ACT Randomized Controlled Trials 1986 through Present

Before publication of the 1999 book on ACT (N = 2)

1986 (1)

1. Zettle, R. D. & Hayes, S. C. (1986). Dysfunctional control by client verbal behavior: The context of reason giving. *The Analysis of Verbal Behavior, 4,* 30-38. Small (N = 18) RCT. Shows that ACT is more effective that cognitive therapy for depression when presented in an individual format, and that it works by a different process. Has several methodological holes.

1989 (1)

2. Zettle, R. D., & Rains, J. C. (1989). Group cognitive and contextual therapies in treatment of depression. *Journal of Clinical Psychology, 45,* 438-445. Small (N = 31) RCT. Shows that ACT is as effective as two variants of cognitive therapy for depression (a full package of CT vs. one without distancing) when presented in a group format, and that it works by a different process. A full intent to treat reanalysis and mediation analysis using modern statistical methods was published in Zettle, R. D., Rains, J. C., & Hayes, S. C. (2011). Do Acceptance and Commitment Therapy and Cognitive Therapy for depression work via the same process: A reanalysis of Zettle and Rains, 1989. *Behavior Modification, 35,* 265-283. The reanalysis, without the odd partial cognitive therapy group that was included for theoretical reasons of importance in the early days of ACT, shows that ACT did better than CT on the BDI at follow up and that the results were mediated by post scores on cognitive fusion but not level of depressogenic thoughts or general dysfunctional attitudes.

2000 – 2004 (N = 7)

2000 (1)

3. Bond, F. W. & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology, 5,* 156-163. RCT (N = 90). Shows that ACT is more effective than a previously empirically supported behavioral approach to reducing worksite stress and anxiety, and that both are better than a wait list control. Those in the ACT condition then actively modified the work environment even though that was not targeted directly in the intervention. Process analyses fit the model.

2002 (1)

4. Bach, P. & Hayes, Steven C. (2002). The use of Acceptance and Commitment Therapy to prevent the rehospitalization of psychotic patients: A randomized controlled

trial. *Journal of Consulting and Clinical Psychology, 70* (5), 1129-1139. RCT (N = 80) showing that a three-hour ACT intervention reduces rehospitalization by about 50% over a 4 month follow-up as compared to treatment as usual with seriously mentally ill inpatients. Process of change fit the model but would be very much unexpected outside the model. A one year follow up is being written up (still significantly different at one year)

2003 (1)

5. Zettle, R. D. (2003). Acceptance and commitment therapy (ACT) versus systematic desensitization in treatment of mathematics anxiety. *The Psychological Record, 53,* 197-215. Small (N = 24) RCT shows that ACT is as good as systematic desensitization in reducing math anxiety, but works according to a different process. Systematic desensitization reduced trait anxiety more than did ACT.

2004 (4)

6. Dahl, J., Wilson, K. G., & Nilsson, A. (2004). Acceptance and Commitment Therapy and the treatment of persons at risk for long-term disability resulting from stress and pain symptoms: A preliminary randomized trial. *Behavior Therapy, 35*, 785-802. A small (N = 19) RCT showing that a 4 hour ACT intervention reduced sick day usage by 91% over the next six months compared to treatment as usual in a group of chronic pain patients at risk for going on to permanent disability.

7. Gifford, E. V., Kohlenberg, B. S., Hayes, S. C., Antonuccio, D. O., Piasecki, M. M.., Rasmussen-Hall, M. L., & Palm, K. M. (2004). Acceptance theory-based treatment for smoking cessation: An initial trial of Acceptance and Commitment Therapy. *Behavior Therapy, 35,* 689-705. RCT (N = 76) comparing ACT to nicotine replacement therapy (NRT) as a method of smoking cessation. Quit rates were similar at post but at a one-year follow-up the two groups differed significantly. The ACT group had maintained their gains (35% quit rates) while the NRT quit rates had fallen (<10%). Mediational analyses shows that ACT works through acceptance and response flexibility.

8. Hayes, S. C., Bissett, R., Roget, N., Padilla, M., Kohlenberg, B. S., Fisher, G., Masuda, A., Pistorello, J., Rye, A. K., Berry, K. & Niccolls, R. (2004). The impact of acceptance and commitment training and multicultural training on the stigmatizing attitudes and professional burnout of substance abuse counselors. *Behavior Therapy, 35,* 821-835. RCT (N = 93) that found that a one day ACT workshop produces greater decreases in stigmatization of clients by therapists and greater decreases in therapist burnout than an educational control and (or some comparisons) than multicultural training. Mediational analyses fit the model.

9. Hayes, S. C., Wilson, K. G., Gifford, E. V., Bissett, R., Piasecki, M., Batten, S. V., Byrd, M., & Gregg, J. (2004). A randomized controlled trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance abusing

methadone maintained opiate addicts. *Behavior Therapy, 35*, 667-688. A large randomized controlled trial was conducted with polysubstance abusing opiate addicted individuals maintained on methadone. Participants (n=114) were randomly assigned to stay on methadone maintenance (n=38), or to add ACT (n=42), or Intensive Twelve Step Facilitation (ITSF; n=44) components. There were no differences immediately post-treatment. At the six-month follow-up participants in the ACT condition demonstrated a greater decrease in objectively measured (through monitored urinalysis) opiate use than those in the methadone maintenance condition (ITSF did not have this effect). Both the ACT and ITSF groups had lower levels of objectively measured total drug use than did methadone maintenance alone.

2005 – 2009 (N = 19)

2006 (4)

10. Gaudiano, B.A., & Herbert, J.D. (2006). Acute treatment of inpatients with psychotic symptoms using Acceptance and Commitment Therapy. *Behaviour Research and Therapy, 44*, 415-437. RCT (N = 40) replicating the Bach and Hayes study with better measures and a better control condition. Good results esp. on measures of overt psychotic behavior (the BPRS). Mediational analyses of the effect of hallucinations fit the ACT model and are described in more detail in Gaudiano, B. A., & Herbert, J. D. (2006). Believability of hallucinations as a potential mediator of their frequency and associated distress in psychotic inpatients. *Behavioural and Cognitive Psychotherapy, 34,* 497-502. Mediational analyses of the impact of treatment on hallucination distress due to post levels of believability of hallucinations also fit the ACT model and are described in more detail in Gaudiano, B. A., Herbert, J. D., & Hayes, S. C. (2010). Is it the symptom or the relation to it? Investigating potential mediators of change in Acceptance and Commitment Therapy for psychosis. *Behavior Therapy, 41*, 543-554. Finally, the mediation of long term outcomes in the combined studies is shown in Bach, P., Gaudiano, B. A., Hayes, S. C. & Herbert, J. D. (2013). Acceptance and Commitment Therapy for psychosis: Intent to treat hospitalization outcome and mediation by believability. *Psychosis, 5,* 166-174.

11. Gratz, K. L. & Gunderson, J. G. (2006). Preliminary data on an acceptance-based emotion regulation group intervention for deliberate self-harm among women with Borderline Personality Disorder. *Behavior Therapy, 37,* 25-35. RCT (N = 22) comparing and ACT / DBT combo to TAU. Very strong outcomes on self-harm and other measures. No follow-up.

12. Lundgren, A. T., Dahl, J., Melin, L. & Kees, B. (2006). Evaluation of Acceptance and Commitment Therapy for drug refractory epilepsy: A randomized controlled trial in South Africa. *Epilepsia, 47,* 2173-2179. RCT (N =27) with drug resistant epileptics comparing 9 hours of ACT – individual and group -- to supportive therapy. Reduction of seizures to near zero level; maintenance for a year but taken from nurses records. Quality

of life improves continuously through the follow up. Mediational analyses are reported in Lundgren, T., Dahl, J., & Hayes, S. C. (2008). Evaluation of mediators of change in the treatment of epilepsy with Acceptance and Commitment Therapy. *Journal of Behavioral Medicine, 31,* 221-235. Both values and acceptance, along or in combination, work as mediators for most outcomes.

13. Woods, D. W., Wetterneck, C. T., & Flessner, C. A. (2006) A controlled evaluation of Acceptance and Commitment Therapy plus habit reversal for trichotillomania. *Behaviour Research and Therapy, 44,* 639-656.. A small randomized trial (25 completers) comparing ACT plus habit reversal to a wait list. Wait list subjects then receive ACT/HR. Solid hair pulling, anxiety, and depression outcomes, maintained at a 3 month follow up. Wait list participants also improve once they get ACT. AAQ moves and correlates well with outcomes.

2007 (6)

14. Forman, E. M., Herbert, J. D., Moitra, E., Yeomans, P. D. & Geller, P. A. (2007). A randomized controlled effectiveness trial of Acceptance and Commitment Therapy and Cognitive Therapy for anxiety and depression. *Behavior Modification, 31(6),* 772-799. 101 heterogeneous outpatients reporting moderate to severe levels of anxiety or depression were randomly assigned either to traditional CT or to ACT. 23 very junior therapists were used. Participants receiving CT and ACT evidenced large and equivalent improvements in depression, anxiety, functioning difficulties, quality of life, life satisfaction and clinician-rated functioning. "Observing" and "describing" one's experiences mediated outcomes for those in the CT group relative to those in the ACT group, whereas "experiential avoidance," "acting with awareness" and "acceptance" mediated outcomes for those in the ACT group. A recent two year follow up from this study found an unusual fall off in the ACT group in year two so that should be watched closely – it could be a real effect or could be related to the therapists or other factors. It is unclear because other large and very well-done studies (e.g., see RCT #54) have not found this. Forman, E. M., Shaw, J. A., Goetter, E. M., Herbert, J. D., & Park, J. A. (2012) Long-term follow-up of a randomized controlled trial comparing Acceptance and Commitment Therapy and standard Cognitive Behavior Therapy for anxiety and depression. *Behavior Therapy, 43,* 801-811.

15. Gregg, J. A., Callaghan, G. M., Hayes, S. C., & Glenn-Lawson, J. L. (2007). Improving diabetes self-management through acceptance, mindfulness, and values: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 75(2),* 336-343. RCT (N = 81) showing that ACT + patient education is significantly better than patient education alone in producing good self-management and better blood glucose levels in lower SES patients with Type II diabetes. Effects at follow up are mediated by changes in self-management and

greater psychological flexibility with regard to diabetes related thoughts and feelings.

