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**Table SI. Electronic search strategy – Databases, keywords and records**

| <b>Databases</b>           | <b>Keywords</b>                                     | <b>Records after filters applied</b> |
|----------------------------|-----------------------------------------------------|--------------------------------------|
| <b>Embase</b>              | pruritus AND mental disease                         | 1                                    |
|                            | pruritus AND mental stress                          | 7                                    |
|                            | pruritus AND mental health                          | 77                                   |
|                            | pruritus AND dissociative disorder                  | 0                                    |
|                            | pruritus AND alexithymia                            | 7                                    |
| <b>Subtotal</b>            |                                                     | <b>92</b>                            |
| <b>PubMed/<br/>Medline</b> | "Pruritus"[Mesh] AND "Mental Disorders"[Mesh]       | 295                                  |
|                            | "Pruritus"[Mesh] AND "Stress, Psychological"[Mesh]  | 62                                   |
|                            | "Pruritus"[Mesh] AND "Psychopathology"[Mesh]        | 0                                    |
|                            | "Pruritus"[Mesh] AND "Mental Health"[Mesh]          | 10                                   |
|                            | "Pruritus"[Mesh] AND "Dissociative Disorders"[Mesh] | 1                                    |
|                            | "Pruritus"[Mesh] AND "Affective Symptoms"[Mesh]     | 3                                    |
| <b>Subtotal</b>            |                                                     | <b>371</b>                           |
| <b>Web<br/>of Science</b>  | Pruritus AND Mental Disorders                       | 71                                   |
|                            | Pruritus AND Mental Diseases                        | 124                                  |
|                            | Pruritus AND Psychopathology                        | 8                                    |
|                            | Pruritus AND Stress, Psychological                  | 70                                   |
|                            | Pruritus AND Mental Health                          | 141                                  |
|                            | Pruritus AND Dissociative Disorders                 | 5                                    |
|                            | Pruritus AND Affective Symptoms                     | 13                                   |
|                            | Pruritus AND Alexithymia                            | 5                                    |
|                            | Pruritus AND Mental Stress                          | 23                                   |
| <b>Subtotal</b>            |                                                     | <b>460</b>                           |
| <b>Total</b>               |                                                     | <b>923</b>                           |

**Table SII. Modified Newcastle-Ottawa scale – Cohort studies**

| ASSESSMENT CRITERIA<br>FIRST AUTHOR, YEAR | Selection                                   |                                        |                              |                                                                             | Comparability                                                      | Outcome                  |                                                     |                                     | Score                                |
|-------------------------------------------|---------------------------------------------|----------------------------------------|------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------|-----------------------------------------------------|-------------------------------------|--------------------------------------|
|                                           | 1. Representativeness of the exposed cohort | 2. Selection of the non-exposed cohort | 3. Ascertainment of exposure | 4. Demonstration that outcome of interest was not present at start of study | 5. Comparability of cohorts on the basis of the design or analysis | 6. Assessment of outcome | 7. Was follow-up long enough for outcomes to occur? | 8. Adequacy of follow up of cohorts | Overall Quality Assessment (Max = 9) |
| Alanne S, 2011 (12)                       | *                                           | *                                      | *                            | *                                                                           | **                                                                 | *                        | *                                                   | *                                   | 9                                    |
| Liu JM, 2017 (27)                         | *                                           | *                                      | *                            | *                                                                           | **                                                                 | *                        | *                                                   | *                                   | 9                                    |

