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Abstract

Given the importance of journal rankings to tenure, promotion, and other professional decisions, this study examines a new method for ranking social work journals. The Google Scholar h-index correlated highly with the current "gold standard" for measuring journal quality, Thomson ISI impact factors, but provided data for over four times as many disciplinary journals. Eighty disciplinary periodicals are identified and ranked using the Google Scholar h-index. The vast majority of these were ranked higher than the lowest ranked social work journal indexed by Thomson ISI. While the results hold salience for many professional stakeholders, they may be of particular interest to faculty who publish in disciplinary journals not indexed by Thomson ISI. The Google Scholar h-index provides faculty with an additional tool to document the quality of the venues in which they publish.

Key Words:

Google Scholar H-index; Impact Factors; Journal Rankings; Bibliometrics; G-index

Ranking Disciplinary Journals with the Google Scholar H-index:
A New Tool for Constructing Cases for Tenure, Promotion, & Other Professional Decisions

The empirical ranking of social work journals is important to many professional stakeholders. At the macro level, the quality of social work's disciplinary journals plays an important role in the profession's advancement (SSWR Presidential Task Force on Publications, 2008). At the micro and mezzo levels, perceptions of journal quality helps inform the decision-making process of researchers, writers, administrators allocating merit pay, educators' selecting syllabus content, and tenure and promotion committees (Cnaan, Caputo & Shmuely, 1994; Sellers, Perry, Mathiesen & Smith, 2004).

Journal rankings may be particularly salient in tenure and promotion decisions. In a survey of 130 social work deans and directors, Green (2008) found that scholarship was the most important factor in tenure and promotion decisions. Scholarship was accorded more importance than either teaching or service, and the salience attributed to scholarship increased with rank. Although scholarship is manifested in many forms, professional journals continue to be the primary vehicle through which the discipline's scholarship is disseminated (Green, Bellin & Baskind, 2002; Cnaan et al., 1994; Furr, 1995). For instance, one study of full time faculty (N = 189) in graduate programs found that respondents gave more weight to referred journal articles than any other form of scholarship in making tenure decisions (Seipel, 2003).

This study also found that publication in top-tier disciplinary social work journals was given the most weight in tenure decisions (Seipel, 2003). On a 10-point scale in which 0 represented no value and 10 represented great value for obtaining tenure, publication in 1st-tier journals was accorded a 9.69, publication in 2nd-tier a 8.18, and publication in 3rd-tier a 6.61. Publication in disciplinary social work journals was deemed more important than publishing in other outlets, including social work-related journals, general academic journals, or partisan journals (Seipel, 2003).

While it is widely accepted that publication in top-tier disciplinary journals plays a central role in tenure and promotion, more ambiguity exists regarding the ranking of social work

journals. Currently, journal quality is typically assessed by either personal judgment or perhaps more commonly with the Journal Citation Reports (JCR) produced by Thomson ISI Web of Knowledge (Furr, 1995; Green & Baskind, 2007; Holden, Rosenberg & Karker, 2005; Jenson, 2005; Seipel, 2003; Sellers et al., 2004). Although both methods represent important contributions, they are also both characterized by flaws that limit their utility.

Two studies have used samples of faculty to evaluate journal quality in 1990 (Cnaan et al., 1994) and 2000 (Sellers et al., 2004). These reputation-based approaches provide important insights into faculty perceptions. At the same time, they are characterized by a number of limitations. Included among these are the subjective nature of assessing journal quality, marginal to poor response rates, the time-limited nature of the resulting data, and the difficulty of maintaining sufficient familiarity to evaluate the growing number of social work journals.

As a result of these limitations, Thomson ISI Web of Knowledge JCR are widely used to assess and rank journal quality in social work (Furr, 1995; Green & Baskind, 2007; Jenson, 2005; Seipel, 2003). Indeed, the JCR are widely recognized as the *de facto* standard for assessing journal quality across the sciences (Olden, 2007). The JCR (2008) purport to offer an objective, reliable method of providing current evaluations of prominent disciplinary journals. They are objective and reliable in the sense that they rely upon citation counts—in keeping with the theory that better work is typically cited more frequently. To ensure their currency, Thomson ISI calculates JCR yearly for a wide variety of disciplines, including social work. Similarly, Thomson ISI regularly updates its listing of journals to include what are purportedly the leading journals in the world in each category. Thus, manuscripts accepted in journals indexed in a given JCR disciplinary category are widely viewed as evidence of publication in a top-tier journal.

