

Appendix 1. The Symptom Questionnaire by R. Kellner

Please, tell me how you have felt DURING THE PAST WEEK/TODAY and make a small cross on the answer you choose. For example, consider the word “Nervous” in the first line. If you have felt nervous, cross on YES (~~YES~~ NO). If you have not felt nervous, make the small cross on NO (YES ~~NO~~). Sometimes you will have to choose between TRUE and FALSE. For example, consider the expression “Feeling of not enough air”: you will have to answer TRUE (~~TRUE~~ FALSE) if you really have had the feeling there was not enough air; FALSE (~~TRUE~~ FALSE) if, on the contrary, you have not had that feeling. In the same way, you will answer TRUE at the expression “No pains anywhere” if you have not had pains; on the contrary, you will answer FALSE if you have had pains. Don't think much before answering. Thank you.

1. Nervous	YES	NO
2. Weary	YES	NO
3. Irritable	YES	NO
4. Cheerful	YES	NO
5. Tense, tensed up	YES	NO
6. Sad, blue	YES	NO
7. Happy	YES	NO
8. Frightened	YES	NO
9. Feeling calm	YES	NO
10. Feeling healthy	YES	NO
11. Losing temper easily	YES	NO
12. Feeling of not enough air	TRUE	FALSE
13. Feeling kind toward people	YES	NO
14. Feeling fit	YES	NO
15. Heavy arms or legs	YES	NO
16. Feeling confident	YES	NO
17. Feeling warm toward people	YES	NO
18. Shaky	YES	NO
19. No pains anywhere	TRUE	FALSE
20. Angry	YES	NO
21. Arms and legs feel strong	YES	NO
22. Appetite poor	YES	NO
23. Feeling peaceful	YES	NO
24. Feeling unworthy	YES	NO
25. Annoyed	YES	NO
26. Feeling of rage	YES	NO
27. Cannot enjoy yourself	TRUE	FALSE
28. Tight head or neck	YES	NO
29. Relaxed	YES	NO
30. Restless	YES	NO
31. Feeling friendly	YES	NO
32. Feeling of hate	YES	NO
33. Choking feeling	YES	NO
34. Afraid	YES	NO
35. Patient	YES	NO
36. Scared	YES	NO
37. Furious	YES	NO
38. Feeling charitable, forgiving	YES	NO
39. Feeling guilty	YES	NO
40. Feeling well	YES	NO

41. Feeling of pressure in head or body	YES	NO
42. Worried	YES	NO
43. Contented	YES	NO
44. Weak arms or legs	YES	NO
45. Feeling desperate, terrible	YES	NO
46. No aches anywhere	TRUE	FALSE
47. Thinking of death or dying	YES	NO
48. Hot tempered	YES	NO
49. Terrified	YES	NO
50. Feeling of courage	YES	NO
51. Enjoying yourself	YES	NO
52. Breathing difficult	YES	NO
53. Parts of the body feel numb or tingling	YES	NO
54. Takes a long time to fall asleep	YES	NO
55. Feeling hostile	YES	NO
56. Infuriated	YES	NO
57. Heart beating fast or pounding	YES	NO
58. Depressed	YES	NO
59. Jumpy	YES	NO
60. Feeling a failure	YES	NO
61. Not interested in things	TRUE	FALSE
62. Highly strung	YES	NO
63. Cannot relax	TRUE	FALSE
64. Panicky	YES	NO
65. Pressure on head	YES	NO
66. Blaming yourself	YES	NO
67. Thoughts of ending your life	YES	NO
68. Frightening thoughts	YES	NO
69. Enraged	YES	NO
70. Irritated by other people	YES	NO
71. Looking forward toward the future	YES	NO
72. Nauseated, sick to stomach	YES	NO
73. Feeling that life is bad	YES	NO
74. Upset bowels or stomach	YES	NO
75. Feeling inferior to others	YES	NO
76. Feeling useless	YES	NO
77. Muscle pains	YES	NO
78. No unpleasant feelings in head or body	TRUE	FALSE
79. Headaches	YES	NO
80. Feel like attacking people	YES	NO
81. Shaking with anger	YES	NO
82. Mad	YES	NO
83. Feeling of goodwill	YES	NO
84. Feel like crying	YES	NO
85. Cramps	YES	NO
86. Feeling that something bad will happen	YES	NO
87. Wound up, uptight	YES	NO
88. Get angry quickly	YES	NO
89. Self-confident	YES	NO
90. Resentful	YES	NO
91. Feeling of hopelessness	YES	NO

92. Head pains

YES NO

Appendix 2. Instructions for the scoring of the Symptom Questionnaire

Anxiety scale: includes 23 items (1; 5; 8-9; 16; 18; 23; 29-30; 34; 36; 42; 49-50; 54; 59; 62-64; 68; 86-87; 89).

