



A Systematic Review of the Treatment Effects of Antidepressants on Occupational Functioning

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Abstract

Objective: The focus of clinical trials of antidepressants has been on symptom remission, but functional improvement (including occupational functioning) is an important aspect of treatment, especially for patients. It is increasingly clear that psychosocial functioning is not well correlated with symptom improvement. Despite this fact, less than 5% of clinical trials in major depressive disorder (MDD) include measures of psychosocial functioning. With regards to occupational functioning in MDD, presenteeism (reduced productivity while still at work) is a greater problem than absenteeism. In this study, we systematically reviewed the literature on effects of antidepressants on occupational functioning in MDD.

Methods: Electronic databases (PubMed, clinicaltrials.gov, Cochrane Clinical Trials) were searched using appropriate search terms and bibliographies of relevant publications were scanned for additional citations. Inclusion criteria were (1) diagnosis of MDD using validated criteria, e.g., DSM-IV or ICD-9, (2) randomized controlled trials, with or without a placebo condition, (3) involvement of one or more antidepressants, and (4) a specific outcome related to occupational productivity.

Results: The search and inclusion criteria yielded 11 publications involving 9 different SSRI and SNRI antidepressants. In 10 of 11 studies, the outcome measure was the work item from the Sheehan Disability Scale (SDS); in one study, the Functional Status Questionnaire (FSQ) was used, and another used the Work Productivity and Activity Impairment scale (WPAI) as a secondary measure. There were few differences in these outcomes between the antidepressants studied.

Conclusions: There are limited data on the productivity gains with antidepressant treatment of MDD. Antidepressants appear to improve productivity outcomes but there are few differences between agents. Further research is needed using more specific and comprehensive measures of presenteeism and work productivity.

Background

- The prevalence of Major Depressive Disorder (MDD) is highest among working aged people, and associated with significant impairment in work functioning (i.e., reduced cognitive processing, memory, attention, concentration, and energy levels).
- This results in greater absenteeism (time away from work) and presenteeism (loss of productivity while at work) amongst those who are depressed (Wade et al., 2007).
- First-line antidepressant agents have been shown to improve depressive symptoms, but there has been limited focus on psychosocial (including occupational) functioning, with less than 5% of trials that include measures of functioning (McKnight & Kashdan, 2009).
- The objective of this systematic review was to summarize the evidence on the effect antidepressants have on occupational functioning and presenteeism in patients with MDD.

References

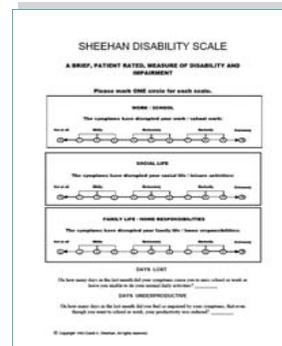
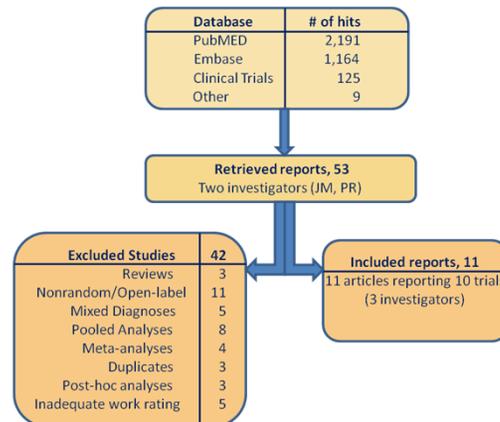
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Methods

- A comprehensive literature search of Electronic Databases (PubMed, Clinical Trials, Cochrane Clinical Trials) was performed using the search terms antidepressant, occupation, work, clinical trial, and the major scales assessing work functioning (e.g., Sheehan Disability Scale, Work Limitations Questionnaire, Health and Work Performance Questionnaire).
- Only randomized controlled trials (RCTs) involving an antidepressant (with or without a placebo condition) and patients with a diagnosis of MDD were included in the current review.
- Occupational functioning outcomes included a specific measure of work productivity (e.g., work functioning scales). When work functioning data was not available, authors were contacted directly for clarification.
- Abstracts were scanned by two independent reviewers and discrepancies were resolved through consensus. Data was abstracted by two reviewers and double-entered for accuracy.
- Data from each study was initially extracted and reviewed separately. This permitted us to focus on the specific information available in each database and to use only the data that was relevant for the current review.

Study Selection Process.



Results

* indicates significantly improved ($p < .05$)

Study	Daily Dose (mg)	Work Outcome Rating Scale	Baseline Scale Score	Endpoint Scale Score or Change Score (SD or 95%CI)
Boyer et al., 1998 (8 weeks)				
Sertraline	50-150	FSQ	75.3	14.86 (15.17)*
Fluoxetine	20-60		81.1	7.52 (14.85)*
Detke et al., 2004 (8 weeks)				
Duloxetine	80	SDS-Work	Not reported	Improved scores* (data not reported)
Duloxetine	120			
Paroxetine	20			
Placebo	N/A			
Perahia et al., 2006 (8 weeks)				
Duloxetine	80	SDS-Work	Not reported	Not reported
Duloxetine	120			
Paroxetine	20			
Placebo	N/A			
Wade et al., 2007 (24 weeks)				
Escitalopram	20	SDS-Work	6.5	2.59*
Duloxetine	60		6.5	3.38
Liebowitz et al., 2007 (8 weeks)				
Desvenlafaxine	100-200	SDS-Work	6.0	4.0
Placebo	N/A			
DeMartinis et al., 2007 (8 weeks)				
Desvenlafaxine	100	SDS-Work	LOCF means reported	-2.3 (3.4)*
Desvenlafaxine	200			
Desvenlafaxine	400			
Placebo	N/A			-1.7 (3.9)
Boyer et al., 2008 (8 weeks)				
Duloxetine	50	SDS-Work	6.5	3.5 (3.1, 4.0)*
Desvenlafaxine	100			
Placebo	N/A			
Liebowitz et al., 2008 (8 weeks)				
Desvenlafaxine	50	SDS-Work	5.6	3.4 (3.0, 3.8)*
Desvenlafaxine	100			
Placebo	N/A			
Hewett et al., 2010 (8 weeks)				
Bupropion XR	150	SDS-Work	6.7	-2.5 (0.21)*
Venlafaxine XR	75			
Placebo	N/A			
Zajacka et al., 2010 (8 weeks)				
Agomelatine	25	SDS-Work	Not reported	Improved scores, NS (p=.054)
Agomelatine	50			
Placebo	N/A			
Dunlop et al., 2011 (12 weeks)				
Desvenlafaxine	50	SDS-Work	Not reported	-3.0 (0.2)*
Placebo	N/A			
Desvenlafaxine	50			
Placebo	N/A	WPAI	58.6	-24.1 (1.7)
Placebo	N/A		58.0	-19.0 (2.3)

Conclusions

- Despite the importance of work productivity outcomes, there are limited data on the productivity gains with antidepressant treatment of MDD.
- Most studies used the Sheehan Disability Scale, which only has a single item assessing work functioning.
- The select group of studies suggest that antidepressants improve productivity outcomes, but there are few differences between agents.
- Further research is needed using more comprehensive measures of work productivity to gain a better understanding of this outcome.

