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Outcomes of social work intervention in the context of evidence-based practice

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Abstract

- **Summary:** This article explores the general outcomes of social work interventions as reported in journal review articles that have examined that question since 1990.
- **Findings:** There is now a large body of evidence supporting the effectiveness of a wide range of social work interventions with a wide range of social problems and populations. It is reasonable to conclude that approximately two-thirds of clients served by social workers benefit in measurable ways. These positive outcomes remain, even after controlling for publication and investigator bias. The reviews examined in this article also suggest that theoretical orientation does not account for differential outcomes, however, differential intervention outcomes have been found when contrasting alternate interventions and specifying target problem or condition.
- **Applications:** What are currently needed are studies and systematic reviews that contrast credible, alternative intervention options under highly specific conditions. Using comparative effectiveness strategies, specification of differential effectiveness should now be a focus of research to answer questions such as what intervention, under what circumstances, for what problem, under what conditions, in what population, has what effect and at what cost. Evidence-based practice will be strengthened and enriched to the extent such systematic reviews become available. Additionally, findings are sufficiently encouraging to recommend that promising social work interventions with specific social problems and specific populations be more carefully studied with particular attention to questions of cost-effectiveness since few studies have used designs or measures that examine cost-effectiveness or cost-benefit questions.

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Keywords

comparative effectiveness research, effective social work, evidence-based practice, social work interventions, social work outcomes

Evidence-based practice (EBP) was born in medicine out of a concern that too often medical interventions were being provided without due consideration given to the research evidence supporting effectiveness (Mills, Montori, & Guyatt, 2004; Sackett et al., 1996; Sackett, Richardson, Rosenberg, & Haynes, 1997). The early proponents of evidence-based medicine (EBM) sought to correct this problem by establishing educational programs designed to teach the principles of EBM including development of critical appraisal skills for assessing research evidence pertaining to intervention outcomes (Bilsker & Goldner, 2004). While the term EBM did not appear in publications until 1991 (Guyatt, 1991), concern with outcomes in healthcare emerged earlier, in the early 1970s (Cochrane, 1972). While EBP was not promoted in social work until the late 1990s (Gambrill, 1999) concern about the effectiveness of social work intervention and outcomes emerged earlier than in medicine. In social work concern with outcomes was evident in the 1960s and especially in the 1970s (Mullen, Dumpson, & Associates, 1972). In social work greatest attention was given to the outcomes of micro-level practice, at the time called social casework (Fischer, 1973). Because research pertaining to social work effectiveness and outcomes is so central to EBP it is timely to ask once more what is known about the general outcomes of social work intervention. In this article we examine findings gleaned from reviews of social work intervention outcomes published since 1990. We examine these reviews in chronological order since they tend to build upon one another, and because they ask somewhat different questions about outcomes. Collectively these reviews tell an interesting and informative story about what can now be concluded regarding the general effectiveness of social work interventions.

While much has been written and debated about social work outcomes during the past 50 years, we acknowledge at the outset that some see this question as meaningless, or distracting. There are two principle objections. First, some consider the question too broad to be meaningful. Second, since the specific interventions typically used by social workers are, or at least can be provided by other professionals, some would argue that the question should be refocused and asked about those specific interventions. We think these are appropriate objections but we would argue that appropriate or not, much attention has been given to the broader question and it is worthwhile to become informed about what those who have examined this question have found and concluded. We would also argue that social work as a profession has historically provided services to populations and for social problems that other professions have avoided. It seems to us that it is worthwhile knowing how effective these social work programs have been. This type of information seems to us to be bedrock for EBP.

