EVIDENCE-BASED PRACTICE IN NONPROFIT HUMAN SERVICE ORGANIZATIONS

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Engaging in evidence-based practice (EBP) is one of the key ways nonprofit human service organizations (NPHSOs) can improve programs to better respond to community needs. However, to identify, adapt, implement, and sustain EBPs requires capacity, which many smaller NPHSOs lack in areas like evaluation. Capacity-building may help NPHSOs further engage in EBP, yet more knowledge is needed concerning valid ways to measure NPHSO capacity and the impacts of capacity-building related to EBP.

The aims of this study are to 1) develop a model with testable hypotheses concerning the effect of organizational factors on EBP engagement in NPHSOs; 2) identify a valid way to measure NPHSO capacity; and 3) assess NPHSO capacity-building outcomes related to EBP engagement. In Chapter 1, a brief overview of the key challenges confronting NPHSOs is provided. EBP is reviewed as a promising strategy for confronting these challenges and discussed in relation to NPHSO characteristics.

In Chapter 2, a conceptual model explaining EBP engagement as the use of best available evidence to inform programming decisions in NPHSOs is presented. Research evidence concerning capacity and readiness factors which promote EBP engagement is reviewed. The perceived advantage of EBP engagement and alignment of evidence with NPHSOs’ mission and capacity are presented as factors mediating the relationship between readiness and EBP engagement.
In Chapter 3, confirmatory factor analysis is used to test the fit of three different models for measuring NPHSO capacity. A model with four sub-scales related to resource development, program development, management, and governance capacity fit the data well, while two models with a larger number of items assessing organizational performance did not.

In Chapter 4, the effects of capacity-building on evaluation in NPHSOs are assessed using subset efficacy analysis. NPHSOs that received evaluation-related capacity-building assistance experienced statistically significant gains in four of five evaluation capacities compared to a control group after controlling for organizational characteristics, motivation to receive assistance, and amount of financial assistance. Lastly, in Chapter 5, key findings are synthesized, limitations are delineated, and practice, policy, and research implications are described.
I dedicate this dissertation to my wife of nearly 25 years, Kerri Patrick, my daughters, Benedicte and Rachel, my parents, Ronald and Gretchen Despard, and the staff and volunteers of nonprofit human service organizations in the US who make a positive difference in communities through their hard work and dedication.
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<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>ACF</td>
<td>Administration for Children and Families</td>
</tr>
<tr>
<td>ACT</td>
<td>Assertive Community Treatment</td>
</tr>
<tr>
<td>ARC</td>
<td>Availability, Responsiveness, and Continuity</td>
</tr>
<tr>
<td>ATE</td>
<td>Average treatment effects</td>
</tr>
<tr>
<td>CBO</td>
<td>Community-based organization</td>
</tr>
<tr>
<td>CCAT</td>
<td>Core Capacity Assessment Tool</td>
</tr>
<tr>
<td>CCF</td>
<td>Compassion Capital Fund</td>
</tr>
<tr>
<td>CCFO</td>
<td>Compassion Capital Fund outcome study</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CEY</td>
<td>Communities Empowering Youth</td>
</tr>
<tr>
<td>CFA</td>
<td>Confirmatory factor analysis</td>
</tr>
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<td>CFI</td>
<td>Comparative fix index</td>
</tr>
<tr>
<td>CTI</td>
<td>Critical Time Intervention</td>
</tr>
<tr>
<td>DiD</td>
<td>Difference-in-differences</td>
</tr>
<tr>
<td>EBM</td>
<td>Evidence-based management</td>
</tr>
<tr>
<td>EBP</td>
<td>Evidence-based practice</td>
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<tr>
<td>EBPAS</td>
<td>Evidence-Based Practice Attitude Scale</td>
</tr>
<tr>
<td>EFA</td>
<td>Exploratory factor analysis</td>
</tr>
<tr>
<td>ESI</td>
<td>Empirically-supported intervention</td>
</tr>
<tr>
<td>FBO</td>
<td>Faith-based organization</td>
</tr>
<tr>
<td>FIML</td>
<td>Full information maximum likelihood</td>
</tr>
<tr>
<td>GCAP</td>
<td>Growth Capital Aggregation Pilot</td>
</tr>
<tr>
<td>Abbr.</td>
<td>Full Form</td>
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<tr>
<td>ITT</td>
<td>Intent-to-treat</td>
</tr>
<tr>
<td>LOF</td>
<td>Level of focus</td>
</tr>
<tr>
<td>MAR</td>
<td>Missing at random</td>
</tr>
<tr>
<td>MCF</td>
<td>Marguerite Casey Foundation</td>
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<tr>
<td>MST</td>
<td>Multi-Systemic Therapy</td>
</tr>
<tr>
<td>NPHSO</td>
<td>Nonprofit human service organization</td>
</tr>
<tr>
<td>NPO</td>
<td>Nonprofit organization</td>
</tr>
<tr>
<td>OAH</td>
<td>Office of Adolescent Health</td>
</tr>
<tr>
<td>PED</td>
<td>Paid executive director</td>
</tr>
<tr>
<td>PFS</td>
<td>Pay-For-Success</td>
</tr>
<tr>
<td>RMSEA</td>
<td>Root-mean square error-of-approximation</td>
</tr>
<tr>
<td>SAMHSA</td>
<td>Substance Abuse and Mental Health Services Administration</td>
</tr>
<tr>
<td>SIB</td>
<td>Social Impact Bond</td>
</tr>
<tr>
<td>STV</td>
<td>Subject-to-variable</td>
</tr>
<tr>
<td>TLI</td>
<td>Tucker-Lewis Index</td>
</tr>
<tr>
<td>TPP</td>
<td>Teen Pregnancy Prevention</td>
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<tr>
<td>WLSMV</td>
<td>Mean- and variance-adjusted weighted least squares</td>
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CHAPTER 1: NONPROFIT HUMAN SERVICE ORGANIZATIONS AS SETTINGS FOR EVIDENCE-BASED PRACTICE

