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Research report

The most cited works in major depression: The 'Citation classics'

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ABSTRACT

Background: The biomedical literature is growing exponentially, with thousands of articles published each day. While the majority of published papers are of incremental value, every field also has a select, relatively small number of works that have presented important conceptual advances and have had a profound influence. We were interested in identifying such papers in the field of Major Depression.

Objective: To determine which and what type of articles in the field of Major Depression are citation classics, defined as having received equal to or exceeding 400 citations in the biomedical literature, as a surrogate marker for their impact in the field.

Methods: An online database of research publications was searched using a free, publicly accessible, and downloadable software. The terms "Depression" or "Depressive" were queried in the title of publications with no date restrictions. Out of scope publications not dealing with Major Depression or mood disorders were not considered.

Results: 243 citation classics representing the top cited manuscripts (approximately 0.1% of 240,000) in the field of Major Depression were identified. These highly cited works fell into six categories: scales/measures, medical psychiatry, clinical trials/management, mechanisms/translational studies, imaging investigations and epidemiological/population health studies. The journals in which citation classics are published are diverse, but typically are general psychiatric or medical publications.

Conclusions: Despite the size of the field, there is a relatively parsimonious collection of citation classics in the field of Major Depression. These deal primarily with the mechanisms and epidemiology of the disease, with papers dealing with depression management accounting for the fastest growing group of citation classics.

1. Introduction

An important gauge of the progress, value and impact of a particular area of research is its representation in the biomedical literature. Work that is viewed as particularly important, or containing contributions deemed especially valuable, will be widely read and referenced by others within and outside of the field in related disciplines. Thus the number of citations a scientific work receives can be used as an objective gauge of its relative influence and as a surrogate marker of its impact in the discipline (Garfield, 1987, 2010; Qin and Lancaster, 2008). The term, citation classic, has been used to describe publications that have received at least 400 citations in the biomedical literature and thus represent the most highly cited works in a particular field. The concept of the citation classic, first introduced and later developed by Garfield (Garfield, 2010), has been applied to several medical fields, including ophthalmology, obstetrics, trauma, neurosurgery, and neurology (Brandt et al., 2010; Ohba and Nakao, 2010; Ollerton and Sugrue, 2005; Ponce and Lozano, 2010, 2011). Thus far, no analyses of citation classics in psychiatry are available.

Determining which and what type of publications are citation classics can have broad and significant implications. It

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Table 1
Citation classics in Major Depression with over 1000 citations each. Sca = Scales and Measurement; Med = Medical Psychiatry; Mech = Mechanisms and Translational Studies; Epi = Epidemiology and Public Health; Clin = Clinical and Management; Ima = Imaging.

