

The Schedule for Meaning in Life Evaluation (SMiLE)

Description

The Schedule for Meaning in Life Evaluation (SMiLE) is a validated respondent-generated instrument for the assessment of individual meaning-in-life (MiL). It assesses three aspects by asking subjects:

- a) to name up to seven domains that they judge to be important to their individual meaning-in-life
- b) to rate their current level of satisfaction in each of these domains using a seven-point Likert scale (range, -3 to +3) and
- c) to rate the importance of each of their chosen areas using a eight-point adjectival scale (range, 0 to 7).

Administration

The Schedule for Meaning in Life Evaluation (SMiLE) can be used as a paper-pencil-test as well as in an interview setting, for example with palliative care patients who are not able to fill out the test by themselves. There is an online-version of the SMiLE at <http://www.meaninginlife.info> available, too.

The standardized test instruction describes in short form what is meant by meaning in life and points out that respondents should refer to their present situation.

The search for **meaning in life** is important for most people. This question comes up in different phases of life, including both happy and unhappy situations.

In the following section we would ask you to nominate those areas of life which in your opinion **give meaning to your life**. These areas can be characterised as those which give you “grounding” in life, and give importance to your life. In short, things “worth living for”.

These **areas** obviously differ from person to person. Therefore, there are no “correct” or “wrong” answers to this question. The best way to answer is to be as truthful as possible and to think exactly about your individual areas. Refer to your present situation.

Prior to each step of the SMiLE there is a short instruction:

Please nominate 3 to 7 areas which give meaning to your life, regardless of how satisfied or unsatisfied you are with these areas at the moment. The order of your answers is not important.

Please rate how **satisfied or unsatisfied** you are with each nominated area. That is, how much - positively or negatively - the area affects your total meaning in life.

Please rate how **important** each area is for your total meaning in life. Try to distinguish between the areas as best possible by considering all numbers.

Procedures

Step 1 (area listing): In the SMiLE, the respondents first indicate areas that provide meaning to their lives in their current situation. The respondents are asked to name a maximum of seven areas (n = number of areas) but that is only a suggestion (respondents are free to name more areas).

Step 2 (level of satisfaction): Next, the respondents rate their current level of satisfaction with each area ($s_1...s_n$) on a seven-point Likert scale, ranging from -3 “very unsatisfied” to +3 “very satisfied”.

Step 3 (weighting): Finally, the importance of each area ($w_1...w_n$) is rated with an eight-point adjectival scale, ranging from 0 “not important” to 7 “extremely important”, with 3 presenting “important” and 6 presenting “very important”.

Analysis

The **Index of Satisfaction (IoS)** indicates the mean satisfaction or dissatisfaction with the individual MiL areas (range, 0–100, with higher scores reflecting higher satisfaction). To obtain a clear index, varying from 0 to 100, the satisfaction ratings s_i are recalculated (s'_i). “Very unsatisfied” ($s_i = -3$) is set to $s'_i = 0$ and “very satisfied” ($s_i = +3$) is set to $s'_i = 100$, with the levels of 16.7, 33.3, 50, 66.7, and 83.3 in between.

$$IoS = \frac{\sum_{i=1}^n s'_i}{n}$$

The **Index of Weighting (IoW)** indicates the mean weighting of the MiL areas (range, 0–100, with higher scores reflecting higher weights).

$$IoW = \frac{\sum_{i=1}^n w_i}{7n} \circ 100$$

In the **total SMiLE index (Index of Weighted Satisfaction; IoWS)**, the ratings for importance and satisfaction are combined (range, 0–100, with higher scores reflecting higher MiL).

$$IoWS = \sum_{i=1}^n \left(\frac{w_i}{w_{ges}} \circ s'_i \right)$$

Levels and weights assigned to particular areas are independent and can change independently. A person may be satisfied in a particular area but assign little importance to it, whereas another area may be described at a high level of both importance and satisfaction. An area that is going badly for an individual but is of little importance will have less implication for the individual MiL than an area that is going badly but at the same time is perceived as very important. This is reflected in the IoWS (total SMiLE index).

