

Supplementary materials

Table 1 supplementary material – Scenarios for dealing with missing data

| Scenarios for dealing with missing data | Description |
|---|--|
| (i) Complete case scenario | No missing data tolerated |
| (ii) Best case scenario | One missing data for the whole scale tolerated and replaced with the value "zero" |
| (iii) Worst case scenario | One missing data for the scale tolerated and replaced with the value "four" |
| (iv) Total scale mean imputation | One missing data for the scale tolerated and replaced with the mean of the scale |
| (v) Total scale median imputation | One missing data for the scale tolerated and replaced with the median of the scale |
| (vi) Subscale mean imputation | One missing data per subscale tolerated and replaced with the mean of the subscale |
| (vii) Subscale median imputation | One missing data per subscale tolerated and replaced with the median of the subscale |

Table 2 supplementary material – Participants' sociodemographic, medical characteristics, and setting

| | |
|--|-----------------------|
| Age, years (mean \pm SD) | 68.8 \pm 12.9 |
| Gender, men/women, n | 81/92 |
| Education, n (%) | |
| Compulsory | 46 (27.5) |
| Vocational education | 69 (41.3) |
| Highschool | 12 (7.2) |
| University, University of applied sciences | 40 (24.0) |
| Marital status, n (%) | |
| Single (never married) | 14 (8.2) |
| Married/In partnership | 89 (52.4) |
| Divorced/Separated | 41 (24.1) |
| Widowed | 26 (15.3) |
| Nationality, n (%) | |
| Swiss | 146 (85.4) |
| Italian | 9 (5.3) |
| Portuguese | 4 (2.3) |
| Other | 12 (7) |
| Main diagnosis, n (%) | |
| Oncologic disease | 143 (85.1) |
| Advanced cardiac disease | 5 (3.0) |
| Chronic obstructive pulmonary disease | 4 (2.4) |
| ALS | 3 (1.8) |
| Other | 13 (7.7) |
| Existing anticipated decisions Y/N, n | 67 (44.3) / 84 (55.7) |
| Patient setting | |
| Mobile, n (%) | 31 (17.9) |
| PCU, n (%) | 142 (82.1%) |

ALS: Amyotrophic lateral sclerosis; PCU: palliative care unit; SD: Standard deviation

Table 3 supplementary material – MD at T1 and T2 per type of participant

| Number of MD | T1 patient (n=173) | T1 staff (n=169) | T2 patient (n=108) | T2 staff (n=102) |
|--------------|-----------------------|------------------|-----------------------|------------------|
| no MD | 135 | 117 | 86 | 74 |
| 1 MD | 27 | 25 | 16 | 20 |
| 2 MD | 4 | 17 | 2 | 5 |
| 3 or more MD | 7 | 10 | 4 | 3 |

MD: missing data; T1= time 1; T2= time 2

Table 4 supplementary material – Frequency of MD at T1 per item and type of participant

| Item number | Item | patient T1 n MD, (%) | staff T1 n MD, (%) |
|-------------|---|-------------------------|-----------------------|
| 1 | Pain | 3 (1.7) | 7 (4.1) |
| 2 | Shortness of breath | 1 (0.6) | 7 (4.1) |
| 3 | Weakness or lack of energy | 2 (1.2) | 10 (5.9) |
| 4 | Nausea | 1 (0.6) | 6 (3.5) |
| 5 | Vomiting | 4 (2.3) | 5 (2.9) |
| 6 | Poor appetite | 3 (1.7) | 7 (4.1) |
| 7 | Constipation | 5 (2.9) | 7 (4.1) |
| 8 | Sore or dry mouth | 1 (.06) | 6 (3.5) |
| 9 | Drowsiness | 2 (1.2) | 6 (3.5) |
| 10 | Poor mobility | 1 (0.6) | 8 (4.7) |
| 11 | Patient feeling anxious or worried about illness or treatment | 2 (1.2) | 6 (3.5) |
| 12 | Family or friends been anxious or worried about patient | 15 (8.7) | 34 (20.1) |
| 13 | Patient feeling depressed | 4 (2.3) | 8 (4.7) |
| 14 | Patient feeling at peace | 6 (3.5) | 7 (4.1) |
| 15 | Patient ability to share as much as wanted | 4 (2.3) | 24 (14.2) |
| 16 | Patient access to information | 6 (3.5) | 7 (4.1) |
| 17 | Practical problems | 7 (4.0) | 24 (14.2) |
| | Total participant n | 173 | 169 |