Despite their widespread acceptance, the JCR have been the subject of numerous criticisms (Cameron, 2005; Favaloro, 2009; Holden, Rosenberg, Barker & Onghena, 2006; Seglen, 1997). Below, two limitations that are particularly relevant to social work are discussed

and an alternative approach is proposed and operationalized—the Google Scholar h-index. First, however, the construction of the JCR impact factor is reviewed.

The JCR Impact Factor

Journals are ranked in JCR based upon their impact factors. Impact factors measure how often the "average article" in a journal has been cited in a given year (Journal Citation Reports, 2008). A journal's impact factor is calculated by dividing the number of citations in the most recent calendar year (e.g., 2010) by the total number of articles published in the previous two years (i.e., 2008-09). If a journal recorded an impact factor of 1.0 in 2010 that means articles published in 2009 or 2008 have been cited, on average, one time in 2010. An impact factor of 2.0 means that, on average, the articles published one or two year ago have been cited two times.

JCR impact factors were developed to meet the disciplinary norms of fields such as biochemistry and molecular biology (Cameron, 2005; Leydesdorff, 2008). Since the impact factor was originally designed for a different disciplinary culture, it is perhaps unsurprising that it may hold limited utility in social work. Two limitations that may be relevant to social work are related to the use of the two year citation window, and the limited number of journals indexed by Thomson ISI Web of Knowledge.

Two Year Citation Window

From a social work prospective, a major limitation of the impact factor stems from the fact that citations are only counted within a relatively brief two year period (Ligon & Thyer, 2005). In fields such as biochemistry and molecular biology, knowledge advances quickly and ideas are published rapidly (Cameron, 2005; Leydesdorff, 2008). A two year citation window represents an appropriate timeframe in contexts in which research can be conducted, disseminated, and responded to in two years. If the "knowledge shelf-life" is brief, then a short citation window is acceptable (Cameron, 2005).

In many professions, the knowledge shelf-life is considerably longer than two years (Cameron, 2005; Leydesdorff, 2008). In social work, it often takes a substantial amount of time to plan, operationalize, execute, and publish research. Because of the time involved, social work

knowledge is often relevant far beyond the two year timeframe used by Thomson ISI to calculate JCR impact factors.

The extended shelf-life of social work scholarship is evident in the profession's comparatively long citation life. According to Thomson ISI, the aggregate cited half-life for journals in the social work category in 2008, the most recent year available at the time this manuscript was written, is 8.3 years (Journal Citation Reports, 2008). In other words, roughly half of all articles cited by journals in the social work category were published prior to 2000, and half were published before 2000.

In professions with a long knowledge shelf-life, the use of a two year citation window represents an inappropriate timeframe (Cameron, 2005). Much of the scientifically relevant literature is precluded from inclusion in impact factor calculations because it falls outside the arbitrary two year citation window (Barker & Thyer, 2005; Epstein, 2004; Harzing & van der Wal, 2009; McGarty, 2000). The exclusion of pertinent literature results in a measure of questionable validity. This may help explain why *Social Work Research* dropped twelve points in a single year in the JCR, from number four in 2007 to number sixteen in 2008 (Journal Citation Reports, 2008). In recognition of this larger problem, some observers have recommended that the citation window be set at ten years (Ha, Tan & Soo, 2006).

As implied above, numerous other problems have been noted with JCR impact factors that are unrelated to the citation window (Cameron, 2005; Favaloro, 2009; Holden et al., 2006; Seglen, 1997). These concerns also limit the utility of JCR impact factor as a method to empirically rank journals. From a social work perspective, one of the more important considerations is the limited number of journals indexed by Thomson ISI Web of Knowledge.