16. Lappalainen, R., Lehtonen, T., Skarp, E., Taubert, E., Ojanen, M., & Hayes, S. C. (2007). The impact of CBT and ACT models using psychology trainee therapists: A preliminary controlled effectiveness trial. *Behavior Modification, 31,* 488-511. Randomized controlled study in which 14 student therapists treat one client each from an ACT model or a traditional CBT model for 6-8 sessions following a 2 session functional analysis. Participants with any normal outpatient problem were included, mostly anxiety and depression. At post and at the 6 month follow up ACT clients are more improved on the SCL-90 and several other measures. Greater acceptance for ACT patients; great self-confidence for CBT patients. Both correlated with outcomes, but when partial correlations are calculated, only acceptance still relates to outcome.

17. Masuda, A., Hayes, S. C., Fletcher, L. B., Seignourel, P. J., Bunting, K., Herbst, S. A., Twohig, M. P., & Lillis, J. (2007). The impact of Acceptance and Commitment Therapy versus education on stigma toward people with psychological disorders. *Behaviour Research and Therapy, 45(11),* 2764-2772. An RCT (N = 96) comparing ACT and education in college students. ACT reduced mental health stigma significantly regardless of participants' pre-treatment levels of psychological flexibility, but education reduced stigma only among participants who were relatively flexible and non-avoidant to begin with.

18. Páez, M. B., Luciano, C., & Gutiérrez, O. (2007).Tratamiento psicológico para el afrontamiento del cáncer de mama. Estudio comparativo entre estrategias de aceptación y de control cognitivo. *Psicooncología, 4,* 75-95. [Psychological treatment for coping with breast cancer. A comparative study of acceptance and cognitive-control strategies]. Very small RCT (N = 12) comparing ACT and traditional CBT protocols with women who had been diagnosed and treated for breast cancer. No differences at post but at a one year follow up ACT is significantly better in anxiety, depression, and quality of life.

19. Vowles, K. E., McNeil, D. W., Gross, R. T. McDaniel, M. L., Mouse, A., Bates, M., Gallimore, P., & McCall, C. (2007). Effects of pain acceptance and pain control strategies on physical impairment in individuals with chronic low back pain. *Behavior Therapy, 38,* 412-425. Well controlled RCT (N = 74) in with patients with chronic low back pain are assigned to very brief acceptance, pain control, or practice conditions and given physical tasks to perform. The acceptance group improved the most.

2008 (5)

20. Lundgren, T., Dahl, J., Yardi, N., & Melin, L. (2008). Acceptance and Commitment Therapy and yoga for drug-refractory epilepsy: A randomized controlled trial. *Epilepsy & Behavior, 13,* 102–108. 18 participants from India with EEG-verified

epilepsy diagnosis with drug-refractory seizures were randomized to ACT or yoga (12 hours of Rx both individual and group) and followed for 1 year. ACT reduced seizures more than yoga but both improved quality of life (ACT more on the WHOQOL-BREF; yoga more on the SWLS).

21. Luoma, J. B., Hayes, S. C., Roget, N., Fisher, G., Padilla, M., Bissett, R., Kohlenberg, B. K., Holt, C., & & Twohig, M. P. (2008). Augmenting continuing education with psychologically-focused group consultation: Effects on adoption of Group Drug Counseling. *Psychotherapy Theory, Research, Practice, Training, 44,* 463-469. Small RCT (N = 30). An ACT-based supervision group following training in Group Drug Counseling increased adoption in drug and alcohol counselors.

22. Roemer, L., Orsillo, S. M., & Salters-Pedneault, K. (2008). Efficacy of an acceptance-based behavior therapy for generalized anxiety disorder: Evaluation in a randomized controlled trial. *Journal of Consulting and Clinical Psychology, 76,* 1083-1089. Small RCT (N = 31). Good outcomes. The approach "acceptance-based behavior therapy" but the protocol relies heavily on ACT methods (w/ contemplative practice and psychoed in there as well). Mediation is not report but we've run the analyses and the AAQ mediates worry, stress, GAD severity, and anxiety (at p = .1 or better).

23. Varra, A. A., Hayes, S. C., Roget, N., & Fisher, G. (2008). A randomized control trial examining the effect of Acceptance and Commitment Training on clinician willingness to use evidence-based pharmacotherapy. *Journal of Consulting and Clinical Psychology, 76*, 449-458. RCT (N = 59) comparing ACT to psychoeducation in preparedness to learn from a workshop on pharmacotherapy. Good outcomes (d of around .85) on willingness to refer and actual referrals for agonist and antagonist treatment, mediated by increased psychological flexibility and decreased believability of barriers to referring.

24. Wicksell, R, K., Ahlqvist, J., Bring, A., Melin, L. & Olsson, G. L. (2008). Can exposure and acceptance strategies improve functioning and quality of life in people with chronic pain and whiplash associated disorders (WAD)? A randomized controlled trial. *Cognitive Behaviour Therapy,* 37, 1-14. Small RCT (N = 21) comparing ACT to TAU with whiplash patients; significant differences in pain disability, life satisfaction, fear of movements, depression, and psychological flexibility (pain related fusion and acceptance as measured by Wicksell's Psychological Inflexibility in Pain Scale or PIPS). Improvements in the treatment group were maintained at 7-months follow-up. Mediation results reported in: Wicksell, R. K., Olsson, G. L., & Hayes, S. C. (2010). Processes of change in ACT-based behavior therapy: Psychological flexibility as a mediator of improvement in patients with chronic pain following whiplash injuries. *European Journal of Pain, 14,* 1059e1-1059e11. doi: 10.1016/j.ejpain.2010.05.001. Found that follow up changes in life satisfaction and to a lesser degree pain disability were mediated by post PIPS scores.

2009 (4)

25. Lillis, J., Hayes, S. C., Bunting, K., Masuda, A. (2009). Teaching acceptance and mindfulness to improve the lives of the obese: A preliminary test of a theoretical model. *Annals of Behavioral Medicine, 37,* 58-69. RCT (N = 84) on ACT for weight self-stigma and weight maintenance. Reduced stigma, increased quality of life, and reduced weight. Effects mediated by weight related psychological flexibility.

26. Peterson, C. L. & Zettle, R. D. (2009). Treating inpatients with ocmorbid depression and alcohol use disorders: A comparisons of Acceptance and Commitment Therapy and treatment as usual. *The Psychological Record, 59,* 521-536. Small RCT (N = 24) comparing the impact of individual sessions of ACT or TAU while hospitalized. ACT produced equivalent outcomes but with about 20-25% less intervention and 1/3 less time in the hospital.

27. Tapper, K., Shaw, C., Ilsley, J., Hill, A. J., Bond, F. W., & Moore, L. (2009). Exploratory randomised controlled trial of a mindfulness-based weight loss intervention for women. *Appetite, 52,* 396–404. RCT (N = 62) with dieting obese women randomly assigned to 4 2-hr ACT sessions or to wait list; at 6 mo. better exercise (*p* , .05), and for those applying the workshop, better weight loss as reflected by BMI differences (0.96 relative to controls, equivalent to 2.32 kg, p < 0.5).

28. Wicksell, R. K., Melin, L., Lekander, M., & Olsson, G. L. (2009). Evaluating the effectiveness of exposure and acceptance strategies to improve functioning and quality of life in longstanding pediatric pain - A randomized controlled trial. *Pain, 141,* 248-257. Small RCT (*n* = 32) comparing a brief ACT intervention (10 individual sessions) to multidisciplinary treatment plus amitriptyline (MDT) for chronic pediatric pain. Treatment continued in the MDT condition during the 3.5 and 6.5 month follow-up, which complicated comparisons at follow-up assessments due to more sessions for MDT, but results showed substantial and sustained improvements for the ACT group. When follow-up assessments were included, ACT performed significantly better than MDT on perceived functional ability in relation to pain, pain intensity and pain related discomfort (intent-to-treat analyses). At post-treatment, before the dose differences happened, significant differences in favor of the ACT condition were also seen in fear of re/injury or kinesiophobia, pain interference and in quality of life.

Five year period from 2010 – 2014, N = 79

2010 (8)

29. Flaxman, P. E. & Bond, F. W. (2010). A randomised worksite comparison of acceptance and commitment therapy and stress inoculation training. *Behaviour Research and Therapy* 43, 816-820. RCT comparing ACT, stress inoculation

training, and waitlist on worksite stress (N = 107). ACT and SIT equally effective; ACT mediated by psychological flexibility, SIT not successfully mediated by cognitive change.

30. Flaxman, P. E., & Bond, F. W. (2010). Worksite stress management training: Moderated effects and clinical significance. *Journal of Occupational Health Psychology, 15,* 347-358. RCT (N = 311) of ACT vs. wait list. ACT worksite intervention found to be particularly effective for workers with above average levels of psychological distress. Following ACT, 69% of initially distressed workers improved to a clinically significant degree.

31. Fledderus, M., Bohlmeijer, E. T., Smit, F., & Westerhof, G. J. (2010). Mental health promotion as a new goal in public mental health care: A randomized controlled trial of an intervention enhancing psychological flexibility. *American Journal of Public Health, 10,* 2372-2378. RCT (N = 93) comparing ACT groups with wait list for those with mild to moderate psychological distress. Good outcomes.

32. Hinton, M. J. & Gaynor, S. T. (2010). Cognitive defusion for psychological distress, dysphoria, and low self-esteem: A randomized technique evaluation trial of vocalizing strategies. *International Journal of Behavioral Consultation and Therapy, 6,* 164-185. Small (N = 22) RCT. 3 sessions of cognitive defusion (CD) compared to a waitlist (WL) condition for university students reporting elevated distress, dysphoria, and low self-esteem. Large changes in distress, depressive symptoms, self-esteem, defused awareness of thoughts, psychological flexibility, and automatic thoughts favoring CD over WL. Maintained at 1-month follow-up.

33. Johnston, M., Foster, M., Shennan, J., Starkey, N. J., & Johnson, A. (2010). The effectiveness of an Acceptance and Commitment Therapy self-help intervention for chronic pain. *Clinical Journal of Pain, 26,* 393-402. Very small RCT (N = 14) showing that ACT bibliotherapy (Dahl & Lundgren, 2006 – see self help books above) helps with chronic pain.

34. Juarascio, A. S., Forman, E. M., & Herbert, J. D. (2010). Acceptance and Commitment Therapy versus Cognitive Therapy for the treatment of co morbid eating pathology. *Behavior Modification, 34*, 175-190. Inside a larger RCT of ACT versus CT, subanalysis (N = 55) shows that ACT produced greater reductions in eating pathology, and greater increases in global functioning.

