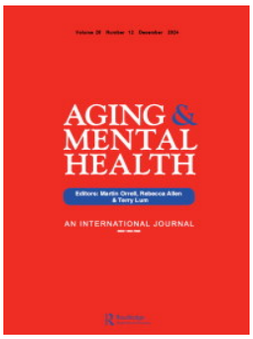

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# Life satisfaction and its associated factors among young and older adults in the United Kingdom (UK)

Santi Sulandari[a,b], Judith Johnson[a,c,d] and Rachel O. Coats[a]

[a]School of Psychology, University of Leeds, Leeds, UK; [b]Faculty of Psychology, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia; [c]Division of Nursing, Midwifery & Social Work, School of Health Sciences, The University of Manchester, Manchester, UK; [d]Manchester University NHS Foundation Trust, Manchester, UK

**ABSTRACT**

**Objectives:** This study investigated (1) whether there are differences in life satisfaction levels between young adults (YA) and older adults (OA), and (2) which factors are associated with life satisfaction in these groups.

**Method:** 279 United Kingdom (UK) participants were included (166 YA aged 19–25 years and 113 OA aged 60–94 years). Participants completed an online questionnaire examining life satisfaction and its associated factors: health status, purpose in life, social support, environment, financial well-being, and religiosity. T-tests, correlational, and regression analyses were conducted.

**Results:** Life satisfaction was significantly higher in OA than YA. The regression analyses revealed that purpose in life and mental health were the only variables which were significantly associated with life satisfaction in both YA and OA. In YA, social support and health perception were also significantly associated with life satisfaction, whilst for OA it was improved role functioning.

**Conclusion:** Techniques to increase purpose in life and improve mental health should be incorporated into life satisfaction interventions for both age groups, but addressing the distinct needs of different age groups may help to improve interventions for life satisfaction.

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**KEYWORDS**
Ageing well; cross-age study; later life; successful ageing; well-being

## Background

The percentage of people aged 65 and older is expected to grow from 10% in 2022 to 16% by 2050 worldwide (United Nations Department of Economic and Social Affairs, Population Division, 2022). In England and Wales, the fertility rate has fallen to its lowest level on record in 2023 (Office for National Statistics, 2024) with ramifications for the ratio of young to older people in the population. In addition, the number of those aged 65 and over has increased from 9.2 million in 2011 to over 11 million in 2021 (Office for National Statistics, 2023). The costs of caring for older individuals rises significantly as they age (Office for Budget Responsibility, 2016), which escalates their healthcare expenses. There has been a rapidly growing interest in promoting and maintaining well-being in older adults (OA) with a goal that this could mitigate ageing-related pressures on health care systems.

Life satisfaction (LS) is often used to measure well-being in OA. It is the cognitive-judgment element of subjective well-being, reflecting favourable dispositions towards life experiences (Diener et al., 1985; Hall, 2014). LS can change with age (Baird et al., 2010; Park et al., 2019) due to physical, psychological, and social-economic variations (Rony et al., 2024; World Health Organization, 2023). In OA, higher LS is associated with lower suicide risk (Diener, 2012) and greater longevity (Diener & Chan, 2011; St. John et al., 2015). LS is equally important for young adults (YA) and research focused on improving quality of life and reducing the risk of suicide is crucial. Higher LS protects against suicidal thoughts and behaviours (Le et al., 2023; Morales-Vives & Dueñas, 2018). When young people are satisfied with their circumstances, they are less likely to feel hopeless or depressed, both of which are suicide risk factors. Therefore, LS is a critical indicator of better health and well-being in both OA and YA.

Studies indicate that that levels of LS differ between YA and OA. Life satisfaction levels can be affected by various factors and these might differ by age: YA may worry about educational choices and their future, while OA may struggle with adapting to retirement and limitations in health or social roles. Whilst acknowledging the unique challenges and pressures faced by YA and OA, comparing LS and its associates in YA and OA might provide a richer understanding of the factors influencing the observed variations in LS levels across age groups. Some scholars have argued that LS shows a U-shaped pattern (Blanchflower & Oswald, 2008; Helliwell & Putnam, 2004; Kageyama & Sato, 2021) with LS decreasing during middle age and subsequently increasing during older age. Others (Baird et al., 2010; Park et al., 2019) have instead suggested that LS declines in a linear way over the lifespan. A longitudinal study in American veterans (Mroczek & Spiro, 2005) found proximity to death was associated with a significant decline in LS, supporting this proposition of an ongoing linear decrease in LS. A third theory points to a pattern of decline during midlife, then maintaining a stable (flat) consistency throughout old age. As the present study focused on whether life satisfaction levels differed between two UK groups: YA and OA, one of our goals was to confirm whether these patterns may apply to our sample. If a U-shaped trajectory is correct, we would expect there to be no

**CONTACT** Santi Sulandari psssu@leeds.ac.uk; ss280@ums.ac.id
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difference between levels of LS in our groups. If instead, there is a linear decline or a decline followed by a stable period in old age, we would expect lower levels in OA than YA. This study focused on YA and OA rather than middle-aged individuals due to the clear contrast in life phases, roles, responsibilities, goals, and challenges thus avoiding the transitional complexity of middle adulthood.

