Ageing & Society (2025), **45**, 2476–2499
doi:10.1017/S0144686X25100135

ARTICLE

What do middle-aged and older people consider important dimensions of quality of life in later adulthood? Insights from a vignette experiment in the Netherlands

Thijs van den Broek[1] and Malin H.L. Hollaar[2]

[1]Erasmus School of Health Policy and Management, Erasmus University Rotterdam, Rotterdam, The Netherlands and [2]Erasmus School of Social and Behavioural Sciences, Erasmus University Rotterdam, Rotterdam, The Netherlands
Corresponding author: Thijs van den Broek; Email: vandenbroek@eshpm.eur.nl

(Accepted 13 May 2025)

Abstract

Despite consensus that quality of life (QoL) in later adulthood is multi-dimensional, scholars' perceptions of the dimensions the construct comprises differ. Under the premise that models and measures of QoL should correspond with lay perspectives to have relevance to the targeted population, we investigated the constituents of QoL in later adulthood as perceived by middle-aged and older laypersons. We fielded a factorial design vignette experiment among 2,544 respondents aged 50+ participating in the Dutch Longitudinal Internet studies for the Social Sciences panel to assess how 11 dimensions identified from four established QoL instruments designed for older people (WHOQOL-OLD, CASP-19, OPQOL, ICECAP-O) influence QoL evaluations. The study extends prior work on lay perspectives on QoL by combining the internal validity of an experiment with the external validity of a true population sample. All dimensions considered significantly impacted the QoL ratings in the expected direction. Enjoyment and social participation had a significantly larger contribution than the other dimensions. Models stratified by age group showed a strong degree of similarity, suggesting a high level of consensus across age groups about the constituents of QoL in later adulthood. The study highlights the necessity of capturing a broad range of dimensions when conceptualizing QoL in later adulthood. Our finding that dimensions that were omitted in selected established instruments still contributed substantially to QoL evaluations arguably implies that these instruments may have suboptimal content validity. The insights gained from this study are important for developing and evaluating policies aimed at improving QoL for the ageing population.

Keywords: ageing well; attitudes; content validity; lay perspectives; older adults; quality of life; survey experiment

Introduction

As a consequence of declining fertility rates and increasing life expectancies, countries around the world are faced with rapidly ageing populations. In Europe, people aged 60 or older are projected to make up more than a third of the population by the year 2050 (United Nations 2017). Against this backdrop, how the growing population of older people constructs their quality of life (QoL) is an important area for research and public policy (compare with Gabriel and Bowling 2004).

The – explicit or implicit – goal of policies is often ultimately to benefit the QoL of (subgroups in) the population (Schuessler and Fisher 1985). This implies that a profound understanding of what QoL entails for the groups targeted is called for when developing or evaluating policies. In preparation of the current study, we assessed how QoL was operationalized in four frequently used measurement instruments developed specifically for older people. When the conceptualizations of QoL in later adulthood underlying such instruments are broadly embraced, they may not only determine how QoL in later adulthood is monitored and how policy measures and interventions are evaluated but also shape what policy makers aim for when designing measures and interventions. Hence, mismatches between how policy makers and middle-aged and older adults define QoL in later adulthood may contribute to policy efforts that do not really benefit the targeted people in a meaningful way. As stated by Bowling and Dieppe (2005: 1550) '[there] is little point in developing policy goals if [older] people do not regard them as relevant'.

Although there is consensus that QoL in later adulthood is a multi-dimensional construct, scholars differ in their perceptions on exactly which dimensions the construct comprises. Content validity, that is, the coverage of all facets of a construct of interest, is a prerequisite for an adequate operational definition of QoL in later adulthood. The current study will shed light on how well several factors that are considered key dimensions of QoL in later adulthood in one or more commonly used instruments correspond with what middle-aged and older laypersons in the Netherlands themselves perceive as constituents of QoL in later adulthood. We fielded a factorial design vignette experiment in which we assessed the extent to which various presumed dimensions of QoL contribute to QoL evaluations of fictitious older persons.

The current study extends the largely exploratory literature on lay perspectives on QoL in later adulthood in multiple ways. Instead of asking respondents to define the components of QoL themselves, as is commonly done (Bowling 1995; Holzhausen et al. 2010; Liu 2006; Wilhelmson et al. 2005), our approach involves presenting them with standardized vignettes. As described in further detail later, these vignettes are descriptions of a fictional third party, where the factors in the descriptions are varied randomly. This method allows for the assessment of the relative impact of the randomized factors on individuals' responses, independent of respondents' own characteristics (Auspurg and Hinz 2015; compare with Whitley et al. 2020). Rather than relying on small non-probability samples, as many exploratory studies of laypersons' perspectives on QoL in later adulthood have tended to do (Holzhausen et al. 2010; Liu 2006; Stenner et al. 2003; Van Leeuwen et al. 2019), we moreover draw on a large population-based sample of 2,544 middle-aged and older laypersons who participated in the Longitudinal

Internet studies for the Social Sciences (LISS) panel in the Netherlands. Hence, the current study combines the internal validity of an experiment with the external validity of a true population sample (Mutz 2011; compare with Scherpenzeel 2011).

Background

Commonly used operationalizations of QoL in later adulthood

Several instruments have been developed to operationalize QoL. Each of these instruments is an operational translation of a specific conceptualization of QoL. As a starting point for the current study, we looked at how QoL was conceptualized in four frequently used instruments developed specifically for older persons: the World Health Organization Quality of Life questionnaire for Older adults (WHOQOL-OLD) (Power et al. 2005), the Older People's Quality of Life questionnaire (OPQOL) (Bowling et al. 2013; Bowling and Stenner 2011), the Control, Autonomy, Self-Realization and Pleasure questionnaire (CASP-19) (Hyde et al. 2003; Wiggins et al. 2008) and the Investigating Choice Experiments for the Preferences of Older People – Capability Index (ICECAP-O) (Coast et al. 2008; Grewal et al. 2006). We selected these scales based on the extent of use rather than, for instance, their foundations in social theory and gerontology, because we intend to evaluate how well the most important instruments of QoL in later adulthood align with the perspectives of the older population they are meant to represent.

The WHOQOL-group of the World Health Organization defines QoL as 'individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns' (WHOQOL Group 1998: 551). The WHOQOL-OLD was developed as an add-on module, to be used together with the WHOQOL-100 or WHOQOL-BREF, and covers QoL facets that are particularly salient for older adults (Power et al. 2005). It is, however, also frequently used as a stand-alone measure (*e.g.* Bilgili and Arpacı 2014; Henriques et al. 2020; Marcos-Pardo et al. 2019; Şahin et al. 2019). The six facets of QoL in later adulthood recognized in the WHOQOL-OLD are: sensory abilities; autonomy; past, present and future activities; social participation; death and dying; and intimacy. The WHOQOL-OLD consists of six subscales, each consisting of four items, to capture the extent to which respondents score favourably on each of these six facets of QoL. The scores on the six subscales can subsequently be summed into a total QoL score (Gobbens and van Assen 2016).

The OPQOL finds its origins not in theoretical frameworks of QoL but in the themes of the questionnaire, which were derived from the perspectives of a sample of older adults which were checked against theoretical models (Bowling 2009; Bowling and Stenner 2011). The original scale consists of 35 statements covering eight central domains: life overall; health; social relationships/leisure and social activities; independence, control over life and freedom; home and neighbourhood; psychological and emotional wellbeing; financial circumstances; and religion/culture. Favourable evaluations of these domains jointly constitute QoL in later adulthood as conceptualized in the OPQOL (Bowling and Stenner 2011). The shorter version of the scale, the OPQOL-brief, consists of 13 items covering all original domains, with the exception of the religion/culture domain (Bowling et al. 2013).

Building on the seminal work of Maslow (1968), the scholars who developed the CASP-19 criticized the state of gerontological research in the twentieth century for having an overly strong focus on basic needs, such as financial independence, and too little consideration for the active and reflexive dimensions of being an older person (Hyde et al. 2003). They argued that QoL in later adulthood should be conceptualized as the extent to which four domains of need are satisfied: control, autonomy, self-realization and pleasure (Hyde et al. 2003). The original scale consists of 19 items, but a 12-item version in which the domains control and autonomy are combined also exists (Wiggins et al. 2008).

The ICECAP-O index stands out as a QoL measure by focusing on capability, that is, the opportunities for individuals to pursue what they consider to be important in life (Grewal et al. 2006). Hence, the emphasis lies on appraising what a person can potentially achieve rather than solely focusing on their actual accomplishments. Specifically, the ICECAP-O defines QoL in later adulthood as the ability to achieve having attachment, role, enjoyment, security and control (Coast et al. 2008; Grewal et al. 2006). For each of the five capabilities considered, respondents can indicate their capability on a four-point scale, and from these responses a total index score based on tariffs computed by Coast et al. (2008) can be calculated.