Limited Journal Coverage

The JCR (2008) purportedly feature the leading journals in the world. Consequently, Thomson ISI only covers a small portion of available journals (Cameron, 2005). According to some estimates, 126,000 scientific journals exist globally (Whitehouse, 2001). In comparison,

Thomson ISI contains data from some 5,900 journals in science and technology, and just 1,700 journals in the social sciences (Journal Citation Reports, 2008).

This same general pattern is replicated with social work periodicals. Over 70 disciplinary social work journals exist (Thyer, 2005). Yet, the 2008 JCR social work category listed just 29 periodicals. This is an inflated number since many of these are arguably interdisciplinary (e.g., *Child Abuse and Neglect*) or extra-disciplinary journals (e.g., *Journal of Community Psychology*). Indeed, it is plausible that the top seven entries in the 2008 JCR social work category are not disciplinary journals.

The under-representation of disciplinary social work journals in the JCR has at least two important ramifications. First, it yields an inaccurate picture of journal citation counts, and correspondingly, impact factors (Holden, Barker, Covert-Vail, Rosenberg & Cohen, 2008; Jacobs, 2009). In order for citations to be counted, the journal must be indexed. Legitimate citations are not included in JCR impact factor calculations because some disciplinary journals are not indexed by Thomson ISI, along with many other relevant academic sources (e.g., books) (Cameron, 2005).

Second, it complicates the appraisal of work appearing in journals that are not indexed by Thomson ISI. For example, authors publishing in unlisted journals may have a difficult time substantiating the quality of their work. Since the JCR (2008) purportedly feature the leading journals in a given discipline, work in unlisted periodicals may be perceived as substandard. Unlisted periodicals may be perceived as 2nd or 3rd-tier, or perhaps even lower. Given the weight placed upon publication in top-tier disciplinary journals in the tenure and promotion process, this may place many social work faculty at risk (Green, 2008; Seipel, 2003). Below, an alternative method is proposed for assessing journal quality that may represent a better fit with the profession's research culture in tandem with more inclusive coverage of the profession's disciplinary journals.

The Google Scholar H-index

The h-index has become a well-established tool for measuring scientific performance in a remarkably short period of time (Radicchi, Fortunato & Castellano, 2008). Developed by Hirsch (2005) to assess scholarship at the individual level, the h-index measures both quality (number of citations) and quantity (number of publications) in a single number that is readily understood. An entity has an h-index value of "y" if the entity has "y" publications that have all been cited at least "y" times. Thus, a journal would have an h-index value of 10 if 10 of its articles had been cited at least 10 times each. An h-index of 20 would indicate 20 articles that had each been cited at least 20 times.

Despite its recent origin, the h-index has been used to evaluate journal quality in a number of fields. Included among these are business (Saad, 2006), chemistry (Bornmann, Marx & Schier, 2009), ecology (Olden, 2007), economics (Harzing & van der Wal, 2008), horticulture (Liu, Rao & Rousseau, 2009), pharmacology, psychiatry (Bador & Lafouge, 2009 in press), forestry (Vanclay, 2008a), management (Ashkanasy, 2007), and marketing (Moussa & Touzani, 2010). Multidisciplinary evaluations have also appeared in the literature (Braun, Glanzel & Schubert, 2006).

As the h-index has gained currency, a number of criticisms have emerged (Bornmann et al., 2009). In turn, various adaptations and modifications to the h-index have been proposed (Alonso, Cabrerizo, Herrera-Biedma & Herrera, 2009). For example, observers have pointed out that the h-index does not give "credit" for highly cited articles (Egghe, 2006). Consider two journals with an identical h-index of 5 (i.e., each journal has five articles that have each been cited at least five time each). The five articles in the first journal are cited, respectively, 5, 5, 6, 7, & 8 times. The five articles in the second journal are cited, respectively, 5, 20, 30, 50, 100 times. The second journal is clearly more prominent in spite of the fact that its h-index is identical to the first journal. To address this discrepancy, the g-index was developed (Egghe, 2006). The g-index gives more weight to highly cited articles. The higher the g-index, the more highly cited articles are featured in a journal. Accordingly, g-index values are always greater than or equal to h-index values.

