

The Campbell Collaboration: Providing Better Evidence for a Better World

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Abstract

In this article, we trace the development of the Campbell Collaboration and its renewed efforts to build a world library of accurate, synthesized evidence to inform policy and practice and improve human wellbeing worldwide. Campbell systematic reviews and related evidence synthesis products provide unbiased summaries of entire bodies of empirical evidence, making them uniquely useful sources of information for policy and practice. With recent changes in organizational structure and new leadership, the Campbell Collaboration is poised to dramatically increase the production, dissemination, and use of rigorous syntheses of research on social, economic, and behavioral interventions. Campbell provides opportunities for social work scholars, practitioners, and consumers to contribute to knowledge about the processes and outcomes social, behavioral, and economic interventions.

“The Campbell Collaboration promotes positive social and economic change through the production and use of systematic reviews and other evidence synthesis for evidence-based policy and practice” (Campbell Collaboration mission statement).

As concerned citizens, consumers, service providers, and knowledge brokers, we seek to understand complex social and economic problems. We want comprehensive and reliable evidence about the effectiveness and costs of alternative strategies for solving these problems to guide decisions. What are some effective ways to reduce bullying in schools? Can home-based interventions reduce the recurrence of child abuse and neglect? What are the elements of successful welfare-to-work programs? How do successful refugee resettlement programs operate? We can find dozens of studies on each of these questions, although the methods and results of these studies will probably vary if studies are conducted by different teams, with diverse populations, or in a variety of contexts. These natural variations provide valuable opportunities to understand the range of effects we can expect in real world contexts and to identify potential moderators of the effectiveness of certain interventions. Instead of ignoring this complexity, we can use it to advance knowledge for practice and policy.

Single studies rarely provide sufficient guidance for policy or practice. Replications are needed to gauge whether results are consistent across samples and settings. But distilling valid information from any body of empirical research is a highly complex task. A variety of strategies are available to guide research syntheses. These include strategies that oversimplify the process, those that are likely to result in bias and error, and strategies designed to minimize bias and error at each step. The Campbell Collaboration uses systematic review methods, meta-

analysis, and related approaches to produce unbiased, accurate summaries of empirical evidence to inform policy and practice. This sets Campbell apart from many other research synthesis enterprises.

Research synthesis has become an interdisciplinary science, informed by empirical research on the reliability and validity of different methods for identifying, analyzing, and synthesizing results across studies. This work has improved understanding of common sources of bias and error in research reviews (e.g., Rothstein, Sutton, & Bornstein, 2005) and to the development of international guidelines and standards for the conduct and reporting of systematic reviews and meta-analysis (Campbell Collaboration Steering Group, 2016a and 2016b; Chandler, et al., 2012; Higgins & Green, 2011; Institute of Medicine, 2011; Moher et al., 2009, 2015). Unfortunately, most published research reviews do not follow these guidelines (Bastian et al., 2010; Littell, 2013, 2016). Reviews that do not follow these guidelines are more likely to be subject to bias, so their findings may not provide a sound basis for decision-making regarding policy and practice.

Enervated by an international research network, the Campbell Collaboration is building a world library of synthesized evidence to inform social and economic policy and practice in the fields of education, criminology, international development, and social welfare. Other areas will be added as Campbell expands. Founded in 2000, the Campbell Collaboration is a voluntary, nonprofit organization that aims to enhance the evidence base, so that decision makers – from consumers to world leaders – are better equipped to make informed decisions.

Most Campbell systematic reviews focus on the effects of interventions, but some synthesize evidence on trends or associations (e.g., risk factors and outcomes). Campbell

systematic reviews of intervention effects typically include both randomized trials and high-quality quasi-experimental studies of impact. Campbell reviews cover a wide range of topics including Scared Straight programs, welfare-to-work strategies, mindfulness based stress reduction, conditional cash transfers in education, school-based programs to prevent bullying, school-based feeding programs, parenting programs, and kinship care.