Dimensions of QoL in later adulthood

Although the various instruments described in the previous section reflect different conceptualizations of QoL, they also have overlapping dimensions. We employed an iterative approach to develop the vignettes for the current study, starting with an analysis of the dimensions from the WHOQOL-OLD, OPQOL, CASP-19 and ICECAP-O. In a back-and-forth process between both authors, the dimensions were continually refined and revisited until a final set of 11 dimensions was arrived at: (1) enjoyment, (2) autonomy, (3) sensory functioning, (4) social relationships, (5) social participation, (6) financial security, (7) secure living environment, (8) absence of fear of death, (9) psychological resilience, (10) self-realization and (11) control. We aim to evaluate the extent to which these 11 presumed constituents of QoL contribute to QoL in later adulthood as perceived by middle-aged and older laypersons in the Netherlands.

Enjoyment matters for ageing as it enhances overall wellbeing and gives meaning to daily life. Engaging in activities that spark joy – such as socializing, hobbies and outdoor experiences – fosters independence, boosts mental and physical health, and helps maintain a positive outlook on ageing (Borglin et al. 2005; Jarosz 2022; Van Leeuwen et al. 2019). The ability to have the enjoyment and pleasure one wants is one of the attributes of QoL recognized in the ICECAP-O (Coast et al. 2008; Grewal et al. 2006). This corresponds closely with the pleasure domain in CASP-19, where pleasure is seen as an active process of being human and involves engaging in activities that bring happiness (Higgs et al. 2003; Hyde et al. 2003). Similarly, Bowling et al. (2013; compare with Bowling and Stenner 2011) consider enjoyment of life as a key aspect of QoL in the OPQOL, by asking about whether one enjoys life overall and whether one still has things to look forward to.

Autonomy, that is, older people's ability to maintain independence and make their own decisions, can contribute to a sense of freedom and dignity. People strive to remain in control, as dependency on others can negatively affect self-esteem and wellbeing (Borglin et al. 2005; Van Leeuwen et al. 2019). All four QoL instruments highlight the importance of autonomy, albeit using different labels. The attribute labelled control in the ICECAP-O instrument, for instance, 'involves being independent and able to make one's own decisions' (Grewal et al. 2006: 1897). Similarly, the facet labelled autonomy in WHOQOL-OLD is about independence in later adulthood and refers to the extent to which one is able to live autonomously and take one's own decisions (Gobbens and van Assen 2016; Power et al. 2005). The domain labelled autonomy in CASP-19 entails freedom from the unwanted interference of others (Hyde et al. 2003).

Impairment or loss of sensory functions becomes more prevalent with age. Aside from the direct consequences, such as difficulty with daily tasks, it may also indirectly impact QoL by contributing to issues like loss of independence and social isolation (Tseng et al. 2018). The link between independence and health is also emphasized by Grewal et al. (2006). Relatedly, Bowling et al. (2013) highlighted that being healthy enough to have one's independence and to get out and about were considered the most important in a set of 35 items related to QoL according to the laypersons who participated in the workshops based on which the brief version of the OPQOL scale was developed. Hyde et al. (2003) also included an item in the CASP-19 about health as a potential barrier to autonomy. The WHOQOL-OLD furthermore considers sensory functioning to be a separate facet of QoL, distinct from the autonomy facet (Power et al. 2005).

Meaningful connections and social interactions can help reduce loneliness, improve mental and physical health, and provide emotional support (Bergland and Narum 2007; Krause 2006; Luong et al. 2011). The ICECAP-O, OPQOL and the WHOQOL-OLD all recognize various aspects of satisfactory social relationships as constituents of QoL. The ICECAP-O attribute 'attachment' 'incorporates feelings of love, friendship, affection and companionship' (Grewal et al. 2006: 1897). The OPQOL contains items related to having social contact and social support, as well as to receiving love and affection, under the domain 'social relationships/leisure and social activities' (Bowling 2009; Bowling et al. 2013; Bowling and Stenner 2011). The intimacy facet included in the WHOQOL-OLD refers to 'opportunities for companionship and love' (Peel et al. 2007: 163).

Like social relationships, active social participation matters in the ageing process as it provides opportunities for engagement and a sense of purpose. This can help in combatting challenges associated with ageing, such as the loss of connections, and enhance mental health as well as physical health (Bergland and Narum 2007; Levasseur et al. 2009). The OPQOL and the WHOQOL-OLD explicitly highlight social participation as an element of QoL. Social participation is one of the facets of QoL included in the WHOQOL-OLD and it 'addresses satisfaction with level of activity and opportunity for community engagement' (Peel et al. 2007: 163). Similarly, the OPQOL domain 'social relationships/leisure and social activities' contains items that focus on participating in social activities, hobbies, and paid or voluntary activities that give one a role in life (Bowling et al. 2013; Bowling and Stenner 2011). This, in turn, is closely linked to the

ICECAP-O attribute 'role', which is focused on the ability to do activities that make one feel valued (Coast et al. 2008).

Also shared among multiple conceptualizations of QoL are various aspects of security. Feeling secure is important for reducing stress and maintaining overall wellbeing as people age. However, studies have shown that worry tends to increase with age, and that these worries might decrease life satisfaction and can hinder a fulfilling later life (Brock et al. 2011; Graham 2003). Security is one of the five attributes of QoL in the ICECAP-O instrument, with Grewal et al. (2006: 1897) defining it as '[incorporating] ideas of feeling safe and secure, not having to worry and not feeling vulnerable'. They furthermore highlighted people's financial situation as a key factor shaping security. Adequate financial circumstances is also one of the domains of QoL considered in the OPQOL (Bowling 2009; Bowling and Stenner 2011). In addition to financial security, the OPQOL recognizes feeling safe in one's living environment as an aspect of QoL (Bowling 2009; Bowling and Stenner 2011). Being free of concerns, worries and fears about death and dying is considered an important element of QoL in the WHOQOL-OLD (Power et al. 2005).

Of the four QoL instruments considered, the OPQOL is the only one that conceptualizes QoL in later adulthood as also entailing psychological resilience. Psychological resilience, that is, the ability to bounce back from adversity, may be important for older adults' QoL because they frequently encounter age-related adversities (Cosco et al. 2017). The OPQOL questionnaire captures resilience within the dimension 'psychological and emotional well-being' by examining respondents' tendency to embrace challenges with optimism and resourcefulness (Bowling 2009; Bowling and Stenner 2011). Through items such as 'If my health limits social/leisure activities, then I will compensate and find something else I can do', it measures the capacity to remain optimistic and stay flexible in the face of challenges.

Self-realization may be important in later adulthood because it can provide people with a renewed sense of purpose beyond work and family responsibilities. As people grow older, pursuing new experiences, striving for personal growth and finding meaningful goals helps them stay engaged and fulfilled (Lulle and King 2023; Reichstadt et al. 2010). Both the WHOQOL-OLD and CASP-19 consider self-realization to be a constituent of QoL. In CASP-19, self-realization is described as the active and reflexive process of being human (Hyde et al. 2003). Within this domain, CASP-19 emphasizes personal satisfaction and accomplishment. Self-realization involves being open to developing new interests, as well as being open to new experiences. It entails recognizing and striving to reach one's potential and feeling fulfilled in personal growth and development (Higgs et al. 2003). Within the 'self-realization' domain, there is an item about experiencing that life is still full of opportunities. Relatedly, the WHOQOL-OLD domain 'past, present and future activities' contains an item about how satisfied one is with the amount of opportunities one gets (Power et al. 2005). Both questionnaires thus consider the importance of engaging in new opportunities and feeling fulfilled in personal development.

Lastly, as people age, the ability to maintain control over their lives – whether through managing daily activities or through making decisions about their care – can become a key factor in preventing feelings of helplessness and a diminished sense of

self-worth (Haak et al. 2007; Van Leeuwen et al. 2019). Control is considered an element of QoL in CASP-19 and OPQOL. In CASP-19, it is described as the ability to actively intervene in one's environment (Hyde et al. 2003), whereas in OPQOL it is described as having control over the important things in life (Bowling 2009; Bowling and Stenner 2011). Both domains refer to older people feeling that they still have control over the things that happen to them and to them maintaining the ability to do what they want.

Quality of life as a dynamic construct

As emphasized by Whitley et al. (2020), who explored what laypeople in the United Kingdom considered to be important for ageing well, it is important to recognize that older people's attitudes may continue to change as they age. Similar to the related concept of successful ageing (Badache et al. 2023), QoL is a dynamic construct, which means that people can change the standards by which they assess it (Allison et al. 1997). Consequently, definitions of what constitutes QoL may not be stable over the lifecourse (Carr et al. 2001; compare with Whitley et al. 2020).

