

EVALUATING SCHOLARSHIP PRODUCTIVITY IN COAMFTE-ACCREDITED PHD PROGRAMS

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Due to an increasing trend among states to cut higher education funds, many universities are relying more on private donations and federal funding to keep programs afloat. Scholarship productivity in general has become an integral factor in terms of universities granting tenure to faculty, allocating resources, and supporting program goals due to the fact that more research in a particular area tends to increase the likelihood that one will obtain funding from federal, state, and private sources. In the past, ranking systems have also been used to evaluate programs. However, most ranking systems use methodologies that do not quantify research productivity or evaluate factors that match current university trends. The purpose of this article is to explore current scholarship productivity trends among COAMFTE-accredited doctoral programs through the use of several evaluation methods. Specifically, productivity was examined in regard to the following areas: (a) family therapy journal publications; (b) family science journal publications; (c) historic journal publication trends; and (d) recent journal publication trends.

Current trends in higher education have led public and private universities to reexamine how they evaluate productivity in the domain of research and scholarship. Specifically, lack of public funds coming from state governments has led public universities to rely more on private donations and federal funding to keep their programs viable (Lee & Clery, 2004). Private universities equally have pressures to produce more research based on the current trend for universities to receive more prestige and notice due to research. Thus, as universities hire new faculty, make decisions about granting tenure, and allocate resources, more emphasis is being placed on publishing productivity, especially in terms of areas that will aid in obtaining federal funding and gaining national recognition.

In 2002, Crane, Wampler, Sprenkle, Sandberg, and Hovestadt made some keen observations about the current status of research in MFT:

Yes, we all do MFT research, but those whose degree and training are from COAMFTE-accredited programs are rarely, if ever, recognized by other family therapy researchers as representing a separate and legitimate profession. We have faced the profession versus practice issue on the clinical side, and it is time we face it on the research side as well. (p. 77)

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They cite a number of examples where professionals outside of the field have made important contributions but rarely notice the role marriage and family therapy has with mental health. Crane, Wampler, Sprenkle, Sandberg, and Hovestadt (2002) addressed what they believe is a significant limitation in the field: "What is the problem? . . . The problem is with the profession depending solely on researchers who do not recognize the status of MFT as a profession to establish the research base for the field" (p. 77).

Crane and colleagues' (2002) comments reflect a need to publish more refereed articles in order to strengthen the field. In addition, producing more scholarship within the field may be necessary to keep MFT alive and vibrant in an evolving higher education culture of less public funds and more pressure to obtain funding through research. Because productivity is often based upon scholarly publications, MFT faculty members and administrators as well as graduate students have begun to place more emphasis on publishing in peer-reviewed journals. In order to improve journal publication productivity in COAMFTE-accredited doctoral programs, it is important to evaluate current productivity trends. Understanding the current status of scholarship in MFT programs can stimulate more dialogue among faculty and administrators in regard to additional resources they might need to improve productivity. Equally, graduate students can begin to examine the skills and resources they need to meet current scholarship standards as well as compete in an academic environment that is increasingly placing more emphasis on peer-reviewed publications. The purpose of this study is to examine what multiple productivity indicators tell us about relative scholarship productivity in COAMFTE doctoral programs in order to understand current publication trends as well as future directions for MFT faculty, administrators, and graduate students.

Evaluation Methods

There are a number of methods that have been used across disciplines to evaluate scholarship productivity. The most commonly used but frequently debated method is Thomson International Science Index's (ISI) Web of Science (International Science Index, 2006) "impact factor" rating of journals. The impact factor is partially related to how often articles in a given journal are cited elsewhere. Thus, journals with higher impact factors typically have articles that are cited in other arenas more often than journals with a low impact factor. There are a few limitations of the ISI impact factor: (a) the ISI does not examine all professional journals, (b) the ISI only examines articles that have been published since 1989, and (c) articles such as literature reviews and meta-analyses will obviously be cited much more than other types of articles (Seglen, 1997). In regard to the first limitation, it is important to note that many of the journals used within the field of marriage and family therapy are examined by the ISI, including the following: (a) *Journal of Marital and Family Therapy*, (b) *American Journal of Family Therapy*, (c) *Contemporary Family Therapy*,¹ (d) *Journal of Family Therapy*, (e) *Family Process*, and (f) *Journal of Sex & Marital Therapy*.

An alternative method of rating journal impact is based on a method called the *h*-index (Hirsch, 2005). The *h*-index quantifies an individual's scholarly output by determining the highest number of articles each faculty member has published that receive the same number of citations. The development of the *h*-index came out of a desire to evaluate scholarly productivity more on the usefulness of a refereed publication rather than examining the amount of journal articles a faculty member publishes. In other words, more value is given to a journal publication that has been cited by multiple sources rather than many publications that have failed to receive citations. Thus, value is placed on how "useful" the journal article is rather than the quantity of journal publications produced.