35. Smout, M., Longo, M., Harrison, S., Minniti, R., Wickes, W., & White, J. (2010). Psychosocial treatment for methamphetamine use disorders: a preliminary randomized controlled trial of cognitive behavior therapy and acceptance and commitment therapy. *Substance Abuse, 31*(2), 98-107. RCT (N = 104) showing that ACT is no more effect than CBT in retaining or treatment methamphetamine users.

36. Twohig, M. P., Hayes, S. C., Plumb, J. C., Pruitt, L. D., Collins, A. B., Hazlett-

Stevens, H. & Woidneck, M. R. (2010) A randomized clinical trial of Acceptance and Commitment Therapy vs. Progressive Relaxation Training for obsessive compulsive disorder. *Journal of Consulting and Clinical Psychology, 78,* 705-716. RCT (N = 79) of ACT for OCD vs relaxation. Good outcomes (including in depression). Mediation results coming in a separate study (AAQ worked as mediator; processes of change even at session 5 worked but outcomes were not different until later.

2011 (11)

37. Bohlmeijer, E. T., Fledderus, M., Rokx, T. A., & Pieterse, M. E. (2011). Efficacy of an early intervention based on acceptance and commitment therapy for adults with depressive symptomatology: Evaluation in a randomized controlled trial. *Behaviour Research and Therapy, 49,* 62-67. RCT (N = 93) of ACT for adults with mild to moderate depressive symptomatology, randomly assigned to the ACT intervention (n=49) or to a waiting list (n=44). Significant reduction in depressive symptomatology (Cohen's *d*=.60) maintained at the three-month follow-up.

38. Brinkborg, H., Michanek, J., Hesser, H., & Berglund, G. (2011). Acceptance and commitment therapy for the treatment of stress among social workers: A randomized controlled trial. *Behaviour Research and Therapy, 49,* 389-398. RCT examining ACT for stress and burnout in social workers (n = 106) ACT significantly decreased stress and burnout, and increased general mental health compared to a waiting list control among the 2/3 who were stressed at baseline. Among participants with high stress, a substantial proportion (42%) reached criteria for clinically significant change.

39. Brown, L. A., Forman, E. M., Herbert, J. D., Hoffman, K. L., Yuen, E. K. and Goetter, E. M. (2011). A randomized controlled trial of acceptance-based behavior therapy and cognitive therapy for test anxiety: A pilot study. *Behavior Modification, 35,* 31-53. Very small RCT (N = 16) for test anxiety comparing ACT (with mindfulness elements) and Beck's CT. Similar outcomes on self-reports but ACT participants did objectively better on test scores in school.

40. Butryn, M. L., Forman, E., Hoffman, K., Shaw, J., & Juarascio, A. (2011). A pilot study of Acceptance and Commitment Therapy for promotion of physical activity. *Journal of Physical Activity and Health, 8,* 516-522. RCT (N = 54) comparing 4 hrs of education vs ACT for promoting physical activity. ACT participants exercised more on objective measure.

41. Thorsell, J., Finnes, A., Dahl, J., Lundgren, T., Gybrant, M., Gordh, T., & Buhrman, M. (2011). A comparative study of 2 manual-based self-help interventions, Acceptance and Commitment Therapy and Applied Relaxation, for persons with chronic pain. *The Clinical Journal of Pain, 27,* 716-723. doi: 10.1097/AJP.0b013e318219a933. RCT (N = 90) of ACT versus applied

relaxation using a combination of an initial face to face session, a 7 week self-help manual with weekly therapist telephone support, and a concluding face-to-face session. 6 and 12 mo follow up. Better outcomes for ACT in level of function, pain intensity, acceptance, and marginal life satisfaction. Depression and anxiety improved but no diff between conditions.

42. Hayes, L., Boyd, C. P., & Sewell, J. (2011). Acceptance and Commitment Therapy for the treatment of adolescent depression: A pilot study in a psychiatric outpatient setting. *Mindfulness*, 2, 86-94. RCT (N = 30) of ACT for adolescent depression compared to treatment as usual. Good outcomes (about 60% showed clinically significant change in ACT; *d* = .38 at post and 1.45 at follow up).

43. Muto, T., Hayes, S. C., & Jeffcoat, T. (2011). The effectiveness of Acceptance and Commitment Therapy bibliotherapy for enhancing the psychological health of Japanese college students living abroad. *Behavior Therapy, 42,* 323–335. RCT on the impact of *Get Out of Your Mind and Into Your Life* on the mental health of international students (N = 70). Better general mental health at post and follow up. Moderately and above depressed or stressed, and severely anxious students showed improvement compared to those not receiving the book. Outcomes mediated and moderated by psychological flexibility.

44. Wetherell, J. L., Afari, N., Rutledge, T., Sorrell, J. T., Stoddard, J. A., Petkus, A. J., Solomon, B. C., Lehman, D. H., Liu, L., Lang, A. J., Hampton Atkinson, J. (2011). A randomized, controlled trial of acceptance and commitment therapy and cognitive-behavioral therapy for chronic pain. *Pain, 152,* 2098-2107. DOI: 10.1016/j.pain.2011.05.016 RCT (N=114) comparing ACT and traditional CBT for chronic pain. Good outcomes over 6 months. No differences in outcomes. Treatment completers were more satisfied with ACT.

45. Gifford, E. V., Kohlenberg, B., Hayes, S. C., Pierson, H., Piasecki, M., Antonuccio, D., & Palm, K. (2011). Does acceptance and relationship focused behavior therapy contribute to bupropion outcomes? A randomized controlled trial of FAP and ACT for smoking cessation. *Behavior Therapy, 42,* 700-715. Large RCT (N = 303) of ACT + FAP + Zyban vs Zyban for smoking cessation. Good outcomes. Mediated by psychological flexibility and working alliance but when both are included, just PF still works.

46. Westin, V. Z., Schulin, M., Hesser, H., Karlsson, M., Noe, R. Z., Olofsson, U., Stalby, M., Wisung, G. & Andersson, G. (2011). Acceptance and Commitment Therapy versus Tinnitus Retraining Therapy in the treatment of tinnitus distress: A randomized controlled trial. *Behaviour Research and Therapy, 49,* 737-747. One of the better RCTs yet done on tinnitus (N = 64). Very long follow up (18 months). ACT does better than the most widely distributed psychosocial method (Tinnitus Retraining Therapy) in reducing the interference and distress from tinnitus. Tinnitus acceptance mediated outcomes.

47. White, R. G., Gumley, A. I., McTaggart, J., Rattrie, L., McConville, D., Cleare, S. & Mitchell, G. (2011). A feasibility study of Acceptance and Commitment Therapy for emotional dysfunction following psychosis. *Behaviour Research and Therapy, 49,* 901-907. Small RCT (n = 27) of 10 sessions of ACT versus TAU to help cope with anxiety and depression following psychosis. Blind raters; 3 mo f-up. Significant impact on negative symptoms, depression, crisis calls, and mindfulness. Process changes correlated with outcomes.

2012 (14)

48. Fledderus, M., Bohlmeijer, E.T., Pieterse, M. E., & Schreurs, K. M. (2012) Acceptance and commitment therapy as guided self-help for psychological distress and positive mental health: a randomized controlled trial. *Psychological Medicine, 42,* 485-495. doi: 10.1017/S0033291711001206
RCT (N = 376) of an early intervention study for mild to moderate depression using ACT self-help with or without heavy email support. Reductions in depression, anxiety, fatigue, experiential avoidance and improvements in positive mental health and mindfulness; sustained at follow up.
An important post hoc analysis found that participants showed a significant increase in flourishing as well (from 5% at pre to 28% after intervention) that was maintained at follow up: Bohlmeijer, E. T., Lamers, S. M. A., & Fledderus, M. (2015). Flourishing in people with depressive symptomatology increases with Acceptance and Commitment Therapy. Post-hoc analyses of a randomized controlled trial. *Behaviour Research and Therapy, 65*, 101–106. doi:10.1016/j.brat.2014.12.014

49. Weineland, S., Arvidsson, D., Kakoulidis, T., & Dahl, J. (2012). Acceptance and Commitment Therapy for bariatric surgery patients, a pilot RCT. *Obesity Surgery, 21,* 1044-1044. doi: http://dx.doi.org/10.1016/j.orcp.2011.04.004 Small RCT (N = 39) of ACT (two individual sessions plus internet) vs. TAU for patients who underwent bariatric surgery examining emotional eating, body dissatisfaction and quality of life. Good outcomes. Follow up and mediational data reported in Weineland, S., Hayes, S. C., & Dahl, J. (2012). Psychological flexibility and the gains of acceptance-based treatment for post-bariatric surgery: Six-month follow-up and a test of the underlying model. *Clinical Obesity, 2,* 15-24. doi: 10.1111/j.1758-8111.2012.00041.x Outcomes mostly maintained; A series of multiple mediator tests supported the role of enhanced psychological flexibility in the changes seen in body dissatisfaction, eating disordered behavior and quality of life.

50. Pearson, A. N., Follette, V. M. & Hayes, S. C. (2012). A pilot study of Acceptance and Commitment Therapy (ACT) as a workshop intervention for body dissatisfaction and disordered eating attitudes. *Cognitive and Behavioral Practice. Cognitive and Behavioral Practice, 19,* 181-197. Doi: 0.1016/j.cbpra.2011.03.001

RCT (N = 73) showing that ACT helps with body dissatisfaction and disordered eating attitudes.

51. Luoma, J. B., Kohlenberg, B. S., Hayes, S. C. & Fletcher, L. (2012). Slow and steady wins the race: A randomized clinical trial of Acceptance and Commitment Therapy targeting shame in substance use disorders. *Journal of Consulting and Clinical Psychology, 80*, 43-53. Doi: 10.1037/a0026070 RCT (n = 133) of 6 hr group ACT vs TAU in the treatment of shame in SUD during 28 day in patient program. At post, smaller decreases in shame in ACT; at follow up, larger decreases, more Rx involvement, and reduced substance use in ACT.

52. Rost, A. D., Wilson, K. G., Buchanan, E., Hildebrandt, M.J., & Mutch, D. (2012). Improving psychological adjustment among late-stage ovarian cancer patients: Examining the role of avoidance in treatment. *Cognitive and Behavioral Practice, 19,* 508-517. RCT (N = 31; 47 originally but the rest died or entered hospice care) comparing ACT and traditional CBT approaches to women coping with end-stage gynecological cancer. Nice outcomes; dominantly in favor of ACT. Outcomes mediated by acceptance and taking action.

