Dennis M. Gorman

Availability of Research Data in High-Impact Alcohol & Drug Journals with Data Sharing Policies

Department of Epidemiology & Biostatistics, Texas A&M University

(Conflicts of Interest: None)
Data Sharing

• Vast majority of published results are positive and cannot be replicated\textsuperscript{1,2}

• Most are chance findings produced through use of flexible data analysis practices & selective reporting\textsuperscript{3}

• Data sharing is one of the main proposed solutions to this “replication crisis”\textsuperscript{4,5}
Present Study

• Builds on an earlier study that examined 38 addiction journals’ use of procedures to improve the quality of publications\(^6\)
  – (e.g., CoI disclosure, use of guidelines such as CONSORT, study registration, data sharing)

• 28 out of 38 encouraged data sharing
  – (0 required it as a condition of publication)
Selection of Journals

- 13 high-impact journals with data sharing policies were selected from those included in the substance abuse category of the 2018 Clarivate Analytics’ Journal Citation Report (JCR)

- Those with the top 10 highest 2018 JCR Impact Factor and/or the top 10 highest 2018 Scimago h-index scores
<table>
<thead>
<tr>
<th>Journals (n=13)</th>
<th>JCR Impact Factor (Rank)</th>
<th>Scimago h-index (Rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 10 JCR Impact Factor &amp; Scimago h-index</strong></td>
<td></td>
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<tr>
<td><em>Addiction</em></td>
<td>6.851 (1)</td>
<td>174 (1)</td>
</tr>
<tr>
<td><em>Addiction Biology</em></td>
<td>4.223 (3)</td>
<td>70 (10)</td>
</tr>
<tr>
<td><em>Nicotine &amp; Tobacco Research</em></td>
<td>3.786 (4)</td>
<td>102 (5)</td>
</tr>
<tr>
<td><em>Drug &amp; Alcohol Dependence</em></td>
<td>3.466 (5)</td>
<td>151 (2)</td>
</tr>
<tr>
<td><em>Psychology of Addictive Behaviors</em></td>
<td>2.970 (7)</td>
<td>94 (6)</td>
</tr>
<tr>
<td><em>Addictive Behaviors</em></td>
<td>2.963 (8)</td>
<td>114 (4)</td>
</tr>
<tr>
<td><em>Journal of Studies on Alcohol &amp; Drugs</em></td>
<td>2.584 (10)</td>
<td>116 (3)</td>
</tr>
<tr>
<td><strong>Top 10 JCR Impact Factor Only</strong></td>
<td></td>
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<tr>
<td><em>International Journal of Drug Policy</em></td>
<td>4.528 (2)</td>
<td>66 (-)</td>
</tr>
<tr>
<td><em>Substance Abuse</em></td>
<td>2.986 (6)</td>
<td>39 (-)</td>
</tr>
<tr>
<td><em>Drug &amp; Alcohol Review</em></td>
<td>2.789 (9)</td>
<td>66 (-)</td>
</tr>
<tr>
<td><strong>Top 10 Scimago h-index Only</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Journal of Substance Abuse Treatment</em></td>
<td>2.542 (-)</td>
<td>93 (7)</td>
</tr>
<tr>
<td><em>Alcohol</em></td>
<td>2.039 (-)</td>
<td>74 (8)</td>
</tr>
<tr>
<td><em>Substance Use &amp; Misuse</em></td>
<td>1.383 (-)</td>
<td>71 (9)</td>
</tr>
</tbody>
</table>
Data Extracted from the 13 Journals

• 10 most recent full or short original research reports that included empirical data collected by the investigators in the most recent complete issue

• Each of the 130 papers was electronically searched & reviewed for: (1) reference to where data can be obtained; (2) a formal data sharing statement
Results

• Only 8 of the 130 papers contained a data sharing statement in their text or supplementary online materials
  – 7 published in Alcohol & 1 in International Journal of Drug Policy

• Only 1 of the 130 papers contained a direct link to the data analyzed
  – Published in International Journal of Drug Policy
Discussion

• Results support Vidal-Infer et al. (2019) who found only 7.7% of the supplementary materials from 697 papers published in 39 addiction journals contained spreadsheets & data.

• This level of data sharing is lower than that reported in studies of articles published in journals from neurosurgery, biomedicine, chemistry and biology.
Conclusions

• Data Sharing policies of addiction journals result in very little data sharing

• Addiction journals should focus on implementing other procedures to improve research quality & integrity
  – Detailed pre-registration that locks-in study design, measures & analyses is more likely to reduce analytic flexibility & selective reporting than data sharing
References

3 Ioannidis, J.P.A. (2019). What we have (not) learnt from millions of scientific papers with $P$ values. American Statistician, 73 (S1), 20-25.