**Supplementary File 1**

### The score changes of each component in the seven subscales of QOLIE-31

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| --- | --- | --- | --- | --- |
|  | **\*Cohort 1, n = 88****(Mean ± SD or Median (IQR))** | **p value\*\*** | **\*Cohort 2, n = 88** **(Mean ± SD or Median (IQR))** | **p value\*\*** |
| **2016** | **2017** | **2017** | **2020** |
| **Seizure worry** | 40.9 ± 23.2 | 53.0 ± 21.6 | **<0.001a** | 59.0 ± 19.3 | 50.9 ± 27.1 | **0.003a** |
| Have you worried about having another seizure? | 50.0 (40.0) | 60.0 (60.0) | 0.425b | 60.0 (70.0) | 60.0 (40.0) | 0.768b |
| How fearful are you of having a seizure during the next month? | 33.3 (33.3) | 66.7 (33.3) | 0.085b | 66.7 (66.7) | 66.7 (33.3) | 0.765b |
| Do you worry about hurting yourself during a seizure? | 50.0 (50.0) | 50.0 (100.0) | 0.312b | 50.0 (50.0) | 50.0 (50.0) | **0.010b** |
| How worried are you about embarrassment or other social problems resulting from having a seizure during the next month? | 33.3 (66.7) | 33.3 (33.3) | **0.040b** | 66.7 (66.7) | 33.3 (66.7) | **0.033b** |
| How much do seizures bother you? | 25.0 (50.0) | 75.0 (25.0) | **<0.001b** | 50.0 (25.0) | 50.0 (50.0) | **0.005b** |
| **Overall quality of life** | 67.5 (27.5) | 72.5 (22.5) | 0.175b | 72.5 (19.4) | 72.5 (17.5) | 0.253b |
| Overall, how would you rate your quality of life? | 70.0 (30.0) | 70.0 (20.0) | 0.877b | 70.0 (20.0) | 75.0 (20.0) | 0.983b |
| How has the quality of your life been during the past 4 weeks? | 50.0 (25.0) | 75.0 (25.0) | 0.079b | 75.0 (25.0) | 75.0 (25.0) | 0.088b |
| **Emotional well-being** | 64.0 (24.0) | 68.0 (20.0) | **0.007b** | 72.0 (20.0) | 68.0 (24.0) | 0.101b |
| Have you been a very nervous person? | 60.0 (40.0) | 60.0 (40.0) | **0.022b** | 80.0 (40.0) | 70.0 (35.0) | 0.611b |
| Have you felt so down in the dumps that nothing could cheer you up? | 60.0 (20.0) | 80.0 (40.0) | **0.006b** | 80.0 (40.0) | 80.0 (40.0) | 0.213b |
| Have you felt calm and peaceful? | 60.0 (40.0) | 60.0 (40.0) | 0.786b | 80.0 (20.0) | 60.0 (40.0) | 0.108b |
| Have you felt downhearted and blue? | 60.0 (35.0) | 80.0 (40.0) | 0.063b | 80.0 (40.0) | 80.0 (20.0) | 0.759b |
| Have you been a happy person? | 80.0 (40.0) | 80.0 (20.0) | 0.769b | 80.0 (20.0) | 60.0 (40.0) | 0.122b |
| **Energy/ Fatigue** | 55.0 (15.0) | 57.5 (25.0) | 0.800b | 60.0 (23.8) | 60.0 (20.0) | 0.461b |
| Did you feel full of pep? | 60.0 (40.0) | 40.0 (40.0) | **<0.001b** | 60.0 (40.0) | 60.0 (40.0) | 0.756b |
| Did you have a lot of energy? | 60.0 (40.0) | 60.0 (40.0) | 0.942b | 60.0 (40.0) | 60.0 (40.0) | 0.531b |
| Did you feel worn out? | 60.0 (40.0) | 60.0 (20.0) | **0.036b** | 80.0 (20.0) | 60.0 (35.0) | **0.003b** |
| Did you feel tired? | 60.0 (20.0) | 60.0 (40.0) | 0.120b | 60.0 (40.0) | 60.0 (40.0) | 0.424b |
| **Cognitive functioning** | 57.7 ± 18.6 | 63.0 ± 22.3 | **0.004a** | 71.9 (32.2) | 62.2 (26.1) | **0.025b** |
| Did you have difficulty reasoning and solving problems (such as making plans, making decisions, learning new things)? | 60.0 (40.0) | 60.0 (40.0) | 0.675b | 80.0 (55.0) | 60.0 (40.0) | 0.986b |
| In the past 4 weeks, have you had any trouble with your memory? | 66.7 (33.3) | 66.7 (66.7) | **0.003b** | 66.7 (66.7) | 66.7 (66.7) | **0.013b** |
| Trouble remembering things people tell you | 60.0 (40.0) | 60.0 (40.0) | **0.038b** | 80.0 (20.0) | 60.0 (20.0) | 0.216b |
| Trouble concentrating on reading | 60.0 (40.0) | 80.0 (40.0) | 0.180b | 80.0 (40.0) | 80.0 (40.0) | 0.534b |
| Trouble concentrating on doing one thing at a time | 60.0 (60.0) | 80.0 (40.0) | 0.239b | 80.0 (40.0) | 80.0 (35.0) | 0.664b |
| How much memories difficulties bother you at all? | 50.0 (50.0) | 50.0 (50.0) | 0.126b | 50.0 (50.0) | 50.0 (68.8) | **0.001b** |
| **Medication effects** | 40.1 ± 23.3 | 51.0 ± 29.7 | **0.001a** | 62.5 (52.8) | 61.1 (44.5) | 0.389b |
| How worried are you that medications you are taking will be bad for you if taken for a long time? | 33.3 (58.3) | 33.3 (33.3) | **0.009a** | 66.7 (33.3) | 33.3 (66.7) | 0.898b |
| Physical effects of antiepileptic medication | 50.0 (50.0) | 50.0 (50.0) | **0.041a** | 75.0 (75.0) | 75.0 (75.0) | 0.471b |
| Mental effects of antiepileptic | 50.0 (50.0) | 50.0 (75.0) | **0.001a** | 75.0 (75.0) | 75.0 (50.0) | 0.187b |
| **Social function** | 58.9 ± 19.9 | 67.3 ± 19.4 | **<0.001a** | 67.0 (36.8) | 65.0 (27.8) | 0.097b |
| Has your health limited your social activities (such as visiting with friends or close relatives)? | 80.0 (60.0) | 80.0 (55.0) | 0.268b | 80.0 (60) | 80.0 (60.0) | 0.791b |
| Leisure time (such as hobbies, going out) | 75.0 (50.0) | 75.0 (50.0) | 0.095b | 75.0 (50.0) | 75.0 (50.0) | **0.048b** |
| Driving | 75.0 (75.0) | 100.0 (25.0) | **0.003b** | 100.0 (50.0) | 100.0 (50.0) | 0.540b |
| Work limitations | 50.0 (50.0) | 50.0 (50.0) | **0.037b** | 75.0 (75.0) | 50.0 (50.0) | 0.324b |
| Social limitations | 50.0 (50.0) | 50.0 (50.0) | **0.004b** | 75.0 (75.0) | 75.0 (50.0) | 0.798b |