Identifying the factors influencing LS in YA and OA is crucial for developing targeted interventions to promote well-being across different age groups. Recent studies of LS in OA found that variables such as health, cognitive status, activities of daily living, social support, social participation, economic sources, sense of meaning or purpose, mental health, and sense of coherence contributed to LS in OA (Mekonnen et al., 2022; Tavares, 2022; Tian & Chen, 2022). Nuqoba et al. (2023) found that economic satisfaction, satisfaction with daily activities, sense of meaning and purpose, and health status were key determinants of LS in OA. Conversely, LS in YA has been associated with family interaction or support, mental health, social skills, interaction with peers, and positive behaviour (Piko, 2023; Proctor & Linley, 2014). Piko (2023) pointed out that family support was the strongest associate of LS in YA followed by depression, socioeconomic (SES) self-assessment, future orientation, satisfaction with school, going to church, and friend support. In these studies, social aspects and mental health appeared to be most consistent associates of LS in both OA and YA. However, these studies did not directly compare data between YA and OA using the same measures, and so this present study addressed this gap by using the same measures across both groups to identify the predictors of LS.

Existing studies comparing age groups in relation to LS have been limited by the inclusion of working age adults only (Handa et al., 2023) or by the inclusion of a restricted range of independent variables. For example, studies comparing YA and OA have examined positive emotion (Berenbaum et al., 2013), physical activity (An et al., 2020), and income (Cheung & Lucas, 2015) but have not considered social support, environment, religiosity. These latter variables have been identified as being important in ageing well in cross-cultural studies (Nguyen & Seal, 2014; Reich et al., 2020; Sulandari et al., 2024). Of the studies which have measured a broader range of variables in relation to LS, such as health factors (Mekonnen et al., 2022; Nuqoba et al., 2023; Tavares, 2022), psychological factors (Mekonnen et al., 2022; Nuqoba et al., 2023; Tavares, 2022), environmental factors (Gan et al., 2022; Park & Kang, 2022), financial well-being (Mekonnen et al., 2022; Nuqoba et al., 2023; Tavares, 2022; Tian & Chen, 2022), religiosity (Muhammad et al., 2023; Sharif et al., 2021), and social aspects (Mekonnen et al., 2022; Tavares, 2022; Tian & Chen, 2022), no YA were included. Furthermore, they did not examine together this range of factors to identify those which might be most important for LS. The present study will address this gap by measuring a wide range of factors that we identified as important in a previous study (Sulandari et al., 2024) in relation to LS in both OA and YA groups, and by employing the regression analysis to identify the most strongly associated and therefore important factors in relation to LS in these groups.

This study uses the UK as a case example and aimed to (1) examine whether there are differences in life satisfaction levels between YA and OA and (2) establish which factors are associated with LS in each age group.

## Method

### Participants and recruitment

We recruited YA aged 18 to 25 years and OA aged 60+; who self-identified as British; and had a proficient level of English. YA were recruited via social media, a flyer, word of mouth or the School of Psychology student participant pool in exchange for course credits. OA were also recruited via social media and word of mouth, and members or the School of Psychology Successful Ageing Panel. Altogether 360 participants responded. 67 provided incomplete data and 14 were ineligible for the age criteria so were excluded. Data were considered incomplete for a participant when they missed one set or more of the measures. Where data were missing, it was complete measures rather than partial completion of questionnaires, so we did not need to apply any strategies to handle the missing data, such as imputation or exclusion methods. Little's MCAR test was performed to assess the missing data mechanism. The results were non-significant, $\chi^2(df = 138) = 155.62$, $p = 0.15$, suggesting that the data are Missing Completely at Random (MCAR). 279 usable cases were used for the analysis, including 166 YA aged 19–25 years old (Mean age = 20.66, *SD* = 1.17) and 113 OA aged 60–94 years old (Mean age = 70.15, *SD* = 6.46). Data were collected between 21st February and 27th September 2023. Ethical approval was gained from School of Psychology, University of Leeds: PSYC-805, 16/02/2023.

