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## Supplementary Material

- Article Title: Sex Differences in Recovery-Related Outcomes and Needs for Psychiatric Rehabilitation in People With Schizophrenia-Spectrum Disorder
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Supplementary table 1: Sex differences in socio-demographic and clinical characteristics when women aged 40 years or older were omitted from the analyses

|   | Schizophrenia                           |                               |                               |                      |
|---|---|-------------------------------|-------------------------------|----------------------|
|   | Male (N=785)                            | Female <= 40 years<br>(N=191) | Total (N=976)                 | p value              |
| Occupational status                         |   |                               |                               | 0.340 <sup>a</sup>   |
| Ν   | 716                                     | 177                           | 893                           |                      |
| Without income                              | 167 (23.3%)                             | 46 (26.0%)                    | 213 (23.9%)                   |                      |
| Competitvy/sheltered work                   | 68 (9.5%)                               | 11 (6.2%)                     | 79 (8.8%)                     |                      |
| Unemployment / Disability benefits          | 481 (67.2%)                             | 120 (67.8%)                   | 601 (67.3%)                   |                      |
| Narital status                              |   |                               |                               | < 0.001 <sup>ª</sup> |
| Ν   | 771                                     | 189                           | 960                           |                      |
| Single                                      | 703 (91.2%)                             | 153 (81.0%)                   | 856 (89.2%)                   |                      |
| In a couple                                 | 68 (8.8%)                               | 36 (19.0%)                    | 104 (10.8%)                   |                      |
| arenthood                                   |   | . ,                           | . ,                           | 0.014 <sup>ª</sup>   |
| N   | 758                                     | 189                           | 947                           |                      |
| Non-parents                                 | 685 (90.4%)                             | 159 (84.1%)                   | 844 (89.1%)                   |                      |
| Parents                                     | 73 (9.6%)                               | 30 (15.9%)                    | 103 (10.9%)                   |                      |
| urrent age                                  | , | 22 (19:370)                   |                               | 0.001 <sup>b</sup>   |
| N   | 785                                     | 191                           | 976                           | 0.001                |
| Mean (SD)                                   | 31.98 (9.08)                            | 29.13 (6.27)                  | 31.42 (8.68)                  |                      |
|   | 16.26 - 61.86                           | 17.60 - 39.98                 | 31.42 (8.68)<br>16.26 - 61.86 |                      |
| Range                                       | 10.20 - 01.80                           | 11.00 - 23.38                 | 10.20 - 01.80                 | 0.163 <sup>ª</sup>   |
| ducation level                              | 700                                     | 100                           | 054                           | 0.163                |
| N (C ) I I I I                              | 766                                     | 188                           | 954                           |                      |
| Primary/Secondary school                    | 167 (21.8%)                             | 36 (19.1%)                    | 203 (21.3%)                   |                      |
| High school                                 | 414 (54.0%)                             | 94 (50.0%)                    | 508 (53.2%)                   |                      |
| University                                  | 185 (24.2%)                             | 58 (30.9%)                    | 243 (25.5%)                   |                      |
| rotection                                   |   |                               |                               | 0.962 <sup>ª</sup>   |
| N   | 756                                     | 186                           | 942                           |                      |
| Without                                     | 623 (82.4%)                             | 153 (82.3%)                   | 776 (82.4%)                   |                      |
| With  | 133 (17.6%)                             | 33 (17.7%)                    | 166 (17.6%)                   | <b>F</b>             |
| Iness duration (years)                      |   |                               |                               | 0.001 <sup>b</sup>   |
| Ν   | 701                                     | 177                           | 878                           |                      |
| Mean (SD)                                   | 10.56 (8.12)                            | 8.10 (6.19)                   | 10.07 (7.83)                  |                      |
| Range                                       | 0.00 - 43.79                            | 0.00 - 27.55                  | 0.00 - 43.79                  |                      |
| lumber of previous admissions               |   |                               |                               | 0.294 <sup>b</sup>   |
| Ν   | 698                                     | 177                           | 875                           |                      |
| Mean (SD)                                   | 3.22 (3.63)                             | 3.58 (5.40)                   | 3.29 (4.05)                   |                      |
| Range                                       | 0.00 - 40.00                            | 0.00 - 64.00                  | 0.00 - 64.00                  |                      |
| uration (in month) of hospitalization       |   |                               |                               | 0.405 <sup>b</sup>   |
| Ν   | 607                                     | 160                           | 767                           |                      |
| Mean (SD)                                   | 8.08 (17.03)                            | 8.53 (14.35)                  | 8.18 (16.50)                  |                      |
| Range                                       | 0.00 - 250.00                           | 0.00 - 100.00                 | 0.00 - 250.00                 |                      |
| Puration from the first psychiatric contact |   |                               |                               | 0.402 <sup>a</sup>   |
| Ν   | 728                                     | 182                           | 910                           |                      |
| <2 years                                    | 139 (19.1%)                             | 36 (19.8%)                    | 175 (19.2%)                   |                      |
| 2-5 years                                   | 136 (18.7%)                             | 41 (22.5%)                    | 177 (19.5%)                   |                      |
| 5-10 years                                  | 158 (21.7%)                             | 43 (23.6%)                    | 201 (22.1%)                   |                      |
| >10 years                                   | 295 (40.5%)                             | 62 (34.1%)                    | 357 (39.2%)                   |                      |
| uicide attempt                              | · · /                                   |                               |                               | 0.009 <sup>ª</sup>   |
| N   | 744                                     | 188                           | 932                           |                      |
| No  | 568 (76.3%)                             | 126 (67.0%)                   | 694 (74.5%)                   |                      |
|   | 176 (23.7%)                             | 62 (33.0%)                    | 238 (25.5%)                   |                      |
| Yes   | 1/01/3 /%                               |                               |                               |                      |