Pre-1990s reviews

Calls for social work outcomes research can be traced to 1931 (Cabot, 1931) and published reports of individual field experiments examining social work outcomes began appearing as early as 1951 (Powers & Witmer, 1951). While reviews of intervention effectiveness were published in psychology as early as 1952 (Eysenck, 1952) the first reviews to be published in social work did not appear until 1972 (Mullen et al., 1972). Before that time it was not possible to conduct robust reviews since few studies existed. By 1970 a total of 15 field experiments examining social work outcomes had been reported. Because of this volume, questions turned from what could be concluded about outcomes as reported in single studies to questions about what could be concluded from groups of studies examining social work outcomes. This was the impetus for the first national conference convened to examine social work outcomes research in 1971 which focused on a multi-faceted examination of the field experiments evaluating social work intervention outcomes reported in the 1960s (Mullen et al., 1972). Subsequently, attesting to the growth of outcomes research in the following decade, in 1988 Videka-Sherman identified and published a review of 61 studies conducted between 1965 and 1983 evaluating social work practice in mental health alone (Videka-Sherman, 1988). Further attesting to this growth, Reid and Fortune identified and reviewed 130 studies evaluating social work outcomes reported between 1990 and 1999 (Reid & Fortune, 2003).

The methodology for conducting reviews was not well developed in 1972 when the first social work reviews were reported. Essentially, the methods used in single studies were adapted for reviews of groups of studies. Accordingly, each study was examined to determine the number of statistically significant differences between intervention conditions occurred, and generalizations were then made across the set of studies. This 'vote counting' approach typically reported the number of studies reporting significant findings, the number reporting negative findings, and the number reporting no differences in outcomes between intervention conditions. Inferences were then drawn. This was the typical approach used not only in social work but in other disciplines as well (Eysenck, 1965). However, as the number of studies increased more appropriate review methods were required, and indeed such new methods were developed. In 1975 Gene Glass described a method he called *meta-analysis* in his AERA presidential address which was subsequently popularized by the publication in 1977 of Smith and Glass's article reporting the results of a meta-analysis of psychotherapy outcome studies (Smith & Glass, 1977). Using meta-analysis data from individual studies could be statistically combined and analyzed increasing power and precision. The first application of meta-analysis in social work was Videka-Sherman's 1988 review of the outcomes of 61 studies of social work in mental health (Videka-Sherman, 1988). Review methods were further refined to address a number of bias problems which were not adequately addressed in early reviews, such as lack of explication of inclusion and exclusion criteria for selecting studies. Collectively, these have come to be

known as *systematic review* methods (Littell, Corcoran, & Pillai, 2008). More recent reviews of social work intervention outcomes are much more informative than earlier reviews because there are now well developed methods for conducting reviews and because there are now a large number of published primary studies in a wide range of social work practice areas. Accordingly, in the remainder of this article we examine those reviews of social work intervention outcomes published since 1990. We believe that collectively these reviews provide credible evidence of social work's general effectiveness and that they provide a reasonably solid foundation for contemporary evidence-based social work practice, thus countering the often heard objection to EBP that evidence does not exist for social work's effectiveness (Mullen & Streiner, 2004).

Locating reviews

The seven reviews examined in this article were retrieved from the Evidence Database on Aging Care (EDAC) operated by the New York Academy of Medicine's Social Work Leadership Institute (URL: <http://www.searchedac.org>). Both authors have been principal contributors to the development and management of EDAC. EDAC is designed to provide access to available evidence on social work intervention outcomes, particularly as relating to serving the aging population. EDAC includes published articles reporting findings regarding the outcomes of psychosocial interventions relevant to answering questions about the outcomes of social work interventions with older adults. The database is designed around specific topics which shape the contents of the database (e.g. care coordination for older adults). In addition, EDAC includes descriptive information and citations for general reviews of social work intervention outcomes published as journal articles since 1990. These reviews examine what is known, as of the publication date, about the overall effectiveness of social work intervention. EDAC includes these review articles as well as most of the published articles reporting primary studies identified in the review articles. Our analysis examines seven published reviews which examined 375 primary studies. Identification of these seven review articles was based on information provided by EDAC's Advisory Committee which includes knowledgeable experts in social work outcomes research. These reviews were published in three journals including the *British Journal of Social Work* (one review), *Social Work* (one review), and *Social Work Research* (five reviews). The most recent review was published in 2004.