### Procedure

Participants completed an online 15–30-minute questionnaire using the Qualtrics XM Platform™. A brief study description was provided before completion of the consent form and the questionnaire.

### Measures

This study examined LS, health status, purpose in life, social support, environment, financial well-being, and religiosity.

### Life satisfaction

The Riverside Life Satisfaction Scale (RLSS) (Margolis et al., 2019) was used to measure LS. It consists of six items. Participants rated their agreement with each item using a 7-point Likert scale (1 = Strongly disagree, 2 = Moderately disagree, 3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly agree, 6 = Moderately agree, 7 = Strongly agree). This instrument comprises both direct and indirect indications. Items 2, 4, and 6, classified as indirect indicators, were reverse scored. The final scores varied from 6 to 42, with higher scores indicating greater LS. Margolis et al. (2019) developed this instrument to improve the widely renowned measure of LS, the Satisfaction with Life Scale (SWLS) (Diener et al., 1985) and found in a predominantly British sample of adults that The RLSS has greater bandwidth than the SWLS because it includes indirect indicators, while maintaining high levels of internal consistency and test-retest stability.

### Health status

A short multi-dimensional instrument, the 20-Item Short Form Survey (SF-20) (Stewart et al., 1982, 1988; Ware et al., 1992)

was employed to measure health status. It measures six aspects: physical functioning (six items), role functioning (two items), social functioning (one item), mental health (five items), health perception (five items), and pain (one item). Physical functioning measures physical limitations and capacities, mobility, and self-care. Role functioning measures limitations in role functioning due to poor health and by the extent to which individuals participate in defined roles within their community. Social functioning is defined as the ability to develop, maintain, and nurture major social relationships and focuses on whether the respondent's health has limited social activities. Mental health represents the four major mental health dimensions (anxiety, depression, loss of behavioural-emotional control, and psychological well- being). Health perception measures the perception of current health. Pain asks respondents to rate pain on a scale from none to very severe. All scores have been transformed to a 0–100 scale, with the lowest score being 0 and the highest score being 100, such that a high value represented better performance, with the exception of pain where a higher score indicated more pain. For further information regarding the scoring of SF-20, sees Appendix 1. Six domains of SF-20 were calculated separately for the purposes of analysis.

### *Purpose in life*

The Purpose in Life Test-Short Form (PIL-SF) (Schulenberg et al., 2011) measures participants' life purpose through four items which cover the presence of clear life goals, life being meaningful, life goal completion, and presence of goals/life purpose. A 7-point Likert scale was employed featuring different anchors for each item. The responses were summed up for each participant, with higher scores reflecting a stronger sense of purpose in life, ranging from 4 to 28.

### *Social support*

Duke-UNC Functional Social Support Questionnaire (DUFSS) (Broadhead et al., 1988) was employed to measure social support using eight items. Participants rated a scale ranging for each item from 1 = much less than I would like to 5 = as much as I would like. The higher the average score, the greater the perceived social support, ranging from 8 to 40.

### *Environment*

Perceptions of environment were measured using Assessing Levels of Physical Activity and fitness (ALPHA) (Spittaels et al., 2010) which a 10-item scale assessing physical activity related to environmental factors. Participants respond Yes = 1 or No = 0 for items 1–8 with an additional choice of Not Applicable (NA) for items 9 and 10 which related to work and education. Higher scores represented a more positive environment, ranging from 0 to 10.

### *Financial well-being*

The CFPB Financial Well-Being Scale (Consumer Financial Protection Bureau, 2015) was employed to measure financial wellbeing which is scored on a 5-point categorical response scales from 0 to 4, with two sections: one asking how well an item describes an individual (0 = 'not at all' to 4 = 'completely') and one asking how often an item applies to the individual (0 = 'never' to 4 = 'always'), further information sees Appendix 1, scores ranged from 0 to 40 with higher scores indicating better financial wellbeing.

### *Religiosity*

Religiosity was measured by the Centrality of Religiosity Scale (CRS) (Huber & Huber, 2012), which consists of 5 items scored from 1 ('never/not at all') to 5 ('very often/very much so'). Higher scores reflecting higher levels of religiosity, which total possible scores ranging from 5 to 25.

For further information regarding the examples of the items in the scales used to measure these variables, the internal consistency score for each measure and the power calculation score, see Appendix 1.

## *Data analysis*

First, descriptive and t-test analyses for all potential predictors of life satisfaction were conducted. T-tests were used to compare means between YA and OA. Second, Pearson's correlations were conducted to determine relationships between variables of interest and life satisfaction in YA and OA, separately. Third, multiple regression analyses applying enter method was performed to identify the most important determinants of life satisfaction among YA and OA. The outcome variable was LS, measured by RLSS. The initial set of predictive variables included health status, purpose in life, social support, environment, financial well-being, and religiosity. This current study presented data without controlling for age and gender since there were no differences in relation to the significance of individual factors that contributed to LS (see Appendix 2, Tables S1–S3). All analyses were carried out using SPSS 28.