Deeg (2007) argued that the uncomfortable experience of mental incongruence may manifest itself when older persons lose aspects of life that they continue to consider to be important dimensions of QoL. She argued that this, in turn, calls for cognitive adjustment to new situations that cannot be changed, which is likely to come in the form of downgrading the importance assigned to the aspect of life that is lost (compare with Carr et al. 2001) and assigning increased meaning to other aspects of life. In line with this reasoning, her analyses of within-person changes over a six-year period in the importance assigned to various aspects of life indicated that the importance that older persons assigned to physical health decreased with increasing age, whereas aspects like meaningful spending of time and having an adequate income and good housing were increasing deemed to be important as people aged (Deeg 2007). Qualitative work furthermore suggested that age-related health declines may lead to a growing recognition of joy and satisfactory family and social relationships, as constituents of QoL (Prieto-Flores et al. 2010). In contrast to these findings, Whitley et al. (2020) found, however, that, compared to their younger counterparts, older people assigned more, rather than less, importance to physical function for ageing well. The authors suggested that impactful problems that are relatively likely to occur in older age groups are sometimes trivialized by people in younger age groups in which these problems are less common.

In the current study, we aim to assess the extent to which each of the 11 presumed dimensions of QoL that have been discussed in this subsection contributes to QoL in the perspective of laypersons aged 50+ in the Netherlands. We acknowledge that people's perceptions of what constitutes QoL may differ between age groups.

Data and methods

Participants

The current study's vignette experiment was fielded among respondents aged 50+ of the Dutch LISS panel (Scherpenzeel 2011). Statistics Netherlands drew a random

sample of independent, private households in the Netherlands, whereby people living in institutions and other forms of collective households were excluded. The LISS panel has been maintained by Centerdata at Tilburg University since 2007. The panel consists of 5,000 households in the Netherlands, comprising approximately 7,500 individuals aged 16+. For households that would otherwise be unable to take part, a basic computer and internet access are provided. Every month, panel members fill out online questionnaires and receive a financial incentive for each questionnaire completed. Since the initiation of the panel, Statistics Netherlands has drawn seven refreshment samples for the LISS panel, most recently in 2023, that were added to the panel over the years to account for attrition and sample ageing and maintain optimal representativeness.

Our vignette experiment was presented to LISS panel members in the autumn of 2023, as part of a question battery that also included a list experiment on loneliness in mid-life and later adulthood (cf. Van den Broek et al. 2024). A random sample of 2,848 panel members aged 50+ was drawn and these members were invited to participate in the module containing our vignette experiment. The arbitrary cut-off at age 50 for defining middle-aged and older panel members is in line with prior large research endeavours in gerontology, such as the Survey of Health, Ageing and Retirement in Europe (Börsch-Supan et al. 2013). The number of LISS respondents who completed the vignette experiment was 2,544 (participation rate: 89.3%). Although we did not ourselves collect socio-demographic information from our survey participants, such information was supplied by Centerdata from the LISS dataset. An overview of key socio-demographic background characteristics of the participants in the current study is presented in Table 1. As explained in further detail later, some of the analyses presented here will be stratified by age group. Therefore, age group specific descriptive statistics are also presented in Table 1, in addition to descriptives for the full analytical sample.

Outcome variable and vignette dimensions

In the current study's vignette, we presented a short interview with a fictitious woman in her early 70s. Several aspects of the interview were manipulated experimentally. After being presented with the fictitious interview, respondents were asked how they rated the QoL of the fictitious interviewee on a scale ranging from 1 (very poor) to 10 (excellent). This rating is our outcome variable.

The presented fictitious interviews that respondents were asked to base the QoL ratings upon consisted of nine questions. On every question, there were multiple response options that reflected either favourable or unfavourable positions on one or more of the 11 dimensions that we identified in the literature as potentially important dimensions of QoL. Per question, it was assigned randomly which response was presented. Table 2 provides an overview of the operational definitions of the 11 dimensions captured in the vignette, with each dimension having two levels (favourable versus unfavourable). In addition to the responses to the questions in the fictitious interview, the name and age of the fictitious interviewee was also randomly assigned, with the options being 'Anna (74 years old)' and 'Lia (73 years old)'.

Table 1. Sample characteristics

	Full sample		Age 50–59 subsample		Age 60–69 subsample		Age 70+ subsample	
	%	(N)	%	(N)	%	(N)	%	(N)
Age category:								
50–59 years old	26.0	(661)						
60–69 years old	33.7	(858)						
70+ years old	40.3	(1025)						
Gender:								
Male	49.8	(1266)	46.0	(304)	49.0	(420)	52.9	(542)
Female	50.2	(1277)	53.9	(366)	51.1	(438)	47.1	(483)
Other	0.0	(1)	0.2	(1)	0.0	(0)	0.0	(0)
Educational attainment:								
Lower secondary or less	30.0	(762)	20.0	(132)	27.9	(239)	38.2	(391)
Higher secondary or lower tertiary	32.7	(833)	42.2	(279)	33.0	(283)	26.4	(271)
At least higher tertiary	37.2	(945)	37.5	(248)	39.2	(336)	35.2	(361)
Unknown	0.2	(4)	0.3	(2)	0.0	(0)	0.2	(2)
Marital status:								
Married	62.9	(1600)	62.0	(410)	68.1	(584)	59.1	(606)
Separated or divorced	14.8	(377)	15.6	(103)	15.4	(132)	13.9	(142)
Widowed	10.0	(254)	1.7	(11)	4.1	(35)	20.3	(208)
Never married	12.3	(313)	20.7	(137)	12.5	(107)	6.7	(69)
Number of respondents	2544		661		858		1025	

Notes: Data are from LISS panel; N: number of respondents.

Table 2. Vignette dimensions

Question	Favourable	Unfavourable	QoL dimension	Details
How do you usually feel when you get up in the morning?	I look forward to each day.	I start most days with a sense of reluctance.	Enjoyment	Enjoyment refers to the ability to have the enjoyment and pleasure one wants and considers whether one is able to enjoy life overall and still has things to look forward to (Bowling and Stenner 2011; Coast et al. 2008).
Are you physically able to independently perform all domestic chores, such as cleaning?	Yes, I am quite well able to keep my house clean myself.	For some household tasks, such as cleaning, I have to rely on help from others, because this is too physically demanding for me.	Autonomy	In previous research, older people have expressed a wish to exercise their autonomy by doing things alone and by being able to complete (some) daily activities on their own (Hillcoat-Nallétamby 2014). Household tasks such as cleaning are examples of such daily activities.
How is your hearing and eyesight?	I see and hear well.	I can see fine, but due to hearing loss I sometimes miss parts of conversations.	Sensory functioning	Sensory impairments are one of the most common chronic conditions in later adulthood, with hearing loss affecting approximately 2/3 of adults aged 70+ and 4/5 of adults aged 85+ (Schneck et al. 2012).
Do you see your friends and relatives often?	Yes, fortunately I regularly have a cup of coffee together with friends or family members.	No, I don't see my friends and family members as often as I would like.	Social relationships	Frequency of contact with loved ones, such as friends and family, is positively linked to good health and longevity. However, the size of social networks and the frequency of social contacts change over time (Sander et al. 2017).
Are you active within a club or association?	Yes, I enjoy going to a card playing club every week.	No, I do not participate in any club or organization, and I feel bored regularly.	Social participation	Social participation concerns engagement with the community and participation in social activities and hobbies (Bowling et al. 2013; Peel et al. 2007). Playing games fulfils a social role for older individuals and stimulates them to engage with others (Michèle et al. 2019).

(*Continued*)

Table 2. (*Continued.*)

Question	Favourable	Unfavourable	QoL dimension	Details
Do you sometimes worry?	No, I rarely worry about things.[a]	Yes, I sometimes worry about how to pay my bills.	Financial security	Worrying about being able to meet living expenses is generally considered to be the most central element of financial distress (Garman and Sorhaindo 2005).
		Yes, I sometimes worry about safety in my neighbourhood.	Secure living environment	Secure living environment concerns feeling safe in your living environment (Bowling et al. 2013; Bowling and Stenner 2011).
		Yes, I sometimes worry about death.	Absence of fear of death	Absence of fear of death refers to feeling free of worries and fear about death and dying (Power et al. 2005).
How do you deal with setbacks?	I take life as it comes and try to make the best of it, even in the face of setbacks.	When faced with setbacks, I often just give up.	Psychological resilience	Resilience is often described as the process of adapting to or recovering from an adversity. Assets and resources facilitate this process. With ageing, the experiences of resilience and the availability of these assets and resources can vary, potentially affecting the healthy ageing process (Windle 2011).
Are there still new things to look forward to at your age?	Absolutely, at my age there is still plenty to learn and discover.	Well, at my age there is little left to learn and discover.	Self-realization	Self-realization involves being open to new interests and new experiences. It is about still feeling that life is full of opportunities (Higgs et al. 2003; Power et al. 2005).
Do you believe that you can have a lot of influence on what your future looks like?	Yes, I feel like I can largely determine my own future.	No, I feel like I have little influence over my future.	Control	Control refers to the feeling that people still have control over the things that happen to them and that they maintain the ability to do what they want (Bowling and Stenner 2011; Hyde et al. 2003). Thus, it can be translated as feeling that one still has control over one's own future.

