

**Supplementary File 1. Table S1. Study variables and results of tests of associations with degree of pain medication dependence and presence of severe pain medication dependence**

| Variable                                | Sample descriptive | Associations with degree of dependence <sup>1</sup> |              |        |                | Associations with presence of severe dependence <sup>2</sup> |                |                |       |
|---|--------------------|---|--------------|--------|----------------|--|----------------|----------------|-------|
| Continuous measures                     | Mean (SD)          | Spearman's rho                                      |              | p      | Mean (SD)      |  | U <sup>3</sup> | p              |       |
|   |                    |   |              |        | LDQ<20         | LDQ≥20   |                |                |       |
| Age                                     | 56.57 (14.74)      | 0.162   |              | 0.097  | 56.36 (14.71)  | 57.80 (15.39)  | 634.0          | 0.66           |       |
| Spinal pain duration (months)           | 85.55 (109.12)     | 0.212   |              | 0.031  | 83.52 (111.83) | 98.57 (92.23)  | 525.0          | 0.32           |       |
| Spinal pain intensity                   | 7.41 (1.70)        | 0.529   |              | <0.001 | 7.16 (1.64)    | 8.87 (1.30)  | 286.5          | <0.001         |       |
| LDQ score                               | 11.52 (7.35)       | -   |              | -      | -              | -  | -              | -              |       |
| Binary measures                         | N (%)              | Mean (SD) dependence <sup>1</sup> by group          |              |        |                | Proportions with severe dependence <sup>2</sup>              |                | X <sup>2</sup> | p     |
|   |                    | Female  | Male         | t      | p              | Female   | Male           |                |       |
| Male                                    | 36 (34%)           | 11.13 (7.31)  | 12.28 (7.49) | 0.76   | 0.449          | 9/70 (12.9%)   | 6/36 (16.7%)   | 0.28           | 0.59  |
|   |                    | No  | Yes          |        |                | No   | Yes            |                |       |
| Married/cohabiting                      | 63 (59.4%)         | 11.51 (7.10)  | 11.52 (7.58) | 0.01   | 0.993          | 6/43 (14.0%)   | 9/63 (14.3%)   | 0.00           | 0.96  |
| Disabled by pain                        | 67 (63.2%)         | 6.41 (5.20)   | 14.49 (6.79) | 6.42   | <0.001         | 1/39 (2.6%)  | 14/67 (20.9%)  | 6.82           | 0.009 |
| Severely dependent <sup>2</sup>         | 15 (14.2%)         | -   | -            | -      |                | -  | -              | -              |       |
| Types of pain medication                |                    | No  | Yes          |        |                | No   | Yes            |                |       |
| Prescribed pain medication              | 94 (88.7%)         | 7.08 (5.95)   | 12.09 (7.35) | 2.26   | 0.026          | 1/12 (8.3%)  | 14/94 (14.9%)  | 0.03           | 0.86  |
| OTC pain medication                     | 66 (62.3%)         | 11.28 (7.51)  | 11.67 (7.31) | 0.27   | 0.792          | 5/40 (12.5%)   | 10/66 (15.2%)  | 0.14           | 0.70  |
| Strong opioid                           | 27 (25.5%)         | 10.27 (6.60)  | 15.19 (8.31) | 3.12   | 0.002          | 8/79 (10.1%)   | 7/27 (25.9%)   | 2.94           | 0.09  |
| Weak opioid                             | 42 (39.6%)         | 12.02 (7.70)  | 10.76 (6.81) | 0.86   | 0.393          | 12/64 (18.8%)  | 3/42 (7.1%)    | 2.81           | 0.09  |
| NSAIDs                                  | 44 (41.5%)         | 12.56 (7.58)  | 10.05 (6.83) | 1.76   | 0.082          | 10/62 (16.1%)  | 5/44 (11.4%)   | 0.48           | 0.49  |
| Anticonvulsant medication               | 41 (38.7%)         | 10.38 (6.81)  | 13.32 (7.90) | 2.03   | 0.045          | 6/65 (9.2%)  | 9/41 (22.0%)   | 3.35           | 0.07  |
| Antidepressant medication               | 12 (11.3%)         | 11.51 (7.35)  | 11.58 (7.72) | 0.03   | 0.974          | 13/94 (13.8%)  | 2/12 (16.7%)   | 0.00           | 1.00  |
| Antianxiety medication                  | 3 (2.8%)           | 11.69 (7.35)  | 5.67 (5.51)  | 1.41   | 0.163          | 15/103 (14.6%)   | 0/3 (0.0%)     | 0.00           | 1.00  |
| Acetaminophen/paracetamol               | 61 (57.5%)         | 10.60 (7.32)  | 12.20 (7.37) | 1.11   | 0.271          | 5/45 (11.1%)   | 10/61 (16.4%)  | 0.60           | 0.44  |
| Risk behaviours for medication misuse   |                    | No  | Yes          | t      | p              | No   | Yes            | X <sup>2</sup> | p     |
| Felt addicted to pain medication        | 6 (5.7%)           | 11.04 (7.05)  | 19.50 (8.36) | 2.83   | 0.006          | 12/100 (12.0%)   | 3/6 (50.0%)    | 3.96           | 0.046 |
| Used pain medication for other problems | 45 (42.5%)         | 10.13 (7.34)  | 13.40 (7.02) | 2.31   | 0.023          | 7/61 (11.5%)   | 8/45 (17.8%)   | 0.85           | 0.36  |

