

Dissertation

**Caring for Older People:
Attitudes, Perspectives, and Opinions of Nurses in
Acute and Long-term Care**

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2025

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DESCRIPTION OF COVER ARTWORK

The artwork on the cover of this doctoral thesis was created by Rita Lampersberger. The artist approved the use of the artwork in this doctoral thesis.

DISCLOSURES

The following chapters of this thesis have been published and submitted as the following publications:

CHAPTER 3

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CHAPTER 4

Lampersberger LM, Schüttengruber G, Lohrmann C, Großschädl F. "The supreme discipline of Nursing"-A qualitative content analysis of nurses' opinions on caring for people eighty years of age and older. *Heliyon.* 2024;10(5).

CHAPTER 5

Lampersberger LM, Lohrmann C, Großschädl F. Nurses' perspectives on old age and caring for adults aged 80 years and older: a cross-sectional study in long-term care. *BMC Nurs.* 2024;23(1):850.

CHAPTER 6

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Caring for Older People:

Attitudes, Perspectives, and Opinions of
Nurses in Acute and Long-term Care

Lena Maria Lampersberger



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ABBREVIATIONS AND DEFINITIONS

AI	Artificial Intelligence
ASD	Ageing Semantic Differential
CC-BY	Creative Commons Attribution License
NGT	Nominal Group Technique
KOAP	Kogan's Attitude toward Older People Scale
PCOP	Perspectives on Caring for Older People Scale
PNCS	Positive and Negative Contact Scales
SIT	Social Identity Theory
UN	United Nations
WHO	World Health Organization
AASD	Australian Ageing Semantic Differential Scale
B	Unstandardised regression coefficient
Beta	Standardised regression coefficient
FSA	Fabroni Scale of Ageism
NA	Nursing Aide
QN	Qualified Nurse
SEB	Standard error of the coefficient
SIT	Social Identity Theory
SN	Specialised Nurse
SRQR	Standards for Reporting Qualitative Research
VIF	Variance Inflation Factor
STROBE	Strengthening the Reporting of Observational Studies in Epidemiology
PCS	Positive Contact Scale
NCS	Negative Contact Scale
PEACE	Positive Education about Aging and Contact Experiences



CHAPTER 1

GENERAL INTRODUCTION

“As unique as we humans are, the care of each older person is just as unique and this makes our profession more exciting and varied than any other!!”

(Participant¹¹¹³ Study 1b)

GENERAL INTRODUCTION

What is old age?

If you ask children at what age a person is considered old, they may answer 50 something years as reported in the study by Sacan et al. (1). If you ask an older person (65 years and over) what they consider to be old, they may answer 75 years as they did in the study conducted by Shinan-Altman and Werner (2) or they may not answer with a chronological age at all, but rather with statements that express how they perceive old age and the changes it may bring, for example impaired hearing or vision, reduced mobility, death of spouse or peers of the same age, starting to be dependent in activities of daily living, living only from day to day and not making firm plans for the future, as documented in the study carried out by Escourrou et al. (3).

In the international literature, there is no consensus on a definition of old age (4). In the late 1940s (in the United Kingdom), old age was set at 60 years for women and 65 years for men to determine the retirement age, introducing a gender difference in the definition of old age based on the perceived ability to work due to different retirement ages (5), despite women's higher life expectancy (6, 7), which remains evident in the 'double standard of ageing' (10). Today, the United Nations (UN) still defines old age as people aged 65 years and older (11). As people stay healthy longer, even in retirement (12), the concept of the third age by Laslett (13) has emerged (5). It is described as being an active participant in later life, being fit and healthy. When a need for care occurs, people slowly transition into the fourth age, which is characterised by illness, frailty, and care dependency. This transition is not marked by a chronological age and is a fluid and individual transition, (4, 5, 14) but is thought to occur mainly around the ages of 80 or 85 (4). This distinction between third and fourth age, or healthy and care-dependent older people, creates a potential for discrimination and ageism² by dividing the group of older people into desirable healthy and active older age and unde-

¹ The 'double standard of aging' describes an intersectionality of age and gender in which women are perceived more negatively in old age than men and are considered old earlier (8, 9).

² According to the World Health Organization (WHO), 'Ageism refers to the stereotypes (how we think), prejudice (how we feel) and discrimination (how we act) directed towards people based on their age. It manifests itself at three levels -institutional, interpersonal and self-directed -and can be either explicit or implicit' (p. 12) (15)

sirable dependent and inactive older age (4, 5). Terms like fourth ager, or the oldest old to describe the population of people aged 80 years and older therefore (often) have an ageist connotation. Ageist language subsequently influences ageist attitudes, opinions, and how older people are perceived by others. To avoid age discriminatory connotations, it is recommended that age groups like 80 years and older or octogenarians (i.e. persons who are 80-89 years old) be used as the negative social construct of age has been removed and only factual cohorts remain (4). In this doctoral thesis, older people are defined as people aged 80 years and older.

By the age of 80, the risk of care-dependency increases as does the need for support in performing activities of daily living in western industrial nations (16-18). For example, older people may be at higher risk of falls and pressure ulcers, require assistance with mobility, need help with basic care needs (such as dressing or hygiene), and have impaired mental and physical health (16). In acute care, as well as in long-term care (community based and residential care) settings, people aged 80 years and older form the group of people in care with the highest care needs (19, 20). Therefore, in this dissertation old age is considered to be 80 years and older, as the risk for care dependency and need for care increases at 80 years (16, 18).

Currently, society is facing global socio-demographic changes. Many people are in the position of looking forward to a longer life as life expectancy is increasing worldwide and the global population is growing and ageing (6). The UN (7) estimates that the world population will continue to grow until we reach an estimated peak by the 2080s. Due to lower fertility rates, the population will then begin to decline again. By then, the number of people aged 65 years and older will exceed the number of people aged 18 years and older. Even sooner, around the 2030s, there will be more people aged 80 years and older than infants in the world. According to the UN, this will lead to a different age structure than we have today with people under the retirement age, despite the diversity of retirement age in different countries, forming a smaller group than people over the retirement age. The aging of our population presents both opportunities as well as challenges for our society (7). Older people can be of great benefit to society by contributing as active members of the workforce, for example by working longer, as volunteers, as well as to their families, for example by helping with childcare. Since everyone ages individually and will at some point need health and care

services for a longer or shorter period of time, health professionals providing sustainable and high-quality care that meets the individual needs of older people are needed (6, 7, 21, 22).

Older people are cared for in various settings (e.g. acute care, long-term care, rehabilitation, or palliative care, either in inpatient settings or in the community) (20, 23-25). All care settings need to be responsive to the needs of older people and need to support the abilities of older people in an inclusive and collaborative way (6). A holistic approach to care³ that addresses all the individual health needs of older people is needed. All care and support settings (e.g. home care, residential care, acute care, social care, or prevention, rehabilitation, palliative care) that an older person may need should work together in a coordinated and person-centred⁴ way to achieve high-quality geriatric care⁵ (22). Because nurses have the skills and close contact with older persons in their care needed to plan, coordinate and deliver person-centred care in the context of geriatric care has become a core competency of nursing (29). In addition to competencies relating to person-centred care, a geriatric nurse should be able to ensure the dignity and quality of life of the person in their care, collaborate in a multi-professional team as well as with the person's family, have evidence-based nursing competencies, educate persons they care for, family members, and nursing students, and have the necessary leadership skills to plan and organize high-quality care (30). To being able to deliver this sustainable, individualised and high-quality care, a sufficient number of well-educated geriatric nurses is and will be needed (22, 31).

³ Holistic nursing focuses on the older person as a whole rather than on their diseases and care needs. When caring holistically for an older person, their physical, psychological, sociological, and spiritual needs are addressed by nurses (26).

⁴ The American Geriatrics Society defined person-centred care as following: *“Person-centered care” means that individuals’ values and preferences are elicited and, once expressed, guide all aspects of their health care, supporting their realistic health and life goals. Person-centered care is achieved through a dynamic relationship among individuals, others who are important to them, and all relevant providers. This collaboration informs decision-making to the extent that the individual desires’* (p. 16) (27)

⁵ High-quality geriatric care has been defined as being evidence-based, individualised and sensitive to a person's age. The older person is included in all decisions in form of informed decision making. The care is continuous across all settings and the independence and autonomy of the older person are promoted (28).

As students, many nurses do not want to pursue a career in geriatric nursing (32-34) as they are of the opinion that it is boring, depressing, or hopeless (32), or have been told by colleagues that it is not challenging, prestigious, or fast-paced enough to be perceived as desirable (35). These opinions on geriatric nursing are influenced by (student) nurses' attitudes and perspectives about older people and geriatric nursing care, their experiences in caring for older people, and the amount and quality of geriatric education (33, 34).

After graduation, their opinions about geriatric nursing often remain undesirable, and nurses working in geriatric care might be unsure if they want to continue on this career path and a majority would not recommend pursuing a career in geriatric nursing to students (36, 37) due to, for example, limited career prospects, negative perception of geriatric nursing in the public eye, or a difficult work environment (38). In a Finnish study, home care nurses were asked why they decided to leave geriatric nursing. The main reasons for them leaving the profession were a mismatch between the needs of the persons in their care and the care they were able to provide (e.g. medical focused care rather than a holistic care approach, limited hours of availability, high costs), a standardisation of care provided that was not able to meet individual needs, and an uneven work-life balance (39). In another study carried out in Canada, residential long-term care nurses' reasons for leaving the profession were similar. They felt that regulations within the care process limited their ability for flexibility and for using their professional judgment, as well as a lack of (financial) resources. On the other hand, the nurses also stated reasons for staying in geriatric nursing, such as the ability to build relationships with the persons in their care, the relationship they have with colleagues, and the need and opportunities for further (geriatric) education and training (40). Similar opinions on geriatric nursing could also be seen in other studies, as highlighted below.

A systematic review by Compton et al. (32) showed that nurses' perspective on geriatric nursing was influenced by the organisation, meaning that when enough resources (staff, equipment) for delivering adequate and high-quality care were provided, and supportive leadership is available, nurses perceived care more positively. Furthermore, nurses valued the possibility to build meaningful relationships with people in their care, and were of the opinion that by providing a holistic approach to care, they are using more

than technical skills in providing care. Inadequate staffing and high workload on the other hand were perceived as negative, as these led to the feeling of not providing sufficient care to improve the quality of life of older persons (32). A Swedish study assessed what influences nurses positive or negative perceptions about geriatric care. These influencing factors are, for example, nurses' attitudes towards older people, geriatric or geriatric education, daily interaction with older people in care, and working as a nurse for a considerable time (41).

As described above, nurses' perspectives and opinions on geriatric nursing can be, among other factors, influenced by their attitudes towards older people (33, 36, 41). Negative and ageist attitudes towards older people not only have a negative influence on nurses' willingness to work in geriatric care (33), but also on the nursing care provided to older people, as the amount, kind, and quality of care is reduced (42, 43). Due to ageism, older people may also be neglected (e.g. being ignored, treated as objects or being bedridden or feeling patronized by the use of 'baby talk', not including the older person in decisions and not providing individualised care as it is the easier option, and not taking advantage of the older persons' abilities and resources (15, 43-45). Positive attitudes, by contrast, influence nursing practice positively as they lead to an increased quality of care, as well as to improved nurses' caring behaviour (e.g. being open and available to meet an older person's needs, demonstrating competence and compassion, ensuring the older person's dignity, having a relationship marked by trust and comfort with the older person, and providing constant assistance) (46, 47). International data on (student) nurses' attitudes toward older people and geriatric care are inconclusive and range from negative to positive. (33, 42, 48, 49). There is some evidence that nurses' attitudes towards older people are influenced, for example, by nurses' work experience, the setting in which they work (50), the quality of contact with older people in their professional (51) and personal lives (52), and their culture (53).

Especially nurses who are in close contact with ill and care-dependent older people might be at higher risk of forming negative attitudes towards older people over time. As they work closely with older people who fit the stereotype of being in the fourth age, they may form biased opinions towards older adults due to stressful and demanding work-related interactions with older

adults (42, 54, 55). If the contact they have with older adults during working hours is perceived as negative, the risk for negative attitudes increases (51).

In conclusion, nurses' attitudes, perspectives, and opinions towards older people and geriatric care can be influenced by, for example, contact in several ways (i.e. professional or private) with older people, or geriatric education (32, 41, 51), and nurses' attitudes, perspectives, and opinions about older people and geriatric care, which can then have an impact on the quality of care provided and their willingness to work in this field (33, 42, 43). To embed these considerations into underlying theoretical concepts, the following chapter provides an overview of relevant theoretical considerations that were used in this dissertation, with a particular focus on attitudes, perspectives, and opinions.

THEORETICAL FRAMEWORK

Often, attitudes, perspectives, and opinions are incorporated or subsumed under the term '*attitudes*' which led to a diversity of definitions and trouble finding a consensus on terms (56). The following chapter provides an overview of the interplay and differentiation of attitudes, perspectives and opinions in the context of geriatric nursing.

When working towards a definition of attitudes, Fishbein and Ajzen (56) point out that attitudes have

'three basic features: the notion that attitude is learned, that it predisposes action, and that such actions are consistently favorable or unfavorable toward the object' (p. 6) (56).

They further describe attitudes as a person being favourable or unfavourable towards an object, action or event. Later on, Eagly and Chaiken (57) define attitudes based on the previous discourse about the definition as:

'a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor' (p. 1) (57).

This definition describes that an attitude is an internal state of a person in terms of an evaluative response. An evaluative response is observable and

expresses approval or disapproval, or favour or disfavour (57). Three evaluative components that are observable in attitudes are: [1] The affective component are feelings and emotions about, for example, a group or belief systems. [2] The cognitive component includes beliefs and opinions towards someone or something and attributes one has assigned to them. [3] The behavioural component consists of behaviours or actions that are influenced by attitudes. Attitudes have three manifestations and can be either positive, negative or neutral (57). One way to measure attitudes is by using a semantic differential, where attitudes towards a specific concept are measured using bipolar adjective pairs (58). Rosencranz and McNevin (59) developed the *Aging Semantic Differential*⁶ (ASD) to measure attitudes towards older people. It is composed of adjective pairs such as 'healthy - unhealthy' or 'happy - sad'. Since it was first developed, it has been translated, psychometrically tested, and adapted numerous times but continues to be one of the most frequently used scales for measuring attitudes towards older people (52, 60-63).

Attitudes, for example, about a person, a group of people, an event, or a behaviour (i.e. object) are based on the set of opinions someone has about this object. Opinions are beliefs that represent the information a person has about an object. Opinions may be formed in experiences or interactions with another person. For example, in past experiences and interactions with older people, one might form the opinion that older people are wise or care-dependent. Nurses may form opinions about older people in the context of their work. Opinions are also formed by information given by an outside source. For example, if older people are portrayed in a specific way in media, it might influence the opinion one has about older people. Nurses might form opinions about older people based on their education or colleagues' opinions for example. By forming an opinion about the object, a person links the object to an attribute. The sum and evaluation of these attributes then forms the informational base that serves to shape attitudes (56, 57). By using qualitative research, opinions, beliefs or experiences can be measured (64).

⁶ A detailed description of the ASD and its psychometric properties can be found in Chapter 3 and 5

A person's attitudinal opinions and how a person labels these opinions (e.g. positive, moderate, favourable, unfavourable) in the form of attitudes are also influenced by their perspective. When a person is asked what their attitude about something is, a person is applying labels to their beliefs and these are selected on the basis of the perspective they have formed. It means that when they are making a judgment, a person is taking all alternatives into account (65). Perspectives are defined as:

'[...] an ordered view of one's world - what is taken for granted about the attributes of various objects, events, and human nature. It is an order of things remembered and expected as well as things actually perceived, an organized conception of what is plausible and what is possible; it constitutes the matrix through which one perceives his environment.' (p. 564) (66)

It is a way for a person to find stability in fast-changing surroundings as it brings a form of predictability and serves as the outline frame of experience. For example, people with different perspectives perceive different things about their surroundings. On a geriatric ward at the hospital, for example, a nurse and a visitor might see different things. A nurse might perceive, for example, the pain of an older person taking a walk down the corridor and a visitor might perceive the busyness of the ward (66).

When forming a perspective, beliefs ranging from pro to con, positive to negative, are considered, and as the perspective widens, attitudes are considered less extreme. This means that if in a group of people it is believed that the attitudes are more neutral, then the perspective narrows and becomes more moderate, and if it is believed that the attitudes are more negative, then one might adopt the more negative attitude as the perspective widens. For example, if a nurse believes that in their workplace the attitude towards older persons is positive, their attitude becomes more moderate (65). Furthermore, someone's perspective can be changed by their experiences (e.g. becoming a parent, the loss of a family member, working in geriatric nursing) and interactions with others (e.g. nurses and persons in their care) (67) that lead to recognising new things in one's surrounding world that were previously overlooked and to perceiving the world in a new light (66, 67).

In the context of geriatric nursing, perspectives on caring for older people are defined by Burbank et al. (68) as:

'[...] an ordered view of the situation of caring for older patients derived from meaning ascribed to this situation through interaction with others.' (p. 99) (68)

In line with this definition, the Perspectives on *Caring for Older People Scale*⁷ (PCOP) was developed to measure nurses' perspective on the care of older people. The scale takes situation-specific perspectives and the interaction defining one's perspectives into account. It consists of 9 items that are statements about the care of older people (e.g. 'Caring for older patients is usually challenging and rewarding'). It is a self-assessment scale whereby participants rate the statements on a 4-point Likert scale from strongly agree to strongly disagree.

As mentioned above, attitudes may consequently form behaviour. A person's attitude can influence their intention to perform a specific behaviour. If a person has a positive attitude towards older persons for example, they may, for example, intend to display positive behaviour in the form of seeking contact with older people. This is complemented by normative beliefs, i.e. what a person thinks they should or should not do based on social norms. Although the relationship between attitudes and (intended) behaviour is discussed in the literature, attitudes, opinions, and perspectives interplay to some degree with a persons' intention of behaviour (56, 57). Therefore, nurses' negative attitudes towards older people can then manifest in ageism or unwillingness to work in geriatric care (15, 33, 36, 56, 69).

In Figure 1, the theoretical framework that underlies this doctoral thesis with regard to the theoretical considerations on attitudes, perspectives, and opinions described above is presented. Taking these theoretical considerations and the prior exploration of international literature into account, several research gaps were identified and are described in the following.

⁷ A detailed description of the PCOP scale and its psychometric properties can be found in Chapter 3 and 5

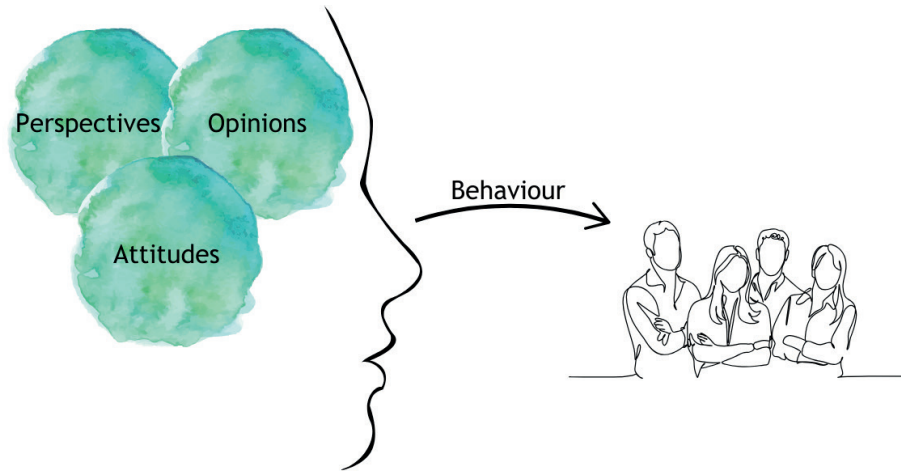


Figure 1 Theoretical framework of attitudes, perspectives, and opinions of this doctoral thesis based on Fishbein and Ajzen (56), Eagly and Chaiken (57), Ostrom (65), Shibutani (66), and Burbank et al. (68)

RESEARCH GAPS

There is an existing international body of research on nurses' attitudes, perspectives, and opinions about older people and geriatric care (32, 33, 36, 41, 42, 70-73), but previous studies rarely focus on a defined age group within older people and in particular not on people aged 80 years and older (41). Older people age individually and are therefore not a homogenous group that should be assessed as such. Around the age of 80, the risk of care dependency increases, and older adults may fit the existing stereotypes of being frail and dependent and may therefore be more at risk of negative attitudes (31, 74). By assessing this specific age group, more specific attitudes relating to older people might be assessed, which might lead to more conclusive results. Previous findings present a conflicting picture of nurses' attitudes towards older people and geriatric nursing ranging from negative to positive and influencing factors (e.g. age, gender, and education) are not conclusive and require further investigation (42, 70).

Past and recent studies rarely focus on the long-term care (community or residential care) setting (75). Especially in long-term care, the majority of care is provided to people aged 80 years and older (19, 21, 24). Data are

needed in all settings to describe the status quo and to implement further steps to ensure high-quality, inclusive, respectful care for people aged 80 years and older that is consistent across all settings, as described above (21, 22, 31, 42).

Nurses' opinions and perspectives on older people and geriatric nursing have an impact on nurses attitudes (32, 36, 41), but little is known about nurses' opinions and perspectives on caring for older people, especially those aged 80 years and older (42). To be able to understand nurses' attitudes towards older people and geriatric care, the components involved in forming these attitudes (i.e. opinions and perspectives) need to be taken into account (56, 68). In addition, little is known about positive opinions nurses have about their work and their perspectives on the needs for providing high-quality geriatric care (32). This knowledge is needed to gain insights into possible interventions to support high-quality geriatric care with the expert knowledge of those working in this field. To help fill these research gaps, the objectives of this dissertation were defined as described below.

AIMS AND OUTLINE OF THE DOCTORAL THESIS

The overall aim of this dissertation is to provide an insight into the attitudes, perspectives and opinions of nurses working in acute and long-term care settings on people aged 80 and over and the care of people aged 80 years and older. Three studies were conducted in the course of this work. The first study, part a⁸, assessed nurses' attitudes towards and perspectives on people aged 80 years and older and their care including nurses' interactions with older people and people in care who are 80 years and older. The second part of the first study, part b⁹, explored nurses' opinions about people aged 80 years and older and geriatric care and takes nurses' experiences into account. The second study¹⁰ assessed nurses' attitudes towards and perspectives on people aged 80 years and older and their care including nurses' interactions with older people and people in care who are 80 years and older with a focus on the long-term care setting. The third study¹¹ ex-

⁸ See Chapter 3

⁹ See Chapter 4

¹⁰ See Chapter 5

¹¹ See Chapter 6

amined nurses' opinions on geriatric nursing again, taking into account previous findings. The objectives of each study included in this dissertation are outlined below:

STUDY 1a

The investigation was guided by three objectives: [1] First, we wanted to assess the attitudes of Austrian long-term care nurses towards people aged 80 and over and towards geriatric care. [2] The second aim was to compare these attitudes between the long-term care settings of residential care and home care. [3] Finally, the study focused on identifying the factors that influence these attitudes, with particular emphasis on the impact of the quality of contact with people aged 80 and over receiving care.

STUDY 1b

The aim of the second part of the first study was to explore Austrian nurses' experiences and opinions regarding the care of people aged 80 years and older and to explore how the nurses perceive geriatric care.

STUDY 2

The objectives of the second study were threefold: [1] We sought to assess the attitudes of Austrian nurses working in long-term care towards people aged 80 and over. [2] Second, we also aimed to assess nurses' attitudes toward caring for this age group and, finally, [3] we investigated possible factors influencing attitudes towards adults aged 80 years and older.

STUDY 3

The final and third study was guided by two research questions:

[1] What do nurses value about working in geriatric care?

[2] What are nurses' ideas on how to address challenges in geriatric care?

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CHAPTER 2

METHODS

“If sufficient resources are available and professionalism can be guaranteed, caring for older people is a wonderful profession”

(Participant⁴⁴¹ Study 1b)

METHODS

This chapter provides an overview of the methodological approaches of the studies included in this dissertation. Table 1 provides considerations of each study's aim, design, setting and sample, data collection methods, and data analysis. Chapters 3-6 provide detailed information on the methods used.

Table 1 Overview of included studies regarding aim, design, setting and sample, data collection methods, and data analysis

	Study 1a	Study 1b
Aim	<p>This study had three aims:</p> <ol style="list-style-type: none"> 1. To assess Austrian nurses' attitudes towards adults aged 80 years and older 2. To measure nurses' perspectives regarding the care of older adults 3. To identify factors that influenced positive or negative attitudes towards older adults. 	<p>The aim of this study was to analyse nurses' experiences and opinions regarding the care of people 80 years of age and older and to learn more about how nurses perceive this care.</p>
Design	Cross-sectional study	
Setting & Sample	<ul style="list-style-type: none"> • All health care settings • Convenience sample • 1,179 nurses (nurses with and without a diploma or specialisation) 	<ul style="list-style-type: none"> • All health care settings • Convenience sample • 149 nurses (nurses with and without a diploma or specialisation)
Data collection methods	<ul style="list-style-type: none"> • Online questionnaire • Scales: <ul style="list-style-type: none"> o ASD (1) o PCOP (2) • Data collection May-October 2021 • Commentary Field 	
Data analysis	<p>Qualitative Content analysis of narratives given in the commentary field</p>	<ul style="list-style-type: none"> • Descriptive statistical analysis • Inferential statistical analysis (unpaired <i>t</i>-test, one-way ANOVA, multiple linear regression analysis)

Notes: ASD - Aging Semantic Differential, NGT - Nominal Group Technique, PCOP - Perspectives on Caring for Older Adults

Study 2	Study 3
<p>This study had three aims:</p> <ol style="list-style-type: none"> 1. To assess the attitudes of Austrian nurses working in long-term care towards adults aged 80 years and older and towards geriatric care 2. To compare nurses' attitudes towards adults aged 80 years and older in residential care and home care settings 3. To assess which factors influence nurses' attitudes, especially with regard to the role of the quality of contact with care recipients aged 80 years and older. 	<p>This study had two research questions:</p> <ol style="list-style-type: none"> 1. What do nurses value about working in geriatric care? 2. What are nurses' ideas on how to address challenges in geriatric care?
Cross-sectional study	Descriptive qualitative study
<ul style="list-style-type: none"> • Long-term care settings <ul style="list-style-type: none"> o Residential long-term care o Home care o Community care • Convenience sample • 875 nurses (nurses with and without a diploma or specialisation) 	<ul style="list-style-type: none"> • Long-term care settings <ul style="list-style-type: none"> o Residential long-term care o Home care o Community care • Convenience and snowball sample • 12 nurses (nurses with and without a diploma or specialisation)
<ul style="list-style-type: none"> • Online questionnaire • Scales: <ul style="list-style-type: none"> o ASD (1) o PCOP (2) o PNCS (3) • Data collection May-October 2021 • Commentary Field 	<ul style="list-style-type: none"> • Modified focus groups <ul style="list-style-type: none"> o Freelisting Interviews (4) o NGT (5) o Data collection February 2025
<ul style="list-style-type: none"> • Cross-cultural adaptation of scale • Internal reliability (Cronbach's α) • Descriptive statistical analysis • Inferential statistical analysis (unpaired t-test, Pearson correlation, multiple linear regression analysis) 	<ul style="list-style-type: none"> • Descriptive statistical analysis • Saliency analysis • Analysing ranks of NGT according to Van Breda (6)

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CHAPTER 3

Nurses' perspectives on caring for and attitudes towards adults aged eighty years and older.

“What characterizes a person is not always their age, but the sum of their attitude to life and their experience. Their environment, their character and their personal life story. Their physical and mental health - that’s how I see a person.”

(Participant¹³⁶¹ Study 1b)

Published:

Lampersberger LM, Schüttengruber G, Lohrmann C, Großschädl F. Nurses' perspectives on caring for and attitudes towards adults aged eighty years and older. Scand J Caring Sci. 2023;37(2):458-71. <https://doi.org/10.1111/scs.13127>

ABSTRACT

BACKGROUND

Adults aged 80 years and older form a vulnerable group regarding perceived ageism, because they are often stereotyped as being frail and dependent. Nurses often display biased behaviour and hold negative attitudes towards this age group, due to the fact that they have frequent contact with patients who need complex care. As this frequent contact can negatively influence the quality of care, we performed this study to assess nurses' attitudes towards adults aged 80 and older and their views regarding their care, as well as to identify factors that influence attitudes.

METHODS

A cross-sectional study design was used. A convenience sample of 1,179 Austrian nurses was taken, and their attitudes were measured using the Ageing Semantic Differential (ASD) Scale. Their views on caring for older adults were assessed with the Perspectives on Caring for Older People (PCOP) Scale. Multiple linear regression was used to examine factors that influence nurses' attitudes. The Ethics Committee of the Medical University of Graz (EK Number 31-320 ex 18/19) gave their ethical approval for this study.

RESULTS

Nurses display neutral to positive attitudes towards adults aged 80+ and view caring for them positively. Positive attitudes were indicated, for example, by the factors of a positive view towards the care of older patients, a higher education, and a personal relationship with older adults. Negative attitudes were indicated by the factors of being female and interacting more frequently with older care receivers.

CONCLUSIONS

Although the nurses' attitudes were not negative, they should be encouraged to view this patient population more positively. Educational interventions to alter nurses' attitudes and thus to improve the quality of care are recommended. As the *ASD* measures some aspects of ageism, it is recommended to consider qualitative methods in future studies to obtain a deeper knowledge of ageism in nursing care.

Keywords: Ageism, age stereotypes, nursing, semantic differential, cross-sectional study

BACKGROUND AND OBJECTIVES

By 2050, the number of adults aged 80 years and older is expected to triple globally (1). This sociodemographic development may result in a growing need for care and nursing (2). Therefore, well-prepared nurses who can care for the older population will be needed. The nurses' willingness to care for older adults is influenced by their attitudes, and many student nurses and nurses consider working to provide care for older adults as an undesirable career choice (3, 4).

Especially adults aged 80 years and older can be a vulnerable group regarding perceived negative attitudes or ageism (5), because these individuals are often stereotyped as being frail and dependent (6) and have a higher risk of care dependency (7). People in this age group are also referred to as people in the so-called fourth age (8), which is not defined by their chronological age, but is described as a loss of the ability to manage tasks of daily living. The fourth age is often marked by comorbidities and frailty, and the transition into this age is fluid and individual. It is presumed to occur when a person is between 80 and 85 years of age. As adults in the third age are often described as being healthy and active, the transition into the fourth age group has negative associations, which makes adults aged 80 years and older more likely targets of ageism (8). Nurses, as well as other health care professionals, are more likely to hold negative attitudes towards older adults (9, 10). They may hold positive attitudes towards older adults in general, but hold more negative attitudes towards ill and care-dependent patients who need complex care (10). For this reason, health care professionals are often biased in their view of older adults due to their increased exposure to patients who are care-dependent. In order to dissociate themselves from the process of ageing, health care professionals often take on ageist practices (11), and different social theories have been developed to try to explain the psychological functions underlying these negative attitudes towards older adults and ageism (e.g. Terror Management Theory, Social Identity Theory) (12).

According to the Social Identity Theory (SIT) (13), people identify themselves with a group (in-group) of like-minded people who are of the same age or the same ethnicity. The group identity also becomes part of their self-identity to obtain a positive view of themselves. People tend to favour their

in-group over people belonging to another age group, such as older adults, or belonging to different ethnicities (out-group), an observation called the in-group bias. By favouring the in-group, people tend to rate those belonging to this group as better than the out-group, which causes them to display discriminatory behaviour. The more aware people become about the existence of an out-group, the more likely people in the in-group are to be provoked to display “discriminatory responses” (13). As nurses (in the in-group) work frequently with adults aged 80 years and older, they may be more aware that these adults are older adults and have a different health status (out-group) than people who are not working in nursing or health care; therefore, nurses are eventually more likely to hold negative attitudes towards adults aged 80 years and older (9-11).

Despite the psychological explanation given above, previous studies have shown inconsistent results regarding nurses’ attitudes towards older adults. A systematic review showed that nurses’ attitudes had become less positive from 2000 to 2010 (14). In studies in which the attitudes were measured with the Kogan’s Attitudes Towards Older People (KOAP) Scale, nurses showed positive attitudes towards older people (4, 15). In contrast, 53.3% of assessed Iranian nurses held negative attitudes towards older adults (16). As measured with the Fabroni Scale of Ageism (FSA), 89.9% of Jordanian nurses held negative attitudes towards older adults (17). The Ageing Semantic Differential (ASD) Scale was used to assess nursing students’ attitudes towards adults aged 80 years and older in Austria (18, 19) and Sweden (18). In Austria, the nursing, medicine, and humanities students displayed slightly negative attitudes towards older adults (19), while in Sweden the nursing students displayed more positive attitudes than Austrian nursing students (18).