Hirsch describes that a scientist has index *h* if *h* of his or her N_p articles have at least *h* citations each, and the other $(N_p - h)$ articles have at most *h* citations each. Therefore, a faculty member with an *h*-index of 4 has published 4 articles, each of which has been cited at least 4 times. The *h*-index uses the Thomson ISI Web of Science (2006) database that is often used for

journal impact analysis. However, unlike looking at a journal impact factor, the *h*-index is able to identify the use of a specific article regardless of the impact of the journal itself. Thus, the focus is on the utilization of an article rather than looking at where it has been published. Limitations of the *h*-index include giving a higher *h*-index to authors who have published many reviews of the literature, giving a lower *h*-index to new faculty due to a lack of time in the field, and the difficulty of attributing book chapters and books to the overall index. For the purpose of this study, only journal publications were used to calculate the *h*-index.

Finally, some schools and departments may use a number of other factors relative to the evaluation of scholarship productivity. For some, greater emphasis is placed on first- or sole-authored publications versus second, third, fourth, and so forth. However, many researchers work in teams and do not place a great emphasis on authorship order. Some programs pride themselves on a student-centered research focus as they help graduate students learn how to produce scholarship. Thus, other modes of evaluating come from examining the amount of refereed articles being produced by graduate students as faculty mentor their endeavors. Some programs are more faculty centered in that greater emphasis is placed on research areas or topics to help attract other professionals and students also interested in a particular area. Hence, emphasis is placed more on publishing a number of articles in a certain area with the goal of increasing university and author visibility within the field, which may improve chances for federal funding.

In regard to the field of MFT, a number of researchers place higher emphasis on publishing in journals that directly relate to the field (e.g., *Journal of Marital and Family Therapy*, *American Journal of Family Therapy*, *Contemporary Family Therapy*, *Family Process*). It might also be argued that publishing exclusively in MFT journals results in the field “talking to itself,” hence there is value in publishing in journals with a broader readership, such as the *Journal of Consulting and Clinical Psychology*. As stated above, Crane et al. (2002) have called for an increase in rigorous family therapy research as a means to increase research “respect” in the mental health discipline, which optimally would lead to more federal funding opportunities. Other researchers feel that family science research in general is an important part of the MFT research agenda as well because of the potential cross-fertilization that can occur when researchers are involved in both basic research in a nonclinical area and clinical research.

Ranking Systems

Ranking systems in general are another form of evaluation. In higher education, there are a number of entities that rank programs, schools, and universities. The most common rankings come from the following: (a) U.S. News and World Report (2006), (b) The Gourman Report (Gourman, 1997), (c) Educational Rankings Annual (Gale Research Inc., 2005), (d) National Research Council (U.S.) Committee for the Study of Research-Doctorate Programs in the United States (Goldberger, Maher, & Flattau, 1995), and (e) University of Florida’s “Lombardi Report” (Lombardi & Capaldi, 2005).

Overall, there are three trends among ranking/evaluation methodologies: (a) using data that come from the faculty, (b) using data that come from the students, and (c) using data that come from neutral sources (e.g., public information like average ACT scores, amount of federal research, number of publications).

The Lombardi Report (Lombardi & Capaldi, 2005) appears to have received the most positive feedback from universities while the Gourman Report and *U.S. News and World Report* have received the most negative feedback based on methods that focus more on perception rather than hard data. Although the Lombardi Report is not perfect and ranking systems in general tend to miss important data, the Lombardi Report can offer some helpful methodologies to examine the scholarly productivity trends in a given university. In addition, the factors used by the Lombardi Report seem to follow the factors that are currently being reinforced by universities across the nation, as standards that will help universities become top-tier research

universities. The Lombardi Report uses nine factors to rank universities. Keep in mind that the Lombardi Report examines factors that help a university be a *top research* university in order to get more federal dollars, student financial assistance, national reputation, reputable facilities, and so forth. The Nine Indicators (Factors) in deciding rankings are (a) federal research expenditures, (b) other research expenditures (e.g., state, corporate), (c) national academy membership, (d) national awards by faculty, (e) GRE/SAT scores, (f) number of doctorates granted, (g) number of postdoctoral appointments, (h) university endowments, and (i) annual private gifts.

The question arises, "How do programs improve in these nine areas?" We suggest that in order for a program to grant more doctoral degrees, additional faculty members are needed. In order to support more faculty and postdoctoral students, federal, state, and corporate grants are needed. In order to get additional grants, more scholarship in specific areas showing a track record of success will be needed to obtain such funding. In addition, in order to have more faculty members who receive national awards and academy membership, faculty members will have to receive national attention through federal and state grants and publishing. Thus, it appears that the integral piece of this process is helping programs and faculty members produce more scholarship in order to obtain more funding and receive national recognition.

In regard to past studies evaluating scholarship productivity within the field of MFT, Shortz, Worthington, McCollough, DeVries, and Morrow (1994a) listed prolific authors and institutions that published marital therapy research over a 6-year period. Prolific authors included S. Allen Wilcoxon, Susan Johnson, Neil Jacobson, Leslie Greenberg, Timothy Ingram, Edward Waring, and Doug Snyder. Institutions publishing the most marital therapy articles included the University of Washington, Brigham Young University, Texas Tech University, the University of Alabama, the University of Kentucky, State University of New York at Stony Brook, the University of British Columbia, and the University of Ottawa.