Reviews

Differences between pre-1990 and post-1990 reviews

The key question we address in this article is 'what can be said about the general outcomes of social work interventions as reported in journal review articles that

have examined that question since 1990?' These post-1990 reviews built on the optimistic and largely positive conclusions drawn by authors of reviews conducted in the 1980s. Key among those reviews were those authored by Reid and Hanrahan (1982), Thomlison (1984), Rubin (1985), and Videka-Sherman (1988). Generally, these 1980 reviews concluded that 'social work services are helpful (significantly ameliorate, alleviate, or solve the problem identified by the client & worker) to the majority of people who use them' (de Smidt & Gorey, 1997, p. 58). However, with the exception of the Videka-Sherman review these earlier reviews were methodologically limited since systematic review methods were not yet available for use by the authors. In contrast, the post-1990 reviews include those that: use meta-analysis; examine moderator variables; explore publication and investigator bias; and examine differential effects associated with intervention method, problem type, and population characteristics. The post-1990 reviews cast a wider net to include studies with a range of designs resulting in a much larger pool of studies available for analysis and permitting examination of design artifacts (e.g. do outcomes differ as a result of design type).

Casting a broad net: An inclusive view

Macdonald, Sheldon, and Gillespie's 1992 narrative review examined 95 studies published as journal articles between 1979 and 1991, all examining some aspect of social work effectiveness (Macdonald, Sheldon, & Gillespie, 1992). The authors included a range of design types such as experimental, quasi-experimental, pre-experimental, and client-opinion studies. Among the studies meeting minimum methodological requirements (eight studies excluded resulting in a set of 87 included studies) they report positive results with outcomes favoring the social work intervention over those in comparison groups in 75 percent of the studies (65 studies). Eight percent (seven studies) reported mixed results, and 17 percent (15 studies) reported only negative results (Macdonald et al., 1992).

When examining experimental and quasi-experimental design studies, behavioral and cognitive-behavioral methods were found to be most strongly correlated with positive outcomes, followed by family therapy studies, community care of the frail elderly, group programs for men who batter, and intermediate treatment programs. Pre-experimental design studies that produced positive results included cognitive-behavioral studies, family therapy, casework, and non-behavioral group work. Client-opinion studies showed that 'clients are generally appreciative of the way in which social workers try to engage them but provide only limited testimony on why particular goals have been selected or why a particular approach was chosen' (Macdonald et al., 1992, pp. 635–636). The authors report that 'Many studies with positive outcomes contain clear, openly-negotiated objectives that were shared with clients and an explicit expectation that results would accrue' within a specified period (Macdonald et al., 1992, p. 636). The majority of studies examined short-term interventions.

Could positive results be due to investigator bias?

EBP social workers (and the scientist-practitioners of the 1970s and 1980s) are encouraged to evaluate their practice, and to contribute to social work's knowledge base by reporting the results of their work with clients. However, these self-evaluation reports, while useful for monitoring outcomes, come with limitations, since it is widely believed that evaluation studies conducted by internal evaluators are especially subject to bias favoring the intervention, and that such internal evaluation should be suspect (Cryns, Gorey, & Brice, 1989; Petrosino & Soydan, 2005). Gorey examined this potential bias in his 1996 meta-analysis in which he set out to assess whether study outcomes differed depending upon who performed the evaluation, an internal or external evaluator (Gorey, 1996). He classified studies according to the first author's role and affiliation. Authors reporting an evaluation of their own intervention or of an intervention provided by their employing organization (outcome data coming from self-evaluations) were classified as *internal* whereas authors not associated with the intervention and outcome data collected from independent sources were considered *external*. For example, an author reporting the findings from a single-subject design study in which the evaluator and the intervention agent were the same would be considered one using an internal evaluator (10% of the included studies used single-system designs). His analysis examined whether or not the effect sizes favored social work interventions rather than the comparison group intervention (and thus replicate the findings of the key reviews conducted in the 1980s), and whether or not internal evaluators tended to report more favorable outcomes than external evaluators. Gorey hypothesized that the average effect among internal evaluations would be significantly larger than that observed among external evaluations.

