

Are dysfunctional attitudes elevated and linked to mood in bipolar disorder? A meta-analysis and systematic review

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Chloe Woods

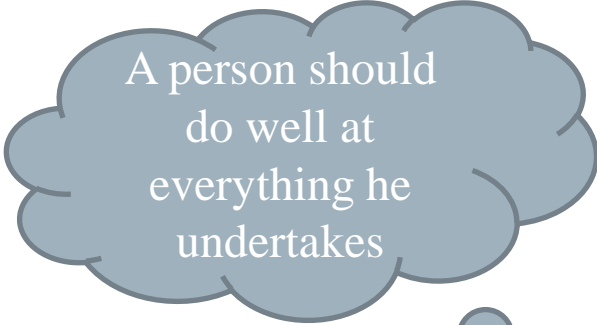
Supervisors Thomas Richardson and Emma Palmer-Cooper.

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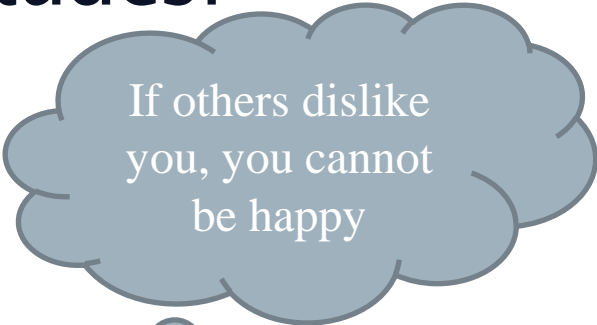
Overview

- Introduction
 - What are DA and how they present in Bipolar
 - Aims of the review
- Method
- Results
 - Meta-analysis
 - Narrative synthesis
- Discussion
- Clinical implication & Limitations
- Questions

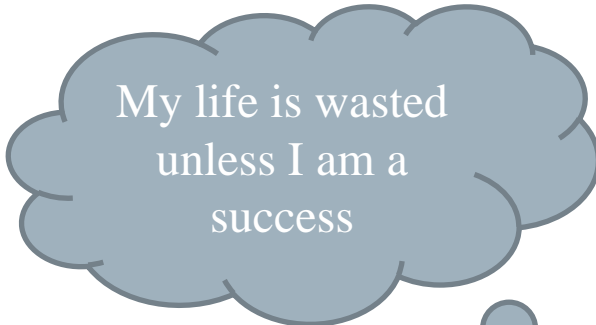
What are Dysfunctional Attitudes?



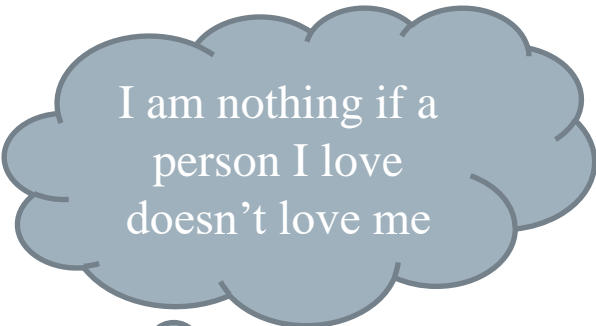
A person should
do well at
everything he
undertakes



If others dislike
you, you cannot
be happy



My life is wasted
unless I am a
success

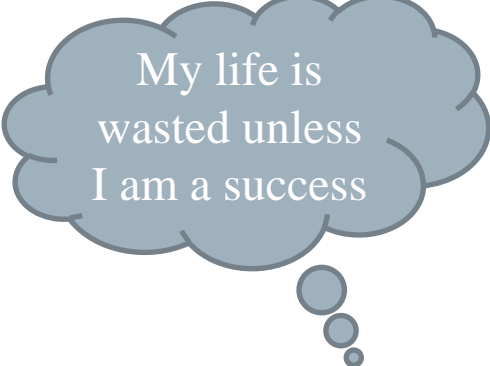


I am nothing if a
person I love
doesn't love me

Dysfunctional Attitudes in Depression

- Elevated (Keller, 1983) and linked to more depressive episodes (Otto Et al., 2007).
- DA can predict future depressive symptoms and severity (Körqeli et al., 2013; Wang et al., 2010).
- Characteristic (Fresco et al., 2006) or mood dependent in depression (Pearson & Miranda, 2002)?