None of the proposed alternatives, however, have supplanted the h-index. The alternatives are often computationally complex and characterized by their own set of limitations (Alonso et al., 2009). The alternatives also tend to correlate highly with the h-index in real world comparisons, raising questions about the uniqueness of their contributions (Alonso et al., 2009). Consequently, the h-index remains the standard due its intuitive appeal, easy computation, and its robustness.

A journal's h-index value can be calculated with data from Thomson ISI, Elsevier's Scopus, or Google Scholar. The latter is still in a beta version and inefficiencies in its search algorithms are still in the process of being attenuated. Yet, despite its limitations, Google Scholar is seeing increasing use in citation-based analyses (Ashkanasy, 2007; Baneyx, 2008; Keloharju, 2008; Lee & Oyserman, 2009; Mingers, 2009; Moussa & Touzani, 2010). In part, this growing use is due to two key advantages Google Scholar offers that help address the limitations of Thomson ISI impact factors (Harzing & van der Wal, 2009; Moussa & Touzani, 2010).

First, the h-index citation window can be adjusted to suit the research culture of a given discipline. The h-index is not limited to a fixed timeframe. H-index values have been calculated using various citation windows, including one year (Braun et al., 2006), two years (Bador & Lafouge, 2009 in press), five years (Harzing & van der Wal, 2008; Moussa & Touzani, 2010) and longer (Olden, 2007; Saad, 2006; Vanclay, 2008a). In social work, for example, the citation window might be set to ten years to reflect the citation patterns within the discipline (Ha et al., 2006).

Second, relative to Thomson ISI, Google Scholar appears to offer greater access to relevant, cite-able content in the social sciences (Baneyx, 2008; Clarke, 2008; Harzing & van der Wal, 2008; Kousha & Thelwall, 2008; Kulkarni, Aziz, Shams & Busse, 2009; Walters, 2009). For example, in sociology, Jacobs (2009) found that Google Scholar captured more citations for every journal examined, including over twice as many citations for *Gender and Society*, compared to Thomson ISI. While h-index values derived from Thomson ISI and Google Scholar

are typically highly correlated, the latter produces higher h-index values due to the wider coverage of academic source material (Franceschet, 2010; Saad, 2006; Vanclay, 2008b).

These two rationales raise the possibility that a Google Scholar h-index may be a better measure of journal quality than Thomson ISI impact factors, at least in the social work profession. The flexible citation window, and wider coverage of social work and allied content, may yield more valid depictions of journal quality while simultaneously increasing the utility of the rankings by including more disciplinary journals.

Given the importance placed upon publication in top-tier disciplinary social work journals in tenure, promotion, and other professional decisions (Green, 2008; Seipel, 2003), this study examines the utility of the Google Scholar h-index with extensive compilation of disciplinary social work journals. Toward this end, ten year Google Scholar h-index values are compared with JCR impact factors from Thomson ISI. Since the h-index and impact factors both purport to evaluate the same construct—journal quality—they should, at least in theory, exhibit a relatively high correlation. As perhaps the first and most popular alternative to the h-index, the g-index is also compared to JCR impact factors. Since the g-index is a variation of the h-index, it is expected that the g-index will also correlated highly with impact factors.

Method

Data Sources

To obtain a comprehensive list of disciplinary social work journals, a number of sources were consulted. Included among these were NASW Press' (1997) *An Author's Guide to Social Work Journals*, Thyer's (2005) more recent listing of social work periodicals, and online sources such as Genamics JournalSeek (available at: http://journalseek.net/). The mission and aims of each periodical was examined whenever possible and journals judged to be inter-disciplinary were eliminated. This search produced a list of 84 disciplinary journals.

Impact factors for disciplinary journals that appeared in the JCR (2008) social work category were obtained from Thomson ISI. As implied above, this was the most current year at the time the study was initiated in January of 2010.