|                                       |            |              |              |      |        |                |              |      |       |
|---------------------------------------|------------|--------------|--------------|------|--------|----------------|--------------|------|-------|
| Saved up unused pain medications      | 37 (34.9%) | 10.87 (7.36) | 12.73 (7.28) | 1.25 | 0.216  | 9/69 (13.0%)   | 6/37 (16.2%) | 0.20 | 0.66  |
| Lost pain medications                 | 6 (5.7%)   | 11.48 (7.26) | 12.17 (9.50) | 0.22 | 0.825  | 14/100 (14.0%) | 1/6 (16.7%)  | 0.00 | 1.00  |
| Been taken off pain medications       | 10 (9.4%)  | 11.72 (7.48) | 9.60 (6.00)  | 0.87 | 0.388  | 14/96 (14.6%)  | 1/10 (10.0%) | 0.00 | 1.00  |
| Used another prescriber               | 18 (17.0%) | 11.19 (7.31) | 13.11 (7.55) | 1.01 | 0.316  | 12/88 (13.6%)  | 3/18 (16.7%) | 0.00 | 1.00  |
| Taken differently from how prescribed | 14 (13.2%) | 11.02 (7.19) | 14.79 (7.87) | 1.80 | 0.074  | 11/92 (12.0%)  | 4/14 (28.6%) | 1.56 | 0.21  |
| Taken more medication than prescribed | 31 (29.2%) | 9.48 (7.08)  | 16.45 (5.48) | 4.90 | <0.001 | 7/75 (9.3%)    | 8/31 (25.8%) | 3.64 | 0.06  |
| Borrowed pain medication              | 6 (5.7%)   | 11.12 (7.22) | 18.17 (6.80) | 2.33 | 0.022  | 12/100 (12.0%) | 3/6 (50.0%)  | 3.96 | 0.046 |
| Worried about own use                 | 13 (12.3%) | 10.81 (7.11) | 16.62 (7.30) | 2.75 | 0.007  | 11/93 (11.8%)  | 4/13 (30.8%) | 1.99 | 0.16  |
| Others worried about use              | 7 (6.6%)   | 11.11 (7.23) | 17.29 (7.18) | 2.19 | 0.031  | 13/99 (13.1%)  | 2/7 (28.6%)  | 0.33 | 0.57  |
| Emergency phone call or clinic visit  | 10 (9.4%)  | 10.81 (6.99) | 18.30 (7.70) | 3.20 | 0.002  | 11/96 (11.5%)  | 4/10 (40.0%) | 3.95 | 0.047 |

Notes to Table S1:

1. Dimensional LDQ scores.
2. LDQ scores ≥20.
3. Mann-Witney's U statistic.

LDQ=Leeds dependence questionnaire; NSAID= non-steroidal anti-inflammatory drugs.