Rank	Citations	Paper	Category
1.	15590	Beck AT, Ward CH, Mendelson M, Mock J, Eerbaugh J. An inventory for measuring depression. *Arch Gen Psychiatry*. 1961 Jun;4:561–71.	Sca
2.	12047	Hamilton M. A rating scale for depression. *J Neurol Neurosurg Psychiatry*. 1960 Feb;23:56–62.	Sca
3.	8987	Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand*. 1983 Jun;67(6):361–70.	Sca
4.	5423	Brown GW, Harris T. Social origins of depression: a reply. *Psychol Med*. 1978 Nov;8(4):577–88.	Mech
5.	4532	Zung WW, Richards CB, Short MJ. Self-rating depression scale in an outpatient clinic. Further validation of the SDS. *Arch Gen Psychiatry*. 1965 Dec;13(6):508–15.	Sca
6.	4423	Beck AT, Steer RA, Carbin MG. Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*. 1988;8(1):77–100.	Sca
7.	4349	Yesavage JA, Brink TL, Rose TL, Lum O, Huang V, Adey M, Leirer VO. Development and validation of a geriatric depression screening scale: a preliminary report. *J Psychiatr Res*. 1982–1983;17(1):37–49.	Sca
8.	4262	Hamilton M. Development of a rating scale for primary depressive illness. *Br J Soc Clin Psychol*. 1967 Dec;6(4):278–96.	Sca
9.	3750	Montgomery SA, Asberg M. A new depression scale designed to be sensitive to change. *Br J Psychiatry*. 1979 Apr;134:382–9.	Sca
10.	2955	Caspi A, Sugden K, Moffitt TE, Taylor A, Craig IW, Harrington H, McClay J, Mill J, Martin J, Braithwaite A, Poulton R. Influence of life stress on depression: moderation by a polymorphism in the 5-HTT gene. *Science*. 2003 Jul 18;301(5631):386–9.	Mech
11.	2007	Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry*. 1987 Jun;150:782–6.	Sca
12.	1798	Yesavage JA, Sheikh JI. Geriatric Depression Scale (GDS) Recent Evidence and Development of a Shorter Violence. *Clinical Gerontologist*. 1986; 5: 165–173.	Sca
13.	1716	Abramson LY, Metalsky GI, Alloy LB. Hopelessness Depression: A Theory-Based Subtype of Depression. *Psychological Review*. 1989 April;96(2): 358–372.	Mech
14.	1676	Kessler RC, Berglund P, Demler O, Jin R, Koretz D, Merikangas KR, Rush AJ, Walters EE, Wang PS; National Comorbidity Survey Replication. The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R). *JAMA*. 2003 Jun 18;289(23):3095–105.	Epi
15.	1553	Frasure-Smith N, Lespérance F, Talajic M. Depression following myocardial infarction. Impact on 6-month survival. *JAMA*. 1993 Oct 20;270(15):1819–25.	Med
16.	1425	Spitz RA. Anaclitic depression; an inquiry into the genesis of psychiatric conditions in early childhood. *Psychoanal Study Child*. 1946;2:313–42.	Mech
17.	1386	Lovibond PF, Lovibond SH. The structure of negative emotional states: comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behav Res Ther*. 1995 Mar;33(3):335–43.	Sca
18.	1385	Elkin I, Shea MT, Watkins JT, Imber SD, Sotsky SM, Collins JF, Glass DR, Pilkonis PA, Leber WR, Docherty JP, et al. National Institute of Mental Health Treatment of Depression Collaborative Research Program. General effectiveness of treatments. *Arch Gen Psychiatry*. 1989 Nov;46(11):971–82.	Clin
19.	1379	Weissman MM, Klerman GL. Sex differences and the epidemiology of depression. *Arch Gen Psychiatry*. 1977 Jan;34(1):98–111.	Epi
20.	1349	Clark LA, Watson D. Tripartite model of anxiety and depression: psychometric evidence and taxonomic implications. *J Abnorm Psychol*. 1991 Aug;100(3):316–36.	Mech
21.	1309	Kovacs M. Rating scales to assess depression in school-aged children. *Acta Paedopsychiatr*. 1981 Feb;46(5–6):305–15.	Sca