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| No addiction               | 306 (40.9%) | 32 (17.1%)  | 338 (36.1%) |                    |
|----------------------------|-------------|-------------|-------------|--------------------|
| One or more addiction(s)   | 443 (59.1%) | 155 (82.9%) | 598 (63.9%) |                    |
| Psychiatric comorbidity    |             |             |             | 0.065 <sup>ª</sup> |
| Ν                          | 663         | 163         | 826         |                    |
| No                         | 509 (76.8%) | 136 (83.4%) | 645 (78.1%) |                    |
| Yes                        | 154 (23.2%) | 27 (16.6%)  | 181 (21.9%) |                    |
| Somatic comorbidity        |             |             |             | 0.304 <sup>a</sup> |
| Ν                          | 664         | 161         | 825         |                    |
| No                         | 520 (78.3%) | 132 (82.0%) | 652 (79.0%) |                    |
| Yes                        | 144 (21.7%) | 29 (18.0%)  | 173 (21.0%) |                    |
| Anxiolytics treatment      |             |             |             | 0.287 <sup>a</sup> |
| Ν                          | 783         | 189         | 972         |                    |
| Yes                        | 230 (29.4%) | 63 (33.3%)  | 293 (30.1%) |                    |
| No                         | 553 (70.6%) | 126 (66.7%) | 679 (69.9%) |                    |
| Antidepressant treatment   |             |             |             | 0.332 <sup>a</sup> |
| Ν                          | 783         | 189         | 972         |                    |
| Yes                        | 177 (22.6%) | 49 (25.9%)  | 226 (23.3%) |                    |
| No                         | 606 (77.4%) | 140 (74.1%) | 746 (76.7%) |                    |
| Mood stabilizers treatment |             |             |             | 0.324 <sup>a</sup> |
| Ν                          | 783         | 189         | 972         |                    |
| Yes                        | 90 (11.5%)  | 17 (9.0%)   | 107 (11.0%) |                    |
| No                         | 693 (88.5%) | 172 (91.0%) | 865 (89.0%) |                    |
| Neuroleptics treatment     |             |             |             | 0.074 <sup>a</sup> |
| Ν                          | 783         | 189         | 972         |                    |
| Yes                        | 737 (94.1%) | 184 (97.4%) | 921 (94.8%) |                    |
| No                         | 46 (5.9%)   | 5 (2.6%)    | 51 (5.2%)   |                    |
| Charge of drug treatment   |             |             |             | 0.367 <sup>a</sup> |
| Ν                          | 783         | 189         | 972         |                    |
| Zero or one classe         | 418 (53.4%) | 94 (49.7%)  | 512 (52.7%) |                    |
| Two and more classes       | 365 (46.6%) | 95 (50.3%)  | 460 (47.3%) |                    |

a. Pearson's Chi-squared test

b. Kruskal-Wallis rank sum test

Supplementary table 2: sex differences in cognition and recovery-related outcomes when women aged 40 years or older were omitted from the analyses