The Campbell Library includes protocols for systematic reviews that have been completed or are in progress, full reports on completed reviews (including technical details and supporting materials), plain language summaries of Campbell reviews, policy briefs, methods policies and guidelines, and methods discussion papers. All documents in the Campbell Library are freely available (open access) to the public.

The Campbell Collaboration's "influence on social science, in a relatively short period of time, is evidenced by the sheer number of publications, presentations at conferences, and references to its work" in diverse settings (Petrosino, 2013, p. 9). Campbell is becoming *the* source for synthesized evidence in the social sciences.

However, the commissioning and production of systematic reviews is growing far more rapidly than the Campbell Library. Tens of thousands of reviews are now produced each year (Bastain et al., 2010; Littell, 2016). Initiatives such as the What Works Clearinghouse in the United States, and the What Works Centers in the United Kingdom, commission and publish systematic reviews. It is increasingly common to find multiple reviews on the same topic being commissioned by different agencies in different countries, or even the same country. This results in unintentional and unnecessary duplication of effort, which is wasteful (at best) and often leads to confusion amongst consumers when different reviews on the same topic come to

different conclusions. Different conclusions are often the result of variations in the methodological quality of reviews. As the global repository of systematic reviews, there is an opportunity and challenge for Campbell to work with commissioning agencies to coordinate their demand for evidence on social, economic, and behavioral topics.

History of the Campbell Collaboration

In the late 1990s, Iain Chalmers, a co-founder of the Cochrane Collaboration, began to explore the development of a group that would synthesize empirical evidence on the social services. The Cochrane Collaboration's success in synthesizing evidence on health care led Chalmers and others to wonder about the potential for similar groups in other sectors. Indeed, in 1996, Adrian Smith, then President of the Royal Statistical Society, said,

“What’s so special about medicine? We are, through the media, as ordinary citizens, confronted daily with controversy and debate across a whole spectrum of public policy issues. But typically, we have no access to any form of systematic “evidence base”—and therefore no means of participating in the debate in a mature and informed manner. Obvious topical examples include education—what does work in the classroom?—and penal policy—what is effective in preventing re-offending?” (Smith, 1996, cited in Petrosino 2013, p. 10).

While many British social scientists were wary of applications of controlled trials and meta-analysis in social and educational contexts, researchers in the United States were developing experimental and quasi-experimental methods for evaluating the impacts of social programs (Campbell & Stanley, 1963; Cook & Campbell, 1979) and methods for synthesizing

such results across studies (Cooper & Rosenthal, 1980; Hedges & Olkin, 1985; Wolf, 1986).

Chalmers and others were convinced that, in order to succeed, a Cochrane-like effort in the social sciences would be led by researchers in the U.S.

In 1998, Chalmers met with Robert Boruch, a Professor of Education at the University of Pennsylvania in Philadelphia. Chalmers had been impressed with Boruch's work on the uses of randomized experiments for program planning and evaluation (e.g., Boruch, 1975), and suggested that Boruch start an organization to synthesize evidence on social and educational interventions, with the assistance of Frederick Mosteller, an eminent Harvard statistician, and Mosteller's protégée, Anthony Petrosino. Chalmers also suggested that the new organization could be named for Donald T. Campbell (1916-1996), the American sociologist who envisioned an "experimenting society" comprised of a "disputatious community of 'truth seekers'" devoted to improving social policy through rigorous evaluation and analysis (Campbell, 1998, p. 35).

Intrigued by these ideas, Boruch enlisted the participation of Haluk Soydan, then at the Swedish National Board of Health and Welfare. Together, they explored interest among other potential collaborators in the U.S., Europe, and elsewhere (Schuerman et al., 2002).