22.	1296	Porsolt RD, Le Pichon M, Jalfre M. Depression: a new animal model sensitive to antidepressant treatments. *Nature*. 1977 Apr 21;266(5604):730–2.	Mech
23.	1246	Morgan D. Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse. *Psychotherapy Research*. 2003;13:123–125.	Clin
24.	1214	Frasure-Smith N, Lespérance F, Talajic M. Depression and 18-month prognosis after myocardial infarction. *Circulation*. 1995 Feb 15;91(4):999–1005.	Med
25.	1188	Anderson RJ, Freedland KE, Clouse RE, Lustman PJ. The prevalence of comorbid depression in adults with diabetes: a meta-analysis. *Diabetes Care*. 2001 Jun;24(6):1069–78.	Med
26.	1162	Bjelland I, Dahl AA, Haug TT, Neckelmann D. The validity of the Hospital Anxiety and Depression Scale. An updated literature review. *J Psychosom Res*. 2002 Feb;52(2):69–77.	Sca
27.	1146	Linde K, Berner M, Egger M, Mulrow C. St John's wort for depression: meta-analysis of randomized controlled trials. *Br J Psychiatry*. 2005 Feb;186:99-10	Clin
28.	1120	Weissman MM, Sholomskas D, Pottenger M, Prusoff BA, Locke BZ. Assessing depressive symptoms in five psychiatric populations: a validation study. *Am J Epidemiol*. 1977 Sep;106(3):203–214.	Epi
29.	1119	Beck AT, Beamesderfer A. Assessment of depression: the depression inventory. *Mod Probl Pharmacopsychiatry*. 1974;7(0):151–69.	Sca
30.	1118	Blazer DG, Kessler RC, McGonagle KA, Swartz MS. The prevalence and distribution of major depression in a national community sample: the National Comorbidity Survey. *Am J Psychiatry*. 1994 Jul;151 (7):979–86.	Epi
31.	1095	Duman RS, Heninger GR, Nestler EJ. A molecular and cellular theory of depression. *Arch Gen Psychiatry*. 1997 Jul;54(7):597–606.	Mech
32.	1091	Weissman MM, Bland RC, Canino GJ, Faravelli C, Greenwald S, Hwu HG, Joyce PR, Karam EG, Lee CK, Lellouch J, Lépine JP, Newman SC, Rubio-Stipec M, Wells JE, Wickramaratne PJ, Wittchen H, Yeh EK. Cross-national epidemiology of major depression and bipolar disorder. *JAMA*. 1996 Jul 24–31;276(4):293–9.	Epi
33.	1067	Mayberg HS, Liotti M, Brannan SK, McGinnis S, Mahurin RK, Jerabek PA, Silva JA, Tekell JL, Martin CC, Lancaster JL, Fox PT. Reciprocal limbic-cortical function and negative mood: converging PET findings in depression and normal sadness. *Am J Psychiatry*. 1999 May;156(5):675–82.	Imag
34.	1054	Alexopoulos GS, Abrams RC, Young RC, Shamoian CA. Cornell Scale for Depression in Dementia. *Biol Psychiatry*. 1988 Feb 1;23(3):271–84.	Sca
35.	1034	Biederman J, Newcorn J, Sprich S. Comorbidity of attention deficit hyperactivity disorder with conduct, depressive, anxiety, and other disorders. *Am J Psychiatry*. 1991 May;148(5):564–77.	Epi
36.	1034	Birmaher B, Ryan ND, Williamson DE, Brent DA, Kaufman J. Childhood and adolescent depression: a review of the past 10 years. Part II. *J Am Acad Child Adolesc Psychiatry*. 1996 Dec;35(12):1575–8.	Epi
37.	1019	Nolen-Hoeksema S. Sex differences in unipolar depression: evidence and theory. *Psychol Bull*. 1987 Mar;101(2):259–82.	Epi
38.	1013	Herrmann C. International experiences with the Hospital Anxiety and Depression Scale—a review of validation data and clinical results. *J Psychosom Res*. 1997 Jan;42(1):17–4.	Sca
39.	1001	DiMatteo MR, Lepper HS, Croghan TW. Depression is a risk factor for noncompliance with medical treatment: meta-analysis of the effects of anxiety and depression on patient adherence. *Arch Intern Med*. 2000 Jul 24;160(14):2101–7.	Med