[a]Multiple dimensions were covered simultaneously by this question (i.e., financial security, secure living environment, and absence of fear of death). The favourable response ('No, I rarely worry about things') was used for all three of these dimensions. Unfavourable responses on one particular dimension were considered as favorable response on the other domains, as no explicit worries in these domains were mentioned.

Below is a transcript of a short interview with Lia (73 years old).

How do you usually feel when you get up in the morning?
I look forward to each day.
Are you physically able to independently perform all domestic chores, such as cleaning?
Yes, I am quite well able to keep my house clean myself.
How is your hearing and eyesight?
I can see fine, but due to hearing loss I sometimes miss parts of conversations.
Do you see your friends and relatives often?
No, I don't see my friends and family members as often as I would like.
Are you active within a club or association?
Yes, I enjoy going to a card playing club every week.
Do you sometimes worry?
Yes, I sometimes worry about how to pay my bills.
How do you deal with setbacks?
I take life as it comes and try to make the best of it, even in the face of setbacks.
Are there still new things to look forward to at your age?
Well, at my age there is little left to learn and discover.
Do you believe that you can have a lot of influence on what your future looks like?
No, I feel like I have little influence over my future.

How would you rate the quality of life of Lia on a scale from 1 (very poor) to 10 (excellent)?

Figure 1. Example of a vignette presented to respondents.

Figure 1 provides an example of a fictitious interview such as those presented to the respondents.

Analytical strategy

We presented two vignettes to each respondent whereby we constrained the second vignette so as to not have any overlap with the first vignette, to make the fictitious interviews as realistic as possible. Given that most questions in the fictitious interview had two response options (see Table 2), presenting more than two vignettes would have resulted in overlaps between vignettes, which plausibly would have undermined the extent to which the respondents empathized with the fictitious interviewees. It is not uncommon to ask respondents to rate multiple vignettes in order to maximize statistical power (*e.g.* Fleischmann and Koster 2018; Karpinska et al. 2011; Oude Mulders et al. 2018; Whitley et al. 2020), but asking respondents to rate two fictitious interviewees meant that the observations in the current study were not independent (Wallander 2009). Following prior work (*e.g.* McDonald 2020; Oesch et al. 2017; Van Houdt et al. 2018), we adopted an individual fixed-effects approach to account for this issue. We analyzed within-person differences in the QoL ratings assigned to the vignette scenarios with a model that can be denoted as follows:

$$\ddot{y}_{ij} = \beta_1 \ddot{x}_{1ij} + \ldots + \beta_k \ddot{x}_{kij} + \varepsilon_{ij} \tag{1}$$

where

$$\ddot{y}_{ij} = y_{ij} - \bar{y}_i \tag{2}$$

and

$$\ddot{x}_{kij} = x_{kij} - \bar{x}_{ki} \tag{3}$$

Equations 2 and 3 indicate that for both the outcome variable y (QoL rating) and the explanatory variables x_i–x_k (the vignette dimensions), we deducted the mean score for individual i over the two vignette scenarios presented to this respondent from the score for individual i on vignette number j. This procedure implies that in Equation 1 we regressed intra-individual variation in QoL ratings on intra-individual variation on the k dimensions of the presented vignette scenarios. Consequently, all characteristics of respondents i were accounted for, regardless of whether these characteristics could be observed (Allison 2009). The observation-specific error term is denoted with ε_{ij}. All models were estimated with cluster robust standard errors to account for the nested nature of our data (White 1980). Formal tests of differences between the coefficient estimates $\beta_1 \ldots \beta_k$were subsequently performed using the `lincom` command in Stata 18.0.

To assess whether the estimated QoL contributions of the dimensions considered varied as a function of the age of respondents, we re-estimated our fixed-effects models stratified by age group (50–59 years old; 60–69 years old; 70+ years old). Although arbitrary, this age group classification in ten-year bandwidths is in line with prior studies in gerontology (*e.g.* Harling et al. 2020; Ryan et al. 2018). An additional pooled fixed-effects model was estimated in which every term was interacted with age category to determine whether the age group differences in the coefficient estimates were statistically significant (compare with Van den Broek and Fleischmann 2022).

The current study was assessed and approved by the Research Ethics Review Committee of the Erasmus School of Health Policy and Management at Erasmus University Rotterdam (reference: ETH2324-0130). A replication package with instructions on how to access the data, as well as annotated Stata code for the data preparation and all analyses presented here, is available on the Open Science Framework at https://osf.io/abx7r.

Results

Results of the fixed-effects regression analyses are presented in Table 3. The first model presented in Table 3 was estimated on the full analytical sample. With the exception of the name of the interviewee in the fictitious scenario, for which we did not expect any effect, all experimentally manipulated dimensions in the vignette were associated with statistically significant changes in the expected direction in the QoL evaluations. Substantial differences between dimensions in the magnitude of the contribution to QoL could, however, be noted. Figure 2 gives an overview of the contribution to the QoL ratings of the various dimensions ranked by estimated magnitude.

We performed formal tests of differences in the coefficient estimates for all combinations of dimensions (for full results, see Appendix A in the supplemental material). Most importantly, the results showed that enjoyment and social participation had a significantly stronger impact on the QoL ratings than any of the other nine dimensions considered. Enjoyment furthermore had a significantly stronger estimated QoL impact than social participation. The dimensions with the smallest estimated QoL impact were sensory functioning and having a secure living environment. Both of these dimensions had a significantly smaller QoL impact than any of the nine other dimensions considered in the model.

Table 3. Results of fixed-effects regression analyses of quality-of-life ratings

	Full sample		Age 50–59 subsample		Age 60–69 subsample		Age 70+ subsample	
	Coeff.	(CI)	Coeff.	(CI)	Coeff.	(CI)	Coeff.	(CI)
Quality-of-life dimension:								
Enjoyment	0.911***	[0.853,0.968]	0.931***	[0.821,1.041]	0.987***c	[0.887,1.087]	0.833***b	[0.741,0.925]
Autonomy	0.420***	[0.363,0.478]	0.392***	[0.283,0.502]	0.426***	[0.326,0.526]	0.428***	[0.335,0.521]
Sensory functioning	0.183***	[0.126,0.241]	0.033bc	[−0.077,0.144]	0.286***a	[0.187,0.385]	0.205***a	[0.113,0.297]
Social relationships	0.574***	[0.517,0.632]	0.589***	[0.479,0.700]	0.590***	[0.490,0.689]	0.549***	[0.457,0.641]
Social participation	0.752***	[0.694,0.809]	0.770***	[0.661,0.879]	0.725***	[0.626,0.823]	0.759***	[0.668,0.851]
Financial security	0.518***	[0.416,0.621]	0.460***	[0.267,0.653]	0.616***	[0.435,0.796]	0.451***	[0.289,0.612]
Secure living environment	0.196***	[0.099,0.293]	0.218*	[0.036,0.400]	0.239**	[0.067,0.411]	0.157*	[0.002,0.311]
Absence of fear of death	0.318***	[0.221,0.416]	0.249**	[0.066,0.431]	0.471***	[0.305,0.638]	0.219**	[0.062,0.376]
Psychological resilience	0.473***	[0.416,0.530]	0.479***	[0.370,0.588]	0.527***c	[0.428,0.625]	0.422***b	[0.332,0.513]
Self-realization	0.576***	[0.518,0.633]	0.497***c	[0.388,0.606]	0.505***c	[0.406,0.604]	0.691***ab	[0.598,0.784]
Control	0.402***	[0.345,0.459]	0.404***	[0.293,0.515]	0.365***	[0.265,0.465]	0.424***	[0.333,0.516]
Name in scenario:								
Lia (73 years old)	Ref.		Ref.		Ref.		Ref.	
Anna (74 years old)	−0.002	[−0.060,0.055]	0.041	[−0.069,0.151]	−0.025	[−0.124,0.074]	−0.023	[−0.116,0.069]
R^2 (within)	.572		.575		.588		.571	
Number of observations	5088		1322		1716		2050	
Number of respondents	2544		661		858		1025	

Notes: Data are from LISS panel; models estimated with robust standard errors; Coeff.: coefficient; CI: 95% confidence interval.
[a]The coefficient estimate differs significantly ($p < 0.05$) from the corresponding coefficient estimate in the model for the age 50–59 subsample.
[b]The coefficient estimate differs significantly ($p < 0.05$) from the corresponding coefficient estimate in the model for the age 60–69 subsample.
[c]The coefficient estimate differs significantly ($p < 0.05$) from the corresponding coefficient estimate in the model for the age 70+ subsample.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

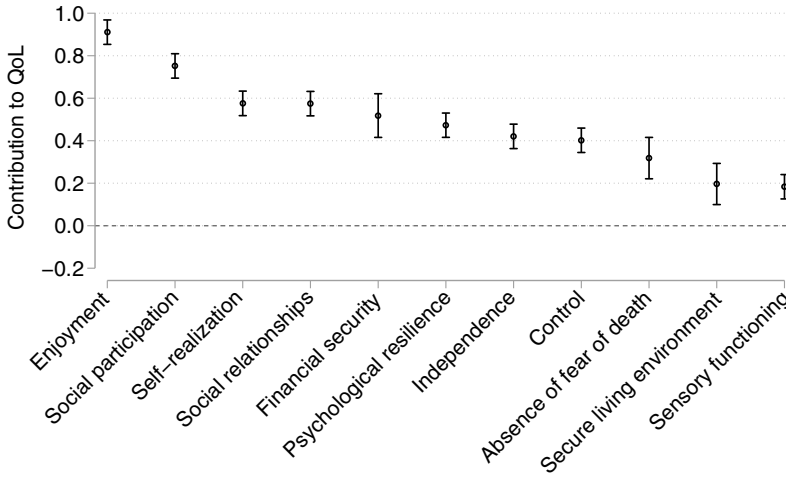

Figure 2. Estimated contribution to quality of life by dimension.