Chalmers organized an exploratory meeting in 1999 at the School for Public Policy at the University College London. A series of papers was prepared for the London meeting to make the case for the Campbell Collaboration (Davies, Petrosino, & Chalmers, 1999). This led to the inaugural meeting of the Campbell Collaboration with 85 people from 13 countries in attendance in Philadelphia in 2000. Involvement of key British social scientists (including David Farrington and Geraldine Macdonald) and prominent American social work scholars (such as John Schuerman and Eileen Gambrill) and methodologists (Betsy Becker, Michael Borenstein,

Larry Hedges, Hannah Rothstein, Will Shadish, and others) generated great enthusiasm and high hopes for the Campbell Collaboration (Davies & Boruch, 2001).

In 2001, the Campbell Collaboration was formally registered as a nonprofit foundation in the Commonwealth of Pennsylvania (USA). The new Campbell Collaboration had a small corporate Board and an international Steering Group, comprised of representatives of its Coordinating Groups (CGs) in Crime and Justice, Education, Methods, and Social Welfare. These CGs would oversee the production of Campbell systematic reviews in their substantive areas or, in the case of the Methods group, develop empirical methods and policies to guide Campbell reviews. Early funding was obtained from the Smith Richardson Foundation.

Dorothy de Moya became the first Executive Director of the Campbell Collaboration. Based in Philadelphia, Dr. de Moya organized annual colloquia, biannual Steering Group meetings, and online publishing of Campbell reviews. To this day, Campbell colloquia bring hundreds of people together every year, usually in North America or Europe, to discuss issues, results, and unmet needs for research synthesis.

Early efforts to develop an electronic register of controlled trials in the social, psychological, education, and criminological sectors (Petrosino, Boruch, Rounding, McDonald, & Chalmers, 2000) were not sustained, given a lack of resources to support this activity and growing interest in including rigorous quasi-experimental studies in Campbell reviews.

In 2005, Campbell entered into a two-year agreement with the American Institutes for Research (AIR) and moved its headquarters to AIR offices in Washington, DC. Phil Davies was named the new Executive Director of the Campbell Collaboration. AIR provided Campbell with much-needed infrastructure and support, and Davies created new opportunities for Campbell

to engage with policy makers in the US, UK, and elsewhere. However, the end of this relationship marked a potentially difficult time for Campbell.

Fortunately, with new funding from the Norwegian Ministry of Health, Campbell moved its headquarters to Oslo, Norway in 2007. Steering Group Co-Chair, Arild Bjørndal established the offices of the Campbell Secretariat at the Norwegian Knowledge Centre for the Health Services (NOKC or Kunnskapssenteret) with a new Executive Director, Eamonn Noonan. In early 2016, the NOKC was incorporated into the Norwegian Institute of Public Health (NIPH or FHI). The Campbell Collaboration continues to receive funding from the Norwegian Ministry of Health, which supports Campbell's Oslo staff and some communications and editorial services.

Campbell Centers and Groups

At the suggestion of Niels Plough (now at Statistic Denmark), the Danish National Centre for Social Research (SFI) began hosting the Nordic Campbell Centre in Copenhagen in 2001. Under the leadership of Merete Konnerup, then Mette Deding, and later Lisbeth Pedersen, this center (now called SFI Campbell) became involved in the production of plain language summaries of Campbell reviews for consumers. This so-called Users Group was reorganized and renamed in 2014, under the leadership of Robyn Mildon and the late John Westbrook. The new Knowledge Transfer and Implementation (KTI) Coordinating Group has a broader mandate that includes the production of systematic reviews on topics related to knowledge transfer and implementation, along with production of some plain language summaries. John Westbrook has been succeeded by Cindi Cai of AIR.