can serve as an indicator of where a field has been and importantly where it is headed. This information could, at least in theory, readily, and at a glance, determine which areas are of particularly high impact and what type of research is driving progress in a given field. Philanthropic, governmental and non-governmental agencies could use this information to assign priorities and inform the allocation of funds across proposals, scientists or centers. Certain areas that have seen slow progress can either be supported or see finite resources redirected towards more promising, high yield and impactful research. Further, citation classics can be an objective gauge of academic excellence and can be used as a barometer for promotion, recognition, and academic ranking within and between institutions. As an indicator of what are the most important works in a discipline, the list of citation classics has important educational value both to those new to the field or who are already established. Finally, an understanding of the type of papers that become citation classics will help trainees and researchers understand "what it takes" to make a significant scientific contribution to their field.

Here, our objective is to identify and analyze the citation classics in the Major Depression literature, and to determine what the trends among these publications can tell us about the future of this exponentially growing field. Major Depression (MD) accounts for a significant proportion of global mental health morbidity, with tremendous financial and academic resources directed to investigating its origins and treatments. We chose this area due to its prevalence and impact on society, as well as its ubiquity, which makes this type of information potentially useful to a large number of stakeholders.

2. Methods

We performed a search of all known articles, with no date restrictions, using a free, publicly accessible search software utilizing an established online database of publications (Harzing's Publish or Perish 3) (Harzing, 2010). We searched for all articles with the words "Depression" or "Depressive" in their title, and then extracted all publications with at least 400 citations. From the results, we analyzed each entry and deleted irrelevant papers that did not deal with Major Depression. We excluded i) papers dealing with separate, distinct diagnoses, such as bipolar depression, ii) papers using the words Depression or Depressive in other, unrelated contexts (e.g. synaptic depression, long-term neuronal depression); iii) books, patents, manuals and other non-biomedical journal publications.

3. Results

Using the outlined search strategy, we retrieved 321 publications that were cited 400 or more times. After eliminating out of scope works, we were left with 243 papers which met criteria for citation classics in the field of MD. A PubMed search of the terms Depression or Depressive results in over 250,000 listed publications, or 1000 times the number of citation classics in the field. We can therefore estimate that the citation classics account for approximately 0.1% of all publications in the Major Depression literature.

Table 2
Journals containing at least five citation classics.

Archives of general psychiatry	40
American Journal of Psychiatry	22
Jama	21
Journal of Abnormal Psychology	14
The British journal of psychiatry	9
Journal of personality and social psychology	7
Psychological Bulletin	7
Psychological Medicine	7
Archives of Internal Medicine	6
Journal of Consulting and Clinical Psychology	5
Journal of Neuroscience	5
New England Journal of Medicine	5

The top publication in the field of MD has been cited more than 15,000 times. Table 1 lists those with at least 1000 citations (39) ranked in descending order with the entire list of 243 appearing as Supplementary Table 1.

These highly cited papers appeared in a relatively restricted number of journals. Table 2 lists the journals that have published at least five citation classics. In total, the 243 citation classics are published in 70 journals, with 39 of these publishing more than one highly cited paper (Supplementary Table 2 lists all journals). Remarkably, over half of all citation classics have appeared in only 8 journals (Table 2).

We divided the 243 citation classics into 6 broad categories, depending on their general subject (Table 3). These categories are as follows:

3.1. Descriptive/epidemiology/population health

We included in this category Major Depression papers that dealt with the clinical features of depression, its definition, trends and incidence and prevalence over time, within and between populations. There were 63 citation classics in this category, with most of them accumulating in the 1990s. Thirteen of these (20.6%) dealt primarily with child and adolescent depression, and seven (11.1%) with gender differences within the condition.

3.2. Mechanisms/translational

Here, we included papers that dealt with the etiology, pathogenesis of depression, including risk factors, genetics, biochemical, or clinical features that predisposed or somehow explained the development or maintenance of Major Depression. There were 63 citation classics in this category, which also contained the oldest paper, from 1946. This category had a wide diversity of topics that spanned the development of novel

Table 3
Number of citation classics per category.

Category		
Epidemiology/population health	Epi	63
Mechanisms/translational	Mech	63
Clinical trials/management	Clin	36
Medical psychiatry	Med	35
Scales	Sca	31
Imaging	Imag	15
		243

techniques and theories in twentieth century understanding of human behavior and psychology, from early psychodynamic theories, to advanced molecular/genetic studies.