## Results

For participant characteristics see Table 1 and Appendix 1. The findings from the t-tests suggested there was a significant difference between groups for LS (Table 2) with OAs being more satisfied than YAs. There were no significant differences between groups for social functioning or health perception. OA had higher levels of mental health, pain, purpose in life, social support, religiosity, environment, and financial well-being compared to YA but lower levels of physical functioning and role functioning.

The correlates of LS for all the participants are in Table 3. In separate analysis between groups, the correlates of LS varied between YA and OA (Tables 4 and 5). In YA, all tested variables had a significant correlation with LS, except religiosity (Table 4). However, after applying Bonferroni corrections only higher levels of social functioning, mental health, health perception, purpose in life, social support, and financial well-being remained significantly correlated with greater LS. In OA, all tested variables had a significant correlation with LS, except for environment and religiosity (Table 5). However, after applying Bonferroni corrections, only greater role functioning, social functioning, mental health, health perception, purpose in life, social support, and financial well-being were associated with greater LS.

In a regression analysis of all participants, the total amount of variance accounted for by the covariates was 72% (Table 6). Purpose in life ($\beta = 0.50$, $p < 0.001$), mental health ($\beta = 0.13$, $p < 0.001$), social support ($\beta = 0.12$, $p < 0.001$), financial

**Table 1.** Characteristics of the participants by age group.

| Characteristics | Number of participants (%) | |
|---|---|---|
| | YA, $n = 166$ | OA, $n = 113$ |
| Gender | | |
| Male | 14(8.4) | 35(31) |
| Female | 149(89.8) | 78(69) |
| Non-binary | 3(1.8) | 0 |
| Living arrangement | | |
| Living alone | 9(5.4) | 33(29.2) |
| Living with friends | 117(70.5) | 0 |
| Living with partner/spouse | 8(4.8) | 73(64.6) |
| Living with child(ren)/ parent(s) | 32(19.3) | 5(4.4) |
| Other | 0 | 2(1.8) |
| Marital status | | |
| Married | 0 | 70(61.9) |
| Divorced/separated | 1(0.6) | 17(15.1) |
| Widowed | 0 | 20(17.7) |
| Never married | 164(98.8) | 4(3.5) |
| Prefer not to say | 1(0.6) | 2(1.8) |
| Working status | | |
| Working (employed or self-employed) | 23(13.9) | 21(18.6) |
| Unemployed | 8(4.8) | 0 |
| In education | 127(76.5) | 0 |
| Retired | 0 | 87(77) |
| Disabled (not able to work) | 0 | 0 |
| Working (employed or self-employed) | 8(4.8) | 5(4.4) |
| Educational background | | |
| CSE/GCSE or 'O' Level | 5(3.0) | 16(14.2) |
| Vocational qualification (GNVQ or BTEC) | 3(1.8) | 6(5.3) |
| 'A' or 'AS' Level | 129(77.7) | 12(10.6) |
| Higher National Certificate (HNC) or Diploma (HND) | 3(1.8) | 16(14.2) |
| Undergraduate degree | 24(14.5) | 34(30.1) |
| Postgraduate qualification (Masters or PhD) | 2(1.2) | 17(30.1) |
| No qualifications | 0 | 7(6.2) |
| Other (please specify) | 0 | 5(4.4) |
| Children | | |
| None | 165(99.4) | 12(10.6) |
| 1 | 1(0.6) | 11(9.7) |
| 2 | 0 | 57(50.4) |
| 3 | 0 | 23(20.4) |
| More than 3 | 0 | 10(8.8) |
| Ethnicity | | |
| White British | 138(83.1) | 109(96.5) |
| Other | 28(16.9) | 4(3.8) |