H-index values were computed using Harzing's (2010) Publish or Perish, version 2.8, available at (http://www.harzing.com/pop.htm). This free software program retrieves and analyzes academic citations using Google Scholar as the data source. This program have been used to conduct citation analysis in a number of disciplines (Ashkanasy, 2007; Franceschet, 2010; Keloharju, 2008; Lee & Oyserman, 2009; Mingers, 2009; Moussa & Touzani, 2010; Vanclay, 2008a). It is designed to compute h-index values for academic journals.

Procedures

To compute the h-value for each of the disciplinary journals, searches were conducted following the procedures outlined in Publish or Perish software manual. Where relevant, searches were conducted using spelling/grammatical variations (e.g., "and" and "&"). In addition, searches were conducted using each journal's print and online ISSN (when available). In keeping with recommendations that ten years is an appropriate citation window, the search parameters were set to cover the time period from 2000 to 2009 (Ha et al., 2006). In instances where we were able to determine that journals had changed their name during the ten year window, the search was adjusted to incorporate this fact. 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 trained graduate assistant. To assess inter-rater reliability, intraclass correlations were computed (Shrout & Fliess, 1979). Coefficients of .97 were achieved for both the h- and g-indexes, which may be viewed as an excellent level of agreement (Haut et al., 2002). Despite the passage of time between the two coding efforts, identical values were recorded in approximately 50% of the cases for h values and roughly 40% for g values, a difference that may reflect the more robust nature of the h-index. Differences between coders typically ranged from 1 to 3 across both measures, although occasionally larger differences were observed. Instances of disagreement were reexamined and discrepancies resolved within the parameters allowed by the beta version of Google Scholar (e.g., citations are updated on unknown basis) in April, 2010.

Data Analysis

Data analysis was conducted using SPSS version 17. Distributions were examined to ensure that the assumption of normality was supported for each variable. Although Spearman correlation coefficients are reported, analysis was conducted with both parametric and non-parametric statistical procedures. The same general pattern of results emerged in both cases.

Results

Of the 84 journals identified, h-index values were unobtainable for four journals: the *Black Caucus*, the *Journal of Forensic Social Work*, the *Journal of Rural Social Work & Social Development*, and *The Social Worker/Le Travaileur Social*. Based upon internet searches, it was unclear how active these four journals were during the time period examined in this study. This left a list of 80 disciplinary journals for which h- and g-index values could be calculated.

[Place Table 1 about here]

Table 1 lists these periodicals, which are ranked first by h-index values, second, by g-index values, and finally, by alphabetical order. The journals are grouped in sets of ten to enhance readability (Sellers, Mathiesen, Smith & Perry Robin, 2006). When available, Thomson ISI impact factors are also listed.

As can be seen, similar values emerged for many journals. This finding is consistent with other studies of journal quality using both expert opinion (Cnaan et al., 1994; Sellers et al., 2004) and citation approaches (Journal Citation Reports, 2008). Thus, while grouped into sets, the rankings tend to bleed from one set to another, particularly among the sets populated by less frequently cited journals.

Caution should be used when comparing closely ranked journals. Google Scholar is still in its experimental beta version. H-index values, while robust, can easily vary by one or two points due to idiosyncrasies in the interplay between Google Scholar algorithms and the sources from which citations are harvested. It should also be noted that Table 1 also features some journals that may not be currently active (e.g., the *Electronic Journal of Social Work*).

The journal with the highest h-index value was the *British Journal of Social Work*, followed closed by *Social Work*. The next journal was *Child & Family Social Work*, which is

not indexed in the JCR social work category. Thus, two of the top three journals were British-based. This finding is consistent with criticisms that Thomson ISI tends to disproportionally favor American sources relative to international sources.

Social Work Research and *Families in Society* both had the same h-index value, indicating similar levels of impact. The former, however, had a higher g-index value. The higher g-index value suggests that key articles in *Social Work Research* are cited more frequently relative to those in *Families in Society*. Similarly, *Social Work in Health Care*, *Social Work Education*, the *Journal of Gerontological Social Work*, and *Administration in Social Work* all had identical h-index values. The differing g-index values imply that key articles in the former periodical are more frequently cited that than those in the latter. In this sense, the g-index can be used to help distinguish between journals that have similar h-index values.

