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Article in Research on Social Work Practice · May 2016

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Abstract

Objective: The purpose of this study was to identify and describe the bibliometric contributions of high-impact social work faculty. **Methods**: Toward this end, we used a sample comprising fellows (N = 143) affiliated with the Society for Social Work and Research (SSWR) and the American Academy of Social Work and Social Welfare (AASWSW). To quantify impact, we relied primarily upon the h-index (a measure of lifetime scholarly impact) and the m-index (which adjusts for career length). **Results**: Analyses revealed the mean h-index value for SSWR fellows (M = 26.44, SD = 14.72) was substantially lower than the mean for AASWSW fellows (M = 32.52, SD = 15.96), but minimal differences existed in m-index values. H- and m-index values for the 40 highest impact scholars ranged, respectively, from 33 to 93 and 1.13 to 3.33. **Conclusions**: The results indicate the social work profession includes many researchers who are making an exceptional scientific impact.

Keywords

high-impact scholars, scientific impact, bibliometrics, social work scholarship

The measurement of scholarly productivity and impact is an important dimension of professional discourse (Perron et al., **In press**). Disciplinary actors that create and disseminate knowledge have long been acknowledged as a fundamental characteristic of a profession (Flexner, 1915/2001). As a profession matures, it is helpful to delineate the unique parameters of professional knowledge, notable contributions, and—as is the case with the present study—major scientific contributors (Martinez, Herrera, Contreras, Ruiz, & Herrera-Viedma, 2015).

To be clear, other facets of professional discourse are also important (Marshall Jr. et al., 2016). Faculty contribute to social work discourse in many unique and important ways (Lacasse, Hodge, & Bean, 2011). The point of this study is not to diminish these valuable contributions. Rather, the goal is to focus on one particular dimension of social work discourse, namely, scientific impact as assessed by major bibliometric indicators.

Literature Review

It has long been observed that a relatively small number of social work faculty are responsible for a disproportionate share of the profession's scholarly production (Green & Bentley, 1994). Social work is not unique in this regard, as illustrated by a recent cross-disciplinary study of research-involved faculty in 11 European nations (Kwiek, 2016). Some 10% of faculty produced roughly half of all academic research, measured in the form of journal articles. Across professions, a comparatively small body of academics produces the bulk of

the scholarship (Green, 2005; Parker, Allesina, & Lortie, 2013)

These academics also typically produce the scholarship that has the most impact on academic discourse (Green, 2005; Parker et al., 2013). It should be noted that the metrics used by many universities to assess faculty productivity have become more rigorous and accepted over the past few decades (Lacasse et al., 2011). Bibliometric benchmarks have changed from the number of articles published, to the number of articles disseminated in high-quality journals, to the impact of one's scholarship (Barner, Holosko, & Thyer, 2014). Impact is determined by some type of bibliometric measure, usually based upon citation analysis (Holden, Rosenberg, & Barker, 2005). For example, the h-index is a widely used bibliometric measure that attempts to quantify the lifetime impact of a scholar's work (Hodge & Lacasse, 2011a).

To map scholarly impact in social work, researchers have used samples that are assumed to include relatively productive faculty members. Beginning with Lindsey's (1976) seminal

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work, academics have examined the scholarly impact of editorial board members at prestigious social work journals (Lacasse et al., 2011; Pardeck, 2002; Pardeck & Meinert, 1999). Similar analyses have been conducted using samples of deans and directors, experts in the Encyclopedia of Social Work (Klein & Bloom, 1992), authors in major social work journals (Ligon, Jackson, & Thyer, 2007; Thyer & Bentley, 1986), and faculty at highly ranked schools of social work (Barner et al., 2014; Bloom & Klein, 1995; Holosko & Barner, In press; Lacasse et al., 2011; Thyer & Polk, 1997).

The results from these studies have typically been reported in aggregate. For instance, Lacasse, Hodge, and Bean (2011) reported mean h-index values at the top 10 schools of social work (as reported by U.S. News) for faculty at the ranks of assistant, associate, and full professor. While such studies represent important contributions to the profession's discourse, aggregate data do little to illuminate the contributions of the most productive, high-impact scholars.

In recognition of this reality, researchers have also sought to map the contributions of individual social workers. In an earlier study, Puckett (2003) identified high-impact social work faculty in Australia. More recently, studies have delineated the most influential authors in disciplinary social work journals (Hodge, Lacasse, & Benson, 2012; Martinez et al., 2015). In the United States, studies have employed samples consisting of faculty from the top 25 schools of social work to identify high-impact female (Holosko, Barner, & Allen, **In press**) and African American scholars (Huggins-Hoyt, Holosko, Briggs, & Barner, 2015).

These studies shed light on the individual social workers who are playing important roles contributing to the scientific literature. Yet, as is the case with all studies, some limitations should also be noted, particularly when attempting to identify high-impact faculty in a North American context. For example, analyses based upon social work journals (Hodge et al., 2012; Martinez et al., 2015) fail to provide an accurate picture of faculty who publish in extra-disciplinary periodicals. This is particularly concerning, given that some research indicates that social work faculty in highly ranked American programs publish most of their scholarship in nonsocial work journals (Green & Baskind, 2007).