The reason for these differences is not completely clear, but some studies show indications that the nurses’ or nursing students’ attitudes towards older adults are influenced by their age (16, 18), work experience and setting (16), level of nursing education, having older adults in the family (15), personal relationship with older adults and the knowledge of ageism (19), and culture (20).

So far, two concepts have been mentioned: attitudes and ageism. Eagly and Chaiken (21) defined attitude as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor”

(p. 1). Fishbein and Ajzen (22, 23) also had stated previously that attitudes have affective, cognitive, and behavioural components. The affective component includes feelings and emotions towards an object, group, social issues, or belief system. The cognitive component covers beliefs and thoughts towards as well as attributes assigned to an object. The behavioural component comprises ways in which people's behaviour or actions are influenced by their attitudes. Attitudes are bipolar, meaning that they are assessed as either being positive or negative with a neutral transition point (22, 23).

One measurement tool used to assess attitudes towards older adults is the *ASD*, developed by Rosencranz and McNevin (24). It is based on the semantic differential paradigm developed by Osgood et al. (25) and uses bipolar adjectives (i.e. opposite adjective pairs, such as healthy-unhealthy, strong-weak, or happy-sad) with a neutral transition point to describe older adults (24). The *ASD* is one of the most frequently used instruments to measure attitudes towards older adults (26). Since its development, the instrument has been adapted (27), translated into several languages, psychometrically tested (19, 28, 29), and used around the globe (28, 30, 31).

In the same year as Rosencranz and McNevin developed the *ASD*, Butler (32) defined ageism as "prejudice by one age group towards other age groups" (p. 243) Since then, ageism has been defined several times (12, 33). The most recent definition by the World Health Organization (34) states that "Ageism refers to the stereotypes (how we think), prejudice (how we feel) and discrimination (how we act) directed towards people based on their age. It manifests itself at three levels - institutional, interpersonal and self-directed - and can be either explicit or implicit" (p.12). Ageism can be either positive or negative (12). The *ASD* was initially developed to measure stereotypical attitudes towards older adults (24), since ageism was not recognised as a concept at the time. Despite this, the *ASD* is currently used to measure ageist attitudes towards older adults and can be used to measure explicit, other-directed ageism on either the cognitive or affective level (34, 35).

As older adults age individually, researchers should consider that examining members of different age groups, such as adults aged 80 years and older, may lead to different results regarding ageism. Thus, groups of older adults were usually the target groups of studies examining nurses' attitudes or ageism, without distinguishing among them with regard to their age (14, 15,

17). The potentially vulnerable age group of adults aged 80 years and older has not been subjected to comprehensive research so far. Nurses' attitudes can negatively influence the quality of care (10), but no comprehensive data about nurses' attitudes towards adults aged 80 years and older are available, either internationally or in Austria. This study is based on a previous study by Schüttengruber et al. (19) which assessed the attitudes of Austrian students (nursing, medicine, and humanities) towards adults aged 80 years and older. We had three aims in carrying out this study, as nurses may display biased attitudes and in order to gain a deeper insight into factors that influence these attitudes: [1] to assess Austrian nurses' attitudes towards adults aged 80 years and older, [2] to measure nurses' perspectives regarding the care for older adults, and [3] to identify factors that influenced positive or negative attitudes towards older adults.

RESEARCH DESIGN AND METHODS

This study has a cross-sectional design and was conducted via an online survey with a convenience sample.

DATA COLLECTION AND SAMPLING

Austrian qualified nurses, specialized nurses, and nursing staff without a diploma were invited to participate in an online survey which took approximately 10 minutes to complete. These three nursing professions were chosen because they work directly with patients. The qualified nurses had graduated with a diploma or had received a bachelor's degree. These nurses could specialize in, for example, intensive care by attending a one-year university course. Nurses without diploma included nursing aids, assistant nurses who had received one year of education, and assistants who had received two years of education. The needed sample size for a 95 % confidence interval was calculated to be $N = 383$ using Qualtrics' (36) sample size calculator. The calculation was based on a current number of 127,000 nurses (including qualified nurses, specialized nurses, and nursing staff without a diploma) working in Austria at the time (37).

A convenience sampling was conducted. The participants were approached by e-mail, newsletter and social media. We employed three tactics to recruit participants: [1] Invitations to participate were sent via e-mail to nurs-

ing managers and directors in Austrian hospitals, nursing homes, and other health care facilities. The e-mail included a cover letter and a kind request to forward the invitation to nursing staff. [2] The Austrian Nursing Association forwarded the invitation via their newsletter. [3] Invitations were posted on social media (Facebook). Reminders were sent via the newsletter of the Styrian Nursing Association and social media. Data were collected across Austria from May 2021 to October 2021 with LimeSurvey (38).

ETHICAL CONSIDERATIONS

The Ethics Committee of the Medical University of Graz (EK Number 31-320 ex 18/19) gave their ethical approval for this study. Before answering the questionnaire, a written description of the study was given to the nurses via a link, and we asked the nurses whether they wanted to participate in the study. By answering this question with “yes,” the participants gave their consent. Data were collected anonymously, and no conclusions could be drawn about the nurses’ identities.

INSTRUMENT

A research group developed the online questionnaire as part of a cooperation between the University of Gothenburg and the Medical University of Graz. This questionnaire consisted of the *ASD*, the *Perspectives on Caring for Older People (PCOP) Scale*, demographic questions, and questions about factors that could potentially influence attitudes, as retrieved from the international literature (15, 16, 20). The two mentioned scales were chosen for the following reasons: The *ASD* assesses the attitudes towards older adults in general (29, 30), which was relevant for our purposes because we did not specify older adults in any more detail than being aged 80 years and older. The *PCOP* scale was developed to assess how nurses perceive the care of older patients (39). By using both scales we were able to distinguish between nurses’ attitudes towards older adults in general and their attitudes regarding the care for older patients.

A four-factor structure with 26 adjective pairs was confirmed for the German version of the *ASD* (30) as well as for the Austrian population (19). The four factors are instrumentality (e.g. busy-idle, strong-weak), autonomy (e.g. secure-insecure, independent-dependent), acceptability (e.g. co-

operative-uncooperative, friendly-unfriendly), and integrity (e.g. optimistic-pessimistic, happy-sad). Instrumentality measures attitudes towards the older adults' "vitality, adaptability and active pursuit of goals", autonomy assesses attitudes towards their "self-sufficiency and active participation in social life," acceptability reflects attitudes towards their ability to be "socially at ease," and integrity measures attitudes towards their "personal satisfaction and peacefulness". A score of seven per item can be reached, with one indicating positive, four indicating neutral, and seven indicating negative attitudes. A sum score between 26 and 182 can be reached for the whole ASD, with lower scores reflecting more positive attitudes (29, 30). The construct validity and internal reliability (Cronbach's $\alpha > 0.8$) of the German ASD were measured and confirmed by Gluth et al. (30), and Schüttengruber et al. (19) conducted a confirmatory factor analysis to confirm the four-factor structure. Gluth et al. (30) were asked for their permission to use the German version of the ASD.

The PCOP short version (39) was included as a second instrument in this survey. The scale consists of nine items in which participants rate statements on the characteristics of older patients and their feelings about caring for older patients on a four-point Likert scale, which ranges from strongly disagree (= 1) to strongly agree (= 4). Higher scores indicate that the individuals have more positive attitudes towards caring for older patients. Psychometric testing has confirmed that the PCOP is a valid and reliable scale that can be used to measure nurses' perspectives towards caring for older patients (Cronbach's $\alpha > 0.8$) (39). The first author was asked for permission to use the instrument, and the English instrument was translated and back-translated into German by two persons, one of whom was a native speaker in both languages and the other of whom was a native German speaker and fluent in English.

Demographic questions were asked to collect information about the nurses' sex, age, country of birth, and educational level. Questions regarding possible influencing factors included questions about the nurses' vocation and contact and relationships with older adults (see Table 1). At the end of the questionnaire, participants were given the opportunity to add any further comments or thoughts in a free-text field.

Table 1 Variables included on the questionnaire regarding demographics and influencing factors

Demographic variables	Influencing factors
Sex	Nurses' professions
Age	Experience in health care
Country of birth	Work setting
Educational level	Clinical focus
	Geriatric or gerontological education
	Work field (e.g. clinical, management)
	Amount of interaction with adults ≥ 80
	Personal relationship with adults ≥ 80 in family/circle of friends
	Thinking of a gender while answering ASD
	Knowing the meaning of ageism
	Knowing the definition of ageism

DATA ANALYSIS

The data analysis was carried out with the IBM SPSS Statistics (Version 26) software. In total, 1,735 nurses took part in the survey, but only surveys for which the consent to participation was given and the ASD was filled out completely were included in the analysis ($n = 1,179$). All cases were statistically analysed, including those with missing data, except that only cases without missing data were analysed in the multiple linear regression. Due to the sample size, histograms and *Q-Q* plots were used to check for the normal distribution of the data (40). All data were approximately normally distributed. The characteristics and the attitudes of the study sample were shown using descriptive statistical analysis. The mean, including the standard deviation, was used for continuous variables, and percentages were used for categorical variables. To test group differences regarding the ASD, unpaired *t*-tests and one-way ANOVAs were carried out. If the variances were significantly different, Welch's *F* test was used. A multiple linear regression was carried out for the ASD sum score as well as for the four subscales of instrumentality, autonomy, acceptability, and integrity. Due to missing values, 771 cases were ultimately analysed. Dummy variables were built for non-binary categorical variables. In the beginning, all surveyed variables for possible

influencing factors and demographics (see Table 1) were included in each model and were removed one by one due to multicollinearity. If two independent variables showed a high correlation ($r > 0.8$), the variable that fit the model best according to the R value was kept. In addition, the variance inflation factors (VIF) were checked to determine whether they were below 10 (40). The variable age correlated with the variable number of years working in health care and the variable age was excluded to improve the model fit. Finally, the following influencing variables shown in Table 2 were included in the five models of the ASD sum score and the subscales: The assumptions of linearity, independence of errors, homoscedasticity, unusual points, and normality of residuals were met. An enter procedure was used for the multiple linear regressions. P -values ≤ 0.05 were considered as statistically significant.

Table 2 Predictor Variables Included in the Linear Multiple Regression Model

Variable	Category (1)	Reference category (0)
Sex	Female	Male
Origin	Not Austria	Austria
Profession	Qualified/specialized nurse	Nursing staff without diploma
Educational level	Academic	Non-academic
Years working in health care	Continuous variable	
Setting	Acute/long-term care	“Other”
Clinical focus	No	Yes
Geriatric or Gerontological education	No	Yes
Working duty	Clinical	Nonclinical
Interaction with patients ≥ 80	Often	Seldom
Able to discuss personal topics	Few	Many
Thinking of a gender while answering the ASD	No	Yes
Know the meaning of ageism	Yes/no	Unsure
Chose the correct definition of ageism	Incorrect	Correct
PCOP sum score	Continuous variable	

RESULTS

The mean age of the nurses was 42.2 (± 11.3) years and ranged between 21 and 65 years. On average, the participants had worked 20.0 (± 12.3) years in health care, ranging from just beginning to up to 47 years of work experience. Regarding the variable sex, only women and men were analysed, because very few answers were provided in the categories “other” or “do not want to disclose”. Table 3 shows the participants’ characteristics, work environments, and contact with adults ≥ 80 years of age.

Table 3 Participants' Characteristics, Work Environment, and Contact with Adults ≥ 80

<i>(n)</i>	<i>Category</i>	<i>%</i>
Sex (1,165)	Female	86.9
Origin (1,177)	Austrian	92.8
Education (1,163)	Compulsory education	25.9
	University entrance qualification	27.3
	Vocational training	18.0
	Bachelor's degree	16.8
	Master's degree	11.5
	PhD degree	0.6
Profession (1,172)	Qualified nurse	55.3
	Specialized nurse	33.4
	Nursing staff without diploma	11.3
Setting (1,179)	Acute care	75.7
	Long-term care	18.7
	Others	5.6
Clinical focus (1,179)	No	22.3
	Yes	77.7
	Medical	22.6
	Geriatrics	8.8
	Palliative	2.5
	Psychiatry	7.5
	Neurology	7.1
	Surgery	28.0
	Others	23.4
Work duty (1,178)	Clinical	75.0
	Management	18.8
	Teaching	2.2
	Research	0.8
	Others	3.1

Table 3 Participants' Characteristics, Work Environment, and Contact with Adults ≥ 80 (continued)

<i>(n)</i>	<i>Category</i>	<i>%</i>
Geriatric/Gerontological education (1,177)	No	77.4
	Yes	22.5
	Part of nursing program	22.5
	Stand-alone course	61.1
	Postgraduate training	31.3
	Others	6.0
Interaction with patients ≥ 80 (1,179)	Never	10.3
	Occasionally	12.3
	Weekly	13.4
	Daily	64.0
Having family/friends ≥ 80 (1,178)	No	23.1
	Yes	76.9
	Can discuss any personal topic	22.9
	Can discuss nearly all personal topics	18.8
	Can discuss many personal topics	28.7
	Can discuss some personal topics	19.3
	Can discuss few personal topics	7.6
	Can discuss no personal topics	2.7
Thought of a gender (1,177)	No	69.1
	Female	24.1
	Male	6.8
Meaning of ageism (1,143)	Yes	37.6
	No	48.9
	Unsure	13.5
Definition of ageism (1,090)	Correct	88.6
	Incorrect	11.4

Overall, Austrian nurses reported neutral attitudes towards adults aged 80 years and older: The mean score of the ASD was 3.6 ± 1.0 . On the four subscales, participants showed neutral attitudes in terms of instrumentality (3.9 ± 1.0), autonomy (3.6 ± 1.1), and integrity (3.7 ± 1.1). Regarding the subscale acceptability, nurses showed rather positive attitudes (3.2 ± 1.1). The adjective pair flexible-inflexible was the only pair that was rated rather negatively (4.5 ± 1.4). The rest of the adjective pairs were rated as neutral or rather positively (see Figure 1).

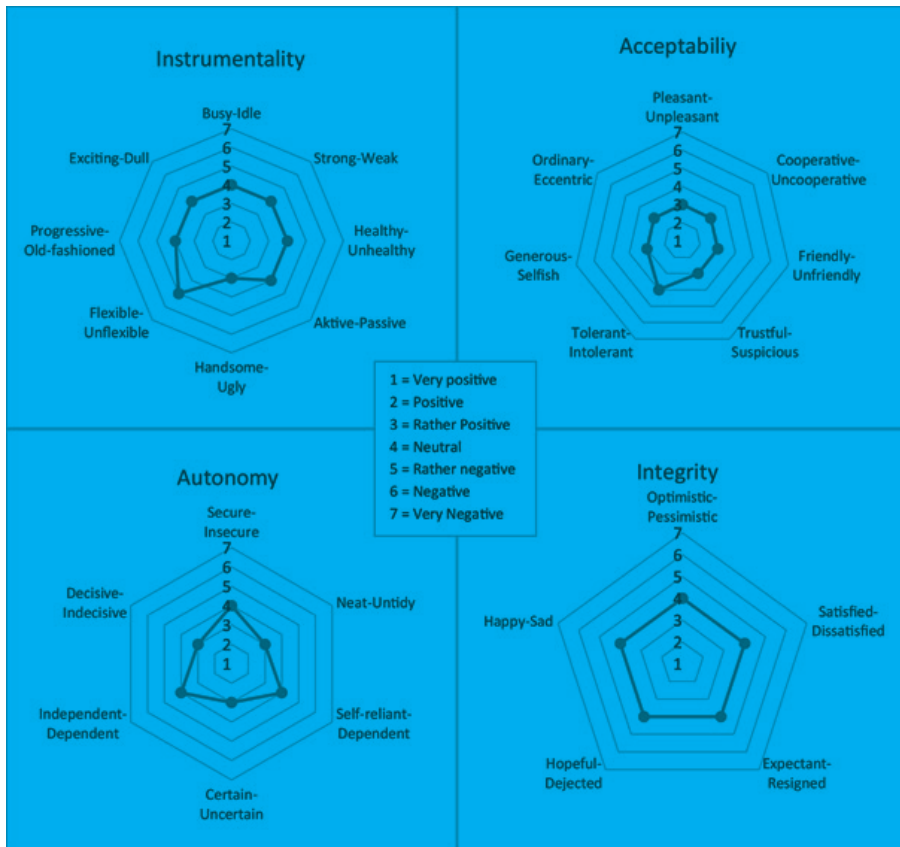


Figure 1 Means per Item in the ASD Subscales of Instrumentality, Autonomy, Acceptability, and Integrity

Regarding the PCOP, the participants showed a mean score of $2.9 (\pm 0.4)$ which indicates that they held a positive perspective towards caring for

older adults. The participants generally agreed that caring for older adults is challenging but rewarding (3.2 ± 0.6) work, and that it is labour-intensive, but worth the investment in terms of time and energy (3.2 ± 0.7). Participants generally did not agree that caring for older adults is frustrating (1.9 ± 0.7) or considered it to be an undesirable career choice (1.8 ± 0.8).

The group comparison regarding the ASD sum score showed that adults aged 50 years and older reported more positive attitudes (91.5 ± 27.5) towards adults aged 80 years and older than adults under the age of 35 (97.1 ± 22.1 ; $p = 0.01$). Participants who interacted with care receivers aged 80 years and over on a daily basis reported more negative attitudes (97.6 ± 24.2) than participants who interacted with them weekly (88.8 ± 24.0 ; $p \leq 0.001$), occasionally (89.8 ± 25.0 ; $p = 0.01$), or never (88.5 ± 26.2 ; $p = 0.01$). Participants who had adults over the age of 80 in their family or circle of friends reported more positive attitudes (92.6 ± 25.3) than participants who did not (100.9 ± 21.8 ; $p \leq 0.001$) (see Table 4).

Table 4 Group Differences in ASD Sum Score and Subscales

(n)	Category	ASD Mean (SD)	Instrumentality	Autonomy	Acceptability	Integrity
Gender (1,165)	Female	94.6 (25.0)	31.2 (8.0)	21.8 (6.4)	22.5 (7.6)	19.0 (5.7)
	Male	94.1 (23.6)	32.3 (8.1)	21.6 (6.0)	21.7 (7.1)	18.5 (5.5)
Age (1,179)	< 35	97.1 (22.1) ^a	32.6 (7.3) ^a	22.4 (5.7) ^a	22.5 (7.2) ^a	19.55 (5.6) ^a
	35-49	95.2 (24.0)	31.7 (7.7) ^b	22.2 (6.4) ^b	22.4 (7.3) ^b	18.9 (5.3)
	≥ 50	91.5 (27.5) ^a	29.8 (8.7) ^{a b}	20.8 (6.8) ^a	22.4 (8.1) ^{a b}	18.4 (6.2) ^a
Origin (1,177)	Austria	94.1 (24.9) ^a	31.2 (8.0)	21.7 (6.4) ^a	22.3 (7.6) ^a	18.9 (5.8)
	Not Austria	99.6 (23.5) ^a	21.6 (6.4)	23.3 (5.9) ^a	24.1 (7.3) ^a	19.7 (5.4)
Education (1,163)	Non-Academic	95.5 (24.5)	31.6 (7.8)	22.1 (6.3) ^a	22.8 (7.5) ^a	19.1 (5.7)
	Academic	92.3 (25.3)	30.9 (8.4)	21.2 (6.4) ^a	21.7 (7.5) ^a	18.6 (5.7)
	Qualified nurse	94.5 (23.4)	31.4 (7.6)	21.6 (6.0) ^{a b}	22.5 (7.2)	19.0 (5.5)
Profession (1,172)	Specialized nurse	92.7 (26.8) ^a	30.9 (8.6)	21.6 (6.9) ^{a b}	21.9 (8.1) ^a	18.4 (6.1) ^a
	Nursing staff without diploma	99.2 (25.1) ^a	32.1 (8.2)	23.3 (6.4) ^b	23.9 (7.5) ^a	20.1 (5.9) ^a
	Acute care	94.9 (24.9) ^a	31.5 (8.0) ^a	21.8 (6.4) ^a	22.7 (7.6) ^a	19.0 (5.8)
Setting (1,179)	Long-term care	95.6 (23.6) ^b	31.9 (7.8) ^b	22.2 (6.0) ^b	22.2 (7.3)	19.3 (5.5)
	Others	85.5 (26.0) ^{a b}	28.0 (8.2) ^{a b}	19.8 (6.7) ^{a b}	20.3 (7.7) ^a	17.4 (6.0)

Clinical focus (1,179)	No	94.55 (25.1)	31.3 (8.0)	21.4 (6.4)	22.6 (7.7)	18.9 (5.8)
	Yes (77.7%)	94.25 (23.6)	31.5 (8.0)	22.0 (6.2)	21.8 (7.2)	19.1 (5.4)
Work duty (1,178)	Clinical	96.5 (24.4)a	32.0 (7.8)ab	22.2 (6.3)ab	23.0 (7.6)ab	19.4 (5.6)ab
	Management	88.6 (25.2)a	29.5 (8.2)a	20.5 (6.5)a	21.0 (7.4)a	17.6 (5.7)a
	Teaching	90.9 (24.2)b	29.1 (7.7)	20.7 (6.4)	22.0 (6.9)	19.2 (6.4)c
	Research	65.9 (24.4) ^{abc}	22.6 (7.4) ^{bc}	15.3 (6.1) ^{bc}	14.9 (6.9) ^b	13.1 (5.4) ^{bc}
	Others	92.1 (22.3)c	31.8 (8.4)c	21.6 (5.8)c	20.4 (6.5)	18.1 (5.4)
	Yes	96.2 (25.1)	31.4 (8.0)	22.4 (6.3)	23.2 (7.7)	19.2 (5.7)
Geriatric/ Gerontological education (1,177)	No	94.0 (24.7)	31.3 (8.0)	21.6 (6.4)	22.2 (7.5)	18.9 (5.7)
	Yes	96.2 (25.1)	31.4 (8.0)	22.4 (6.3)	23.2 (7.7)	19.2 (5.7)
Interaction with patients ≥ 80 (1,179)	Never	88.5(26.2)a	29.7 (8.9)a	20.5 (7.1)a	20.6 (7.3)a	17.7 (5.8)a
	Occasionally	89.8 (25.0)b	29.8 (8.3)b	20.3 (6.3)b	21.6 (7.4)	18.0 (5.9)b
	Weekly	88.8 (24.0)c	30.0 (7.8)c	20.1 (6.0)c	21.3 (7.0)b	17.4 (5.5)c
	Daily	97.6 (24.2)abc	32.2 (7.7)abc	22.6 (6.2)abc	23.1 (7.7)ab	19.6 (5.6)abc
Family/Friends ≥ 80 (1,178)	Yes:	92.6 (25.3)a	30.6 (8.2)a	21.3 (6.5)a	22.0 (7.7)a	18.7 (5.9)a
	No	100.9 (21.8)a	33.7 (7.0)a	23.3 (5.6)a	24.0 (6.9)a	19.9 (5.2)a
Thought about specific gender (1,177)	No	95.8 (23.8)a	31.7 (7.7)	22.1 (6.0)a	22.8 (7.3)a	19.1 (5.4)
	Female	91.4 (25.3)a	30.4 (8.4)	21.1 (6.6)a	21.3 (7.7)a	18.6 (6.2)
	Male	91.6 (31.3)	30.5 (9.7)	20.4 (8.1)	22.4 (9.3)	18.2 (7.1)

Table 4 Group Differences in ASD Sum Score and Subscales (continued)

(n)	Category	ASD Mean (SD)	Instrumentality	Autonomy	Acceptability	Integrity
(1,143)	Yes	92.8 (25.2)	30.6 (8.1)^a	21.4 (6.4)	22.0 (7.6)	18.8 (5.7)
	No	95.5 (24.5)	31.9 (7.7)^a	22.0 (6.4)	22.6 (7.7)	19.1 (5.8)
	I do not know	94.6 (24.2)	30.9 (8.4)	21.9 (6.3)	22.9 (6.9)	18.9 (5.4)
(1,090)	Correct	94.4 (24.5)	31.4 (8.0)	21.7 (6.3)	22.4 (7.5)	18.9 (5.6)
	Incorrect	94.8 (24.7)	30.6 (7.4)	22.2 (6.1)	23.1 (7.9)	19.0 (6.2)

Notes: ^a $p \leq 0.05$ between these two groups ^b $p \leq 0.05$ between these two groups ^c $p \leq 0.05$ between these two groups

SD = standard deviation

Multiple linear regression was conducted on the *ASD* sum score and on the subscales of instrumentality, autonomy, acceptability, and integrity ($p \leq 0.001$ in all models).

In all five models, a higher PCOP sum score was associated with a lower *ASD* sum score, indicating more positive attitudes. Being a qualified nurse or a specialized nurse indicated that the individual would report more positive attitudes in the model acceptability. Having an academic education was associated with more positive attitudes in the model autonomy.

Higher *ASD* scores and less positive attitudes were indicated in all five models by not thinking of a particular woman or man while answering the *ASD* and not being able to frequently discuss personal topics with an older person in the family or circle of friends. Being female was indicative of less positive attitudes in the models of *ASD* sum score, autonomy, and acceptability.

The PCOP sum score had the highest influence on the *ASD* sum score and all subscales (*beta*: sum score = -0.381; instrumentality = -0.350; autonomy = -0.316; acceptability = -0.0396; integrity = -0.319). The regression coefficients and standard errors of all included variables are shown in Table 5.

Table 5 Five Models of Multiple Linear Regression for the ASD

Independent variable	Dependent variable	B	SEB	Beta	95 % CI for B		p-value
					LB	HB	
Sex	ASD Sum ^a	5.538	2.613	.070	0.409	10.668	0.034
Female = 1	Instrumentality ^b	0.636	0.855	0.025	-1.042	2.314	0.457
Male = 0	Autonomy ^c	1.617	0.700	0.079	0.243	2.991	0.021
	Acceptability ^d	2.179	0.805	0.089	0.599	3.758	0.007
	Integrity ^e	1.107	0.634	0.060	-0.137	2.351	0.081
Origin	ASD Sum ^a	1.141	3.180	0.012	-5.101	7.383	0.720
Not Austria = 1	Instrumentality ^b	0.337	1.040	0.011	-1.705	2.380	0.746
Austria = 0	Autonomy ^c	0.509	0.852	0.020	-1.163	2.182	0.550
	Acceptability ^d	-0.035	0.979	-0.001	-1.957	1.888	0.972
	Integrity ^e	0.329	0.771	0.014	-1.185	1.843	0.670
Profession	ASD Sum ^a	-4.249	2.872	-.085	-9.888	1.389	0.139
Qualified nurse = 1	Instrumentality ^b	0.030	0.940	0.002	-1.815	1.875	0.975
Other categories = 0	Autonomy ^c	-1.063	0.770	-0.083	-2.574	0.447	0.167
	Acceptability ^d	-2.418	0.885	-0.157	-4.155	-0.681	0.006
	Integrity ^e	-0.798	0.697	-0.069	-2.165	0.570	0.253

Profession	ASD Sum ^a	-3.088	3.160	-0.058	-9.292	3.116	0.329
Specialized nurse = 1	Instrumentality ^b	0.325	1.034	0.019	-1.705	2.355	0.753
Other categories = 0	Autonomy ^c	-0.450	0.847	-0.033	-2.112	1.212	0.595
	Acceptability ^d	-2.284	0.973	-0.141	-4.194	-0.373	0.019
	Integrity ^e	-0.680	0.766	-0.055	-2.185	0.825	0.375
Educational level	ASD Sum ^a	-3.576	1.898	-0.066	-7.302	0.149	0.060
Academic = 1	Instrumentality ^b	-1.184	.621	-0.068	-2.403	0.035	0.057
Non-academic = 0	Autonomy ^c	-1.180	0.508	-0.085	-2.179	-0.182	0.021
	Acceptability ^d	-0.826	0.584	-0.050	-1.973	0.321	0.158
	Integrity ^e	-0.385	0.460	-0.031	-1.289	0.518	0.403
Years working in health care	ASD Sum ^a	-0.063	0.072	-0.032	-0.204	0.077	0.376
	Instrumentality ^b	-0.041	0.023	-0.063	-0.086	0.005	0.084
	Autonomy ^c	-0.025	0.019	-0.049	-0.063	0.012	0.187
	Acceptability ^d	0.027	0.022	0.044	-0.017	0.070	0.225
	Integrity ^e	-0.024	0.017	-0.053	-0.058	0.010	0.162
Setting	ASD Sum ^a	-3.065	3.824	-0.054	-10.571	4.442	0.423
Acute care = 1	Instrumentality ^b	-0.181	1.251	-0.010	-2.637	2.275	0.885
Other categories = 0	Autonomy ^c	-0.980	1.024	-0.068	-2.991	1.031	0.339
	Acceptability ^d	-0.981	1.178	-0.057	-3.292	1.331	0.405
	Integrity ^e	-0.923	0.927	-0.071	-2.744	0.897	0.320

Table 5 Five Models of Multiple Linear Regression for the ASD (continued)

Independent variable	Dependent variable	B	SEB	Beta	95 % CI for B		p-value
					LB	HB	
Setting Long-term care = 1 Other categories = 0	ASD Sum ^a	1.663	4.010	0.027	-6.210	9.536	0.679
	Instrumentality ^b	1.825	1.312	0.092	-0.751	4.401	0.165
	Autonomy ^c	0.042	1.074	0.003	-2.067	2.152	0.969
	Acceptability ^d	-0.405	1.235	-0.021	-2.829	2.020	0.743
	Integrity ^e	0.201	0.973	0.014	-1.709	2.110	0.837
Clinical Focus	ASD Sum ^a	3.984	2.299	0.067	-0.530	8.498	0.084
	Instrumentality ^b	1.317	0.752	0.068	-0.160	2.794	0.080
	Autonomy ^c	1.169	0.616	0.076	-0.041	2.378	0.058
	Acceptability ^d	0.543	0.708	0.030	-0.847	1.933	0.443
	Integrity ^e	0.955	0.558	0.069	-0.140	2.050	0.087
Geriatric/ Gerontological education	ASD Sum ^a	-1.133	2.060	-0.019	-5.178	2.911	0.582
	Instrumentality ^b	0.006	0.674	0.000	-1.318	1.329	0.993
	Autonomy ^c	-0.735	0.552	-0.048	-1.819	0.348	0.183
	Acceptability ^d	-0.644	0.634	-0.035	-1.889	0.602	0.311
	Integrity ^e	0.240	0.500	0.017	-0.741	1.221	0.631

Working duty	ASD Sum ^a	-0.542	2.171	-0.010	-4.804	3.720	0.803
Clinical = 1	Instrumentality ^b	-0.424	0.710	-0.024	-1.818	0.971	0.551
Nonclinical = 0	Autonomy ^c	0.046	0.582	0.003	-1.096	1.188	0.937
	Acceptability ^d	0.120	0.669	0.007	-1.193	1.432	0.858
	Integrity ^e	-0.284	0.527	-0.022	-1.318	0.750	0.590
Interaction patients \geq 80	ASD Sum ^a	7.774	2.036	0.130	3.777	11.771	\leq 0.001
Often = 1	Instrumentality ^b	2.232	0.666	0.116	0.925	3.540	\leq 0.001
Seldom = 0	Autonomy ^c	2.126	0.545	0.139	1.055	3.197	\leq 0.001
	Acceptability ^d	1.858	0.627	0.101	0.627	3.089	0.003
	Integrity ^e	1.557	0.494	0.112	0.588	2.527	0.002
Discuss personal topics	ASD Sum ^a	9.256	1.792	0.171	5.737	12.774	\leq 0.001
Few = 1	Instrumentality ^b	2.871	0.586	0.164	1.720	4.022	\leq 0.001
Many = 0	Autonomy ^c	1.437	0.480	0.103	0.495	2.380	0.003
	Acceptability ^d	3.226	0.552	0.194	2.143	4.310	\leq 0.001
	Integrity ^e	1.721	0.435	0.137	0.868	2.574	\leq 0.001
Thought of gender	ASD Sum ^a	5.647	1.728	0.107	2.254	9.040	\leq 0.001
No = 1	Instrumentality ^b	1.356	0.565	0.080	0.246	2.466	0.017
Yes = 0	Autonomy ^c	1.291	0.463	0.095	0.382	2.200	0.005
	Acceptability ^d	1.909	0.532	0.118	0.864	2.954	\leq 0.001
	Integrity ^e	1.091	0.419	0.089	0.268	1.914	0.009

Table 5 Five Models of Multiple Linear Regression for the ASD (continued)

Independent variable	Dependent variable	B	SEB	Beta	95 % CI for B		p-value
					LB	HB	
Know the meaning of ageism Yes = 1 Other categories = 0	ASD Sum ^a	0.937	2.625	0.018	-4.215	6.090	0.721
	Instrumentality ^b	0.456	0.859	0.028	-1.230	2.142	0.596
	Autonomy ^c	0.157	0.703	0.012	-1.223	1.538	0.823
	Acceptability ^d	0.084	0.808	0.005	-1.503	1.670	0.918
	Integrity ^e	0.241	0.637	0.020	-1.009	1.490	0.706
Know the meaning of ageism No = 1 Other categories = 0	ASD Sum ^a	2.907	2.498	0.058	-1.998	7.811	0.245
	Instrumentality ^b	1.579	0.817	0.099	-0.025	3.184	0.054
	Autonomy ^c	0.642	0.669	0.050	-0.672	1.956	0.338
	Acceptability ^d	0.346	0.769	0.023	-1.164	1.857	0.653
	Integrity ^e	0.339	0.606	0.029	-0.850	1.529	0.576
Correct definition of ageism Incorrect = 1 Correct = 0	ASD Sum ^a	0.574	2.473	0.008	-4.281	5.429	0.817
	Instrumentality ^b	-0.875	0.809	-0.036	-2.463	0.714	0.280
	Autonomy ^c	0.420	0.663	0.022	-0.881	1.721	0.526
	Acceptability ^d	0.655	0.762	0.029	-0.841	2.150	0.390
	Integrity ^e	0.374	0.600	0.022	-0.804	1.551	0.623
PCOP sum score	ASD Sum ^a	-2.837	0.246	-0.396	-3.320	-2.354	≤ 0.001
	Instrumentality ^b	-0.837	0.080	-0.363	-0.995	-0.679	≤ 0.001
	Autonomy ^c	-0.602	0.066	-0.327	-0.731	-0.472	≤ 0.001
	Acceptability ^d	-0.849	0.076	-0.386	-0.998	-0.700	≤ 0.001
	Integrity ^e	-0.549	0.060	-0.330	-0.666	-0.432	≤ 0.001

Notes: $n = 771$; B = unstandardized regression coefficient; SEB = standard error of the coefficient; Beta = standardized coefficient; CI = confidence interval; LB = lower bound, HB = higher bound

^a adjusted $R^2 = 0.23$ ^b adjusted $R^2 = 0.20$ ^c adjusted $R^2 = 0.16$ ^d adjusted $R^2 = 0.22$ ^e adjusted $R^2 = 0.15$

DISCUSSION AND IMPLICATIONS

In this study, we had three aims: (1) To assess Austrian nurses' attitudes towards adults aged 80 years and older, (2) to assess how nurses perceive the care of patients 80+, and (3) to investigate factors that potentially influence nurses' attitudes towards older adults. Our results show that (1) Austrian nurses' attitudes towards adults aged 80 years and older are neutral or positive as assessed on the subscale of acceptability, meaning that older adults were perceived as socially at ease by these nurses. (2) The care of adults was viewed positively, and participants did not agree that caring for older adults is an undesirable career choice. (3) Having a positive view towards caring for older adults, having an academic education, and being a qualified or specialized nurse were factors that had a positive influence on the nurses' attitudes. Higher ASD scores and, therefore, less positive attitudes were indicated by the factors of being female, interacting frequently with patients 80 years or older, not thinking of a specific woman or man while answering the ASD, and not being able to discuss personal topics with an older person in the family or circle of friends.