**Table 2.** Independent sample t-test on each variable by age group.

| Variable | Mean (SD) | | $t$ |
|---|---|---|---|
| | YA | OA | |
| Life satisfaction | 27.60(7.27) | 32.42(7.16) | 5.48*** |
| Physical functioning (SF-20) | 90.86(17.70) | 77.73(27.76) | −4.45*** |
| Role functioning (SF-20) | 91.11(21.67) | 83.19(33.48) | −2.22* |
| Social functioning (SF-20) | 87.47(17.95) | 90.27(22.06) | 1.16 |
| Mental health (SF-20) | 58.17(21.04) | 78.83(15.90) | 9.33*** |
| Health perception (SF-20) | 66.11(20.28) | 66.96(26.72) | .28 |
| Pain (SF-20) | 28.67(19.25) | 36.58(24.75) | 2.50*** |
| Purpose in life | 19.07(4.37) | 21.82(4.19) | 5.25*** |
| Social support | 50.24(10.15) | 52.67(1039) | 1.95** |
| Religiosity | 9.30(4.59) | 12.48(6.10) | 4.70*** |
| Environment | 15.75(1.66) | 16.33(1.25) | 3.30*** |
| Financial well-being | 22.69(7.04) | 31.06(7.22) | 8.70*** |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

well-being (β = 0.09, $p = 0.03$), and health perception (β = 0.07, $p < 0.001$) significantly predicted LS while physical functioning, role functioning, social functioning, pain, environment, and religiosity did not. A collinearity test in all participants showed a maximum variance inflation factor (VIF) value of 3 and a minimum tolerance value of 0.3, suggesting no multicollinearity among included variables.

Further analyses for each group revealed a difference in the total amount of variance accounted for by the covariates (74% in YA; 65% in OA, see Tables 7 and 8). In the YA group, purpose in life (β = 0.40, $p < 0.001$), social support (β = 0.17, $p < 0.001$), mental health (β = 0.13, $p < 0.001$), and health perception (β = 0.07, $p = 0.002$) significantly predicted LS in YA while in OA, LS was significantly predicted by purpose in life (β = 0.59, $p < 0.001$) followed by mental health (β = 0.13, $p = 0.002$) and role functioning (β = 0.05, $p = 0.13$).

## Discussion

### *Principal findings*

OA had higher levels of LS than YA, and the factors influencing LS varied across the two age groups. Social functioning, mental health, health perception, purpose in life, and social support were correlated with LS in both groups, and role functioning and financial well-being were also correlated with LS in OA. Regression analyses revealed that LS was significantly associated with purpose in life, social support, mental health, and health perception in YA, whilst in OA, LS was significantly associated with purpose in life, mental health, and role functioning. The models explained a greater amount of variance in YA than in OA. Our findings highlight that interventions to increase LS should address purpose in life and mental health in both age groups but need to be otherwise targeted to specific age groups to meet variations in predictors of LS.

### *Comparisons with similar research*

Our findings extend the literature in three main ways. Firstly, we found that there was a significant difference in LS scores between YA and OA in which the OA were more satisfied with their life than YA. One possible explanation is that the UK currently is a relatively positive environment for OA due to government policies generally being favourable towards them (Department of Health, 2001; Office for Health Improvement & Disparities, 2022). These systems contribute to a sense of security and well-being among older individuals. Additionally, as people age, their children often become independent, allowing OA more time to enjoy leisure activities and pursue personal interests (Sulandari et al., 2024). A second explanation could be that levels of LS in YA in the UK have decreased in recent years (Handa et al., 2023; Hrytsenko et al., 2024; Orben et al., 2022), perhaps due to pandemic pressures, intense smartphone access and internet use (Twenge et al., 2021), resulting in them being less satisfied than OAs (thus moving away from a theory supporting linear decline, U-shaped change, or a decline followed by a stable period in old age). However, it is worth noting that as this present study did not include a mid-life group, it is possible that our group difference in LS levels could also indicate a linear increased trajectory of LS, or a flat or declining trend of LS in young to middle age followed by an increase in old age to a level higher than that experienced when younger. Further research to investigate this would be useful, but our findings clearly reject a linear decline or U-Shaped trend.

Secondly, purpose in life and mental health significantly contributed to LS in both YA and OA in the regression analysis.

**Table 3.** Correlations between study variables and life satisfaction in all participants.

| Variable | LS | PF | RF | SF | MH | HP | Pain | PiL | SS | Envi | FWB | Reli |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LS | – | | | | | | | | | | | |
| PF | .105 | – | | | | | | | | | | |
| RF | .206**** | .603**** | – | | | | | | | | | |
| SF | .348**** | .451**** | .575**** | – | | | | | | | | |
| MH | .753**** | .008 | .107 | .339**** | – | | | | | | | |
| HP | .538**** | .564**** | .578**** | .602**** | .496**** | – | | | | | | |
| Pain | −0.166** | −0.425**** | −0.420**** | −0.353**** | −0.117 | −0.502**** | – | | | | | |
| PiL | .709**** | .117 | .095 | .278**** | .619**** | .391**** | −0.123* | – | | | | |
| SS | .573**** | .091 | .129* | .329**** | .439**** | .340**** | −0.146* | .570**** | – | | | |
| Envi | .195** | .090 | .165** | .139**** | 180** | .208**** | −0.057 | .194** | .192** | – | | |
| FWB | .566**** | −0.032 | .089 | .281 | .587**** | .316**** | −0.115 | .531**** | .371**** | .179** | – | |
| Reli | −0.060 | −0.043 | −0.047 | .047 | −0.105 | .026 | .020 | .206**** | .004 | .034 | .175** | – |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$, ****$p < 0.00091$ (Bonferroni-corrected significance threshold).
Note: LS: life satisfaction, PF: physical functioning, RF: role functioning, SF: social functioning, MH: mental health, HP: health perception, pain, PiL: purpose in life, SS: social support, Envi: environment, FWB: financial well-being and Reli: religiosity.