3.3. Clinical/management

This category included papers that dealt with the management or treatment of Major Depression as a separate disease entity, including clinical trials of medications or neuromodulation. There were 37 citation classics in this category, which was the only one that did not experience a decrease in number of publications after the 1990s. Four of these publications were randomized clinical trials, with only one randomized double blind trial of a pharmaceutical agent. The remaining publications dealt with the use of pharmaceutical strategies, neuromodulation (electroconvulsive therapy, deep brain stimulation, transcranial magnetic stimulation), psychotherapy, or general reviews of treatment approaches in Major Depression.

3.4. Medical psychiatry

This category included any paper that dealt with the interaction between Major Depression and other medical illness, including the relationships between them, prevalence, implications for prognosis and management. The influence of depression on cardiac health was the most common topic, with nearly half of the citation classics in this category dedicated to cardiovascular conditions (15/35, 42.9%). The next most common conditions were diabetes and the influence of depression on glycemic control and diabetes management, with 5 citation classics in this category. There were 35 total citation classics in medical psychiatry, with approximately half published in the 1990s (17/35, 48.9%).

3.5. Scales/measurement

The categories of papers having the highest number of total citations were those that described the development, application or validity of new or old scales in Major Depression. Thirty-two papers were in this group. Additionally there were 7 citation classics measuring depression in the geriatric population, the most of any group of patients. Although the total number of citation classics in the scales/measurement category was relatively small (31 papers), this category had eight of the top ten most cited articles in the Major Depression literature with the top two papers alone accounting for over 27,000 citations, or 42% of all citations of the top 10 articles.

3.6. Imaging

This category included papers that dealt principally with neuroimaging investigations in Major Depression, including those that attempted to explain or describe any aspect of the disease. Given the novelty of neuroimaging in the context of psychiatry, most citation classics in this category began to appear after 1980, and peaked (so far) in the 1990s. Seven of the 15 imaging citation classics dealt with structural MRI (i.e. morphometric studies), and five dealt with studies using Positron Emission Tomography (PET) to assess glucose metabolism in the depressed state.

Table 4 summarizes our results as a function of the number of citation classics across the various categories in 10 year epochs with the earliest citation classic from 1946 and the most recent from 2006. There is a clear period of productivity, a 'golden age' of Major Depression research, in the 1990s, with 106/243 (43.4%) citation classics published in that decade. The only category that does not experience a decline in number of publications following the 1990s is the clinical/management category that has a clear upwards slope. As can be seen in Fig. 1, which graphs the number of citation classics per year, there is a trend of increasing number of significant papers published with time, that peaks in the late 1990s and then decreases, as new works have not had sufficient time to be cited. It remains interesting and impressive that no less than fifty citation classics were published since 2000.

4. Discussion

We identified 243 citation classics in the Major Depression literature, and divided them into six broad categories and examined trends over time.

4.1. Which type of papers are citation classics?

Just over half of all citation classics (51.6%) dealt with either descriptive/epidemiological studies or mechanisms/translational research done in the last 30 years. The development of sophisticated molecular and genetic techniques has been important developments in furthering our understanding of the mechanisms of Major Depression.

Scales and measurements figure prominently in the citation classics and their temporal patterns are informative. Although their representation in the last twenty years has been minimal, it should be noted that 8/10 top citation classics deal with scales and MD measurement (Table 1). The

Table 4
Number of citation classics classified by epoch and category.

	1940–1949	1950–1959	1960–1969	1970–1979	1980–1989	1990–1999	2000–2009	Totals
Epidemiology/population health			1	7	13	35	7	63
Mechanisms/translational	1		3	10	16	22	11	63
Clinical trials/treatment			1		2	16	17	36
Medical psychiatry					8	17	10	35
Scales			4	2	17	6	2	31
Imaging					2	10	3	15
Totals	1		9	19	58	106	50	243

two most commonly used depression measuring instruments, the Beck and the Hamilton, are ranked first and second, respectively, in the top citation classics list. The influence of depression measurement, and hence the phenomenology of the condition, its categorization and classification, are substantial, but since its establishment, the focus has shifted to more translational and treatment-oriented research.