Our study results show that nurses hold neutral to positive attitudes towards older adults, and these results are similar to those of other studies which mostly included European samples (4, 14, 15). Our findings do not support the results of Mansouri Arani et al. (16) or Rababa et al. (17), who measured the attitudes of nurses in Asia and concluded that nurses have negative attitudes towards older adults. Differences in the culture and study methods may explain these differences, as Ng and Lim (20) confirmed that ageism is associated with a nation's culture. Their study showed that cultures like the United Kingdom, which have a higher level of "masculinity" (distribution of emotional roles - tender, feminine vs. though, masculine societies) and "long-term orientation" (society accepts delayed satisfaction of material, social, and emotional needs), are associated with higher levels of ageism (20).

We noticed that 1,735 nurses began to fill out the questionnaire, but only 1,179 participants completely filled out the ASD. One reason for this could be that the participants found it difficult to use the ASD, as comments in the open-ended question field were also requested. Participants stated that it was not possible for them to generalize about persons above the age of 80,

as they often saw patients who were active and healthy at this age, but they also saw patients under the age of 80 who needed complex care. In the study by Reissmann et al. (41), the participants confirmed that older adults (≥ 80 years) are viewed as equally heterogeneous. Participants stated that the age of a person did not change individual differences. Another point of critique about the ASD, noted in the open-ended question field, was that participants had difficulties with some adjective pairs, such as pretty-ugly, as they felt that they were confirming stereotypes or practicing ageism by rating the adjectives. Polizzi and Steitz (42) criticized that the ASD includes outdated adjectives that no longer can be applied to older adults in today's time, and that the adjective pairs were chosen to reflect stereotypes towards men only. When participants are confronted with adjectives that they do not fully comprehend or that they feel are not suitable, they tend to choose a neutral option (43). Furthermore, some adjectives are possibly equivocal or polar, such as liberal-conservative or ordinary-extraordinary. Despite the criticism already mentioned, the ASD has also been praised for the specificity with which it describes attitudes and the possibility it provides to measure a complex concept (44). With regard to this criticism, Wilson et al. (44) developed a semantic differential (Australian Ageing Semantic Differential Scale - AASD) with an updated list of adjectives, targeted towards Australian medical students. A comprehensive validation of the instrument is currently lacking.

As the ASD was developed to assess stereotypes of older men (42), gender differences should be considered. In our study, most of the participants did not consider a particular gender while answering the ASD (69.1%), but if they did, they tended to think of a woman (24.1%) rather than a man (6.8%). This is possibly because women represent the majority of adults above the age of 80 (1). In our study, the group comparison results show no statistically significant difference in the ASD scores when the nurse was thinking of a specific woman or man, and the multiple linear regression results show that thinking of a person of a certain gender in general indicated that they held a more positive attitude. The participants might have had a person in mind whom they knew when they said they were thinking of a person of a certain gender, indicating that they had a personal relationship with that person.

Being able to discuss personal topics with an older family member or friend influenced the nurses' attitudes positively, whereas having frequent contact

with older patients did not. This might be because the older adult could also be a member of the in-group, such as an older family member or friend, and, therefore, the person was perceived more positively (45). This result indicates that the quality of the contact can influence or reduce negative attitudes. Having positive contact with a meaningful older adult, such as a family member or a friend, can reduce negative stereotypes, because as the in- and out-groups overlap (46).

SIT (13) in combination with the “healthcare bias” (9, 12) suggest that nurses might exhibit more negative attitudes towards adults aged 80 years and older, as they are more aware that they belong to the out-group. This suggestion was partly confirmed by our results. The results of the multiple linear regression show that having a more negative attitude was influenced by the frequency of interaction with older care receivers. Uğurlu et al. (47) confirmed that having experienced difficulties when caring for older people influenced ageism among nurses. This might also explain the finding that nurses had less positive attitudes when they had frequent contact with older care receivers. On the other hand, nurses who took a positive perspective towards caring for older patients also displayed more positive attitudes towards adults above the age of 80. When comparing Austrian nursing students’ attitudes (19) with those of Austrian nurses, the nurses were shown to have more positive attitudes than the students. This result does not support the SIT finding, that the more aware people are of an out-group, the more they tend to exhibit “discriminatory responses” (13).

STRENGTHS AND LIMITATIONS

One strength of this study is the high number of participants, while another strength is the fact that two psychometrically valid and reliable instruments were used. The PCOP scale was translated and back-translated, but the instrument was not pilot-tested to ascertain its face validity, which is a limitation of this study. Both of the used instruments are self-reporting instruments; this can cause a self-reporting bias, as nurses may have attempted to make a good impression on the employers or researchers, and this may have influenced the results.

IMPLICATIONS

In future research, cultural differences should be considered by comparing samples from different countries or continents, as culture has been shown to influence attitudes towards older adults (20). Our findings indicate that the *ASD* should be updated and that the *AASD* should be further validated, translated, and cross-culturally adapted. While it was possible to measure the nurses' attitudes with the *ASD*, it was not possible to measure ageism as a whole concept; instead, we could only measure explicit ageism on the cognitive or affective level (35, 48) To gain a deeper insight into different aspects of ageism, qualitative methods can be used, such as conducting focus groups or interviews with health care professionals (e.g. nurses) and older care receivers. In nursing practice, educational interventions should be implemented to further improve the nurses' attitudes and thereby improve the quality of care.

CONCLUSION

Austrian nurses displayed neutral to positive attitudes towards older adults who are 80 years or older. Caring for adults in this age group is perceived positively, and participants viewed working with older adults as a desirable career choice. Our findings indicate that nurses could benefit from educational interventions to further improve their attitudes towards older adults and to ensure that well-trained nurses are available in future when demographic changes occur.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

AUTHOR'S CONTRIBUTION

All authors have made a substantial contribution to this study. G. Schüttengruber, F. Großschädl and L.M. Lampersberger carried out study planning, data collection and data analysis. L.M. Lampersberger wrote the first draft of the manuscript and all authors reviewed earlier versions. F. Großschädl and C. Lohrmann supervised the work and critically revised it. All authors approved the final version of the manuscript.

Ethical Approval

The Ethics Committee of the Medical University of Graz (EK Number 31-320 ex 18/19) gave their ethical approval for this study. Participants gave an informed consent and no conclusions could be drawn about the nurses' identities.

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“The supreme discipline of Nursing”- A qualitative content analysis of nurses’ opinions on caring for people eighty years of age and older

“Nursing care must be individually adapted using the head, the heart, and humour to allow people to retain their independence and dignity”

(Participant⁴⁴¹ Study 1b)

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ABSTRACT

INTRODUCTION

Nurses often experience stress and feel under time pressure when working with older people, increasing their job dissatisfaction. Especially people 80 years of age and older often require more complex and a greater measure of care, as the risk of care dependency is higher in this age group. This study was conducted to collect nurses' experiences and opinions regarding the care of people 80 years of age and older, as well as to learn more about how nurses perceive this care.

METHOD

We analysed narratives collected in an Austrian nationwide, cross-sectional online study to investigate nurses' attitudes towards people 80 years of age and older and their perceptions regarding their care ($N = 1,197$). Data were collected from May-October 2021 by using a convenience sampling method. In total, 149 participants filled in the free text field; these texts were analysed using a qualitative content analysis method.

RESULTS

Three main themes emerged from the analysis of the nurses' narratives: [1] 'opinions on people in need of care', [2] 'reputation of nursing profession', and [3] 'criticism of current nursing practice'. Most narratives were assigned to the subthemes 'positive opinions on nursing', 'ideal image of nursing', and 'shortage of staff'.

Conclusion

Nurses considered their work with people aged 80 years and older to be meaningful and important, but they criticised working conditions which need to be improved. This could be achieved by offering further education and increasing nursing staff. Further research is needed to investigate nurses' needs and wishes regarding the care of people aged 80 years and older.

Keywords: Nursing care, aged care, geriatric, 80+, qualitative content analysis, perceptions, opinions nursing staff, nurses

BACKGROUND

Sociodemographic changes are expected to result in an overall older world population (1), thus the need for specialised geriatric nurses who deliver high-quality care is also expected to increase due to the growing population of older people (2). By the age of 80, the risk of care dependency increases two- to threefold (3, 4). Care dependent people are more at risk of experiencing falls and pressure ulcers; have more mobility, vision, and hearing difficulties; are less able to care for themselves, i.e. to perform basic and instrumental activities of daily living; have an impaired cognitive status; and have a poorer emotional health status (3). The same can be seen in Austria, where the need for care and support increases with age (5) and acute care patients have the highest rate of care dependency (6). Therefore, the proportion of older people in need of care is the highest in all settings in Austria (6-8): In acute care, 44.9 % of patients were 60 - 79 years old, and 24.6 % were 80 years and older (6). In home care, 74 % of clients were 75 years and older, while 38 % were older than 85 years. 82 % of nursing home residents were 75 years or older, and 50 % were 85 years and older (7, 8).

As shown above, older adults age individually and may become care dependent sooner or later. When care dependency, frailty, and multimorbidity occur in a person, it is also called the fourth age. The fourth age is not defined by chronological age but is presumed to occur around the age of 80 (9, 10). Due to the increased risk of care dependency with the age of 80 (3, 6), older people are defined as people 80 years of age and older in this study. People in this age group may find themselves confronted with stereotypes from society, like being frail, dependent and constituting a burden on society (11), which are mostly persistent over time (12). People in this age group may also experience ageism and stigmatisation (13). Especially people with dementia are stigmatised due to both their diagnosis and their age (14). Nurses may be desensitised in their view of older people by their frequent contact with multimorbid and care-dependent older adults (15), which can affect nurses' desire to care for older adults (16).

Providing care for older people is not always a preferred career choice for nursing students and nurses (17-19), and this is especially true for caring for older people in nursing homes (20). One reason for this is that working with older people is perceived as more difficult due to the higher measure

of care and more complex care needed (21). Previous experiences from clinical practice also influence nurses' willingness to work with older people, depending on whether their experiences were negative (19, 21) or positive (18), and studies have shown that nurses can be more or less willing to work in this field (18, 19, 21). On the other hand, nursing students may consider working with older people because they hold a generally positive attitude towards older people (17, 19) or towards their care (22). They may also feel that these individuals need more care and want to take the opportunity to increase their quality of life (21).

Nurses' attitudes towards older people generally influence their willingness to work with this age group (16, 18). Attitudes are defined by Eagly and Chaiken (23) as a 'psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor' (p.1) (23). Attitudes consist of different components related to someone's feelings, beliefs, and behaviour towards someone or something. Feelings, beliefs and behaviour, i.e. a person's attitude, can be either positive, neutral or negative (24, 25). These attitudes towards older people can affect the quality of care provision, for example, if the amount of care provided is reduced (26, 27). On the other hand, nurses' positive attitudes towards older adults may increase the quality of care and may have a positive effect on caring behaviours like respect (28). The international literature reports mixed results regarding nurses' attitudes about caring for older people in need of care, but these can be found in all health care settings and health care providers (29). One systematic review by Rush et al. (26) reports that nurses hold both positive and negative attitudes. Examples of positive attitudes included having respect for and patience with older people in need of care and giving them the time and attention they need. Examples of negative attitudes included viewing the older people in need of care as weak, disabled, inflexible, and mentally and cognitively impaired, perceiving their care as a burden, and speaking negatively to or about people in need of care. In Austria, Lampersberger et al. (30) reported that nurses generally perceive the care of people 80 years of age and older as positive. Nurses regarded this care as a challenging but rewarding task, noting that such care was labour-intensive but that it was also worth the investment in terms of their time and energy. The study findings did not indicate that Austrian nurses consider caring for older people as frustrating or this field of nursing to be an undesirable career choice.

Nurses' attitudes about caring for older people can also influence their relationships with the people in need of care. A systematic review by Riviere et al. (31) cited two core elements of the nurse-patient relationship which are centrally important for older people: respect and dignity. These elements are characterised by nurses' caring behaviour and their attitudes. This review indicates that people in need of care may experience nurses as being e.g. aware, kind, and interested in them; in this case, they describe the nurses as attentive, helpful, and empathetic. But people in need of care may also experience nurses (and subsequently describe them) as inattentive, ineffective (e.g. offering only fragmented care), or inhumane (e.g. depriving them of care) (31). Older people in need of care who feel respected by nurses may also show a higher level of satisfaction with their care (32). A study by Hall and Høy (33) shows that nurses perceive caring for older people in need of care as a way of helping them regain dignity; the surveyed nurses indicated that they regarded this as their responsibility. These nurses, however, also described barriers that prevented them from achieving this goal: lack of time and the need to focus exclusively on diagnosis and physical treatment.

When caring for older people, nurses often experience feelings of stress and time pressure, which makes it difficult for them to perform their daily work. Dierckx de Casterlé et al. (34) report that nurses may feel a sense of failure when providing care or when they can offer only basic instead of high-quality care due to e.g. a lack of time which prevents them from having conversations with patients or addressing more than merely basic hygienic needs. In this study, nurses indicated that they were only able to focus on the physical and visible aspects of care. This can also lead to job dissatisfaction, as seen in a Jordanian study where 68% of the surveyed nurses were not satisfied with their job, i.e. with caring for older people in need of care, mainly because of the working conditions and the low pay (35). According to a Turkish study, nurses experienced various difficulties when providing care for older people, such as inadequate technical equipment, care problems due to patients' limited physical mobility, administrative difficulties, and insufficient knowledge to properly care for older people (36). Nurses' views about working with older people can be influenced by the amount of gerontological nursing education they have received and their experience in gerontological nursing (26). Lampersberger et al. (30) found that nurses who had worked with older care receivers frequently held more negative attitudes towards people 80 years of age and older. In contrast, Rush et al.

(26) observed that nurses who had more work experience also had more positive attitudes but also reported that the nurses' attitudes were influenced by their work environment (i.e. a lack of resources) and stress. Holmberg et al. (37) also cited conflicting results: Having frequent interactions with people 80 years of age or older in need of care seemed to negatively influence nurses' general attitudes, but these interactions were also associated with the development of more positive attitudes about caring for people in this age group.

To ensure high-quality care for older people in need of care, nurses with a positive attitude who respect the care recipient are needed (26, 31). However, people 80 years of age and older have a higher risk of care dependency (3); thus, they may require more complex care and their care may be perceived more negatively by nurses (38). Additionally, the nurse-patient relationship (31) and quality of care may be influenced by nurses' negative attitudes (26, 27). International studies that examine nurses' opinions regarding the care of older people (especially those 80 years of age and older) and how they experience this care are rare (26); and, to our knowledge, there are no data on Austrian nurses. As these older persons are the largest group nurses care for in Austria, as well as in other countries, and throughout various health care settings like inpatient care services or home care (7, 8), there is a clear need for well-educated nurses delivering high quality care to older people. However, such data is needed to understand nurses' experiences and opinions on caring for older people and to obtain insights into possible barriers for caring for older adults. The primary aim of the original cross-sectional study, which was published previously (30), was to assess nurses' attitudes towards people 80 years of age and older and how they perceive their care. The nurses surveyed in this study were qualified nurses (QN), specialised nurses (SN) and nursing aides (NA), which is described in more detail in the methods section. These nurses had the opportunity to use a provided commentary field at the end of the questionnaire to report their experiences with and opinions on older adults and how they perceive caring for them. It was not expected to receive many narratives, but as we received a high amount of narratives, we decided to analyse these separately from the quantitative results of the cross-sectional study because the narratives may show results which cannot be analysed and described together with quantitative research data. Therefore, the aim of this study is to ana-

lyse nurses' experiences and opinions regarding the care of people 80 years of age and older and to learn more about how nurses perceive this care.

METHODS

DESIGN

This study had a cross-sectional study design and was conducted as an Austrian nationwide, online survey including structured questions presented in the form of a questionnaire. The survey was designed to assess nurses' attitudes towards older people aged 80 years and older, to identify influencing factors for these attitudes, and to determine how nurses perceived caring for this age group (30). In total, 1,197 persons completed the questionnaire which also included a comment box at the end which enabled open-ended responses (i.e. narratives) to be collected in order to give participants the opportunity to express their opinion on the topic (39). Although the option to provide a final comment in such boxes is not usually used (3.6-5.7%, (40)), 12.64% of the participants in our sample submitted responses in this box. Due to the high numbers of received answers, we analysed these separately by using a qualitative content analysis method (41). The Standards for Reporting Qualitative Research (SRQR) guideline was applied within this study (42).

PARTICIPANTS AND SETTING

Nurses working in any setting in Austria were included in this study. These nurses worked as qualified nurses (QN), specialised nurses (SN), or nursing aides (NA). Qualified nurses had completed either a bachelor's degree programme or professional vocational training. Specialised nurses had additionally attended a university course in a clinical speciality like intensive care or palliative care. Nursing aides included assistant nurses who had completed one year of training and nursing assistants who had completed two years of training. In Austria, nursing aides are mainly responsible for delivering basic care and assisting qualified nurses to, for example, deliver therapies, monitor patients' state of health, and with patient education (43). Therefore, nursing aides spend a significant time with people in need of care and were therefore included in this study. Out of the 1,197 participants, 149 submit-

ted written narratives. Nurses in the included sample had a median age of 50 years, with an interquartile range (IQR) of 39-54 years, and had worked 25 (IQR = 12-32) years in health care. Table 1 shows the demographic characteristics of the participants, describes their work environments, and shows how often the participants were in contact with people aged 80 and older.

Table 1 Demographic Characteristics, Work Environment, and Contact with People \geq 80 years of the Sample

(n)	Category	Participants who did not provide a narrative		Participants who provided a narrative	
		n	%	n	%
Sex	Female	1,037	86.5	149	90.6
Origin	Austrian	1,047	92.8	148	90.6
Education	Compulsory education	1,037	25.6	145	29
	University entrance qualification	1,037	27.2	145	26.9
	Vocational training	1,037	17.6	145	21.4
	Bachelor's degree	1,037	17.6	145	11
	Master's degree	1,037	11.4	145	11.7
	PhD Degree	1,037	0.7	145	-
Profession	Qualified nurse	1,043	55.3	147	55.1
	Specialised nurse	1,043	33.4	147	25.9
	Nursing aids	1,043	11.3	147	19
Setting	Acute care	1,048	76	149	61.1
	Long-term care	1,048	18	149	22.2
	Others	1,048	6	149	16.8
Work duty	Clinical	1,047	74.9	148	73.6
	Management	1,047	18.5	148	18.9
	Others	1,047	3.3	148	6.1
	Research	1,047	0.9	148	0.7
	Teaching	1,047	2.4	148	0.7

Table 1 Demographic Characteristics, Work Environment, and Contact with People ≥ 80 years of the Sample (continued)

(n)	Category	Participants who did not provide a narrative		Participants who provided a narrative	
		n	%	n	%
Clinical focus	No	1,048	22.4	149	19.5
	Yes	1,048	77.6	149	80.5
	Others		28.1		30.8
	Surgery		25.3		23.3
	Medical		22.1		17.5
	Neurology		6.4		17.5
	Geriatrics		7.9		9.2
	Psychiatry		7.8		6.7
	Palliative		2.2		6.7
Geriatric/ Gerontological education	No	1,177	78.5	149	69.1
	Yes	1,177	21.5	149	30.9
	Stand-alone course		27.4		47.8
	Part of nursing programme		65		41.3
	Others		1.3		6.5
	Postgraduate training		6.2		4.3
Interaction with older people in need of care ≥ 80	Daily	1,179	63.3	149	69.1
	Weekly	1,179	13.7	149	12.1
	Occasionally	1,179	12.4	149	11.4
	Never	1,179	10.6	149	7.4
Having family/ friends ≥ 80	No	1,178	23.2	149	21.5
	Yes	1,178	76.8	149	78.5

DATA COLLECTION

Data were collected in the course of the primary online survey from May to October 2021 during the third COVID-19 wave by using LimeSurvey (44). A convenience sample of Austrian nurses completed a questionnaire, including the open-ended comment box, in approximately ten minutes. Participants were recruited via e-mail and newsletter. Nursing managers and directors

in Austrian hospitals, nursing homes, and other health care facilities were sent e-mails with the kind request to forward the invitation to participate in and information about the study to the nursing staff. The Austrian Nursing Association included the invitation in their newsletter, and the invitation was posted on social media pages (Facebook). Reminders were sent out by the Austrian Nursing Association and via social media to ensure large participation.

DATA COLLECTION INSTRUMENT

Primarily quantitative data on the nurses' attitudes towards older people and on their opinions about their care were collected in this cross-sectional study. Two instruments were used for this purpose: The German version of the Ageing Semantic Differential (ASD) scale (45) and the Perspectives on Caring for Older People (PCOP) scale (46). These quantitative data were published previously (30). At the end of the questionnaire, participants had the opportunity to provide narrative responses and share their thoughts in a comment box for open-ended comments. This box was introduced with the sentence: "If you have any further remarks/narratives, there is room for them here". The open text field had no character limit.

ETHICAL CONSIDERATIONS

The Ethics Committee of the Medical University of Graz (EK Number 31-320 ex 18/19) gave their ethical approval for this study. Participants received written information about the study and were asked to provide their consent before completing the questionnaire. Data were collected anonymously, and no conclusions could be drawn regarding the nurses' identities. Participation in the study was voluntary.

DATA ANALYSIS

A qualitative content analysis method with an inductive approach was used to analyse data (41). A qualitative content analysis was chosen instead of a quantitative analysis because it offers a more interpretative approach (47). We chose Schreier's approach to conduct the qualitative content analysis as this method can be applied when using an inductive approach to analyse data (41). Before developing the coding frame, relevant passages were selected by one author. To develop the inductive coding frame, the data

were structured and categories were generated. To do so, a progressive summarising method described by Mayring (48) was applied. First, relevant passages were paraphrased. Second, the paraphrases were streamlined and generalised. Third, similar paraphrases were compared, and more general paraphrases were created based on their similarity. Finally, categories and subcategories were defined. These steps were performed for all data by one author. Prior to the pilot phase, the data were segmented into coding units by one author to ensure exclusive coding (41). In the pilot test of the coding frame, blind coding was carried out by two authors, and 50 (33.6%) documents were subsequently chosen randomly for the pilot test. We pilot-tested 50 documents to ensure that each subcategory was applied at least once. Each coder was handed a codebook with the definition of categories and subcategories, their descriptions, and examples; if needed, decision rules were included (41). After the selected documents had been coded, the coded segments were discussed, and the coding frame was adapted accordingly. To test the revised version of the coding frame, ten (6.7 %) randomly chosen documents were coded blindly using a revised version of the codebook and discussed afterwards. No further changes to the coding frame were made. In total, 40.3% of the data were blind-coded for which a good interrater agreement was reached; therefore, the remaining data were coded and analysed by one author by using the MXQDA 2020 (49) software. Demographic data were analysed using the software IBM SPSS Statistics Version 28.0.1.0. The quotes reported in this article were translated into English by one author and checked for accuracy using a translator and a bilingual person.

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The face validity of the data is indicated to be high, as no residual categories were needed. Although the data were not evenly distributed between subcategories, this seems to reflect the corresponding distribution of the themes. The coding frame was pilot-tested, revised, and pilot-tested again to ensure its validity and confirmability, enabling us to reach an 83.65% level of intercoder agreement. The intercoder reliability was calculated using the coefficient Kappa (κ_n) as described by Brennan and Prediger (50). We were able to reach a substantial to nearly perfect agreement level ($\kappa_n = 0.73-0.87$) (51, 52) with regard to the main categories of the coding

frame. In addition, we sought the expertise of an experienced qualitative researcher throughout the process.

RESULTS

Three main themes reflected the nurses' experiences with and opinions about caring for people 80 years of age and older: [1] 'opinions on older people in need of care', [2] 'reputation of nursing profession', and [3] 'criticism of current nursing practice'.

In addition to the main themes, subthemes were also identified in each main theme. Overall, the narratives could be assigned to three main subthemes: 'positive opinions of nursing', 'ideal image of nursing', and 'shortage of staff' (Table 2). Table 2 also shows the used coding frame including definitions. The subthemes within each main theme are described in more detail below.

Table 2 Frequencies of Subthemes with Definitions

Main Themes	Subthemes	Definition	Frequency
Opinions about Older People in Need of Care	Neutral Opinions about Older People in Need of Care	Nurses express neutral or neither explicitly negative nor positive opinions about people in need of care over 80 years of age. This category also applies when they report on the opinions of others. These are descriptions of character traits and the behaviour of older persons.	5
	Negative Opinions about Older People in Need of Care	Nurses provide negative narratives about people over 80 years of age. This category also applies when they report on the opinions of others. These are descriptions of character traits and the behaviour of older people.	6
Opinions about Older People in Need of Care	Positive Opinions about Older People in Need of Care	Nurses make positive narratives about people over 80 years of age. This category also applies when they report on the opinions of others. These are descriptions of character traits and the behaviour of older people.	8
	Nurses' Benefit from Older People in Need of Care	Nurses describe what they can take away and learn from caring for people over 80 years of age or how people in need of care have a positive impact on them.	7
Resources of Older People in Need of Care	Existing Resources	Nurses talk about the resources available to people over 80 years of age. These resources relate to skills, finances, and family and friends.	3
	Lack of Resources	Nurses talk about the lack of resources of people over 80 years of age. These resources relate to skills, finances, and family and friends.	9

Table 2 Frequencies of Subthemes with Definitions (continued)

Main Themes	Subthemes	Definition	Frequency
	Dealing with Older People in Need of Care is Difficult or Demanding	Nurses describe that caring for or personally interacting with people in need of care over 80 years of age is difficult or demanding work. This category refers only to factors that affect the people in need of care and not to external factors, such as working conditions or organisational issues.	16
	Nurses' Interactions with Older People in Need of Care	This category refers to narratives about the nurses' own or their colleagues' interactions with people in need of care over 80 years of age. This includes care, treatment, and communication.	4
	Ideal Image of Nursing	This category refers to wishes for improvement in daily care practice and care in general. The ideal image of nursing refers to general needs in daily practice, desirable character traits of nurses needed in nursing, nursing actions needed in this age group (e.g. health promotion), or to nurses' communication skills.	26
	Desire to Enhance the Profession	Nurses express the wish to enhance the nursing profession or make explicit suggestions regarding how this can be achieved. Enhancing the profession means that the profession is strengthened, the reputation is increased, and the education is enhanced.	7
Reputation of the Nursing Profession	Opinions about Nursing	Nurses report their positive opinions on caring for people over 80 years of age. This refers explicitly to care and care practices from the carer's perspective and not to attitudes towards older people in general.	36
	Positive Opinions		

Negative Opinions	Nurses report their negative opinions about caring for people over 80 years of age. This refers explicitly to care and care practices from the carer's perspective and not to attitudes towards older people in general. It does not refer to inadequate working conditions but to facts that relate to the care of people in need of care, i.e. interaction with the patient.	24
Career or Departmental Change Considered	Nurses indicate that they are thinking about, planning, or have already made a career change or changed their area of specialisation. This category also includes examples from participants who report that colleagues are considering, planning, or have already taken this step.	5
Occupation not Conceivable or not Satisfactory	Nurses state that they cannot imagine working with people in need of care over 80 years of age or that they work with this group of people in need of care but find the work exhausting, frustrating, or unsatisfactory.	16
Criticism of Current Nursing Practice	This category includes narratives about changes in care not being achieved, stagnating, or not being initiated.	2
Inadequate Working Conditions	This category refers to general reports of inadequate working conditions or conditions that are structural or institutional.	18
Structural or Institutional Grievances		

Table 2 Frequencies of Subthemes with Definitions (continued)

Main Themes	Subthemes	Definition	Frequency
	Lack of Time	Nurses report not having enough time during their daily work.	20
	Role of Politics	Participants report on the role of politicians regarding the inadequate working conditions. This includes criticism of policy actions or reactions or the failure to do take action or react. Recommendations to policymakers also fall into this category.	6
	Shortage of Staff	This category includes narratives that identify staff shortages as contributing to inadequate working conditions.	26
	Too Little Payment	This category includes narratives that identify low pay as contributing to inadequate working conditions.	9
Desire for Change in the Future for oneself		Nurses say that they hope the care and setting will have changed when they are older and need care. Worries about the future also fall into this category.	8
Physical and Psychological Effects of Care on Nurses		Participants report on the physical and psychological effects of working with people in need of care over the age of 80 on themselves, or their concerns about this.	12
Wish for Other Tasks		Participants' statements that they are unable to do the work they should or want to do fall into this category. Nurses' wishes for different task assignments also fall into this category.	2
Education or Specialisation of Nurses		Nurses state that, in practice, further training or specialisation for nurses is lacking or desired.	12

OPINIONS ON OLDER PEOPLE IN NEED OF CARE

Seven subthemes were identified within the overarching theme of ‘opinions about older people in need of care’, with the most narratives [16] assigned to the subtheme ‘dealing with older people in need of care is difficult or demanding’.

NEUTRAL OPINIONS ABOUT OLDER PEOPLE IN NEED OF CARE

‘Neutral opinions about people in need of care’ were expressed by nurses who stated that care dependency does not depend on age or that the number of older people increases, thus increasing the number of people in need of care in nursing and care facilities. One respondent remarked that ‘Members of any age group can have a need for care. I find it strange to equate the need for care with age’ (SN 237, 60 years, no setting). Another respondent noted that older people in need of care do not always want to spend their time with other people; they simply want to spend some time alone. ‘[...] not every old person always wants to be with others. Some like to be alone [...]’ (SN 83, 50 years, acute care).