JCR Impact factors were available for 19 of the disciplinary journals listed in Table 1. As expected, both the h-index and the g-index were highly correlated with impact factors (r_s = .86, $p < .001$, r_s = .91, $p < .001$, respectively). In keeping with research in other disciplines (Bornmann et al., 2009; Vanclay, 2008a), the h-index and g-index values were very highly correlated (r_s = .99, $p < .001$). These finding are consistent with the fact that all three metrics are based upon the use of citation counts to measure the same construct—journal quality. Below, the findings are compared to the results in other disciplines and the implications discussed as they intersect the social work profession.

Discussion

This study examined the utility of a new method for ranking social work journals, the Google Scholar h-index, and a related alternative, the g-index. As expected, both indices correlated highly with the current "gold standard" for ranking journal quality, Thomson ISI impact factors (Olden, 2007). In addition, the Google Scholar h-index was able to provide empirical rankings for substantially more disciplinary journals relative to the JCR.

This study provides initial validation of the Google Scholar h-index by illustrating concurrent validity with an established measure of journal quality, Thomson ISI impact factors.

The high correlations reported in this study (e.g., r_s = .86) are consistent with findings reported in other disciplines (Ashkanasy, 2007). Correlations between impact factors and h-index values have included coefficients of .87 in chemistry (Bornmann et al., 2009), .73 in ecology (Olden, 2007), .88 in forestry (Vanclay, 2008a), .59 in pharmacology, .88 in psychiatry (Bador & Lafouge, 2009 in press), and a range of values from .63 to .89 in seven different sub-fields within business and economics (Harzing & van der Wal, 2009).

The strong correlations are consistent with the premise that the Google Scholar h-index and Thomson ISI impact factors are measuring the same underlying construct, namely, journal quality. However, the h-index used in the study employed a ten year citation window that represents a better fit with the profession's research culture (e.g., the profession's long knowledge self-life) (Journal Citation Reports, 2008). This suggests that the Google Scholar h-index may be a more valid measure of journal quality than JCR impact factors. In addition to increased validity, the Google Scholar h-index also provides rankings for a substantial number of disciplinary journals that are not indexed by Thomson ISI.

While the results may be of interest to many professional stakeholders, the implications are particularly important for faculty members. Publication in top tier, disciplinary social work journals is often a fundamental factor in tenure, promotion, and annual review assessments (Green, 2008; Seipel, 2003). Since Thomson ISI purports to include only the leading journals in the world, journals listed in the JCR social work category are often viewed as top tier, disciplinary periodicals (Green et al., 2002; Green & Baskind, 2007; Jenson, 2005; Olden, 2007). The vast majority of disciplinary journals, however, are not indexed in the JCR social work category.

This can create problems assessing the quality of publications that appear in social work journals that are not indexed by Thomson ISI. For instance, faculty members may have a difficult time substantiating the quality of the journals in which their work appears. While in the past, the profession may have been able to rely upon shared understandings of journal quality,

the proliferation of new social work journals increasingly limits the ability of faculty to assess journal quality via reputation (Thyer, 2005; Sellers et al., 2004).

The Google Scholar h-index provides an alternative empirical method for social work faculty to assess journal quality. For instance, junior faculty members constructing tenure and promotion narratives can use the Google Scholar h-index to document the quality of the periodicals in which they publish. A similar process can be used in annual performance evaluations to document the quality of work disseminated in disciplinary periodicals.

Toward this end, it is important to note that the vast majority of disciplinary journals depicted in Table 1 are ranked ahead of the bottom ranked journal indexed by Thomson ISI. The lowest ranked periodical in the JCR social work category appears in the 7th set (i.e., *Asia Pacific Journal of Social Work and Development*). Indeed, based solely upon the h-index, perhaps the most robust measure, 65 disciplinary journals are ranked equal to or above the lowest ranked Thomson ISI journal.