Studies that focus on faculty at the top-ranked schools circumvent this limitation by examining the productivity of individual faculty members. Such studies, however, are characterized by other limitations. Although top-ranked schools of social work commonly have substantial institutional resources to support scholarly activities (Barner, Holosko, Thyer, & King, 2015), it is also possible that many highimpact researchers exist in schools outside the top 25 programs. The rankings of social work programs are based entirely on perceptions, which are often shaped by university halo effects and influential deans and directors. As such, studies that limit their sample to faculty affiliated with the top-ranked schools may exclude highly productive faculty at lower ranked programs (Huggins-Hoyt et al., 2015). To address this limitation, research is needed that draws it subjects from a boarder pool of potentially high-impact researchers.

In keeping with this goal, the creation of two fellows programs may provide such a sample and, in the process, provide a unique window on high-impact faculty housed in social work programs. The Society for Social Work and Research (SSWR) is arguably the profession's premiere research organization. Founded in 1994, SSWR currently has approximately 1,300 members from across the social work profession. In 2014, SSWR established a fellows program to honor a select number of individuals for their accomplishments, leadership, and contributions to SSWR. Fellows are expected to serve as role models and mentors for individuals pursuing careers in social work research.

The second fellows program is associated with the creation of the American Academy of Social Work and Social Welfare (AASWSW). Established in 2009, AASWSW is an honorific society dedicated to achieving excellence through high-impact research. Beginning in 2010, prominent researchers have been appointed as AASWSW fellows each year.

Given the orientation of these two organizations, it seems reasonable to expect that an analysis of SSWR and AASWSW fellows will provide an illuminating depiction of high-impact social work scholars. Accordingly, in this study, we employ a number of bibliometric measures to assess (1) the scientific impact of these fellows as a group; (2) differences between SSWR fellows and AASWSW fellows; (3) differences between SSWR and AASWSW fellows, and faculty at the top 10 schools of social work, broken out by rank; and (4) the fellows with the greatest scientific impact.

Method

Data Source

Individuals were included in analyses if they were a fellow of either SSWR or AASWSW through 2015. The first cohort of 45 SSWR fellows was selected in 2014, with an additional 27 fellows inducted in 2015. SSWR fellows are selected based on a point system for participation in various activities, such as years of membership, acceptance of abstracts for the national conference, and serving as a reviewer for conference abstracts. The number of inductees is limited to approximately 3% of the SSWR membership per year, and the total number of SSWR fellows cannot exceed 10% of the membership (L. Williams, former SSWR Board Member, personal communication, February 29, 2016).

Fellows for AASWSW were first inducted in 2010, with 86 fellows selected through 2015. The initial cohort of AASWSW fellows in 2010 was selected by a six-member AASWSW Working Group. Thereafter, AASWSW fellows were nominated and elected by the existing fellows. Fifteen fellows were affiliated with both SSWR and AASWSW.

Bibliometric Measures

The following bibliometric measures were calculated for this study: years, citations, h-index, m-index, h_l-annual, g-index, age weighted citation rate (AWCR), AW-index, and

ResearchGate (RG) score. With the exception of RG scores, all measures were computed using Harzing's (2010) Publish or Perish, Version 4.1. This free software program retrieves and analyzes academic citations using Google Scholar as the data source. This program has been used to conduct citation analysis in a number of disciplines (Ashkanasy, 2007; Franceschet, 2010; Keloharju, 2008; Mingers, 2009; Moussa & Touzani, 2010; Vanclay, 2008), including social work (Barner et al., 2014; Hodge & Lacasse, 2011b; Holosko & Barner, In press; Lacasse et al., 2011; Marshall Jr. et al., 2016). RG scores were obtained from the fellow's RG profile. RG is an online social networking website for researchers to share scientific knowledge and connect with collaborators.

Years. Career years reflect the total number of years between the scholar's first and most recent academic publications.

Citations. The total number of citations is the sum of citation counts for all publications.

h-Index. Developed by Hirsch (2005) to assess the impact of a scholar's work, the h-index measures both quality (number of citations) and quantity (number of publications) in a single number that is readily understood. An academic has an h-index value of y if the academic has y publications that have all been cited at least y times. Thus, individuals would have an h-index value of 10 if 10 of their articles had been cited at least 10 times each over the course of their careers. An h-index of 20 would indicate 20 articles that had each been cited at least 20 times. h-Index values are a measure of cumulative career impact. As such, h-index values never decline, regardless of a scholar's current level of academic productivity.