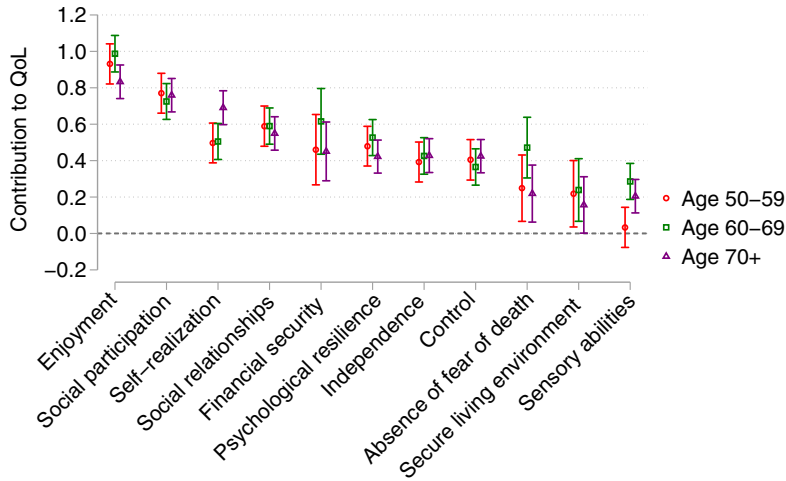

Figure 3. Estimated age-group-specific contribution to quality of life by dimension.

As indicated in the subsection on the analytical strategy, we re-estimated the fixed-effects model stratified by age group. The results of the analyses for the age 50–59, age 60–69 and age 70+ subgroups are presented in the second, third and fourth models in Table 3, respectively. A few systematic differences between the three age groups could be noted in the magnitude of the estimated effects. Specifically, self-realization contributed more to the QoL ratings among respondents aged 70+ than among their counterparts who were 50–59 years old (Δb: −0.194; 95% CI: −0.337, −0.050; $p < 0.01$) or 60–69 years old (Δb: −0.186; 95% CI: −0.321, −0.050; $p < 0.01$). Respondents aged 60–69 (Δb: 0.252; 95% CI: 0.105, 0.400; $p < 0.01$) and 70+ (Δb: 0.171; 95% CI: 0.028,

0.314; $p < 0.05$) rated sensory abilities as more important for QoL than did respondents who were 50–59 years old. Finally, enjoyment (Δb: −0.154; 95% CI: −0.290, −0.019; $p < 0.05$) and psychological resilience (Δb: −0.252; 95% CI: −0.481, −0.024; $p < 0.05$) were less important for QoL in the model for people aged 70+ than in the model for their counterparts who were 60–69 years old.

Regardless of these differences, it is important to note that, overall, the results were remarkably similar across the three age groups considered. This is clearly illustrated in Figure 3. The strong degree of similarity across age groups in the coefficients for the various dimensions suggests a high level of consensus in what middle-aged and older people perceive as important dimensions of QoL in later adulthood.

Discussion

For the current study, we identified 11 dimensions that were deemed constituents of QoL in at least one of four commonly used instruments of QoL in later adulthood (WHOQOL-OLD; CASP-19; OPQOL; ICECAP-O) and fielded a factorial design vignette experiment to assess the extent to which these dimensions shaped how laypersons aged 50+ rated the QoL of fictitious older women. Our results may shed light on the content validity of the four QoL instruments considered, that is, on the extent to which these instruments capture all facets of QoL in later adulthood. Generally, the dimensions covered by common QoL instruments align well with what our respondents intuitively associated with better QoL in later adulthood, as all 11 dimensions were, to a varying extent, significantly associated with changes in the QoL ratings in the expected direction. However, none of the four instruments considered cover all 11 dimensions included in our vignette experiment. We will elaborate on some notable omissions next.

Enjoyment was the dimension with the largest contribution to the QoL ratings in our vignette experiment. This may be because enjoyment is the broader experience of engaging in meaningful and pleasurable possibilities in life, which can overlap or even transcend other dimensions. Jarosz (2022) found that enjoyable daily activities can enhance overall wellbeing and reduce stress. She concluded that enjoyment is not about specific activities but about finding joy in various possibilities in life and the amount of pleasure one experiences. As such, the ability to find joy in everyday moments may help compensate for losses in other areas, making enjoyment a fundamental driver of QoL in later adulthood. However, in contrast to CASP-19, OPQOL and ICECAP-O, the WHOQOL-OLD does not include any items capturing enjoyment. Although the WHOQOL-OLD is frequently used as a stand-alone instrument (*e.g.* Bilgili and Arpacı 2014; Henriques et al. 2020; Marcos-Pardo et al. 2019; Şahin et al. 2019), it should be noted that it was developed as an add-on module to be used together with either the WHOQOL-100 instrument or its shorter version, WHOQOL-BREF (Power et al. 2005). The WHOQOL-100 and WHOQOL-BREF were developed to measure QoL in the general population and both measures do include items about enjoying life (WHOQOL Group 1998). Our findings suggest that caution is called for when using the WHOQOL-OLD as a stand-alone measure because it may have suboptimal content validity when not used in combination with the WHOQOL-100 or WHOQOL-BREF.

In line with prior work (Farquhar 1995; Van Leeuwen et al. 2019; Whitley et al. 2020), satisfactory social relationships and social participation both had a strong positive impact on the QoL evaluations reported here. Plausibly, social participation was one of the strongest contributors to QoL in later adulthood owing to its broad impact. Social participation allows older adults to stay engaged, maintain meaningful interactions and find new social roles (Jarosz 2022), and it can foster resilience, psychological security and a sense of purpose (Dahan-Oliel et al. 2008; Jarosz 2022; Li et al. 2023). Yet, CASP-19 does not include any items that correspond with the dimensions of social participation or social relationships. The ICECAP-O, in turn, lacks items for other dimensions with substantial contributions to the QoL ratings, such as financial security.

The omission in CASP-19 and the ICECAP-O of dimensions that, in our analyses, are strong contributors to QoL evaluations is plausibly related to the rationale underlying these measures of QoL. Both the ICECAP-O and CASP-19 aim to make a sharp distinction between constituents and antecedents of QoL (Coast et al. 2008; Grewal et al. 2006; Higgs et al. 2003; Hyde et al. 2003). For example, the scholars who developed the ICECAP-O consider the ability to feel secure, safe and free from the need to worry an attribute of QoL, whereas the conditions that may shape this ability are explicitly not considered to be aspects of QoL (Grewal et al. 2006). Hence, the reason not to include items about, for instance, financial strain in the ICECAP-O plausibly was that, in the conceptualization of the scholars who developed the instrument, the inability to stay free from worry is an attribute of suboptimal QoL, but the reasons for worrying, such as concerns about one's financial situation or fear of death or dying, are irrelevant. It is worth pointing out, however, that the results presented here show that worries about the ability to pay bills were significantly more detrimental to ratings of QoL in later adulthood than were worries about death and dying or about the security of one's living environment. When determining the 11 dimensions for our models, we focused primarily on condensing the main elements of the four instruments considered, rather than on making a sharp distinction between constituents and antecedents. This choice was also made because this distinction can be somewhat arbitrary. This is illustrated by the fact that attachment, that is, having satisfactory social relationships, is considered a central attribute of QoL in the ICECAP-O (Coast et al. 2008; Grewal et al. 2006), whereas the scholars who developed the CASP-19 consider it to be an antecedent, rather than a constituent, of QoL (Wiggins et al. 2004).

By estimating age-stratified models, the current study also shed light on differences between age groups in the perceived constituents of QoL in later adulthood. By doing this, we acknowledged that QoL arguably is a dynamic construct (Allison et al. 1997; Farquhar 1995). Results showed some differences in the extent to which evaluated dimensions were considered to be constituents of QoL in later adulthood. For instance, respondents in the two oldest age groups associated sensory functioning more strongly with QoL in later adulthood than did their counterparts in the youngest age group. Possibly, this may reflect that people in the oldest age groups are more likely to have experienced declines in sensory abilities (Roth et al. 2011) and that they reconsidered the value they ascribed to sensory functioning in response to these lived experiences (compare with Whitley et al. 2020). On the other hand, the finding that self-realization contributed more to the QoL ratings among respondents aged

70+ than among their counterparts in the younger age groups may, in line with the mental incongruence mechanism described by Deeg (2007), reflect that people may, as they age, increasingly value aspects like meaningful spending of time in response to ageing-related physical declines. Overall, however, the results of the three age-stratified models were remarkably similar. This strong degree of similarity in the coefficients for the various dimensions suggests a high level of consensus across age groups in what middle-aged and older people perceive as being important dimensions of QoL in later adulthood.

