Assessment of the Quality and Quantity of Athletic Training Education Program Faculty Scholarship

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BACKGROUND AND PURPOSE

- Scholarship is essential to advance evidence-based clinical practice in athletic training (AT)[1]
  - Much of the current AT knowledge base has been borrowed from other health professions
- Professional credibility in academia is largely defined by quantity and quality of scholarship
- Improvement of AT scholarship has been identified as a priority for professional advancement[2]
- Relatively little information about quantity and quality of AT faculty publications exists
- The only previous analysis of AT scholarship was limited to the quantity of publications[3]
  - 54.5% of Athletic Training Education Programs (ATEPs) had no publications
- Recently introduced software facilitates quantitative assessment of scholarship quality
- The purpose of this study was to assess the quantity and quality of scholarly publications authored by faculty members of ATEPs, and to identify the top 25 AT scholarship contributors

METHODS

- All institutions with an accredited undergraduate or graduate ATEP were identified
  - Commission on Accreditation of Athletic Training Education (CAATE) website
- Previous research findings used to identify ATEPs having a record of at least one publication[3]
- AT faculty members identified from information provided on institutions' websites
  - Inclusion criteria: designation as both faculty member and certified athletic trainer
    - Questionable cases resolved through email query to ATEP director
- Publish or Perish 3 software used to search each faculty member's 2000-2012 publications[4]
  - Total number of peer-reviewed publications, h-index, and g-index were recorded
    - h-index: largest publication number (h) that received at least h citations
    - g-index: largest publication number (g) that collectively received at least g^2 citations
- Institutions were classified according to program degree level
  - Undergraduate only
  - Graduate only (Professional or Post-Professional)
  - Both Undergraduate and Graduate ATEPs
- Institutions ranked on the basis of collective ATEP faculty h-index
  - For tied ranks, ordering based on collective ATEP faculty g-index
  - Percentile ranks calculated: h-index, g-index, total publications, and publications/faculty

Table 1. Ranking of ATEPs by various metrics (PR = Percentile Rank)

	ATEP	Rank	h-index	PR	g-index	PR	Pubs	PR	Pubs/Fac	PR	Faculty
1	U. North Carolina-Chapel Hill ‡	1	120	100	215	100	425	100	60.7	100	7
2	U. Connecticut	2	56	100	99	100	277	100	69.3	100	4
3	U. North Carolina-Greensboro *	3	48	99	80	99	173	99	28.8	99	6
4	U. Michigan	4	43	99	85	99	137	99	34.3	99	4
5	U. Toledo ‡	5	26	99	48	99	91	99	18.2	98	5
6	Illinois State U. ‡	6.5	21	98	39	98	62	97	15.5	95	4
7	U. Delaware	6.5	21	98	33	97	71	98	10.1	95	7
8	U. Iowa	8	20	98	41	98	52	97	13.0	97	4
9	Temple U. ‡	9	19	98	31	97	45	95	9.0	95	5
10	Michigan State U. ‡	10	18	97	37	98	51	96	4.6	88	11
11	Ohio State U.	11	17	97	34	97	46	96	11.5	96	4
12	U. Northern Iowa	13	16	97	35	98	37	94	3.4	85	11
13	Duquesne U.	13	16	97	31	97	32	93	8.0	93	4
14	Indiana State U. ‡	13	16	97	26	96	71	98	6.5	91	11
15	West Chester U.	15	14	96	25	95	44	95	5.5	89	4
16	Texas State U.	16.5	13	96	24	95	33	93	4.1	87	8
17	U. Hawaii-Manoa	16.5	13	96	20	94	64	98	12.8	97	5
18	U. Tennessee at Chattanooga *	19.5	12	95	27	96	35	93	8.8	94	4
19	Oregon State U.	19.5	12	95	21	95	27	92	6.8	92	4
20	U. North Carolina-Charlotte	19.5	12	95	20	94	38	95	12.7	97	3
21	U. South Florida	19.5	12	95	17	93	47	96	9.4	95	5
22	Bridgewater State U. †	23.5	11	94	23	95	58	97	9.7	95	6
23	Brigham Young U.	23.5	11	94	19	94	41	95	8.2	94	5
24	U. of North Florida	23.5	11	94	19	94	19	89	4.8	88	4
25	U. Arkansas *	23.5	11	94	17	93	56	97	28.0	99	2