Table 5 supplementary material – Factorial analysis with varimax rotation (extraction method: principal component analysis)

| Total variance explained - patient | | | | | | |
|------------------------------------|---------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| Factors | Initial Eigenvalues | | | Rotation Sums of Squared Loadings | | |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| For patients | | | | | | |
| 1 | 3.1 | 17.9 | 17.9 | 2.3 | 13.7 | 13.7 |
| 2 | 2.1 | 12.2 | 30.1 | 2.1 | 12.6 | 26.3 |
| 3 | 1.8 | 10.4 | 40.5 | 1.9 | 10.9 | 37.3 |
| 4 | 1.3 | 7.4 | 47.9 | 1.5 | 9.0 | 46.3 |
| 5 | 1.3 | 7.4 | 55.3 | 1.4 | 8.2 | 54.4 |
| 6 | 1.0 | 6.0 | 61.4 | 1.2 | 6.9 | 61.3 |
| For staff | | | | | | |
| 1 | 3.5 | 20.4 | 20.4 | 3.1 | 18.3 | 18.3 |
| 2 | 2.4 | 13.9 | 34.3 | 1.9 | 11.4 | 29.7 |
| 3 | 1.7 | 9.8 | 44.1 | 1.9 | 10.9 | 40.6 |
| 4 | 1.3 | 7.9 | 52.0 | 1.6 | 9.3 | 49.9 |
| 5 | 1.2 | 7.0 | 59.0 | 1.6 | 9.1 | 59.0 |

Table 6 supplementary material – Correlations between items of the patients and staff IPOS-Fr and the factors found by the principal component analysis with varimax rotation

| | Factors | | | | | |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Patients | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Item 1 | -.044 | .184 | .047 | -.082 | .768 | .016 |
| Item 2 | .208 | -.064 | -.143 | .298 | -.198 | .700 |
| Item 3 | .717 | .107 | .181 | .083 | -.029 | .092 |
| Item 4 | .127 | .015 | .897 | .058 | -.026 | .040 |
| Item 5 | .020 | -.004 | .855 | .025 | .129 | -.118 |
| Item 6 | .542 | -.030 | .392 | .040 | .248 | .122 |
| Item 7 | .164 | -.063 | .081 | .192 | .655 | -.089 |
| Item 8 | .631 | -.086 | -.108 | .058 | .305 | .151 |
| Item 9 | .689 | .030 | .122 | .027 | -.070 | .026 |
| Item 10 | .705 | .206 | -.172 | -.127 | -.022 | -.168 |
| Item 11 | -.029 | .710 | .105 | .138 | .022 | .160 |
| Item 12 | -.043 | .450 | .118 | -.199 | .222 | .608 |
| Item 13 | .232 | .832 | -.005 | .101 | -.063 | -.138 |
| Item 14 | .051 | .746 | -.138 | .242 | .169 | .036 |
| Item 15 | -.002 | .109 | .013 | .748 | .026 | .068 |
| Item 16 | -.007 | .112 | .118 | .621 | .254 | -.349 |
| Item 17 | .056 | .231 | .019 | .542 | -.060 | .218 |
| Staff | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | |
| Item 1 | .153 | -.066 | -.022 | .178 | .789 | |
| Item 2 | .020 | -.106 | -.129 | .484 | -.434 | |
| Item 3 | .095 | .809 | -.028 | .102 | .022 | |
| Item 4 | .115 | .117 | .907 | .110 | .017 | |
| Item 5 | .005 | .065 | .916 | .068 | .133 | |

| | | | | | |
|---------|-------------|-------------|-------|-------------|-------------|
| Item 6 | -.016 | .535 | .243 | .420 | -.126 |
| Item 7 | .027 | .051 | .243 | .630 | .208 |
| Item 8 | .087 | .360 | .117 | .097 | .093 |
| Item 9 | -.010 | .822 | -.007 | -.093 | .018 |
| Item 10 | -.057 | .336 | .057 | .540 | -.025 |
| Item 11 | .771 | .084 | -.041 | .219 | .138 |
| Item 12 | .550 | .072 | -.038 | .445 | .057 |
| Item 13 | .778 | .164 | .046 | .198 | .184 |
| Item 14 | .847 | .017 | .107 | -.039 | .007 |
| Item 15 | .578 | -.014 | .083 | -.261 | .090 |
| Item 16 | .011 | .101 | .113 | -.070 | .718 |
| Item 17 | .704 | -.029 | -.008 | -.220 | -.269 |