Most social work practice and social interventions are nested in organizational contexts. Through factors like leadership, climate, and resources, these contexts affect the quality of social work services and interventions. For example, an organization with poor staff morale due to rigid work routines, a lack of supportive supervision, and lack of resources may experience high staff turnover resulting in diminished service quality. Thus, improving social work practice means strengthening the settings in which this practice occurs.

Nonprofit human service organizations (NPHSOs) are a common practice setting for social workers (Gibelman & Furman, 2013; Whitaker, Weismiller, & Clark 2006) and for an array of social interventions. NPHSOs are defined as organizations with 501c3 tax-exempt, public charity status with the Internal Revenue Service that seek to protect, maintain, and enhance the well-being of individuals and families through the provision of direct services (Hasenfeld, 2010).

NPHSOs address a wide range of problems in communities, such as domestic violence, substance abuse, homelessness, and hunger. Some NPHSOs are focused on a single field of practice, such as Big Brothers Big Sisters, which focuses on mentoring to promote youth development. Other NPHSOs provide multiple services under one roof, such as family service agencies, which offer individual and family counseling, in-home support for older adults, financial counseling, and many other services. NPHSOs include large, well-recognized
organizations like the Salvation Army, which has a presence in many communities and a history
dating back to the turn of the 20th century. Most are small\textsuperscript{1}, unique to the communities they
serve, and governed by a board of directors comprised of local residents.

Given the complexity of staff-client interactions and a focus on changing client behavior
and circumstances, providing human services is challenging in its own right (Hasenfeld, 2010),
yet other trends have made the work of NPHSOs even more challenging. Privatization has led to
increased dependence by government on NPHSOs to deliver human services (Alexander, 2000),
creating new managerial demands (Schmid, 2013). NPHSOs are also under increased pressure
from both public and private funders to demonstrate improved client outcomes (Campbell, 2002;
Ebrahim, 2005; Ebrahim & Rangan, 2014), despite a host of financial challenges (e.g., Besel,
Williams, & Klak, 2011; Sontag-Padilla, Staplefoote, & Gonzalez Morganti, 2012).