NEGATIVE OPINIONS ABOUT OLDER PEOPLE IN NEED OF CARE

Regarding ‘negative opinions about people in need of care’, some nurses said that they perceived older people in need of care as aggressive, lazy, selfish, stubborn, and undiscerning. One respondent stated, ‘I react aggressively now when one older patient after another comes to the ward transported flat on their backs with the ambulance...back and forth 100 times with the movable toilet...hearing “Nurse can you...” or “....can you make me...”’ (QN 185, 33 years, acute care). Some nurses also reported that older people in need of care were ‘deported’ to inpatient facilities or nursing homes and were incapacitated by our health care system. One person commented that ‘Unfortunately, in our society and health care system, people over 80 are disempowered, devalued, put in inpatient “reception camps”, dehumanised, and reduced to their mere bodily functions.’ (QN 601, 50 years, long-term care).

POSITIVE OPINIONS ABOUT OLDER PEOPLE IN NEED OF CARE

The main observation made in the subtheme ‘positive opinions about people in need of care’ is that older people in need of care deserve respect, because of their life experience. Some respondents stated that they preferred people in need of care 80 years of age and older over younger people in need of care because they felt that they are thankful and straightforward. ‘I appreciate the experiences that older people have had.’, commented QN 177 (39 years, acute care), noting that ‘This generation still experienced the war and is quite grateful and uncomplicated. This is in stark contrast with those under 80, who are completely different.’

NURSES BENEFIT FROM OLDER PEOPLE IN NEED OF CARE

Nurses reflected on the benefit they received from working with older people. Mostly, the respondents reported that they could learn a lot about themselves and their personalities by working with older people in need of care and learning about their life experiences. ‘I learn the most about myself while working with patients. How I would like to grow old and how not’, commented QN 85 (54 years, long-term care). Some respondents shared that older people in need of care had a calming effect on them due to their positive view of things. ‘I like to visit residents with dementia and chat with them. This can be relaxing, because they have their own positive view of things’ said QN 1626 (57 years, acute care).

DEALING WITH OLDER PEOPLE IN NEED OF CARE IS DIFFICULT OR DEMANDING

In the subtheme ‘dealing with people in need of care is difficult or demanding’, survey participants stated that caring for people over 80 years of age who are in need of care, although it is interesting and fulfilling work, is also demanding and exhausting. They also associated these challenging problems in nursing practice with conflicts between the nurse and patient. ‘[...] and that is why working with them is frustrating and also often leads to aggression among older people and conflicts’, commented QN 1420 (28 years, acute care). Several respondents stated that these challenges can arise from care needs related to underlying diseases, and especially diseases related to dementia. ‘Due to increasing delirium and dementia in older people, care is

unfortunately becoming more and more difficult.’, noted NA 1266 (41 years, acute care).

The involvement of older people’s relatives was discussed by respondents as another challenging aspect in care. These respondents’ narratives indicated that the relatives hampered the care of older people by expecting too much progress too quickly from the person in need of care.

‘The relatives are the ones who often make providing the care as part of the daily routine on the ward more difficult. The relatives are increasingly demanding and dissatisfied. Their expectations are often that these older people will be discharged back to home care in perfect health. Or they decide to transfer them to nursing homes without having discussed this with the patients themselves. Hardly anyone is willing to take over the care at home or to try it with an external offer of help.’ (QN 974, 47 years, acute care)

NURSES’ INTERACTIONS WITH PEOPLE IN NEED OF CARE

In the subtheme ‘nurses’ interactions with people in need of care’, the communication between nurses and people in need of care is frequently described as lacking. The respondents noted that some nurses tended to label people in need of care who need more time to do something or to answer a question as having dementia. ‘I see how our young nursing staff communicate at the bedside every day,’ remarked QN 86 (58 years, acute care). ‘[I see them] not giving people time to understand what is being said.’ Respondents also stated that nurses can be too strongly focussed on theory and fail to use their common sense.

REPUTATION OF THE NURSING PROFESSION

In the theme ‘reputation of the nursing profession’, five subthemes were identified. Out of these narratives, 50.8% refer to ‘opinions about nursing’.

IDEAL IMAGE OF NURSING

The survey participants indicated that the ‘ideal image of nursing’ subtheme consists of nurses’ opinions that nurses should have empathy, appreciation,

respect, flexibility, and patience. ‘Nursing and caring for older people is a task that requires nurses to have a strong sense of responsibility, expertise, empathy, and flexibility’, commented QN 708 (55 years, long-term care). Some nurses noted that it is important that holistic care is provided, that people are allowed to age with dignity, and that they receive adequate palliative care. They also stated that it was important to them that nursing adapts to the patient with regard to the tempo. ‘They [the nurses] need to be made aware that they [the patients] have a different pace of life to which the daily care routine must adapt and not vice versa’, remarked QN 1436 (25 years, acute care). Some respondents also mentioned that the promotion of health and quality of life is also crucial in old age. ‘The quality of life should be preserved, especially in the last stages of life’ (QN 1436, 25 years, acute care).

DESIRE TO ENHANCE THE PROFESSION

Nurses see the need to enhance the status of the nursing profession and made three explicit suggestions for improvement. First, by raising the education to an academic level. ‘The nursing profession must be enhanced. An academic education [is needed]’, insisted QN 28 (32 years, acute care). Second, by using a better selection procedure for nursing students. ‘By now, everyone is accepted into the nursing programme. As in other health professions, only the best applicants should be taken (example of physiotherapy)’, remarked QN 185 (33 years, acute care). Third, by enabling a skill and grade mix in nursing practice. ‘Furthermore, I really hope that there will also be a real skill and grade mix in this sector due to the contribution of other professions, because nursing alone cannot do anything here’, commented QN 1217 (56 years, acute care).

OPINIONS ABOUT NURSING

The subtheme of ‘opinions about nursing’ was divided into two further sub-themes: [1] ‘negative opinions about nursing’ and [2] ‘positive opinions about nursing’, the latter of which includes 60% of the narratives assigned to ‘opinions about nursing’.

With regard to ‘negative opinions about nursing’, survey participants reported that positive experiences with patients 80 years and older are rarer than

with younger people in need of care. QN 100 (30 years, acute care) noted that '[...] the caregivers have significantly less frequent positive experiences than they do when caring for people in a younger age group'. Respondents also noted that the profession seems to have lost its sense of pride and prestige and that the work is getting more strenuous, frustrating, and difficult because older people stay at home longer and the number of people in need of care with psychiatric illnesses is increasing. 'Care is becoming more and more complex because the residents can stay at home longer and longer due to the good care (home care) they receive' (NA 570, 52 years, no setting). At the same time, respondents suggested that the appreciation for the profession has decreased, which also shapes their opinion of old people. QN 305 (43 years, long-term care) remarked that 'You feel as though you are not worth anything, and neither is the work you do. And I think that shapes the image of the old person.'

With regard to 'positive opinions about nursing', some narratives described the work as interesting and worthwhile. 'Caring for older people can be challenging, beautiful, and rewarding' wrote QN 103 (34 years, long-term care). Respondents also stated that caring for older people is important work and that nurses doing that job deserve respect. Caring for older people was also described as meaningful work and as a supreme discipline in nursing. 'Caring for older people is very important, no matter what stage of life you are in. It is worth every effort!' (NA 1283, 25 years, acute care).

CAREER OR DEPARTMENTAL CHANGE CONSIDERED

Nurses commented that they were considering a career or departmental change. 'I'm thinking about leaving nursing altogether before I get burned out', noted QN 185, 33 years old and working in the acute care field. Some nurses reported that it was difficult to encourage the younger generation to keep working with older people. 'It is difficult to encourage young people to stay in the nursing profession,' remarked NA 45 (55 years, long-term care).

OCCUPATION NOT CONCEIVABLE OR NOT SATISFACTORY

The respondents generally expressed the opinion that caring for older people is sad and frustrating work and that it is an undesirable occupational field. Several commented that it is frustrating for them that they cannot

save every life and that more older people are overweight today, which complicates their work. Some of the nurses could not imagine continuing in this occupational field. 'At present, the occupational field of gerontological care is relatively unattractive', noted one respondent (no profession stated 863, 30 years, acute care). Another respondent stated that they did not feel it is possible for them to work in a way that is satisfactory for them anymore. 'This results in a warm-full-clean-care routine, which, in turn, is frustrating for the nursing staff', said SN 1019 (43 years, acute care).

'So long as we always have the feeling that we have not finished, that we have not cared for people properly because the structure does not allow it, and that we are totally exhausted and rush out of the facility 20 minutes after the end of the shift, no one will recommend the profession to others.' (SN 829, 42 years, acute care)

CRITICISM OF CURRENT NURSING PRACTICE

Six subthemes could be identified that were assigned to the theme 'criticism of current nursing practice'. The highest number of narratives (69.6%) refer to 'inadequate working conditions'.

CHANGE IN NURSING STAGNATES

In the subtheme 'change in nursing stagnates', respondents said that many people talk about change, but change does not happen, which saddens and shocks them. 'There is always a lot of talking and writing about improvement in this area, but nothing has changed. Which actually makes one very sad and bewildered', commented NA 1358 (55 years, no setting)

INADEQUATE WORKING CONDITIONS

Inadequate working conditions were categorised into five subthemes: [1] 'structural or institutional grievances' (22.8%), [2] 'lack of time' (25.3%), [3] 'role of politics' (7.6%), [4] 'shortage of staff' (32.9%), and [5] 'too little payment' (11.4%).

In the subtheme [1] 'structural or institutional grievances', nurses criticised the working conditions, stating that these made their work frustrating rath-

er than the older people. Due to inadequate working conditions, many nurses found it difficult to provide what they felt was adequate care for older people, which then made it difficult for them to help the older people age in dignity. 'It's just that the conditions in our profession have become such that it is often no longer possible to work the way you would like to', emphasised QN 928 (40 years, acute care). The health care system infrastructure was criticised, with respondents noting that it did not enable them to fulfil the everyday wishes and needs of older persons. They also remarked that they a too great focus was placed on documentation. Overall, the respondents had difficulties maintaining a healthy work-life balance. Many noted that they felt as though the institutions did not provide enough incentives to retain their staff and focussed too strongly on economic aspects. Some nurses cited grievances in the accommodations for older people, like SN 83 (50 years, acute care):

'I recently had a frightening experience. I was told that, for example, the apartments in an assisted living unit are only renovated to a very minor extent, because they [the patients] are constantly coming and going, and you can't invest that much in them.'

Some nurses also remarked that they felt as though care for nurses as well as people in need of care was needed, noting that this leads to frustration and sometimes aggression on both sides. They voiced criticism of the fact that institutions did not seem to be preparing for the demographic changes and the accompanying increase in patients with diseases like dementia. 'Particularly in the long-term care sector, there is constant coercion on the part of both the person in need of care and the caregiver. This leads to frustration and sometimes aggression on both sides' said QN 169 (50 years, long-term care).

Regarding the subtheme [2] 'lack of time', some respondents stated that they felt as though they were under time pressure at work and noticed the overall lack of time (for tasks). Due to this time pressure, they stated that they had no to little time to deliver the care tasks. They wrote that they found it difficult to provide individualised care and support for older people and only the most important work can be done.

'[...] unfortunately, there is little or no time for the clients/patients, and often only the most important activities can be carried out. The staff has long since run out of time for promoting health promotion or holding simple conversations. Unfortunately, this applies to all areas/wards/facilities in our health care system.' (SN 1408, 39 years, acute setting)

Several nurses also commented that the time pressure reduces the attractiveness of the occupation. 'If nursing had time for care again, the job would be quite desirable,' remarked SN 829 (42 years, acute care).

Another point of criticism arose in the subtheme [3] 'role of politics'. Some nurses criticised the fact that, instead of making the occupation more attractive by reducing working hours or increasing wages, people were being pushed into the care profession and receiving the impression that anyone can provide care. These respondents worried that this might affect the image of geriatric care. 'Above all, politicians would have to redefine the basic conditions for nursing staff. Create a balance between attractive pay and attractive working conditions...', said SN 192 (36 years, long-term care). They demanded that the number of required staff should increase nationwide and that it should be mandatory. Furthermore, some nurses expressed a wish for a nursing care reform and for politicians to begin rethinking nursing and initiate change. 'Rethinking our government and thus also carrying out actions would be appropriate. Simply applauding the nursing professions helps no one, neither the staff nor the patients/clients' (SN 1408, 39 years, acute care).

In the subtheme [4] 'shortage of staff', some nurses commented that there were too few staff and that key staff were restricted to caring for older people, leading them to find the work frustrating. These respondents indicated that they did not have the resources and energy to provide individualised, adequate, and professional care. '[...] more staff - overworked nurses cannot give older people what they deserve! Some try, but they end up in burn-out!' (QN 1661, 40 years, acute care). Moreover, the shortage of staff and resulting difficult working conditions reduce the attractiveness of the occupation. Many respondents remarked that the conditions are '[...] inhumane on both sides [nurses and those being cared for]' (SN 191, 44 years, acute care). Some remarked that the coronavirus pandemic had worsened the situation.

‘The COVID-19 pandemic has additionally contributed its mite to the fact that the staffing situation has become very tense. Overtime is not the exception; it is the rule!’ said QN 501 (47 years, long-term care).

The last point of criticism in the subtheme [5] ‘inadequate working conditions’ is ‘too little pay’. Many nurses argued that, because of the low pay, working in long-term care is not desirable and that a wage increase would make working in care a more interesting career choice. ‘Only the pay [...] prevents me from working directly in nursing homes (worked in a nursing home for 2.5 years a few years ago)’, revealed QN 459 (53 years, acute care)

DESIRE FOR CHANGE IN THE FUTURE FOR ONESELF

Some nurses expressed their hope that they would see a change in the future when they were older and in need of care themselves. They also named explicit points where they would like to see this change: more appreciation for older people, more staff working in nursing homes, and overall more budget for the health care system. Some respondents expressed their fear of getting old and needing care because they thought that the situation of nursing would be worse in the future. ‘What really scares me is becoming [...] frail myself and, even worse, getting dementia. The staffing ratio is getting tighter, the finances tighter. What does the future look like for us?’ (NA 232, 62 years, no setting).

PHYSICAL AND PSYCHOLOGICAL EFFECTS OF CARE ON NURSES

In the subtheme ‘physical and psychological effects of care on nurses’, some nurses described health consequences they had experienced or were afraid of experiencing because of their work in nursing. On the one hand, these respondents had experienced or feared physical illnesses due to the great physical strain. SN 1006 (53 years, acute care) commented that ‘[...] but it [working with older people] physically broke me.’ On the other hand, some reported that they had suffered or feared suffering psychological illnesses like burn-out. ‘Personally, I can’t imagine that you can really stand it until you retire. I think you already will reach the end of your rope physically and mentally much sooner’ (NA 570, 52 years, no setting).

WISH FOR OTHER TASKS

Many survey participants expressed their wish to do other tasks. These respondents commented that they had the feeling that they were not using their full potential and did not have the opportunity to apply what they had learned. 'The whole morning I'm only busy with personal hygiene, I wouldn't have needed a diploma training', remarked QN 185 (33 years, acute care). Some nurses noted that they took over the duties of people in other professions and, thus, had no time for nursing activities. SN 829 (42 years, acute care) expressed this concern, noting that nurses do not perform activities of nurses: 'At present, nursing is being a cleaner, a secretary, a resident physician, a patient transporter, an auxiliary worker, etc.'

EDUCATION OR SPECIALISATION OF NURSES

In narratives assigned to the subtheme 'education or specialisation of nurses', some survey participants stated that one cannot stay in geriatric care for long without receiving further education. These respondents noticed that a certain technical knowledge and social skills were lacking. Nurses who made comments assigned to this subtheme demanded the opportunity to specialise in geriatric care, expressing a wish for education that focussed more strongly on the care of older people, on long-term care instead of acute care, and on illnesses relevant to the care of older people. They expressed the belief that improving education in this way would also improve the reputation of geriatric nursing. 'Knowing that the proportion of older people in our society is increasing, nursing education should be adapted to this, i.e. much more knowledge about what dementia/delirium care means, and especially in acute hospitals!' (QN 1612, 56 years, acute care). These respondents criticised the fact that it seemed difficult to obtain specific further education on care for older people unless they educated themselves. 'We need well-trained, motivated, and committed people who will finally put the "bad" reputation of geriatrics in the right light', said QN 1217 (56 years, acute care).

DISCUSSION

This study was carried out to collect information about nurses' experiences and opinions on caring for people 80 years of age and older. The results of the qualitative analysis enabled us to categorise the nurses' narratives on nursing for older people into three main themes: their [1] 'opinions on people in need of care', their views on the [2] 'reputation of nursing profession', and their [3] 'criticism of current nursing practice'. In each of these themes, nurses reflected on 'positive opinions on nursing', the 'ideal image of nursing', and the 'shortage of staff' most often.

'Positive opinions on nursing' was a subtheme associated with the highest number of narratives. This result shows that nurses value and consider their work with older people as important. In support of the findings of Özdemiş and Bilgili (21), who listed reasons for nursing students to consider working with older people, the respondents appreciated the high importance of their work, indicating that they felt they were increasing the quality of care for older persons in need of care, and especially in the last phase of life. A positive attitude towards older people (17, 19) and their care (22) was also identified as a reason that made survey participants decide to pursue a career in gerontological nursing. These participants reflected on their positive attitude towards people 80 years of age and older who were in need of care. These individuals also expressed appreciation for the life experience that older people have and indicated that they deserve respect. These findings agree with the core elements of the nurse-patient relationship, i.e. respect and dignity, cited by Riviere et al. (31). Some nurses, however, described working with people 80 years and older as difficult and demanding due to their underlying diseases, e.g. dementia. These respondents stated that positive experiences occur less often than they do when caring for younger people in need of care. This result supports other results found in the international literature on geriatric nursing, which indicate that it is an undesirable career choice because this work is perceived as difficult due to the greater and more complex care needed by people in this age group (21).

Some nurses also reported that they were not satisfied with the current working conditions, describing experiences of 'structural or institutional grievances', a 'lack of time' for providing care, a 'shortage of staff', 'too little pay', and too little support from politicians. These factors have been

shown to influence nurses' job satisfaction (53) and can cause them to leave their workplace or the profession (53, 54). Lower job satisfaction may lead to lower job performance and burn-out (53). This was also mentioned by our study participants, who stated that they had experienced or feared experiencing the physical or psychological consequences of working as a nurse with older people in need of care.

Other nurses remarked that they were not satisfied with their own work performance, as they were often only able to provide basic care instead of individualised, high-quality care. This phenomenon is called 'missed nursing care', i.e. necessary care that is either wholly or partially omitted or delayed (55). The meta-review on missed nursing care by Chaboyer et al. (56) shows that this is influenced by staffing levels, the staff skill mix, teamwork, lack of resources (e.g. materials), and the high number of administrative, non-nursing tasks. Our study participants also criticised the staff shortage, the lack of a skill-and-grade-mix, and the high number of administrative, non-nursing tasks they had experienced or observed. In their narratives, some nurses also noted that promoting autonomy, educating people in need of care, offering fundamental physical care, as well as emotional or psychological support tasks are neglected, among others (56). This leads to a poorer quality of care and to lower job satisfaction (56), which seems to create a vicious circle.

In addition, some nurses in our study commented that the COVID-19 pandemic had increased the inadequacy of the working conditions described above. This study was performed at the end of the third COVID-19 wave. This might have influenced the nurses' experiences of and opinions about caring for older people because this was a stressful and busy time for nurses. During the COVID-19 pandemic in hospitals in Europe and the USA, 53.1% of surveyed nurses experienced burn-out, and 49.1% rated their hospital negatively regarding patient safety. These nurses reported that their work was frequently interrupted due to staff shortages and the need to perform non-nursing tasks (57). Austrian nursing staff working in nursing homes also reported that, although they had more time to care for residents due to cancelled therapies and the lack of visitors, they also had to deal with an additional workload due to hygiene measures, the need to take over tasks from other occupational groups (i.e. activity coordinators), and the fact

that residents needed more attention, encouragement, and reminders to comply with the hygiene measures (58).

STRENGTHS AND LIMITATIONS

The primary focus in this study was to measure nurses' attitudes towards people 80 years of age and older and their opinions about caring for them using a quantitative method (30). We collected survey participants' narratives in an open-ended comment box and decided to analyse these separately due to the extensive and high number of such narratives. This may represent a study limitation. The survey participants had to answer the quantitative survey questions on the questionnaire, which directed their attention towards their attitudes about and care for people 80 years of age and older, before they provided a response in the open-ended comment box. Because the nurses were made aware of attitudes and ageism beforehand, this may have influenced their narratives. Although many nurses completed the questionnaire, we had no influence over how many nurses provided narratives; therefore, we do not know if data saturation was reached. Furthermore, there is the possibility of a response bias. Participants who feel strongly about caring for older adults may have been more eager to give a narrative. Answers to general open-ended questions at the end of a questionnaire also tend to be more negative and critical narratives (59). The distribution between the nursing professions was also random. Therefore, 81% of the collected narratives were made by nurses with a diploma and specialised nurses, and 61.1% by nurses in acute care. Nurses without a diploma and from long-term care or home care are underrepresented in this study. Therefore, we were not able to separately analyse the narratives of qualified nurses and nursing aides. When looking at differences in the characteristics of those who provided a comment and those who did not, no differences could be detected. Therefore, we concluded that this study has no motivational bias. As some settings and nursing roles are underrepresented in this study, we cannot make any statements on the transferability of these findings to all nursing settings and roles. Furthermore, about 20 % of the participating nurses worked in management, research or teaching and not directly with patients. As they are trained nurses and as they offer an additional angle of view which helps to obtain a more complete picture, we decided to include the narratives of these participants in this study. We did not ask a specif-

ic question when encouraging the participants to enter a narrative in the open-ended comment box. This might constitute a strength of this study, as we gave the participants the opportunity to freely express their opinions of older people and their care. Furthermore, this study was planned and executed as a cross-sectional study. Initially, it was not intended to analyse the narratives in the commentary box. Therefore, in the planning and execution of this study, no considerations were made with regard to qualitative rigour. Nonetheless, this study led to new themes with respect to caring for older persons, which was not the primary focus aim and which would not have emerged in a quantitative study. Another study limitation is that the answers provided by the respondents were written and not provided orally, e.g. in a face-to-face interview, where we would have had the opportunity to ask further questions on points raised by the participants.

RELEVANCE TO CLINICAL PRACTICE

In order to encourage nurses to start working or to remain in geriatric care, we recommend that further education is offered, such as gerontological courses or specialised training for nurses or nursing students (60). These were requested by our participants. Our results indicate that strengthening nurses' positive attitude towards older people and their care can increase their willingness to work with older people (17, 19, 21). This can be achieved by introducing gerontological educational interventions for nurses and encouraging intergenerational contact (61). These measures also emerged in nurses' narratives that reflected a negative view on older adults. Offering special training to improve teamwork might improve nurses' job satisfaction (60), and this may also prevent 'missed nursing care' as well as increase nursing staff (62). In turn, improving the work environment and increasing nursing staff may result in an improvement in the quality of care (63). For these reasons, we recommend policymakers and nursing managers to improve the working environment by increasing nursing staff, increasing pay, reorganising daily work (i.e. by reducing administrative tasks), and by preparing for the sociodemographic change. All of these points were mentioned by the participants of this study.

Further research is needed to investigate nurses' needs and wishes related to the care of people 80 years of age and older. Qualitative studies should also be performed, such as interviews with nurses from different settings

and in different nursing roles. Furthermore, researchers should interview people in need of care who are 80 years of age and older to investigate their care needs and to ask them to describe their view of 'ideal' care. Participatory action research could be applied as an approach for improving the daily work of nurses.

CONCLUSION

Our study results show that nurses appreciate working with people of 80 years of age and older and perceive this work to be meaningful and important, but it reveals aspects that diminish their joy in their work. For instance, caring for older people can be difficult or demanding, and the surveyed nurses generally perceived the working conditions as inadequate. Further research is needed in the form of qualitative studies with nurses, and improvements must be made by policymakers and nursing managers (e.g. more education and nursing staff) to improve these working conditions. Nurses also described the poor reputation of geriatric nursing care in the eyes of the public and their colleagues. By sensitising nurses to the aspirations and joys of geriatric nursing and by offering further education and opportunities for specialised training, the image of geriatric nursing might improve.

ETHICS STATEMENT

This study was approved by the Ethics Committee of the Medical University of Graz (EK Number 31-320 ex 18/19). Participation was voluntary and could be cancelled at any moment. After reading the written information about the study, participants provided consent by answering 'yes' to the question of whether they wanted to participate. No conclusions could be drawn regarding the participants' identity

DATA AVAILABILITY STATEMENT

Data associated with this study have not been deposited into a publicly available repository. Data are not available due to the sensitivity of the written statements. The used data are confidential.

CREDIT AUTHORSHIP CONTRIBUTION STATEMENT

Lena Maria Lampersberger: Writing - review & editing, Writing - original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. Gerhilde Schüttengruber: Writing - review & editing, Writing - original draft, Investigation, Formal analysis. Christa Lohrmann: Writing - review & editing, Writing - original draft, Supervision, Conceptualization. Franziska Großschädl: Writing - review & editing, Writing - original draft, Supervision, Conceptualization.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Nurses' perspectives on old age and caring for adults aged 80 years and older: a cross-sectional study in long-term care.

“Working with older people is a challenging but enjoyable job, varied, demanding and full of humour. [...] It’s a very extensive field and you learn something new every day.”

(Participant⁹⁰ Study 1b)

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ABSTRACT

BACKGROUND

Older care receivers of long-term care at home or in residential care are in sustained and close contact with nurses. Consequently, nurses' attitudes towards older adults and their care influences the quality of the delivered care. There is a dearth of research on long-term care nurses' attitudes towards older adults. We aimed to investigate Austrian long-term care (residential care and home care) nurses' attitudes towards adults 80+ and towards geriatric care, as well as possible influencing factors like personal and professional contact with older adults.

METHODS

An online survey using a cross-sectional design was carried out in fall 2023 with a convenience sample of 875 Austrian nurses (qualified nurses, specialised nurses, nurses without diploma). The questionnaire included three scales: (1) The Ageism Semantic Differential which measures general attitudes towards older adults, (2) the Perspectives on Caring for Older People Scale, and (3) the Positive/Negative Contact Scales.

RESULTS

Nurses were found to hold neutral to positive attitudes towards adults 80+ and their care. Attitudes towards older adults and their care were positively influenced by positive contact experiences and few negative experiences in their work environment. Nurses in home care had significantly more positive contact with care receivers and held more positive attitudes towards adults 80+ than residential care nurses.

Conclusion

These results suggest that intergenerational contact can positively impact attitudes of nurses towards older care receivers. In order to further facilitate positive attitudes, it is recommended to create positive contact opportunities between nurses and care receivers by, for example, implementing intergenerational educational interventions.

Keywords: Ageism, geriatric nursing, long-term care, home care services, residential facilities, attitude, aged 80 and above, nurses

BACKGROUND

Due to advances in medicine, education, living conditions, and access to health care, we are now looking forward to living longer. Due to this longer life expectancy, the global population is becoming steadily older (1, 2). As our population ages, we will face challenges such as how to provide a sufficient measure of health care, but we will also experience possible advantages: Older adults can contribute greatly to our society as active members in the working life, in volunteering, and in their families (2).

Throughout the course of life, diseases and a need for care can and will occur sooner or later (2). By the age of 80, the risk of care dependency is considerably increased, and approximately two-thirds of older adults are in need of care and support to perform activities of daily living (3, 4). One of the challenges presented by an ageing society is the necessity to develop and maintain a sustainable care system which can deliver adequate and professional best-practice care to all older adults (2). This quality older adult care should be governed by a holistic approach to meet all health needs of the older adult population. This objective could be achieved by an integrated care system in which all services providing care and support work together in a coordinated manner to meet the needs of older adults (5).

The occurrence of care dependency, multimorbidity, or frailty marks the beginning of the so-called fourth age of a person, which is not defined by chronological age but by the state of a person's health and functionality (6). Older adults, who previously enjoyed health and independence, transition slowly from the third into the fourth age and, consequently, develop a greater need for care and medical services (7, 8). This transition is mostly presumed to take place between 80 and 85 years of age. When the need for care and help increases, measures such as providing integrated care at home or in a residential facility need to be taken to help older adults maintain their functional abilities, thus increasing the need for long-term care (5). Long-term care is defined as care and support which enables an individual to maintain functional abilities and *„to ensure that people with or at risk of a significant ongoing loss of intrinsic capacity can maintain a level of functional ability consistent with their basic rights, fundamental freedoms and human dignity.”* (p. 6-7) (5). It is characterised by a continuous or intermittent system of care provided over sustained periods of time

and which can be delivered by relatives or friends, professional caregivers, community-based services, or institutional caregivers (5). Long-term care, therefore, includes both residential care and home care. Older adults aged 75 years and older represent the largest group of care receivers in long-term care (9), with adults aged 80 years and older constituting the group with the highest and most complex care demands (10).

When these individuals are being cared for either at home or in residential care facilities, it is nurses who are in close and sustained contact with people in the fourth age. Tensions and problems may arise between nurses and these older people, leading to ageism towards the older care receivers. In health care and nursing care, ageism is a pressing issue (11, 12). *“Ageism in the nursing care of older adults is any kind of stereotype, prejudice, or discrimination against or to the benefit of older adult patients that is implicitly or explicitly practiced by the nurse and leads to actual or perceived (direct or indirect) decrease in the quality of health care provided”* (p. 10) (13). Due to the fact that nurses frequently interact with ill and care-dependent older adults, they may form biased opinions towards them during the course of their careers, i.e., negative or ageist attitudes (14-16). Therefore, the risk of nurses expressing negative attitudes towards adults aged 80 years and older or the latter experiencing ageism increases because they are stereotyped as being frail and dependent (11, 17). Studies show that frequent and negatively perceived contact with older adults, and especially older care receivers, may affect nurses’ attitudes towards older adults and lead them to display subtle forms of ageism (18, 19). This influence can be explained by Allport’s contact hypothesis (20).

In the 1950s, Allport’s contact hypothesis laid the foundation for research on the reduction of prejudice by promoting interpersonal contact, albeit originally between ethnic groups. Since then, the contact hypothesis has been used to study different forms of prejudice (21, 22). In ageism research, Allport’s contact hypothesis is one of several (e.g. social identity theory (23)) commonly used to explain psychological mechanisms that lead to ageism (24). As close contact between nurses and older care receivers may influence whether older adults experience ageism, this hypothesis is also used to study ageism in the context of nursing (14, 18). The contact hypothesis suggests that interpersonal contact may diminish prejudice. More specifically, prejudice between two groups may be reduced by encouraging

social contact experiences taking place under optimal conditions, while also emphasising the equal status of the respective groups, common goals, intergroup cooperation, and the support of authorities, law, or customs. As the attitudes towards a specific individual become more favourable, the attitudes towards the whole group (e.g. age group) become more positive as well (20). Although Allport (20) stressed that deeper engagement is needed to reduce prejudice, he also said “the more contact, the more trouble” (p. 263) (20). This means that the contact needs to occur under optimal and favourable conditions, or else it may be experienced as unfavourable, thus leading to more prejudice (20). Nurses, on the other hand, may not experience contact with older adults under such optimal and favourable conditions, as they usually interact with older adults with a high care demand. Even though Allport’s contact hypothesis suggests a positive effect of intergenerational contact regarding positive attitudes towards older adults, this might not apply to nurses, as their contact experiences often take place under challenging conditions (15). Especially in long-term care, nurses are in close contact with older care receivers who constitute the largest group of care receivers in this settings and tend to have the most complex care needs (9, 10). Furthermore, nurses’ personal contact with older adults might also be perceived as positive or negative. Therefore, both professional and personal relationships with older adults could be confounders with regard to nurses’ attitudes towards older adults, especially in view of the nature of the conditions under which this contact takes place (19).

In line with Allport’s contact hypothesis, Drury et al. (18) adapted a scale to measure the quality of nurses’ contact with older care receivers (Positive and Negative Contact Scales, PNCS). We hypothesised that the quality of contact with older care receivers influences nurses’ attitudes towards older adults and their perceptions of geriatric care. Some studies identified contact as a factor that impacts attitudes towards older adults, but no comprehensive body of research exists with regard to this topic. The available results are inconclusive, and there is still a paucity of research, especially with regard to long-term care (14, 18, 25, 26).

Nurses’ attitudes towards older adults affect the quality of care. For example, a nurse’s negative attitudes towards care receivers may reduce the amount of care provided (15, 27). If, on the other hand, they hold positive attitudes towards care receivers, a better relationship, characterised by

trust and comfort, exists between the nurse and the person in need of care (28). So far, there is only a small pool of literature on nurses' attitudes towards older adults and their care in the long-term care setting, and especially towards adults aged 80 years and older, and little research has been carried out in recent years in either residential care or home care settings (29). As care receivers are in close contact with nurses, such research is vital to ensure professional and high-quality care because it provides valuable insight into nurses' attitudes towards these adults (15, 27, 30). A systematic review by Rush et al. (15) revealed conflicting results on whether nurses hold positive or negative attitudes with regard to caring for older people. To our best knowledge, no study has examined potential differences in nurses' attitudes in various long-term care settings (i.e. residential care and home care).