- In items 1; 5; 8; 18; 30; 34; 36; 42; 49; 54; 59; 62-64; 68; 86-87 “yes” or “true” correspond to a score of 1, indicating presence of anxiety, while “no” or “false” correspond to a score of 0, indicating absence of anxiety.
- In items 9; 16; 23; 29; 50; 89 “yes” or “true” correspond to a score of 0, indicating absence of anxiety, while “no” or “false” correspond to a score of 1, indicating presence of anxiety (reverse score).
- Total score may range from 0 (absence of anxiety) to 23 (maximum anxiety).

Anxiety subscale: includes 17 items (1; 5; 8; 18; 30; 34; 36; 42; 49; 54; 59; 62-64; 68; 86-87).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of anxiety, while “no” or “false” correspond to a score of 0, indicating absence of anxiety.
- Total score may range from 0 (absence of anxiety) to 17 (maximum anxiety).

Relaxation subscale: includes 6 items (9; 16; 23; 29; 50; 89).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of relaxation, while “no” or “false” correspond to a score of 0, indicating absence of relaxation.
- Total score may range from 0 (absence of relaxation) to 6 (maximum relaxation).

Depression scale: includes 23 items (2; 4; 6-7; 24; 27; 39-40; 43; 45; 47; 51; 58; 60-61; 66-67; 71; 73; 75-76; 84; 91).

- In items 2; 6; 24; 27; 39; 45; 47; 58; 60-61; 66-67; 73; 75-76; 84; 91 “yes” or “true” correspond to a score of 1, indicating presence of depression, while “no” or “false” correspond to a score of 0, indicating absence of depression.
- In items 4; 7; 40; 43; 51; 71 “yes” or “true” correspond to a score of 0, indicating absence of depression, while “no” or “false” correspond to a score of 1, indicating presence of depression (reverse score).
- Total score may range from 0 (absence of depression) to 23 (maximum depression).

Depression subscale: includes 17 items (2; 6; 24; 27; 39; 45; 47; 58; 60-61; 66-67; 73; 75-76; 84; 91).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of depression, while “no” or “false” correspond to a score of 0, indicating absence of depression.
- Total score may range from 0 (absence of depression) to 17 (maximum depression).

Contentment subscale: includes 6 items (4; 7; 40; 43; 51; 71).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of contentment, while “no” or “false” correspond to a score of 0, indicating absence of contentment.
- Total score may range from 0 (absence of contentment) to 6 (maximum contentment).

Somatization scale: includes 23 items (10; 12; 14-15; 19; 21-22; 28; 33; 41; 44; 46; 52-53; 57; 65; 72; 74; 77-79; 85; 92).

- In items 12; 15; 22; 28; 33; 41; 44; 52-53; 57; 65; 72; 74; 77; 79; 85; 92 “yes” or “true” correspond to a score of 1, indicating presence of somatization, while “no” or “false” correspond to a score of 0, indicating absence of somatization.
- In items 10; 14; 19; 21; 46; 78 “yes” or “true” correspond to a score of 0, indicating absence of somatization, while “no” or “false” correspond to a score of 1, indicating presence of somatization (reverse score).
- Total score may range from 0 (absence of somatization) to 23 (maximum somatization).

Somatization subscale: includes 17 items (12; 15; 22; 28; 33; 41; 44; 52-53; 57; 65; 72; 74; 77; 79; 85; 92).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of somatization, while “no” or “false” correspond to a score of 0, indicating absence of somatization.
- Total score may range from 0 (absence of somatization) to 17 (maximum somatization).

Physical well-being subscale: includes 6 items (10; 14; 19; 21; 46; 78).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of physical well-being, while “no” or “false” correspond to a score of 0, indicating absence of physical well-being.
- Total score may range from 0 (absence of physical well-being) to 6 (maximum physical well-being).

Hostility scale: includes 23 items (3; 11; 13; 17; 20; 25-26; 31-32; 35; 37-38; 48; 55-56; 69-70; 80-83; 88; 90).