* Graduate Professional (Entry-Level) ‡ Undergraduate Professional + Graduate Post-Professional
† Undergraduate + Graduate Professional   Graduate Professional + Graduate Post-Professional

RESULTS

- Total number of institutions with a CAATE-accredited ATEP was 364 at the time of analysis
- Using either h-index or g-index as a criterion, all of the top 25 were above the 90th percentile
- Among the top 25, 11 have a graduate-level ATEP (Post-Professional and/or Professional)
  - 7 Post-Professional ATEPs and 4 Professional ATEPs (3 graduate level only)
    - 44% (7/16) of institutions with Graduate Post-Professional ATEP
    - 14% (4/28) of institutions with Graduate Professional ATEP
    - 4% (14/336) of institutions with only Undergraduate Professional ATEP
- Institutions with a large number of faculty members had relatively low publications per faculty
  - Low percentile rank possible due to inconsistent scholarship expectations
- Inconsistencies in percentile ranks apparent for some institutions
  - Indication that some publications have not been extensively cited in the literature

CONCLUSIONS

- The majority of ATEP faculty members are not engaged in publication of scholarship
- Limitations of this analysis include the following:
  - Incomplete ATEP website information may have limited identification of all AT faculty
  - Publication with >1 author from the same ATEP inflates h-index and g-index values
  - Scholarship record accrued at a previous institution attributed to current ATEP position
  - Metrics derived from Publish or Perish may not include all publications for a given author
    - Publications identified by Google Scholar (journals only; textbooks not included)
  - Name changes may have precluded identification of all publications (e.g., marriage)
  - Co-authored position statements generate high citation counts for each author

REFERENCES

1. Knight KL, Ingersoll CD. Developing scholarship in athletic training. *J Athl Train*. 1998;33:271-274.
2. NATA Executive Committee for Education. *Future Directions in Athletic Training Education*. National Athletic Trainers' Association; 2012.
3. Wright J, Colston M, Wilkerson G. Athletic training education program faculty scholarship assessment. Poster presented at: Southeast Athletic Trainers' Association Educators' Conference; February 3, 2012; Atlanta, GA.
4. Harzing AW . *Publish or Perish*; 2007. Available at: http://www.harzing.com/pop.htm. Accessed March 1, 2013.

1.Knight KL, Ingersoll CD. Developing scholarship in athletic training. *J Athl Train. 1998;33(3):271-274*

2.Brown, Sara. Future directions in athletic training education. National Athletic Trainers' Association. 2012. Available at ??

3.Wright, J, Colston M, Wilkerson G. Athletic Training Education Program Faculty Scholarship Assesment. Poster session presented at: Research Day 2011; 2011 April 4; Chattanooga, TN.

4.National Athletic Trainers' Association. Athletic Training Education Competencies, 5th ed. Dallas, TX: National Athletic Trainers' Association; 2011.

5.Starkey C, Ingersoll CD. Scholarly productivity of athletic training faculty members. *J Athl Train.* 2001;36(2):156-159.

1.Knight KL, Ingersoll CD. Developing scholarship in athletic training. *J Athl Train. 1998;33:271-274.*

2.Brown, Sara. Future directions in athletic training education. National Athletic Trainers' Association. 2012. Available at ??

3.Wright, J, Colston M, Wilkerson G. Athletic training education program faculty scholarship assessment. Poster session presented at: Southeast Athletic

4.Harzing, A.W. (2007) *Publish or Perish*, program download available from http://www.harzing.com/pop.htm

5. *Athletic Training Education Competencies*, 5th ed. Dallas, TX: National Athletic Trainers' Association; 2011.

6.National Athletic Trainers' Association. Athletic Training Education Competencies, 5th ed. Dallas, TX: National Athletic Trainers' Association; 2011.

7.Starkey C, Ingersoll CD. Scholarly productivity of athletic training faculty members. *J Athl Train.* 2001;36:156-159.