each of the seven

scales/subscales. From the five categorical factors, the ANOVA technique enabled the authors to identify those factors that had a significant simultaneous impact on each of the seven scales/subscales. With each model, the non-significant factor with the highest  $p$ -value was removed. Through this continuous process, a final model with only significant factors was identified for each scale/subscale.

**Table 3: Summary of significant factors in final models per scale/subscale**

Scale/sub-scale	<u>Factor 1</u> Year level of study	<u>Factor 2</u> Area of childhood residence	<u>Factor 3</u> Growing up with an older person	<u>Factor 4</u> Completed a course in gerontology	<u>Factor 5</u> Consider working exclusively with older persons after graduation
<b>Overall knowledge</b>	<.0001**	.0353*			
<b>Knowledge:</b> Positive bias		.0264*	.0029**		
<b>Knowledge:</b> Negative bias		.0114*			
<b>Overall attitude</b>	.017*	.0465*			<.0001**
<b>Attitude:</b> Antilocution	.0021**	.0002**			.0006**
<b>Attitude:</b> Discrimination					<.0001**
<b>Attitude:</b> Avoidance					<.0001**

\*  $p < .05$ ; \*\*  $p < .01$

From Table 3 it is evident that both year level of study ( $p < .0001$ ) and area of childhood residence ( $p = .353$ ) had a significant impact on the respondents' 'overall knowledge' of aging. In terms of 'positive bias' towards aging, area of childhood residence ( $p = .264$ ) and growing up with an older person ( $p = .0029$ ) had a simultaneous significant impact. 'Negative bias' towards aging was only significantly influenced by the area of childhood residence ( $p = .0114$ ). Year level of study ( $p = .017$ ), area of childhood residence ( $p = .0465$ ) and consider working exclusively with older persons after graduation ( $p < .0001$ ) simultaneously and significantly influenced both the respondents' 'overall attitude' and 'antilocution' towards older persons. One factor, consider working exclusively with older persons after graduation, had a significant impact on both the respondents' 'discrimination' ( $p < .0001$ ) towards and 'avoidance' ( $p < .0001$ ) of older persons. The factor completed a course in gerontology, was found to have no significant impact on any of the seven scales/subscales.

Table 4: ANOVA models

Scale/sub-scale	Model fit			Factors	Bonferroni correction ( $p$ )	
	df	F	p-value			
<b>One-way ANOVA models (one factor)</b>						
<b>Knowledge:</b> Negative bias	3,390	3.73	.0114**		<b>Factor 2: Area of childhood residence</b> Rural-Urban (.015*)	
<b>Attitude:</b> Discrimination	2,382	10.91	<.0001**		<b>Factor 5: Consider working exclusively with older persons after graduation</b> Yes-Unsure (.001**) Yes-No (<.0001**)	
<b>Attitude:</b> Avoidance	2,384	20.37	<.0001**		<b>Factor 5: Consider working exclusively with older persons after graduation</b> Yes-Unsure (<.001**) Yes-No (<.001**) No-Unsure (.001**)	
<b>Two-way ANOVA models (two factors)</b>						
				<b>F</b>	<b>p-value</b>	
<b>Overall knowledge</b>	5,384	5.59	<.0001**	<b>Factor 1: Year level of study</b>		
				9.46	<.0001**	Y1-Y2 (.001**) Y1-Y3 (.002**)
				<b>Factor 2: Area of childhood residence</b>		
				2.89	.0353*	Rural-Urban (.037*)
<b>Knowledge:</b> Positive bias	4,383	3.93	.0039**	<b>Factor 2: Area of childhood residence</b>		
				3.11	.0264*	No specific differences
				<b>Factor 3: Growing up with an older person</b>		
				8.97	.0029*	
<b>Three-way ANOVA models (three factors)</b>						
<b>Overall attitude</b>	7,378	7.42	<.0001**	<b>Factor 1: Year level of study</b>		
				4.12	.0170*	Y1-Y3 (.034*)
				<b>Factor 2: Area of childhood residence</b>		
				2.68	.0465*	No specific differences
				<b>Factor 5: Consider working exclusively with older persons after graduation</b>		
				20.09	<.0001**	Yes-Unsure (<.001**) Yes-No (<.001**) No-Unsure (.019*)
<b>Attitude:</b> Antilocution	7,383	6.24	<.0001**	<b>Factor 1: Year level of study</b>		
				6.26	.0021**	Y1-Y3 (.002**)
				<b>Factor 2: Area of childhood residence</b>		
				6.58	<.0002**	Rural-Urban (.001**)
				<b>Factor 5: Consider working exclusively with older persons after graduation</b>		
				7.57	.0006**	Yes-Unsure (.016*) Yes-No (.005**)

\*  $p < .05$ ; \*\*  $p < .01$

## Results of ANOVA models

As indicated in Table 4, one-, two- and three-way ANOVA models were built once the authors confirmed test assumptions such as normality with KS-tests and homogeneity of variances with Levene's tests (Field, 2013).