Dysfunctional Attitudes in Bipolar



My life is
wasted unless
I am a success

- Mixed findings about the prevalence of DA in BD
 - Higher scores for ‘goal attainment’ DA for Bipolar (Lam et al., 2004)
 - DA scores higher in BD population vs unipolar depressed and HC (Batmaz, et al., 2013).
 - No significant difference in DAS scores between BD, UP and HC (Alatiq et al., 2010).
- Mixed findings about the influence of mood
 - Goldberg et al., (2008) reported significant associations between mania symptoms and increased DA scores. (not dep)

Aims

1. explore the presence DA in BD vs a comparison group
2. identify any associations and provide a narrative review of DA in BD and reported relationships between mood & DA
3. to review the methodological quality of the studies;
4. explore evidence for psychological therapy on DA in BD
5. to reflect upon current research/ implications/
recommendations for future research in BD and DA.

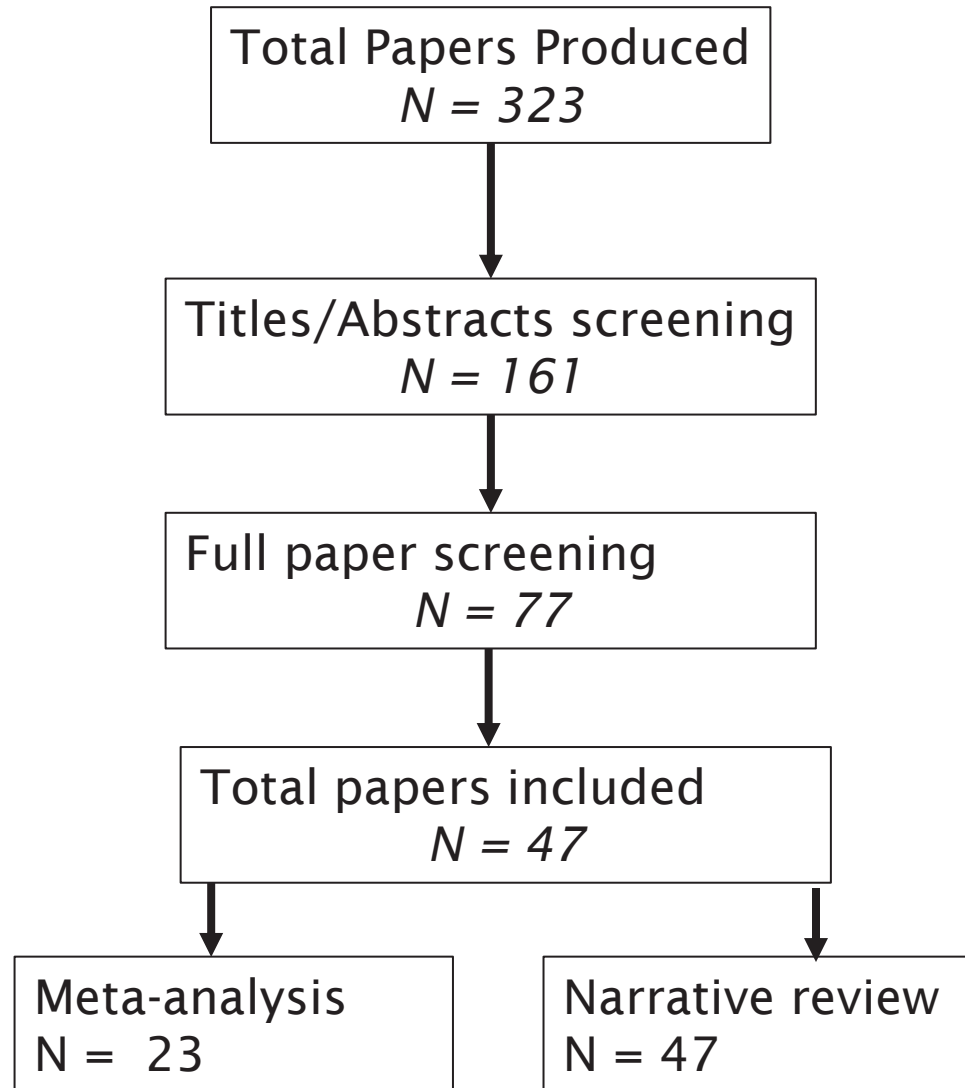
Method

- Databases = Medline, PsycInfo and Web of Science
- Search terms =
 - ‘bipolar’ AND
 - “dysfunctional attitude*” or “dysfunctional belie*” or “dysfunctional assum*” or “negative cognitions” or “maladaptive belie*”

Method- Inclusion/ Exclusion

| Inclusion | Exclusion |
|---|---|
| Any study design | Reviews, meta-analyses, abstracts, commentaries |
| Participants diagnosed with BD | No formal diagnosis (DSM, ICD) |
| Participants 18+ | Child/ adolescent studies |
| Peer reviewed journal | Non standardised |
| Written in English | Data collected during or post intervention |
| Standardised measure for DA + Mood (means + SD) | Statistical results not raw data (means, SD, sample size) |
| At least two group (BDI vs BDII / BD vs HC) | |