Several limitations of the current study should be considered. Although the LISS panel is based on a true population sample, selective non-response and panel attrition resulted in a sample with characteristics that differ somewhat from the population of the Netherlands on several relevant markers. Most notably, women and people with high educational attainment are overrepresented somewhat in the LISS panel (Klein Kranenburg and Zandvliet 2022). However, additional analyses showed few differences by gender and by level of education in the coefficient estimates for the 11 dimensions of interest (for results, see Appendix B and Appendix C in the online supplemental material). We thus expect that the impact of the selectivity of our sample on the results reported here is very limited.

It should also be considered that we presented interviews with two fictional women who both had a name that was very common in the 1950s and who were approximately the same age. The rationale is that the respondents perceived the two fictional interviewees as different persons, but that the only truly meaningful differences were the experimentally manipulated dimensions of our theoretical interest. The drawback of this choice is that our results may not correspond fully with what are considered important dimensions of QoL in later adulthood for men. An interesting avenue for future research may thus be to assess potential variation by gender of the fictional interviewee in the importance assigned to the QoL dimensions included in vignette studies such as ours. In factorial design vignette experiments such as those fielded for the current study, respondents are furthermore asked to evaluate fictitious scenarios under the assumption that their evaluations capture what would be the real-life implications of the attributes in the scenario (compare with Wallander 2009). This assumption may not hold when there is a large gap between the respondents' actual experiences and the situations or characters they are asked to imagine (Hughes and Huby 2002). If respondents find it difficult to relate to or accurately assume the situations of vignette characters, their responses may not genuinely reflect their true attitudes. To minimize this risk, maximizing relatability and comprehensibility were among the main criteria for us when designing the experiment. Moreover, the experiment was pre-tested prior to being fielded.

A third limitation is that the process that led to the selection of the 11 dimensions included in the current study's vignettes forced us to make choices that could be considered arbitrary. First, we restricted our focus to four frequently used QoL instruments developed specifically for older adults, and we did not consider measures of the related concept health-related quality of life (HRQoL). Measures of HRQoL tend to have a narrow focus and Karimi and Brazier (2016) argued that these measures often effectively capture little more than respondents' self-rated health status. Our point of departure was that important constituents of QoL may well be situated in life domains

other than health, and this premise corresponded better with the four QoL instruments considered here. Second, we had to collapse the dimensions of QoL considered into a smaller set of main dimensions. Maintaining each dimension of all four instruments considered was unfeasible; it would have led to overly lengthy vignette scenarios that increased the risk for respondent fatigue and consequently may have undermined the reliability of the findings (compare with Wallander 2009). As described in the section on data and methods, we distilled the main dimensions that the current study focused on in a joint iterative process. The fact that we found that all 11 dimensions were significantly associated with changes in the QoL ratings in the expected direction strengthens us in our view that we indeed identified key constituents of QoL in later adulthood. Nevertheless, we did not consult with a broader team of scholarly experts who might have provided valuable insights, and we do not claim to be comprehensive with regard to the dimensions covered. Van Leeuwen et al. (2019), for instance, suggested that feeling attached to and experiencing faith and self-development from beliefs, rituals and inner reflection is an important aspect of QoL for specific subgroups of older people, and the full – but not the shortened – version of the OPQOL scale accordingly contains items about culture and religion (Bowling 2009; Bowling et al. 2013). Scholars may therefore want to build on the current study and field experiments in which the importance of cultural and spiritual dimensions or other presumed constituents of QoL not considered here is assessed.

The estimated QoL contributions of the various dimensions included in our vignettes might moreover have been influenced by how well the operationalizations captured them, and by the perceived severity of the elements included in these operational definitions (compare with Whitley et al. 2020). For example, we operationalized a suboptimal position on the sensory functioning dimension as having hearing loss, rather than, for instance, blindness. The relatively small coefficient of the sensory function dimension may reflect the choice to operationalize it with this arguably less severe sensory limitation. It should be noted, however, that, as much as possible, we based our operationalizations on items included in the four scales of QoL in later adulthood considered in the background section. Furthermore, it is worth highlighting that our results are generally consistent with prior exploratory work on what laypersons consider most important for QoL in later adulthood or ageing well. Van Leeuwen et al.'s (2019) review of the qualitative literature on older persons' perspectives on the meaning of QoL suggested that what people considered to be aspects of QoL in later adulthood could be grouped under eight themes: (1) looking on the bright side of life; (2) feeling at peace; (3) feeling healthy and not limited by one's physical condition; (4) being able to manage autonomously, retaining dignity and not feeling like a burden; (5) spending time doing activities that bring a sense of value, joy and involvement; (6) having close relationships that make one feel supported and enable one to mean something for others; (7) feeling secure at home and living in a pleasant and accessible neighbourhood; (8) not feeling restricted by one's financial situation; and (9) the aforementioned theme about spirituality and inner reflection. With the exception of the last theme, these themes align well with the dimensions covered in the current study. The empirical evidence that we obtained from a large population-based sample and presented here substantially strengthens the case that these dimensions are indeed important constituents of QoL in later adulthood.

Although we presented the results of models stratified by age group, we did not test whether the contributions to QoL of the constituents we considered varied by other potentially relevant demographic markers. Importantly, our sample size did not permit us to estimate models separately for native Dutch people without a migration background and for specific migrant groups. This is unfortunate because the rapidly growing group of non-Western older migrants in the Netherlands (Conkova and Van den Broek 2024) has different views on what ageing entails than their native Dutch counterparts (Nieboer et al. 2021), and qualitative studies suggest that they may also have somewhat different priorities regarding constituents of QoL in later adulthood (Çayci and Van den Broek 2022; Conkova and Lindenberg 2020). Filling this gap in the literature calls for fielding survey experimental studies whereby people with a migration background are oversampled.

Despite these limitations, the insights gained from this study into what middle-aged and older people consider to be important dimensions of QoL in later adulthood are highly relevant, particularly against the backdrop of population ageing. By highlighting the aspects that older adults prioritize, the findings presented here can guide the creation and evaluation of policy interventions in ways that correspond closely with older persons' preferences and needs. Our findings emphasize the importance of enjoyment and social participation for QoL in later adulthood. To align with older adults' needs and preferences, interventions could prioritize fostering enjoyable and socially engaging activities. Prior research suggests that this could entail providing accessible volunteer opportunities and social leisure activities, to promote a sense of connection (Ten Bruggecate et al. 2018). Additionally, encouraging both in-person and digital social activities, such as exercise groups or online games, could further enhance engagement and participation (Devereux-Fitzgerald et al. 2016; Michèle et al. 2019). By focusing on older adults prioritizing enjoyment and social participation, future policies and interventions can be better tailored to older adults' preferences, and accordingly improve their overall QoL.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/S0144686X25100135.

Author contributions. TvdB and MH were jointly responsible for the conceptualization and writing of the original draft. TvdB was also responsible for the data curation, methodology, formal analysis and visualization.

Financial support. This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 895537 (SAMBa).

Competing interests. The authors declare that they do not have competing interests.

Ethical standards. This study was assessed and approved by the Research Ethics Review Committee of the Erasmus School of Health Policy and Management at Erasmus University Rotterdam (reference: ETH2324-0130).

References

Allison PD (2009) *Fixed Effects Regression Models*. Thousand Oaks, CA: Sage.

Allison PJ, Locker D and Feine JS (1997) Quality of life: A dynamic construct. *Social Science and Medicine* 45, 221–230. https://doi.org/10.1016/s0277-9536(96)00339-5.

Auspurg K and Hinz T (2015) *Factorial Survey Experiments*. Thousand Oaks, CA: Sage.

Badache AC, Hachem H and Mäki-Torkko E (2023) The perspectives of successful ageing among older adults aged 75+: A systematic review with a narrative synthesis of mixed studies. *Ageing & Society* 43, 1203–1239. https://doi.org/10.1017/s0144686x21001070.

Bergland A and Narum I (2007) Quality of life demands comprehension and further exploration. *Journal of Aging and Health* 19, 39–61. https://doi.org/10.1177/0898264306296766.

Bilgili N and Arpacı F (2014) Quality of life of older adults in Turkey. *Archives of Gerontology and Geriatrics.* 59, 415–421. https://doi.org/10.1016/j.archger.2014.07.005.

Borglin G, Edberg A-K and Rahm Hallberg I (2005) The experience of quality of life among older people. *Journal of Aging Studies* 19, 201–220. https://doi.org/10.1016/j.jaging.2004.04.001.