Gorey conducted a meta-analysis on 88 studies published in prestigious peer-reviewed journals between 1990 and 1994 that reported sufficient statistical information to calculate effect sizes. Most (73%) evaluated direct, face-to-face interventions (mostly brief) whereas the rest (27%) evaluated programs or agencies (Gorey, 1996). Across studies Gorey reports that approximately 78 percent of intervention clients had better outcomes than those in comparison conditions (r index = .356, $SD = .261$, $p < .001$) (Gorey, 1996). Regarding differences among internal and external evaluations, Gorey reports that internal evaluations had significantly more positive outcomes (mean effect size $r = .518$ for internal evaluations whereas for external evaluations the mean $r = .186$; [$t(86) = 7.93$, $p < .001$]).

Gorey's positive results that approximately 78 percent of clients who participated in a social work intervention did better than those in comparison conditions closely matched the findings from earlier reviews and support the hypotheses that social work interventions are effective with the majority of clients. Also, his findings support the hypothesis that studies reported by internal evaluators tend to report even more positive outcomes, whereas those conducted by external evaluators report less favorable outcomes suggesting that investigator bias needs to be taken into account when drawing conclusions about the effectiveness of social

work interventions. This finding has implications for those engaged in EBP suggesting that while internal (self-conducted) evaluations are important sources of practice information such as for monitoring client progress, independent evaluations are required when generalizing to causal relations (Rubin, 2007).

Could positive outcomes be due to publication bias?

Replicating the reviews of the 1980s, both Macdonald et al.'s 1992 narrative review and Gorey's 1996 meta-analysis show that social work intervention has been found to be generally effective. Gorey's review suggests that these positive results (e.g. effect sizes) may be inflated due to bias associated with subjective, internal reviewer partiality. An additional potential source of bias needing to be examined when drawing causal inferences about social work outcomes is publication bias or what has been referred to as the file drawer problem (Rosenthal, 1979). de Smidt and Gorey (1997, p. 58) cite Rosenthal's (1979) statement of the possibility: 'that journal articles are represented by 5 percent of the studies that show Type I errors (for example, really non-significant, but with significant results due to random sampling variability) while file drawers are filled with 95 percent of the studies that show non-significant ($p > .05$) results (p. 638)'. Smith and Glass's 1977 meta-analysis of psychotherapy outcomes was criticized since they included only published studies and did not address or control for publication bias (Smith & Glass, 1977). Publication bias can result from a tendency of researchers and/or journal reviewers to publish studies with positive outcomes and to not publish studies with null or negative outcomes. De Smidt and Gorey examine this potential source of bias in their 1997 meta-analysis which replicated the Gorey 1996 meta-analysis but included only unpublished reports of social work intervention outcomes (deSmidt & Gorey, 1997). As a proxy for unpublished reports, deSmidt and Gorey limited their meta-analysis to 24 doctoral dissertations and master's theses written by graduate students affiliated with schools of social work that reported empirical findings of research on social work effectiveness between 1990 and 1994. de Smidt and Gorey included these reports based on the assumption that at the time of their defense, doctoral dissertations and master's theses are more likely to present non-significant findings or smaller effects than conceptually similar published studies, the result of which have been screened and accepted by professional journal peer reviewers. The 24 unpublished studies included in de Smidt and Gorey's meta-analysis were reportedly similar to published reports except on a few characteristics none of which were associated with effect sizes (and, therefore these few characteristics were not controlled for in their analyses of outcomes).

de Smidt and Gorey's findings are similar to those reported in recent reviews of social work effectiveness, namely that approximately three-quarters of the clients receiving a social work intervention had better outcomes than the average client in a comparison condition ($U_3 = 73\%$) (deSmidt and Gorey, 1997). These outcomes are not significantly different from those reported by Gorey (1996) using the same analytic methods for published studies ($U_3 = 78\%$) (Gorey, 1996). de Smidt and

Gory (1997, p. 60) conclude that while 'publication bias does not seem to confound recent inferences based on published social work research about the profession's intervention effectiveness', this analysis did provide evidence that publication bias does account for some of the effect size differences (29% of dissertations and theses failed to reject the null hypothesis, whereas only 16% of published studies reported by Gorey [1996] failed to do so, and the average effect reported in published studies was found to be about 15% larger than that of the unpublished studies report in the deSmidt and Gorey review [$r = .36$ and $r = .30$, respectively]).