**Table 4.** Correlations between study variables and life satisfaction in YA.

| Variable | LS | PF | RF | SF | MH | HP | Pain | PiL | SS | Envi | FWB | Reli |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LS | – | | | | | | | | | | | |
| PF | .188* | – | | | | | | | | | | |
| RF | .184* | .468**** | – | | | | | | | | | |
| SF | .284**** | .331**** | .577**** | – | | | | | | | | |
| MH | .765**** | .173* | .211** | .309**** | – | | | | | | | |
| HP | .594**** | .393**** | .505**** | .540**** | .605**** | – | | | | | | |
| Pain | −0.214** | −0.276**** | −0.388**** | −0.301**** | −0.248*** | −0.456**** | – | | | | | |
| PiL | .726**** | .229** | .136* | .225** | .642**** | .440**** | −0.188* | – | | | | |
| SS | .652**** | .069 | .117 | .290**** | .498**** | .407**** | −0.244** | .602**** | – | | | |
| Envi | .220** | .095 | .225** | .146* | .156* | .238** | −0.146 | .164* | .178* | – | | |
| FWB | .513**** | .197* | .279**** | .309**** | .422**** | .392**** | −0.221** | .553**** | .424**** | .189* | – | |
| Reli | −0.064 | .034 | .001 | .024 | −0.012 | −0.089 | .064 | .059 | −0.245** | −0.148 | .021 | – |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$, ****$p < 0.00091$ (Bonferroni-corrected significance threshold).

**Table 5.** Correlations between study variables and life satisfaction in OA.

| Variable | LS | PF | RF | SF | MH | HP | Pain | PiL | SS | Envi | FWB | Reli |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LS | – | | | | | | | | | | | |
| PF | .243** | – | | | | | | | | | | |
| RF | .359**** | .668**** | – | | | | | | | | | |
| SF | .422**** | .620**** | .611**** | – | | | | | | | | |
| MH | .658**** | .177 | .213* | .436**** | – | | | | | | | |
| HP | .536**** | .739**** | .650**** | .659**** | .526**** | – | | | | | | |
| Pain | −0.249** | −0.498**** | −0.425**** | −0.433**** | −0.191* | −0.560**** | – | | | | | |
| PiL | .605**** | .223* | .163 | .331**** | .427**** | .373**** | −0.175 | – | | | | |
| SS | .449**** | .189* | .184 | .366**** | .338**** | .272** | −0.083 | .511**** | – | | | |
| Envi | .004 | .241* | .189* | .112 | −0.018 | .184 | −0.009 | .119 | .173 | – | | |
| FWB | .479**** | .072 | .111 | .261** | .509**** | .321**** | −0.234* | .324**** | .279** | −0.062 | – | |
| Reli | .003 | .045 | −0.012 | .032 | −0.072 | .116 | −0.103 | .218* | .202* | .167 | .057 | – |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$, ****$p < 0.00091$ (Bonferroni-corrected significance threshold).

**Table 6.** Regression analysis of predictors associated with life satisfaction for all participants.

| Variable | *B* | *SE* | *β* | *t* | *P* |
|---|---|---|---|---|---|
| PF | −0.022 | .015 | −0.069 | −1.471 | .142 |
| RF | .022 | .013 | .081 | 1.705 | .089 |
| SF | −0.024 | .017 | −0.061 | −1.359 | .175 |
| **MH** | **.129** | **.018** | **.367** | **7.267** | **<.001**** |
| **HP** | **.068** | **.019** | **.208** | **3.691** | **<.001**** |
| Pain | .012 | .013 | .036 | .916 | .360 |
| **PiL** | **.497** | **.082** | **.294** | **6.065** | **<.001**** |
| **SS** | **.120** | **.030** | **.163** | **3.949** | **<.001**** |
| Envi | −0.070 | .167 | −0.014 | −0.417 | .677 |
| **FWB** | **.086** | **.039** | **.093** | **2.180** | **.030*** |
| Reli | −0.081 | .047 | −0.058 | −1.716 | .087 |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Purpose in life was the strongest contributor in both groups. This supports findings from a previous systematic review which found greater purpose in life was associated with better health and well-being in OA (Irving et al., 2017). However, this review included varied measures to capture health and well-being, including LS, and analysed these as a homogenous group, preventing specific conclusions being drawn regarding LS as an isolated variable. Additionally, this study only focused on OA. Moreover, a longitudinal study was conducted by Joshanloo (2024) which revealed that an increase in life purpose was associated with higher subsequent LS, but again this study only included OA. The effect of purpose in life on LS is rarely investigated in YA, but one study (Bronk et al., 2009) examined this association in three stages of life and found purpose in life was