As indicated in Table 4, the respondents' area of childhood residence had a significant impact on their scores for the subscale of the FAQ1 'negative bias' towards older persons,  $F(3, 390) = 3.73, p = .0114$ . It was also identified that respondents' consideration to work exclusively with older persons after graduation had a significant impact on the score for the subscale 'discrimination' towards older persons,  $F(2, 382) = 10.91, p < .0001$ . The Bonferroni correction (henceforth, Bonferroni test) revealed that respondents who grew up in rural areas ( $M = 9.78; SD = 2.42$ ) had a significantly higher mean score for 'negative bias' than those who resided in urban areas during childhood ( $M = 8.82; SD = 2.53$ ). In the same way, the Bonferroni test indicated that students who considered to work exclusively with older persons after graduation ('yes') ( $M = 16.81; SD = 3.12$ ) had a significantly lower mean score than those who indicated 'unsure' ( $M = 18.33; SD = 3.20$ ) or 'no' ( $M = 18.89; SD = 3.25$ ). The respondents' consideration to work exclusively with older persons after graduation equally had a significant impact on the score for 'avoidance' of older persons,  $F(2, 384) = 20.37, p < .0001$ . The Bonferroni test revealed that respondents who indicated 'yes' ( $M = 21.35; SD = 4.42$ ) had a significantly lower mean score than those who indicated 'unsure' ( $M = 23.42; SD = 4.14$ ) or 'no' ( $M = 25.29; SD = 4.39$ ).

From the two-way ANOVA models, it was found that both year level of study ( $p < .0001$ ) and area of childhood residence ( $p = .0353$ ) had a simultaneous impact the respondents' 'overall knowledge' of aging,  $F(5, 384) = 5.59, p < .0001$ . The 'overall knowledge' of aging mean scores of second-year ( $M = 8.98; SD = 2.15$ ) and third-year students ( $M = 8.96; SD = 2.27$ ) were found to be significantly higher than the mean score of first-year students ( $M = 7.96; SD = 2.32$ ). An unexpected finding from the Bonferroni test was that the respondents who grew up in rural areas ( $M = 7.91; SD = 2.04$ ) had a significantly lower mean score for 'overall knowledge' of aging than those who grew up in urban areas ( $M = 8.76; SD = 2.44$ ).

Both area of childhood residence ( $p = .0264$ ) and growing up with an older person ( $p = .0029$ ) were found as factors to simultaneously impact respondents 'positive bias' towards older persons significantly,  $F(4, 383) = 3.93, p = .0039$ . The Bonferroni test could not detect the specific differences between the areas of childhood residence. However, respondents who grew up with an older person ( $M = 4.57; SD = 1.59$ ) had a significantly higher mean score for 'positive bias' than those who did not grow up with an older person ( $M = 4.17; SD = 1.49$ ).

Three-way ANOVA models were built to determine the mutual impact of three factors on the scales/subscales. It was revealed that respondents' 'overall attitude' towards older persons, as per the FSA, was significantly impacted by year level of study ( $p = .0170$ ), area of childhood residence ( $p = .0465$ ) and consideration to work exclusively with older persons after graduation ( $p < .0001$ ),  $F(7, 378) = 7.42, p < .0001$ . The Bonferroni test signalled that respondents in the first year ( $M = 69.88; SD = 10.96$ ) measured significantly higher on 'overall attitude' than respondents in their third year ( $M = 66.57; SD = 10.03$ ). The Bonferroni test could not pinpoint the exact differences among the different categories; however, it indicated that respondents who indicated 'yes' ( $M = 64.00; SD = 9.87$ ) had a significantly lower mean score than those who indicated 'unsure' ( $M = 68.99; SD = 9.87$ ) or 'no' ( $M = 72.44; SD = 11.33$ ). Furthermore, 'antilocution' were found to be simultaneously impacted by three factors at a significant level ( $F(7, 383) = 6.24, p < .0001$ ), namely year level of study ( $p = .0021$ ), area of childhood residence ( $p < .0002$ ) and consider working exclusively with older persons after graduation ( $p < .0006$ ). As per the Bonferroni test, respondents in the first year ( $M = 27.76; SD = 5.67$ ) had a significantly higher mean score for 'antilocution' than those in the third year ( $M = 25.47; SD = 5.06$ ). The Bonferroni test indicated that students in rural areas ( $M = 28.79; SD = 5.17$ ) measured significantly higher on 'antilocution' than respondents who grew up in urban areas ( $M = 25.88; SD = 5.52$ ). The Bonferroni test also indicated that respondents who indicated 'yes' on working exclusively with older persons after graduation ( $M = 25.68; SD = 5.67$ ) had a significantly lower mean score for 'antilocution' than those who indicated 'unsure' ( $M = 27.37; SD = 5.13$ ) or 'no' ( $M = 27.94; SD = 6.04$ ).