The findings of this analysis when combined with those of prior reviews support the hypothesis that social work interventions have positive outcomes for the majority of clients who receive them, even after controlling for investigator and publication bias, both of which appear to be present in the social work literature. Indeed, contemporary analysts who conduct systematic reviews and meta-analyses are typically required to take steps to minimize publication bias such as by searching the unpublished as well as the published literature and by testing for such bias (e.g. funnel plots) and correcting data sets when publication bias is found (e.g. Trim and Fill method) (Higgins & Green, 2009).

But do authors of dissertations and thesis feel pressured to report positive findings and underreport negative findings contributing to reporting bias?

Grenier and Gorey (1998) extend the Gorey (1996) and the de Smidt and Gorey (1997) meta-analyses by replicating the methods used to conduct the earlier meta-analyses (Grenier & Gorey, 1998). However, in the 1988 review they examine yet another type of unpublished report to determine if there is evidence that publication bias can be an explanation for the generally positive reports of social work outcomes. The deSmidt and Gorey review (1997) examined dissertations and theses as reported above. deSmidt and Gorey identified, as a potential limitation of the 1997 review, the possibility that dissertations and theses may not be representative of unpublished reports of social work outcomes since graduate student authors may feel pressured to report positive findings and underreport negative or null findings. Accordingly, in this meta-analysis Grenier and Gorey (1998) drew their studies from unpublished conference proceedings that examined gerontological social work interventions with older people or their families reported between 1990 and 1996. Searching the Gerontological Society of America conference abstracts 42 studies were chosen for inclusion in this meta-analysis.

Grenier and Gorey (1998) replicated the findings from Gorey's 1996 study. They report that 69 percent of older adults or families receiving social work intervention did better on outcomes than comparison condition subjects ($U_3 = 69\%$). While this percentage is significantly smaller than that reported in published studies ($U_3 = 78\%$), and approaches significance when compared with published studies with a similar gerontological population ($U_3 = 78\%$), the findings do not identify publication bias as an explanation for the generally favorable outcomes reported in prior reviews of social work effectiveness, although these and the deSmidt and

Gorey (1997) findings do indicate that reports of favorable outcomes are inflated by publication bias.

Is there evidence of differential effects?

The four reviews reported above all examine the broad question of social work intervention effectiveness in producing positive outcomes. We think the collective findings provide solid empirical support for believing that, in general, social work intervention benefits a clear majority of clients who receive such services. The remaining reviews ask more specific questions and mark an important transition into questions of comparative effectiveness. As Reid (1997) notes, it does little comfort for those who want to be research-based practitioners to know that social work intervention, in general, is effective, but that no evidence exists to suggest that one intervention is more effective than another intervention. Indeed, the often referenced *dodo's verdict* that all interventions are equally effective (i.e. *tie-score effect*) undercuts any attempt to engage in EBP (Luborsky, Singer, & Luborsky, 1975).

The Reid (1997) review was stimulated by findings of reviews examining outcomes of psychotherapeutic and behavioral interventions, which principally have focused on mental health or behavioral problems, and which have tended to support the dodo's verdict (Reid, 1997). The prevailing explanation for the equivalence of outcomes across intervention types is that the effects are caused by those variables common to all psychotherapies, such as relationship variables (Weinberger, 1995). Reid set out in his 1997 review to see if the dodo's verdict applies equally to studies which examine psychosocial interventions and problem areas commonly addressed in clinical social work. He hypothesized that differential effects would be found when examining the broader range of interventions commonly used by clinical social workers as well as with specific problems commonly addressed by clinical social workers.

Unlike other reviews we have examined Reid searched for and included in his analysis only meta-analyses because he was well aware that the number of primary studies fitting his criteria were now too numerous to locate and analyze. He included only meta-analysis that assessed social work relevant interventions (i.e. no drug studies) for specific social work relevant problems. He further limited his search to meta-analyses published in the prior 10 years (1986–1996). Forty-two meta-analyses were located and included in his review.

