

LETTER TO THE EDITOR

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Financial relationships of editorial board members of cardiothoracic surgery journals

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To the editor,

Editorial board members (EBMs) of medical journals are influential and supervise the dissemination of peer-reviewed medical information. Given their unique position, EBMs with industry relationships can pose as a conflict of interest and generate controversy. In this cross-sectional study, we characterize the financial relationships of cardiothoracic surgery journal EBMs.

Methods

We searched Clarivate Web-of-Science 2020 Journal Citations Report (JCR) [1] applying the “cardiac and cardiovascular systems” and “surgery” filters. Adapting previous methodology [2], we screened by hand to identify journals focusing on cardiothoracic surgery based on their name, target readership, and societal affiliations. Additionally, journals listed on JCR were used to identify any related sister journals [2]. For each journal, we recorded the name and 2020 impact factor [1]. Each journal’s official website was reviewed to identify the name and affiliation of their editor in chief(s), associate editor(s), deputy editor(s), and other EBMs. Journal administrators and honorary and emeritus editors were excluded from analysis [3]. Additionally, we recorded whether journals disclosed EBMs’ conflict of interest on their website. Using the Open Payments database [4], we recorded the financial associations of EBMs, including general industry payments, research funding, and stock

ownership/investment interest. Adapting previous methodology [5] and in accordance with the International Committee of Medical Journal Editors (ICMJE) guidelines, we recorded EBM’s industry payments in 2020 and the preceding 2 years. Categorical variables were reported as counts and percentages. After assessing normality using the Shapiro-Wilk and Kolmogorov-Smirnov tests, continuous variables were reported as median with interquartile range [IQR] or mean with standard deviation (SD). Independent samples Mann-Whitney *U*-test and Spearman’s correlation test were used to find the impact of journal subscription status (open access/subscription) and impact factor, respectively, on EBM industry payments.

Results

A total of 29 cardiothoracic surgery journals with 1611 individual EBMs were identified. The median impact factor was 1.897 [IQR 1.62–3.733], and the median number of EBMs was 56 [IQR 46–74]. Of the 29 journals, 2 (6.9%) disclosed their EBMs’ conflict of interest on their official website. Among EBMs, 1262 (78.3%) were affiliated with only one journal, while 349 (21.7%) served on the editorial boards of two or more journals (Table 1).

Overall, 516 (32.0%) EBM had Open Payments profiles. Of these, 458 (88.8%) received industry payments between 2018 and 2020, 452 (87.6%) received general payments, 164 (31.8%) received industry research funding, and 7 (1.4%) had stock ownership/investment interest with a company.

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Table 1 Summary and financial associations of 1611 editorial board members

	Number of editorial board members (%)	US dollars (\$), median [IQR]/mean (SD)
Characteristics of editorial board members (<i>n</i> = 1611)		
• Editorial board member reviewing one cardiothoracic journal	1,262 (78.3)	
• Editorial board member reviewing 2 or more cardiothoracic journals	349 (21.7)	
Open Payment profile status of editorial board members (<i>n</i> = 1,611)		
• Physician editorial board member with US affiliation and Open Payment profile	516 (32.0)	
• Physician editorial board member with US affiliation without Open Payment profile	79 (4.9)	
• Physician editorial board member with non-US affiliation without Open Payment profile	979 (60.8)	
• Nonphysician editorial board member without Open Payment profile	37 (2.3)	
Editorial board members with Open Payments profiles receiving industry payments between 2018 and 2020 (<i>n</i> = 516)		
Editorial board members receiving general payments, industry research funding, or ownership/investment interest	458 (88.8)	8,420.53 [1,075.86–56,548.00] ^{a,b}
Editorial board members receiving general payments	452 (87.6)	38,91.37 [444.98–17,597.39]
Classification of general payment		
• Consulting	180 (34.9)	
• Education	82 (15.9)	
• Food and beverage	412 (79.8)	
• Grant	11 (2.1)	
• Honoraria	66 (12.3)	
• Royalty/license	12 (2.3)	
• Traveling and lodging	275 (53.3)	
• Compensation for serving as faculty or as a speaker for continuing education program	33 (6.4)	
• Compensation for services other than consulting ^f	112 (21.7)	
Editorial board members receiving industry research funding	164 (31.8)	44,956.00 [8,996.89–174,132.29]
Editorial board members with ownership/investment interest	7 (1.4)	409,055.52 [81,213.70–700,231.02]

IQR interquartile range, US United States. ^aThere was no significant difference in the amount of industry payments received by editorial board members of free, open-access journals versus paid, subscription journals, *P* = 0.053. ^bThere was no significant association between the amount of industry payments received by editorial board members and journal impact factor, *P* = 0.104. ^cIncludes compensation for non-consulting services (e.g., faculty/speaker at an event other than a continuing education program) and compensation for serving as faculty or as a speaker for a medical education program

Discussion

To our knowledge, this is the first study to characterize financial relationships of the EBMs of cardiothoracic surgery journals. We found that 88.8% of editors with available Open Payments profiles had received industry payments in the past 36 months.

Our results must be interpreted in the context of several limitations. Only US-based EBMs and practicing physicians could be analyzed using the Open Payments database. This limited our sample size to 516 (32.0%) of editors and may not be representative of all EBMs. The database also did not detail what departments of multidisciplinary companies were involved in payments. Additionally, we could not account for any errors in the Open Payments data.

Recommendation

The wide prevalence of financial relationships among cardiothoracic surgery journal EBMs and the low number of journals disclosing their EBMs' conflicts of interest to the public is very concerning. As journal leadership is tasked with directing the distribution of peer-reviewed information which guide clinical practice, journals must revise editorial disclosure policies to maximize transparency and improve trust among readership.

Abbreviations

EBM: Editorial board members; JCR: Journal Citations Report; IQR: Interquartile range; SD: Standard deviation; ICMJE: International Committee of Medical Journal Editors; US: United States.

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None.

Authors' contributions

AA contributed to the study conceptualization/design, data collection, statistics, data analysis, drafting article, and approval of article. KSV contributed to study conceptualization/design, data collection, data analysis, drafting of article, and approval of article. SA contributed to study conceptualization/design, data collection, data analysis, critical revision of article, and approval of article. DMM contributed to study conceptualization/design, data collection, data analysis, drafting of article, and approval of article. KHL contributed to study conceptualization/design, data collection, data analysis, critical revision of article, and approval of article. DA contributed to data collection, data analysis, statistics, critical revision of article, and approval of article. IH contributed to the study conceptualization/design, data analysis, statistics, critical revision of article, and approval of article.

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Availability of data and materials

All data generated or analyzed during this study are included in this published article (and its supplementary information files).

Declarations

Ethics approval and consent to participate

This review did not require ethical approval by our institutional review board or individual patient informed consent because no individual patient data was used for analysis.

Consent for publication

Not applicable

Competing interests

The authors declare that they have no competing interests.

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