Method- PRISMA

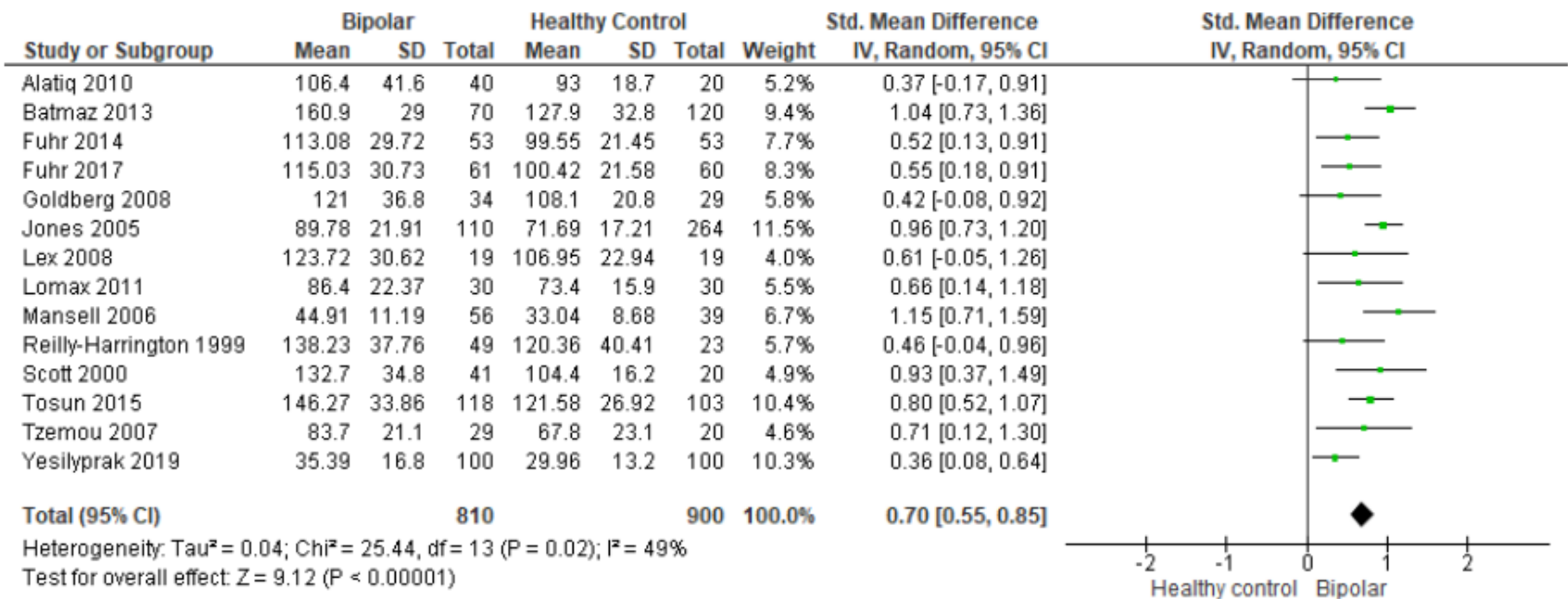


Method

- Quality assessment tool
 - National Heart Lung and Blood Institute (NHLBI; 2014) Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies
- Effect size computation
 - Random effects meta-analysis using RevMan (2020) to identify SMD between groups
 - Group means, SD and sample size (Borenstien et al. 2009).
 - DAS total scores to avoid Type I error.

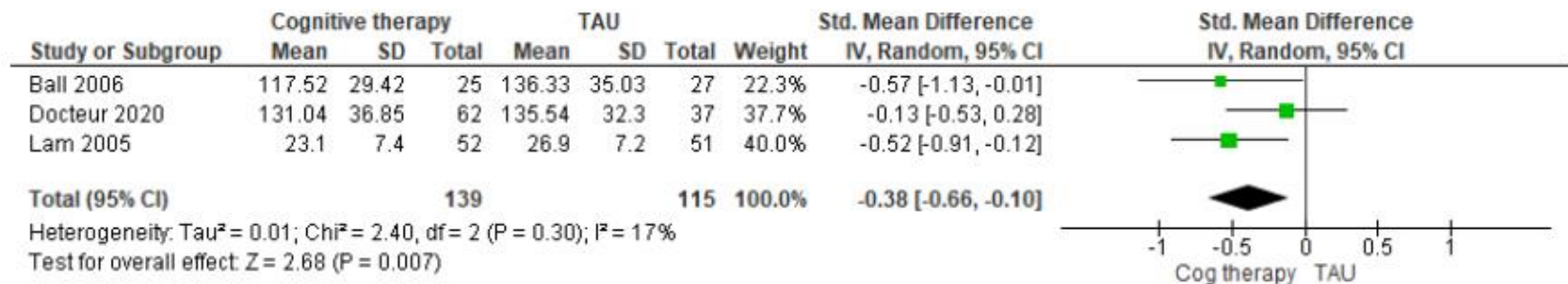
Results- Meta-analysis

- No difference was observed between BD and unipolar participants ($d = -0.16$).
- A significant mean difference was found between BD and healthy controls ($d = 0.70$).



Results- Meta-analysis

- Mood state in BD- a SMD was found between DA scores for euthymic vs. depressed participants ($d = -0.71$).
- 3 studies included in the meta-analysis were suggestive of lower DA in those who had engaged in psychological therapy compared to TAU.



Results- Narrative Synthesis

- DA are a characteristic of BD that is not as prevalent in healthy populations
- Initial studies are in support of psychological therapies being effective at reducing DA in BD.
- DA are higher in depressed individuals with BD when compared to other mood states (euthymic, manic, mixed).
- Using the DAS mania does not correlate with increased DA

Discussion

- DA are not unique to unipolar depression as previously thought (Keller, 1983; Abela & D'Alessandro, 2002), but also are not more extreme in bipolar depressive episodes.
- The severity of DA are dependent on an individual's state, rather than just a trait of their diagnosis (Person & Miranda, 2002).
- Remains mixed evidence whether DA can predict mood episode in BD
- High heterogeneity of studies

Limitations

- Limited hand searching
- Data extraction for full papers reviewed
- Fair or poor quality studies
- Lack of longitudinal studies
- No analysis of subscales (DAS)