**Table 7.** Regression analysis of predictors associated with life satisfaction among young adults.

| Variable | *B* | *SE* | *β* | *t* | *P* |
|---|---|---|---|---|---|
| PF | .003 | .020 | .006 | .131 | .896 |
| RF | −0.010 | .019 | −0.031 | −0.546 | .586 |
| SF | −0.022 | .022 | −0.055 | −1.005 | .316 |
| **MH** | **.129** | **.021** | **.374** | **6.106** | **<.001***** |
| **HP** | **.073** | **.023** | **.204** | **3.140** | **.002**** |
| Pain | .026 | .018 | .068 | 1.443 | .151 |
| **PiL** | **.389** | **.109** | **.234** | **3.574** | **<.001***** |
| **SS** | **.174** | **.041** | **.243** | **4.193** | **<.001***** |
| Envi | .196 | .188 | .045 | 1.042 | .299 |
| FWB | .068 | .053 | .066 | 1.282 | .202 |
| Reli | .010 | .071 | .006 | .140 | .889 |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

**Table 8.** Regression analysis of predictors associated with life satisfaction among older adults.

| Variable | *B* | *SE* | *β* | *t* | *P* |
|---|---|---|---|---|---|
| PF | −0.047 | .027 | −0.183 | −1.728 | .087 |
| **RF** | **.048** | **.019** | **.224** | **2.529** | **.013*** |
| SF | −0.021 | .030 | −0.063 | −0.695 | .489 |
| **MH** | **.130** | **.040** | **.289** | **3.231** | **.002**** |
| HP | .065 | .033 | .242 | 1.950 | .054 |
| Pain | .002 | .022 | .007 | .093 | .926 |
| **PiL** | **.588** | **.129** | **.344** | **4.573** | **<.001***** |
| SS | .085 | .051 | .123 | 1.673 | .097 |
| Envi | −0.383 | .366 | −0.067 | −1.048 | .297 |
| FWB | .115 | .071 | .116 | 1.613 | .110 |
| Reli | −0.101 | .076 | −0.086 | −1.323 | .189 |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

associated with greater LS in all groups. However, these stages of life only covered adolescence, emerging adult and adult and did not include OA. Thus, this is the first study to examine purpose in life in relation to LS in both an OA and a YA groups. This finding aligns with the positive psychology propositions of Seligman (2002) who suggested purpose improves LS by providing life meaning and a sense of achievement.

Our findings support previous studies suggesting mental health is related to LS in YA (Fergusson et al., 2015; Piko, 2023), as well as in OA (Kim et al., 2021). However, few studies have examined this association in these groups using comparable measures. This current study extends those findings by providing evidence, using the same measures to compare both groups, that mental health is important for LS across the life span.

Thirdly, the results from the regression analyses found that social support was the second strongest factor in YAs' LS, but it was not significantly associated with LS in OA. These findings support previous research suggesting that social support is important in YA (Azpiazu et al., 2023; Gan et al., 2020; Su et al., 2022). A possible explanation is that social support from peers and family is important during the youth developmental stage including key life transitions like education, career, and relationships, because it provides encouragement, sense of purpose, and raises self-esteem (Cai & Lian, 2022; Tezci et al., 2015; Varga et al., 2023). These processes rely heavily on supportive relationships, which have a direct impact on LS. As people age, this support tends to shift. In later life friends may play a smaller role due to retirement or the loss of social connections over time. Moreover, individuals who are older frequently have had the opportunity to develop good resilience and a broader perspective on life from earlier support from social relationships (Ami & David, 2020; Brinkhof et al., 2024).