|  |                 | Schizoph                      | irenia           |                    |
|--|-----------------|-------------------------------|------------------|--------------------|
|  | Male<br>(N=785) | Female <= 40<br>years (N=191) | Total<br>(N=976) | p valu             |
| Global Assessment of Functioning                   |                 |                               |                  | 0.747 <sup>t</sup> |
| Ν  | 582             | 153                           | 735              |                    |
| Mean (SD)  | 55.49 (13.89)   | 55.87 (14.24)                 | 55.57 (13.96)    |                    |
| Range  | 10.00 - 95.00   | 20.00 - 90.00                 | 10.00 - 95.00    |                    |
| Clinical Global Impression                         |                 |                               |                  | $0.686^{10}$       |
| Ν  | 576             | 153                           | 729              |                    |
| Mean (SD)  | 4.20 (1.10)     | 4.17 (1.12)                   | 4.19 (1.10)      |                    |
| Range  | 1.00 - 7.00     | 1.00 - 7.00                   | 1.00 - 7.00      |                    |
| MARS - Total score                                 |                 |                               |                  | 0.915 <sup>t</sup> |
| Ν  | 402             | 101                           | 503              |                    |
| Mean (SD)  | 6.82 (1.96)     | 6.80 (1.96)                   | 6.81 (1.96)      |                    |
| Range  | 0.00 - 10.00    | 0.00 - 10.00                  | 0.00 - 10.00     |                    |
| IS Birchwood - Total score                         |                 |                               |                  | 0.339 <sup>t</sup> |
| Ν  | 439             | 123                           | 562              |                    |
| Mean (SD)  | 8.41 (2.65)     | 8.71 (2.43)                   | 8.48 (2.61)      |                    |
| Range  | 0.00 - 12.00    | 1.50 - 12.00                  | 0.00 - 12.00     |                    |
| SQOL18 - Total score                               |                 |                               |                  | 0.198              |
| Ν  | 415             | 109                           | 524              |                    |
| Mean (SD)  | 54.22 (17.25)   | 51.81 (17.70)                 | 53.72 (17.35)    |                    |
| Range  | 4.16 - 100.00   | 7.81 - 93.22                  | 4.16 - 100.00    |                    |
| WEMWBS - Total score (z-score)                     |                 |                               |                  | 0.122              |
| Ν  | 480             | 126                           | 606              |                    |
| Mean (SD)  | -1.05 (1.28)    | -1.25 (1.42)                  | -1.09 (1.32)     |                    |
| Range  | -7,79           | -7,37                         | -7,79            |                    |
| STORI - Max of stages                              |                 |                               |                  | 0.406              |
| N  | 385             | 102                           | 487              |                    |
| Moratorium   | 50 (13.0%)      | 19 (18.6%)                    | 69 (14.2%)       |                    |
| Awareness  | 59 (15.3%)      | 17 (16.7%)                    | 76 (15.6%)       |                    |
| Preparation  | 43 (11.2%)      | 8 (7.8%)                      | 51 (10.5%)       |                    |
| Rebuilding   | 98 (25.5%)      | 20 (19.6%)                    | 118 (24.2%)      |                    |
| Growth   | 135 (35.1%)     | 38 (37.3%)                    | 173 (35.5%)      |                    |
| SERS - Total score                                 |                 |                               |                  | 0.320              |
| N  | 418             | 105                           | 523              |                    |
| Mean (SD)  | 5.24 (19.82)    | 3.06 (21.16)                  | 4.80 (20.10)     |                    |
| Range  | -99             | -108                          | -108             |                    |
| ISMI - Total score                                 | ,,,             | 100                           | 100              | 0.384 <sup>t</sup> |
| N  | 426             | 115                           | 541              | 0.001              |
| Mean (SD)  | 2.19 (0.46)     | 2.23 (0.43)                   | 2.20 (0.45)      |                    |
| Range  | 1.07 - 3.80     | 1.10 - 3.10                   | 1.07 - 3.80      |                    |
|  | 1.07 5.00       |                               | 1.57 5.00        |                    |
| CASIG adaptation - Satisfaction level with housing |                 |                               |                  | 0.934 <sup>1</sup> |
| Ν  | 393             | 96                            | 489              |                    |
| Mean (SD)  | 6.84 (2.38)     | 6.79 (2.57)                   | 6.83 (2.41)      |                    |
| Range  | 0.00 - 10.00    | 0.00 - 10.00                  | 0.00 - 10.00     |                    |
| CASIG adaptation - Help needed with housing        |                 |                               |                  | 0.029              |
| Ν  | 374             | 93                            | 467              |                    |
| No   | 239 (63.9%)     | 48 (51.6%)                    | 287 (61.5%)      |                    |
| Yes  | 135 (36.1%)     | 45 (48.4%)                    | 180 (38.5%)      |                    |