To ensure that older adults age in a healthy way and receive best-practice integrated care, nurses need to hold positive attitudes towards them (2), but no comprehensive body of research exists on nurses' attitudes towards older adults, their care in long-term care settings, or the influence of the quality of contact on nurses' attitudes. Therefore, we set three aims in our study:

1. To assess the attitudes of Austrian nurses working in long-term care towards adults aged 80 years and older and towards geriatric care;
2. to compare nurses' attitudes towards adults aged 80 years and older in the residential care and home care settings; and
3. to assess which factors influence nurses' attitudes, especially with regard to the role of the quality of contact with care receivers aged 80 years and older.

METHODS

DESIGN

An online survey with a cross-sectional design was used to describe the relationship between variables (31). An online questionnaire developed using LimeSurvey 6.5 was sent to nurses working in Austrian long-term care facilities (32). The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist for cross-sectional studies guided the reporting used in this study (33).

SETTING AND PARTICIPANTS

Austrian nursing staff including nurses (with a diploma, bachelor's, or master's degree), specialised nurses, and nurses without a diploma working in long-term care were included in this study. These nursing professions were chosen because they provide direct care to older adults in need of care and, thus, were in close contact with these individuals. In Austria, nurses attend a three-year training programme and graduate with either a bachelor's degree or a diploma. After graduation, nurses can specialise in fields like intensive care or palliative care by completing a one-year university course. Nurses without a diploma are comparable to assistant nurses and nursing aides; they receive one to two years of education. To be included in the study, any amount of time working with older adults in long-term care was sufficient. The long-term care setting included all nurses working in residential care or home care as well as community nurses.

CALCULATION OF SAMPLE SIZE

In the initial stage of the planning process, the representative sample sizes needed for the residential care and home care settings were calculated separately using Qualtrics' sample size calculator (34) based on the population size reported by the Austrian government (35). For the residential care setting, $n = 381$ participants were needed, while $n = 377$ participants were needed for the home care setting.

SAMPLING

A convenience sampling strategy was used. Based on e-mail address lists from all federal states in Austria, including those for residential care facilities, home care services, and community nurses, e-mails were sent to either nursing managers or an available contact e-mail address. The e-mails included a description of the study and the request to forward the link to the study to their nursing staff. A letter was attached to this e-mail which included the study description, an invitation to participate, and a QR code for access to the online survey. This survey could also be printed and pinned up at the work place. A reminder was sent to the same e-mail addresses after one month of data collection. Data were collected using LimeSurvey 6.5 (32) in October and November 2023.

INSTRUMENT

The questionnaire took about ten minutes to complete and had been designed in the course of a previous study (19). It included demographic questions, the German version of the Aging Semantic Differential scale (ASD) (36, 37) (Cronbach's $\alpha > 0.8$ (36)), the German version of the short version of the Perspectives on Caring for Older People scale (PCOP) (19, 38) (Cronbach's α for the English version < 0.8 (38)), as well as possible influencing factors extracted from the literature (e.g. sex, work experience in long-term care facilities, geriatric/gerontological education, contact with older care receivers) (18, 39-41). The ASD produces sum scores ranging from 26 to 182, with lower scores reflecting more positive attitudes. Each item has a maximum score of seven, with a score of one indicating a positive, four a neutral, and seven a negative attitude, respectively (36, 37). The PCOP produces sum scores ranging from 9 to 36, with higher scores indicating a more positive view towards caring for older adults. Items are rated on a four-point Likert scale (1 = strongly agree; 4 = strongly disagree). It consists of 9 items which describe attitudes about the care of older people in need of care (e.g., 'Caring for older patients is usually challenging and rewarding', 'I would not choose to attend continuing education in nursing care of older patients') (38). A detailed description of the questionnaire can be found in Lampersberger et al. (19). For the purpose of this study, the Positive and Negative Contact Scales (PNCS) (18) were also included to assess the qual-

ity of contact between nurses and care receivers as a possible influencing factor.

The PNCS consist of two scales: the PCS (Positive Contact Scale) and the NCS (Negative Contact Scale). These are used to measure the quality and frequency of positive or negative contact in the care context. The PCS consist of eight items, three measuring the quality of positive contact and five measuring the frequency of positive contact. The NCS consist of six items, three each measuring the quality and frequency of negative contact. The items are measured on a seven-point Likert scale, with the quality of positive or negative contact ranging from 1 = none to 7 = all, while the frequency of positive or negative contact ranges from 1 = never to 7 = very often. A number ranging between 1 and 49 is obtained by multiplying the means of the quality and frequency of contact in each scale. Means are multiplied due to the differences in the number of items. Higher PCS scores indicate contact with older care receivers that is of good quality and frequently positive. Higher NCS scores indicate contact with older care receivers that is of poor quality and frequently negative. Cronbach's α was calculated as > 0.79 for each part of the PCS and NCS (18). The authors gave their permission to translate and use the scale.

CROSS-CULTURAL ADAPTATION OF THE PNCS

The PNCS was cross-culturally adapted according to Beaton et al. (42) in four phases.

Phase 1: The scales were forward translated by two independent translators, both of whom speak German as their first language and one of whom was aware of the concept being measured and has a background in nursing science. The translations were then synthesised by one author and sent to the translators for confirmation.

Phase 2: The translation was sent to two translators whose first language is English for backward translation. Both were not aware of the measurement and the concepts to be measured and had no background in nursing science. The translations were synthesised by one author.

Phase 3: The translations were discussed in an expert committee composed of the translators and one author of this study and therefore consisted of

language professionals, nurses and nursing scientists. After a consensus was reached, the pre-final version of the scales was sent to the author of the scale to receive feedback. No changes were made.

Phase 4: To assess the clarity and face validity of the scales, a pre-test was carried out with 17 master's students in nursing science who also were working as nurses. The sample for the pre-test was a convenience sample. E-mails with the invitation to participate were sent to the students. Two examples of pre-test questions are: 'Please assess whether the following description and items on the Likert scale are understandable' and 'If the labelling or items were unclear, what was not clear to you?'. No changes were made.

INTERNAL RELIABILITY OF THE PNCS AND PCOP

The PCNS consists of the scales PCS Quality (Cronbach's $a = 0.8$), PCS Frequency (Cronbach's $a = 0.9$), NCS Quality (Cronbach's $a = 0.8$), and NCS Frequency (Cronbach's $a = 0.8$). All of these scales had good internal reliability with a Cronbach's $a \geq 0.8$. Both PCS scales combined, as well as both NCS scales combined, had a Cronbach's $a \geq 0.8$ as well. The PCOP had an acceptable Cronbach's $a = 0.7$ (43).

ETHICAL CONSIDERATIONS

Ethical approval was obtained from the Medical University of Graz (EK Number 31-320 ex 18/19). When starting the online survey, participants had to read the description of the study and confirm having read the data privacy policy. In response to the first question, nurses had to answer if they were willing to participate in this study. By answering 'yes', nurses gave their informed consent. No conclusions could be drawn about the participants' identities, as the data were collected anonymously. No IP addresses of participants were saved.

DATA ANALYSIS

The statistical software IBM SPSS Statistics (Version 28.0) was used for data analysis (44). First, all questionnaires from participants who did not provide care for older care receivers were excluded. Then, questionnaires with

more than 40% missing values were removed from the data pool (45), resulting in $N = 875$ included questionnaires (residential care $n = 429$ and home care $n = 446$). No imputation method for missing values was used in these questionnaires. Because of the number of participants, a normal distribution was assumed (43). To test the scales for internal reliability, Cronbach's α was calculated for each scale for each setting and for long-term care in total by using the entire sample. Descriptive statistical analyses were performed with respect to the characteristics of the study participants and the scores on the various scales. Means and standard deviation were used for continuous variables, while percentages were used for categorical variables. To identify differences between data from residential care and home care settings, unpaired t -tests were carried out for continuous variables. Depending on the variance, Levene's test or Welch's F test was applied, and two-tailed p -values were used. The linear relationship between the ASD sum score and the PCOP sum score was calculated using a scatterplot (jittered) and the Pearson correlation.

To test for influencing factors, two multiple linear regression models were applied. The first model included the PCOP sum score as a dependent variable, whereas the second model included the ASD sum score as a dependent variable. No questionnaires with missing values were included in the multiple linear regression models. All questionnaires from participants stating 'other' in the variable sex were excluded due to missing values in the questionnaire; thus, a binary variable for sex was used (female/male). For non-binary categorical variables, dummy variables were built. First, all possible influencing variables were included in the models (see Table 1). Then, backward elimination of non-significant variables and theoretical assumptions was applied to exclude variables from the model. Consequently, variables measuring the contact of nurses with older adults and the variable 'years working in long-term care' were included in every model (see Table 1) to control for possible confounders. Variance inflation factors (VIF) were checked to determine whether they were below 10 to rule out multicollinearity (43). The assumptions of linearity, independence of errors, homoscedasticity, unusual points, and normality of residuals were met. P -values ≤ 0.05 were considered as statistically significant.

Table 1 List of predictor variables included in the multiple linear regression models in the beginning

Variable	Category (1)	Reference category (0)
Sex	Female	Male
Age	Continuous variable	
Origin	Non-Austrian	Austrian
Educational level	Academic	Non-academic
Profession*	Nursing staff without diploma	
Specialised Nurse	Qualified nurse	
Years working in long-term care [°]	Continuous variable	
Setting	Home care	Residential care
Clinical focus	No	Yes
Geriatric or gerontological education	No	Yes
PCS multiplied score	Continuous variable	
NCS multiplied score	Continuous variable	
Interaction with person in need of care ≥ 80 [°]	Often	Occasionally
Able to discuss personal topics [°]	Few/no	Many/all
Thinking of a gender while answering the ASD*	Female	
Male		
Other	No	
Knowing the meaning of ageism*	Unsure	
No	Yes	

Note: PCS = Positive Contact Scale, NCS = Negative Contact Scale, ASD = Aging Semantic Differential scale, PCOP = Perspectives on Caring for Older People scale

*Dummy variable

[°]Variables were included in both final models due to theoretical considerations

RESULTS

PARTICIPANT CHARACTERISTICS

In long-term care, nurses had a mean age of 44.8 (± 9.9) years, an average of 18.3 years of experience working in health care in general, and 13.9 (± 8.9) years of experience working in long-term care. Nurses working in home care had a mean age of 45.4 (± 9.1) years and were statistically significantly ($p = 0.045$) older than nurses working in residential care, who had a mean age of 44.1 years. Nurses working in residential care, however, had with an average of 13.9 (± 8.9) years of experience working in long-term care a statistically significantly ($p \leq 0.001$) greater amount of experience than home care nurses, who had on average 11.8 (± 9) years of experience.

In both settings, most of the participants were female ($> 80\%$) and qualified nurses (51.7%) who interacted daily with care receivers aged 80 years and older ($> 75\%$). Information about participant characteristics, working environments, and frequency of contact with care receivers aged 80 years and older for both settings, as well as statistically significant differences between residential care and home care nurses can be found in Table 2.

Table 2 Participants' characteristics, working environment, and contact with care receivers ≥ 80 years of age in residential care, home care, and long-term care in total

Variable	Residential care		Home care		Long-term care total	
	n	%	n	%	N	%
Sex	423		435		858	
Female		84.4		82.0		88.2
Male		15.6		7.8		11.7
Other		0.0		0.02		0.1
						≤ 0.001
Origin	429	80.9	445	93	874	87.1
Education	428		445		873	
Non-academic		80.1		89.2		84.8
Academic		19.9		10.8		15.2
						≤ 0.001
Profession	427		444		871	
Qualified nurse		49.9		53.4		51.7
Specialised nurse		11.5		36.9		10.5
Nursing staff without diploma		38.6		9.7		37.8
						0.511
Clinical focus	429		445		874	
Geriatrics		60.1		38.7		49.2
Palliative care		11.9		3.1		7.4
Psychiatry		1.9		1.1		1.5
No focus		21		48.3		34.9
Other		5.1		8.8		7
						≤ 0.001

	429	444	≤ 0.001	873
Geriatric/Gerontological education				
No	48	39.6		54.3
Yes	52	60.4		45.7
Part of nursing programme*	38.1	42		39.8
Stand-alone course*	81.6	82.4		82
Postgraduate training*	12.6	6.3		9.8
Others*	2.2	2.8		2.5
Interaction with persons in need of care ≥ 80	429	446	≤ 0.001	875
Daily	85.8	76		80.8
Occasionally	14.2	24		19.2
Having family/friends ≥ 80	429	446	0.007	874
No	26.6	21.5		24
Yes	73.4	78.5		76
Can discuss many or all personal topics	64.9	56.6		60.5
Can discuss few or no personal topics	35.1	43.4		39.5
Thinking of a gender while answering the ASD	427	443	0.490	870
No	80.8	81.3		81
Female	14.8	16		15.3

Table 2 Participants' characteristics, working environment, and contact with care receivers ≥ 80 years of age in residential care, home care, and long-term care in total (continued)

Variable	Category	Residential care		Home care		Long-term care total	
		n	%	n	%	N	%
	Male		2.1		1.6		1.8
	Other		2.3		1.1		1.7
Knowing the meaning of ageism		402		434		836	
	Yes		41.8		37.8		39.7
	No		35.6		36.2		35.9
	Unsure		22.6		26		24.4
						0.369	

Note: *multiple responses possible, ASD = Aging Semantic Differential scale, *p*- values ≤ 0.05 in bold

The PNCS showed that nurses had a high quality and frequency of positive contact with care receivers. Participants experienced negative contact to a low extent and frequency. Nurses held neutral to positive attitudes towards adults aged 80 years and older and perceived their care positively. Home care nurses had statistically significantly more positive contact with older adults and more positive attitudes towards them. Table 3 shows the mean scores on the PNCS, ASD, and PCOP scales as well as differences between settings. Supplementary File 1 shows the radar charts per scale and setting including the means per item. These results show that participants working in home care reported more positive and less negative contact with care receivers aged 80 years and older. No adjective pair on the ASD was rated negatively, and no difference between settings was identified regarding the PCOP.

Table 3 Participants' quality of contact with care receivers, their attitudes towards older adults and geriatric care in residential care, home care, and long-term care in total

Scale	Residential care		Home care		<i>p</i>	Long-term care total	
	<i>n</i>	Mean score (<i>SD</i>)	<i>n</i>	Mean score (<i>SD</i>)		<i>N</i>	Mean score (<i>SD</i>)
PCS Quality	429	5.3 (0.9)	446	5.6 (0.8)	≤ 0.001	875	5.4 (0.9)
PCS Frequency	429	5.1 (1.2)	446	5.4 (1)	≤ 0.001	875	5.3 (1.1)
NCS Quality	429	2.6 (1.1)	446	2.3 (1)	≤ 0.001	875	2.4 (1)
NCS Frequency	428	2.4 (0.9)	446	2 (0.7)	≤ 0.001	874	2.2 (0.9)
PCS	429	27.7 (9.5)	446	30.7 (8.6)	≤ 0.001	875	29.2 (9.2)
NCS	428	6.9 (5)	446	4.8 (4)	≤ 0.001	874	5.9 (4.6)
ASD	428	3.7 (0.9)	443	3.6 (0.8)	0.01	871	3.7 (0.8)
ASD - Instrumentality	428	4 (0.9)	445	3.9 (0.9)	0.146	873	3.9 (0.9)
ASD - Autonomy	428	4 (1.1)	446	3.9 (0.9)	0.025	874	4.0 (1)
ASD - Acceptability	428	3.3 (1)	444	3.0 (0.9)	≤ 0.001	872	3.2 (1.0)
ASD - Integrity	428	3.7 (1.1)	445	3.7 (1.0)	0.371	873	3.7 (1.0)
PCOP	408	3.2 (0.4)	435	3.3 (0.4)	0.224	843	3.2 (0.4)

Note: PCS = Positive Contact Scale (mean score for quality and frequency ranging from 1 to 7, higher scores indicating more positive contact, mean total sum score of the PCS scales ranging from 1 to 48, higher scores indicating more positive contact), NCS = Negative Contact Scale (mean score ranging from 1 to 7, lower scores indicating more negative contact, mean total sum score of the NCS scales ranging from 1 to 48, lower scores indicating more negative contact), ASD = Aging Semantic Differential scale (mean score ranging from 1 to 7, lower scores indicating more positive attitudes towards older adults), PCOP = Perspectives on Caring for Older People scale (mean score ranging from 1 to 4, higher scores indicating more positive attitudes towards geriatric care), *p*- values ≤ 0.05 in bold

The linear relationship between the PCOP sum score and the ASD sum score is shown in Figure 1. Pearson correlation showed a moderate negative correlation ($r = -0.303$; $p \leq 0.001$), indicating a relationship between the PCOP and the ASD.

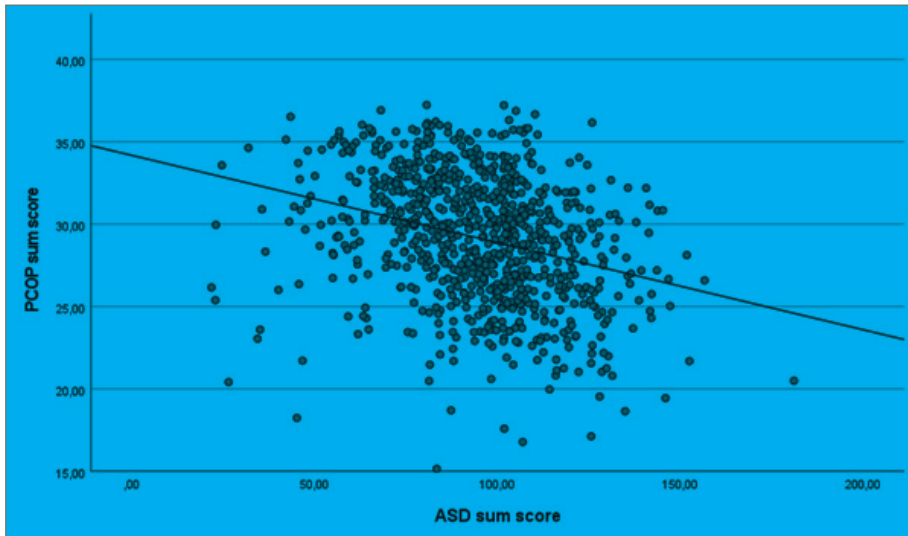


Figure 1 Scatterplot (jittered) of the linear relationship of the ASD and the PCOP
 Notes: ASD = Aging Semantic Differential scale, PCOP = Perspectives on Caring for Older People scale

Two multiple linear regression models with the PCOP and ASD scores as dependent variables were conducted. The application of both models yielded statistically significant results ($p \leq 0.001$). The following six factors had a statistically significant positive association with nurses' attitudes towards the care of adults aged 80 years and older (PCOP as a dependent variable): (1) being from Austria, (2) having worked in long-term care for a longer period, (3) having a clinical work focus, (4) perceiving contact with care receivers aged 80 years and older as positive (PCS), (5) not perceiving contact with care receivers as negative (NCS), and (6) knowing the meaning of ageism. The following four factors had a statistically significant positive association with nurses' general attitudes (ASD as dependent variable): (1) perceiving contact with care receivers as positive (PCS), (2) having a lower score regarding negative contact (NCS), (3) having a close personal relationship with an older adult (being able to discuss personal topics often/always), and (4) not thinking of a gender while answering the ASD compared to thinking of a male person. Table 4 and Table 5 show the regression coefficients for all variables included in the multiple linear regression models.

Table 4 Multiple linear regression models with the PCOP sum score as a dependent variable

	Independent variable	Category 1 (reference category 0)	B	95 % CI for B		p-value
				LB	HB	
Dependent variable = PCOP sum score	Origin	Non-Austrian (Austrian)	-1.080	-1.899	-0.261	0.010
	Years working in long-term care	Continuous variable	0.053	0.025	0.080	≤0.001
	Clinical focus	No (yes)	-0.723	-1.257	-0.188	0.008
	PCS multiplied score	Continuous variable	0.187	0.155	0.219	≤0.001
	NCS multiplied score	Continuous variable	-0.134	-0.192	-0.076	≤0.001
	Interaction with person in need of care ≥ 80	Often (occasionally)	0.199	-0.444	0.842	0.544
	Able to discuss personal topics	Few/no (Many/all)	-0.135	-0.670	0.400	0.620
	Knowing the meaning of ageism	No (yes)	-0.597	-1.184	-0.011	0.046
	Knowing the meaning of ageism (no)	Unsure (yes)	0.091	-0.559	0.741	0.784

Notes: B = unstandardised regression coefficient; CI = confidence interval; LB = lower bound, HB = higher bound, PCS = Positive Contact Scale, NCS = Negative Contact Scale, PCOP = Perspectives on Caring for Older People scale, p- values ≤ 0.05 in bold
n = 619; adjusted R² = 0.324; p = ≤ 0.001

Table 5 Multiple linear regression models with the ASD sum score as a dependent variable

	Independent variable	Category 1 (reference category 0)	B	95 % CI for B		p-value
				LB	HB	
Dependent variable = ASD sum score	Origin (non-Austrian)	Non-Austrian (Austrian)	3.594	-1.328	8.515	0.152
	Years working in long-term care	Continuous variable	-0.052	-0.221	0.116	0.543
	PCS multiplied score	Continuous variable	-0.650	-0.844	-0.457	≤0.001
	NCS multiplied score	Continuous variable	1.051	0.694	1.407	≤0.001
	Interaction with person in need of care ≥ 80	Often (occasionally)	-0.438	-4.428	3.552	0.829
	Able to discuss personal topics	Few/no (Many/all)	3.743	0.437	7.050	0.027
	Thinking of a gender while answering the ASD	Female (No)	-4.216	-8.464	0.033	0.052
	Thinking of a gender while answering the ASD	Male (No)	-12.115	-22.336	-1.895	0.020
	Thinking of a gender while answering the ASD	Other (No)	1.243	-10.703	13.188	0.838

Notes: B = unstandardised regression coefficient; CI = confidence interval; LB = lower bound, HB = higher bound, PCS = Positive Contact Scale, NCS = Negative Contact Scale, ASD = Aging Semantic Differential scale, p- values ≤ 0.05 in bold
n = 648; adjusted R² = 0.194; p = ≤ 0.001

DISCUSSION

In this study, three aims were investigated. The first aim was to assess Austrian nurses' attitudes towards adults aged 80 years and older in general and towards their care in long-term care settings. The second aim was to compare nurses' attitudes in the residential care and home care settings. The third aim was to investigate which factors influence nurses' attitudes, such as the quality of contact with care receivers aged 80 years and older.

Compared to nurses working in home care, nurses working in long-term care stated statistically significantly more often that they perceived their contact with care receivers as positive. Attitudes towards adults aged 80 years and older were, in general, neutral to positive, and statistically significantly more positive attitudes were expressed by nurses working in home care. Caring for care receivers aged 80 years and older was perceived as positive, and no difference in terms of settings was observed. Perceiving contact with care receivers as positive was associated with a more positive attitude towards adults aged 80 and older in general and towards their care. Furthermore, having a good personal relationship with an older family member or friend was positively associated with nurses' general attitudes. Having worked more years in long-term care was also positively associated with positive attitudes towards their care. The setting had no influence on the general attitudes or the perception regarding the care of adults aged 80 and older.

According to Allport's 1950 (20) contact hypothesis, we hypothesised that the quality of contact with older care receivers influences nurses' attitudes towards them and their care. The study results show that having a good relationship with an older adult as well as having had positive contact experiences with an older care receiver influenced nurses' attitudes towards older adults significantly. Nurses' perception of care is also influenced by a positive contact experience and by having worked longer in long-term care. This finding is in line with Allport's 1950 (20) contact hypothesis: Nurses who have positive and meaningful contact with older adults in their personal lives or with care receivers at work life can improve their attitudes towards older adults, and this, in turn, can diminish prejudice. A study by Cadieux et al. (25) drew similar conclusions with respect to younger adults' attitudes.

Younger adults who had more contact with older adults were less likely to stereotype older adults as incompetent, for example.

Because nurses are in regular and close contact with frail and care-dependent older adults, they may have biased attitudes; namely, they might develop more negative attitudes towards older adults than other members of the public (14). Therefore, Cadieux's et al. 2019 (25) findings from the general population might not be comparable to our findings for nurses working in health care settings. Nurses may perceive their contact experiences differently because they frequently work with frail or care-dependent older adults (15), and this even more so if difficulties in providing care occur (26). In addition, their contact might be affected by difficult and stressful working conditions such as a lack of time or resources (46). The results in Drury et al. (18), using Allport's contact hypothesis, also confirm the influence of nurses' contact with older care receivers on their attitudes or on ageism. Their results suggest that experiencing positive contact had more influence on undisguised forms of ageism and that negative contact had a stronger influence on subtle forms of ageism. A study by Kusumastuti et al. (47) also used Allport's contact hypothesis when examining medical students' attitudes towards older adults before and after clinical placement and concluded similarly that the quality of contact seems to be crucial to forming attitudes.

In this study, we only examined ageist attitudes in the form of explicit, other-directed ageism with regard to stereotypes or prejudice (48, 49) by means of the *ASD*. According to this scale, negative contact experiences with an older care receiver had a stronger influence on nurses' negative attitudes towards adults aged 80 years and older in general. Uğurlu et al. (26) reported similar results when they discovered that experienced difficulties in geriatric care negatively influenced nurses' tendencies to display ageism. They also found that experiencing positive contact led nurses to more strongly perceive geriatric care as positive. These results suggest that experiencing positive contact with an older care receiver might improve nurses' or nursing students' willingness to work in geriatric care. A study by Jang et al. (50) investigated whether the quality of contact between nursing students and older care receivers positively influenced nursing students' willingness to work with older adults, but no support for this hypothesis was found. Rathnayake et al. (51) discovered that intergenerational contact had a positive influence on nursing students' attitudes towards older people and,

in turn, a positive influence on their willingness to work with older adults. A meta-analysis showed that intergenerational contact in combination with educational measures has a significant effect on people's attitude towards older adults (52). To encourage intergenerational contact, the World Health Organization (53) has developed a guide to design intergenerational activities and education programmes. These activities should encourage bonding between representatives of different generations and address topics that are of importance to members of different generations. These could include knowledge about ageing, age-friendly communities, gardening, or arts and crafts (53-55). Nursing and care-relevant topics, such as wishes for delivering or receiving care or ageism in health care, could also be considered. This is also supported by the Positive Education about Aging and Contact Experiences (PEACE) model by Levy (56). This model includes two approaches to improving attitudes towards older adults. (1) Education including facts on ageing and positive role models, and (2) positive contact experiences. Furthermore, the University of Hong Kong, China, developed an intergenerational participatory co-design project to address the issue of students' negative attitudes toward older adults (57). The Optimal Quality Intergenerational Interaction Model was used to guide the project. This framework was developed to inform intergenerational contact activities and programmes in China (58). The co-design approach significantly changed students' attitudes towards older adults (57). This approach might also be considered for nurses in long-term care.

Some evidence suggests the existence of age stereotypes among nurses (29, 59). Nevertheless, the research on nurses' attitudes towards older adults in long-term care is limited. One study found that assistant nurses displayed positive attitudes towards older adults (60); findings which are in line with the results of this study. In general, the results reported for nurses' attitudes towards older adults range from positive to negative attitudes (15). A previous study by Lampersberger et al. (19) reported assessment results for nurses' attitudes towards adults aged 80 years and older in several settings, although mainly acute care nurses participated in the study. The findings were similar to those of the current study, with nurses displaying neutral attitudes towards older adults in general and reporting positive perceptions of caring for older adults (19).

LIMITATIONS

Although many participants took part in this study, nursing managers and nurses interested in gerontology and the care of older adults might have been more motivated to forward or accept the invitation to participate in this study due to the convenience sampling method used. Thus, the attitudes reported might be more positive. By using a non-representative convenience sampling strategy, we may have introduced this selection bias in our study, which has to be considered when interpreting the study results. While a random sampling method would have reduced the risk of selection bias, we were not able to obtain a full list of possible participants and, consequently, unable to implement this strategy (31). This study design does not allow us to draw conclusions about causality, and only influencing factors can be identified by assessing these results (31). Due to the lack of an imputation method for missing data, a number of cases had to be deleted in the multiple linear regression models and when analysing the scales. This might have affected the strength of the models.

IMPLICATIONS

The study findings show that nurses working in long-term care hold neutral to positive attitudes towards adults aged 80 years and older and their care. To facilitate further changes in their attitudes, we recommend encouraging positively perceived contact. One way to increase the frequency of positively perceived contact might be to implement intergenerational education programmes or activities by using the WHO (53) guide or a co-design project using the Optimal Quality Intergenerational Interaction Model. An activity or educational topic which is of interest for both age groups should be chosen. In nursing care, this could be knowledge about ageing (54, 55) or courses on ageism. We recommend conducting further research on the effectiveness of the co-design approach in the long-term care setting and the use of the Optimal Quality Intergenerational Interaction Model. With regard to educational interventions for long-term care nurses, these study results can be used to raise awareness of ageism in health care. To obtain more insight into ageism in nursing care, we recommend conducting further investigations using quantitative methods, such as cross-sectional studies that include ageism scales, or qualitative study methods, such as observations. We recommend using a random sample instead of a convenience sample to

increase representativity and, consequently, obtain more powerful results. Subsequently, a comparison between settings can be made to tailor interventions to different health care settings. To obtain a broader perspective of attitudes towards older adults and ageism, researchers should investigate how older adults experience interactions with nurses in health care, using qualitative study methods such as interviews. Studies that include randomised controlled trials to test nursing-specific intergenerational activities or education programmes in long-term care need to be carried out to be able to develop an effective programme for nurses and older adults as care receivers. Although the PNCS and PCOP were tested with regard to internal reliability, further psychometric testing in terms of a factor analysis is recommended; this would enable the German versions of these scales to be used in the long-term care setting.

CONCLUSION

One encouraging result of this study is that nurses working in long-term care hold neutral to positive attitudes towards older adults and view their care as positive. We will face more challenges caring for older adults as people live longer, and we should make an effort to create a care and work environment that is perceived positively by both nurses and older adults. Implementing intergenerational activities and education programmes might contribute to delivering sustainable high-quality and integrated care. To implement intergenerational activities, the PEACE model or the WHO guide to design intergenerational activities and education programmes can be used. Furthermore, these study results can be used for educational interventions in long-term care to inform nurses on current attitudes of nurses towards older adults in Austria to raise awareness of ageism. This intergenerational contact may prevent or counter ageism and, depending on the chosen topic, can help to shape the care landscape.

LIST OF ABBREVIATIONS

PNCS	Positive and Negative Contact Scales
STROBE	Strengthening the Reporting of Observational Studies in Epidemiology
ASD	Aging Semantic Differential scale
PCOP	Perspectives on Caring for Older People scale
PCS	Positive Contact Scale
NCS	Negative Contact Scale
VIF	Variance inflation factors
PEACE	Positive Education about Aging and Contact Experiences

DECLARATIONS

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The ethics committee of the Medical University of Graz (EK Number 31-320 ex 18/19) gave their approval for this study. By confirming their willingness to participate in the online survey, participants gave their informed consent. Data were collected anonymously and we did not save the IP addresses of participants.

CONSENT FOR PUBLICATION

Not applicable

AVAILABILITY OF DATA AND MATERIALS

The dataset used in the current study is available from the corresponding author on reasonable request.

COMPETING INTERESTS

The authors declare that they have no competing interests

FUNDING

No funding was received.