Declining health is another source of stress for older persons. While social support remains vital, how people deal with limitations in role functioning due to poor health and the extent to which individuals participate in defined roles within their community may have a greater impact on their LS than their general level of social support. This is in line with our finding that role functioning significantly predicted LS in OA. OA recognise that being able to perform their usual roles and responsibilities in daily life, particularly related to work and other important activities/duties, is critical for their well-being, emphasising the significance of health in their life, as found in our previous study (Sulandari et al., 2024). Moreover, the present findings also extend the literature by showing that health is important at all ages (Handa et al., 2023; Tavares, 2022) but how this manifests might change according to age. While in OA having a good role functioning is essential, in YA, having a positive health perception was more important. This supports a previous study (Atienza-González et al., 2020), which revealed that health perceptions were correlated with LS in YA. It is possible that when people are young, they are aware of the importance of health from school-based health education programmes (Yoon et al., 2021), and, because they are generally healthy, they appreciate the overall importance of keeping it.

### *Implications*

Professionals designing interventions to promote LS across the life span should prioritise strengthening individuals' sense of purpose in life and mental health. For purpose in life, this can, for example, be achieved through life crafting (Schippers & Ziegler, 2019), which enables individuals to discover their values and passions, transform these into goals, and establish plans for reaching those goals. Purpose in life can also be achieved through five steps based on the contents of a goal-training program and goal-setting intervention (Shin & Steger, 2014), or a combination of two brief online interventions, such as purpose from the perspective of goal setting and values exploration and gratitude as a springboard (Bronk et al., 2019). However, previous studies that explored interventions to develop purpose in life were conducted in YA, so further research is needed to understand if these interventions could also be useful in OA.

This disparity may be explained by the idea that in later life, individuals tend to have more stable life, such as family, work, and other responsibilities compare to the YA who may still struggle with their identity exploration. This preconception leads to less emphasis on purpose in life in OA. However, as people age, changes such as retirement, declining health and a decreasing social network can cause a re-evaluation of one's sense of purpose and interventions designed for YA may not address the unique issues that OA face. Addressing this research gap could lead to more effective, age-appropriate interventions that develop a revitalised sense of purpose in the OA, thereby increasing their LS.

Our findings also imply that it is essential to consider mental health in LS interventions. Psychosocial interventions (Forsman et al., 2011) which focus on psychological or social aspects, encompassing psychological therapy, health education, and social activities initiatives can be considered as alternatives to promote and maintain the individual's mental health. Interventions could also incorporate cognitive-behavioural techniques (Olisaeloka et al., 2024) that address depressive symptoms.

Interventions that can integrate solutions for increasing purpose in life and mental health with other factors (e.g. social support and health perception for YA, role functioning for OA) might be the most effective at improving LS. For example, in YA, purpose in life can be fostered through group goal-setting exercises which encourage participants to identify meaningful life objectives whilst gaining social support through sharing their experiences. In OA, integrated interventions can be designed by fostering activities that enable them to re-evaluate their purpose in life through community participation as this would also foster healthier perspectives on their role in a community setting.

Moreover, public health practitioners and healthcare professionals can collaborate with local communities to implement targeted interventions that address specific needs, while policymakers can establish supportive frameworks and policies to enhance the implementation of these programs. The use of technology, such as mobile health applications which enhance accessibility, offer continuous support, and monitor progress, may serve as an effective tool to enhance interventions. However, due to the possible limitation of accessing technology for OA, combining mobile health interventions with face-to-face support or other alternatives should be considered to ensure long-term user engagement (van Acker et al., 2023).

### *Strengths, limitations and future directions*

A potential limitation in the present study is the limited variability of the samples' demographic information, which reduces the generalizability of our findings. The cross-sectional design also means that it was not possible to draw conclusions about the temporal relationship between LS and the associated factors. Future research should undertake repeated measurements over time to ascertain whether the independent variables prospectively predict LS. Furthermore, our sample was limited to UK participants and included a relatively small sample size, which might have influenced the veracity of this study's results. This study also limited the age groups to YA and OA and did not include middle-aged participants. Replicating the same data in multiple cultures or countries and age groups, such as young, middle, and older, may help to better understand what is complex social picture.

### *Conclusion*

YA are likely to experience greater LS to the extent that they have purpose in life, social support, good mental health, and health perceptions; while OA are likely to experience greater LS when they have purpose in life, good mental health, and higher role functioning. Addressing the specific needs of each age group can enhance targeted interventions for improving LS. Policymakers and healthcare professionals should consider and prioritise these factors for different age groups when implementing strategies.

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## ORCID

Santi Sulandari http://orcid.org/0000-0002-0091-3382
Judith Johnson http://orcid.org/0000-0003-0431-013X
Rachel O. Coats http://orcid.org/0000-0003-4415-408X

## Data availability statement

The data, analytic methods or materials are available to other researchers for replication purposes, they can be accessed by contacting the authors directly.

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