In 1997, Naden, Rasmussen, Morrissette, and Johns replicated a study by Gurman (1981) that examined the following characteristics of publications in *Family Process*, *Journal of Marital and Family Therapy*, and *American Journal of Family Therapy* between 1980 and 1995: (a) characteristics of authors, (b) characteristics of the institutions housing the published author(s), and (c) funding source for the study. Naden et al. (1997) concluded that the following institutions led the way in terms of number of publications in ranked order: (a) Purdue University, (b) The Ackerman Institute, (c) The University of California, San Francisco, and (d) Texas Tech University. They noted that in Gurman's (1981) analysis of universities between 1962 and 1978, 35.5% of the articles in the three journals came from the top 25 producing institutions while that proportion decreased to 29.5% in 1997. Furthermore, only one institution ranked in the top ten for both analyses (UCLA). Naden et al. (1997) suggest that new leadership in institutional publications along with an increase in the number of institutions contributing to the field indicate the field's vitality and ongoing development.

METHOD

In order to continue the vitality of the field and encourage ongoing development, scholarship productivity was examined focusing on doctoral programs accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE). It is important to note that this study specifically examined journal publication productivity and uses the term "scholarship" and "research" loosely to include any journal publication produced by a faculty member within an MFT or a family science journal that could address clinical, theory, research, and/or training areas. One of the primary purposes of this study was to use a number of methodologies to evaluate scholarship among doctoral-level COAMFTE-accredited schools for the following reasons: (a) Some methodologies place greater weight on certain factors over others (e.g., journal impact factor, graduate student publishing,

faculty publishing, first author publishing, publishing in MFT journals vs. non-MFT), thus, using multiple methods hopefully represents different weighting metrics; (b) Many methods provide a multiple-lens perspective as a means of triangulating data and examining multiple trends; and (c) If a particular program scores high across multiple methodologies, this lends credibility to conclusions about its relative productivity. Thus, the following methods were used to evaluate scholarship productivity among the 19 COAMFTE-accredited doctoral programs: (a) total family science publications per school (1989–1999), (b) total family science publications per school (2000–2005), (c) total MFT publications by school (1989–1999), (d) total MFT publications by school (2000–2005), (e) total MFT publications by first author (1989–1999), (f) total MFT publications by first author (2000–2005), (g) total MFT publications by any author (1989–1999), (h) total MFT publications by any author (2000–2005), and (i) *h*-index average of each program.

We decided to analyze scholarship productivity in two different time periods in order to examine historical scholarship trends and more recent trends among programs. MFT publications were analyzed by author and school in order to examine how some departments that house an MFT program may have faculty outside of MFT who may also support MFT scholarship. MFT publications were also analyzed by author order, suggesting that some first authors may have put more effort into the article. However, we also recognize the importance of collaboration and working in research teams. Thus, MFT publications were also analyzed without placing emphasis on the first authorship. Finally, family science publications were also analyzed during both time periods by school, suggesting that certain universities may support family science research in general over others.

In order to reduce error, three coders (the first, third, and fourth authors) analyzed different sections separately. Each method was analyzed by at least two coders. If discrepancies were found among raters, the coding was rechecked in order to come to a consensus. When the analysis produced major discrepancy, additional analyses were conducted in order to come to an agreement among the raters. It is important to note that some of the difficulties arising in the analyses stem from matching the names on a publication with the names of faculty members in MFT programs due to name changes, uses of middle name, similar names found in other disciplines, different name uses, and faculty changing university locations. We recognize that even with careful analysis, some articles may have been missed. Overall, most of the analyses were done 5–7 times in order to reduce error as much as possible.

Total Family Science Publications

Using the Social Science Citations Index, each school was searched using a list of family science journals carried by the ISI (see Appendix A). Publications were searched between the years of 1989 and 1999. In addition, publications were tallied between the years of 2000 and 2005. It is important to note that total numbers include any type of publication including articles, book reviews, etc., from that journal source. We included all publications from that school rather than just publications from each MFT program. Our reasoning for choosing this methodology was to give credit to schools in which many faculty members and programs produced research in family science arenas. In order to reduce error, we searched schools using both the university name and the city in which the school was located. This helped rule out universities that are housed in other cities besides the one where the doctoral program is located. We recognize limitations to this evaluation method: (a) newer faculty members will have fewer publications; and (b) some publications may have been submitted when a faculty member was at another university. However, a benefit of this evaluation method is that recognition is given to recent work done in the last 5 years. In addition, historical trends may offer insight into how some programs have evolved over time. Furthermore, one can begin to examine the research culture of each university by examining how many studies are being done on family science

topics. This may indicate more support for such studies, opportunities for family research, and collaboration among disciplines (see Table 1).