- In items 3; 11; 20; 25-26; 32; 37; 48; 55-56; 69-70; 80-82; 88; 90 “yes” or “true” correspond to a score of 1, indicating presence of hostility, while “no” or “false” correspond to a score of 0, indicating absence of hostility.
- In items 13; 17; 31; 35; 38; 83 “yes” or “true” correspond to a score of 0, indicating absence of hostility, while “no” or “false” correspond to a score of 1, indicating presence of hostility (reverse score).
- Total score may range from 0 (absence of hostility) to 23 (maximum hostility).

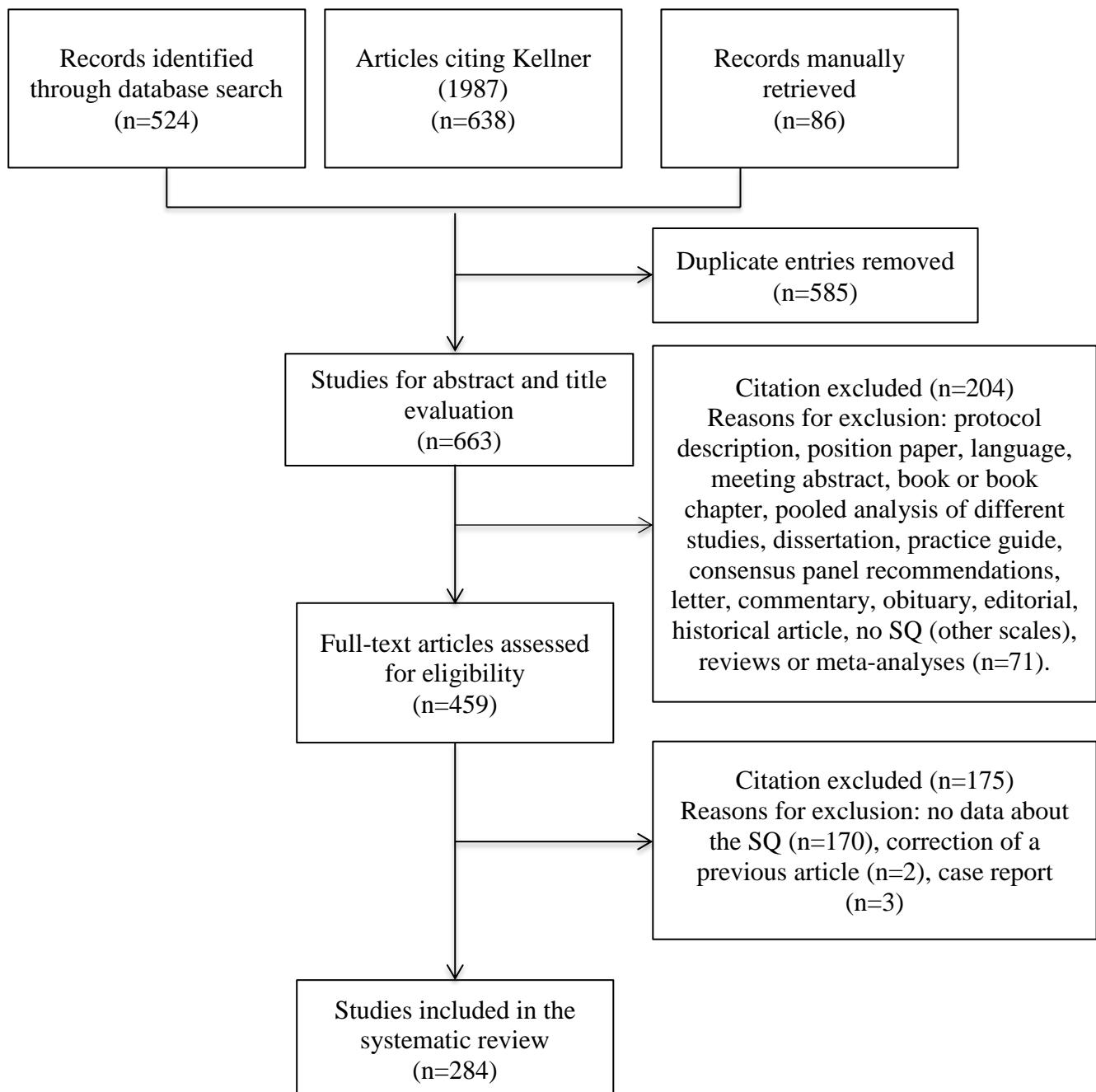
Hostility subscale: includes 17 items (3; 11; 20; 25-26; 32; 37; 48; 55-56; 69-70; 80-82; 88; 90).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of hostility, while “no” or “false” correspond to a score of 0, indicating absence of hostility.
- Total score may range from 0 (absence of hostility) to 17 (maximum hostility).