An International Development Coordinating Group (IDCG) joined the Campbell Collaboration in 2012. Initially led by Howard White and Peter Tugwell, the IDCG is supported by the International Initiative for Impact Evaluation (3ie) with staff in New Delhi, London, and Washington DC. The IDCG has produced Campbell systematic reviews on a range of topics on social care, economic development, nutrition, agriculture, and environmental issues in low and middle income countries. Together, 3ie and IDCG played an important role in the adoption of systematic reviews in the field of international development. 3ie also organized major international conferences in Cairo (2009), Cuernavaca (2011), and Manila (2014) which promoted rigorous evidence and systematic reviews, as well as a mini-colloquium on systematic reviews in Dhaka (2012).

The Campbell CGs elect their own Co-chairs, who serve time-limited terms. Each CG also has an editorial staff (Editors, Associate Editors, and Managing Editors). For CGs to be successful, co-Chairs must combine authority in their respective field with a firm understanding, and preferably experience, of evidence synthesis. Editors are appointed by CGs and approved by the Editor-in-Chief.

The Education CG produces reviews on diverse issues in early childhood, elementary, secondary, and post-secondary education; topics include academic programs, teacher qualifications, testing, and a wide variety of school-based interventions. Leaders of the Education CG have been actively involved in professional, policy, and scholarly work in a number of countries.

The Crime and Justice CG produces systematic reviews on policing, law enforcement, judicial practices, crime prevention, and so forth. The group has a robust international Steering

Committee with prominent members on several continents and has developed good relationships with its policy and practice communities, especially in policing.

The Social Welfare CG produces reviews on employment and welfare, housing and homelessness, mental health, child welfare, family services, and aging. The Group has an Editorial Board. It offers an annual award, named for the late Leonard Gibbs, for Campbell reviews that contribute to social welfare policy or practice. The Social Welfare CG has also produced joint reviews with the Cochrane Developmental, Psychosocial, and Learning Problems Group, the Cochrane Public Health Group, and others.

The Methods CG drafts policy briefs and guidelines for Campbell reviews, in addition to providing advice on specific protocols and reviews. It includes an advisory group and subgroups responsible for specific methodological topics, such as information retrieval, process and implementation issues, and statistics. There are also joint Cochrane-Campbell methods groups covering equity issues and economic methods. The Campbell training group, which began as a Methods sub-group, has been reconstituted as its own CG under the new Campbell strategy.

Evolution of Research Synthesis Methods

Methods of research synthesis evolved over the past century, with rapid advances in systematic review and meta-analytic techniques in the last two decades. Contrary to popular misconceptions, systematic review methods and meta-analysis originated in the social sciences: in psychology and education, not in medicine. Over time, these methods have appeared in virtually all disciplines, including astronomy, economics, business studies, environmental

sciences, evolutionary biology, and physics (Chalmers, Hedges, & Cooper, 2002; Petticrew & Roberts, 2006).

In recent years, statisticians and methodologists have taken the lead in the development of new research synthesis methods, such as network meta-analysis for assessing the comparative effectiveness of multiple interventions (Salanti, 2012; Wilson, Tanner-Smith, & Mavridis, 2015), and methods to include multiple, dependent outcome measures in meta-analysis (Hedges, Tipton, & Johnson, 2010). Information scientists have contributed to our understanding of effective and efficient ways to identify relevant published and unpublished studies (Hammerstrøm et al., 2009) and using data mining and machine learning techniques to screen and code study documents (Thomas et al., 2011; Wallace et al., 2010). Others have focused on developing methods for synthesizing results of qualitative studies or integrating findings from qualitative and quantitative research (e.g. Petticrew et al., 2013).

Despite these impressive advances, the use of current research synthesis methods lags behind applications of traditional, nonsystematic approaches. Non-systematic reviews still make up the bulk of published reviews in the social sciences (Littell, 2016) and in medicine (Bastain, Glasziou, & Chalmers, 2010). For example, in economics, the main journal devoted to reviews, *The Journal of Economic Literature*, retains the traditional model of narrative literature reviews by leading scholars.