Publications in MFT Journals

Using the Social Science Citations Index, the six most significant family therapy journals (*Journal of Marital and Family Therapy*, *American Journal of Family Therapy*, *Contemporary Family Therapy*, *Family Process*, *Journal of Family Therapy*, and *Journal of Sex & Marital Therapy*) were searched by program name (see Appendix B). Thus, all publications written by a faculty member and/or graduate student from that program were identified. In addition, a list of faculty members from each program was obtained from program websites. Confirmation of the identity of MFT faculty members was established by contacting each program by telephone. It is important to note that some faculty members included in the analysis were identified as visiting professors who were described as being actively involved in program activities. In addition, clinical coordinators were considered when they were listed as core faculty who engaged in scholarly activities. Publications were searched both by first author and by any author. In order to control for differences among programs in terms of the number of faculty within each program, each calculation was divided by the total number of faculty at each university program. Thus, the calculations presented in Table 1 under *MFT Pubs 1st Author* and *MFT Pubs Any Author* represent the arithmetic mean number of publications per faculty member within that given time period. The harmonizing mean equation does not allow for zeros; thus, the arithmetic mean was used since a number of faculty members were listed as having zero publications.

Two calculations were made for each analysis, (a) publications between 2000 and 2005 and (b) publications between 1989 and 1999. We searched recent articles to examine current scholarship productivity among programs. In addition, we wanted to know which programs have a long history of publishing in MFT journals. Thus, credit is given to recent scholarship, as well as to programs that have a long history of significant work in the field.

H-index

Hirsch (2005) created the *h-index* as an alternative evaluation method that would characterize the output of a researcher. The *h-index* is based on examining articles that are cited more often over the years using the Thomson Science Citation Index. Thus, the *h-index* is attempting to capture which articles appear to be more useful to a particular discipline. The *h-factor* arithmetic average was calculated for each program based on journal publications from 1989 to 2005. Once again, the harmonic mean was not used because some faculty members' *h-index* was listed as zero. Although some *h-index* calculations have incorporated books and book chapters, the *h-index* in this study focused primarily on journal publications. Thus, the Thomson Social Science Index's general search was used to find articles by each faculty member and note the number of citations each article received. Once an *h-index* was calculated for each faculty member, an arithmetic mean *h-index* score was calculated for each program. Once again, the arithmetic mean was used rather than the harmonizing mean due to the fact that some faculty members were listed as having an *h-index* of zero. In order to ensure accuracy of numbers, articles and author names were often compared with vitas and program websites on the Internet when available. In addition, multiple versions of authors' names (last name, last name and first name, last name and first name with middle name, etc.) were used to search for articles in order to capture all publications produced by that faculty member.

Combined Results

Under each evaluation method, each program was given a ranking between 1 and 19 (1 = highest ranking). This method is used by the Lombardi Report in which each evaluation

Table 1
Scholarship Productivity Results in COAMFTE Doctoral Programs

School	A. "h" factor ^a	B. Family Sci. Pubs by School ('00-'05) ^b	C. Family Sci. Pubs by School ('89-'99)	D. Total MFT Pubs by School ('00-'05) ^c	E. Total MFT Pubs by School ('89-'99)	F. Average MFT Pubs 1st Author ('00-'05) ^d	G. Average MFT Pubs 1st Author ('89-'99)	H. Average MFT Pubs Any Author ('00-'05)	I. Average MFT Pubs Any Author ('89-'99)
Purdue	7	37	75	33	117	2.5	11	7.5	22
BYU	4.44	53	103	52	57	3	3.88	5.44	6.78
Ohio St.	5.33	77	126	26	34	1.67	0	2	1.33
U. Georgia	2.33	69	140	24	39	1.33	2.66	3	4
Florida St.	2	27	35	21	112	3	2.5	4.25	3.5
Virginia Tech	3.25	38	91	26	37	1.5	4.75	3	8.25
Iowa St.	2.67	43	93	19	11	3	0.67	5	0.67
U. Minnesota	5.33	35	41	19	29	2.66	3.67	5.33	5.33
Texas Tech	3	33	48	42	32	2.16	2.33	5.5	3.33
Syracuse	4	34	50	20	30	1	2	4	2.5
Michigan St.	2	55	82	7	12	1	0.25	2	0.5
Kansas St.	3.75	6	40	16	27	1.25	1.5	3	3.5
UConn	4	28	72	8	20	1.4	1.2	1.8	2
Nova Southeastern	1.1	17	19	12	18	0.8	0.6	1	1.1
U. Akron	3	26	34	5	10	0.5	0.5	0.5	0.5
Alliant University	1	7	3	9	5	0.75	0.5	1.25	0.5
St. Marys	1.33	6	11	7	7	0.67	0.33	2.67	0.33
Loma Linda	1.17	7	0	5	0	0.5	0.5	0.5	0.5
Louisiana St. Monroe	1	0	4	2	6	0	0.5	0	1.75

^aThe average "h" factor *per faculty member* was calculated for MFT faculty regarding all journal types (MFT and non-MFT).

^bFamily science publications by school include all publications by any faculty or student from that *university* during that time period.