AUTHORS' CONTRIBUTIONS

LML: conceptualisation, data curation, formal analysis, investigation, methodology, project administration, writing - original draft

CL: supervision, writing (review and editing)

FG: conceptualisation, investigation, methodology, supervision, writing (review and editing)

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ADDITIONAL FILE 1

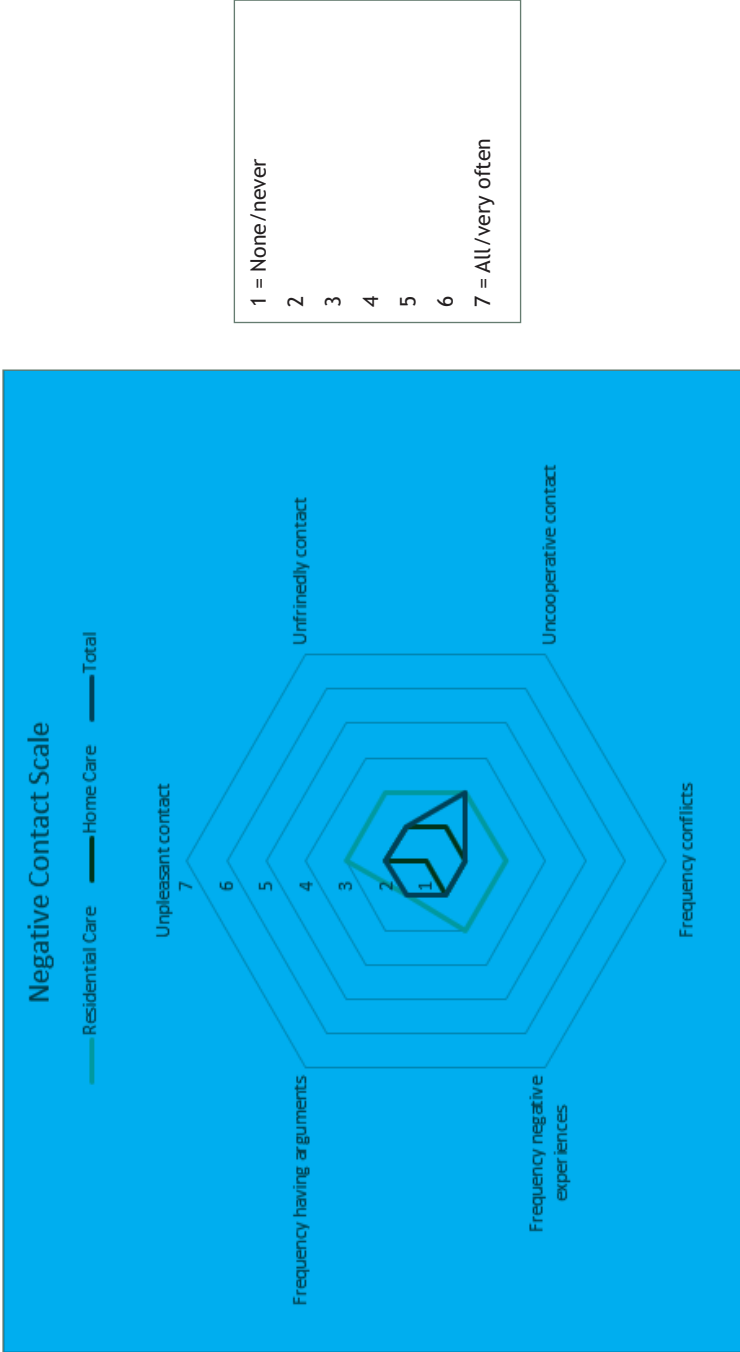


Figure 2: Radar charts for the item means of the Negative Contact Scale (NCS), for residential care, home care, and total



Figure 3: Radar charts for the item means of the Ageing Semantic Differential (ASD) for residential care, home care, and total
 Note: Item means overlap

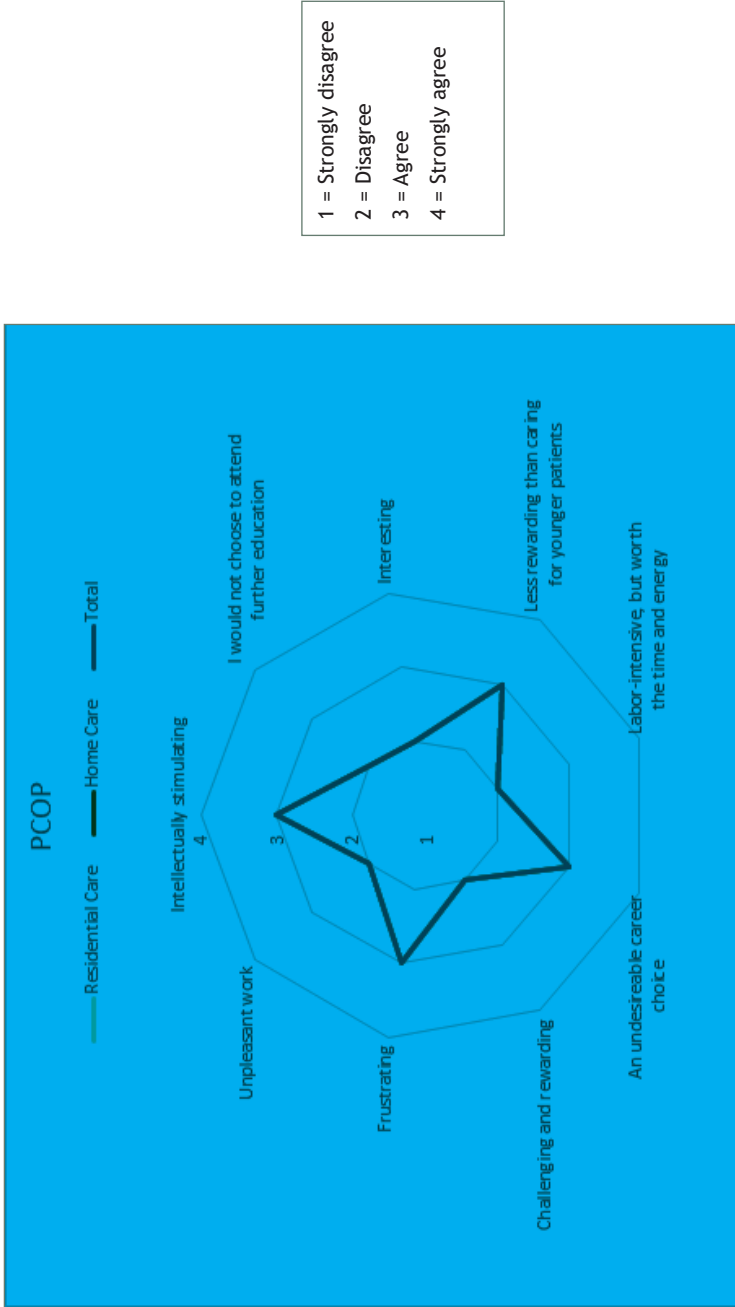


Figure 4: Radar charts for the item means of the on Caring for Older People scale (PCOP) for residential care, home care, and total
 Note: Item means overlap



Austrian nurses' positive opinions on geriatric care and their ideas for tackling challenges in caring for the ageing population- a modified focus group study in long-term care

“There is nothing better than a grateful smile or an interesting conversation during a care activity. It’s what motivates me every day to work under sometimes difficult conditions [...].”

(Participant³⁵⁷ Study 1b)

ABSTRACT

BACKGROUND

As the demand for long-term care increases due to a global ageing population, ensuring continuous and high-quality geriatric nursing is crucial. However, geriatric nursing faces challenges such as workforce shortages, high workload, and high emotional demand, which can impact quality of care, job satisfaction, and intentions to leave the profession. Little is known about nurses' opinions on geriatric nursing and their ideas for addressing challenges in caring for the ageing population. This study aims to explore what nurses in Austria value about working in geriatric nursing and their ideas on addressing challenges in geriatric nursing.

METHODS

A descriptive qualitative study was conducted using a modified focus group approach that included freelistings interviews and the nominal group technique. Two focus groups in the form of workshops were held in 2025 with 12 nurses working in long-term care in Austria. The freelistings data were analysed using salience analysis, while the ranked ideas generated in the nominal group technique were analysed using Van Breda's method of ranking. Descriptive statistics were used to summarise participant demographics.

RESULTS

Nurses valued the appreciation they received from older persons they care for and colleagues, the opportunity to work within the family and related persons of older persons, and their ability to provide individualized and person-centred care. A skilled geriatric nurse was described as having empathy, sensitivity, and broad expertise in health care. The three highest-ranked ideas for strengthening geriatric nursing were (1) Promoting and strengthening older persons' self-care abilities (e.g. providing holistic, individualised care), (2) Coordinate care for the older persons between services, and (3) Promoting and strengthening the team.

Conclusions

These findings suggest that strengthening geriatric nursing requires structural improvements, enhanced collaboration across healthcare sectors, and recognition of nurses' competencies. Implementing a supportive work environment, optimising skill- and grade-mix approaches, and listening to nurse's expert insights may contribute to sustainable and high-quality long-term care for the aging population. Future research should consider a co-research design to plan target group and setting specific interventions in geriatric nursing based on nurses' ideas.

Keywords: Long-term care, geriatric nursing, ageing population, nominal group technique, freelisting interviews

BACKGROUND

“*Caring for older people can be challenging, beautiful, and rewarding*’ [...] (QN 103, 34 years, long-term care)’ (p. 8) (1) was written by a nurse about the care of older people in a study assessing nurses’ experiences and opinions on caring for older people (1). Although this quote reflects a positive opinion about geriatric nursing, an international body of research shows that the career choice of geriatric nursing is not a popular one among nursing students and nurses (2-4). The global nursing community is currently facing a shortage in personnel (5, 6), a situation compounded also by the demographic shift towards an ageing population (7). However, it is predicted that in future there will be a greater demand for well-trained and specialised geriatric nurses, in order to ensure that the quality of nursing care for older people with a need for care due to higher rates of care dependency and care needs (6, 8, 9).

When a person’s need for care arises, holistic nursing interventions must be taken in an equipped care system to ensure that people in need of care receive appropriate and timely care to meet their physical, mental, social, and spiritual needs. Holistic nursing interventions focus on these physical, psychological, sociological, and spiritual needs of a person rather than on their disease or care need (10). The need for holistic care of the ageing population is often met through long-term care (11). The WHO (World Health Organization) defines long-term care as activities ‘*to ensure that people with or at risk of a significant ongoing loss of intrinsic capacity can maintain a level of functional ability consistent with their basic rights, fundamental freedoms and human dignity*’ (p. 7) (11). Long-term care aims to provide care for people who need assistance with activities of daily living to maintain functional ability (11). It focuses on the health, personal care, and social needs of people in care (11). In the field of long-term care, the demographic of service users is mostly composed of older people where frequently assistance is needed with activities of daily living (12, 13).

This care can be provided in a variety of settings, including the person’s home, the community, or residential long-term care facilities (11). Depending on the level of care needed, older people prefer to stay in their own homes or in familiar surroundings if they have moderate care needs, but prefer residential care if they have greater care needs (14). To ensure that

long-term care is sufficient and sustainable, sufficient numbers of well-trained nurses are needed in this setting to provide appropriate, high-quality care in the right setting for each individual (7).

Nursing professionals, including qualified nurses and nursing assistants make up the majority of the long-term care workforce besides informal caregivers (5, 6). According to Eurofound (6), it is concerning that in Austria three out of four people working in acute or long-term care have considered leaving their position as it is estimated that in future 5-10 % more qualified nurses will be needed in long-term care. Working conditions (physical workload, mental workload, and time pressure) have an impact on the willingness to continue working in long-term care (15).

Looking at the working conditions prevalent in European long-term care, there are several points of criticism voiced by nurses such as low pay, low quality of working time (e.g. part-time work, shift work, and working at short notice), high emotional demands (6), and a high risk of experiencing forms of violence (e.g., verbal or sexual harassment or physical violence) (6, 16). In a study conducted among Austrian nurses, it was found that working conditions (e.g. lack of resources to provide quality care, consequences for physical, and mental health) were more often criticised than the geriatric nursing profession itself (1). These factors increase the exposure of nurses to the risks of impaired physical, and mental health, occupational accidents, cardiovascular diseases, burn-out, depression, injuries, lower job satisfaction, and higher employee turnover rates (6, 16, 17). Furthermore, due to these factors, nurses have the feeling of not being able to provide sufficient care to improve the quality of life of those being cared for as they lack the time to, for example (18). In a Swedish study, nurses perceived geriatric nursing positively as holistic and respectful work where they could build long-term relationships with the persons they care for and their families and provide individualized and person-centred care (19). These positive opinions of nurses on geriatric nursing influence their intentions to embark on a career in geriatric nursing or to stay in the profession (3, 20-22), which might be explained by the Theory of Reasoned Action (23).

Fishbein and Ajzen's (23) Theory of Reasoned Action shows that opinions are formed by experiences, interactions with a person, or by information from an outside source. By forming these opinions, one links attributes to an

object (e.g. geriatric nursing) which are evaluated (positively, negatively, or neutrally) and lead to the formation of attitudes (e.g. towards geriatric nursing). The sum of opinions and attitudes towards something then influences one's intention to perform a specific behaviour (e.g. not considering a career in geriatric nursing, leaving the profession) (23). Since Covid 19, the pandemic has taken a toll on health care and on long-term care and the nursing shortage has intensified (24). Nurses' opinions about long-term care may now be more critical and negative, as the work has become more demanding and nurses criticised the work environment repeatedly meaning that their interactions and experiences with geriatric nursing is more strained (1, 18). In the international literature, there is a lack of recent research on long-term care nurses' perceptions of long-term care and on what strengths they see in their work. Furthermore, the voice of nurses regarding what they need to provide care in a way that they, as experts, consider to be of high quality is rarely heard (1, 18). In the light of a global ageing population and nursing staff shortages, this knowledge might be needed in order to plan target group and setting specific interventions supporting geriatric care in a way that is meaningful and needed by those who are affected (24). Therefore, in this study we aim to investigate nurses' priorities with regard to two research questions:

1. What do nurses value about working in geriatric care?
2. What are nurses' ideas on how to address challenges in geriatric care?

METHODS

This study is a descriptive qualitative study using a modified focus group method including freelist interviews (25) and the nominal group technique (26). These methods are especially suitable for target groups with a high workload and lack of time resources (25, 27). We therefore deemed these methods suitable for focus groups including nurses who work in a stressful and understaffed environment (24). In addition, freelist interviews can reveal the priorities and attitudes of a culture (25), and the nominal group technique is particularly useful for focus groups where the goal is to generate ideas and find consensus on their priorities (26, 27). The Standards for Reporting Qualitative Research (SRQR) checklist was used to guide the reporting of this study (28).

SETTING AND PARTICIPANTS

In this study, long-term care is defined as care provided by nurses in a long-term care facility, at home, or in the community, including nursing homes, home care, and community care. Nurses working in long-term care in southern Austria were invited to join the focus groups planned as a workshop and entitled 'What do you wish for? Ideas for strengthening geriatric nursing'. Nurses with a diploma, specialised nurses (i.e. with a Bachelor degree or a diploma), or nurses without a diploma who actively worked in geriatric nursing were invited to participate. In Austria, nurses earn either a Bachelor degree or a diploma after completing a three-year training programme. After graduating, they can specialise in areas such as intensive or palliative care by completing a one-year university course. Nurses without a diploma can specialise by attending training lasting one or two years. Since all these nursing professions work in geriatric nursing (29), they were included in this study.

SAMPLING

Two sampling methods were used to recruit participants for this study: (1) convenience sampling and (2) snowball sampling (1). At the beginning of January 2025, an invitation to participate in the workshop and a flyer including information about the workshop were mailed to all residential and home care facilities, to nursing managers in these facilities, and to community nurses in a city in southern Austria and the surrounding area. A list of mail addresses was retrieved from government homepages (30-33). The nurses were asked to forward the invitation and flyer to their network and to other nurses who might be interested in participating. Reminders were sent out two weeks later. Invitations were sent only to institutions in this particular city and its surrounding areas as the workshop was held at the local Medical University and to ensure short commutes for participants. The flyer was also shared on social media platforms (LinkedIn and Instagram) at the beginning of January 2025 and reposted twice in the following month. The local nursing association and local stakeholder also shared the invitation via their social media channels. Use of social media platforms was chosen to increase the possibility of reaching interested nurses who might not have received an invitation. (2) Nurses in the researchers' network were asked directly if they wanted to participate, were given a flyer and were asked to bring interest-

ed colleagues to the workshop. The aim was to recruit participants for two workshops with 6-10 participants each as according to the literature this is the ideal group size for conducting meaningful discussions (34).

In total, 12 nurses participated in the two workshops. They had a median age of 34.5 years and a median geriatric working experience of 9 years. The demographic and professional characteristics of these participants can be found in Table 1.

Table 1 Demographic and professional characteristics of participants ($N = 12$)

Variable	Category	<i>n</i>
Sex	Female	10
	Male	2
Profession	Nurse with a diploma	7
	Nurse without a diploma	5
Setting	Residential long-term care	7
	Home and community care	5

FOCUS GROUPS

We conducted two focus groups in February 2025. The focus group was designed as a workshop for nurses to work on ideas regarding challenges in geriatric nursing. Two researchers facilitated the workshop, with one (LML) leading the workshop and the other (EP) taking notes, making audio recordings of discussion phases, and preparing data from the freelistening interviews and the nominal group technique for presentation to the participants at the end of the workshop.

The workshop consisted of five phases and lasted for three hours: (1) welcoming the participants and collecting demographic data, (2) an icebreaker task to get the participants in the mood for the topic and to create a basis for discussion, (3) two freelistening interview questions to assess positive opinions on geriatric nursing and what qualities they attribute to a skilled geriatric nurse, (4) collecting and prioritising ideas for tackling challenges in geriatric nursing using the nominal group technique, and (5) discussing

the results. Figure 1 shows an overview of the five phases of the workshop, which are also described in detail below.

- [1] At the beginning of the workshop participants were welcomed by the researchers and the researchers and the participants introduced themselves. Each participant was handed a package of materials that included the written informed consent, a questionnaire on demographic data, sheets for freelisting, and sheets for the nominal group technique. Demographic data included sex and age of participants, followed by questions about their work. They were asked about their profession, the setting in which they work, and the number of years they have worked in geriatric nursing.
- [2] Next, the workshop leader explained the steps included in the workshop and gave a brief overview on what the workshop is about. As an icebreaker, participants thought about how they would complete this sentence: *'Geriatric nursing for me is ...'*. They were then asked to share their understanding of geriatric nursing with the group, if they were willing.
- [3] Two questions were worked on with the freelisting interview technique. The first was *'What do you value about your work in geriatric nursing?'* and the second was *'When you think of a colleague whom you consider to be a skilled geriatric nurse, what makes them special?'*. Participants were asked to list anything that came to mind on a prepared sheet. They were given 5 minutes per question. If participants were still listing items after five minutes, they were given more time. Freelist interviews identify items in a cultural domain or emic category and show what is most important or salient to the participants as they tend to list familiar items first (25).
- [4] In the nominal group technique phase, the participants focused on one question: *'If you could change five things about your current working day, what would they be?'*. The nominal group technique has four stages (26): (1) The first stage, 'idea generation,' consists of each participant writing down ideas individually, one idea per card. In our workshop, participants had to write down five ideas each and were given 10 minutes. (2) The second stage is called 'round robin', where participants say their ideas one by one and stick them on a

flipchart. In this stage, the ideas were not discussed or clarified. 15 minutes were allotted for this stage. (3) The third stage was a group discussion of the ideas generated. In this stage, ideas could be clarified, discussed, grouped or further divided until a consensus was reached in the group. In addition, an audio recording was made of the discussion. The workshop leader recorded the agreed ideas and their explanations on a whiteboard. (4) Finally, in the fourth stage, participants voted on their top three ideas and ranked them using a prepared sheet. This stage lasted 5 minutes.

- [5] At the end of the workshop, the results of the freelisting interviews and the nominal group technique were presented to and discussed with the participants. An audio recording was also made of this discussion.

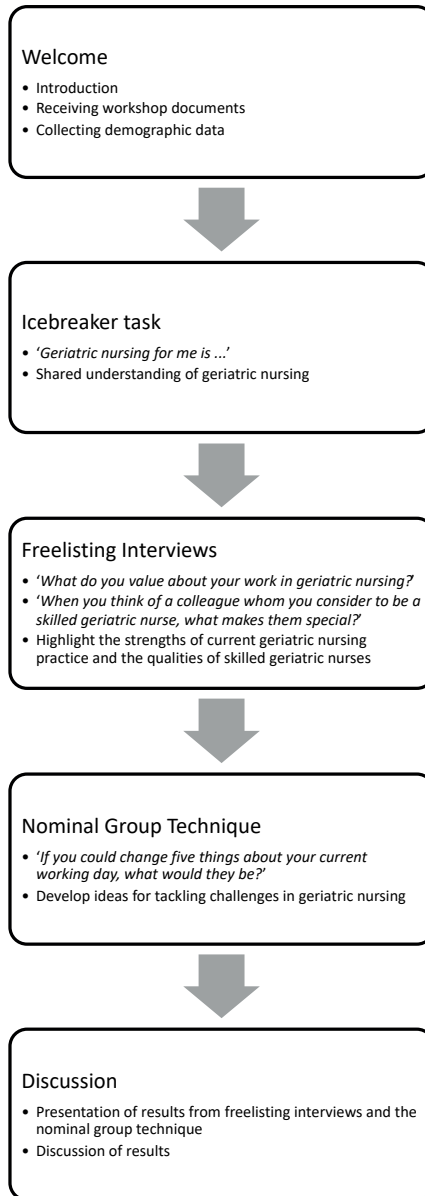


Figure 1 Overview of the five phases of the workshop

DATA PROCESSING AND ANALYSIS

Like the focus groups, the analysis also consisted of several stages. First, demographic data were analysed using descriptive statistics in Microsoft Excel (Microsoft Office LTSC Professional Plus 2021) (35). Notes of the ice-breaker task were entered into the software MAXQDA 2020 (36). Second, freelists were entered by one researcher into Microsoft Excel (Microsoft Office LTSC Professional Plus 2021) (35). The participants and two groups were pooled and synonymous items were grouped into one item. This process was checked for accuracy by a second researcher. This resulted in one list per question. A salience analysis was performed on these two lists. This involved calculating the salience of each item on each participant's list. The ranked items were numbered inversely and divided by the total number of items. The composite salience value was then calculated by dividing the sum of salience per item by the number of participants. There are no clear boundaries for what value is considered salient, thus we determined the salience of items according to breaks in the data visualised by bar graphs (see Additional File 1 and Additional File 2) (25). Third, the nominal group technique was analysed integrating both groups according to the method proposed by Van Breda (37). The ideas generated were entered into Microsoft Excel (35) spreadsheets and the top five ideas were identified by average scores. Each first-ranked idea received 15 points, second-ranked ideas received 10 points, and third-ranked ideas received 5 points. A content analysis of the generated ideas was then performed in MAXQDA 2020 (36), and overarching themes of ideas were defined. The content analysis was performed by one author and peer reviewed by a second author. Finally, the combined ranks of both groups were calculated by a 'top 5 score' that includes only rated ideas, a 'number score' that includes the frequency of themes, and an 'average score' that standardizes the score of ideas independent of group size. (37). The audio-recorded discussions were transcribed using NoScribe (version 0.6) (38) and checked for accuracy by one of the researchers. Quotes included in the results have been translated into English by one author and DeepL Translator (Version 24.11.4.14424) (39) and checked by a bilingual English native speaker.

ETHICAL CONSIDERATIONS

This study was approved by the Ethics Committee of the Medical University of Graz (EK Number 31-320 ex 18/19). Participants signed a written informed consent and were informed that they could withdraw from the study at any time. Digital data is stored on the university's secure network and written data is stored securely at the university. Only the researchers have access to the data.

RIGOUR

To enhance trustworthiness and credibility, the two researchers (LML and EP) that were involved in holding the workshops met beforehand to discuss the workshop guide in detail and to reflect on their possible influence on the process and on participants. To ensure authenticity, both researchers are nurses with a diploma, experienced in the geriatric setting. Following the first workshop, the understandability of methods and questions were evaluated with the participants and discussed by the two researchers. No changes were made. After each workshop, peer debriefing was carried out as the researchers reflected again on possible influences they had on the discussions and on group dynamics. To ensure reliability and validity of the data, member checks were carried out by presenting results of the workshop to the participants at the end of the workshop. The participants had the opportunity to discuss the results, confirm their validity, and to add additional remarks. The data analysis was performed by one author and peer reviewed by a second author. If necessary, discrepancies were discussed until a consensus was reached. Every step of analysis was discussed by the two authors involved in the analysis process (40).

RESULTS

The workshops began with nurses reflecting on what geriatric nursing means to them. Overall, it was discussed that a central part of geriatric nursing for them was the complexity and diversity of the field involving caring for people with co-morbidities. In addition, the provision of individualised and holistic care that promotes resources and goes beyond mere care to help shape the daily lives of older people was seen as a core skill of geriatric nursing. It is the nurse who is primarily responsible for the care and well-being of older persons.

After this initial icebreaker exercise, the workshop moved on to the freelist interviews. In response to the question ‘*What do you value about your work in geriatric nursing*’, the most salient item was that nurses experience a lot of gratitude or appreciation for their work, either from their colleagues or from the people they care for. Nurses also have a positive opinion regarding the opportunity to support and challenge the self-care abilities of the older person they care for and the older person themselves. This was followed by the opportunity to work with the older person they care for, their families, and their relatives. All salient items generated by the nurses in relation to valuing geriatric nursing can be found in Table 2 and all generated items can be found in Additional File 1.

Table 2 Freelist of salient items of nurses’ positive opinions on geriatric nursing ($N = 12$)

<i>‘What do you value about your work in geriatric nursing?’</i>	Frequency	Composite Salience
Lots of gratitude/appreciation (persons they care for/colleagues)	9	0.46
Supporting and challenging care needs and older person themself	4	0.26
Working with the family and relatives of older persons	5	0.23
Teamwork/support/help within the team	5	0.22
Wide-ranging/complex field of activity	3	0.21
Providing support and involvement in the everyday life of the older person	4	0.20
Autonomy/taking responsibility	5	0.19
Personalised care planning according to needs/assessment of needs	5	0.19
Communication/listening/talking/laughing/crying together	4	0.18
Enabling years of healthy life/quality of life	3	0.17
Working in a multi-professional team, utilising networks and interprofessional approaches	5	0.17
Working with people	2	0.16

Note: Higher composite salience scores indicate higher salience, composite salience is calculated by numbering the ranks per list per participant inversely and divided by the total number of items per list. The composite salience value is then calculated by dividing the sum of salience per item by the number of participants on a combined list per question (25).

After the second freelist activity, the nurses collected items in response to the second question: *‘When you think of a colleague whom you consider to be a skilled geriatric nurse, what makes them special?’* The most salient point was that a skilled nurse has a high degree of empathy, sensitivity, and compassion. A skilled nurse also requires expertise and broad knowledge in health care, and takes time for the people in care, even when under stress. All salient items that nurses attribute to a skilled geriatric nurse can be found in Table 3, and all generated items can be found in Additional File 2.

Table 3 Freelist of salient items of what nurses consider to be a skilled geriatric nurse ($N = 12$)

<i>‘When you think of a colleague whom you consider to be a skilled geriatric nurse, what makes them special?’</i>	Frequency	Composite Saliency
Has a high degree of empathy/sensitivity/compassion	11	0,65
Has expertise and knowledge in health care	7	0,31
Takes their time (despite stress)	4	0,30
Is very organised/structured/precise	5	0,30
Has several years of professional experience	4	0,26
Has patience/a calm disposition	5	0,23
Listens closely/has an open ear	5	0,22
Is constantly learning, regularly participates in ongoing training	4	0,18
Shares knowledge/guides other employees/helps colleagues	5	0,16
Respects individual wishes	3	0,16
Is caring/has a gentle manner with older persons	2	0,15
Works with foresight, keeps sight of what’s important/able to assess situations	3	0,14
Is motivated	2	0,14
Has a sense of humour	4	0,14
Is reliable	2	0,14
Able to observe and perceive well	2	0,13
Prioritises taking into account the environment of older persons	3	0,13
Can express themselves well/ has good communication skills	6	0,13

Note: Higher composite saliency scores indicate higher saliency, composite saliency is calculated by numbering the ranks per list per participant inversely and divided by the total number of items per list. The composite saliency value is then calculated by dividing the sum of saliency per item by the number of participants on a combined list per question (25).

After the nurses had discussed positive opinions on geriatric nursing and the attributes they assign to a capable geriatric nurse, the participants used the nominal group technique to develop their own ideas for strengthening geriatric nursing. This was guided by the question *'If you could change five things about your current working day, what would they be?'*

After the individual ideas were discussed in the groups and the researchers analysed the themes of the ideas collected and agreed upon, eight themes of ideas emerged (see Table 4). The three ideas that were most important to the participants and therefore ranked higher were (1) 'Promoting and strengthening older persons' self-care abilities, (2) 'Coordinate care for the older persons between services, and (3) 'Promoting and strengthening the team'.

Table 4 Ranking of generated ideas for strengthening geriatric nursing using the analysing method by Van Breda (37)

Themes of ideas	Top 5 votes	Average score	Final rank score
Promoting and strengthening older persons' self-care abilities	3	33.75	23
Coordinate care for the older persons between Services	2	30	18.5
Promoting and strengthening the team	2	20	15.5
Strengthening the image and value of geriatric nursing	1	25	14.5
Facilitating holistic prevention	1	40	14.5
Residential long-term care as suitable place for individual old age	1	25	11
Promote focused training and professional development	0	15	6
Promoting equal opportunities for persons in care	0	10	5

Note: Higher final rank scores indicate higher ranking of ideas, the top three ranked themes of ideas are presented in bold. Scores are calculated according to Van Breda (37)

PROMOTING AND STRENGTHENING OLDER PERSONS' SELF-CARE ABILITIES

Strengthening older persons' self-care abilities can on the one hand be reached on the part of the older person and on the other on the part of nurses, facilities and structures. To be able to provide care that promotes and strengthens the self-care abilities of older persons, participants discussed that holistic care is needed that is tailored to the older person based on their biography. They suggest that early on, when a need for care first arises, persons in care write down their needs and preferences. A nurse describes that *'[...] for each activity of daily life, the person should write down how they would like it to be. For example, would they prefer a shower or a bath, warmer water or do they like it a little cooler.'* (HCCN 2.1).

Furthermore, on this topic nurses discussed that nursing services in particular are not sufficiently publicly funded, which leads to unequal opportunities for persons in care. They say: *'At the moment, it depends on whether I can afford it or not. It's about equal opportunities.'* (HCCN 1.3). They propose that home care, family caregivers, community nursing and social interventions should be better funded from public funds. They further discussed that to relieve the burden on family caregivers, it should be possible to receive funding for support provided by nursing professionals for a few hours a day. HCCN 1.3 states the problem: *'It is often the case that some people need support throughout the day [...] That they cannot provide home care for the entire day [...] That is not actually subsidised at all. You have to pay for it yourself.'*

Furthermore, participants discussed that in order to provide holistic care, they need more time with the person they care for, in addition to basic nursing interventions, for individual care, social interventions and preventive interventions. They suggest that more time resources can be made available by reducing bureaucracy and minimizing care planning to essential interventions. NH 2.2 for example proposes that: *'I find that many things, especially in care planning, are no longer all that up-to-date such as the housekeeping components, making the bed, for example, [...] so you can cut out a lot of that, that's what I'm saying. So that you don't need so much time for care planning either.'* By using technology in the care process (e.g. in planning nursing interventions or completing documentation) more extensively and in a responsible and meaningful way, the participants believe that more

time resources can be made available. They emphasize that it is important to have training in the use of technology in order for them to make efficient use of the technology.

Another possibility to strengthen older persons' self-care abilities is involving their relatives as they can provide support in the care process. Participants promote *'[...] training of relatives in nursing activities'* (RLTC 2.2) and see community nurses as an opportunity to strengthen the relatives' skills in nursing and see a possible impact on personnel shortages. Nurses also discuss that with less family members involved in care, there is also a shortage of relatives, which makes it difficult to integrate relatives into care and can put people in care without relatives at a disadvantage, which led them to the theme of the idea ranked second: to *'coordinate care for the older person between services'*

COORDINATE CARE FOR THE OLDER PERSON BETWEEN SERVICES

The second highest ranked idea was that the care an older person receives needs to be better coordinated between different institutions and setting. Participants noted that *'[...] there are already a lot of organisations and hospitals that are jumping on the bandwagon [coordinating intra- and extramural care]'* (HCCN 1.4). Even though they see lighthouse projects making initial efforts, they see opportunities to further strengthen the care of older people. They say: *'Many people are no longer mobile and can't go to their GP [general practitioner], but they [GPs] don't make home visits. They actually fall completely through the cracks if there is no one to make home visits.'* (HCCN 1.4). The participants say that community nurses would be a great resource to strengthen care at home and to coordinate different institutions and settings. For example, HCCN 1.5 says: *'It's not just the home visits that are needed, it's making contact while the patient is still in hospital. That I go there as a CN [community nurse].'* Community nurses accompanying the older person from the acute setting to the home setting can be a resource for persons in care to help minimise the feeling of being overwhelmed when coming home from hospital with new care needs. The participants think that community nurses should then explain everything to the patient again (e.g. diagnoses) and educate the older person receiving care and their family on care needs (e.g. leaving the hospital with a urinal catheter or wound they have to take care of at home) if needed according to

their care needs. They stress that planning the care at home should already start (case and care management) upon admission to the acute care setting.