To promote the use of rigorous research synthesis methods, the Campbell Collaboration has published guidelines and standards for systematic reviews. The Campbell Collaboration also offers training for researchers interested in producing systematic reviews. Campbell has produced two sets of training videos, that are freely available on the Campbell website (Polanin

& Pigott, 2013). The introductory series covers problem formulation, literature searching, coding and data extraction, basic effect size calculations, and basic meta-analysis. The advanced series covers more complex effect size calculations, moderator analysis (both categorical models and meta-regression), fixed versus random effects models, cluster adjustments in computing effect sizes, using robust standard errors for dependent effect sizes, measuring and assessing study quality, graphical displays in meta-analysis, and interpreting the practical significance of meta-analysis findings.

Campbell offers in-person training in systematic review methods at annual colloquia and conferences. Campbell officers have conducted workshops and organized interest groups at sector-specific conferences, such as the Society for Social Work and Research and the American Educational Research Association.

Process and Production of Campbell Systematic Reviews

The development of a Campbell systematic review (SR) begins with identification of a relevant and researchable topic. Often the impetus for a Campbell review comes from researchers who are curious about trends across studies or are aware of conflicting evidence and seek to better understand or resolve controversies in a field of practice. Increasingly, the impetus for systematic reviews comes from policy makers and practitioners seeking answers to pressing questions about populations, problems, programs, policies, or practices.

The first formal step in a Campbell SR is the production of a Title Registration Form (TRF), in which authors describe the nature and scope of the issue(s) to be addressed in the proposed review. The TRF summarizes authors' initial thoughts on the population(s) or

problem(s), interventions, comparisons, and outcomes of interest (the PICO) in the review, along with a statement of authors' potential conflicts of interest. The TRF is submitted to the Managing Editor of a Campbell Coordinating Group (CG), where it undergoes an internal evaluation. At this stage, CGs are interested in the proposed scope of the review, composition of the systematic review team. Multiple authors are needed to complete a systematic review and to cover the substantive and methodological knowledge and skills needed. When accepted by the relevant CG Editor, the TRF is published in the Campbell Library as an open access document.

Authors then complete a full protocol for their Campbell review, following detailed guidelines available on the Campbell website, including the Methodological Expectations for Campbell Reviews, covering both the conduct and reporting of reviews (Campbell Collaboration Steering Group, 2016a and 2016b). Using a standard template, the protocol lays out in detail how the review will be conducted (Campbell Steering Group, 2014). Protocols usually go through an internal editorial review before they are sent to external peer reviewers, including both substantive and methodological experts. Accepted protocols are published in the open access Campbell Library.

Full reports for completed Campbell systematic reviews go through the same internal and external editorial processes used for protocols, usually with the same set of experts who were involved in assessing the protocol for the review. Comparisons are made between the protocol and completed review, and editorial staff assess the extent to which completed reports meet Campbell standards. Once accepted, the full report is published in the Campbell

Library, along with a plain language summary. Authors retain the right to publish other versions of their review in journals and other outlets.

Campbell has a “fast track” for systematic reviews that are expected to meet funders’ time schedules. Fast-tracked reviews involve agree-upon tasks and timelines, with increased coordination of steps in the editorial processes.

It is possible for authors to register Campbell reviews in more than one CG or to co-register a review in Campbell and Cochrane simultaneously. In these cases, a coordinated editorial process has been agreed to meet the needs of authors and multiple groups.

Recent Developments and Next Steps

In 2015, following an international search, the Campbell Steering Group hired Howard White as Chief Executive Officer (CEO). Dr. White obtained new funding for the work of the Campbell Collaboration from the Hewlett Foundation and the American Institutes for Research (AIR).

The Campbell Steering Group then embarked on a year-long process of governance reform, culminating in May 2016 in the appointment of a new Board of Directors, the creation of an annual Members’ Conference, and the formal dissolution of the Steering Group. The Steering Group had been an internal governance body, comprised of representatives of each of the CGs. The Steering Group unanimously agreed that Campbell needed an external board comprised of individuals with more diverse skill sets. The new Board includes one elected representative of all of the Campbell CGs, one elected representative of all major sponsors, and five members at large, selected for their expertise.