Börsch-Supan A, Brandt M, Hunkler C, Kneip T, Korbmacher J, Malter F, Schaan B, Stuck S and Zuber S (2013) Data resource profile: The Survey of Health, Ageing and Retirement in Europe (SHARE). *International Journal of Epidemiology* 42, 992–1001. https://doi.org/10.1093/ije/dyt088.

Bowling A (1995) What things are important in people's lives? A survey of the public's judgements to inform scales of health related quality of life. *Social Science and Medicine* 41, 1447–1462. https://doi.org/10.1016/0277-9536(95)00113-l.

Bowling A (2009) The psychometric properties of the Older People's Quality of Life questionnaire, compared with the CASP-19 and the WHOQOL-OLD. *Current Gerontology and Geriatrics Research* 2009, 298950. https://doi.org/10.1155/2009/298950.

Bowling A and Dieppe P (2005) What is successful ageing and who should define it? *BMJ (British Medical Journal)* 331, 1548–1551. https://doi.org/10.1136/bmj.331.7531.1548.

Bowling A, Hankins M, Windle G, Bilotta C and Grant R (2013) A short measure of quality of life in older age: The performance of the brief Older People's Quality of Life questionnaire (OPQOL-brief). *Archives of Gerontology and Geriatrics.* 56, 181–187. https://doi.org/10.1016/j.archger.2012.08.012.

Bowling A and Stenner P (2011) Which measure of quality of life performs best in older age? A comparison of the OPQOL, CASP-19 and WHOQOL-OLD. *Journal of Epidemiology and Community Health* 65, 273–280. https://doi.org/10.1136/jech.2009.087668.

Brock K, Clemson L, Cant R, Ke L, Cumming RG, Kendig H and Mathews M (2011) Worry in older community-residing adults. *International Journal of Aging and Human Development* 72, 289–301. https://doi.org/10.2190/ag.72.4.a.

Carr AJ, Gibson B and Robinson PG (2001) Is quality of life determined by expectations or experience? *BMJ (British Medical Journal)* 322, 1240–1243. https://doi.org/10.1136/bmj.322.7296.1240.

Çayci E and Van den Broek T (2022) Goed ouder worden. Wat vinden Turkse migranten in Nederland belangrijk? *Geron. Tijdschrift over Ouder Worden & Samenleving* 24(4).

Coast J, Flynn TN, Natarajan L, Sproston K, Lewis J, Louviere JJ and Peters TJ (2008) Valuing the ICECAP capability index for older people. *Social Science and Medicine* 67, 874–882. https://doi.org/10.1016/j.socscimed.2008.05.015.

Conkova N and Lindenberg J (2020) The experience of aging and perceptions of 'aging well' among older migrants in the Netherlands. *Gerontologist* 60, 270–278. https://doi.org/10.1093/geront/gnz125.

Conkova N and Van den Broek T (2024) Long-term care use among older migrants in the Netherlands: What to expect in the next decade? *Journal of Aging and Social Policy* 1–17 https://doi.org/10.1080/08959420.2024.2384195

Cosco TD, Howse K and Brayne C (2017) Healthy ageing, resilience and wellbeing. *Epidemiology and Psychiatric Sciences* 26, 579–583. https://doi.org/10.1017/s2045796017000324.

Dahan-Oliel N, Gelinas I and Mazer B (2008) Social participation in the elderly: What does the literature tell us? *Critical Reviews in Physical and Rehabilitation Medicine* 20, 159–176. https://doi.org/10.1615/critrevphysrehabilmed.v20.i2.40.

Deeg DJH (2007) Health and quality of life. In Mollenkopf H and Walker A (eds), *Quality of Life in Old Age: International and Multi-disciplinary Perspectives*. Dordrecht: Springer, pp. 195–213.

Devereux-Fitzgerald A, Powell R, Dewhurst A and French DP (2016) The acceptability of physical activity interventions to older adults: A systematic review and meta-synthesis. *Social Science and Medicine* 158, 14–23. https://doi.org/10.1016/j.socscimed.2016.04.006.

Farquhar M (1995) Elderly people's definitions of quality of life. *Social Science and Medicine* 41, 1439–1446. https://doi.org/10.1016/0277-9536(95)00117-p.

Fleischmann M and Koster F (2018) Older workers and employer-provided training in the Netherlands: A vignette study. *Ageing & Society* 38, 1995–2018. https://doi.org/10.1017/s0144686x17000356.

Gabriel Z and Bowling A (2004) Quality of life from the perspectives of older people. *Ageing & Society* 24, 675–691. https://doi.org/10.1017/s0144686x03001582.

Garman ET and Sorhaindo B (2005) Delphi study of experts' rankings of personal finance concepts important in the development of the InCharge financial distress/financial well-being scale. *Consumer Interests Annual* 51, 184–194.

Gobbens RJJ and van Assen MALM (2016) Psychometric properties of the Dutch WHOQOL-OLD. *Health and Quality of Life Outcomes.* 14, 103. https://doi.org/10.1186/s12955-016-0508-5.

Graham C (2003) Worry and anxiety in old age. *Aging and Mental Health* 7, 323–325. https://doi.org/10.1080/1360786031000150720.

Grewal I, Lewis J, Flynn T, Brown J, Bond J and Coast J (2006) Developing attributes for a generic quality of life measure for older people: Preferences or capabilities? *Social Science and Medicine* 62, 1891–1901. https://doi.org/10.1016/j.socscimed.2005.08.023.

Haak M, Fänge A, Iwarsson S and Dahlin Ivanoff S (2007) Home as a signification of independence and autonomy: Experiences among very old Swedish people. *Scandinavian Journal of Occupational Therapy* 14, 16–24. https://doi.org/10.1080/11038120601024929.

Harling G, Morris KA, Manderson L, Perkins JM and Berkman LF (2020) Age and gender differences in social network composition and social support among older rural South Africans: Findings from the HAALSI study. *Journals of Gerontology: Series B* 75, 148–159. https://doi.org/10.1093/geronb/gby013.

Henriques A, Silva S, Severo M, Fraga S and Barros H (2020) Socioeconomic position and quality of life among older people: The mediating role of social support. *Preventive Medicine.* 135, 106073. https://doi.org/10.1016/j.ypmed.2020.106073.

Higgs P, Hyde M, Wiggins R and Blane D (2003) Researching quality of life in early old age: The importance of the sociological dimension. *Social Policy and Administration* 37, 239–252. https://doi.org/10.1111/1467-9515.00336.

Hillcoat-Nallétamby S (2014) The meaning of 'independence' for older people in different residential settings. *Journals of Gerontology: Series B* 69, 419–430. https://doi.org/10.1093/geronb/gbu008.

Holzhausen M, Kuhlmey A and Martus P (2010) Individualized measurement of quality of life in older adults: Development and pilot testing of a new tool. *European Journal of Ageing* 7, 201–211. https://doi.org/10.1007/s10433-010-0159-z.

Hughes R and Huby M (2002) The application of vignettes in social and nursing research. *Journal of Advanced Nursing* 37, 382–386. https://doi.org/10.1046/j.1365-2648.2002.02100.x.

Hyde M, Wiggins RD, Higgs P and Blane DB (2003) A measure of quality of life in early old age: The theory, development and properties of a needs satisfaction model (CASP-19). *Aging and Mental Health* 7, 186–194. https://doi.org/10.1080/1360786031000101157.

Jarosz E (2022) What makes life enjoyable at an older age? Experiential wellbeing, daily activities, and satisfaction with life in general. *Aging and Mental Health* 26, 1242–1252. https://doi.org/10.1080/13607863.2021.1916879.

Karimi M and Brazier J (2016) Health, health-related quality of life, and quality of life: What is the difference? *PharmacoEconomics* 34, 645–649. https://doi.org/10.1007/s40273-016-0389-9.

Karpinska K, Henkens K and Schippers J (2011) The recruitment of early retirees: A vignette study of the factors that affect managers' decisions. *Ageing & Society* 31, 570–589. https://doi.org/10.1017/s0144686x10001078.

Klein Kranenburg L and Zandvliet R (2022) *Overgang COB: Van LISS Naar CBS*. Amsterdam: I&O Research.

Krause N (2006) Social relationships in late life. In Binstock RH, George LK, Cutler SJ and Hendricks J and **Schulz JH** (eds), *Handbook of Aging and the Social Sciences*, 6th edn. Burlington: Academic Press, pp. 181–200.

Levasseur M, St-Cyr Tribble D and Desrosiers J (2009) Meaning of quality of life for older adults: Importance of human functioning components. *Archives of Gerontology and Geriatrics* 49, e91–e100. https://doi.org/10.1016/j.archger.2008.08.013.

Li X, Ge T, Dong Q and Jiang Q (2023) Social participation, psychological resilience and depression among widowed older adults in China. *BMC (BioMed Central) Geriatrics* 23, article 454. https://doi.org/10.1186/s12877-023-04168-7.

Liu L (2006) Quality of life as a social representation in China: A qualitative study. *Social Indicators Research* 75, 217–240. https://doi.org/10.1007/s11205-004-3198-z.