Put differently, the range covered by the journals listed in the JCR social work category encompasses roughly 80% of disciplinary journals delineated in Table 1. Thus, as measured by h-index, most of the social work journals listed in Table 1 are of equivalent quality to those listed by JCR. This finding is consistent with research conducted in other disciplines illustrating that non-indexed journals can have h-index values comparable to those indexed by Thomson ISI (Harzing & van der Wal, 2008).

For institutions that consider placement in Thomson ISI indexed journals evidence of publication in 1st-tier journals, these findings provide a new way to document 1st-tier status. The concurrent validity provided by the high correlation between the Google Scholar h-index and ISI impact factors and supports the notion that most disciplinary journals can also be understood as top-tier journals, even though they are not indexed in the JCR social work category. Faculty are no longer dependent upon an Thomson ISI listing to document publication in top-tier venues. Social workers who have published widely in disciplinary journals can now construct a stronger,

empirically-based argument when marshalling a case for tenure, promotion, annual review, and other professional decisions.

It should also be noted that Google Scholar is free, as is the software used to calculate the h- and g-indices (i.e., Harzing's Publish or Perish, available at http://www.harzing.com/pop.htm). The JCR, on the other hand, are a subscription service. Faculty at institutions that cannot afford the relatively expensive subscription fee may find the Google Scholar h-index particularly useful, as might social workers unaffiliated with an academic institution. Google Scholar is also a practical tool for scholars trying to locate literature either by an author or on a subject. In short, it is helpful for essentially anyone who writes or teaches.

Limitations

Like other methods for assessing journal quality, the Google Scholar h-index is characterized by a number of limitations of which readers should be aware. Citation-based approaches are premised on the assumption that higher quality work will be cited more frequently. Un-cited work, however, can still shape discourse (MacRoberts & MacRoberts, 2010). Thus, while citation-based approaches represent one way to document impact, other methods are often equally important and, in some cases, perhaps better at illustrating and documenting constructs such as impact and quality.

In addition, citations may be listed inaccurately (Spivey & Wilks, 2004), journal issues may be missing from databases (Holden et al., 2008), and Google Scholar may access more non-academic citations than Thomson ISI (Falagas, Pitsouni, Malietzis & Pappas, 2008). In short, metrics like the h-index or impact factors provide an approximation of journal quality, not a definitive picture. While such metrics may be relatively reliable, they are not completely valid measures of quality.

It should be reiterated that caution should be exercised when comparing journals when examining journal rankings such as those featured in Table 1. H-index values can change over time and, as implied above, random citation errors exist (Bornmann et al., 2009). These

variables can affect the individual ranking of specific journals, particularly periodicals with low h-index values which can be disproportionately impacted by citation errors.

Conversely, it should also be noted that the h-index is quite robust to measurement problems (Mingers, 2009). In addition, Google Scholar appears to access substantially more citations than Thomson ISI in the social sciences (Baneyx, 2008; Jacobs, 2009), and the majority of unique citations appear to be academic (Kousha & Thelwall, 2008). Evidence also suggests Google Scholar undercounts citations (Baneyx, 2008). Thus, while providing boarder coverage of the social sciences than Thomson ISI, Google Scholar does not access the full universe of academic citations (Harzing & van der Wal, 2008). This suggests that the actual h- and g-index values in Table 1 are likely higher than those reported.

Finally, citation rates vary from discipline to discipline. H-index values (as well as impact factors) should be not used to compare journals across disciplines (Seglen, 1997). At a minimum, some type of correction must be applied to make comparisons to correct for different disciplinary cultures (Barendse, 2007; Mingers, 2009). Ideally, journals should only be ranked within a given discipline (Cameron, 2005; Leydesdorff, 2008).

Conclusion

We are sympathetic to those who question the quantification of journals and other aspects of the social science project (Martinez-Brawley & Zorita, 2007). However, given the widespread use of journal rankings in tenure, promotion, and other professional decisions, it seems advisable, at least from a pragmatic perspective, to ensure that the method used to evaluate journals is as disciplinary appropriate as possible. Presently, journal quality is assessed using either personal judgment or Thomson ISI impact factors. Both approaches have been criticized as "inadequate and inappropriate" methods of ranking journals in social work (Seipel, 2003, p. 85).