The first meeting of the new Board in September 2016 provided an opportunity to review the history and development of the Campbell Collaboration to date. Looking back, it was clear that Campbell has consistently produced high-quality systematic reviews, but has not yet reached the potential that Iain Chalmers and others envisioned for the Campbell Collaboration at the end of the last century. The Campbell Library is not yet as comprehensive or up-to-date as we would like it to be. Many topics that are relevant for policy and practice are not yet covered in the Campbell Library, and some older Campbell reviews need to be updated to include more recent studies. Further, we have not yet captured the impact of Campbell reviews on policy and practice.

Why has Campbell not yet reached its potential? Some observers have speculated that, unlike health care workers, many social service professionals (social workers, educators, law enforcement officials, and others) do not think their work has strong scientific foundations and, therefore, do not routinely seek research or reviews that can inform their practice and policy. While health care professionals at all levels have fueled and sustained interest in Cochrane systematic reviews since the early 1990s, the demand for systematic reviews in social services has been less consistent. Further, funding for research and reviews on topics related to social, education, and economic issues has lagged behind funding for reviews on health issues.

To raise the profile of systematic reviews in social policy, expand the Campbell Library, and develop a demand-driven approach to generating policy-relevant reviews, CEO Howard White and colleagues developed a new strategy for the Campbell Collaboration. This involves building the evidence base, improving research synthesis methods, supporting the use of evidence, increasing capacity to produce high-quality reviews, and building and sustaining a

strong institutional base and collaborative network (Campbell Collaboration, 2016). To build the Campbell Library, we aim to increase the editorial capacity of each of the Coordinating Groups (CGs) and develop new CGs on topics such as disabilities, food security, and management and business. In the future, we expect that the Campbell Collaboration will produce a wider array of evidence synthesis products, to identify current gaps in knowledge, improve synthesis methods, broaden applications, and improve understanding and use of synthesized evidence.

Campbell has developed strategic partnerships with a number of other organizations including, the Cochrane Collaboration, the Norwegian Institute of Public Health, the EPPI Centre, the International Initiative for Impact Evaluation (3ie), Joanna Briggs Institute, the Global Evidence Synthesis Initiative (GESI), and Evidence Synthesis International (ESI). In addition, Campbell is moving to develop more regional and national centers. In 2016, a UK Campbell Center was established at Queen's University Belfast.

Campbell colloquia have been expanded to include larger gatherings coordinated with partner organizations. The Campbell Collaboration organized the first What Works Global Summit in London in September 2016, along with 3ie, Sense About Science, and the Centre for Evidence and Social Innovation at Queen's University Belfast. Along with Cochrane and others (Joanna Briggs Institute, Guidelines International Network, and the International Society for Evidence Based Health Care), Campbell is planning the first Global Evidence Summit in Cape Town (South Africa) in September 2017 (see <http://www.globalevidencesummit.org/>).

Finally, Campbell is an active participant in global advocacy and funding for research synthesis activities, along with its Evidence Synthesis International partners. As Iain Chalmers has said, "We need to get the public and politicians angry about changes made on the basis of

inadequate evidence” (Chalmers, quoted in Goudie, 2015). And we need to develop and strengthen the evidence base for social, behavioral, and economic interventions.

Individuals and organizations play many roles in the Campbell Collaboration: suggesting, funding, or co-authoring Campbell systematic reviews; lending expertise and advice as peer reviewers or members of an advisory or editorial group; attending or hosting workshops and meetings; organizing interest groups or centers; and helping others learn how to conduct, assess, and use evidence synthesis wisely.

We hope that this special issue of *Research on Social Work Practice* will increase awareness of, and interest in, the Campbell Collaboration and encourage people to take up the work and the roles we have described.

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