53. Folke, F., Parling, T., & Melin, L. (2012). Acceptance and Commitment Therapy for depression: A preliminary randomized clinical trial for unemployed on long-term sick leave. *Cognitive and Behavioral Practice, 19,* 583–594. Small (N = 34) RFT of ACT (1 individual session; 5 group sessions) versus TAU for unemployed individuals on sick leave suffering from depression. Lower level of depression and higher level of quality of life and general health in ACT.

54. Arch, J. J., Eifert, G. H., Davies, C., Vilardaga, J., Rose, R. D., & Craske, M. G. (2012). Randomized clinical trial of cognitive behavioral therapy (CBT) versus acceptance and commitment therapy (ACT) for mixed anxiety disorders. *Journal of Consulting and Clinical Psychology, 80,* 750-765. doi:10.1037/a0028310 RCT (N = 128; 52% female; 33% minority) of 12 sessions of ACT v. tradition CBT for heterogeneous anxiety disorders; both including behavioral exposure. Broadly similar outcomes through 12 mo F-up but in blind clinical interviews ACT participants improve more in clinical severity from post to follow up than CBT (it is a very large effect: $d = 1.33$). Among completers their end-state clinical severity ratings were much better (d = 1.03). Better improvement for ACT in psychological flexibility (medium effect for completers: $d = .59$) for ACT; better quality of life at follow up (small effect: $d = .43$) for CBT. A separate moderation study found better outcomes for ACT those who also have depression (Wolitzky-Taylor, K. B., Arch, J. J., Rosenfield, D., & Craske, M. G. (2012). Moderators and non-specific predictors of treatment outcome for anxiety disorders: A comparison of cognitive behavioral therapy to acceptance and commitment therapy. *Journal of Consulting and Clinical Psychology, 80,* 786-799. doi:10.1037/a0029418) and another study found that treatment is mediated by cognitive defusion (Arch, J. J., Wolitzky-Taylor, K. B., Eifert, G. H., & Craske, M. G. (2012). Longitudinal treatment mediation of traditional cognitive

behavioral therapy and acceptance and commitment therapy for anxiety disorders. *Behaviour Research and Therapy, 50,* 469– 478).

55. Morton, J., Snowdon, S., Gopold, M. & Guymer, E. (2012). Acceptance and Commitment Therapy group treatment for symptoms of Borderline Personality Disorder: A public sector pilot study. *Cognitive and Behavioral Practice, 19,* 527–544. Small RCT (N = 41) comparing ACT to TAU; 12 2-hr group sessions. Better outcomes for ACT on self-rated BPD symptoms, anxiety, hopelessness, psychological flexibility, emotion regulation skills, mindfulness; the last 3 mediated BPD symptoms.

56. Jeffcoat, T. & Hayes, S. C. (2012). A randomized trial of ACT therapy on the mental health of K-12 teachers and staff. *Behaviour Research and Therapy, 50,* 571-579. ACT RCT with K – 12 school personnel (N = 236; 91% female; 30 - 60 years old) in a wellness program compared to wait list. Three-fourths were above clinical cutoffs in general mental health, depression, anxiety, or stress. Participants read the book for two months, completed exercises and quizzes, and after post assessment were followed for 10 weeks; wait list participants were then also given the book with two months to complete it. Overall, participants showed significant improvement in psychological health. Significant preventive effects for depression and anxiety were observed along with significant ameliorative effects for those in the clinical ranges of depression, anxiety and stress. Follow up general mental health, depression, and anxiety outcomes were related to the manner in which participants used the workbook and to post levels of psychological flexibility.

57. Mo'tamedi, H., Rezaiemaram, P., & Tavallaie, A. (2012). The effectiveness of a group-based acceptance and commitment additive therapy on rehabilitation of female outpatients with chronic headache: Preliminary findings reducing 3 dimensions of headache impact. *Headache: The Journal of Head and Face Pain, 52,* 1106-1119. Doi: 10.1111/j.1526-4610.2012.02192.x Small RCT (N = 30) with 8 group sessions of ACT plus medical TAU vs. TAU alone for outpatients patients in Iran with chronic tension headaches (63%) or and chronic migraines without aura (37%). Significant reduction in disability, affective reaction, and distress (large to very large effect sizes) but not in sensory aspect of pain. Follow up not reported.

58. Hesser, H., Gustafsson, T., Lundén, C., Henrikson, O., Fattahi, K., Johnsson, E., Westin, V. Z., Carlbring, P., Mäki-Torkko, E., Kaldo, V., & Andersson, G. (2012). A randomized controlled trial of internet-delivered cognitive behavior therapy and acceptance and commitment therapy in the treatment of tinnitus. *Journal of Consulting and Clinical Psychology, 80,* 649-661. doi: 10.1037/a0027021. Three arm RCT (n = 99) testing on line version of ACT and CBT vs. control (on line discussion group) for tinnitus distress. Better effects for CBT and ACT. No significant differences between ACT and CBT.

59. Stotts, A.L., Green, C., Masuda, A., Grabowski, J., Wilson, K., Northrup, T., Moeller, F. G., Schmitz, J. (2012). A Stage I pilot study of Acceptance and Commitment Therapy for methadone detoxification. *Drug and Alcohol Dependence, 125,* 215-222. Small (*N* = 56) RCT study on the effect of ACT on methadone detox. 37% versus 19% successfully detoxed in ACT vs. TAU; no increased risk of opiate use.

60. Jensen, K. B., Kosek, E., Wicksell, R., Kemani, M., Olsson, G., Merle, J., Kadetoff, D., & Ingvar, M. (2012). Treatment with Cognitive Behavioral Therapy increases pain-evoked activation of the prefrontal cortex in patients suffering from chronic pain. *Pain,153,* 1495-503. doi: 10.1016/j.pain.2012.04.010. The first RCT (N = 43; all female; w/ Fibromyalgia) with chronic pain to examine post-Rx effects on brain activity. The neurobiological data are presented in the above publication, while most psychosocial data are presented in Wicksell, R. K., Kemani, M., Jensen, K., Kosek, E., Kadetoff, D., Sorjonen, K., Ingvar, M., Olsson, G. L. (2013) Acceptance and commitment therapy for fibromyalgia: A randomized controlled trial. *European Journal of Pain, 17,* 599-611. DOI: 10.1002/j.1532-2149.2012.00224.x These studies compared ACT vs. wait list. 12 weekly group sessions and 3 mo f-up. Better outcomes in favor of ACT were seen in pain related functioning, fibromyalgia impact, mental health related quality of life, self-efficacy, depression, anxiety, psychological inflexibility. Changes in psychological inflexibility during the course of treatment mediated pre- to follow-up improvements in outcome variables. fMRI in response to pain taken at pre and post. ACT led to increased activations in the ventrolateral prefrontal / lateral orbitofrontal cortex; increased vlPFC- thalamic connectivity after treatment. Suggests a change in the cognitive functions of pain.

61. England, E. L., Herbert, J. D., Forman, E. M., Rabin, S. J., Juarascio, A., & Goldstein, S. P. (2012). Acceptance-based exposure therapy for public speaking anxiety. *Journal of Contextual Behavioral Science, 1,* 66–72. RCT (N = 45) of acceptance-based exposure (drawn from ACT) versus habituation-based exposure (drawn from Salkovskis's protocol) for those with social speaking anxiety at clinical social anxiety disorder levels. 6 weekly groups. More diagnostic remission in the ACT-based group at 6 week follow-up.

2013 (23)

62. Bethay, S., Wilson, K. G., Schnetzer, L., Nassar, S. (2013). A controlled pilot evaluation of Acceptance and Commitment Training for intellectual disability staff. *Mindfulness, 4,* 113-121. Small RCT (N=34) of ACT + ABA training vs. ABA training for intellectual disability staff. Better outcomes w/ ACT for those with high distress at pre. Small (n = 34) RCT of 3 3-hour group trainings. Participants were randomly assigned to receive either 9 hours of Applied Behavior Analysis training or 9 hours of ACT plus Applied Behavior Analysis. Between group differences were observed only for participants who reported that they had been consistently applying the techniques they had learned. In addition,

ACT group participants with higher levels of psychological distress at pretest showed decreased psychological distress from pretest to follow-up when compared to their control group counterparts.

63. Biglan, A., Layton, G. L., Backen Jones, L., Hankins, M. & Rusby, J. C. (2013). The value of workshops on psychological flexibility for early childhood special education staff. *Topics in Early Childhood Special Education*, *32,* 196-210. DOI: 10.1177/0271121411425191 Published: FEB 2013 Small (*N* = 42) RCT of ACT workshops vs. wail list for early childhood special educators. At pretest, measures of experiential avoidance and mindful awareness showed significant relationships to reports of depression, stress, and burnout. The intervention reduced staff members' experiential avoidance, increased teachers' mindful awareness and valued living, and improved teachers' sense of efficacy.

64. Lloyd, J., Bond, F. W. & Flaxman, P. E. (2013). Identifying psychological mechanisms underpinning a cognitive behavioural therapy intervention for emotional burnout. *Work & Stress: An International Journal of Work, Health & Organisations, 27,* 181-199. DOI:10.1080/02678373.2013.782157. Government workers assigned in an RCT (N = 100), to ACT (N = 43) or waitlist. 3 half-day sessions 2 ½ months. Good outcomes on various aspects of burnout mostly mediated by earlier changes in psychological flexibility.

65. Luoma, J. B. & Vilardaga, J. P. (2013). Improving therapist psychological flexibility while training Acceptance and Commitment Therapy: A pilot study. *Cognitive Behaviour Therapy, 42,* 1–8, Doi: 10.1080/16506073.2012.701662 Small RCT (N = 20) of therapists receiving an ACT workshop, half of whom also received six 30-min ACT-based phone consultation sessions after the workshop. Both groups improved on ACT knowledge, burnout, and sense of personal accomplishment but those in the consultation condition reported higher psychological flexibility at the 3-month follow-up.

