



Dental School "Research Publication Distribution" in Dental Versus Non-Dental Journals

S.C. BAYNE*, S.K. GRAYDEN, P.F. ANDERSON
 (Cariology, Restorative Science & Endodontics; Dental Informatics; Library Science)
 University of Michigan School of Dentistry, Ann Arbor, MI 48109-1078



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JOURNAL SORTING

- Web of Science search (year, school, address)
- Manual sorting of search results
- **Dental Journal** = focused on dental science or translational research [e.g., JDR, JPD, J Dent]
- **Non-Dental Journal** = focused on all sciences [e.g., Science, Cell, Biochem Acta]

SOURCE INFORMATION

NIDCR Funding Information

2004 NIH-funding levels and ranks = www.nih.nidcr.gov

Publication Index Calculations:

Published articles = ISI-Web-of-Knowledge searches. [e.g., Advtech SAME dent SAME Univ Michigan]

2004-faculty FTEs = ADA-CODA lists Retrieved from ADEA reports. (Adjusted to include administrators, N=next-1) 6

Journal Articles
Faculty

OBJECTIVE

Assess US dental school publication patterns in **dental vs non-dental** journals by NIH-research **category** (intense, active, inactive) and **publication index** (articles/faculty/year).

INTRODUCTION

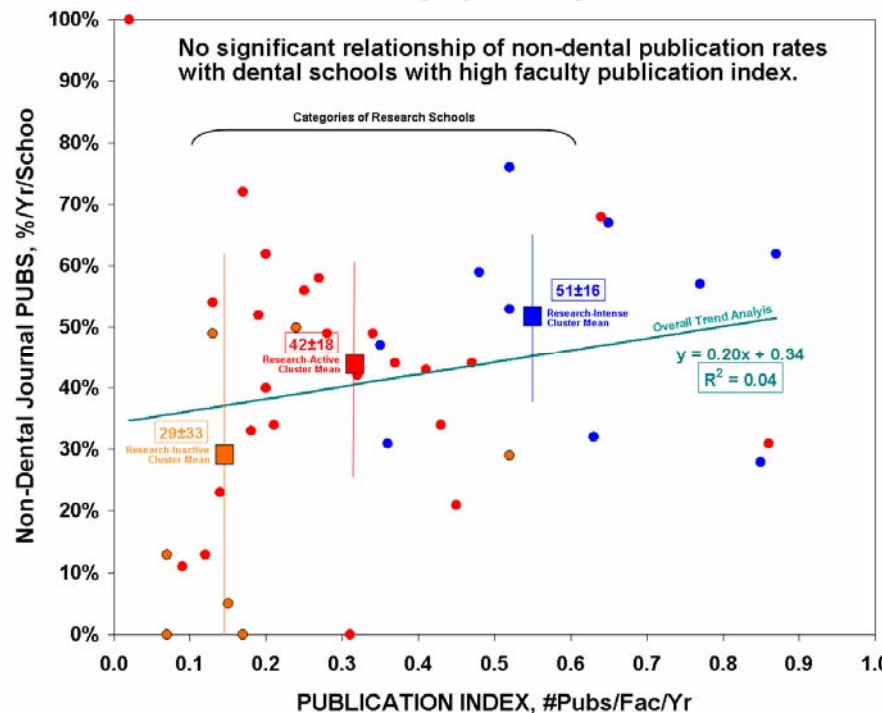
Research-intense dental schools (>\$6,000,000/y) clearly show the highest publication number ($X=58\pm24/y$) and rate (0.54 ± 0.22 pub/fac/y). It has been suggested that **research-intense schools** also **publish more frequently in non-dental** (eg, *Science, Cell*) vs dental journals (eg, *JDR, JPD*).

INTERMEDIATE RESULTS

US Dental School Research Category (N)	2004 NIH Res Funding (\$/y)	Pub Index = Pubs/Fac/y (x±sd)*	Dental Pubs Ave (n±sd)	Non-Dent Pub Ave (n±sd)	Non-Dent Pub Ave (%±sd)	% vs Pub Ave Index
Res-Intense (12)	>\$6,000,000/y	0.54±0.22 ^A	36±14 ^{A,a}	41±24 ^{A,a}	51%±16 ^A	r ² =0.00
Res-Active (25)	>\$600,000/y	0.31±0.18 ^B	20±12 ^{B,a}	16±14 ^{B,a}	42%±18 ^A	r ² =0.00
Res-Limited (9)	<\$600,000/y	0.17±0.15 ^B	7±7 ^{C,a}	4±6 ^{B,a}	29%±33 ^A	r ² =0.01
Total:		0.38±0.24	21±15^a	20±20^a	41%±22	r²=0.04

CAPITAL LETTERS = 1-way ANOVA, p≤0.05 for column data; small letters = 1-way ANOVA, p≤0.05 for row data.

RESULTS



DISCUSSION of INDEX

Important factors affect "numerator and denominator" of the INDEX that may distort the conclusions.

Numerator = "Number of Journal Articles"

- **Skewness** of faculty publishing profiles (active vs inactive) may arise because only a few faculty are producing all articles.
- **Articles in non-dental journals** might be more important to count.
- Could count only **peer-reviewed** articles, only **faculty first-authored** articles, or only scientific articles.

Denominator = "Number of Faculty"

- Could count only **FT dental faculty** who are expected to **publish** instead of all FTE's (e.g., ignore count of administrators).

DISCUSSION of RESULTS

Classification by Journals: Could classify articles rather than journals based on basic science versus dental/translational science.

Classification by Schools: Could ignore School and classify authors as basic science versus clinical science for stratification.

Classification by Funding Mechanism: Could ignore School funding level and only consider individual scientist funding source [e.g., NIH versus non-NIH funding]. Suspect that only 35% of all publications are NIH-funded.

CONCLUSIONS

All evidence suggests "no" relationship of "dental versus non-dental publication type" for any research category or publication index for faculty research productivity.