^cMFT publications by school include all publications by any faculty or student from that *university* during that time period.

^dMFT publications by first author or any author include average number of publications *per MFT faculty member* during that time period.

factor is given equal weight. It is important to note that if two programs received the same ranking in a particular factor (e.g., fourth), the next program in sequence would receive a ranking of sixth rather than fourth. This method follows the same method of other national and international ranking systems. A total of nine evaluation methods were ranked; an overall ranking average was calculated using a harmonizing mean of the nine subcategories. Each subcategory was given equal weight. Programs with lower overall ranking averages would be considered as more research productive based on these evaluation methods. In addition, Pearson correlations were examined for the nine categories (see Table 2).

RESULTS

Family Science Publications

The University of Georgia had the most family science publications historically (140), with Ohio State University having slightly more publications recently (77) than the University of Georgia (see Table 1). In addition, Brigham Young University, Iowa State University, Virginia Tech, and Michigan State University have done very well both historically and recently. It is important to note that the majority of schools are producing more family science refereed journal articles in the last 6 years than they had in the previous 11. Overall, the total number of family science publications from universities housing MFT programs has increased about 2.5% from the historical period (1989–1999) to the most recent period (2000–2005), with the total national average increasing from 97 family science journal publications per year to 100 family science publications per year. The universities with significant increases from the historical period to the more recent period are (1) Loma Linda University, (2) Alliant University, and (3) Nova Southeastern University.

The amount of scholarship a university produces in the family science field can offer some valuable information. First, students who would like to engage in both MFT and family science

Table 2 <i>Intercorrelations</i>									
	A	B	C	D	E	F	G	H	I
A	1.000								
B	0.494*	1.000							
C	0.518*	0.928***	1.000						
D	0.564*	0.540*	0.559*	1.000					
E	0.535*	0.291	0.299	0.578**	1.000				
F	0.557*	0.474*	0.476*	0.729***	0.656**	1.000			
G	0.673**	0.196	0.276	0.567*	0.769***	0.504*	1.000		
H	0.665**	0.365	0.389	0.768***	0.680**	0.848***	0.738***	1.000	
I	0.688**	0.186	0.279	0.530*	0.755***	0.446	0.986***	0.683**	1.000

Key: A. “h” factor, B. Family Science Publications by School (’00–’05), C. Family Science Publications by School (’89–’99), D. Total MFT Publications by School (’00–’05), E. Total MFT Publications by School (’89–’99), F. Total MFT Publications First Author (’00–’05), G. Total MFT Publications First Author (’89–’99), H. Total MFT Publications Any Author (’00–’05), I. Total MFT Publications Any Author (’89–’99).
* $p < .05$. ** $p < .01$. *** $p < .001$.

research may benefit in going to a university that has more family science publication opportunities. Second, faculty and students interested in collaborating with multiple disciplines and working in research teams may benefit in going to a program in which more people engage in family science scholarship. Finally, universities that produce more family science journal publications may have more funding opportunities and university support in terms of family science programs and research endeavors.

MFT School Publications

Historically (1989–1999) Purdue University (117) has produced the most articles in MFT journals (see Table 1). However, in the past 6 years, Brigham Young University has produced the most articles in MFT journals (52), followed by Texas Tech (42) and Purdue (33). In the past, Florida State University also produced a greater number of articles in MFT journals (112) during the 1990s. Other notable programs producing scholarship historically include Brigham Young University (57), the University of Georgia (39), Virginia Tech (37), and Ohio State University (34). Overall, there has been a 9% increase in the number of articles being published per year by all doctoral programs in MFT, going from 55 articles published per year historically (1989–1999) to 59 articles published per year more recently (2000–2005). University programs with large percentage increases from the historical period to the more recent years include Loma Linda University, Alliant University, and Iowa State University.

The amount of scholarship a program produces in MFT journals is one indicator of the level of importance it places on MFT research. As Crane et al. (2002) suggested, MFTs need to publish more MFT journal articles to help the field continue to solidify its place among mental health professionals. In addition, students who engage in more MFT scholarship may be more likely to acquire positions in academia with MFT programs than other students who do not publish in MFT journals.

MFT First Author Publications

Historically, the following programs produced the most first author publications per faculty member in MFT journals from 1989 to 1999 in ranked order: (a) Purdue University (11); (b) Virginia Tech (4.75); (c) Brigham Young University (3.88); and (d) University of Minnesota (3.67). In regard to more recent trends (2000–2005), the following universities were producing more first author publications than other programs: (a) Brigham Young University (3); (b) Florida State University (3); (c) Iowa State University (3); and (d) University of Minnesota (2.66).

MFT Any Author Publications

Programs with faculty who produced high numbers of MFT publications regardless of authorship order between 1989 and 1999 include the following: (a) Purdue University (22); (b) Virginia Tech (8.25); (c) Brigham Young University (6.78); and (d) University of Minnesota (5.33). More recently (2000–2005), the following programs were producing high numbers of MFT publications: (a) Purdue University (7.5); (b) Texas Tech University (5.5); (c) Brigham Young University (5.44); (d) University of Minnesota (5.33); and (e) Iowa State University (5).