Friendliness subscale: includes 6 items (13; 17; 31; 35; 38; 83).

- In all items “yes” or “true” correspond to a score of 1, indicating presence of friendliness, while “no” or “false” correspond to a score of 0, indicating absence of friendliness.
- Total score may range from 0 (absence of friendliness) to 6 (maximum friendliness).

Figure 1. Flow chart of included studies



Additional references

- Agostini A, Filippini N, Cevolani D, Agati R, Leoni C, Tambasco R, et al. Brain functional changes in patients with ulcerative colitis: a functional magnetic resonance imaging study on emotional processing. *Inflamm Bowel Dis.* 2011 Aug; 17(8):1769-77.
- Becker AE. Postpartum illness in Fiji: a sociosomatic perspective. *Psychosom Med.* 1998 Jul-Aug;60(4):431-8.
- Benzies K, Mychasiuk R, Tough S. What patterns of postpartum psychological distress are associated with maternal concerns about their children's emotional and behavioural problems at the age of three years? *Early Child Dev Care.* 2015 Jan; 185(1):1-16.
- Berti Ceroni F, Gherardi S, Rucci P. DSM-III mental disorders in general medical sector: predictors of outcome. *Int J of Soc Psychiatry.* 1996 Spring; 42(1):45-57.
- Bull MJ. Delirium in older adults attending adult day care and family caregiver distress. *Int J Older People Nurs.* 2011 Jun; 6(2):85-92.
- Bull MJ, Hansen HE, Gross CR. A professional-patient partnership model of discharge planning with elders hospitalized with heart failure. *Appl Nurs Res.* 2000 Feb;13(1):19-28.
- Cassano P, Soares CN, Cusin C, Mascarini A, Cohen LS, Fava M. Antidepressant response and well-being in pre-, peri- and postmenopausal women with major depressive disorder treated with fluoxetine. *Psychother Psychosom.* 2005;74(6):362-5.
- Cesana ML, Giordano F, Boerchi D, Rivolta M, Castelli C. Drawing to reconstruct: pilot study on acknowledging prisoners' internal and external resources in a penitentiary institution. *World Futures.* 2018;74(6):392-411.
- Fava M, Littman A, Lamon-Fava S, Milani R, Shera D, MacLaughlin R, et al. Psychological, behavioral and biochemical risk factors for coronary artery disease among American and Italian male corporate managers. *Am J Cardiol.* 1992 Dec;70(18):1412-6.
- Fava M, Mischoulon D, Iosifescu D, Witte J, Pencina M, Flynn M, et al. A double-blind, placebo-controlled study of aripiprazole adjunctive to antidepressant therapy among depressed outpatients with inadequate response to prior antidepressant therapy (ADAPT-A Study). *Psychother Psychosom.* 2012;81(2):87-97.

Fava M, Rankin MA, Wright EC, Alpert JE, Nierenberg AA, Pava J, et al. Anxiety disorders in major depression. *Compr Psychiatry*. 2000 Mar-Apr;41(2):97-102.

Fava M, Detke MJ, Balestrieri M, Wang F, Raskin J, Perahia D. Management of depression relapse: re-initiation of duloxetine treatment or dose increase. *J Psychiatr Res.* 2006 Jun;40(4):328-36.

Fava M, Wiltse C, Walker D, Brecht S, Chen A, Perahia D. Predictors of relapse in a study of duloxetine treatment in patients with major depressive disorder. *J Affect Disord.* 2009 Mar;113(3):263-71.

Giraldi T, Rodani MG, Cartei G, Grassi L. Psychosocial factors and breast cancer: a 6-year Italian follow-up study. *Psychother Psychosom.* 1997;66(5):229-36.

Giusti M, Foppiani L, Penati S, Marugo A, Montini P, Menichini U, et al. Assessment of quality of life in recently post-menopausal women on dopaminergic therapy for pathological hyperprolactinaemia. *Minerva Endocrinol.* 1999;24(1):11-9.

Gostoli S, Bonomo M, Roncuzzi R, Biffi M, Boriani G, Rafanelli C. Psychological correlates, allostatic overload and clinical course in patients with implantable cardioverter defibrillator (ICD). *Int J Cardiol.* 2016 Oct;220:360-4.