In response, this study has introduced a new method for ranking disciplinary social work journals. The Google Scholar h-index can be tailed to fit the profession's research culture, resulting in enhanced validity, and can be readily computed for essentially any disciplinary

journal. This new method is likely to be of interest to social work faculty, and perhaps junior faculty in particular. Given the increasing weight being placed upon scholarship in tenure, promotion, and other professional decisions, the Google Scholar h-index may provide an improved method to accurately assess the quality of social work journals.

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Table 1

Disciplinary Social Work Journals (N = 80) Ranked by H-Index Values

Journal	ISI IF	h-index	g-index
British Journal of Social Work	.816	38	52
Social Work	1.000	36	50
Child and Family Social Work		32	40
Social Service Review	.787	30	45
Research on Social Work Practice	.982	29	44
Health and Social Work	.646	27	37
International Journal of Social Welfare	.631	26	33
Social Work Research	.632	25	34
Families in Society	.211	25	31
Journal of Social Work Education	.697	24	34
1st Set			
Child and Adolescent Social Work Journal		20	28
Social Work in Health Care	.447	19	26
Social Work Education		19	25
Journal of Gerontological Social Work		19	24
Administration in Social Work	.211	19	23
Qualitative Social Work		17	24
Children and Schools		17	23
Journal of Social Work		17	23
Journal of Gay and Lesbian Social Services		17	22
Journal of Sociology and Social Welfare		16	19
2nd Set			
International Social Work	.331	15	22
Affilia	.358	15	19
European Journal of Social Work		15	19
Journal of Social Work Practice	.333	15	18
Australian Social Work		14	21
Social Work with Groups		14	21
Journal of Human Behavior in the Social Environment		14	18
Journal of Social Service Research	.140	14	18
Journal of Technology in the Human Services		13	18
Clinical Social Work Journal	.623	12	19
3rd Set			
Social Work in Public Health		12	18
Journal of Ethnic and Cultural Diversity in Social Work		12	16
Journal of Social Work Practice in the Addictions		10	13
Journal of Teaching in Social Work		10	12
Smith College Studies in Social Work	.100	9	15
Practice		9	13
Journal of Religion and Spirituality in Social Work		9	12
Social Development Issues		9	12

Journal of Family Social Work		9	10
Social Work in Mental Health		9	10
4th Set			
Canadian Social Work Review		8	12
Journal of Social Work Research and Evaluation		8	10
Social Work and Social Sciences Review		8	10
Critical Social Work		8	9
Journal of Evidence-based Social Work		7	11
Journal of Social Work in Long-Term Care		7	11
Journal of HIV/AIDS and Social Services		7	10
Social Work and Society		7	10
Journal of Social Work in End-of-Life and Palliative Care		7	9
Journal of Progressive Human Services		7	8
5th Set			
Journal of Psychosocial Oncology		6	10
Advances in Social Work		6	9
Journal of Baccalaureate Social Work		6	9
Psychoanalytic Social Work		6	7
Rural Social Work		6	7
Social Work & Christianity		6	7
Indian Journal of Social Work	.018	6	6
Journal of Applied Social Sciences		5	6
Journal of Social Work in Disability and Rehabilitation		5	6
School Social Work Journal		5	6
6th Set			
Arête		4	6
Asia Pacific Journal of Social Work and Development	.087	4	6
Professional Development		4	6
Journal of Comparative Social Welfare		4	5
Canadian Social Work		4	4
Social Work Review		4	4
Caribbean Journal of Social Work		3	5
The New Social Worker		3	5
Journal of Social Work Values and Ethics		3	4
Journal of Changsha Social Work		3	3
7th Set			
Journal of Practice Teaching in Social Work and Health		3	3
The Hong Kong Journal of Social Work		3	3
The Spirituality and Social Work Forum		2	4
Reflections: Narratives of Professional Helping		2	3
Social Work Forum		2	3
Annual of Social Work		2	2
Electronic Journal of Social Work		2	2
IUC Journal of Social Work Theory and Practice		2	2
Japanese Journal of Social Services		2	2
China Journal of Social Work		1	2