m-Index. The m-index (Hirsch & Buela-Casal, 2014) or mquotient (Hirsch, 2005) divides individuals' h-index by their number of career years. In other words, it adjusts h-index values for career length. In comparison to the h-index, which tends to favor senior faculty with long careers, the m-index may be a better indicator for younger researchers (und Halbach, 2011). However, because the m-index factors in career length, validity can be an issue for early career scholars who published intermittently across their educational programs (e.g., new assistant professors who published an uncited article as master of social work [MSW] students but published nothing during their subsequent doctoral education). Conversely, adjusting for career length also means that the m-index may provide a more accurate depiction of a scholar's current impact. Unlike the h-index, which never declines regardless of a scholar's level of current productivity, m-index values decline over time if a scholar ceases to publish.

 h_{l} -Annual. The h_{l} -annual measures research impact on an annual basis. Proposed by Harzing, Alakangas, and Adams (2014), the h_{l} -annual depicts a researcher's average annual increase in h-index.

g-Index. The g-index was developed to address criticism in the h-index and gives more weight to highly cited publications. Proposed by Egghe (2006), it can be defined as follows: "A set of papers has a g-index g if g is the highest rank such that the top g papers have, together, at least g² citations" (p. 132).

AWCR. The AWCR adjusts for the age of each individual publication across all of a scholar's publications. The number of citations for each publication is divided by the publication's age.

AW-index. The AW-index is the square root of the AWCR, which allows for a more direct comparison to the h-index.

RG score. The RG score is a new measure of scientific impact that takes into consideration both a scholar's scientific contribution and interactions with other scholars on RG. The score is comprised of number of publications, questions asked and answered on RG's online forum, and the number of scholars following one's work. For most researchers, however, the RG score appears to be based largely on publications. The RG score was missing for 57 fellows who do not have a profile on RG.

Procedures

To compute the majority of outcome measures (including years, citations, h-index, h₁-annual, g-index, AWCR, and AW-index) for each of the fellows, searches were conducted following the procedures outlined in the Publish or Perish software user's manual (Harzing, n.d.). All query results were visually inspected for incomplete or inaccurate results. To help ensure the accuracy of the results, this same set of procedures was subsequently replicated by a second coder on 15\% of the fellows. Discrepancies in results were reviewed by both coders and resolved together. Identical results were recorded in >90% of the cases for h-index values. Searches by both coders were conducted across a 2-week block during January 2016. The mindex was subsequently calculated by dividing the h-index by number of career years. The RG score was obtained directly from each fellow's RG profile. 60% of fellows had an RG score available. The remaining 40% of fellows had not established an RG profile.

Data Analysis

Data analysis was conducted using Stata, Version 13.1/IC (StataCorp, 2013). Pearson product—moment correlations were computed between all independent variables (i.e., bibliometric measures), followed by descriptive analyses for the independent variables for all fellows and then stratified by organization. To reduce confounding, fellows in both SSWR and AASWSW were excluded from correlations and descriptive analyses. For each independent variable, Cohen's *d* was calculated as the standardized mean difference between SSWR and AASWSW fellows.

	Years	Citations	h-Index	m-Index	h _I -Annual	g-Index	AWCR	AW-Index	RG Score
Years	1.00								
Citations	0.36	1.00							
h-Index	0.50	0.89	1.00						
m-Index	-0.37	0.47	0.54	1.00					
h _i -Annual	-0.40	0.44	0.46	0.88	1.00				
g-Index	0.51	0.92	0.96	0.44	0.42	1.00			
AWCR	0.28	0.95	0.89	0.60	0.55	0.90	1.00		
AW-index	0.34	0.87	0.93	0.63	0.57	0.92	0.95	1.00	
RG score	0.13	0.51	0.70	0.60	0.47	0.60	0.60	0.69	1.00

Table 1. Correlation Matrix of Bibliometric Measures for All Fellows.

Note. Since our data are drawn from an entire population (SSWR and AASWSW fellows), there is no sampling error. Correspondingly, tests of statistical significance are not necessary.

Descriptive analyses were further stratified by fellows' university rank for each organization and compared alongside the results from Lacasse et al. (2011), in which the mean h-index was computed for all tenure and tenure-track faculty at the top 10 social work programs, as ranked by the U.S. News in 2008. Cohen's *d* was calculated as the standardized mean difference between SSWR fellows and faculty at the top 10 social work programs and again as the standardized mean difference between AASWSW fellows and faculty at the top 10 social work programs.

Following aggregate analyses by organization, the results for individual fellows were considered. The top 40 fellows were ranked separately based on h-index and m-index. Individuals with the same score remained tied in ranking, which allowed for more than 40 fellows to be included in the results. A total of 43 fellows were ranked according to h-index and a total of 42 fellows were ranked according to m-index. For both sets of results, we also denote fellows without a social work degree of any kind.

Results

The Scientific Impact of Social Work Research Fellows

Table 1 depicts the correlation coefficients for the study's measures. Apart from the m-index and the h₁-annual index, the number of career years was positively correlated with each measure of scientific impact. This is consistent with the notion that, the longer researchers are active, the more opportunity exists for others to cite their scholarship.