Evidence-based practice (EBP) has emerged as a paradigm for improving social work
practice (e.g., Gambrill, 2006) and for shifting public and private funding toward practices and
programs with known effectiveness (Stid, Neuhoff, Burkhauser, & Seeman, 2013). Hence, there
is growing interest in how to most effectively disseminate and implement EBP (e.g., Beidas &

EBP creates new opportunities for NPHSOs. EBP may help direct NPHSOs toward the
most effective approaches for addressing common community problems and improving client
outcomes. For example, Assertive Community Treatment (ACT) is a well disseminated
evidence-based intervention (Bond, Drake, Mueser, & Latimer, 2001) nonprofit mental health
agencies can use to promote psychiatric recovery and reduce risk for re-hospitalization. Interest
in and willingness to implement EBPs among NPHSOs may also attract funding and other

\textsuperscript{1}77\% of all public charities – including NPHSOs – in the US had total annual expenses of less than $1 million in
2012 (McKeever & Pettijohn, 2014).
resources. For example, ACT is a reimbursable service under most states’ Medicaid programs (Gold et al., 2003). Also, Haskins and Margolis (2014) identify and describe six major initiatives of the Obama Administration to fund the implementation of evidence-based programs. One of these initiatives is the Teen Pregnancy Prevention program out of the Office of Adolescent Health, which funded 75 NPHSOs and public agencies to select and implement an evidence-based program (Stid et al., 2013). Social impact bonds (SIBs) are a novel financing scheme in which private investors fund large-scale implementation of preventive EBPs through NPHSOs and other organizations and receive reimbursement plus a return on investment if the programs achieve target goals (Butler, Bloom, & Rudd, 2013).

Interest in disseminating and implementing EBP also creates a set of new challenges for NPHSOs. Most NPHSOs are small and experience capacity deficits (e.g., TCC Group, 2010; Yung et al., 2008) in areas such as staffing supervision, and funding. These deficits limit the ability of NPHSOs to provide and sustain programs and services, which may make implementing EBP difficult. Furthermore, available research evidence may not be well matched to the mission and programs of some NPHSOs, nor the needs and wishes of clients. In certain fields like behavioral health, there are several identified EBPs, yet there is less research evidence available to inform and improve practice in other fields like domestic violence.

Promoting EBP in NPHSOs may also discourage innovation and the development of local responses to community problems. Promoting EBP may also diminish the role of and support for NPHSOs that aim only to meet immediate and basic needs like food assistance and emergency shelter and for which EBP has limited relevance. Despite these challenges and absent better alternatives for improving client outcomes, EBP may help NPHSOs further achieve their missions.
REFERENCES


Evidence-based practice (EBP) is widely recognized as an important strategy for improving social work practice (e.g., Drisko, 2014; Gambrill, 2006; Howard, McMillen, & Pollio, 2003; Thyer, Vaughn, & Howard, 2009), yet EBP is under-utilized in social work (Aarons et al., 2012; Bellamy et al., 2013; Bond & McGovern, 2013; Fixsen, Blase, Naoom, & Wallace, 2009; Maynard, 2010; Palinkas & Soydan, 2012). Factors such as leadership and organizational climate and culture affect the degree to which EBP is utilized in social work settings (e.g., Aarons, Sommerfield, & Walrath-Greene, 2009; Bond, Drake, McHugo, Rapp, & Whitley, 2009; Kovner, 2014; Plath, 2013). As a result, there is increased focus on implementation practice and science to help bridge the research-to-practice gap (e.g., Brekke, Ell, & Palinkas, 2007; Fixsen et al., 2009). However, organizational factors affecting EBP are not well studied (e.g., Barwick et al., 2012; Bond & McGovern, 2013; Powell, Proctor, & Glass, 2014; Proctor et al., 2009).

If EBP is under-utilized and affected by the settings in which social workers are nested, it is important to better understand the conditions under which organizations effectively promote EBP. This includes nonprofit human service organizations (NPHSOs), which are a common practice context for social workers (Whitaker, Weismiller, & Clark, 2006).

Developing testable hypotheses about how organizational factors affect EBP may help identify opportunities for reducing the research-to-practice gap in NPHSOs. In this paper, I
present a conceptual model that explains the conditions under which EBP may be used by
NPHSOs as a strategy to improve client outcomes. I begin by offering a definition of
organization-level EBP that is applicable to and reflective of the heterogeneity and community
contexts of NPHSOs. Next, I describe a set of capacity and readiness factors that explain the
likelihood of EBP in NPHSOs, as mediated by available evidence and perception of EBP as a
strategic lever among NPHSO leaders. Lastly, I present a conceptual model, which explains how
these organizational factors are related and affect EBP engagement in NPHSOs. This conceptual
model can be used to develop testable hypotheses to better understand EBP in NPHSOs and how
it can be enhanced.