Clinical implications/ Future research

- DA are most active when individuals are depressed, treatment targeting this phase of illness
- Limited understanding of DA and mania phase of BD
- Need for further longitudinal studies

References

- Abela, J. R., & D'Alessandro, D. U. (2002). Beck's cognitive theory of depression: A test of the diathesis-stress and causal mediation components. *British Journal of Clinical Psychology*, 41(2), 111-128.
- Alatiq, Y., Crane, C., Williams, J. M. G., & Goodwin, G. M. (2010). Dysfunctional beliefs in bipolar disorder: Hypomanic vs depressive attitudes. *Journal of Affective Disorders*, 122(3), 294- 300. <https://doi:10.1016/j.jad.2009.08.021>
- Beck, A. T. (1987). Cognitive models of depression. *Journal of Cognitive Psychotherapy*, 1(1), 5-37.
- Borenstein, M., Hedges, L. V., Higgins, J. P., & Rothstein, H. R. (2021). *Introduction to metaanalysis*. John Wiley & Son.
- Fresco, D. M., Heimberg, R. G., Abramowitz, A., & Bertram, T. L. (2006). The effect of a negative mood priming challenge on dysfunctional attitudes, explanatory style, and explanatory flexibility. *British Journal of Clinical Psychology*, 45(2), 167-183. <https://doi.org/10.1348/014466505X35137>
- Goldberg, J. F., Gerstein, R. K., Wenze, S. J., Welker, T. M., & Beck, A. T. (2008). Dysfunctional attitudes and cognitive schemas in bipolar manic and unipolar depressed outpatients: Implications for cognitively based psychotherapeutics. *Journal of Nervous and Mental Disease*, 196(3), 207-210. <https://doi:10.1097/NMD.0b013e3181663015>
- Keller, K. E. (1983). Dysfunctional attitudes and the cognitive therapy for depression. *Cognitive therapy and research*, 7(5), 437-444. <https://doi.org/10.1007/BF01187171>

References cont.

- Kërqeli, A., Kelpi, M., & Tsigilis, N. (2013). Dysfunctional attitudes and their effect on depression. *Procedia-Social and Behavioral Sciences*, 84, 196-204. <https://doi.org/10.1016/j.sbspro.2013.06.534>
- Lam, D., Wright, K., & Smith, N. (2004). Dysfunctional assumptions in bipolar disorder. *Journal of affective disorders*, 79(1-3), 193-199. [https://doi.org/10.1016/S0165-0327\(02\)00462-7](https://doi.org/10.1016/S0165-0327(02)00462-7)
- Otto, M. W., Teachman, B. A., Cohen, L. S., Soares, C. N., Vitonis, A. F., & Harlow, B. L. (2007). Dysfunctional attitudes and episodes of major depression: Predictive validity and temporal stability in never-depressed, depressed, and recovered women. *Journal of abnormal psychology*, 116(3), 475. <https://doi.org/10.1037/0021-843X.116.3.475>.
- Persons, J. B., & Miranda, J. (2002). Treating dysfunctional beliefs: Implications of the mood-state hypothesis. *Clinical advances in cognitive psychotherapy: Theory and application*, 62-74
- Power, M. J., Katz, R., McGuffin, P., Duggan, C. F., Lam, D., & Beck, A. T. (1994). The Dysfunctional Attitude Scale (DAS): A comparison of forms A and B and proposals for a new subscaled version. *Journal of research in personality*, 28(3), 263-276. <https://doi.org/10.1006/jrpe.1994.1019>.
- Review Manager Web (RevMan Web). Version 5.4. The Cochrane Collaboration, (2020). Available at revman.cochrane.org
- Wang, C. E., Halvorsen, M., & Eisemann, M. (2010). Stability of dysfunctional attitudes and early maladaptive schemas: A 9-year follow-up study of clinically depressed subjects. *Journal of behavior therapy and experimental psychiatry*, 41(4), 389-396. <https://doi.org/10.1016/j.jbtep.2010.04.002>

YOUR QUESTIONS