The h-index had a medium to large correlation with most other measures of scholarly impact (Cohen & Cohen, 1983). As perhaps the most widely used measure of scholarly impact, the h-index may serve as a type of "gold standard" in terms of bibliometric measures. The elevated correlations between the h-index and other measures suggest these other metrics possess some degree of criterion validity, which can be understood as the degree to which a measure correlates with a relatively well-established measure (Monod et al., 2011).

Differences Between SSWR and AASWSW Fellows

Table 2 displays the bibliometric measures stratified by organization. Noteworthy differences emerged regarding years as an active scholar. The career length of SSWR fellows was roughly half that of AASWSW fellows (M=21.18, SD=9.12 vs. M=38.07, SD=7.67). Given the difference in years, it is unsurprising SSWR fellows recorded lower values relative to AASWAS fellows on career-related measures, including citations (M=1,565.14, SD=1,314.32 vs. M=5,224, SD=6,320.33), h-index (M=26.44, SD=14.72 vs. M=32.52, SD=15.96), g-index (M=33.98, SD=13.35 vs. M=61.51, SD=30.48), AWCR (M=182.03, SD=167.47 vs. M=400.25, SD=469.60), and the AW-index (M=12.53, SD=5.04 vs. M=17.85, SD=9.10).

Conversely, minimal differences emerged between SSWR and AASWSW fellows regarding the m-index or h₁-annual. Both of these measures attempt to account for career length. Minimal differences also emerged regarding RG Score, although the high percentage of missing data underscores the importance of treating this finding with caution.

SSWR/AASWSW Fellows and Faculty at Top Social Work Programs

Table 3 stratifies h-index results for SSWR and AASWSW fellows by rank. These results were then compared with the mean h-index values reported by Lacasse et al. (2011), which were based upon an analysis of all tenured or tenure-track faculty at the top 10 social work programs. At each rank, fellows from both SSWR and AASWSW recorded higher h-index values relative to their counterparts from the top-ranked social work programs, a finding that is congruent with the notion that SSWR and AASWSW fellows represent some of the profession's highest impact scholars.

For instance, professors at the top 10 schools had a mean h-index of 16.14 (SD = 8.35), compared to 23.12 (SD = 8.37) for SSWR fellows and 32.52 (SD = 15.96) for AASWSW fellows. The differences between faculty at the top schools and SSWR fellows were more progressively pronounced at the associate (M = 8.59, SD = 3.72 vs. M = 16.04, SD = 6.53)

Table 2. Bibliometric Measures by Organization.

	All Fellows a ($n = 128$)	AASWSW $(n = 71)$	SSWR (n = 57)			
Variable	M (SD)	M (SD)	M (SD)	Mean Difference (95% CI) ^b	Cohen's d ^c	
Years	30.55 (11.84)	38.07 (7.67)	21.18 (9.12)	16.89 [13.96, -19.83]	2.02	
Citations	3,594.81 (5,110.06)	5,224.00 (6,320.33)	1,565.14 (1,314.32)	3,659.11 [1972.69–5345.53]	0.76	
h-Index	26.44 (14.72)	32.52 (15.96)	18.86 (8.19)	13.66 [9.05–18.27]	1.04	
m-Index	0.94 (0.48)	0.90 (0.47)	0.99 (0.07)	-0.09(-0.07-0.26)	0.19	
h _I -Annual	0.59 (0.24)	0.57 (0.25)	0.62 (0.24)	0.05 [-0.04-0.13]	0.20	
g-Index	49.25 (27.9 [°] 1)	61.51 (30. 4 8)	33.98 (13.3 ⁵)	27.52 [18.94–36.11]	1.13	
AWCR	303.07 (381.75)	400.25 (469.60)	182.03 (167.47)	218.21 [88.91–347.51]	0.59	
AW-index	15.48 (8.00)	17.85 (9.10)	12.53 (5.04)	5.31 [2.65–7.98]	0.70	
RG score	26.59 (7.84)	28.36 (8.10)	24.90 (7.29)	3.46 [-0.06-6.97]	0.45	

Note. AASWSW = American Academy of Social Work and Social Welfare; SSWR = Society for Social Work and Research. Since our data are drawn from an entire population (SSWR and AASWSW fellows), there is no sampling error. Tests of statistical significance are not necessary.

Table 3. h-Index by Rank.

	Top 10 SW Programs ^a		SSWR			AASWSW		
Rank	N	M (SD)	N	M (SD)	Cohen's d ^b	N	M (SD)	Cohen's d ^c
Professors	158	16.14 (8.35)	26	23.12 (8.37)	0.83	71	32.52 (15.96)	1.29
Associate professors	101	8.59 (3.72)	23	16.04 (6.53)	1.40	0	, ,	n/a
Assistant professors	78	3.97 (2.87)	8	13.13 (4.67)	2.36	0		n/a

Note. AASWSW = American Academy of Social Work and Social Welfare; SSWR = Society for Social Work and Research; n/a = not applicable. Since our data are drawn from an entire population (SSWR and AASWSW fellows), there is no sampling error. Tests of statistical significance are not necessary.

and assistant levels (M = 3.97, SD = 2.87 vs. M = 13.13, SD = 4.67). AASWSW fellows included no academics with the rank of associate or assistant professor.