Table 7 supplementary material – Cronbach's alpha for factors

| Patients | | | Staff | |
|----------|----------------|------------------|------------------------|------------------|
| | Items | Cronbach's alpha | Items | Cronbach's alpha |
| Factor 1 | 3, 6, 8, 9, 10 | .70 | 11, 12, 13, 14, 15, 17 | .80 |
| Factor 2 | 11, 13, 14 | .74 | 3, 6, 8, 9 | .61 |
| Factor 3 | 4, 5 | .78 | 4, 5 | .85 |
| Factor 4 | 15, 16, 17 | .44 | 2, 7, 10 | .30 |
| Factor 5 | 1, 7 | .33 | 2, 7, 10 | .42 |
| Factor 6 | 2, 12 | .05 | | |

Table 8 supplementary material – Cronbach's alpha for original subscales

| | | Patients | Staff |
|-------------------------------------|---------|------------------|------------------|
| | Items | Cronbach's alpha | Cronbach's alpha |
| Physical subscale | 1 - 10 | .64 | .60 |
| Emotional subscale | 11 - 14 | .70 | .81 |
| Communication and problems subscale | 15 - 17 | .44 | .34 |

Table 9 supplementary material – Intra-class correlations between patient and staff scores for items and subscales

| | Intra-class correlation 95% confidence interval (average measures) | | |
|--|--|-------------|-------------|
| | Average measures | Lower Bound | Upper Bound |
| Item 1 | .721 | .622 | .794 |
| Item 2 | .765 | .681 | .827 |
| Item 3 | .605 | .464 | .709 |
| Item 4 | .665 | .546 | .753 |
| Item 5 | .733 | .638 | .803 |
| Item 6 | .534 | .367 | .656 |
| Item 7 | .538 | .372 | .659 |
| Item 8 | .397 | .181 | .556 |
| Item 9 | .535 | .368 | .657 |
| Item 10 | .650 | .525 | .742 |
| Item 11 | .542 | .377 | .662 |
| Item 12 | .380 | .158 | .543 |
| Item 13 | .548 | .386 | .667 |
| Item 14 | .579 | .428 | .690 |
| Item 15 | .342 | .102 | .519 |
| Item 16 | .195 | -.095 | .409 |
| Item 17 | .516 | .338 | .646 |
| Physical subscale | .673 | .556 | .759 |
| Emotional subscale | .642 | .514 | .737 |
| Communication and problems subscale | .511 | .331 | .643 |

Table 10 supplementary material – Pearson's correlations between patient IPOS-Fr and MQOL-R items and subscales

| | Time of evaluation | Pearson's correlation (sig.) |
|-----------------------------|--------------------|------------------------------|
| IPOS total score and MQOL-R | T1 | -.623* |
| total score | T2 | -.628* |
| IPOS physical subscale and | T1 | -.461* |
| MQOL-R physical subscale | T2 | -.463* |
| IPOS item 11 and MQOL-R | T1 | -.601* |
| psychological subscale | T2 | -.630* |
| IPOS item 13 and MQOL-R | T1 | -.633* |
| psychological subscale | T2 | -.799* |
| IPOS item 14 and MQOL-R | T1 | -.331* |
| existential subscale | T2 | -.459* |
| IPOS item 12 and MQOL-R | T1 | -.007 |
| social subscale | T2 | -.119 |
| IPOS item 15 and MQOL-R | T1 | -.511* |
| social subscale | T2 | -.372* |

MQOL-R: McGill Quality of Life-Revised questionnaire; *p=.000

Table 11 supplementary material – Sensitivity to change between T1 and T2 based on IPOS-Fr total score

| | Mean T1 (SD) | Mean T2 (SD) | z | p |
|-----------------------|-----------------|-----------------|--------|------|
| No change (n=26) | 22.8 (7.4) | 21.2 (8.7) | -1.467 | .142 |
| Improvement (n=41) | 22.2 (8.8) | 19.5 (7.1) | -2.326 | .020 |
| Worsening (n=36) | 21.8 (7.8) | 22.8 (7.8) | -.947 | .344 |