In addition, raw scores can be grouped into categories for analysis. In a nationwide survey on individual MiL in a randomly selected, representative sample of 1,004 Germans, the following categories were built a posteriori:

| | Category | Description |
|-----|-------------------------|--|
| 1. | Family | family, children, grandchildren, siblings, parents, relatives, well-being of the family |
| 2. | Partnership | relationship, marriage, husband, wife, boyfriend, girlfriend, partner, love, sexual activity |
| 3. | Social relations | friends, neighborhood, human/social/interpersonal relations, sociability, community, acquaintances |
| 4. | Occupation/Work | professional success, job, work, working place, employment, job security, education, school, university, career, business |
| 5. | Leisure time/Relaxation | all hobbies (e.g. cinema, car), holiday/travelling, all sports/exercise |
| 6. | Home/Garden | gardening, homestead, house, apartment, quality of living, housing |
| 7. | Finances | income, assets, financial condition, money, to earn money, financial security/independence, luxury, prosperity, no financial burden, wealth, tangible goods, property, living standard |
| 8. | Spirituality/Religion | God, church, faith, Jesus, Christianity |
| 9. | Health | physical and mental health/well-being |
| 10. | Satisfaction | harmony, luck, (private) happiness, to be satisfied/happy, complete/personal/emotional/mental satisfaction/well-being |
| 11. | Nature/Animals | closeness to nature, nature-love, pets, animals in general, fond of animals |
| 12. | Social commitment | altruism, honorary office, community service, readiness to help others, helping others, helpfulness, volunteer work |
| 13. | Hedonism | consumption, to have a nice time, to enjoy something, partying, good food, to eat out, pleasure, enjoyment, fun, joy, vitality, lust for life |
| 14. | Art/Culture | literature, reading, books, music, all musical instruments, to make music, cultural events, theater, painting, creativity |
| 15. | Growth | permanent education, learning, inquisitiveness, self-actualization, self-realization, self-fulfillment, self-development, self-awareness |

Originally just 13 categories were identified by the cluster analyses. After deliberations with regard to contents the categories „Art/Culture“ and „Growth“ were added for providing a more precise categorization. The description of each category is useful for grouping the answers of the respondents to their representing category for inter-individual comparisons.

For each category, a mean value of satisfaction can be calculated by summing up the satisfaction ratings for the areas which belong to one category and dividing that by the number of areas. Calculating a mean value of weight for each category is analogous to these steps.

For unclear answers of the respondents, following rules are helpful for the categorization:

- a) If two or more categories are named explicitly in one area, the raw score should be grouped in each named category. For example the respondent names in area 1 „family and friends“. In this case each raw score (for satisfaction and for importance) should be grouped both to the category „family“ and to the category „social relations“.
- b) If two or more categories are named implicit in one area, the raw score should be grouped in the most significant category. In this case the rater has to decide which category seems to be more important for the respondent. For example the respondent names in area 1 „horseriding with a friend“. In this case „horseriding“ seems to be the essential activity rather than the mentioning „with a friend“. Each raw score (for satisfaction and for importance) should be grouped just in the category „leisure time/relaxation“.
- c) If there is named anything in one area that doesn't fit in any category (for example „memories“) or if the grouping to one category seems to be too uncertain, it should be grouped in a „specific category“. The raw scores of this area are neglected for the categorial analysis. For the analysis of IoS, IoW and IoWS, however, the raw scores are included.

Interpretation: Psychometric Properties

The psychometric properties of the SMiLE were evaluated with 599 students of the Ludwig-Maximilians-University, Munich, and the Royal College of surgeons, Dublin (response rate, 95.4%; Fegg et al., 2008). In addition, 93 patients (response rate, 80.6%, n=75) treated for advanced cancer or amyotrophic lateral sclerosis at the Interdisciplinary Center for Palliative Medicine, Ludwig-Maximilians University, Munich were asked to complete the SMiLE, as well as some feasibility and acceptability questions, in a cross-sectional study.

The psychometrics of the SMiLE was reported according to the recommendations of the Scientific Advisory Committee of the Medical Outcome Trust.

There are several more studies investigating the psychometric properties of the SMiLE in different language adaptations. You will find an up-to-date list at <http://www.meaninginlife.info>

Objectivity

Objectivity was enhanced by a standardized administration procedure.

Feasibility and Acceptability

The feasibility and acceptability of the SMiLE was evaluated with the dropout rate, the time to complete the questionnaire, and ratings on the following items (numeric rating scales [NRS], ranging from 0 to 10):

- How well do you think this questionnaire measures your individual meaning in life?
- How distressing was the questionnaire?
- How time-consuming was the questionnaire?

All students and patients who agreed to participate were able to complete the SMiLE. The time for completion was on average 8.2 ± 3.0 minutes in university students and 26.2 ± 14.1 minutes in palliative care patients. The instrument was neither distressing (1.3 ± 1.9) nor time-consuming (1.9 ± 1.9).

Reliability

The satisfaction ratings (s_i) had a Cronbach's alpha of 0.71, and the importance ratings (w_i) had a Cronbach's alpha of 0.49. Spearman's Rhos for the test-retest reliability were 0.71 for the IoS ($p < 0.001$), 0.60 for the IoW ($p < 0.001$) and 0.72 for the IoWS ($p < 0.001$). Of the areas listed at T1, 85.6% were listed again at T2 (7 days after initial assessment).

