The Relationship between Research Productivity, Research Funding, and Payments to Academic Spine Surgeons

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INTRODUCTION:

Industry payments, research funding, gender, and region of practice has been associated with research productivity within multiple orthopaedic subspecialties. However, the relationship between these variables in fellowship affiliated spine surgeons has yet to be established.

METHODS:

Fellowship affiliated spine surgeons were identified using the North American Spine Society (NASS) fellowship directory. Industry and research funding to individual surgeons was assessed via the Open Payments Database. Research productivity was measured by H-index, first and senior authored publications, and publications in high impact journals. Gender, region of practice, specialty training, and institutional reputation as measured by US News hospital rankings were tracked. Descriptive statistics, Mann Whitney *U* testing, Spearman's correlation coefficient, and Kruskal-Wallis rank test were utilized to assess the differences between groups and possible correlations.

RESULTS:

Industry payments and research funding are significantly correlated with academic productivity. Neurosurgery training resulted in significantly greater research productivity compared to orthopaedic training. Hospital ranking on US News resulted in higher research productivity and general industry payments. Additionally, specific regions, including the Northeast, Midwest, and Mountain regions, were found to have significantly greater research productivity, industry payments, and research funding. Female surgeons had significantly lower research productivity, as well as a trend toward lower total general payments and research funding over the study period. Finally, presence of research funding resulted in significantly greater academic productivity and general industry payments.

DISCUSSION AND CONCLUSION:

Research productivity in fellowship affiliated spine surgeons is associated with multiple variables, including industry payments and research funding, gender, specialty training, hospital affiliation, and region of practice. As academic spine surgeons are at the forefront of education, innovation, and research, this study provides further context to the confluence of these practices.