Grandi S, Clementi C, Benassi M, Guidi J. Italian validation of the Exercise Dependence Questionnaire. *Bollettino di Psicologia Applicata.* 2013;266:21-28.

Grussu P, Nasta MT, Quatraro RM. Serum cholesterol concentration and distress in the initial days after childbirth. *Psychiatry Res.* 2007 May;151(1-2):159-162.

Guha-Thakurta N, Damek D, Pollack C, Hochberg FH. Intravenous methotrexate as initial treatment for primary central nervous system lymphoma: response to therapy and quality of life of patients. *J Neurooncol.* 1999 Jul;43(3):259-68.

Harvey AR, Carden, RL. Driving error and anxiety related to iPod mp3 player use in a simulated driving experience. *Percept Mot Skills.* 2009 Aug;109(1):159-67.

Hazell J, Wilkins AJ. A contribution of fluorescent lighting to agoraphobia. *Psychol Med.* 1990 Aug;20(3):591-6.

Howland RH, Wilson MG, Kornstein SG, Clayton AH, Trivedi MH, Wohlreich MM, et al. Factors predicting reduced antidepressant response: experience with the SNRI duloxetine in patients with major depression. *Ann Clin Psychiatry.* 2008 Oct-Dec;20(4):209-18.

Karkhanis DG, Winsler A. (2016). Temperament, gender, and cultural differences in maternal emotion socialization of anxiety, somatization, and anger. *Psychol Stud.* 2016 Sep;61(3):137-158.

Lisansky DP, Clough DH. A cognitive-behavioral self-help educational program for patients with COPD. *Psychother Psychosom.* 1996 Mar-Apr;65(2):97-101.

Matto HC, Strolin-Goltzman J, Mogro-Wilson C. Dual-processing treatment modality: an innovative treatment to decrease physiological craving in substance abusers. *Journal of Groups in Addiction & Recovery.* 2010;5(2):113-23.

Nierenberg AA, Ghaemi SN, Clancy-Colecchi K, Rosenbaum JF, Fava M. Cynicism, hostility, and suicidal ideation in depressed outpatients. *J Nerv Ment Dis.* 1996 Oct;184(10):607-10.

Nierenberg AA, Phillips KA, Petersen TJ, Kelly KE, Alpert JE, Worthington JJ, et al. Body dysmorphic disorder in outpatients with major depression. *J Affec Disord.* 2002 May; 69(1-3):141-8.

Offidani E, Ruini C. Psychobiological correlates of allostatic overload in a healthy population. *Brain Behav Immun.* 2012 Feb;26(2):284-91.

Orlandi M, Trangeled K, Mambrini A, Tagliani M, Ferrarini A, Zanetti L, et al. Pet therapy effects on oncological day hospital patients undergoing chemotherapy treatment. *Anticancer Res.* 2007 Nov-Dec; 27(6C):4301-3.

Ostrzenski, A. The first clinical classification of vaginal introital defects. *Eur J Obstet Gynecol Reprod Biol.* 2011 Dec;159(2):449-52.

Pagotto U, Fallo F, Fava GA, Boscaro M, Sonino N. Anxiety sensitivity in essential hypertension. *Stress Medicine.* 1992 Apr;8(2):113-5.

Paoloni M, Di Sante L, Cacchio A, Apuzzo D, Marotta S, Razzano M, et al. Intramuscular oxygen-ozone therapy in the treatment of acute back pain with lumbar disc herniation: a multicenter, randomized, double-blind, clinical trial of active and simulated lumbar paravertebral injection. *Spine.* 2009 Jun;34(13):1337-44.

Perahia DG, Quail D, Gandhi P, Walker DJ, Peveler RC. A randomized, controlled trial of duloxetine alone vs. duloxetine plus a telephone intervention in the treatment of depression. *J Affect Disord.* 2008 May;108(1-2):33-41.

Perahia DG, Maina G, Thase ME, Spann ME, Wang F, Walker DJ, et al. Duloxetine in the prevention of depressive recurrences: a randomized, double-blind, placebo-controlled trial. *J Clin Psychiatry.* 2009 May;70(5):706-16.

Perlis RH, Nierenberg AA, Alpert JE, Pava J, Matthews JD, Buchin J, et al. Effects of adding cognitive therapy to fluoxetine dose increase on risk of relapse and residual depressive symptoms in continuation treatment of major depressive disorder. *J Clin Psychopharmacol.* 2002 Oct;22(5):474-80.