Fellows With the Greatest Scientific Impact

To assess career scholarly impact, Table 4 depicts h-index values for the top 40 fellows. Across fellows, values ranged from 33 to 93. The individual with the highest h-index is Hawkins (93), followed closely by Catalano (87), then Steketee (68), Barth (65), and Landsverk (64), all of whom were AASWSW fellows. Overall, a greater proportion of AASWSW fellows had higher h-index values compared to SSWR fellows. Among SSWR fellows, Barth (who was also an AASWSW fellow) had the highest h-index, followed by Fraser (also a member of both organizations), then Thyer, Vaughn, and Bowen.

A number of fellows mentioned in Table 4 did not have any social work degree. Interestingly, these individuals were clustered near the top of the table. Four of the top six, and five of the top ten, fellows with the highest h-index values did not have a social work degree.

To assess scholarly impact adjusted for career length, Table 5 depicts m-index values for the top 40 fellows. Across fellows, values ranged from 1.13 to 3.33. Vaughn (3.33) was ranked first, followed by Catalano (2.42), Hawkins (2.38), Hodge, Landsverk (tied at 1.94), and Perron (1.93). Although AASWSW fellows predominate in Table 4, when career length was taken into account in Table 5, the representation from both SSWR and AASWSW was equivalent.

As was the case with above, a number of individuals with the highest m-index values did not have a social work degree of any kind. Four of the top seven fellows did not have social work degrees. However, in contrast to Table 4 in which the top two fellows did have a bachelor of social work, MSW, or social work PhD, the individual with the highest m-index value did have a social work degree.

Discussion

Although it has long been known that a relatively small body of social workers is disproportionately responsible for shaping scholarly discourse, the identity of these high-impact scholars has largely remained a mystery (Green, 2005). Traditionally,

^aIncludes social work researchers in either SSWR or AASWSW. ^bMean difference between AASWSW and SSWR fellows. ^cCohen's *d* was calculated as the standardized mean difference between SSWR and AASWSW fellows.

^aData obtained from Lacasse, et al. (2011) and include tenured or tenure-track faculty at the top 10 social work programs as ranked by *U.S. News* in 2008. ^bCohen's *d* was calculated as the standardized mean difference between SSWR fellows and faculty at the top 10 social work programs. ^cCohen's *d* was calculated as the standardized mean difference between AASWSW fellows and faculty at the top 10 social work program.

Table 4. Fellows Ranked by h-Index.

	Name	Affiliation	Rank	Fellow	H-Index
I	J. David Hawkins ^a	University of Washington	Professor	AASWSW	93
2	Richard F. Catalano ^a	University of Washington	Professor	AASWSW	87
3	Gail Steketee	Boston University	Professor	AASWSW	68
4	Richard P. Barth	University of Maryland-Baltimore	Professor	Both ^b	65
5	John Landsverk ^a	University of Southern California	Professor	AASWSW	64
6	Marsha Mailick ^a	University of Wisconsin-Madison	Professor	AASWSW	57
7	Sheryl Zimmerman	University of North Carolina	Professor	AASWSW	56
8	Rosalie A. Kane	University of Minnesota-PH ^c	Professor	AASWSW	54
9	David T. Takeuchi ^a	Boston College	Professor	AASWSW	51
10	Steven P. Schinke	Columbia University	Professor	AASWSW	48
11	Irwin Garfinkel	Columbia University	Professor	AASWSW	47
12	Jeffrey L. Edleson	University of California-Berkeley	Professor	AASWSW	45
12	Nabila El-Bassel	Columbia University	Professor	AASWSW	45
12	Jan Steven Greenberg	University of Wisconsin-Madison	Professor	AASWSW	45
15	Mark W. Fraser	University of North Carolina	Professor	Both ^b	41
15	Bruce A. Thyer	Florida State University	Professor	SSWR	41
17	Michael G. Vaughn	Saint Louis University	Professor	SSWR	40
18	Iris Chi	University of Southern California	Professor	AASWSW	39
18	Claudia J. Coulton	Case Western Reserve University	Professor	AASWSW	39
18	Sheila B. Kamerman	Columbia University	Professor	AASWSW	39
21	Gary L. Bowen	University of North Carolina	Professor	SSWR	38
21	Michael W. Sherraden	Washington University in St. Louis	Professor	AASWSW	38
21	Phyllis Solomon	University of Pennsylvania	Professor	$Both^b$	38
24	Stuart A. Kirk	University of California-Los Angeles	Professor	AASWSW	37
24	Luis H. Zayas	University of Texas at Austin	Professor	AASWSW	37
26	Mark E. Courtney	University of Chicago	Professor	Both ^b	36
26	Jeffrey Draine	Temple University	Professor	AASWSW	36
26	Charles A. Glisson	University of Tennessee–Knoxville	Professor	AASWSW	36
26	Mary M. McKay	New York University	Professor	AASWSW	36
26	J. Curtis McMillen	University of Chicago	Professor	AASWSW	36
26	Robert F. Schilling	University of California–Los Angeles	Professor	AASWSW	36
32	David R. Hodge	Arizona State University	Professor	SSWR	35
32	Matthew Howard	University of North Carolina	Professor	Both ^b	35
32	Nancy Morrow-Howell	Washington University in St. Louis	Professor	AASWSW	35
32	Deborah Padgett ^a	New York University	Professor	Both ^b	35
32	Enola K. Proctor	Washington University in St. Louis	Professor	AASWSW	35
32	Ronald W. Toseland	University of Albany	Professor	AASWSW	35
38	Ronald Manderscheid ^a	NACBHDD ^d	Professor	AASWSW	34
39	John S. Brekke	University of Southern California	Professor	Both ^b	33
39	Yeheskel "Zeke" Hasenfeld	University of California–Los Angeles	Professor	AASWSW	33
39	Susan L. Hughes	University of Camornia—Los Angeles University of Illinois at Chicago	Professor	AASWSW	33
39	Ruth G. McRoy	Boston College	Professor	AASWSW	33
39	Allen Rubin	University of Houston	Professor	Both ^b	33