When examining the citation classics, it is important to note not only the absolute number of papers but also the rate of growth of any particularly category. For example, although clinical/management, scales/measurement, and medical psychiatry, all have roughly similar number of publications, the fact that the clinical category has 17 citation classics in the 2000s, is indicative of the rapid growth and sheer productivity of this area. The citation classics provide a barometer, therefore, not only for productivity but also for research trends with time.

4.2. Where are citation classics published?

We found that Citation classics tend to aggregate in high impact journals. This is likely related to two reasons: 1) they are viewed as inherently valuable by editors and reviewers, and 2) they appeal to a large, broad audience, given the ubiquity of depression in general medical practice. Three of the top ten journals most likely to publish citation classics are general psychiatric journals, and two are general medical. There is a very large diversity in the types of journals that publish Major Depression papers, a fact likely due to the broad associations that mood disorders have with other fields, including medicine, neuroscience, psychology, public health, and pharmacology. Indeed, this diversity is exemplified by examining the disciplines of the authors with the most number of citation classics, a list which includes psychiatrists (Katon [8 citation], Beck [6 citations]), psychologists (Nolen-Hoeksema [7 citations]), and epidemiologists (Kessler [9 citations], Weissman [7 citations]).

4.3. What are the trends of citation classics with time?

The number of citation classics over time shows a clear upwards slope, peaking in the 1990s. We believe that this is due to several factors: i) more sophisticated tools (genetics, imaging) to probe the mechanisms of depression; ii) more researchers working in the area of MD; and, iii) the multidisciplinary reach and understanding of MD. The decrease after 1990s is most likely due to the limited time which has passed to allow papers to accumulate a large number of citations.

Table 4 outlines the number of citation classics in each category as a function of time. Research into the mechanisms driving MD has been constant in the last 50 years. Further, it wasn't until the establishment of appropriate scales and measures, that studies examining epidemiological trends and MD management could take place. Productivity in both of the latter categories, therefore, trailed the former by a decade.

The absolute number of citation classics in Major Depression is informative, particularly when compared with the number of citation classics in other fields. For example, we have previously shown that in the field of Parkinson's Disease (PD), there are 107 citation classics, less than half of the total found here. Such figures are congruent with prevalence estimates of both conditions in the general population, with PD at approximately 0.3%, compared with estimates of up to 5% for Major Depression (de Lau and Breteler, 2006; Murphy et al. 2000). We have further shown that there are 106 citation classics in the entire field of neurosurgery, regardless of subspecialty (Ponce and Lozano, 2010). The fact that there are 243 citation classics in Major Depression is thus a testament to the size of the field, the level activity within it as well as its scope and prominence in the biomedical literature.

4.4. Limitations

This study has several limitations. The most important is the possibility that our search algorithm did not uncover all citation classics in the depression field.

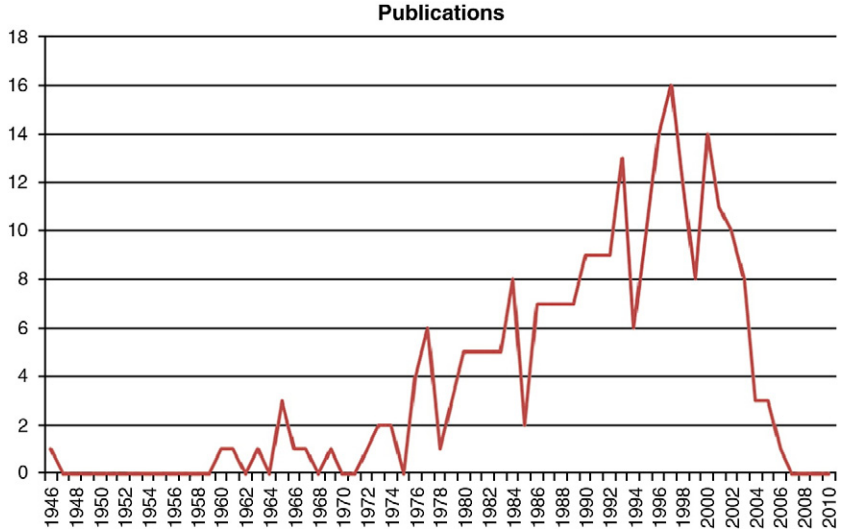

Fig. 1. Number of citation classics published per year.