66. Buhrman, M., Skoglund, A., Husell, J., Bergström, K., Gordh, T., Hursti, T., Bendelin, N., Furmark, T. & Andersson, G. (2013). Guided internet-delivered Acceptance and Commitment Therapy for chronic pain patients: A randomized controlled trial. *Behaviour Research and Therapy*, 51, 307–315. RCT (N = 76) comparing a 7 week guided internet-delivered ACT intervention for persons with chronic pain versus a moderated online discussion forum. Intent-to-treat analyses showed significant increases in active engagement and pain willingness and decreases in pain-related distress, anxiety and depression. Gains maintained at a 6-mo follow-up.

67. Carlbring, P., Hagglund, M., Luthstromb, A., Dahlin, M., Kadowaki, A., Vernmark, K., & Andersson, G. (2013). Internet-based behavioral activation and acceptance-based treatment for depression: A randomized controlled trial. *Journal of Affective Disorders, 148*, 331–337. RCT (N = 80) of 8 weeks of internet-based

ACT and behavioral activation versus wait list; 3 month follow up. Large effect on depression.

68. Fledderus, M., Bohlmeijer, E. T., Fox, J. P., Schreurs, K. M. G., & Spinhoven, P. (2013). The role of psychological flexibility in a self-help Acceptance and Commitment Therapy intervention for psychological distress in a randomized controlled trial. *Behaviour Research and Therapy, 51*, 142-151. DOI: 10.1016/j.brat.2012.11.007 Participants with mild to moderate depression randomized to ACT self-help with e-mail support (n=250), or to a waiting list control group (n=126). Effects of the intervention on psychological distress stronger for participants with higher levels of psychological flexibility. Improved psychological flexibility mediated the effects of the ACT intervention.

69. Alonso, M. A., Lopez, A., Losada, A., & Gonzalez, J. L. (2013). Acceptance And Commitment Therapy and selective optimization with compensation for older people with chronic pain: A pilot study. *Behavioral Psychology / Psicologia Conductual, 21*, 59-79. Tiny RCT (N = 10) with elderly (age 71 – 91) people with chronic pain living in a nursing home. Assigned to ACT plus selection, optimization and compensation (SOC) strategies, versus TAU. Increase in satisfaction with the achievement of life goals.

70. Lappalainen, P., Kaipainen, K., Lappalainen, R., Hoffren, H., Myllymaki, T., Kinnunen, M. L., Mattila, E., Happonen, A. P., Rusko, H., & Korhonen, I. (2013). Feasibility of a personal health technology-based psychological intervention for men with stress and mood problems: Randomized controlled pilot trial. Journal of Medical Internet Research, 15. DOI: 10.2196/resprot.2389. Very small RCT (N = 24) of group ACT + behavioral methods (relaxation; etc) as well as Internet/Web portal, mobile phone applications, and personal monitoring devices; versus wait list. 6 mo f-up. Lower depression and psychological distress; better working ability.

71. Forman, E. M., Hoffman, K. L., Juarascio, A. S., Butryn, M. L., & Herbert, J. D. (2013). Comparison of acceptance-based and standard cognitive-based coping strategies for craving sweets in overweight and obese women. *Eating Behaviors, 14,* 64-68. DOI: 10.1016/j.eatbeh.2012.10.016 RCT with 48 overweight women. ACT-based treatment versus standard cognitive reappraisal/distraction intervention (drawn from Brownell's LEASRN protocol) to deal with food urges. Lower cravings and consumption with acceptance especially for those with greater susceptibility to the presence of food and a tendency to engage in emotional eating.

72. Bricker, J., Wyszynski, C., Comstock, B., & Heffner, J. L. (2013). Pilot randomized controlled trial of web-based acceptance and commitment therapy for smoking cessation. *Nicotine & Tobacco Research*, *15*(10), 1756-1764. RCT (N = 222) of a web-based ACT intervention for smoking cessation as compared to the U. S.

National Cancer Institute's Smokefree.gov website. Participants spent significantly longer on the ACT site and we more satisfied with it; quit rates at 3 month follow up were more than double on the ACT site than the NCI site (23% vs. 10%). Smoking cessation was mediated by increases in total acceptance of physical, cognitive, and emotional cues to smoke (80% of the effect).

73. Juarascio, A., Shaw, J., Forman, E., Timko, C., Herbert, J., Butryn, M., Bunnell, D., Matteucci, A. & Lowe, M. (2013). Acceptance and commitment therapy as a novel treatment for eating disorders: An initial test of efficacy and mediation. *Behavior Modification*, *37*(4), 459-489. doi:10.1177/0145445513478633 RCT (N = 140) of ACT groups vs. in patient TAU for eating disorders. Trend toward greater reductions in eating disorders in ACT and less rehospitalization at 6 mo.

74. Zhao, W., Zhou, Y., Liu, X., & Ran, L. (2013). Effectiveness of acceptance and commitment therapy on depression. *Chinese Journal Of Clinical Psychology*, *21*(1), 153-157. Small RCT (N = 27) comparing ACT and CBT groups in 27 college students with severe depression and intense rumination. At 9 week F-up more reduction in depression and rumination in the ACT group; only depression significantly decreased in CBT group.

75. Steiner, J. L., Bogusch, L., & Bigatti, S. M., (2013). Values-based action in fibromyalgia: Results from a randomized pilot of acceptance and commitment therapy. *Health Psychology Research, 1* (3), e34 - e34. Small RCT (N = 28) of ACT vs education for fibromyalgia examining the impact on values. Improvement in both groups in some areas. ACT but not education participants demonstrated significant, maintained improvements in success in intimate relationships.

76. Hosseinaei, A., Ahadi, H., Fata, L., Heidarei, A., & Mazaheri, M. M. (2013). Effects of group Acceptance and Commitment Therapy (ACT)-based training on job stress and burnout. *Iranian Journal of Psychiatry and Clinical Psychology, 19* (2), 109-120. RCT (N = 96) comparing group-based ACT, an attention placebo, and no treatment control on job stress and burnout. ACT had good effects on job stress, maintained during a 3 month follow up.

77. Kocovski, N. L., Fleming, J. E., Hawley, L. L., Huta, V. and Antony, M. M. (2013). Mindfulness and acceptance-based group therapy versus traditional cognitive behavioral group therapy for social anxiety disorder: A randomized controlled trial. *Behaviour Research and Therapy*, *51* (12), 889-898. RCT (N = 137) comparing ACT-based group therapy to cognitive behavioral group therapy. Similar outcomes thru 3 mo f-up.

78. McCracken, L. M., Sato, A., & Taylor, G. J. (2013). A trial of a brief group-based form of Acceptance and Commitment Therapy (ACT) for chronic pain in general practice: Pilot outcome and process results. *The Journal of Pain*, *14* (11), 1398-

1406. doi:10.1016/j.jpain.2013.06.011 Medium RCT (N = 73) of ACT vs TAU for long standing pain (median = 10 years) in primary care Rx.). A 3-month f-up, ACT demonstrated lower disability, less depression, and significantly higher pain acceptance. Data on patient acceptability for this trial is published here: McCracken, L. M., Sato, A., Wainwright, D., House, W., & Taylor G. J. (2014). A feasibility study of brief group-based acceptance and commitment therapy for chronic pain in general practice: recruitment, attendance, and patient views. *Primary Health Care Research and Development*, *15,* 312-23. doi: 10.1017/S1463423613000273.

79. Mehrdoost, Z., Neshatdoost, H., & Abedi, A. (2013). Effectiveness of Acceptance And Commitment Therapy on the decrease of self-focused attention and improving self-efficacy. *Journal of Psychological Models and Methods, 3,* 67-81. Small (N = 30) RCT on social anxiety disorder comparing one month of ACT vs no rx control on self-focused attention and self-efficacy; significant improvements on both in ACT subjects.

80. Forman, E. M., Butryn, M. L., Juarascio, A. S., Bradley, L. E., Lowe, M. R., Herbert, J. D., & Shaw, J. A. (2013). The Mind Your Health Project: A randomized controlled trial of an innovative behavioral treatment for obesity. *Obesity*, 21, 1119–1126. doi: 10.1002/oby.20169.
Overweight participants (N =128) were randomly assigned to 40 weeks of standard behavioral treatment or an ACT-based behavioral treatment. Significantly greater weight loss at 40 weeks and 6 mo f-up. ACT-based approach especially worthwhile for those more susceptible to eating cues, or those we were depressed, or emotional eaters. Food-related psychological flexibility (using the FAAQ) partially mediated outcomes.

81. Brown, R. A., Palm Reed, K. M., Bloom, E. L., Minami, H., Strong, D. R., Lejuez, C. W., Kahler, C. W., Zvolensky, M. J., Gifford, E. V., & Hayes, S. C. (2013). Development and preliminary randomized controlled trial of a distress tolerance treatment for smokers with a history of early lapse. *Nicotine & Tobacco Research, 15,* 2005-2015. doi: 10.1093/ntr/ntt093 Small RCT (N = 49) of ACT plus exposure and behavioral elements as compared to standard treatment. 67% vs. 32%) quit rates at post, some maintenance at follow up. Larger decrease in experiential avoidance in the ACT group.

82. Vakili, Y., Gharraee, B., Habibi, M., Lavasani, F., & Rasoolian, M. (2013). The comparison of the effectiveness of Acceptance and Commitment Therapy with selective serotonin reuptake inhibitors and their combination in the treatment of adults with obsessive-compulsive disorder. *Zahedan Journal of Research in Medical Sciences, 15,* 29-33.

83. Hawkes, A. L., Chambers, S. K., Pakenham, K. I., Patrao, T. A., Baade, P. D., Lynch, B. M., Aitken, J. F., Meng, X. Q., & Courneya, K. S. (2013). Effects of a telephone-delivered multiple health behavior change intervention (CanChange) on

health and behavioral outcomes in survivors of colorectal cancer: A randomized controlled trial. *Journal of Clinical Oncology, 31,* 2313-2321. Large RCT (N = 410) with colorectal cancer survivors assigned to usual care or to 11 ACT-based telephone health coaching sessions over 6 months focusing for physical activity, weight management, dietary habits, alcohol, and smoking. Significant differences at 1 year follow up for physical activity, body mass, and fat intake; vegetable intake better at 6 month. Alcohol and smoking not significantly different.

84. Hayes-Skelton, S. A., Roemer, L., & Orsillo, S. M. (2013). A randomized clinical trial comparing an acceptance-based behavior therapy to applied relaxation for generalized anxiety disorder. *Journal of Consulting and Clinical Psychology, 81*(5), 761-773. doi: 10.1037/a0032871 RCT (N = 81) with GAD. 16 sessions of acceptance-based behavior therapy or applied relaxation (AR). Good effects and good maintenance of gains but comparable outcomes.