### Discussion

The mean age of the respondents indicates that most fell within the developmental phase of young adulthood (Sigelman & Rider, 2009). The gender distribution of the sample in this study reflects the university student population in South Africa with more female than male students (RSA, Department of Higher Education and Training, 2018). South African statistics indicated that an increasing number of older persons live alone (StatsSA, 2017). This trend is reflected in the findings of the present study as more than half of the respondents indicated that they did not grow up with an older person in the household. The finding could be linked to the fact that most respondents resided in urban and semi-urban areas as opposed to rural areas where extended families are more common. Interpreted from the modernization theory, it appears that urbanization is a reality among the respondents with older relatives who remain in rural areas (Aboderin, 2004). As the older population in South Africa comprises of more females than males (StatsSA, 2017), the finding that

the respondents who did grow up with an older person mostly grew up with a grandmother, is explicable.

The ELOs of the BSW program does not explicitly make provision for gerontological social work (cf. SAQA, 2003); hence, it is the prerogative of each university whether a course is dedicated to this study area. As indicated in the results, the majority of respondents did not complete a course in gerontology at the time of data collection. Apart from the specifications of the ELOs, this finding could also be indicative of the greater number of first-year students in the sample who did not progress to more advanced courses, such as gerontology. It could also be argued from the modernization theory that the value and respect for older persons declined in society (Aboderin, 2004; Chow & Bai, 2011) and therefore programs rather make provision for courses focusing on other vulnerable groups, e.g., children, youth and women (Webb, Chonody, Ranzijn, Bryan, & Owen, 2016). The fact that the majority of respondents in the present study did not complete a course in gerontology, could explain the finding that just over half of the respondents were unsure whether they would consider working exclusively with older persons after graduation. Another reason could be a mere general lack of interest among undergraduate social work students to work with older persons (Webb et al., 2016). An unexpected and noteworthy finding in the present study, namely that the factor 'completed a course in gerontology', did not have any impact on any of the seven scales/subscales. This finding stands in contrast to the results from a systematic review by Chonody (2015) which indicated that students who completed a course in gerontology tended to have increased knowledge of aging and a more positive attitude towards older persons.

Holistically seen, the respondents had a low level of knowledge about aging, while they did not decisively show positive bias towards older persons. Negative bias scored just above the midpoint of the possible range of scores. This finding is similar to those of Gellis et al. (2003) that students (i.e., first-year MSW students in the USA) had a low level of knowledge as measured by FAQ1. Allan and Johnson (2008) found in their study that undergraduate students in Canada, as in the present study in South Africa, tend to show some indication of negative bias towards older persons as scored with FAQ1.

In this study, the results did not indicate negative attitudes towards older persons on either the 'overall attitude' or the three subscales. The present study's findings differ drastically from a South African study among 196 medical practitioners using a comparable instrument, namely the *Aging Semantic Differential scale*, where it was found that only 15% of respondents had a positive attitude towards older persons (Ntusi & Ferreira, 2004). With the application of the FSA amongst undergraduate students in Australia, Lin and Bryant (2009) found mostly positive attitudes towards older persons. The present study's findings are that the BSW students had a positive attitude



towards older persons, while exposure to a course in gerontology did not have any impact on the respondents' scores of the FSA.

Some previous studies indicated that with an increase in age, attitudes towards older persons shift to be more positive (Chonody et al., 2009; Van Dussen & Weaver, 2009). A similar finding was made in the present study as both 'overall attitude' and 'avoidance' had a significant negative correlation with age. In other words, the older the respondents, the less their score resembled an overall negative attitude towards older persons or avoidance of older persons. The study by Mansfield-Green et al. (2015) among students in Canada as well as the study of Van Dussen and Weaver (2009) with undergraduate students in the USA found that respondents who had regular contact with older persons had a positive attitude towards older persons. The present study did not reveal the same results.

In contrast to previous studies, which often only calculated one-way ANOVA models, t-tests or multiple regressions, to either determine the impact of one specific factor on each of the scales/subscales or to predict outcomes (cf. Chonody, 2015; Lun, 2010), the present study implemented multi-way ANOVA models to determine the simultaneous impact of five categorical factors on each of the scales/subscales. Due to the unique nature of the model building, directly comparable literature could not be identified.