Reid reports that of the 42 meta-analyses, 31 reported differential effects among alternative interventions. He reports that in those problem areas for which more than one meta-analysis was conducted findings were generally in agreement. Key findings reported by Reid are: 1) better outcomes associated with 'behavioral and cognitive-behavioral (BCB) interventions over alternative methods in many problem areas'; 2) multi-component interventions appear to do better than single-component interventions in many problem areas; 3) cognitive interventions do better in several meta-analyses that examined interventions for emotional disorders of

anxiety and depression (Reid, 1997, pp. 11–13). Reid also examined and reported differential effectiveness in some problem areas contrasting individual and group intervention methods.

Reid's review is important for EBP since it raises questions about the applicability of the dodo's verdict to social work interventions. It suggests that there may be differences among outcomes of specific alternative intervention methods when client problems are taken into consideration. These exploratory findings point to the need for comparative effectiveness research that specifies and contrasts alternative interventions for specific problem conditions. Nevertheless, Reid identifies a number of methodological limitations as well as a paucity of comparative effectiveness studies in social work that make firm conclusions impossible at this point. While the dodo's verdict continues to reign, Reid's review serves to raise some doubt about its validity when applied to social work.

Do practice models or change target make a difference?

Continuing the line of investigation represented by Reid's work (1997), Gorey, Thyer, and Pawluck (1998) published the results of their meta-analysis which examined whether interventions derived from alternative social work theoretical formulations have different outcomes as measured by effect sizes (Gorey, Thyer, & Pawluck, 1998). Specification of differential outcomes by theoretical orientation is particularly important since social workers are typically trained accordingly and there is a wide range of alternative theoretical orientations available to social workers. Gorey et al. (1998) used the same data set used in the Gorey 1996 meta-analysis but in this case conducted a meta-analysis in which theoretical orientation was used as a moderator variable. Forty-five of the 88 studies included in the Gorey 1996 meta-analysis were included in this analysis with the remainder excluded because: they did not include social workers as practitioners or authors; did not include individual, family, or group interventions; did not use a group design; or because they included only measures of client satisfaction as outcomes. Nine theoretical orientations were used which were grouped into three broad categories: 1) personal orientations (cognitive-behavioral, psychosocial, psychodynamic); 2) generalist (problem-solving, task-centered); 3) systemic orientations (family systems, general systems, ecosystems); and 4) radical-structural (feminist).

The authors report that no main effect was found on theoretical orientation using meta-analysis of effect sizes. Furthermore, when each of the orientations was compared to the other three to increased power none of the comparisons resulted in significant between-group differences (Gorey et al., 1998).

In a moderator analysis the meta-analysis indicated that when the focus for change was clients themselves, interventions based on personal orientations were more effective, whereas when the focus of change was on structural type changes and environmental factors, systemic-structural models were more effective.

These findings are in agreement with the lack of differential effects by theoretical orientation frequently reported in the psychotherapy literature. However, the

findings suggest that when *change focus* is taken into account alternative interventions based on theoretical orientation should be considered. Nevertheless, these findings should be considered exploratory and limited.

What do comparative studies say about differential effects?

Previous reviews of social work intervention outcomes included studies using a wide range of design types, including most notably those using experimental and quasi-experimental designs wherein a promising experimental intervention was compared with a control group not receiving services or a contrast group receiving a token intervention such as 'usual' treatment or placement on a wait list. We believe that the reviews reported above clearly demonstrate that when such comparisons are made the experimental treatment of interest most often provides better outcomes. Such findings are useful and encouraging, but as we have noted above, such findings are of little practical use for evidence-base practitioners who need to make choices among alternative types of interventions. The key question then is: given alternative, credible intervention options, which intervention is best suited for specific types of problems and populations? To answer such questions research is needed that compares alternative, credible interventions, identifying which have better outcomes under specific conditions. Reid, Kenaley, and Colvin (2004) were the first to address this question in a social work review.

Reid et al. (2004) included studies that were conducted under social work auspices and that were focused on problem prevention or on client services. In addition, studies were required to include a comparative design in which two or more credible interventions were compared; using a prospective, experimental or quasi-experiment design, with statistical analyses of outcomes reported. Thirty-nine studies were identified, published between 1990 and 2001 (25 used experimental and 14 used quasi-experimental designs). Studies were classified by their primary intervention (individual, family, group, case management, other).