Lulle A and King R (2023) Older migrants and self-realization projects. In Torres S and King R (eds), *Handbook on Migration and Ageing*. Cheltenham: Edward Elgar, pp. 229–240.

Luong G, Charles ST and Fingerman KL (2011) Better with age: Social relationships across adulthood. *Journal of Social and Personal Relationships* 28, 9–23. https://doi.org/10.1177/0265407510391362.

Marcos-Pardo PJ, Orquin-Castrillón FJ, Gea-García GM, Menayo-Antúnez R, González-Gálvez N, Vale RGDS and Martínez-Rodríguez A (2019) Effects of a moderate-to-high intensity resistance circuit training on fat mass, functional capacity, muscular strength, and quality of life in elderly: A randomized controlled trial. *Scientific Reports* 9, 7830. https://doi.org/10.1038/s41598-019-44329-6.

Maslow AH (1968) *Toward a Psychology of Being*, 2nd edn. Princeton, NJ: Van Nostrand.

McDonald P (2020) The male marriage premium: Selection, productivity, or employer preferences? *Journal of Marriage and Family* 82, 1553–1570. https://doi.org/10.1111/jomf.12683.

Michèle J, Guillaume M, Alain T, Nathalie B, Claude F and Kamel G (2019) Social and leisure activity profiles and well-being among the older adults: A longitudinal study. *Aging and Mental Health* 23, 77–83. https://doi.org/10.1080/13607863.2017.1394442.

Mutz DC (2011) *Population-Based Survey Experiments*. Princeton, NJ: Princeton University Press.

Nieboer AP, Van den Broek T and Cramm JM (2021) Positive and negative ageing perceptions account for health differences between older immigrant and native populations in the Netherlands. *BMC (BioMed Central) Geriatrics* 21, 190. https://doi.org/10.1186/s12877-021-02119-8.

Oesch D, Lipps O and McDonald P (2017) The wage penalty for motherhood: Evidence on discrimination from panel data and a survey experiment for Switzerland. *Demographic Research* 37, 1793–1824. https://doi.org/10.4054/demres.2017.37.56.

Oude Mulders J, Henkens K, Liu Y, Schippers J and Wang M (2018) Managers' interview invitation decisions about older job applicants: Human capital, economic conditions and job demands. *Ageing & Society* 38, 839–864. https://doi.org/10.1017/s0144686x16001343.

Peel NM, Bartlett HP and Marshall AL (2007) Measuring quality of life in older people: Reliability and validity of WHOQOL-OLD. *Australasian Journal on Ageing* 26, 162–167. https://doi.org/10.1111/j.1741-6612.2007.00249.x.

Power M, Quinn K, Schmidt S and **WHOQOL-OLD Group** (2005) Development of the WHOQOL-Old module. *Quality of Life Research* 14, 2197–2214. https://doi.org/10.1007/s11136-005-7380-9.

Prieto-Flores M-E, Fernandez-Mayoralas G, Rosenberg MW and Rojo-Perez F (2010) Identifying connections between the subjective experience of health and quality of life in old age. *Qualitative Health Research* 20, 1491–1499. https://doi.org/10.1177/1049732310374062.

Reichstadt J, Sengupta G, Depp CA, Palinkas LA and Jeste DV (2010) Older adults' perspectives on successful aging: Qualitative interviews. *American Journal of Geriatric Psychiatry* 18, 567–575. https://doi.org/10.1097/jgp.0b013e3181e040bb.

Roth TN, Hanebuth D and Probst R (2011) Prevalence of age-related hearing loss in Europe: A review. *European Archives of Oto-Rhino-Laryngology* 268, 1101–1107. https://doi.org/10.1007/s00405-011-1597-8.

Ryan A, Murphy C, Boland F, Galvin R and Smith SM (2018) What is the impact of physical activity and physical function on the development of multimorbidity in older adults over time? A population-based cohort study. *Journals of Gerontology: Series A* 73, 1538–1544. https://doi.org/10.1093/gerona/glx251.

Şahin DS, Özer Ö and Yanardağ MZ (2019) Perceived social support, quality of life and satisfaction with life in elderly people. *Educational Gerontology* 45, 69–77. https://doi.org/10.1080/03601277.2019.1585065.

Sander J, Schupp J and Richter D (2017) Getting together: Social contact frequency across the life span. *Developmental Psychology* 53, 1571–1588. https://doi.org/10.1037/dev0000349.

Scherpenzeel A (2011) Data collection in a probability-based internet panel: How the LISS panel was built and how it can be used. *Bulletin of Sociological Methodology/Bulletin de Méthodologie Sociologique* 109, 56–61. https://doi.org/10.1177/0759106310387713.

Schneck ME, Lott LA, Haegerstrom-Portnoy G and Brabyn JA (2012) Association between hearing and vision impairments in older adults. *Ophthalmic and Physiological Optics* 32, 45–52. https://doi.org/10.1111/j.1475-1313.2011.00876.x.

Schuessler KF and Fisher GA (1985) Quality of life research and sociology. *Annual Review of Sociology* 11, 129–149. https://doi.org/10.1146/annurev.so.11.080185.001021.

Stenner PHD, Cooper D and Skevington SM (2003) Putting the Q into quality of life: The identification of subjective constructions of health-related quality of life using Q methodology. *Social Science and Medicine* 57, 2161–2172. https://doi.org/10.1016/s0277-9536(03)00070-4.

Ten Bruggecate T, Luijkx K and Sturm J (2018) Social needs of older people: A systematic literature review. *Ageing & Society* 38, 1745–1770. https://doi.org/10.1017/s0144686x17000150.

Tseng Y-C, Liu SH-Y, Lou M-F and Huang G-S (2018) Quality of life in older adults with sensory impairments: A systematic review. *Quality of Life Research* 27, 1957–1971. https://doi.org/10.1007/s11136-018-1799-2.

United Nations (2017) *World Population Ageing 2017*. New York: United Nations. Available at www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Report.pdf (accessed 28 May 2025).

Van den Broek T and Fleischmann M (2022) Gender differences in bodyweight change following Covid-19 lockdown measures in the Netherlands: A prospective longitudinal study. *BMJ (British Medical Journal) Open* 12, e054658. https://doi.org/10.1136/bmjopen-2021-054658.

Van den Broek T, Lam J and Potente C (2024) Do middle-aged and older people underreport loneliness? Experimental evidence from the Netherlands. *European Journal of Ageing* 21, article 29. https://doi.org/10.1007/s10433-024-00826-w.

Van Houdt K, Kalmijn M and Ivanova K (2018) Family complexity and adult children's obligations: The role of divorce and co-residential history in norms to support parents and step-parents. *European Sociological Review* 34, 169–183. https://doi.org/10.1093/esr/jcy007.

Van Leeuwen KM, Van Loon MS, Van Nes FA, Bosmans JE, De Vet HCW, Ket JCF, Widdershoven GAM and Ostelo RWJG (2019) What does quality of life mean to older adults? A thematic synthesis. *PLoS (Public Library of Science) One* 14, e0213263. https://doi.org/10.1371/journal.pone.0213263.

Wallander L (2009) 25 years of factorial surveys in sociology: A review. *Social Science Research* 38, 505–520. https://doi.org/10.1016/j.ssresearch.2009.03.004.

White H (1980) A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica* 48, 817–838. https://doi.org/10.2307/1912934.

Whitley E, Benzeval M and Popham F (2020) Population priorities for successful aging: A randomized vignette experiment. *Journals of Gerontology: Series B* 75, 293–302. https://doi.org/10.1093/geronb/gby060.

WHOQOL Group (1998) Development of the World Health Organization WHOQOL-BREF Quality of Life Assessment. *Psychological Medicine* 28, 551–558. https://doi.org/10.1017/s0033291798006667.

Wiggins RD, Higgs PFD, Hyde M and Blane DB (2004) Quality of life in the third age: Key predictors of the CASP-19 measure. *Ageing & Society* 24, 693–708. https://doi.org/10.1017/s0144686x04002284.

Wiggins RD, Netuveli G, Hyde M, Higgs P and Blane D (2008) The evaluation of a self-enumerated scale of quality of life (CASP-19) in the context of research on ageing: A combination of exploratory and confirmatory approaches. *Social Indicators Research* 89, 61–77. https://doi.org/10.1007/s11205-007-9220-5.

Wilhelmson K, Andersson C, Waern M and Alleback P (2005) Elderly people's perspectives on quality of life. *Ageing & Society* 25, 585–600. https://doi.org/10.1017/s0144686x05003454.

Windle G (2011) What is resilience? A review and concept analysis. *Reviews in Clinical Gerontology* 21, 152–169. https://doi.org/10.1017/s0959259810000420.

Cite this article: van den Broek T and Hollaar MHL (2025) What do middle-aged and older people consider important dimensions of quality of life in later adulthood? Insights from a vignette experiment in the Netherlands. *Ageing & Society* **45**(11), 2476–2499. https://doi.org/10.1017/S0144686X25100135