H Factor

Based on the *h*-index, programs that produce articles that are cited the most include the following: (a) Purdue University (7), (b) Ohio State University (5.33), (c) University of Minnesota (5.33), and (d) Brigham Young University (4.44). For example, Purdue's *h*-index average of 7 indicates that faculty members on average published seven articles that had been cited at least seven times since 1989. It is interesting to note that some of these programs have not produced the highest number of articles, but the *h*-index suggests that these articles may have been more influential because they have been cited more. Thus, students and faculty may want to examine the utilization of scholarship being produced rather than merely looking at quantity.

However, it is important to recognize that programs that have faculty who have been in the field longer will likely have a larger *h*-index because their publications have existed for a longer period of time. Thus, programs with new faculty will generally not have a high *h*-index unless previous faculty members were also producing highly cited scholarship. Equally, students or faculty may want to go to a program where there is an established name in terms of producing good research and tapping into funding opportunities.

Combined Results

Combined results are reported in Table 3. Included in this table is a column representing the harmonic mean of the nine subcategory rankings. As stated, each subcategory ranking was given equal weight. It is important to recognize that the combined results are measuring overall scholarship productivity in regard to the areas of evaluation in this study. Some students may want to go to a program that produces both family science and MFT publications. Other students may want to focus more on the topics of the articles produced rather than the quantity. Students may be more interested in a long tradition of good research by examining the historical trends, while other students may be more interested in programs that are producing a lot of research now. Thus, it is important to examine the individual rankings across methodologies in order to make better informed decisions rather than just relying on the overall rankings. Furthermore, programs may want to examine the results in order to evaluate whether or not they are moving in the direction that fits their strengths and expectations. Overall, the combined results indicate that the five most productive programs in COAMFTE-accredited PhD programs according to the indicators examined in this study are the following: (a) Purdue University; (b) Brigham Young University; (c) Ohio State University; (d) University of Georgia; and (e) Florida State University.

Correlations

Pearson correlations are presented in Table 2 along with significant levels of the nine categories examined in this study.

Prolific Authors

Shortz et al. (1994a, 1994b) listed prolific authors who produced marital therapy research. Based on the analysis of this study, the authors who have published the most over the last 6 years in MFT journals are Karen Wampler (Texas Tech), Russell Crane (BYU), Richard Miller (BYU), Ronald Werner-Wilson (Iowa), Doug Sprenkle (Purdue), Jonathan Sandberg (Syracuse), Robert Lee (Florida State), and Jeffrey Larson (BYU). In regard to the *h*-factor, the following authors have articles that have been cited more than others: William Doherty (University of Minnesota), Ron Sabatelli (University of Connecticut), Doug Sprenkle (Purdue), Jeffrey Larson (BYU), Julianne Serovich (Ohio State University), and Russell Crane (BYU).

DISCUSSION

We recognize that many MFT faculty have significant teaching, supervisory, and administrative loads, leaving little time for research; nor do all faculty desire to focus on journal publications. We also recognize that different doctoral programs may place more emphasis on clinical or supervisory training rather than teaching research skills or producing research. The results can be interpreted on a number of levels through various perspectives.

The first author recently graduated from a COAMFTE-accredited doctoral program and is employed as an Assistant Professor in a COAMFTE-accredited MS program. The second author has been employed as a program director in a COAMFTE-accredited MS/PhD program and is currently an Associate Professor in another MS/PhD program. The third author is the Director of a school that houses a COAMFTE-accredited MS and doctoral program. The

Table 3
Scholarship Rankings of COAMFTE Doctoral Programs

School	*Total ranking mean	"h" Factor	Family Science Pubs By School ('00-'05)		Family Science Pubs By School ('89-'99)		Total MFT Pubs by School ('00-'05)	Total MFT Pubs by School ('89-'99)	Average MFT Pubs 1st Author ('00-'05)	Average MFT Pubs 1st Author ('89-'99)	Average MFT Pubs Any Author ('00-'05)	Average MFT Pubs Any Author ('89-'99)
			7	4	1	7	3	1	5	1	1	3
Purdue	1.55 (1)	1	7	4	1	7	3	1	5	1	1	1
BYU	2.16 (2)	4	4	1	3	1	1	1**	3	3	3	3
Ohio St.	3.24 (3)	2**	1	2	4	2	4	7	19	12**	12**	12
U. Georgia	3.43 (4)	12	2	1	6	1	6	10	5	8**	8**	5
Florida St.	3.78 (5)	13**	12	13	7	13	7	1**	6	6	6	6**
Virginia Tech	4.11	8	6	5	4	5	4	8	2	8**	8**	2
Iowa St.	4.31	11	5	4	9	9	9	1**	11	5	5	14
U. Minnesota	4.64	2**	8	11	9	11	9	4	4	4	4	4
Texas Tech	4.77	9	10	10	2	10	2	6	7	2	2	8
Syracuse	7.93	5	9	9	8	9	8	12**	8	7	7	9
Michigan St.	8.92	13**	3	6	15**	6	15**	13	18	12**	12**	15
Kansas St.	9.28	7	17**	12	11	12	11	11	9	8**	8**	6**
UConn	9.37	5	11	8	14	8	14	9	10	14	14	10
Nova Southeastern	13.68	17	14	15	12	15	12	14	12	16	16	13
U. Akron	13.93	9	13	14	17**	14	17**	17**	13**	17**	17**	15**
Alliant University	15.33	18**	15**	18	13	18	13	15	13**	15	15	15**
St. Marys	15.46	15	17**	16	15**	16	15**	16	17	11	11	19
Loma Linda	16.23	16	15**	19	17**	19	17**	17**	13**	17**	17**	15**
Louisiana St. Monroe	16.32	18**	19	17	19	17	19	19	13**	19	19	11