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## CASIG adaptation - Satisfaction level with daily life skills

| Ν  | 389                        | 95                       | 484                        |                           |
|--|----------------------------|--------------------------|----------------------------|---------------------------|
| Mean (SD)  | 6.48 (2.38)                | 6.53 (2.41)              | 6.49 (2.38)                |                           |
| Range  | 0.00 - 10.00               | 0.00 - 10.00             | 0.00 - 10.00               |                           |
| CASIG adaptation - Help needed with daily life skills                  |                            |                          |                            | 0.316 <sup>a</sup>        |
| Ν  | 373                        | 92                       | 465                        |                           |
| No   | 271 (72.7%)                | 62 (67.4%)               | 333 (71.6%)                |                           |
| Yes  | 102 (27.3%)                | 30 (32.6%)               | 132 (28.4%)                |                           |
| CASIG adaptation - Satisfaction level with vocational status           |                            |                          |                            | 0.818 <sup>b</sup>        |
| Ν  | 375                        | 92                       | 467                        |                           |
| Mean (SD)  | 3.42 (2.91)                | 3.33 (2.81)              | 3.40 (2.89)                |                           |
| Range  | 0.00 - 10.00               | 0.00 - 10.00             | 0.00 - 10.00               |                           |
| CASIG adaptation - Help needed with vocational status                  |                            |                          |                            | 0.015 <sup>a</sup>        |
| Ν  | 362                        | 94                       | 456                        |                           |
| No   | 74 (20.4%)                 | 9 (9.6%)                 | 83 (18.2%)                 |                           |
| Yes  | 288 (79.6%)                | 85 (90.4%)               | 373 (81.8%)                |                           |
| CASIG adaptation - Satisfaction level with interpersonal relationships |                            |                          |                            | 0.077 <sup>b</sup>        |
| Ν  | 386                        | 96                       | 482                        |                           |
| Mean (SD)  | 6.20 (2.71)                | 5.61 (2.92)              | 6.08 (2.76)                |                           |
| Range  | 0.00 - 10.00               | 0.00 - 10.00             | 0.00 - 10.00               |                           |
| CASIG adaptation - Help needed with interpersonal relationships        |                            |                          |                            | 0.044 <sup>a</sup>        |
|  |                            |                          |                            | 0.011                     |
| N  | 370                        | 94                       | 464                        |                           |
| No<br>Yes  | 216 (58.4%)<br>154 (41.6%) | 44 (46.8%)<br>50 (53.2%) | 260 (56.0%)<br>204 (44.0%) |                           |
|  | 134 (41.0%)                | 50 (55.270)              | 204 (44.0%)                |                           |
| CASIG adaptation - Satisfaction level with intimate relationships      |                            |                          |                            | 0.643 <sup>b</sup>        |
| Ν  | 384                        | 93                       | 477                        |                           |
| Mean (SD)  | 4.09 (3.09)                | 4.35 (3.50)              | 4.14 (3.17)                |                           |
| Range  | 0.00 - 10.00               | 0.00 - 10.00             | 0.00 - 10.00               |                           |
| CASIG adaptation - Help needed with intimate relationships             |                            |                          |                            | 0.305 <sup>a</sup>        |
| Ν  | 369                        | 94                       | 463                        |                           |
| No   | 214 (58.0%)                | 49 (52.1%)               | 263 (56.8%)                |                           |
| Yes  | 155 (42.0%)                | 45 (47.9%)               | 200 (43.2%)                |                           |
| CASIG adaptation - Satisfaction level with family relationships        |                            |                          |                            | 0.781 <sup>b</sup>        |
| Ν  | 389                        | 96                       | 485                        |                           |
| Mean (SD)  | 7.01 (2.44)                | 6.92 (2.52)              | 6.99 (2.46)                |                           |
| Range  | 0.00 - 10.00               | 0.00 - 10.00             | 0.00 - 10.00               |                           |
| CASIG adaptation - Help needed with family relationships               |                            |                          |                            | 0.195 <sup>a</sup>        |
| Ν  | 374                        | 94                       | 468                        |                           |
| No   | 238 (63.6%)                | 53 (56.4%)               | 291 (62.2%)                |                           |
| Yes  | 136 (36.4%)                | 41 (43.6%)               | 177 (37.8%)                |                           |
| Having two or more socially valued roles                               |                            |                          |                            | <b>0.004</b> <sup>a</sup> |
| N  | 700                        | 177                      | 877                        |                           |
| No   | 597 (85.3%)                | 135 (76.3%)              | 732 (83.5%)                |                           |
| Yes  | 103 (14.7%)                | 42 (23.7%)               | 145 (16.5%)                |                           |