Another way to facilitate this process is to have all institutions, professions, and settings use the same information system, so that, for example, nurses working in the community or in a person's home, and the person being cared for, have access to all the information they need. Nurses find it difficult to communicate and share information efficiently, they say: *'In principle, similar things are done [by different professions] and often what is actually needed at that moment isn't being done.'* (HCCN 1.3). That led participants to their third ranked theme of ideas, promoting and strengthening the inter-professional team.

PROMOTING AND STRENGTHENING THE TEAM

The team, mostly consisting of physicians, nurses and nursing assistants should, according to participants, work on an equal footing, and should always focus on the best interests of persons in care. RLTC 1.1 says: *'Because I believe that if the team functions harmoniously within itself, then it also responds better to the older person.'* To achieve this goal, nurses propose strengthening flat hierarchies with good communication skills and a positive work culture in the interprofessional team and in the nursing profession itself. The key is to utilize a person's skills and to promote a skill- and grade-mix in nursing. *'Actually, it's about making use of all competences of every professional group anyway, isn't it? [...] I mean above all this skill grade mix. Making full use of it all.'*, says RLTC 2.2.

Further to these top three ideas (see Table 4), nurses discussed their desire to strengthen the image and value of geriatric nursing by giving nurses more competencies and more opportunities for academic and continuous education, and by speaking publicly about the strengths and positives aspects of geriatric nursing (e.g. job rotations, or showing the public how diversified the field of geriatric nursing can be). Furthermore, nurses discussed the necessity of early preventive, and personalised interventions to promote a healthy life for as long as possible and therefore wish to strengthen health promotion at schools. When older persons move to a residential care facility, nurses suggest that the facility be more careful when accepting new residents. They also suggest that nurses are consulted to ensure that the resi-

dential care facility is the right place for each person's individual care needs as they have more expertise in assessing the needs of the older person. In the theme '*Promote focused training and professional development*' nurses suggest that more focused geriatric continuous education is offered to nurses with and without a diploma. Furthermore, they suggest that nurses attend courses at nurses' undergraduate education facilities so that they can refresh and update their knowledge and students can learn from their experience. Lastly, nurses insist that persons in care receive equal opportunities independently of their wealth, network, and amount of family support.

In the final discussion of the workshops, nurses reflected positively on their ideas and said that it is their goal to provide best possible care '*and the only way to do that is to interlink the care services so that the person, so to speak, with the clinical presentation, can be treated individually, despite the diversity.*' (HCCN 1.3)

DISCUSSION

This study asked two research questions: [1] What do nurses value about working in geriatric care?, and [2] What are nurses' ideas on how to address challenges in geriatric care? Nurses appreciate the gratitude they receive from those they care for and from their colleagues. They also value that they are able to support and challenge the self-care abilities of the older person they care for and the older person themselves. The participants also attributed empathy, sensitivity, and compassion to a skilled geriatric nurse. They also valued the expertise and knowledge in health care a geriatric nurse holds. In regard to the second question, three ideas for strengthening geriatric nursing were highlighted by the participants: (1) '*Promoting and strengthening older persons' self-care abilities*', (2) '*Coordinate care for the older persons between institutions*', and (3) '*Promoting and strengthening the interprofessional team*'.

In a previous study conducted in Sweden, nurses stated that what they valued about geriatric nursing was that it has a holistic approach to care, that nurses are able to build long-term relationships with people in care and their families, and that they are able to deliver individualised and person-centred care (19). Person-centred care means that the values and preferences of the person in receipt of care guide the care process aiming for realistic life

and health goals (41). By providing holistic care that takes into account the physical, psychological, sociological, and spiritual needs of a person (10), nurses appreciate being able to develop and use more than technical skills, which makes long-term care more complex than acute care (19). The results of this study led to similar findings as participants also highly appreciated working within the family and related persons of older persons. Even though they also valued individualised and person-centred care, as well as the complexity and diversity of geriatric nursing saliently, it was not ranked top of the list, making the gratitude they receive by colleagues and persons in care more important to them. Receiving gratitude is closely related to the extent to which nurses are satisfied with the care they provide (42). Furthermore, (43) receiving gratefulness and being grateful (e.g. being grateful to your colleague) positively affects job satisfaction by supporting resilience in stressful situations (43, 44). It may therefore have an impact on staying in the profession, as job satisfaction is linked to turn-over rates (45).

This might be linked to Fishbein and Ajzen's (23) Theory of Reasoned Action. Amongst others, experienced gratefulness and receiving gratefulness might lead nurses to form positive opinions about geriatric nursing which might then lead to greater job satisfaction and lower intentions to leave the profession (46-48). Furthermore, an Austrian study showed that nurses' positive experiences in contact with older persons in care had a positive influence on their attitudes towards older people as well as their perspectives on geriatric nursing (49).

A skilled nurse was described as having a high degree of empathy, sensitivity, and compassion and as having expertise, and knowledge in health care. In the concept of 'skilled companionship', nursing care is described as bringing together skills (i.e. scientific, nursing knowledge) and companionship (i.e. seeing the person they care for as an individual and being empathetic to their needs). Also, older persons state that these are qualities they would like to see in a skilled nurse, although they rarely experience them. Due to the stressful work environment, lack of a caring, patient-centred culture in nursing practice and lack of teamwork, 'skilled companionship' is often not practiced and leads to nurses being dissatisfied with the care they provide (50).

The number one theme relating to ideas for strengthening geriatric nursing was *'Promoting and strengthening older persons' self-care abilities.*' A systematic review by Compton et al. (18) of the factors influencing nurses' or nursing students' decisions to enter or remain in geriatric nursing shows that nurses' work is influenced by organisational culture, for example the availability of resources (i.e. staff or equipment). For nurses to work in geriatric nursing, the work environment and structures in the institutions must be supportive. This means that institutions need to be aware of difficulties in the workplace and provide support. On the other hand, high workloads and insufficient staff prevented nurses from working in geriatric nursing. This led to the feeling of not being able to provide sufficient care to improve the quality of life of those being cared for (24). Participants proposed integrating greater use of technology into the nursing process, for example when planning nursing interventions or completing documentation. According to international literature, technologies used include, for example, information and communication systems that comprise computerised decision support systems, electronic health records and are used to collect, store, and manage data of the person and in communication in health care. By using these tools, quality of care and patient safety can be improved as health-related information is registered and evaluated more clearly, for example to document allergies and medications. Furthermore, the use of this technology can lead to reduced workload, reduced physical and mental pressure, and higher efficiency of nurses (51).

Participants also wished to *'Coordinate care for the older person between institutions'*, and describe the principles of an integrated care system. An integrated care system is a system in which all services needed by an older adult (e.g. home care, acute care, social care, etc.) work together in a coordinated way in order to provide person-centred and holistic care (52). The World Health Organization is working towards reaching an integrated care system in primary health and long-term care by providing a guideline describing key elements of an integrated care system such as the use of information, monitoring and evaluation systems that are linked between services, having well-trained and sufficient healthcare workers, and supporting family care givers (11, 52). Furthermore, nurses stated that the use of a skill- and grade-mix is needed in nursing practice. Although it is well known on the international literature that a skill- and grade-mix is beneficial

for nursing practice and the care provided, participants do not see its full potential being used in daily practice (53, 54).

STRENGTHS AND LIMITATIONS

The freelisting interview and nominal group technique methods used in this study proved to be an efficient method to use with a target group that lacks time resources. Participants reported that the methods were easy for them to use and that they appreciated the process and outcome of both methods. A heterogeneous group of participants enabled us to gain insights into different perspectives and focuses of geriatric nursing. The rigour of this study was strengthened through member checks, peer debriefing and peer reviews. This study does, however, have certain limitations. One limitation is that it is recommended to use between 20 to 30 study participants in freelisting interviews in order to confidently portrait ranks (55). In this study, only 12 participants were included. Sampling proved to be difficult as many nurses did not want to participate due to a lack of time resources. Therefore, nurses with a strong interest in geriatric care may have participated primarily. As this may have introduced a response bias, caution should be used in interpreting these data.

IMPLICATIONS

In nursing practice, it should be carefully considered which person possesses which competencies and tasks should be distributed accordingly to get the best out of the skill- and grade-mix in nursing practice and the interprofessional team. Furthermore, fostering a supportive work environment by providing adequate equipment, staff, and time to foster a skill-companionship relationship between the geriatric nurse and the person in their care might lead to higher job satisfaction. It is recommended that policy makers, nursing managers, and researchers give more voice to long-term care nurses as they work closely with the ageing population and see the needs that exist in practice, and are thus able to contribute important ideas for mastering the challenges in this field. In future research, a co-research design with long-term care nurses could be used to plan and implement an intervention such as the use of technology in the nursing process or interventions to foster a holistic care approach, in accordance with the nurses' three ideas. To be able to depict if nurses' positive opinions on geriatric nursing influence

job satisfaction and their willingness to stay in the profession in accordance with the Theory of Reasoned Action (23), quantitative studies could be conducted using psychometrically validated scales assessing perception of geriatric care (e.g. the Perspective on Caring for Older People scale (56), the McCloskey/Mueller Satisfaction Scale (57), or the Nurse Turnover Intention Scale (58)).

CONCLUSION

This study provides an insight into nurses' positive opinions on geriatric nursing and what their ideas are for tackling challenges in geriatric nursing. Participants highlighted the importance of receiving gratitude from colleagues and care recipients, working within the family and with related persons of older persons, and providing individualised, person-centred care. Nurses identified three ideas for strengthening geriatric nursing: (1) promoting and strengthening selfcare-abilities of older people, (2) improving coordination of care across settings, and (3) improving interprofessional collaboration. Listening to long-term care nurses who have expert insights into the care needs of an ageing population voice their ideas can help in working towards provision of high-quality geriatric care. Use of a co-research design could be considered, for example, in planning target group and setting-specific measures in geriatric nursing in accordance with nurses' ideas on interventions to provide holistic care for tackling challenges in geriatric nursing. In nursing practice, a supportive work environment that can help address workforce shortages and improve job satisfaction should be promoted. By working towards these measures, geriatric nursing can be strengthened to provide sustainable, high-quality support for an ageing population.

LIST OF ABBREVIATIONS

SRQR	Standards for Reporting Qualitative Research checklist
WHO	World Health Organization

DECLARATIONS:

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The ethics committee of the Medical University of Graz (EK Number 31-320 ex 18/19) gave their approval for this study. Participants gave written informed consent. Participants could withdraw from the study at any given time.

CONSENT FOR PUBLICATION

Not applicable

AVAILABILITY OF DATA AND MATERIALS

The dataset used in the current study is not available because the anonymity of the participants cannot be guaranteed.

COMPETING INTERESTS

The authors declare that they have no competing interests

FUNDING

No funding was received.

AUTHORS' CONTRIBUTIONS

LML: conceptualisation, data curation, formal analysis, investigation, methodology, project administration, writing - original draft

EP: data curation, formal analysis, investigation, writing (review and editing)

CL: supervision, writing (review and editing)

FG: conceptualisation, investigation, methodology, supervision, writing (review and editing)

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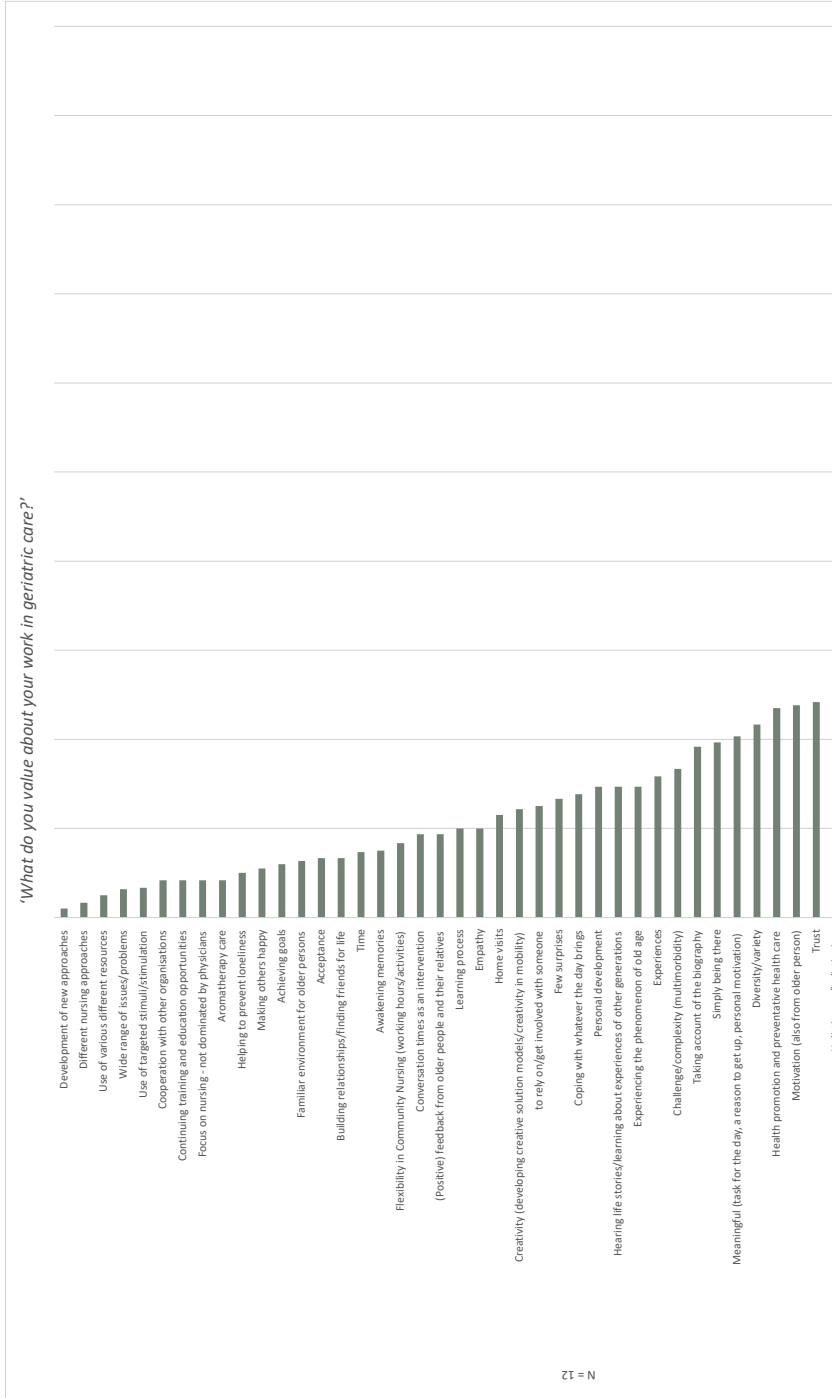
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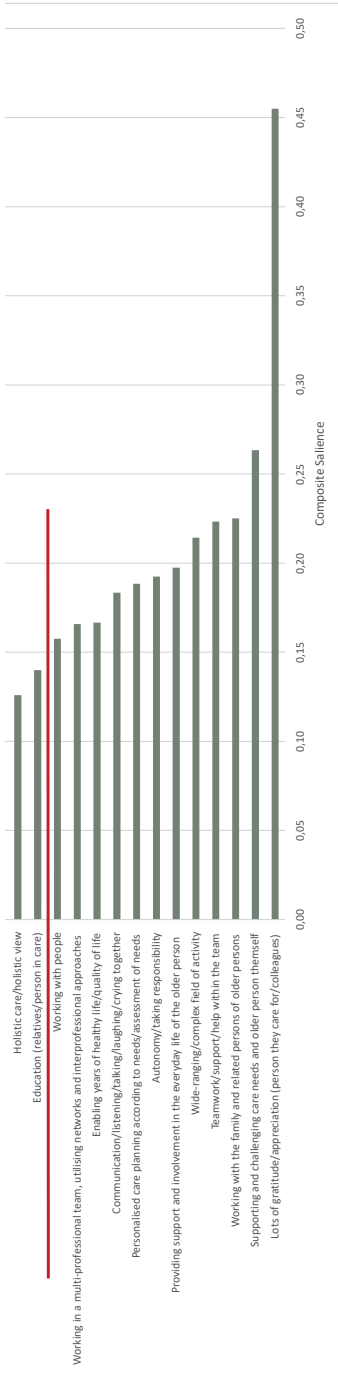
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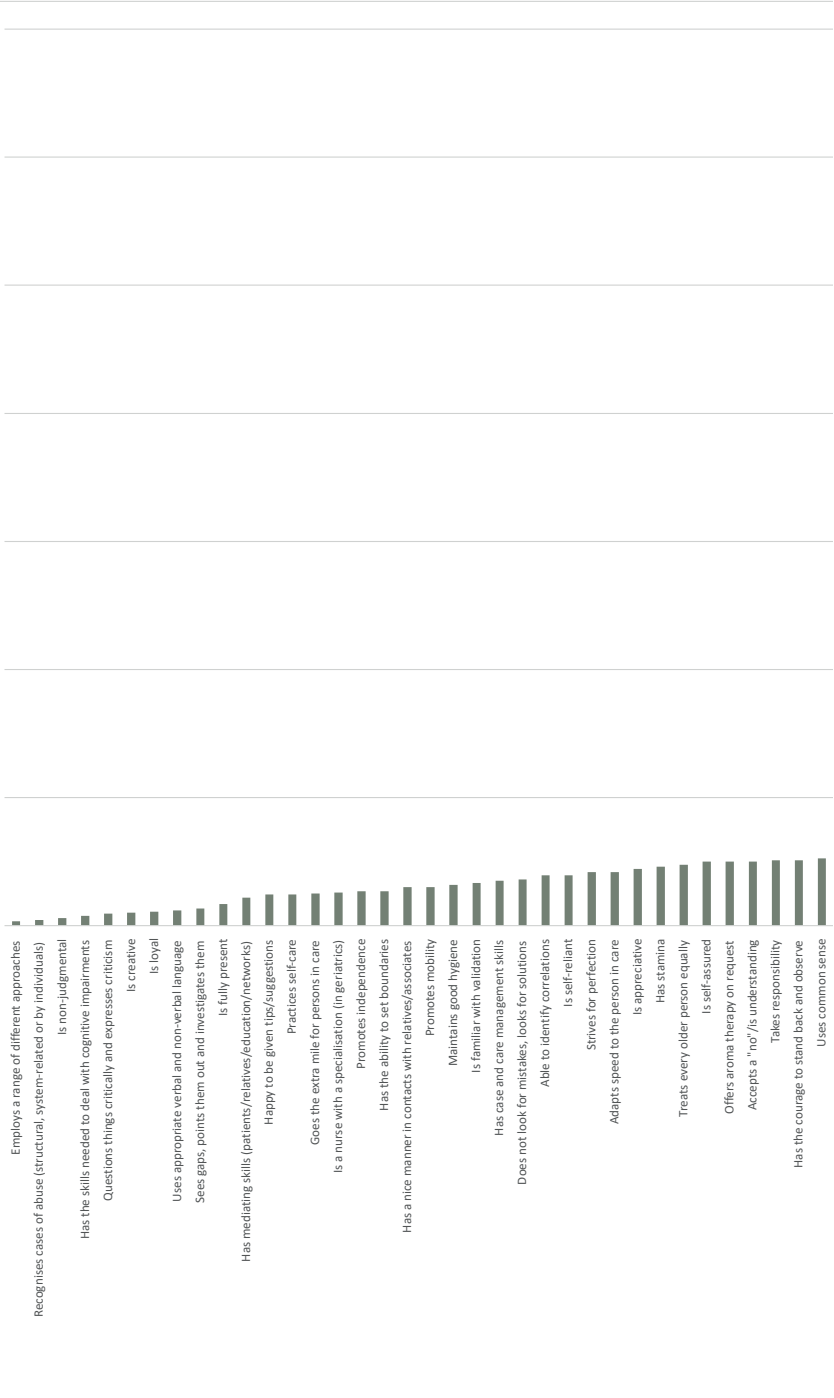
ADDITIONAL FILE 1

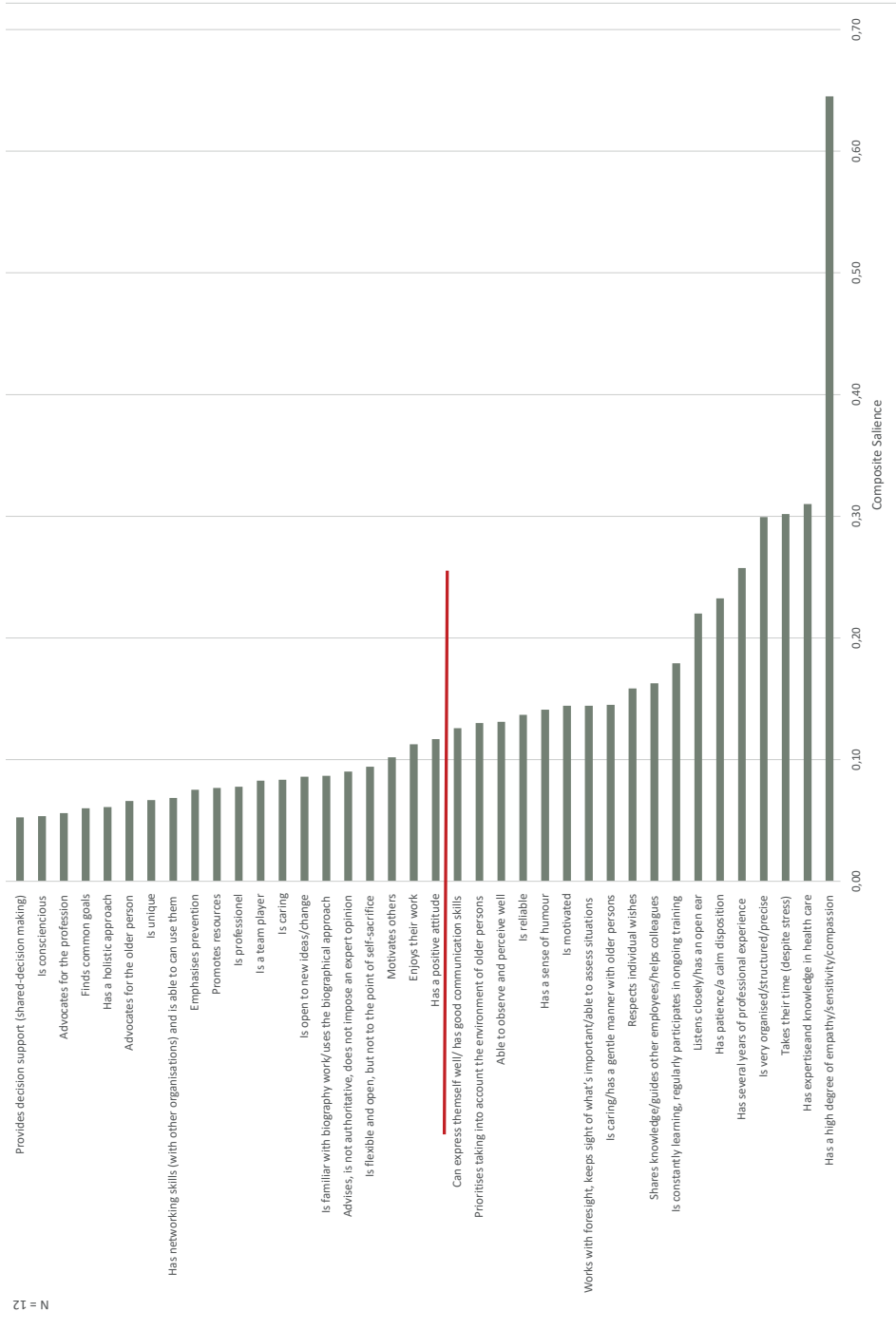




ADDITIONAL FILE 2

'When you think of a colleague you consider to be a good geriatric nurse, what makes them special?'







CHAPTER 7

GENERAL DISCUSSION

*“We have the chance to make
the final years of an older
person’s life worth living.”*

(Participant²³¹ Study 1b)

GENERAL DISCUSSION

The aim of this dissertation was to gain insights into the attitudes, perspectives, and opinions of nurses working in acute and long-term care in Austria towards people aged 80 years and older and geriatric care. Three studies were conducted to achieve this goal. The first study, part a, aimed to assess the attitudes of nurses working in various settings towards people aged 80 years and older, their perspectives on geriatric care, and possible factors influencing nurses' attitudes¹. The first study, part b, aimed to explore nurses' experiences and opinions about caring for people aged 80 years and older and to explore nurses' perceptions of geriatric care. The aim of the second study was to assess nurses' attitudes and perspectives towards people aged 80 years and older and geriatric care, specifically in long-term care (community and residential long-term care). In addition, this study aimed to compare nurses' attitudes and perspectives between long-term care settings and to identify influencing factors, in particular the impact of nurses' interaction with people aged 80 years and older in the care context. In the third and last study, the focus was on nurses' opinions about geriatric nursing, with the goal of exploring what nurses in the long-term care setting value about working in geriatric nursing and exploring ideas for addressing challenges in geriatric nursing. In the following, the main findings of the conducted studies are summarised and discussed according to the theoretical framework.

MAIN FINDINGS

In the first study, part a, Austrian nurses from various care settings had neutral to positive attitudes towards older people, which were assessed using the German version of the Aging Semantic Differential (ASD) (1). For example, they perceived people aged 80 years and older as rather cooperative and friendly, but also as somewhat inflexible. The subscale acceptability of the (ASD) was rated positively, meaning that the nurses thought that people aged 80 years and older were socially well integrated. Nurses' perspectives on geriatric care were measured using the Perspectives on Caring for Older People (PCOP) scale (2). They displayed positive perspectives on geriatric care. For example, they agreed that caring for older people is challenging

¹ See Chapter 3

but rewarding, but they did not agree that geriatric nursing is frustrating or an undesirable career choice. Positive attitudes towards people aged 80 years and older were associated with, for example, having a positive perspective on geriatric care and having a good relationship with an older family member or friend. Interacting frequently with people aged 80 years and older in their daily care practice was negatively associated with nurses' attitudes.

In part b of the first study, nurses' perceived caring for people aged 80 years and older as meaningful and important but criticized poor working conditions such as staff shortages and the need for better education. In the qualitative content analysis of nurses' opinions about geriatric care, three main themes emerged. [1] 'Opinions on people in need of care' varied from positive to negative, highlighting geriatric nursing on the one hand as difficult and demanding, and on the other hand as enriching for one's own life. [2] In the theme 'Reputation of the nursing profession' nurses expressed their pride about the work they do and stated the importance of dignity and empathy in nursing care. But there were also statements about their desire to take a different care path or to change the setting. Nurses wished for improvements in nursing care such as enhancing a skill- and grade-mix in the team. [3] 'Criticism of current nursing practice' was voiced by most of the nurses. They named, for example, lack of time, structural and institutional grievances, and experiencing physical and psychological effects and burdens of their work.

As mainly nurses from acute care participated in this study and the long-term care setting could not be illustrated accurately, the second study focused on nurses' attitudes and perspectives towards older people aged 80 years and older and geriatric care in long-term care in residential care facilities and in the community. The attitude of nurses towards people aged 80 years and older, measured using the German version of the ASD (1), were neutral to positive, whereas nurses working in home care had slightly more positive attitudes ($p = 0.01$) than nurses from the residential long-term care setting. People aged 80 years and older were also perceived as rather cooperative, friendly and trusting. With regard to nurses' perspectives on geriatric care measured using the PCOP (2), long-term care nurses (community and residential long-term care) had a positive perspective on geriatric nursing. Having positively perceived interactions with older people in care settings

during their work was positively associated with attitudes towards older people and with a positive perspective on geriatric care. A good personal relationship was also associated with positive attitudes towards people aged 80 years and older. Having more experience in working in long-term care was associated with a positive perspective on geriatric nursing.

In the third and last study, the focus was placed on long-term care nurses' positive opinions on geriatric care and nurses' ideas for tackling challenges in geriatric care. Nurses appreciate in their work that they receive gratitude from both the people they care for and their colleagues. Being able to support and encourage the self-care abilities of older people in their care was greatly valued by the participants. Empathy, sensitivity and compassion were attributed to a skilled geriatric nurse. Long-term care nurses also highlighted broad expertise and knowledge about healthcare as another asset of a skilled geriatric nurse. Three ideas were formulated by the participants to work towards addressing challenges in geriatric nursing: [1] 'Promoting and strengthening older person's self-care abilities', was the first idea of long-term care nurses to strengthen geriatric care. Promoting and strengthening the self-care abilities of older people were addressed by a holistic and person-centred approach to care. Furthermore, meaningful use of technology could reduce bureaucracy for nurses, leaving more time for the people in their care. [2] In the idea 'Coordinate care for the older people between services', nurses promoted the role of community nurses as a link between settings and institutions and recommended involving them early on in the care process. [3] 'Promoting and strengthening the team' could be reached by promoting a skill- and grade-mix and with good communication skills and a supportive work environment in the team.

THEORETICAL CONSIDERATIONS

In the following, the main results of this doctoral thesis are discussed in regard of the existing body of international research and within the used theoretical framework of attitudes, perspectives, and opinions.

NURSES' ATTITUDES AND PERSPECTIVES ON PEOPLE AGED 80 YEARS AND OLDER AND GERIATRIC NURSING

Previous international literature on nurses' attitudes towards people aged 80 years and older is rare. In a comparable Swedish study conducted by Holmberg et al. (3), attitudes towards people aged 80 years and older among nurses working in various settings were assessed. The results of the studies conducted in Austria show similar findings (ASD sum score² stratified by age group: 80.1-89.9 in Sweden, ASD sum score stratified by age group: 91.5-97.1 in Austria), whereas attitudes in Sweden were slightly more positive. A recent systematic review by Rababa et al. (4) of nurses' attitudes towards older people, without a distinction of age groups, showed mixed results with attitudes ranging from positive to neutral and negative. According to two systematic reviews by Rababa et al. (4) and Liu et al. (5), various factors might have an influence on nurses' attitudes towards older people, which might explain the differences in the international literature. While some factors (e.g. nurses' age, gender, clinical experience) are contradictory, there was some evidence that nurses' level of education, the amount of geriatric training they received and their knowledge about ageing were associated with their attitudes towards older people (without a distinction of age groups) (4, 5). This was partially confirmed by the results of study 1a, which found a positive association between nurses' academic and professional education and attitudes towards people aged 80 years and older. With regard to nurses' perspectives on geriatric care, a systematic review by Rush et al. (6) revealed that nurses' perspectives on geriatric nursing are volatile and range from positive to negative. The results of the studies conducted in Austria within this doctoral thesis confirm nurses' positive perspectives on geriatric care. The systematic review by Rush et al. (6) shows that similar to nurses' attitudes towards older people (without a distinction of age groups), nurses' perspectives on geriatric nursing are positively influenced by the nurses' higher level of education (i.e. nurses who hold a bachelor's degree or a diploma) and more geriatric training. Consistent with the influencing factor of education, a meta-analysis by Burnes et al. (7) confirmed that educational interventions on age and ageing have a positive effect on attitudes towards older people in general, but no effect could be confirmed on willingness to work with older people.

² Values between 26 and 182 can be reached. Lower scores reflect more positive attitudes (1).

Despite the influencing factors of education, geriatric training, and knowledge, factors related to experiences and interactions with older adults are also associated with nurses' attitudes towards people aged 80 years and older and geriatric care. If these experiences and interactions are perceived by nurses as either positive or negative, this may influence nurses' attitudes toward people aged 80 years and older and their perspectives on geriatric nursing positively or negatively (8, 9). A systematic review by Marques et al. (10) confirms the association of negatively or positively perceived contact on attitudes towards older adults in general. Additionally, in a Swedish study carried out by Holmberg et al. (3), a more positive attitude towards older people aged 80 years and older was associated among other things with nurses' positive perspective on geriatric nursing, having an older family member or friend, and having a lot of work experience. Holmberg et al. (3) also found out that interacting daily with people aged 80 years and older in the nursing context was negatively associated with attitudes towards people in this age group. One explanation in the opinion of the authors is that caring for this age group might be more time consuming and the high work load reduces interactions to the bare necessities. Forming a relationship with older people in their care could therefore prove difficult for nurses (3). In study 1a and 2, these results were partly confirmed. A positive attitude towards people aged 80 years and older was associated with a positive perspective on geriatric nursing, perceiving the contact with people aged 80 years and older in the context of nursing as positive, and having a good personal relationship with an older family member or friend. Similar to results of the study conducted by Holmberg et al. (3), frequent interaction with people aged 80 years and older in the context of care was negatively associated with attitudes towards people aged 80 years and older.