*Based on a harmonic mean of the rankings of the nine subsections. Each subsection is given equal weight.
 **Schools that received the same ranking (e.g., Ohio St. and U. Minnesota both received a 2 for the "h" factor ranking) would cause the next school in line to receive a 4 (e.g., BYU). This method is a standard procedure in many ranking systems.

fourth author is finishing an MS in a COAMFTE-accredited program. As we have reflected on the results of this study, four themes seemed salient to us.

First, as individuals and programs view these results, it is our hope that they will frame them as one indicator of what they value, collectively and individually, and engage in frank discussions with each other and with administrators if dissonance exists between values and accomplishments. Journal article publishing productivity is but one indicator of a successful faculty member and graduate program. Nurturing students, excellence in teaching, sound clinical and supervisory training, and successful outreach are some others. To a certain extent, academic outputs are a zero-sum game. While it is true that clinical work, teaching, and scholarly writing can synergistically benefit each other, it is also equally valid that time spent in one domain diminishes the time available to devote to others. As members of a small field, we have a pretty good idea of which programs are balanced, and which emphasize certain ends—possibly to the expense of others. Hopefully, the results of this study will promote discussion within programs; they serve as one mirror that programs can examine and determine whether they are comfortable with the image of their program captured in these results and determine how to evolve if they are not.

Second, if programs see this study as an invitation to increase their scholarship productivity, then hopefully they can share these results with administrators and begin a dialogue about what resources they need to enhance their ability to be more productive. These data provide very useful information to department heads and other administrators. Rankings are becoming increasingly important to universities, and the rankings for scholarship productivity presented in this article provide one measure of a program for others to use. If an administrator and the faculty desire their program to be highly ranked in scholarship productivity, then this study informs them as to the current standings of their program in one area of scholarship. Should they want their program to be ranked higher, they will need to devise strategies to make that happen, such as making appropriate hiring decisions relative to a scholarship agenda, setting up research teams with students, providing faculty with focused research time, and providing grant-writing and statistical assistance.

These data provide benchmarks that faculty and administrators can use for comparison. Currently, the average doctoral-level faculty member produces approximately three MFT articles every 6 years or one article every 2 years in the selected MFT journals we examined in this study. These numbers may be sufficient at some institutions and inadequate at others. It may also be that utilization of scholarship is more important than quantity; however, when examining the *h*-factor results, the data suggest that those who write articles that are cited more often are also producing above average numbers.

Third, given that the journal article productivity of a program is a major determining factor in deciding on a doctoral program, these results can help students select programs that will provide them ample opportunities to obtain experience and mentoring in conducting and publishing scholarship. In addition, since assistantships are often tied to grants and scholarship productivity, students may have a greater probability of obtaining financial support at MFT programs that emphasize journal publications. However, we also believe it critical that prospective doctoral students strive to view these results in context—what resources, values, and behaviors of program X contribute to their current levels of scholarship productivity? How are students mentored in the process and what do these results say about what is and what is not valued in this program? We'd also encourage students to be clear about what they need to be successful in a graduate program and be attentive to issues of fit—what kind of program environment will they thrive in versus what kind of program would leave them dissatisfied and feeling unsupported?

Fourth, it is important to keep scholarship productivity in perspective. For example, the central mission of many universities places more importance on teaching and outreach. Thus, for some MFT programs the evaluation of journal publication productivity would be less

relevant. As prospective students examine these results, it is important to note that publishing is only one facet of a graduate program. Teaching expertise, outreach opportunities, and clinical training are all important traits of a doctoral program that are not evaluated in this study and should be examined when considering prospective doctoral programs.

Finally, while realizing that different responsibilities faced by clinical faculty members pull them into many directions such that producing both quality and quantity research can be challenging, we also recognize that scholarship will be one of the main drivers in the future that leads MFT into new levels of state and federal recognition and application. First, refereed publications will provide more visibility to MFT schools by private, state, and federal granting entities. As MFT schools increase in visibility, more students will likely want to apply to MFT schools. An increase in demand would lead to higher-caliber students entering into MFT programs while leading to the creation of more MFT schools. High-caliber students lead to more professionals entering into academia with more research, supervision, and practice skills. Such expertise could lead to even more federal visibility in regard to research endeavors that are in competition with other researchers in various disciplines. Finally, as federal funding increases in MFT programs and more professionals enter the market, state, federal, and insurance policies will likely mirror the growing demands of the market.