Validity

Criterion validity was tested concurrently with the Purpose in Life Test (PIL), the Self-Transcendence Scale (STS), the Idler Index of Religiosity (IIR, subscale private religiousness), and a seven-point Likert scale on global MiL satisfaction (MiL_NRS). The mean PIL score was 107.7 ± 13.1 , the MiL_NRS 1.7 ± 1.2 , the STS 46.5 ± 5.0 , and the IIR 4.2 ± 1.5 . No differences between two samples were found, except for the IIR, which was higher in the Irish sample (4.6 ± 1.3 vs. 4.0 ± 1.5 ; $p < 0.001$).

Convergent validity was demonstrated with the Purpose in Life test ($r = 0.48$, $p < 0.001$), the Self-Transcendence Scale ($r = 0.34$, $p < 0.001$), and a general numeric rating scale on MiL ($r = 0.53$, $p < 0.001$).

Divergent validity was demonstrated with the Idler Index of Religiosity (IIR). There was no correlation of the SMiLE with the IIR.

Data from palliative care patients suggest that the instrument may yield new approaches in MiL assessment and outcome measurement of novel psychotherapeutic interventions in end-of-life care. Cancer patients most often indicated areas related to relationships as providing MiL, while material things were listed less often (Stiefel et al., 2008). Since satisfaction with relevant areas was high, cancer patients reported the same level of weighted satisfaction (IoWS) as a healthy student sample, assessed with the SMiLE in a prior validation study. Patients judged the SMiLE as reflecting well their MiL, not distressing to fill in and were moderately positive with regard to its helpfulness.

In conclusion, the SMiLE might become a useful tool for research and an opener to communication between patients and clinicians about this highly relevant topic in cancer care.

Standardization

In the representative study of healthy Germans, the mean IoS was 81.9 ± 15.1 , the mean IoW was 84.6 ± 11.9 , and the mean IoWS was 82.9 ± 14.8 . In youth (16-19 y/o), "friends" were most important for MiL, in young adulthood (20-29 y/o) "partnership", in middle adulthood (30-39 y/o) "work", during retirement (60-69 y/o) "health" and "altruism", and in advanced age (70 y/o and more) "spirituality/religion" and "nature experience/animals".

All standardization tables are annexed.

Area/range/scope of application/use

The SMiLE has a wide range of application. For example, in previous studies the SMiLE was used to assess meaning in life in chronic or terminally ill patients.

Repeated measurements within subject demonstrate that the SMiLE detects response shift, defined as the redefinition or re-conceptualization of some domains as a function of contextual changes in patients' lives (Fegg, 2006).

References

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Language adaptations

The SMiLE is available in German, English, French, Italian, Spanish, Japanese, Hindi.
You can download a copy at <http://www.meaninginlife.info>

Statistical analysis

You can find Excel and SPSS files (data file, syntax for the calculation of the IoS, IoW, IoWS) for download at <http://www.meaninginlife.info>

Appendix: Standardized Tables

Table 1: Respondents' characteristics (n = 856).

| | | n | % |
|----------------------------------|-----------------------------|-----|------|
| Age | 16–19 years | 51 | 5.9 |
| | 20–29 years | 124 | 14.5 |
| | 30–39 years | 164 | 19.1 |
| | 40–49 years | 161 | 18.8 |
| | 50–59 years | 119 | 14.0 |
| | 60–69 years | 127 | 14.8 |
| | 70 years and above | 110 | 12.9 |
| Gender | Male | 423 | 49.4 |
| | Female | 433 | 50.6 |
| Marital status | Single | 269 | 31.6 |
| | Married | 428 | 50.1 |
| | Divorced/Separated | 90 | 10.5 |
| | Widowed | 67 | 7.8 |
| Education | Elementary school | 205 | 25.4 |
| | Secondary school | 286 | 35.4 |
| | High school | 317 | 39.2 |
| Occupational status | Employed | 436 | 51.0 |
| | Unemployed | 420 | 49.0 |
| Household net income (per month) | 999 € or less | 82 | 12.2 |
| | 1.000 – 1.999 € | 231 | 34.4 |
| | 2.000 – 2.999 € | 159 | 23.7 |
| | 3.000 € and more | 200 | 29.8 |
| Residence | Less than 5.000 inhabitants | 148 | 17.3 |
| | 5.000 – 9.999 | 149 | 17.4 |
| | 10.000 – 49.999 | 241 | 28.1 |
| | 50.000 – 99.999 | 69 | 8.1 |
| | 100.000 and more | 249 | 29.1 |