2014 (23)

85. Katterman, S. N., Goldstein, S. P., Butryn, M. L., Forman, E. M., & Lowe, M. R. (2014). Efficacy of an acceptance-based behavioral intervention for weight gain prevention in young adult women. *Journal of Contextual Behavioral Science, 3,* 45-50. http://dx.doi.org/10.1016/j.jcbs.2013.10.003 RCT (N = 58) of ACT and behavioral methods (8 group sessions) vs assessment only in preventing weight gain in female college students with a BMI 23-32 kg/m^2. ACT group lost 2.24 kg (-0.74 kg/m^2) over one year; control group gained 1.07 kg and 0.34 kg/m^2 over the year.

86. Avdagic, E., Morrissey, S. A. & Boschen, M. J. (2014). A randomised controlled trial of Acceptance and Commitment Therapy and Cognitive-Behaviour Therapy for generalised anxiety disorder. *Behaviour Change, 31,* 110-130. Small RCT (N = 51) of group ACT vs. group CBT for generalised anxiety disorder (GAD). 3 mo f-up. Mostly similar outcomes except more reduction in worrying symptoms (*d*= .79) from pre- to post-assessment for ACT and at post 79% of ACT participants vs. 47% of CBT participants achieved reliable change. Both equivalent at F-up.

87. McConachie, D. A. J., McKenzie, K., Morris, P. G., & Walley, R. M. (2014). Acceptance and mindfulness-based stress management for support staff caring for individuals with intellectual disabilities. *Research in Developmental Disabilities, 35,* 1216-1227. doi: 10.1016/j.ridd.2014.03.005
RCT (N = 120) comparing ACT-based workshop (n = 66) and wait list (n = 54); pre-, post and 6 week follow-up) for DD support staff. Greater reductions in distress in Rx group esp. among those distressed at baseline.

88. Villagrá, P., Fernández, P., Rodríguez, F., & González, A. (2014). Acceptance and Commitment Therapy vs. cognitive behavioural therapy in the treatment of substance use disorder with incarcerated women. *Journal of Clinical Psychology, 70,* 644–657. Smallish (N = 50) RCT comparing ACT, CBT, and a control

condition in drug abuse treatment with incarcerated women, found that at posttreatment, CBT was more effective than ACT in reducing anxiety sensitivity; however, at follow-up, ACT was more effective than CBT in improving mental health and in reducing objectively verified drug use (abstinence rates in a 6 month follow-up of 44% vs. 27% for ACT and CBT, respectively; a wait list control had a rate of 18%). It is a bit confusing but some of these same date were reported in 2013 (Villagrá-Lanza, P. & González-Menéndez, A., Acceptance and Commitment Therapy for drug abuse in incarcerated women. *Psicothema, 25,* 307-312). Since the larger report in 2014 contains everything in the 2013 report and then some, the earlier citation should be ignored. The long term (18 month) follow up data from the larger report are shown in González-Menéndez, A., Fernández, P., Rodríguez, F., & Villagrá, P. (2014) Long-term outcomes of Acceptance and Commitment Therapy in drug-dependent female inmates: A randomized controlled trial. *International Journal of Clinical Health Psychology, 14*, 18-27, and continued to show the same differences.

89. Ly, K. H., Asplund, K., & Andersson, G. (2014). Stress management for middle managers via an acceptance and commitment-based smartphone application: A randomized controlled trial. *Internet Interventions, 1,* 95–101. doi: DOI: 10.1016/j.invent.2014.06.003
RCT with middle managers comparing an ACT-based smartphone treatment (n = 36) or to a waitlist (n = 37) over a 6 week period. Small to moderate advantages for the ACT app (between group d 0.41 to 0.50) in stress and general health.

90. Tamannaeifar, S., Gharraee, B., Birashk, B. & Habibi, M. (2014). A comparative effectiveness of Acceptance and Commitment Therapy and group cognitive therapy for major depressive disorder. *Zahedan Journal of Research in Medical Science, 16,* 29-31. Small RCT (N = 19) comparing ACT and CT with similar improvement in depression and rumination.

91. Ghomian, S. & Shairi, M. R. (2014). The effectiveness of Acceptance and Commitment Therapy for children with chronic pain on the quality of life of 7 to 12 year-old children. *International Journal of Pediatrics, 2,* 47-55.
Smart RCT (N = 20) comparing ACT and a control condition on the quality of life of children with chronic pain. At 5 mo. Follow up better physical, psychological and school outcomes.

92. Rafiee, M., Sedrpoushan, N., & Abedi. M. R. (2014). The effect of Acceptance and Commitment Therapy on reducing anxiety symptoms and body image dissatisfaction in obese women. *Journal of Social Issues & Humanities, 2* (1), 187-190. Small RCT (N = 30) done in Iran of ACT versus no treatment. ACT reduced anxiety and body dissatisfaction in obese women.

93. Hoseini, S. M., Rezaei, A. M., & Azadi, M. M. (2014) Effectiveness of Acceptance and Commitment Group Therapy on the self-management of Type 2 diabetes

patients. *Journal of Clinical Psychology, 5*, 55-64. Small RCT (N = 24) comparing ACT (using a protocol similar to Gregg et al. protocol: see study # 15 above) versus a wait list on self-reported self-management of Type 2 diabetes. Pre-post only. Large impact on self-management (pre $\bar{x}$ = 10.58 behaviors to post $\bar{x}$ = 27.91 for the ACT condition, versus $\bar{x}$ =11.67 to $\bar{x}$ =13.5 behaviors for the TAU group -- 66% of the post treatment self-management behavior was explained by treatment group. No measure of actual blood glucose control.

94. Levin, M.E., Pistorello, J., Hayes, S.C. & Seeley, J. (2014). Feasibility of a prototype web-based Acceptance and Commitment Therapy prevention program for college students. *Journal of American College Health, 62*, 20-30. RCT (N = 76) comparing ACT web program to wait list. Better anxiety and depression outcomes in ACT.

95. Yadegari, L., Hashemiyan, K., & Abolmaali, K. (2014). Effect of Acceptance and Commitment Therapy on young people with social anxiety. *International Journal of Scientific Research in Knowledge, 2*(8), 395-403. doi: 10.12983/ijsrk-2014-p0395-0403 Very small RCT (N = 18) of young adults (18-28 y o) in Iran seeking treatment for social anxiety comparing 12 session of ACT with a wait list. Significant and large impact on social anxiety. No f-up.

96. Clarke, S., Kinston, J., James, K., Bolderston, H. & Remington, B. (2014). Acceptance and commitment therapy group for treatment-resistant participants: A randomised controlled trial. *Journal of Contextual Behavioral Science, 3,* 179-188. Doi: DOI: 10.1016/j.jcbs.2014.04.005
RCT (N = 61) comparing groups based ACT vs CBT for participants with various diagnoses who had failed to respond to previous psychosocial intervention. Both groups reduced symptoms after intervention but improvements were more sustained in ACT at a 6-month follow-up. ACT processes were predictive of response to ACT.

97. Molavi, P., Mikaeili, N., Rahimi, N., & Mehri, S. (2014). The effectiveness of Acceptance and Commitment Therapy based on reducing anxiety and depression in students with social phobia. *Journal of Ardabil University of Medical Sciences, 14* (4), 412- 423. Small RCT (n = 34) comparing 10 90-min sessions of ACT vs. no treatment in a depressed and anxious group of females with social phobia. Significant reductions in anxiety, depression, and social phobia.

98. Bricker, J. Bush, T., Zbikowski, S. M., Mercer, L. D., & Heffner, J. L. (2014). Pilot randomized trial of telephone-delivered Acceptance and Commitment Therapy (ACT) versus Cognitive Behavioral Therapy (CBT) for smoking cessation. *Nicotine and Tobacco Research, 16* (11), 1446-54. doi: 10.1093/ntr/ntu102 Medium sized RCT (N = 121) comparing uninsured South Carolina State Quitline callers who were adult smokers (at least 10 cigarettes/day) wanting to quit within the next 30 days. Randomized to 5 sessions of either ACT or CBT telephone counseling. Intent-to-treat 30-day point prevalence abstinence at six months post

randomization: 31% in ACT vs. 22% in CBT (OR=1.5, 95% CI=0.7-3.4). Among participants depressed at baseline (n = 47), the quit rates were 33% in ACT vs. 13% in CBT (OR=1.2, 95% CI=1.0-1.6). Among participants scoring low on acceptance of cravings at baseline (n = 57), the quit rates were 37% in ACT vs. 10% in CBT (OR=5.3, 95% CI=1.3-22.0). The latter two finding are marginally significant and significant.

99. Bricker, J. B., Mull, K. E., Kientz, J. A., Vilardaga, R. Mercer, L. D., Akiokaa, K. J., & Heffner, J. L. (2014). Randomized, controlled pilot trial of a smartphone app for smoking cessation using Acceptance and Commitment Therapy. *Drug and Alcohol Dependence, 143*, 87-94. doi: 10.1016/j.drugalcdep.2014.07.006.
Double-blind RCT (N = 196) comparing smartphone-delivered ACT for smoking cessation application (SmartQuit) with the National Cancer Institute's application for smoking cessation (QuitGuide). More use of ACT app. Quit rates of 13% in SmartQuit vs. 8% in QuitGuide (OR = 2.7; 95% CI = 0.8–10.3). A sub-analysis with depressed smokers showed better outcomes with ACT and lower depressive symptoms (Jones, H. A., Heffner, J. L., Mercer, L., Wyszynski, C. M., Vilardaga, R., & Bricker, J. B. (2015). Web-based acceptance and commitment therapy smoking cessation treatment for smokers with depressive symptoms. *Journal of Dual Diagnosis,11*(1), 56-62. doi: 10.1080/15504263.2014.992588.

100. Lappalainen, P., Granlund, A., Siltanen, S., Ahonen, S., Vitikainen, M., Tolvanen, A., & Lappalainen, R. (2014). ACT Internet-based vs face-to-face? A randomized controlled trial of two ways to deliver Acceptance and Commitment Therapy for depressive symptoms: An 18-month follow-up. *Behaviour Research and Therapy.* 61, 43-54. doi: 10.1016/j.brat.2014.07.006
RCT (N = xx) comparing face to face with internet based ACT for outpatients experiencing mild or worse depression. 6 weekly therapy sessions versus 6 weeks of access to an ACT-based Internet program. Pre-treatment to 18-month follow-up within-group effect sizes for all symptom measures in the iACT treatment group (1.59-2.08), were similar or larger than for the face-to-face ACT group (1.12-1.37).