Note. AASWSW = American Academy of Social Work and Social Welfare; SSWR = Society for Social Work and Research. Top 40 fellows were calculated based on h-index. Due to ties, a total of 43 fellows are included.

^aIndicates fellow without a social work degree at the bachelor, master, or doctoral level. ^bIndicates fellow in both SSWR and AASWSW. ^cUniversity of Minnesota—School of Public Health. ^dNational Association of County Behavioral Health and Developmental Disability Directors.

some type of proxy measure has been used to identify high-impact scholars, such as affiliation with a highly ranked institution or word of mouth. More recently, researchers have turned to empirical analysis to ascertain these individuals. Consistent with efforts in psychology (Grapin, Kranzler, & Daley, 2013; Jones et al., 2010) and other disciplines (Martinez et al., 2015), social workers have begun to map the contributions of high-impact scholars in their own profession (Hodge et al., 2012; Holosko et al., In press; Huggins-Hoyt et al., 2015).

The present study builds on this research by using a unique sample to identity and describe high-impact scholars, namely, fellows affiliated with SSWR and AASWSW. Given their nature as research-based organizations, fellows affiliated with SSWR and AASWSW arguably represent some the profession's most prominent researchers. Accordingly, mapping their bibliometric statistics provides important insights about the disciplinary actors—both collectively and individually—that help create and disseminate social work knowledge.

Table 5. Fellows Ranked by m-Index.

	Name	Affiliation	Rank	Fellow	m-Index
Ī	Michael G. Vaughn	Saint Louis University	Professor	SSWR	3.33
2	Richard F. Catalano ^a	University of Washington	Professor	AASWSW	2.42
3	J. David Hawkins ^a	University of Washington	Professor	AASWSW	2.38
4	David R. Hodge	Arizona State University	Professor	SSWR	1.94
4	John Landsverk ^a	University of Southern California	Professor	AASWSW	1.94
6	Brian E. Perron	University of Michigan	Associate	SSWR	1.93
7	David T. Takeuchi ^a	Boston College	Professor	AASWSW	1.82
8	Richard P. Barth	University of Maryland-Baltimore	Professor	Both ^b	1.81
9	Gail Steketee	Boston University	Professor	AASWSW	1.74
10	Mary M. McKay	New York University	Professor	AASWSW	1.64
П	Peter A. Newman	University of Toronto	Professor	SSWR	1.58
12	G. Erick Guerrero	University of Southern California	Assistant	SSWR	1.57
13	Sheryl Zimmerman	University of North Carolina	Professor	AASWSW	1.56
14	Mark E. Courtney	University of Chicago	Professor	Both ^b	1.50
14	Jeffrey Draine	Temple University	Professor	AASWSW	1.50
14	Marsha Mailick ^a	University of Wisconsin-Madison	Professor	AASWSW	1.50
14	I. Curtis McMillen	University of Chicago	Professor	AASWSW	1.50
18	Nabila El-Bassel	Columbia University	Professor	AASWSW	1.45
19	Kimberly Bender	University of Denver	Associate	SSWR	1.43
20	Jan Steven Greenberg	University of Wisconsin-Madison	Professor	AASWSW	1.41
21	Leopoldo J. Cabassa	Columbia University	Associate	SSWR	1.40
21	Sanna J. Thompson	University of Texas at Austin	Associate	SSWR	1.40
23	Jennifer L. Bellamy	University of Denver	Associate	SSWR	1.36
23	Roderick Rose ^a	University of North Carolina	Assistant	SSWR	1.36
25	Michael Spencer	University of Michigan	Professor	SSWR	1.30
26	Patricia Kohl	Washington University in St. Louis	Associate	SSWR	1.27
27	Iris Chi	University of Southern California	Professor	AASWSW	1.26
28	Flavio F. Marsiglia	Arizona State University	Professor	Both ^b	1.24
29	Tina Maschi	Fordham University	Associate	SSWR	1.23
30	Michal Grinstein-Weiss	Washington University at St. Louis	Professor	SSWR	1.20
30	Steven P. Schinke	Columbia University	Professor	AASWSW	1.20
32	Jorge Delva	University of Michigan	Professor	SSWR	1.19
33	Faye Mishna	University of Toronto	Professor	SSWR	1.18
34	Mark W. Fraser	University of North Carolina	Professor	Both ^b	1.17
34	Matthew Howard	University of North Carolina	Professor	Both ^b	1.17
36	Luis H. Zayas	University of Texas at Austin	Professor	AASWSW	1.16
37	Rosalie A. Kane	University of Minnesota-PH ^c	Professor	AASWSW	1.15
38	Stacey Freedenthal	University of Denver	Associate	SSWR	1.14
38	Bruce A. Thyer	Florida State University	Professor	SSWR	1.14
40	Jeffrey Edelson	University of California-Berkeley	Professor	AASWSW	1.13
40	Aron Shlonsky	University of Toronto	Associate	SSWR	1.13
40	Karina Walters	University of Washington	Professor	AASWSW	1.13