Perlis RH, Smoller JW, Fava M, Rosenbaum JF, Nierenberg AA, Sachs GS. The prevalence and clinical correlates of anger attacks during depressive episodes in bipolar disorder. *J Affect Disord.* 2004 Apr;79(1-3):291-5.

Petersen TJ, Pava JA, Buchin J, Matthews JD, Papakostas GI, Nierenberg AA, et al. The role of cognitive-behavioral therapy and fluoxetine in prevention of recurrence of major depressive disorder. *Cognit Ther Res.* 2010 Feb;34(1):13-23.

Phillips KA, Nierenberg AA, Brendel G, Fava M. Prevalence and clinical features of body dysmorphic disorder in atypical major depression. *J Nerv Ment Dis.* 1996 Feb;184(2):125-9.

Rafanelli C, Milaneschi Y, Roncuzzi R. Minor depression as a short-term risk factor in outpatients with congestive heart failure. *Psychosomatics.* 2009 Sep-Oct;50(5):493-9.

Reebye P, Morison S, Panikkar H, Misri S, Grunau R. Affect expression in prenatally psychotropic exposed and nonexposed mother-infant dyads. *Infant Ment Health J.* 2002 Jul;23(4):403-16.

Ruini C, Offidani E, Vescovelli F. Life stressors, allostatic overload, and their impact on posttraumatic growth. *J Loss Trauma* 2015;20(2):109-122.

Santilli V, Beghi E, Finucci S. Chiropractic manipulation in the treatment of acute back pain and sciatica with disc protrusion: a randomized double-blind clinical trial of active and simulated spinal manipulations. *Spine.* 2006 Mar-Apr;6(2):131-7.

Sonawalla SB, Farabaugh AH, Leslie VM, Pava JA, Matthews JD, Fava M. Early drop-outs, late drop-outs and completers: differences in the continuation phase of a clinical trial. *Prog Neuropsychopharmacol Biol Psychiatry.* 2002 Dec;26(7-8):1415-9.

Tedlow JR, Fava M, Uebelacker LA, Alpert JE, Nierenberg AA, Rosenbaum JF. Are study dropouts different from completers? *Biol Psychiatry.* 1996 Oct;40(7):668-70.

Teicher MH, Anderson CM, Ohashi K, Khan A, McGreenery CE, Bolger EA, et al. Differential effects of childhood neglect and abuse during sensitive exposure periods on male and female hippocampus. *Neuroimagine.* 2018 Apr;169:443-52.

Teicher MH, Ohashi K, Lowen SB, Polcari A, Fitzmaurice GM. Mood dysregulation and affective instability in emerging adults with childhood maltreatment: an ecological momentary assessment study. *J Psychiatr Res.* 2015 Nov;70:1-8.

Teicher MH, Parigger A. The 'Maltreatment and Abuse Chronology of Exposure' (MACE) scale for the retrospective assessment of abuse and neglect during development. *PloS One.* 2015 Feb;10(2):e0117423.

Teicher MH, Polcari A, Fourligas N, Vitaliano G, Navalta CP. Hyperactivity persists in male and female adults with ADHD and remains a highly discriminative feature of the disorder: a case-control study. *BMC Psychiatry.* 2012;12(1):190.

Thomas PD, Garry PJ, Goodwin JM, Goodwin JS. Social bonds in a healthy elderly sample: characteristics and associated variables. *Soc Sci Med.* 1985;20(4):365-9.

Thomas PD, Hunt WC, Garry PJ, Hood RB, Goodwin JM, Goodwin JS. Hearing acuity in a healthy elderly population: effects on emotional, cognitive, and social status. *J Gerontol.* 1983 May;38(3):321-5.

Vinci P, Gargiulo P, Panunzi M, Baldini L. Psychological distress in patients with Charcot-Marie-Tooth disease. *Eur J Phys Rehabil Med.* 2009 Sep;45(3):385-9.

Yang H, Chuizi S, Sinicropi-Yao L, Johnson D, Chen Y, Clain A, et al. Type of residual symptom and risk of relapse during the continuation/maintenance phase treatment of major depressive disorder with the selective serotonin reuptake inhibitor fluoxetine. *Eur Arch Psychiatry Clin Neurosci.* 2010 Mar;260(2):145-50.