Nonetheless, a closer look at the exact detail reveals that as respondents progressed through the BSW program, that is second- and third-year students, their 'overall knowledge' of aging were respectively significantly better than first-year students. Boswell (2012) found similar results among undergraduate social service students in the USA. In the present study, BSW students who grew up in urban areas had a significantly better 'overall knowledge' of aging than their peers did from rural areas. This is quite an interesting finding when considered from a modernization theory, as the opposite would have been expected (Chow & Bai, 2011). The 'overall attitude' and the presentation of 'antilocution' among the respondents towards older persons improved for the positive as they progressed through the BSW program. Daşbas and Kesen (2015) found the exact opposite in their study among social work students in Turkey. In a study among medical and nursing students in Malawi, an African country, Zverev (2013) found that the year level of the study did not change students' attitudes towards older persons significantly. The 'overall attitude' towards older persons among respondents who grew up in rural versus urban areas differed significantly although the Bonferroni test could not pinpoint the specific differences. Lun (2010) reported in her overview of factors that influence students' choice of pursuing a career in gerontology, that students who hold positive attitudes towards older persons often consider a career working with older persons. In the present study, similar findings were reached among the BSW students. Respondents who considered

working exclusively with older persons after graduation scored significantly lower on 'overall (negative) attitude' towards older persons as well as 'avoidance' and 'antilocution'. Considered from the modernization theory, it could be expected that people (e.g., undergraduate BSW students) move from rural areas to cities (i.e., urbanization) and become more individualized and secular which have the potential to result in a decline in respect for older persons (Aboderin, 2004). However, the exact opposite was found in the present study.

This study revealed some important findings regarding undergraduate social work students' knowledge of and attitudes towards older persons. Nevertheless, the study also has some limitations. Firstly, the convenience sample was drawn from only two South African universities. The results are not representative of all BSW students in South Africa and excluded final year students. Secondly, the quantitative nature of the study did not offer respondents an opportunity to contextualize or explain their choice for specific answers. However, the authors believe that the conclusions and recommendations that are offered could be of interest to faculty across the globe teaching Generation Z students and for those who are responsible for courses focusing on gerontological social work.

### **Conclusions and recommendations**

In contrast to the results from a systematic review (cf. Chonody, 2015), a noteworthy finding was that the factor completed a course in gerontology, had no impact on students' knowledge of aging or attitudes towards older persons. This finding could also be linked to the respondents' poor knowledge of aging. Therefore, the content of courses in gerontology, together with a course in life course development, should ensure a holistic bio-psychosocial orientation of aging to improve students' overall knowledge of aging. In South Africa, for example, where gerontological content is not prescribed through ELOs, faculty should seriously consider to introduce at least one theoretical and practice component in the BSW program to prepare undergraduate students for gerontological social work, provided that the ELOs are expanded to mandate gerontological course content. Standalone courses are not necessarily the only option. Content related to gerontology could be integrated into theoretical and practice courses already in the curriculum (Goel, 2019). As an example, a course in group work could dedicate a study theme to group work with older persons.

The findings revealed that an increase in respondents' age improves a positive attitude towards older persons, while it indicated that the year level of the study had a significant impact on respondents' 'overall knowledge', 'overall attitude' and 'antilocution'. Hence, to train a cadre of Generation Z students who is adequately prepared for gerontological social work practice, it is recommended that BSW programs should make provision for content related to older persons from

as early as the first year which should ideally be supplemented by, for example, watching videos followed by class discussions to address stereotypes about older persons, inviting older persons as guest speakers to lectures, or introducing voluntary work and/or WIL with older persons (cf. Chonody, 2015; Goel, 2019).

This study indicated that students often do not consider working exclusively with older persons after graduation. It was found that both 'overall attitude' and 'antilocution' are effected by respondents' consideration of work with older persons. It is therefore recommended that courses in gerontology address the misconceptions about older persons and the perceived negative regard for gerontological social work practice to motivate the students to pursue careers in working with older persons.

The ANOVA models indicated several categorical factors that simultaneously impacted on each of the seven scales/subscales. It is hence recommended that faculty should take these factors, and specifically their mutual impact, into consideration when developing new or re-curriculating current courses focusing on gerontological social work as well as evaluate the impact thereof through longitudinal studies to compare students' knowledge of and attitudes towards older persons pre- and post-exposure to courses with gerontological content. Generation Z students' specific preferences for teaching and learning should be considered, otherwise, opportunities to 'recruit' future practitioners and leaders for social work with older persons will be lost. Generation Z students express a need for blended or fully online courses, which incorporate numerous digital learning tools, and course content that complements interactive activities, and collaborative learning (Kozinsky, 2017).

Future research should explore students' preferences in terms of the theoretical course content, preferences for WIL and their overall requirements for teaching and learning. Comparative studies from the global north and south (specifically the rest of Africa) should be undertaken as the Generation Z social worker is a global citizen and gerontological practice at large could be shaped for an increasingly older population.

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