101. Brown, F. L. Whittingham, K., Boyd, R. N., McKinlay, L., & Sofronoff, K. (2014). Improving child and parenting outcomes following paediatric acquired brain injury: A randomised controlled trial of Stepping Stones Triple P plus Acceptance and Commitment Therapy. *The Journal of Child Psychology and Psychiatry. 55*(10), 1172-83. doi: 10.1111/jcpp.12227
RCT (N = 59) with parents of children with acquired brain injury randomly assigned either to treatment as usual or Stepping Stones Triple P: Positive Parenting Program (SSTP) plus Acceptance and Commitment Therapy (ACT) workshop. Better outcomes in treatment condition in number and intensity of child behaviour problems, child emotional symptoms, and parenting laxness and overreactivity. Most improvements were maintained at 6 months.

102. Craske, M. G., Niles, A. N., Burklund, L. J., Wolitzky-Taylor, K. B., Vilardaga, J., Arch, J. J., & Lieberman, M. D. (2014). Randomized controlled trial of Cognitive Behavioral Therapy and Acceptance and Commitment Therapy for social phobia: Outcomes and moderators. *Journal of Consulting and Clinical Psychology, 82*, 1034-1048. doi:10.1037/a0037212
RCT (N = 87) for social phobia comparing 12 week program of CBT or ACT, and a wait-list; follow up for a year. Both interventions better than wait list. Some unexpected moderation (Lower self-reported psychological flexibility at baseline was associated with greater improvement in CBT at one year). A meditational analysis has already been published: Niles, A. N., Burklund, L. J., Arch, J. J., Lieberman, M. D., Saxbe, D. & Craske M. G. (2014). Cognitive mediators of treatment for social anxiety disorder: Comparing acceptance and commitment therapy and cognitive-behavioral therapy. *Behavior Therapy, 45,* 664-677. doi: 10.1016/j.beth.2014.04.006. RCT comparing CBT and ACT for social anxiety disorder. Rapid decreases in experiential avoidance as measured by the AAQ mediated posttreatment social anxiety symptoms and anhedonic depression in ACT, but not in CBT.

103. Luciano, J. V. et al (2014). Effectiveness of group acceptance and commitment therapy for fibromyalgia: A 6-month randomized controlled trial (EFFIGACT study). *Pain, 155,* 693-702. DOI: 10.1016/j.pain.2013.12.029
RCT with fibromyalgia patients (N = 156) assigned to a group-based form of ACT, recommended pharmacological treatment (RPT; pregabalin + duloxetine), or wait list (WL). Better functional outcomes and secondary outcomes for ACT at post and maintained at 6 months with medium effect sizes in most cases. Pain acceptance only mediated the relationship between study condition and health-related quality of life.

104. Minkesh, C., & Masroor, J. (2014). Reducing internalized stigma of mental illness among patients with schizophrenia using Acceptance and Commitment Therapy. *Indian Journal of Clinical Psychology, 41,* 94-101.
Small RCT (N = 24) randomly assigning in patients with schizophrenia to 10–12 45 min twice-weekly sessions of ACT in addition to TAU or TAU. 4 mo follow up. ACT group had lower internalized stigma at post and follow up.

105. Gharaei-Ardakani, S., Abbas, S., Tavallaie, Zahra Dehghanizade, Z., Tork, M., Eydi-Baygi, M., & Nikbakhsh, H. (2014). The effectiveness of Acceptance and Commitment Therapy on mental Health in women with chronic pain. *Bulletin of Environment, Pharmacology and Life Sciences, 3,* 78-83.
Small RCT (N = 30) comparing 8 sessions of ACT and a wait list with women experiencing chronic headache and migraines. 8 Week pre-post, no follow up. Large and significant improvement on the General Health Questionnaire (post score d = 1.43, CI = .63, 2.23) and all of its subscales (physical symptoms, anxiety and insomnia, social dysfunction, depression; all large effect sizes).

106. Pahnke, J., Lundgren, T., Hursti, T., & Hirvikoski, T. (2014). Outcomes of an acceptance and commitment therapy-based skills training group for students with high-functioning autism spectrum disorder: A quasi-experimental pilot study. *Autism*, 18, 953–964. DOI: 10.1177/1362361313501091
Small (N = 28) RCT comparing 6 weeks of ACT-based skills training to a wait list for high-functioning students with autism spectrum disorder (aged 13–21 years) in a special school setting. 2 mo f-up. Better outcomes on stress, hyperactivity, emotional distress and prosocial behaviour.

107. Rostami, M., Veisi, N, Dehkordi, F. J., & Alkasir, E. (2014). Social anxiety in students with learning disability: Benefits of Acceptance and Commitment Therapy. *Practice in Clinical Psychology, 2,* 299-306.
Small RCT (N = 40) of male socially anxious middle-school students (age 12 to 16) with learning disabilities randomized to 10 sessions of ACT or no treatment. Pre-post, no follow up. Good impact on social avoidance, distress, and general social anxiety.

2015 (36 so far, counting in press)

108. Moffitt, R. & Mohr, P. (2015). The efficacy of a self-managed Acceptance and Commitment Therapy intervention DVD for physical activity initiation. British Journal of Health Psychology, 20, 115-129. doi: 10.1111/bjhp.12098.
Miminally active adults (n = 59) were randomly assigned to received a 12 week pedometer-based walking program, or the same program plus an ACT DVD. Physical fitness and steps taker were higher in those receiving the ACT DVD.

109. Gloster, A. T., Sonntag, R., Hoyer, J., Meyer, A. H., Heinze, S., Ströhle, A., Eifert, G., & Wittchen, H. U. (2015). Treating treatment-resistant patients with panic disorder and agoraphobia using psychotherapy: A randomized controlled switching trial. *Psychotherapy and Psychosomatics, 84,* 100-109. doi:10.1159/000370162.
Patients (N = 43) with panic disorder and/or agoraphobia (PD/A) who failed to respond to an average of 42.2 sessions of evidence-based treatment were switched to 8 sessions over 4 weeks of ACT done by novice therapists, either immediately (n = 33) or after a 4-week wait (n = 10). At post-treatment, patients who received ACT were more improved than wait list patients on the Panic and Agoraphobia Scale, and the Clinical Global Impression (d = 0.72 and 0.89, respectively). Improvement on the Mobility Inventory (d = 0.50) was nearly significant. Follow-up indicated stable and continued improvement. Dropout was low (9%).

110. Mojtabaie, M., & Gholamhosseini, S. (2015). Effectiveness of Acceptance and Commitment Therapy (ACT) to reduce the symptoms of anxiety in women with breast cancer. *Journal of Social Issues & Humanities, 3*.
Small RCT comparing ACT (N = 15) and a wait list (N = 15) with women dealing with breast cancer. Less anxiety in the ACT group.

111. Whittingham, K. Sanders, M., McKinlay, L., & Boyd, R. N. (2015). Interventions to reduce behavioral problems in children with cerebral palsy: An RCT. *Pediatrics,* 133, 1-9. doi: 10.1542/peds.2013-3620
RCT (N = 67) parents of children with CP randomly assigned to Stepping Stones Triple P (SSTP), SSTP plus ACT, or waitlist. SSTP with ACT was associated with decreased behavioral problems including hyperactivity as well as decreased parental overreactivity and verbosity (PS MD = 0.68, CI 0.17 to 1.20, P = .01). SSTP alone was associated with decreased behavioral problems but ACT delivered additive benefits.

112. Trompetter, H. R., Bohlmeijer, E. T., Veehof, M. M., & Schreurs, K. M. G. (2015). Internet-based guided self-help intervention for chronic pain based on Acceptance and Commitment Therapy: A randomized controlled trial. *Journal of Behavioral Medicine, 38*(1), 66-80. doi: 10.1007/s10865-014-9579-0
RCT with persons suffering from chronic pain (N = 238) comparing internet-delivered, guided self-help based on ACT) (n = 82), an internet-based pressive Writing (n = 79) or a wait list (n = 77); measure at baseline, posttreatment (3 months) and at a 3-month follow-up. Better outcomes for pain interference, esp. among those who adhered to the intervention; also superior improvement on depression, pain intensity, psychological inflexibility and pain catastrophizing (d: .28–.60). 28 % of ACT-participants showed general clinically relevant improvement vs. 5% for the other groups.

113. Dindo, L., Marchman, J., Gindese, H., & Fiedorowicz, J. G. (2015). A brief behavioral intervention targeting mental health risk factors for vascular disease: A pilot study. *Psychotherapy & Psychosomatics, 84,* 183–185 doi: 10.1159/000371495
Small RCT (N = 40) comparing a 6 hour ACT+education workshop versus TAU for individuals at risk of vascular disease with clinically significant anxiety or symptoms of depression. Measures at pre, 12 wk post, and 24 week f-up. Significant and large (d ~ 1.4) impact on anxiety and depression from ACT as compared to control.

114. Davies, C. D., Niles, A. N., Pittig, A., Arch, J. J. & Craske, M. G. (2015). Physiological and behavioral indices of emotion dysregulation as predictors of outcome from cognitive behavioral therapy and acceptance and commitment therapy for anxiety. *Journal of Behavior Therapy and Experimental Psychiatry, 46*, 35-43. doi: 10.1016/j.jbtep.2014.08.002. RCT (N = 60) comparing ACT and CBT for mixed anxiety disorders. Good but similar outcomes. Better outcomes for ACT than CBT for those with high levels of avoidance of sensations at pre. Heart rate variability predicted Rx response in both conditions.

115. Zarling, A., Lawrence, E., & Marchman, J. (2015). A randomized controlled trial of Acceptance and Commitment Therapy for aggressive behavior. *Journal of*

Consulting and Clinical Psychology, 83, 199-212. doi:10.1037/a0037946 RCT (N = 101) comparing ACT and attention placebo in treatment of partner aggression in a clinical population. 12 week 2-hour groups; 3 and 6 mo follow up. Psychological and physical aggression decreased steadily in ACT but not control conditions – small effects at post, large at follow up. Follow up mediated by flexibility processes.