Table 2: Areas of MiL listed by the respondents (n = 856). Included are number and percentage of the listings as well as mean and standard deviation (SD) of the importance and satisfaction ratings.

| | n | % | w_i | s_i |
|----------------|-----|------|---------------|---------------|
| | | | Mean \pm SD | Mean \pm SD |
| Family | 708 | 82.7 | 4.7 \pm 0.6 | 2.3 \pm 0.9 |
| Work | 463 | 54.1 | 3.9 \pm 0.9 | 1.4 \pm 1.6 |
| Leisure time | 350 | 40.9 | 3.5 \pm 1.0 | 1.6 \pm 1.4 |
| Friends | 340 | 39.7 | 4.3 \pm 0.8 | 2.2 \pm 1.0 |
| Health | 276 | 32.2 | 4.8 \pm 0.4 | 1.8 \pm 1.5 |
| Partnership | 233 | 27.2 | 4.7 \pm 0.6 | 2.4 \pm 1.1 |
| Finances | 124 | 14.5 | 3.6 \pm 1.1 | 1.0 \pm 1.8 |
| Home/Garden | 81 | 9.5 | 3.5 \pm 1.1 | 2.0 \pm 1.1 |
| Spirituality | 80 | 9.4 | 4.4 \pm 0.9 | 2.4 \pm 0.9 |
| Animals/Nature | 79 | 9.2 | 4.1 \pm 0.9 | 2.3 \pm 1.0 |
| Hedonism | 41 | 4.7 | 4.2 \pm 0.9 | 1.9 \pm 1.3 |
| Altruism | 39 | 4.6 | 3.8 \pm 0.8 | 2.1 \pm 0.9 |
| Well-Being | 37 | 4.3 | 4.4 \pm 0.8 | 1.8 \pm 1.3 |

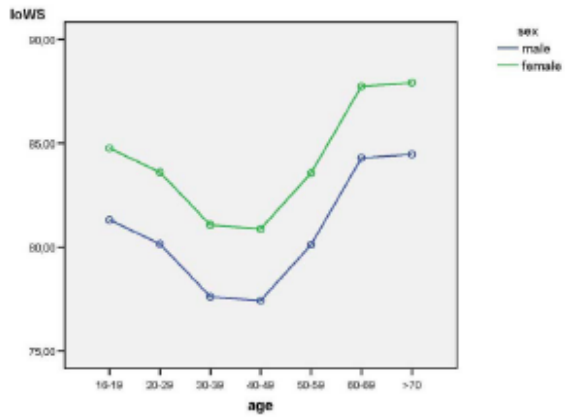


Figure 1
Results of the multifactorial analysis with the effects of age and gender on loWS.

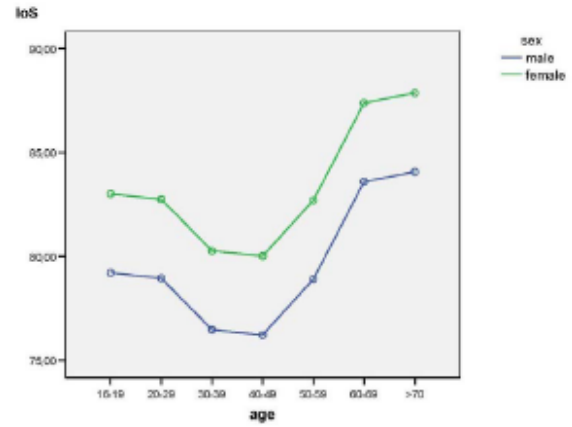


Figure 2
Results of the multifactorial analysis with the effects of age and gender on loS.

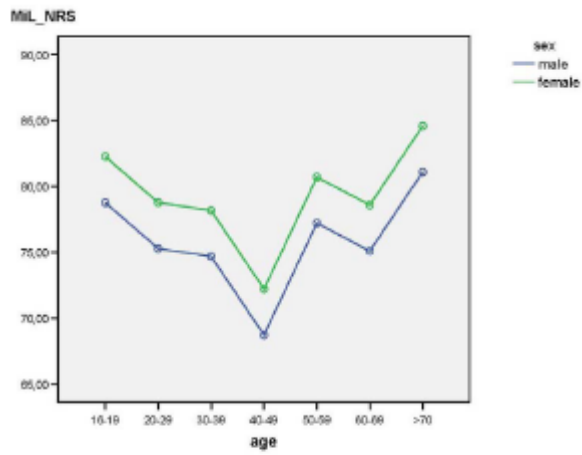


Figure 3
Results of the multifactorial analysis with the effects of age and gender on MiL_NRS.