Note. AASWSW = American Academy of Social Work and Social Welfare; SSWR = Society for Social Work and Research. Top 40 fellows were calculated based on m-index. Due to ties, a total of 42 fellows are included.

^aIndicates fellow without a social work degree at the bachelor, master, or doctoral level. ^bIndicates fellow in both SSWR and AASWSW. ^cUniversity of Minnesota—School of Public Health.

Indeed, the results indicate that the social work profession includes many scholars whose scientific impact might be classified as exceptional. In physics, Hirsch (2005) posited that an $h \approx 18$ might be a typical value for advancement to full professor. Regarding the m-index, Hirsch concluded a value of $m \approx 1$ characterizes successful scientists, $m \approx 2$ characterizes outstanding scientists, and $m \approx 3$ characterizes very unique individuals. Based upon these benchmarks, SSWR and AASWSW fellows—with a mean h-index of 26.44 (SD = 14.72) and m-index of 0.94 (SD = 0.48)—are highly successful.

The significance of this achievement is accentuated by the fact that the h-index and m-index were developed to assess impact in physics. Citation rates in physics and other natural sciences are much higher than in social sciences such as social work (Hirsch & Buela-Casal, 2014). Thus, h- and m-index values are discipline-specific and should not be compared across disciplines due to differences in citation norms (Lacasse et al., 2011). Given this reality, the scientific impact of the fellows examined in this study is particularly notable.

The results also illustrate the limitations of relying upon samples of faculty from the top 10 or 25 schools of social work

to identify high-impact scholars. Among our list of high-impact scholars, roughly 20% (n=8) were affiliated with schools that fell outside the top 25 programs as listed in the 2012 U.S. News (2012) rankings. The disparity was even larger with the list of career-adjusted high-impact scholars. Among this group, close to 30% (n=12) were affiliated with programs that were not listed in the top 25. Studies based upon faculty at the topranked schools clearly exclude a significant percentage of the profession's most productive and influential academics.

Implications

The results have important implications for students, faculty, researchers, and the profession collectively. For students, the results open up new options for individuals considering graduate education (Jones et al., 2010). In many other disciplines, students seek out academics to learn under who are noted for their scientific impact. Traditionally, it has been difficult for social work students to locate such academics as efforts to delineate high-impact social work scholars by name have been lacking. The present study helps address this issue by identifying at least some of the profession's leading scientists. Accordingly, social work students interested in learning from academics who have made a substantial scientific impact might consider the academics identified in the present study as possible mentors.

At the aggregate level, the results for the bibliometric measures can serve as important benchmarks for faculty (Puckett, 2003). For instance, faculty seeking tenure, promotion, funding, or merit increases may find that the data provide an objective measure against which to compare their own scholarly impact. Faculty might use the benchmarks as a tangible way to document their achievements to university administrators increasingly concerned with concrete outcomes (Barner et al., 2015).

For researchers, the results underscore the importance of including faculty from social work programs outside the top-ranked schools in future bibliometric studies. As these results make clear, high-impact scholars are affiliated with schools from a wide variety of rankings. Researchers might take this reality into account in future studies of academic performance.

Future research would be facilitated if all faculty had a Google Scholar account or posted current curricula vitae on their faculty website. Consistent with reports in prior bibliometric studies conducted in social work, ascertaining faculty information was a time-consuming task in many cases due to the lack of publicly available data (Lacasse et al., 2011). Self-reporting data, which is common practice in many other disciplines, would speed the data collection process and may enhance the accuracy of the findings.