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 $0.814^{b}$ 

| Personal recovery                                      |             |             |             | 0.503 <sup>a</sup>        |
|--|-------------|-------------|-------------|---------------------------|
| Ν  | 385         | 102         | 487         |                           |
| STORI - Moratorium/Awareness/Preparation               | 152 (39.5%) | 44 (43.1%)  | 196 (40.2%) |                           |
| STORI - Rebuilding/Growth                              | 233 (60.5%) | 58 (56.9%)  | 291 (59.8%) |                           |
| Functional recovery                                    |             |             |             | $0.072^{a}$               |
| Ν  | 582         | 153         | 735         |                           |
| EGF <= 61  | 427 (73.4%) | 101 (66.0%) | 528 (71.8%) |                           |
| $EGF \ge 61$   | 155 (26.6%) | 52 (34.0%)  | 207 (28.2%) |                           |
| Long term memory (CVLT/RLRI)                           |             |             |             | 0.237 <sup>a</sup>        |
| Ν  | 446         | 115         | 561         |                           |
| Deficit level  | 154 (34.5%) | 33 (28.7%)  | 187 (33.3%) |                           |
| Normal level   | 292 (65.5%) | 82 (71.3%)  | 374 (66.7%) |                           |
| Executing functioning (Digit span - Short term memory) |             |             |             | <b>0.008</b> <sup>a</sup> |
| Ν  | 458         | 120         | 578         |                           |
| Deficit level  | 59 (12.9%)  | 27 (22.5%)  | 86 (14.9%)  |                           |
| Normal level   | 399 (87.1%) | 93 (77.5%)  | 492 (85.1%) |                           |
| Executing functioning (Digit span - Working memory)    |             |             |             | <b>0.010</b> <sup>a</sup> |
| Ν  | 458         | 120         | 578         |                           |
| Deficit level  | 75 (16.4%)  | 32 (26.7%)  | 107 (18.5%) |                           |
| Normal level   | 383 (83.6%) | 88 (73.3%)  | 471 (81.5%) |                           |
| Attention (D2-R - Attention capacity)                  |             |             |             | $0.886^{a}$               |
| Ν  | 377         | 88          | 465         |                           |
| Deficit level  | 117 (31.0%) | 28 (31.8%)  | 145 (31.2%) |                           |
| Normal level   | 260 (69.0%) | 60 (68.2%)  | 320 (68.8%) |                           |
| Attention (D2-R - Target processed/processing speed)   |             |             |             | 0.495 <sup>a</sup>        |
| Ν  | 383         | 89          | 472         |                           |
| Deficit level  | 174 (45.4%) | 44 (49.4%)  | 218 (46.2%) |                           |
| Normal level   | 209 (54.6%) | 45 (50.6%)  | 254 (53.8%) |                           |
| Attention (D2-R - Errors and omissions)                |             |             |             | $0.887^{a}$               |
| Ν  | 380         | 88          | 468         |                           |
| Deficit level  | 32 (8.4%)   | 7 (8.0%)    | 39 (8.3%)   |                           |
| Normal level   | 348 (91.6%) | 81 (92.0%)  | 429 (91.7%) |                           |
| Planning abilities (Shopping test - Reaction time)     |             |             |             | 0.175 <sup>a</sup>        |
| Ν  | 413         | 105         | 518         |                           |
| Deficit level  | 83 (20.1%)  | 15 (14.3%)  | 98 (18.9%)  |                           |
| Normal level   | 330 (79.9%) | 90 (85.7%)  | 420 (81.1%) |                           |
| Planning abilities (Shopping test - Error)             |             |             |             | 0.792 <sup>a</sup>        |
| Ν  | 411         | 105         | 516         |                           |
| Deficit level  | 116 (28.2%) | 31 (29.5%)  | 147 (28.5%) |                           |
| Normal level   | 295 (71.8%) | 74 (70.5%)  | 369 (71.5%) |                           |

a Pearson's Chi-squared test

b Kruskal-Wallis rank sum test

c Linear Model ANOVA