With regard to nurses' perspectives on geriatric nursing, in the systematic review by Rush et al. (6) longer experience in geriatric nursing was positively associated with a positive perspective on geriatric nursing and negatively by a stressful work environment in the form of lacking resources such as physical, human and organisational resources (6). Holmberg et al. (3) reported that positive attitudes towards people aged 80 years and older, a higher amount of geriatric education, daily interactions with people aged 80 years and older in the work context, extended work experience in nursing and working in home care or assisted living were associated with more positive perspectives towards geriatric care (3). This could be partly confirmed with

the results of this doctoral thesis (study 1a and study 2). Positively perceived contact with older people aged 80 years and older nurses care for and more experience in long-term care were associated with nurses' positive perspectives on geriatric nursing. A correlation between community or residential long-term care settings with nurses' perspectives on geriatric nursing was not confirmed.

These influencing factors of nurses experience with people aged 80 years and older (e.g. having an older family member or friend, work experience) and interaction (e.g. positively perceived contact and amount of interaction with older people in the care context, stressful work environment) with people from this age group show that a good personal relationship and positive and meaningful contact with people aged 80 years and older in the care context or in their private life may improve nurses' attitudes towards people from this age group. This might explain the differences in nurses' attitudes towards older people (aged 80 years and older or without distinction of age groups) and their perspectives on geriatric nursing. This was also confirmed by Drury et al. (11), Uğurlu et al. (12) and Rathnayake et al. (13). Drury et al. (11) concluded in their study that nurses' experience of positive contact in the context of work had a positive influence on attitudes towards older people in general. Uğurlu et al. (12) also confirmed that experiencing positive contact in the context of care led to nurses having more positive perspectives on geriatric nursing and improved nursing students' willingness to work in geriatric care (12). Rathnayake et al. (13) discovered that inter-generational contact with older people (without a distinction of age groups) had a positive influence on nursing students' attitudes towards older people in general and their willingness to work in geriatric care.

As frequent contact with older people in the course of their work influenced nurses' attitudes towards people aged 80 years and older negatively in study 1a and in the study by Holmberg et al. (3), it might indicate that negatively perceived contact has a negative impact on nurses' attitudes towards older people aged 80 years and older. Nurses work in a stressful and demanding environment (6) with older people with a high level care needs. Due to the combination of a stressful and demanding work environment and high care demand, difficulties in providing care may occur. This might lead to nurses perceiving the contact with older people as negative (6, 12). In study 3, negatively perceived contact was associated with nurses' more negative at-

titudes towards people aged 80 years and older and perspectives on geriatric care. In line with these results, Drury et al. (11) reported in their study that negatively perceived contact had a negative influence on attitudes towards older people in general. Uğurlu et al. (12) reported that experiencing difficulties in the care of older adults (without a distinction of age groups) influenced nurses' tendency for having negative attitudes towards older people. As mentioned above, the meta-analysis by Burnes et al. (7) reported educational interventions on age and ageing as effective in promoting positive attitudes towards older people. Combining these interventions with intergenerational contact (e.g. joint education on ageing (14)) prove to be more effective than education alone in promoting more positive attitudes towards older people in general (7). In addition, there is some evidence that these combined interventions might also have a positive impact on nurses' perspectives on geriatric nursing (12, 13, 15, 16).

The influencing factors of education, experience in geriatric nursing and contact with older people in the context of work or in private life on nurses' attitudes towards people aged 80 years and older and their perspectives on geriatric nursing (3-7) are in line with the theoretical framework of attitudes, perspectives, and opinions in this thesis. Impressions gained, for example, through experiences (e.g. experience in geriatric nursing) and interactions (e.g. contact with older people in the context of work) as well as information from outside sources (e.g. education) lead to opinions being formed and thus to shaping attitudes. Additionally, these factors also contribute to changing one's perspective towards something. Experience, education, and interaction lead to recognising new things in one's surroundings and therefore widen one's perspective (8, 9, 17-19). This might also explain the differences in the international literature with regard to nurses' attitudes towards older people and their perspectives on geriatric nursing. It also underpins intergenerational, educational measures as described by Burnes et al. (7).

NURSES' OPINIONS ON AND IDEAS FOR CHALLENGES IN GERIATRIC NURSING

Although nurses in Austria who participated in the studies conducted as part of this thesis mostly had neutral to positive attitudes towards older people aged 80 years and older and perspectives on geriatric nursing, they expressed positive but also negative opinions about geriatric nursing in the

course of the qualitative parts of the studies. Nurses appreciate the importance of geriatric care, the gratitude they receive from older people and colleagues, the opportunity to support older people's self-care skills, and the opportunity to provide individualised, person-centred care. Nurses' positive opinions on geriatric care are supported by Carlson et al. (20) and McGilton et al. (21). In the Swedish study conducted by Carlson et al. (20), nurses appreciated the opportunity to build long-term relationships with older people they cared for and the holistic, person-centred approach to care in geriatric nursing. In the Canadian study by McGilton et al. (21), participants also indicated that they value the relationship they have with colleagues. Nurses also positively highlighted the need for knowledge and education for staff working in geriatric care. These positive views of geriatric nursing are also associated with job satisfaction and reasons for nurses to stay in the profession (21-24). This is also in line with the theoretical framework of this thesis on attitudes, perspectives and opinions, as these positive opinions of geriatric care, formed by positive experiences and interactions with older people in the care context (e.g. gratitude, providing care in a meaningful way, doing meaningful, important work), lead to positive attitudes and perspectives towards older people and their care, and subsequently the willingness to work as a geriatric nurse (8, 9).

As mentioned above, nurses participating in study 1b also voiced some negative opinions on geriatric nursing. The nurses were critical mainly about current working conditions, and some nurses stated that they were considering changing the setting where they are currently working or even leaving the profession. Criticism of current inadequate working conditions focused, for example, on lack of time, structural and institutional grievances, not being able to provide adequate care according to nurses' expertise, and physical and psychological consequences for nurses due to the high demands of the work. In the international literature, these criticisms are described as reasons for lower job satisfaction and for nurses to leave the profession (21, 25-28). In the Finnish study by Ring et al. (27), the inability to meet individual needs of older people due to an inability to provide care beyond standardization or a lack of resources to meet individual care needs, and an uneven work-life balance were the main reasons for nurses leaving geriatric nursing. Furthermore, in the Canadian study carried out by McGilton et al. (21), nurses reported similar reasons for leaving geriatric nursing because the nursing process was too regulated for them to provide holistic, per-

son-centred care and to use their professional judgment to provide the best possible care for older people. Nurses' negative opinions are also in line with the theoretical framework. Due to experiences with negatively perceived working conditions and dissatisfaction with provided quality of care, results in negative opinions on geriatric care and in further consequence negative attitudes towards geriatric care and the unwillingness to work in this field of nursing (8, 9).

Building on the points of criticism made by Austrian nurses with regard to geriatric care in the first study, part b, ideas were collected in the third study in order to meet the challenges in geriatric care. To be able to provide high-quality geriatric care and to meet the growing needs of older people, holistic, person-centred care is needed (29) as the participants also stated in their first idea. This, and the participants' idea to coordinate the care of older people between settings is also a core part of an integrated care system as proposed by the WHO (29, 30). An integrated care system is characterised by a holistic approach to care that addresses all the health needs of older people. All settings and services that an older person may need to meet their health needs work together in a coordinated and person-centred way to achieve this goal. This includes the use of information, monitoring and evaluation systems that are linked between settings and services, employing sufficient and well-trained staff, and supporting family caregivers (29, 30). These characteristics of an integrated care system underline the ideas nurses proposed in study 3 and might be an indication that in the nurses' experience, integration of the various settings and services is currently not yet sufficiently present in Austria.

As previously mentioned, the inability to provide adequate and high-quality care according to nurses' professional judgment may lead to lower job satisfaction and a desire to leave the profession, despite the need to meet the challenges of socio-demographic changes (21, 27). According to Compton et al. (31), creating a supportive work environment that includes support from the institution, such as providing adequate resources (e.g. staff or equipment) for nurses to provide adequate care, is necessary for nurses to enter or remain in geriatric nursing. Accordingly, nurses in study 3 suggested that in order to provide quality care, they need to be equipped with sufficient resources (e.g. financial resources of institutions, time, equipment) and suggest minimizing bureaucracy and freeing up time resources by implement-

ing technology in the care process. Technology in the care process can be used, for example, as a communication or decision support system, or as an electronic health record to collect, store and manage data about the older person the nurse is caring for. According to a current narrative review by Toghian Chaharsoughi et al. (32), there is evidence in the international literature that this technology improves the safety of older people, the quality of care, and the workload for nurses as health-related information is more clearly documented and more easily accessible (32). In addition, nurses suggest making greater use of the skill- and grade-mix of nurses to make the most of each individual's potential. Although the positive effect of a skill- and grade-mix in nursing practice on the quality of care is known from the international literature (33-35), the participants may see its potential not being yet fully exploited in Austrian long-term care. A systematic mapping review by Schüttengruber et al. (36) highlights that it is the responsibility of nursing managers to provide a work environment to deliver high-quality geriatric nursing and that developing an organisational culture that addresses ageist attitudes towards older people is lacking.

Some parallels can be seen in nurses' negative opinions on geriatric nursing and their ideas for tackling challenges in this field of nursing. For example, nurses criticised in the international literature and in the results of study 1b that they are not able to provide geriatric care in a way nurses feel comfortable with or are lacking support of the institutions (e.g. providing equipment, time, staff), which has an impact on nurses' willingness to start working in or stay in geriatric care (21, 27, 31). Nurses' ideas from study 3 take up these points of criticism and suggest a holistic approach to care and implementing supporting technologies to free up time resources that can be spent with the older person they care for. As described above and in accordance with the theoretical framework of attitudes, perspectives, and opinions, due to nurses' experiences and interactions with people aged 80 years and older in geriatric nursing, opinions about people aged 80 years and older and as a consequence attitudes towards them are formed. This might then lead to behaviour of nurses towards older people, such as ageism and nurses' willingness to work with people aged 80 years and older (9, 15, 37-39). Nurses' ideas, which were formed by nurses' experiences, interactions with, and opinions on people aged 80 years and older and geriatric nursing, aimed to tackle challenges in geriatric nursing (8, 9). Within the scope of this doctoral thesis, Austrian nurses demonstrated mainly positive attitudes,

perspectives, and opinions towards people aged 80 years and older and geriatric nursing. Although some points of criticism on geriatric nursing were raised, nurses' provided ideas for tackling these challenges and strengthening geriatric nursing. Nurses' ideas are not considered in the theoretical framework of this doctoral thesis but proved to be an integral part of nurses' opinions. Even if criticism is raised, nurses may have the expertise and experience needed to offer ideas on improving these points of criticism and for working towards improving relevant behaviour in the context of geriatric care. For this reason, in Figure 1 of the theoretical framework of attitudes, perspectives, and opinions, ideas were added as a part of opinions.

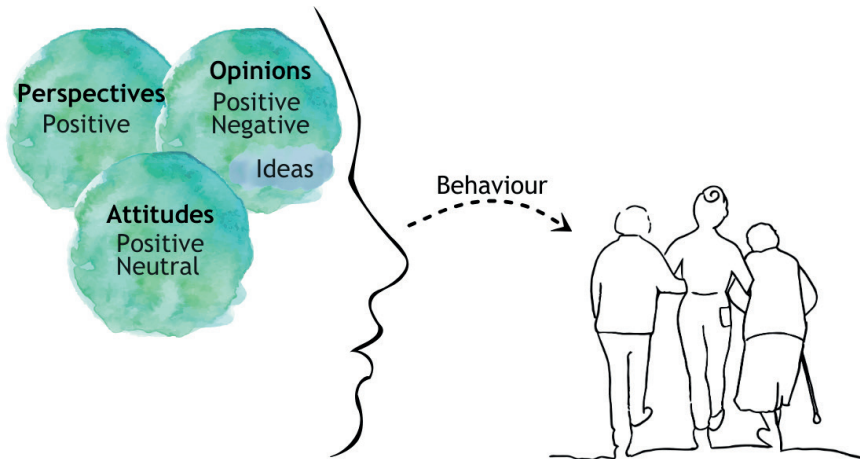


Figure 1 Thesis outcomes embedded in the theoretical framework of attitudes, perspectives, and opinions in the context of geriatric care

METHODOLOGICAL REFLECTION

In the course of this doctoral thesis numerous methodological decisions were made. In the following, these decisions are critically reflected upon. Strengths of the conducted studies are highlighted while their limitations are critically reflected.

Participants of study 1a and 2 voiced their concerns regarding the method of rating adjective pairs describing older people and the used adjective pairs (e.g. pretty-ugly) in the *ASD*, as they felt they were not able to generalise older people in that way and felt they behave in a discriminatory manner when doing so. Wilson et al. (40) as well as Polizzi and Steitz (41) point out that the adjective pairs used in the *ASD*, which was developed by Rosencranz and McNevin (42) in 1969, are outdated and are not in accordance with modern language. Additionally, the semantic differential was specifically developed to measure attitudes towards older men. As men and women might be perceived differently, the adjective pairs used might not reflect attitudes towards older women (40, 41). In line with this criticism, the *ASD* was revised by Polizzi (43) and Wilson et al. (44), but these revised scales are not as widely used and have not been thoroughly psychometrically tested. Therefore, the *ASD* currently continues to be the most suitable instrument for measuring attitudes (44). Furthermore, the German version of the *ASD* was psychometrically tested in the form of construct validity and internal reliability (Cronbach's $a > 0.8$) by Gluth et al. (45) for use with the general population as well as by Schüttengruber et al. (1) for the use in the healthcare context with a mainly female sample. Another commonly used scale to measure attitudes towards older people is the Kogan Attitudes Toward Older People Scale. It is argued that instead of attitudes the scale measures prejudice towards older people and it is criticised for its lack of practicability (40, 46). A semantic differential technique as used by the *ASD* is a suitable method for measuring attitudes (8, 9, 40). Additionally, the *ASD* is one of the most frequently used scale to measure attitudes towards older people and thus enables good comparability (47). The *ASD* is practical for administration in healthcare settings as it takes a short amount of time to answer, which is helpful for possible participants with a lack of time resources (40). For these reasons, the *ASD* was deemed a suitable instrument to use in the scope of this doctoral thesis.

All measurement instruments used in the studies, namely the ASD (1), the PCOP (2) and the Positive and Negative Contact Scales (PNCS) (11), are self-reporting instruments. By using self-reporting instruments, some advantages and disadvantages should be addressed. Flanagan and Beck (48) point out that in order to gather information about what people think or believe, it is most efficient to ask them directly. Furthermore, people's attitudes, perspectives and how one perceives contact are not observable, whereas for example behaviour is, and self-reporting instruments are a way to measure these concepts (2, 8, 9). Additionally, self-reporting instruments enable data to be collected from a large number of participants, providing comprehensive insights into the assessed concepts (49). When using self-reporting instruments, the quality of the collected data has to be ensured using psychometrically tested instruments (48). As described above, the German version of the ASD was psychometrically tested with regard to construct validity and internal reliability (Cronbach's $\alpha > 0.8$) (1, 45). The German version of the PCOP was tested with regard to internal validity in study 2 (Cronbach's $\alpha > 0.8$) and has a one factor structure in the original English version (2). The PNCS were assessed with regard to face validity and internal reliability (Cronbach's $\alpha > 0.8$) in study 2 and also have a one factor structure in the original English version (11). When interpreting data which were assessed using self-reporting instruments, the possibility of a social desirability response bias has to be kept in mind. People have the tendency to present themselves more positively and respond in a socially acceptable way (48, 49). For these reasons, the used instruments to measure attitudes, perspectives, and the perception of contact were chosen with the risk of a social desirability response bias (48).

STRENGTHS OF CONDUCTED STUDIES

The use of quantitative and qualitative research designs in this doctoral thesis is a strength of this work as it may lead to gaining deeper insights into the researched phenomena and concepts (50). Through the use of quantitative surveys, a first insight into the attitudes and perspectives of Austrian nurses towards people aged 80 years and older and geriatric care could be gained and associations with possible influencing factors were identified. By qualitatively exploring nurses' opinions about older people and geriatric care, a deeper understanding of geriatric care could be generated in terms of what

nurses value about the people they care for, their work and their ideas for addressing the challenges nurses face in their daily work.

A strength of study 1a and study 2 is that they both analysed data from a large number of participants (study 1a: $N = 1,179$; study 2: $N = 875$). The results therefore provide comprehensive, albeit not representative, insights into the attitudes and perspectives of Austrian nurses towards people aged 80 years and older and geriatric nursing, thus contributing significantly to the existing international literature. In addition, both studies used a well-known, psychometrically tested and widely used instrument in the form of the ASD (1). Using this instrument, it was possible to generate valid and reliable data that were comparable to previous studies. The PCOP scale (2) and the Positive and Negative Contact Scales (PNCS) (11) were adapted cross-culturally and tested psychometrically in the course of this doctoral thesis.

It is customary to insert a comment field at the end of a questionnaire. Normally, this is rarely used by the participants (3.6-5.7 % usually use the commentary field) and subsequently rarely analysed by the researchers (51, 52). These commentary fields have the advantage of enabling identification of new topics not captured in the questionnaire (52). The participants from study 1b used this opportunity to provide information about their daily work and their opinions about older people and geriatric care. As participants were not guided by a specific question and provided their narratives in written form, they had the opportunity to freely express their opinions, feelings, and critical thoughts. 12.64 % of the participants wrote a total of 149 narratives. This shows that the participants had a need to communicate and the qualitative content analysis enabled the opinions of the nurses to be portrayed, which would not have been assessed in the quantitative questionnaire.

In Study 3, the chosen methods of freelist interviews and nominal group technique were chosen in consideration of the lack of time resources of the target group (53, 54). Additionally, the nominal group technique is feasible to obtain an expert insight into priorities for change and by presenting the results to the participants the generated ideas and their priorities could be validated. This added considerably to the rigour of study 3 (55). The methods proved to be efficient and the participants confirmed that they were

easy to use and that they were satisfied with the process and outcome of the modified focus groups conducted. In addition, the heterogeneous composition of the group provided insights from different perspectives and focuses.

LIMITATIONS OF CONDUCTED STUDIES

In the context of this doctoral thesis, some methodological limitations arose which are critically reflected in the following.

Due to the convenience sampling method of study 1a and 2, a selection-bias might have been introduced as participants were not selected randomly. As no extensive list of possible participants could be obtained, a random sample was not possible. There is also the possibility of a response-bias, as due to the sampling method, mainly nurses that felt strongly about older people and geriatric care responded to the invitation to participate in the study, which might have influenced the results.

In study 1b, the primary focus was not on exploring nurses' opinions about older people and geriatric care qualitatively but rather on gaining quantitative data on nurses' attitudes and perspectives towards older people and geriatric care. Due to the previously completed survey, participants were already made aware of questions regarding their attitudes towards older people and their perspectives on geriatric care, which might have influenced the narratives given. As this was not considered in the beginning of the planning phase of the study, no considerations in regard of qualitative rigour were made and could only be applied to the analysing phase of the study. Additionally, narratives in commentary boxes tend to be more critical (56) and as these narratives were given in written form, there was no possibility to ask further questions about issues raised by the participants or validate the narratives.

In study 3, sampling proved to be difficult, as many possible participants stated that they are unable to participate due to their current heavy workload and the current staff shortage. This led to not obtaining sufficient participants for the freelisting interviews as it is recommended to include between 20-30 study participants in order to confidently portrait ranks (57) and only 12 participants were included in the study.

IMPLICATIONS

From the results of the conducted studies, implications for nursing research and nursing practice can be drawn in order to further contribute towards the growing body of research with regard to nurses' attitudes, perspectives, and opinions on older people and geriatric care and to contribute towards tackling challenges in geriatric care.

IMPLICATIONS FOR NURSING RESEARCH

As some criticism was voiced by the international literature (40, 41) and by participants in study 1a and 2, it recommended that to further psychometrically test and cross-culturally adapt the revised version of the ASD, the Australian Ageing Semantic Differential (AASD) by Wilson et al. (44). New and more up to date bipolar adjective pairs were generated from medical students' reflections about their attitudes towards older people. As it is only tested with a sample of medical students, its reliability and validity with other healthcare professionals should be tested to confirm the four-factor structure for their use in various healthcare settings.

Furthermore, it can be investigated whether the attitudes, perspectives, and opinions of nurses towards people aged 80 years and older and geriatric nursing have an influence on their behaviour, such as ageism or willingness to work in geriatric nursing. Use of observational studies is a possibility to gain insights into the behaviour of nurses working with people aged 80 years and older. Additionally, quantitative methods to assess ageism could also be used. In cross-sectional studies, for example, the Fabroni Scale of Ageism (58) could be used, although this requires further psychometrically testing (47). To further investigate the behavioural component and the influence of perspectives and attitudes, assessing the influence of nurses' attitudes and perspectives on people aged 80 years and older and geriatric nursing on nurses' job satisfaction and willingness to start working in or stay in geriatric care should be considered. Therefore, cross-sectional studies using psychometrically validated scales such as the ASD (42) or AASD (44) and PCOP (2) to assess nurses attitudes towards people aged 80 years and older and the McCloskey/Mueller Satisfaction Scale (59), and Nurse Turnover Intention Scale (60) to assess the association with job satisfaction and willingness to stay in the profession should be conducted.

To further develop nurses' ideas for tackling challenges and to tailor possible target measures and setting specific interventions in geriatric nursing, a co-research design could be feasible. In order to investigate nurses' wishes and needs in performing geriatric care, to plan and to implement possible interventions according to nurses' ideas from study 3 (e.g. interventions to promote holistic, person-centred care), collaborative research involving nurse practitioners and nursing researchers could be envisaged. This design involves those with experience and expertise in a process of change and can be used to plan and implement, for example, an approach to person-centred care (61, 62). By also involving people aged 80 years and older, a collaborative design allows nurses and older people aged 80 years and older to work equally towards a shared goal and takes into account opinions, wishes, and needs from both nurses and older people (61).

IMPLICATION FOR NURSING PRACTICE

Although nurses showed neutral to positive attitudes and perspectives towards people aged 80 years and older and geriatric care, they also had some negative opinions and might benefit from interventions designed to improve attitudes and perspectives towards older people and geriatric care or ageism. It is recommended that consideration be given to intergenerational and educational interventions using, for example, the WHO guide for connecting generations (14). The results of this doctoral thesis can be used in these educational interventions to raise awareness on the status quo of nurses' attitudes, perspectives, and opinions on older people and geriatric care in acute and long-term care settings. With these results, nurses can be made aware that attitudes towards people aged 80 years and older and perspectives on geriatric care are influenced by various factors (e.g. how contact with people aged 80 years and older is perceived), that there is hardly any difference between long-term care settings, and ideas on how challenges in geriatric nursing might be tackled. The presentation of the status quo can be used by nurses to reflect on their attitudes, perspectives, and opinions and may encourage nurses to think about their own behaviour.

Nurses must be given the environment by nurse managers to provide holistic, high-quality care according to their professional judgment. (31, 36). Therefore, it is recommended that nursing managers and policy makers promote a supportive work environment in acute and long-term care settings that also

enables nurses and people aged 80 years and older to experience positively perceived interactions by either providing sufficient resources (e.g. financial resources of institutions, time, staff, equipment), by minimizing time consuming tasks away from the bedside such as bureaucracy (e.g. implementing technical solutions in the care process), and by promoting a skill- and grade-mix in nursing practice.

Lastly, it is recommended that nursing managers, policy makers and researchers listen to nurses' opinions and ideas voiced in study 1b and 3 with regard to the challenges in geriatric care. Nurses have expertise and comprehensive knowledge regarding the existing needs, challenges and opportunities in caring for an ageing population. Furthermore, nurses have the competencies to contribute needed ideas for planning for and mastering future challenges of sociodemographic changes and an increasing need for care. For example, nurses from study 3 promoted better integration of the settings and services an older person might need to ensure high-quality care. This insight could be heard by policy makers and nursing and service managers and could be addressed in more detail in nursing practice and research.

CONCLUSION

The aim of this doctoral thesis was to gain insights into the attitudes, perspectives, and opinions of nurses working in acute and long-term care in Austria towards people aged 80 years and older and geriatric care. Nurses displayed neutral to positive attitudes towards people aged 80 years and older, had a positive perspective on geriatric nursing and had positive opinions on people aged 80 years and older. Nurses voiced some criticism on working conditions in geriatric nursing (e.g. lack of time). This led to generating ideas for tackling these challenges. For example, nurses wish to promote a holistic and person-centred care approach and the use of technology in the care process to free up time resources at the bedside. To further develop these ideas and to include perspectives from different relevant angles, collaborative research involving nurses, people aged 80 years and older and nursing researchers is recommended. Identifying their wishes and needs in the provision of geriatric care, as well as planning and implementing measures according to nurses' ideas in study 3 could be the aims of that research. It is recommended that nursing managers and policy makers promote a supportive work environment to enable nurses to work towards providing holistic,

person-centred and high-quality geriatric care. This may be achieved by providing sufficient resources such as financial resources for institutions or staff, minimizing bureaucracy, or by promoting a skill- and grade-mix in nursing practice. Nurses provide expertise, knowledge, and competencies needed to face the challenges and opportunities of sociodemographic changes. Nursing and service managers, policy makers, and researchers should hear nurses' voices and take them into account when working towards the development of strategies for caring for the ageing population.

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CHAPTER 8

Summary

“Geriatric nursing means having a love of people, respect for life, empathy, observational skills, networking and communication, physical and mental stability, team spirit, professional skills, and much more.”

(Participant⁵⁸ Study 1b)

SUMMARY

After the age of 80 years, the risk for care dependency increases, which means that this age group has the highest demand for nursing care in acute and long-term settings. As the world's population ages and the number of people aged 80 and older grows, there will be a need for sufficient and high-quality care for this population. Negative attitudes of nurses towards older people 80 years and older have negative consequences for the care provided. According to the theoretical framework of this doctoral thesis, individual attitudes are developed and influenced by perspectives and opinions. Attitudes may influence a person's behaviour. Previous studies on nurses' attitudes, perspectives, and opinions towards older people and geriatric care rarely focus on people aged 80 years and older and the long-term care setting. The aim of this thesis is to provide an insight into the attitudes, perspectives, and opinions of nurses working in acute and long-term care settings towards people aged 80 and over and geriatric care.

In two cross-sectional studies (study 1a, 1b, 2) and one descriptive qualitative study (study 3), nurses showed neutral to positive attitudes towards people aged 80 years and older, had a positive perspective on geriatric care and had positive opinions about people of this age group, but expressed criticism regarding working conditions in geriatric care. Their attitudes and perspectives were positively influenced by perceived positive contact with older people in the nursing context and in their personal lives. Nurses generated ideas to address challenges in geriatric care. For example, by using a holistic and person-centred approach to care, nurses intend to promote and strengthen the self-care abilities of older people.

These findings were consistent with the theoretical framework underlying this thesis whereby nurses' experiences and interactions with older people influenced their attitudes, perspectives, and opinions. In further research, it is recommended to psychometrically test and use a revised version of the Ageing Semantic Differential, the Australian Ageing Semantic Differential, as outdated adjective pairs are criticised by participants and the international literature. In nursing practice, collaborations between research, nurses and older people could be used to further develop, plan and implement nurses' ideas. Geriatric nurses offer expert knowledge on how to meet the challenges of an ageing population that should be listened to by nurse and service managers, policy makers and researchers.



“Working with older people is not always easy, but you get so much more in return. Every sincere thank you is worth the work.”

(Participant¹⁹⁵ Study 1b)

ZUSAMMENFASSUNG

Nach dem 80. Lebensjahr steigt das Risiko der Pflegeabhängigkeit, was bedeutet, dass diese Altersgruppe den höchsten Bedarf an Akut- und Langzeitpflege hat. Da die Weltbevölkerung altert und die Zahl der Personen im Alter von 80 Jahren und älter zunimmt, wird es einen Bedarf an ausreichender und qualitativ hochwertiger Pflege für diese Population geben. Negative Einstellungen von Pflegepersonen gegenüber älteren Personen, die 80 Jahre und älter sind, haben negative Auswirkungen auf die Pflege. Gemäß dem theoretischen Rahmen dieser Dissertation werden individuelle Einstellungen durch Perspektiven und Meinungen entwickelt und beeinflusst. Einstellungen können das Verhalten einer Person beeinflussen. Bisherige Studien über die Einstellungen, Perspektiven und Meinungen von Pflegepersonen gegenüber älteren Personen und der geriatrischen Pflege befassen sich nur selten mit Personen im Alter von 80 Jahren und älter und der Langzeitpflege. Ziel dieser Dissertation ist es, einen Einblick in die Einstellungen, Perspektiven und Meinungen von Pflegepersonen, die in der Akut- und Langzeitpflege tätig sind, zu Personen im Alter von 80 Jahren und älter und zur geriatrischen Pflege zu geben.

In zwei Querschnittsstudien (Studie 1a, 1b, 2) und einer deskriptiven qualitativen Studie (Studie 3) zeigten die Pflegenden eine neutrale bis positive Einstellung gegenüber Personen im Alter von 80 Jahren und älter, hatten eine positive Perspektive auf die geriatrische Pflege und eine positive Meinung über Personen dieser Altersgruppe, äußerten sich aber kritisch über die Arbeitsbedingungen in der geriatrischen Pflege. Ihre Einstellungen und Perspektiven wurden durch den wahrgenommenen positiven Kontakt mit älteren Personen im Pflegekontext und in ihrem persönlichen Leben positiv beeinflusst. Die Pflegenden entwickelten Ideen zur Bewältigung der Herausforderungen in der geriatrischen Pflege. So wollen die Pflegenden beispielsweise durch einen ganzheitlichen und personenzentrierten Pflegeansatz die Selbstpflegefähigkeiten älterer Personen fördern und stärken.

Diese Ergebnisse stehen im Einklang mit dem theoretischen Rahmen, der dieser Arbeit zugrunde liegt, wonach die Erfahrungen und Interaktionen der Pflegepersonen mit älteren Personen ihre Einstellungen, Perspektiven und Meinungen beeinflussen. Für die weitere Forschung wird empfohlen, eine überarbeitete Version des Ageing Semantic Differential, das Australian

Ageing Semantic Differential, psychometrisch zu testen und zu verwenden, da veraltete Adjektivpaare von den Teilnehmer*innen und der internationalen Literatur kritisiert werden. In der Pflegepraxis könnte die Zusammenarbeit zwischen Forscher*innen, Pflegepersonen und älteren Personen genutzt werden, um die Ideen der Pflegepersonen weiter zu entwickeln, zu planen und umzusetzen. Geriatriische Pflegepersonen verfügen über Expert*innenwissen zur Bewältigung der Herausforderungen einer alternden Bevölkerung, das von Pflege- und Dienstleistungsmanagern, politischen Entscheidungsträgern und Forscher*innen beachtet werden sollte.



CHAPTER 10

Acknowledgement

“Letting people age with dignity and maintaining their independence for as long as possible should be our goal in nursing.”

(Participant²³¹ Study 1b)

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CHAPTER 11

Curriculum Vitae

“Nursing and caring for older people is a responsible task that requires specialist knowledge, empathy and flexibility from caregivers. For me, it is the “supreme discipline” of nursing.”

(Participant²³¹ Study 1b)

CURRICULUM VITAE

Lena Maria Lampersberger completed her Bachelor in Nursing Science in 2016 and went on to earn her Master of Nursing Science in the same field in 2019, both at the Medical University of Graz. Prior to her academic career, she gained practical experience as a registered nurse in acute care from 2017 to 2020. Today she is a University Assistant at the Institute of Nursing Science at the Medical University of Graz, where she has worked since 2021. Also in 2021, she started her doctoral studies in the doctoral programme Nursing Science at the Medical University of Graz, which cooperates with Maastricht University and Bern University of Applied Sciences.



Alongside her research on geriatric nursing, she explores topics such as quality in nursing care. The *'Nursing Quality Measurement 2.0'* is an international research project that assesses the prevalence of and interventions for preventing or treating pressure ulcers, incontinence, malnutrition, falls, restraints, and pain. Lena Lampersberger has been part of the Austrian research team since 2021. As a lecturer, Lena Lampersberger teaches literature research, scientific writing and presentation, interdisciplinary aspects of ageing, health literacy, and epidemiology in the Master's degree programs in Nursing Science and Interprofessional Healthcare Sexstudies.

Lena Lampersberger has received recognition for her work, including a first-place poster award at the 2023 Annual Meeting of the Austrian Society for Geriatrics and Gerontology, and a travel grant in 2024 to attend a research retreat on gendered ageism in healthcare. She is an active member of the Austrian Society for Geriatrics and Gerontology and serves as a peer reviewer for several international journals, including *SAGE Open Nursing* and the *International Journal for Equity in Health*. Additionally, she organized the 20th European Doctoral Conference in Nursing Science in Graz with her fellow PhD students.



Publications and Presentations

“Working with older people is enriching and a school of life for me, I can take so much from their experiences.”

(Participant⁸⁸² Study 1b)

LIST OF PUBLICATIONS AND PRESENTATIONS

ARTICLES IN PEER-REVIEWED JOURNALS

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