

Editorial

Industry Involvement in Medical Research: Call for New Solutions to an Old Problem

Gosmann NP*

Negative Affect and Social Processes Group, Hospital de Clínicas de Porto Alegre (HCPA), Federal University of Rio Grande do Sul, Brazil

EDITORIAL

There is a frequent discussion concerning the industry involvement in medical research and studies in the field psychiatry. Researchers collaborating with clinical trials often report to receive funding or grants from sponsors that may be directly interested in favorable results [1]. This relationship may create a conflict of interest between results expected by sponsorship and truly unbiased reports [2]. Moreover, previous evidence indicate that great amount of clinical trials in general medicine, specially on head-to-head comparisons, are funded by industry [3].

Involvement of industry has been pointed out as an important variable predicting different methods and different results when comparing studies with distinct funding origin. Findings suggest that industry funded trials seem to have better methodological quality than other trials [4]; however, some strategies frequently used by these studies may be responsible for potentially biased results. For example, trials funded by industry are more likely to avoid active comparators [5] and to adopt noninferiority designs [4]. Besides that, preliminary evidence indicate that companies tend to avoid co-sponsor head-to-head trials, inhibiting better studies on interventions manufactured by distinct companies [5].

Results also differ when considering involvement of industry. Studies reported that industry funded randomized trials are associated with more favorable outcomes [4]. Additionally, systematic reviews sponsored by the industry or authored by researchers with potential conflict of interests tend to explicit more positive conclusions than those without industry involvement [6]. Considering this, such influence in methodology and results reported has raised important concern about potentially biased research in medical literature [7]. To assess this potential bias, journals usually require disclosure of author's conflicts of interests and study funding, in spite of previous evidence suggest inconsistency in journal policies [8].

Similar to general medicine field, studies in psychiatry have demonstrated great amount of influence from industry. A meta-analysis designed to assess studies published in four of the most widely cited journals in the field reported conflict of interests to be present in 47% of clinical trials published and industry

*Corresponding author

Natan Pereira Gosmann, Hospital de Clínicas de Porto Alegre (HCPA); Ramiro Barcelos, 2350 – room 2201A; Porto Alegre, Rio Grande do Sul, Brazil – 90035-003, Tel: +55 51 3359 8094; Fax: 55 51 3359 8094; E-mail: natanpgosmann@gmail.com

Submitted: 02 May 2016

Accepted: 03 May 2016

Published: 04 May 2016

Copyright

© 2016 Gosmann

OPEN ACCESS

funding are identified in 60% of these studies [9]. In addition to that, a recent study on meta-analyses of antidepressants for depression published results indicating that 79% of authors of eligible meta-analyses had some industry link (i.e. sponsorship or potential conflict of interests) [10]. These findings suggest higher prevalence of industry involvement in the field of psychiatry when compared with estimates of 40% of conflict of interests [11] and 39% of industry funding [3] in studies concerning general medicine. As described in other fields, trials also differ methodologically according to industry link [12]. Studies evaluating psychiatric disorders or psychotropic medications consistently report more favorable outcomes when industry involvement is present for both blinded [13] and non-blinded studies [14]. Even after controlling for psychiatric diagnosis, sample size, design and time since drug approval, favorable outcomes are more frequently reported in studies sponsored by the drug manufacturer (78%) than in studies without industry involvement (48%) or sponsored by other companies (28%) [15].

Despite of its recognized influence in general medical research and psychiatry, some aspects of industry involvement are unclear. In spite of current editorial policies being directly designed to assess potentially biased research, funding sources and author's conflicts of interests reports and their power to indicate industry influence remains not fully explored. Further studies assessing this topic and exploring alternative items for a more specific evaluation of the influence of industry are needed in order to improve requirements during submission processes and empower readers for a more precise evaluation of potentially biased results. Considering the higher amount of studies with industry involvement, assessment of these issues would be of special importance for the field of psychiatry.

REFERENCES

1. Krinsky S, Rothenberg LS. Financial interest and its disclosure in scientific publications. *JAMA*. 1998; 280: 225-226.
2. Thompson DF. Understanding financial conflicts of interest. *N Engl J Med*. 1993; 329: 573-576.
3. Als-Nielsen B, Chen W, Gluud C, Kjaergard LL. Association of funding and conclusions in randomized drug trials: a reflection of treatment effect or adverse events? *JAMA*. 2003; 290: 921-928.

4. Flacco ME, Manzoli L, Boccia S, Capasso L, Aleksovska K, Rosso A. Head-to-head randomized trials are mostly industry sponsored and almost always favor the industry sponsor. *J Clin Epidemiol*. 2015; 68: 811-820.
5. Lathyris DN, Patsopoulos NA, Salanti G, Ioannidis JP. Industry sponsorship and selection of comparators in randomized clinical trials. *Eur J Clin Invest*. 2010; 40: 172-182.
6. Hartog CS, Skupin H, Natanson C, Sun J, Reinhart K. Systematic analysis of hydroxyethyl starch (HES) reviews: proliferation of low-quality reviews overwhelms the results of well-performed meta-analyses. *Intensive Care Med*. 2012; 38: 1258-71.
7. Angell M. Is academic medicine for sale? *N Engl J Med*. 2000; 342: 1516-1518.
8. Krinsky S. Journal policies on conflict of interest: if this is the therapy, what's the disease? *Psychother Psychosom*. 2001; 70: 115-117.
9. Perlis RH, Perlis CS, Wu Y, Hwang C, Joseph M, Nierenberg AA. Industry sponsorship and financial conflict of interest in the reporting of clinical trials in psychiatry. *Am J Psychiatry*. 2005; 162: 1957-1960.
10. Ebrahim S, Bance S, Athale A, Malachowski C, Ioannidis JP. Meta-analyses with industry involvement are massively published and report no caveats for antidepressants. *J Clin Epidemiol*. 2016; 70: 155-163.
11. Kjaergard LL, Als-Nielsen B. Association between competing interests and authors' conclusions: epidemiological study of randomised clinical trials published in the BMJ. *BMJ*. 2002; 325: 249.
12. Dunn AG, Mandl KD, Coiera E, Bourgeois FT. The effects of industry sponsorship on comparator selection in trial registrations for neuropsychiatric conditions in children. *PLoS One*. 2013; 8: e84951.
13. Heres S, Davis J, Maino K, Jetzinger E, Kissling W, Leucht S. Why olanzapine beats risperidone, risperidone beats quetiapine, and quetiapine beats olanzapine: an exploratory analysis of head-to-head comparison studies of second-generation antipsychotics. *Am J Psychiatry*. 2006; 163: 185-194.
14. Freemantle N, Anderson IM, Young P. Predictive value of pharmacological activity for the relative efficacy of antidepressant drugs. Meta-regression analysis. *Br J Psychiatry*. 2000; 177: 292-302.
15. Kelly RE Jr, Cohen LJ, Semple RJ, Bialer P, Lau A, Bodenheimer A. Relationship between drug company funding and outcomes of clinical psychiatric research. *Psychol Med*. 2006; 36: 1647-1656.

Cite this article

Gosmann NP (2016) Industry Involvement in Medical Research: Call for New Solutions to an Old Problem. *JSM Anxiety Depress* 1(1): 1002.