The study also has implications for the profession as a whole. First, it is important to acknowledge the work of high-impact scholars. These academics typically spend a considerable amount of effort conceptualizing, refining, operationalizing, and publishing their creative products (Puckett, 2003). For many individuals, this is an arduous process. Their

contributions deserve recognition. Put differently, these individual scholars represent a professional strength that should be celebrated.

In addition, high-impact scholars might be considered a professional strength at a systems level. Identifying productive people may stimulate research into the factors that contribute to professional impact. Isolating commonalities that facilitate the creation and dissemination of influential research can potentially benefit all social work faculty. Once identified, others can implement and build upon these factors to enhance their own productivity.

In conclusion, it should be reiterated that low h- and m-index values are not necessarily indicative of an inconsequential professional contribution. Individuals working in specialized subfields with few scholars to cite their work will necessarily record low values on many bibliometric measures (Lacasse et al., 2011). In addition, many faculty make a substantial professional impact through teaching, advising, mentoring, and service (Marshall Jr. et al., 2016). In short, high h- and m-index values simply represent one method to document an individual's contribution to professional discourse. Furthermore, this method is also characterized by a number of limitations (Howard & Garland, 2015).

Limitations

This study relied primarily upon the h-index and its career-adjusted counterpart, the m-index, to assess scholarly impact. However, many different bibliometric measures exist, each with their respective strengths and limitations. As noted previously, the h-index provides a good indicator of cumulative career impact, but it tends to favor scholars with longer careers and may not adequately address the issue of current productivity. The m-index adjusts for career length, arguably providing a more accurate picture of impact for both younger and currently active scholars, but it may disadvantage early career scholars who published intermittently in their educational programs.

Accordingly, using different measures may have yielded different outcomes. For example, using the h_m-index (Schreiber, 2008) or the h_l-index (Batista, Campiteli, Kinouchi, & Martinez, 2006)—which adjust for the effects of coauthorship—may have produced a different rank ordering of high-impact authors. Conversely, it should also be noted that the h-index is widely used, in part because it is: relatively predictive of future scientific success, robust to measurement error, and strongly correlated with many other measures of academic performance (Hodge & Lacasse, 2011a). Indeed, the latter rationale was confirmed by the strong correlations that emerged between the h-index and other performance measures in our study.

Similarly, using a different database—such as the Thomson ISI Web of Knowledge—from which to harvest citations may have produced different results (Perron et al., **In press**). While each academic database is characterized by its own set of strengths and limitations, some evidence indicates that Google Scholar harvests more citations than Thomson ISI in the social

sciences (Baneyx, 2008; Jacobs, 2009). Consequently, Google Scholar may represent a particularly good fit for harvesting citations relevant to social work (Hodge & Lacasse, 2011b).

Furthermore, all citation-based methods for assessing impact are characterized by an additional set of limitations that should be noted. For instance, journal issues may be missing from databases (Holden, Barker, Covert-Vail, Rosenberg, & Cohen, 2008), and citations may be listed inaccurately (Spivey & Wilks, 2004). In addition, citation-based measures are premised on the assumption that higher quality work will be cited more frequently. Uncited work, however, can still play an important role in shaping professional discourse (MacRoberts & MacRoberts, 2010). Thus, while bibliometric measures represent one way to document impact, other methods can be equally effective, if not superior, in terms of illustrating professional impact (Marshall Jr. et al., 2016).

Another limitation pertains to the nature of the sample used in this study. The issue of who qualifies as a social worker is a subject of perennial professional debate. Some might argue that an individual qualifies as a social worker by virtue of being a fellow in either SSWR or AASWSW—two prominent social work organizations dedicated to advancing the profession's values. Others, however, would disagree. Indeed, many would argue that having a social work degree is a necessary prerequisite for qualifying as a social worker. As indicated in Tables 4 and 5, a number of the most impactful fellows did not meet this criterion. Removing these individuals from the analyses would affect the results by, for example, altering the ordering of the tables and attenuating the mean h- and m-index values for the sample.

Finally, in the same way that studies based upon faculty at top-ranked programs exclude some high-impact scholars from analysis, it is also possible that our sample excluded some similarly notable faculty (Holosko et al., **In press**). In other words, there are likely some high-impact faculty who are not fellows affiliated with SSWR or AASWSW. Future researchers might explore this possibility using a broader, more inclusive sample of social work faculty.

Conclusion

This study provides perhaps the clearest picture to date of high-impact scholars in the social work profession. Building upon previous research, we performed a bibliometric analysis of fellows affiliated with SSWR and AASWSW. In keeping with the research orientation of these two organizations, this study provides a unique perspective on scholarly impact by focusing on a sample of academics committed to knowledge creation.

As Puckett (2003) observed, social work academics spend a considerable amount of time and energy creating and disseminating research. Accordingly, it is reasonable to ask if anyone is reading the resulting scholarship. The results of the present study indicate that an affirmative answer is warranted. Indeed, the results indicate that the profession is characterized by many researchers who are making an exceptional scientific impact.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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