Before conducting our literature search we weighed the advantages and disadvantages of various searchable literature databases, namely Google Scholar and ISI Web of Science. In order to satisfy our objectives, we needed a database that was publicly accessible, had minimal restrictions with regards to archiving, listed the number of citations for each article, and was up-to-date. We selected Harzing's Publish or Perish 3 as our access software, which utilizes Google Scholar as the searchable literature database for the following reasons. After several test searches, we noted minimal significant discrepancies between the Harzing search results and those obtained with ISI Web of Science, which we attributed to particular nuances in the searching algorithm for each database. For example, ISI only archives ISI journals, whereas Google Scholar makes no such restrictions. This may explain findings in the research citation literature that suggest that ISI Web of Science may systematically underestimate an author's academic citation impact (Meho & Yang, 2007). Also, ISI only counts citations from journals listed in ISI, potentially further underestimating citation counts (Meho & Yang, 2007). Given the larger scope of Google Scholar, its accessibility and ease of reproducibility, we felt that the Harzing results provided us with more valid results and more accurate estimates of citation, and hence, impact. However, as mentioned, both ISI and Google Scholar, offer distinct strengths and weaknesses, which should be considered prior to any bibliometric analysis. Further, some weaknesses, such as poor handling of grammatical variation and punctuation, are shared by both databases.

Another limitation stems from the possibility that we did not utilize the optimal search algorithm. We sought to include all papers with Depression or Depressive in the title, and did not search for terms such as 'antidepressant', 'meloncholia' etc. Our objective was to be as parsimonious as possible, and examine the field of clinical major depression exclusively, without confounding our results and list with papers from disparate fields, within and outside of psychiatry (e.g. use of anti-depressants in attention disorders etc.).

4.5. Implications of citation classics

We have previously suggested that knowledge of the citation classics in any given field provides practitioners and researchers with the fundamental knowledge needed to understand where the field has been and where it is headed. The *h* index, a bibliometric term used to embody the academic productivity of any given researcher, has been used widely to gage the appropriateness for promotion and academic recognition (Hirsch 2005). The main advantage of the *h* index lay in its factoring in of both the number and quality of publications, as derived from the absolute number of citations per paper. Both Google Scholar and ISI Web of Science utilize the *h* index, although as mentioned, the scope of the former is broader, and less restrictive, than the latter. As a result, an academic's *h* index may vary depending on the database used, representing an additional limitation.

Notwithstanding the controversies surrounding the use of the *h* index, as well as which papers ultimately get cited, by whom, and for what purpose and context, representation on the list of citation classics implies a substantial and impactful contribution to science that has been objectively recognized by one's peers and colleagues. The list of citation classics represents what is arguably the most important body of knowledge in a specific field, which is particularly the case for fields as diverse and rapidly advancing as Major Depression. The citation classics, therefore, should become not only barometers of productivity and impact, but also as cornerstones of an introduction to a field, and importantly, serve as examples of the goals for which to strive, by all researchers.

5. Conclusions

We have identified 243 publications in the Major Depression literature that can be classified as 'citation classics'. These represent particularly important contributions so far, to this rapidly advancing field. As a group, these publications should be considered, 'required reading' for practitioners and students of the field of Major Depression, who seek to understand where the field has been, and especially in the last 20 years, where the field is going.

Supplementary materials related to this article can be found online at doi:10.1016/j.jad.2011.05.031.

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Conflict of interest

AML is a Canada Research Chair Tier I Neuroscience and is a consultant for Medtronic, St Jude, Eli Lilly and Boston Scientific. NL has nothing to disclose.

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