**Table SIII. Modified Newcastle-Ottawa scale – Case-control studies**

| ASSESSMENT CRITERIA              |  | Selection                 |                       |                          |                           | Comparability                                                                 | Exposure                     |                                                        |                      | Score                     |
|----------------------------------|--|---------------------------|-----------------------|--------------------------|---------------------------|-------------------------------------------------------------------------------|------------------------------|--------------------------------------------------------|----------------------|---------------------------|
| FIRST AUTHOR, YEAR               |  | 1. Is the case definition | 2. Representativeness | 3. Selection of controls | 4. Definition of controls | 5. Comparability of cases and controls on the basis of the design or analysis | 6. Ascertainment of exposure | 7. Same method of ascertainment for cases and controls | 8. Non-response rate | Overall quality (max = 9) |
| Altunay İK, 2021 (34)            |  | *                         | *                     |                          |                           | **                                                                            | *                            |                                                        |                      | 5                         |
| Bender BG, 2003 (13)             |  | *                         |                       |                          |                           |                                                                               | *                            | *                                                      |                      | 3                         |
| Benito de Valle M, 2012 (30)     |  | *                         |                       | *                        |                           | *                                                                             | *                            |                                                        |                      | 4                         |
| Cheung AC, 2016 (31)             |  | *                         | *                     | *                        | *                         | **                                                                            | *                            | *                                                      |                      | 8                         |
| Conrad R, 2008 (22)              |  | *                         | *                     | *                        |                           | **                                                                            | *                            |                                                        | *                    | 7                         |
| Holm EA, 2005 (14)               |  | *                         | *                     |                          |                           |                                                                               |                              |                                                        |                      | 2                         |
| Horev A, 2017 (15)               |  | *                         | *                     | *                        | *                         | **                                                                            | *                            | *                                                      |                      | 8                         |
| Jensen P, 2018 (25)              |  | *                         | *                     | *                        | *                         | *                                                                             |                              |                                                        | *                    | 6                         |
| Kaaz K, 2018 (24)                |  | *                         | *                     |                          |                           |                                                                               | *                            |                                                        |                      | 3                         |
| Kaaz K, 2019 (16)                |  | *                         | *                     |                          |                           |                                                                               | *                            |                                                        |                      | 3                         |
| Kalinska-Bienias A, 2019 (21)    |  | *                         | *                     |                          |                           |                                                                               | *                            |                                                        |                      | 3                         |
| Martín-Brufau, 2010 (35)         |  | *                         | *                     | *                        | *                         | **                                                                            | *                            |                                                        |                      | 7                         |
| Martín-Brufau, 2017 (36)         |  | *                         | *                     | *                        | *                         | **                                                                            | *                            |                                                        |                      | 7                         |
| Mochizuki H, 2019 (17)           |  | *                         | *                     |                          |                           |                                                                               | *                            |                                                        |                      | 3                         |
| Montagnese S, 2013 (32)          |  | *                         | *                     | *                        | *                         | **                                                                            | *                            | *                                                      |                      | 8                         |
| Ograczyk-Piotrowska A, 2018 (23) |  | *                         | *                     | *                        | *                         | **                                                                            | *                            | *                                                      |                      | 8                         |
| Oh SH, 2010 (18)                 |  | *                         | *                     |                          |                           |                                                                               | *                            |                                                        |                      | 3                         |
| Raszeja-Wyszomirska J, 2016 (33) |  | *                         | *                     | *                        | *                         | **                                                                            | *                            | *                                                      |                      | 8                         |
| Schricker S, 2019 (28)           |  | *                         | *                     |                          |                           |                                                                               | *                            |                                                        |                      | 3                         |
| Schut C, 2014 (19)               |  | *                         | *                     | *                        |                           | **                                                                            | *                            | *                                                      |                      | 7                         |
| Shutty BG, 2013 (26)             |  | *                         | *                     |                          |                           | *                                                                             | *                            | *                                                      |                      | 5                         |
| Tran B, 2010 (20)                |  | *                         | *                     |                          |                           | *                                                                             | *                            | *                                                      |                      | 5                         |
| Yilmaz B, 2016 (37)              |  | *                         | *                     |                          |                           | *                                                                             | *                            | *                                                      |                      | 5                         |
| Yngman-Uhlin P, 2011 (29)        |  | *                         | *                     | *                        | *                         | **                                                                            | *                            | *                                                      |                      | 8                         |