Contrary to findings for psychotherapy experiments, a large majority of the social work comparisons showed differential effects. Common factors were not sufficiently strong to prevent the occurrence of differential effects in the great majority of the social work experiments and lack of statistical power appeared to be influential only in a few small sample experiments. While differential effects were found, because of the small number of studies and because of the great variability among studies the authors cautioned against drawing conclusions about differential effectiveness. However, they do suggest that the studies reviewed do provide some support for the superiority of multi-family group therapy over family therapy (two studies) for family-related problems, and social skills training over rival interventions for people with schizophrenia (two studies). These examples should be taken only as suggestive of the form of guidance that comparative effectiveness research can provide for the evidence-based practitioner.

These authors correctly note that while conclusions about comparative effectiveness can not be drawn from the available data, their findings do support the use

of comparative experimental designs to strengthen the empirical base of social work practice.

Summary and conclusion

We conclude that there is now a large body of evidence supporting the effectiveness of a wide range of social work interventions with a wide range of social problems and populations. It is now reasonable to conclude that approximately two-thirds of clients served by social workers benefit in measurable ways. These positive outcomes remain, even after controlling for publication and investigator bias, which, nevertheless, have been shown to inflate positive outcomes. Because an increasing number of studies have contrasted competing, alternative, credible interventions using some form of comparison group design, evidence is beginning to become available about the relative efficacy of alternative interventions for specific problems and populations.

Reviewers have sought to identify possible reasons why one intervention does better than another when such differences are found. Chief among the possible reasons is the theoretical orientation driving the intervention. The reviews examined in this article suggest that theoretical orientation does not account for differential outcomes (Gorey et al., 1998; Reid, 1997). However, differential intervention outcomes have been found when contrasting alternate interventions and specifying target problem or condition (Reid, 1997; Reid et al., 2004) or target system (Gorey et al., 1998).

Also of interest has been the extent to which variables common to all social work interventions may explain the generally positive outcomes found in recent reviews. Interestingly, while present in social work interventions such common factors seem to play a lesser role than in allied psychotherapeutic interventions. Reid has noted that the role of common factors, while present in social work intervention evaluations, appears to be diminished by departures of most social work programs from traditional psychotherapeutic models (Reid, 1997; Reid et al., 2004).

It is now common practice, especially when viewing social work from a policy perspective, to ask not only about effectiveness, or comparative effectiveness, but also to ask about costs and benefits of alternative interventions found to be effective or efficacious. Few social work reviews have examined studies which have used designs or measures that examine cost-effectiveness or cost-benefit questions. Such questions remain unanswered for the most part, and together with questions pertaining to comparative effectiveness, cost-benefit and cost-effectiveness questions will need to be addressed in future reviews if findings are to have policy resonance.

In conclusion, we think that findings reviewed in this article are sufficiently encouraging to recommend that promising social work interventions with specific social problems and specific populations be more carefully studied with particular attention to questions of cost-effectiveness. Using comparative effectiveness strategies, specification of differential effectiveness should now be the focus so as to answer questions such as: what intervention, under what circumstances, for what

problem, under what conditions, in what population has what effect and at what cost? Comparative experimental designs can be used effectively to answer these questions (Reid et al., 2004). Systematic reviews are needed to identify what works and what remains unknown, such as conducted by the Cochrane and Campbell Collaborations. What is currently needed are studies and systematic reviews that contrast credible, alternative intervention options under highly specific conditions. It is likely that reviews of social work's general effectiveness will no longer be undertaken or published since this question is largely answered in the affirmative. Evidence-based practice will be strengthened and enriched to the extent such systematic reviews become available.

Acknowledgment

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Note

We have not distinguished between *efficacy* and *effectiveness* research, which may surprise some readers. We think that the key questions about social work intervention outcomes need to be studied in real world contexts, if the answers are to be relevant to evidence-based policy and practice. Whether or not an intervention is found to be *efficacious* in highly controlled, experimental contexts, while relevant in developmental research, is less relevant to those wanting guidance about what works in realistic settings, where services are provided by social workers. Accordingly, our emphasis, and that of the reviewers discussed in this article, has been on effectiveness rather than efficacy evaluations.

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