116. Shahab, M. (2015) The Effect of Acceptance and Commitment Therapy in Reducing the Anxiety of Female Teenagers of Tehran City. *The International Journal of Indian Psychology, 2*. Doi: B00389V2I32015
Small RCT (N = 30) of ACT for anxiety disorders in teenaged girls. 12 session of ACT vs. no treatment. Reduction in anxiety; related to changes in psychological flexibility.

117. Losada, A., Marquez-Gonzalez, M., Romero-Moreno, R., Mausbach, B. T., Lopez, J., Fernandez-Fernandez, V., & Nogales-Gonzalez, C. (2015). Cognitive-Behavioral Therapy (CBT) Versus Acceptance and Commitment Therapy (ACT) for Dementia Family Caregivers With Significant Depressive Symptoms: Results of a Randomized Clinical Trial. *Journal of Consulting and Clinical Psychology, 83,* 760-772. DOI: 10.1037/ccp0000028
RCT (N = 135) comparing ACT, CBT, and a control group on depression, anxiety, leisure, dysfunctional thoughts, and experiential avoidance. Similar to CBT effects on depression pre to post (and better than the control); fall off in ACT at follow-up. Better effects on anxiety than CBT at post and follow up. Significant changes in leisure and dysfunctional thoughts in both ACT and CBT, with changes in experiential avoidance only for ACT.

1118. Nourian, L. & Aghaei, A. (2015). Effectiveness of Acceptance and Commitment Therapy on the Body Mass Index in Women Afflicted with Obesity. *Iranian Journal of Psychiatric Nursing, 3,* 11-20.
RCT (N = 30) w/ obese (Body Mass Index ≥ 30) women of ACT vs. Wait list. Significant diff in BMI at F-up (Pre BMI: ACT - 33.32 (2.37); Control - 33.59 (3.62). F Up BMI: ACT - 31.95 (2.07); Control - 34.24 (4.07).

In Press

119. Wang, S., Zhou, Y., Yu, S., Ran, L., Liu, X., & Chen, Y. (in press). Acceptance and Commitment Therapy and Cognitive–Behavioral Therapy as treatments for academic procrastination: a randomized controlled group session. *Research on Social Work Practice*. doi: 10.1177/1049731515577890 RCT (N = 60) comparing 8 group sessions of ACT or CBT to a wait list for highly procrastinating and highly neurotic undergraduates. 3-mo follow-up. On the two primary outcomes (procrastination and neuroticism) ACT improved more. In procrastination, both treatments improved identically pre to post but ACT improved from post to follow up while CBT maintained gains**.** In neuroticism,

only ACT participants showed gains. At process level, ACT participants showed more improvement in negative affect; CBT in time management.

120. Pots, W.T.M. , Fledderus, M., Meulenbeek, P.A.M., ten Klooster, P.M. , Schreurs, K.M.G. & Bohlmeijer, E.T. (in press). Acceptance and Commitment Therapy as a web-based intervention for depressive symptomatology: A randomised controlled trial. *British Journal of Psychiatry*. RCT (N = 236) finding that a guided web-based Acceptance and Commitment Therapy (ACT) intervention for adults with mild to moderate depression, was better pre to post than a credible expressive writing comparison (Cohen's d = 0.36) and a wait list(Cohen's d = 0.56). Effects were sustained at 6- and 12-month follow-up

121. Frögéli, E., Djordjevic, A., Rudman, A., Livheim, F., & Gustavsson, P. (in press). A randomized controlled pilot trial of acceptance and commitment training (ACT) for preventing stress-related ill health among future nurses *Anxiety, Stress, and Coping*. doi:10.1080/10615806.2015.1025765
RCT (N=113) comparing 6 2-hour group ACT sessions to reflection seminars to prevent the development of stress and burnout in nursing students. 3-mo f-up. Lower stress and burnout; better mindful awareness; lower experiential avoidance. Some support for the impact of process on outcome, esp, mindful awareness.

122. Azadeh, S. M., Kazemi-Zahrani, H., & Besharat, M. A. (in press; 2016 expected). Effectiveness of Acceptance and Commitment Therapy on interpersonal problems and psychological flexibility in female high school students with social anxiety disorder. Global Journal of Health Science, 8, DOI: 10.5539/gjhs.v8n3p131
Small RCT (N = 30) w/ female high school students w/ social anxiety disorder as determined by self-report and a clinical interview. 10 90-min ACT sessions vs. no rx. Better interpersonal, soc. anx., and psych flexibility outcomes

123. George, B. (2015). Efficacy of acceptance and mindful based relapse prevention program on emotion regulation difficulty among alcoholics in Kerala, India. *Journal of Alcohol and Drug Dependence, 3*(3): 250.
Small RCT (N = 32) for alcohol dependent adults; randomly assigned to ACT or no treatment. The study focused almost exclusively on emotional regulation. Impact on alcohol consumption was claimed but seemingly not reported.

124. Kemani, M. K., Olsson, G. L., Lekander, M., Hesser, H., Andersson, E., & Wicksell, R. K. (in press). Efficacy and cost-effectiveness of Acceptance and Commitment Therapy and Applied Relaxation for longstanding pain: A randomized controlled trial. *Clinical Journal of Pain.* PMID: 25585272. Adults (*n* = 60) with chronic pain randomly assigned to ACT or applied relaxation. Better outcomes for ACT pain disability at post. ACT more cost-effective than AR at post- and 3-month follow-up assessment, but not at 6-month follow-up.

125. Thekiso, B., Murphy, P., Milnes. J., Lambe, K., Curtin, A., & Farren, C. K. (in press). Acceptance and Commitment Therapy in the treatment of alcohol use disorder and comorbid affective disorder: A pilot matched control trial. *Behavior Therapy*, doi:10.1016/j.beth.2015.05.005
Medium sized matched control study (N = 52) comparing TAU to ACT + TAU with patients with Alcohol Use Disorder comorbid with either depression or bipolar disorder; group protocol; 3 and 6 mo F-up. Better cumulative abstinence, obsessive drinking, depression, and anxiety in ACT than in TAU. Most improvements sustained the 6-month follow-up period.

126. Ivanova, E., Jensen, D., Cassoff, J., Gu, F., & Knauper, B., (2015). Acceptance and Commitment Therapy Improves Exercise Tolerance in Sedentary Women *Medicine and Science in Sports and Exercise, 47*, 1251-1258.
DOI: 10.1249/MSS.0000000000000536
RCT (N =39) for exercise tolerance in women comparing ACT + listening to music vs listening to music. Increased exercise time w/ ACT and great post exercise enjoyment.

127. Kohtala, A., Lappalainen, R., Savonen, L., Timo, E., & Tolvanen, A. (2015). A Four-Session Acceptance and Commitment Therapy based intervention for depressive symptoms delivered by masters degree level psychology students: A preliminary study. *Behavioural and Cognitive Psychotherapy, 43*, 360-373.
DOI: 10.1017/S1352465813000969
RCT (N = 57) comparing ACT and wait list on self-reported depression using inexperienced therapists. 6 mo F-up. Large to medium effect sizes on depression and psychological flexibility.

128. Kangasniemi, A. M., Lappalainen, R., Kankaanpaa, A., Tolvanen, A., & Tammelin, T. (2015). Towards a physically more active lifestyle based on one's own values: The results of a randomized controlled trial among physically inactive adults. BMC Public Health, 15, 260
DOI: 10.1186/s12889-015-1604-x
RCT (N = 138) of physically inactive participants aged 30 to 50 years randomly allocated to feedback or ACT + feedback. 6 mo. F-up. No difference in physical activity change and more stability of exercise in non-depressed participants in ACT. Cognitions related to physical activity and exercise improved more in the ACT + FB group.

129. Brown, F. L., Whittingham, K., Boyd, R. N., McKinlay, L., & Sofronoff, K. (in press). Does Stepping Stones Triple P plus Acceptance and Commitment Therapy improve parent, couple, and family adjustment following paediatric acquired brain injury? A randomised controlled trial. *Behaviour Research and Therapy*
doi:10.1016/j.brat.2015.07.001

RCT (N = 59) comparing SSPPP + ACT to TAU. Significant small to medium improvements relative to the CAU group in parental confidence in managing behaviors, family adjustment, parent psychological distress, and number of disagreements between parents.

131. Lappalainen P, Langrial S, Oinas-Kukkonen H, Tolvanen A, & Lappalainen R. (in press). Web-Based Acceptance and Commitment Therapy for depressive symptoms with minimal support: A randomized controlled trial. *Behavior Modification.*
RCT (N = 39) of web-based ACT w/ minimal support vs wait list. 1 yr F-up. Significant and large relative benefits on depression; and medium effects on distress and ACT-related process measures.

132. Hasheminasab, M Babapour Kheiroddin, J Mahmood Aliloo, M Fakhari, A. (2015). Acceptance and Commitment Therapy (ACT) For Generalized Anxiety Disorder. Iranian Journal of Public Health, 44, 718-719.

133. Eilenberg, T., Fink, P., Jensen, J. S., Rief, W., & Frostholm, L. (in press). Acceptance and Commitment Group Therapy (ACT-G) for health anxiety: A randomized controlled trial. *Psychological Medicine.*
RCT (N = 126) of ACT group therapy (9 3-hr sessions and 1 booster) vs Wait List. 10 mo. f-up. Large and significant improvement on illness worry (between group d = .89) at F-up; also improvement in emotional distress and health-related quality of life. Among the best outcomes yet reported w/ hypochondriacs.

134. Alonso-Fernández, M., López-López, A., Losada, A., González, J. L, & Wetherell, J. L. (in press). Acceptance and Commitment Therapy and Selective Optimization with Compensation for institutionalized older people with chronic pain. *Pain Medicine*
DOI: 10.1111/pme.12885
RCT (N = 101) comparing ACT + SOC to a minimal support group. Significant relative improvement between groups in acceptance, pain related anxiety, compensation strategies, and pain interference in walking.

135. Livheim, F., Hayes, L., Ghaderi, A., Magnusdottir, T., Högfeldt, A., Rowse, J., Turner, S., Hayes, S. C. & Tengström, A. (in press). The effectiveness of Acceptance and Commitment Therapy for adolescent mental health: Swedish and Australian pilot outcomes. *Journal of Child and Family Studies*. doi: 10.1007/s10826-014-9912-9. Two studies (total N = 95) one randomized and one non-randomized, with adolescents screened for depression or psychosocial problems and stress, comparing group ACT or a supportive control. Large

impacts on depressive symptoms and stress and changes in psychological flexibility.