Limitations

There are a number of limitations that need to be taken into consideration as one applies the results of this study to evaluative scholarship productivity in COAMFTE-accredited PhD programs. First, each method provides a certain perspective on productivity; there are many other perspectives that could be used. For example, it should be noted that schools that publish more in the *American Journal of Family Therapy* or *Contemporary Family Therapy* compared to those that publish less in the *Journal of Marital and Family Therapy* would get a higher score regardless of the impact ratings of the journals. Equally, other publications like the *Journal of Systemic Therapies*, *Journal of Family Psychotherapy*, *Journal of Feminist Family Therapy*, and *Journal of Couple and Relationship Therapy* were not evaluated because they are not listed in the ISI. Thus, it is important to note that one limitation of this study is that it does not include the multiple perspectives that could be used to evaluate productivity. Second, productivity does not always suggest quality. Although the *h*-index does attempt to address quality by measuring the number of times an article is cited, it is still difficult to fully understand the quality of an article using merely quantitative means. Hence, a second limitation to the study pertains to the lack of other methods that try to capture the quality of articles rather than just the quantity. Third, we attempted to use the harmonic mean rather than the arithmetic mean when possible as it is a better representation of the true mean when rates of productivity are concerned; however, because some faculty members were identified with zeros, we had to use the arithmetic mean in place of the harmonizing mean for several of the calculations. Finally, future research may need to include other forms of evaluation, including the number of student publications, the number of qualitative versus quantitative publications, and the amount of research funding programs receive at the federal and state levels.

CONCLUSION

The purpose of this article is to provide the field with one snapshot of the scholarly productivity of current MFT doctoral programs. Hopefully, the data and thoughts presented will stimulate more dialogue about the role of research in doctoral programs and within the field of MFT. The perspectives presented offer insight into the many interpretations that could arise from the given data. Furthermore, they illustrate the complexities that are involved when

programs define and prioritize the role scholarship has within a curriculum and overall strategic vision. Other mental health disciplines have recorded productivity trends and offered insight into how to improve research productivity (see Roy, Roberts, & Stewart, 2006; Spengler, Neville, & Hoffman, 2005 [introduction to a special issue on research in counseling psychology]). Overall themes of these articles included:

1. Programs should define priorities (clinical, research, combination) and develop a strategic plan to accomplish priorities.
2. Quality of research will need to continually improve through the use of diverse perspectives (cultural, theoretical, disciplinary, etc.) and using theory to guide research.
3. Smaller programs will need to collaborate with larger programs in order to gain research visibility, while larger programs will need to prioritize research endeavors in order to focus core competencies.

Other articles have suggested that productivity can improve through the training of graduate students utilizing the scientist-practitioner model as a means to increase research skills in future generations (Crane et al., 2002; Roy et al., 2006). However, more dialogue and strategy are needed to address how the field will incorporate and interrelate graduate training, research prioritization, theory-driven publications, diversified scholarship, faculty productivity rates, and overall vision in order to continue to improve as a mental health discipline.

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APPENDIX A: FAMILY SCIENCE JOURNALS

Abbreviated journal title	2004 Total cites	Impact factor
CHILD ABUSE NEGLECT	2486	1.116
CHILD FAM BEHAV THER	116	0.312
CHILD WELFARE	506	0.278
CHILD YOUTH SERV REV	501	0.765
CULT HEALTH SEX	77	0.321
FAM COMMUNITY HEALTH	226	0.769
FAM LAW QUART	125	0.477
FAM RELAT	953	0.684
FAM SOC-J CONTEMP H	408	0.292
FUTURE CHILD	535	2.000
INT FAM PLAN PERSPEC	266	0.791
J COMP FAM STUD	258	0.328
J EARLY ADOLESCENCE	635	1.086
J ELDER ABUSE NEGL	154	0.048
J FAM HIST	159	0.170
J FAM ISSUES	869	0.742
J FAM PLAN REPROD H	155	0.912
J FAM PSYCHOL	1105	1.667
J FAM VIOLENCE	598	0.491
J INTERPERS VIOLENCE	1323	0.706
J MARRIAGE FAM	4238	1.288
J RES ADOLESCENCE	562	1.216
PERSPECT SEX REPRO H	131	2.000

APPENDIX B: FAMILY THERAPY JOURNALS

Abbreviated journal title	2004 Total cites	Impact factor
AM J FAM THER	243	.446
J FAM THER	142	.674
FAM PROCESS	699	1.035
J MARITAL FAM THER	674	1.392
CONTEMP FAM THER ^a	89	.098
J SEX MARITAL THER	593	1.000

^a*Contemporary Family Therapy* was removed from the Thomson ISI Web of Science index following 2005 due to a low impact factor.

NOTE

¹*Contemporary Family Therapy* was removed from Thomson's ISI Web of Science following 2005 due to a low impact factor.