**Background and Significance**

EBP in NPHSOs is important in two key respects. First, in so far as social workers are
trained to adopt EBP (Edmond, Megivern, Williams, Rochman, & Howard, 2006; Howard,
McMillen, & Pollio, 2003; Manuel, Mullen, Fang, Bellamy, & Bledsoe, 2009), the
organizational settings in which they practice may either hinder or facilitate this goal. Meta-
analyses and systematic reviews (Durlak & DuPre, 2008; Fixsen, Naoom, Blase, Friedman, &
Wallace, 2005; Gearing et al., 2011; Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou,
2004; Panzano et al., 2005) across several fields (e.g., education, health promotion, health care,
behavioral health care) indicated that implementation of EBP is affected by organizational
culture and climate, leadership support, training, supervisory, and financial resources, and
collaboration with other organizations.

EBP benefits human service organizations and organizational interventions can improve
EBP. Implementing EBP has been found to increase staff retention (Aarons, Sommerfeld, Hecht,
Silovsky, & Chaffin, 2009) and lower staff emotional exhaustion (Aarons, Fettes, Flores, &
Sommerfeld, 2009). Authors of National Evidence-Based Practices Project studies found that the fidelity of evidence-based behavioral health interventions like Assertive Community Treatment (ACT) was associated with the receipt of training, consultation, clinical supervision, and leadership support (Bond et al., 2009; McHugo, et al., 2007). The availability, responsiveness, and continuity (ARC) organizational development intervention aims to positively impact organizational social context (culture and climate). ARC has been found by authors of several studies to positively impact staff turnover and organizational culture and climate, and to enhance outcomes associated with EBP implementation (Glisson, Dukes, & Green, 2006; Glisson et al., 2010; Glisson et al., 2012; Glisson, Hemmelgarn, Green, & Williams, 2013).

The second key reason why EBP is important in NPHSOs is that EBP may help NPHSOs better achieve their missions (Kovner, 2014; Stern, 2013) to improve outcomes and quality of life for vulnerable groups served by social workers including survivors of domestic violence, persons living with serious mental illness, and youth transitioning out of foster care. With over $200 billion in annual revenue and $300 billion in assets (Pettijohn, 2013), the 116,643 NPHSOs in the U.S. represent a critical part of the social safety net (Garrow, 2011). With such a large financial investment in NPHSOs, donors, policy makers, clients, and other stakeholders have an interest in the promise of EBP to improve outcomes (Stern, 2013).

Interest in NPHSOs using EBP is currently being explored through public and private sector funding innovations. With their origin in health care as a way to provide incentives for improved patient outcomes (Jha, Joynt, Orav, & Epstein, 2012), pay-for-success (PFS) models such as social impact bonds, are seen as a strategy for incentivizing and scaling up the use of EBP in NPHSOs and other organizations (Roman, Walsh, Bieler, & Taxy, 2014). PFS is

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2Public Charities under Section 501c3 of the Internal Revenue Code who filed a Form 990 report to the Internal Revenue Service (IRS); non-reporting Public Charities are those that have too little revenue to be required by the IRS to file.
currently being incorporated into federal grants and contracts in the Departments of Justice and Labor and through the White House Office of Social Innovation and Civic Participation (Greenblatt & Donovan, 2013). In the private sector, models like the Edna McConnell Clark Foundation’s $120 million aggregated growth capital fund was launched in 2007 to scale up the efforts of three nonprofits (Citizen Schools, Nurse-Family Partnership, and Youth Villages) noted for their evidence of effectiveness and use of EBP (Ryan & Taylor, 2012).

Notwithstanding the ethical considerations of PFS (Halpern & Jutte, 2013), it may be of increasing strategic importance for NPHSOs to embrace EBP as funding priorities shift toward supporting evidence-based programs.

NPHSOs have unique strengths and vulnerabilities that warrant special consideration as an organizational context for EBP. Compared to public agencies, NPHSOs have greater autonomy and flexibility, which suggests they may provide fertile ground for innovation. Conversely, NPHSOs have key capacity limitations (Abt Associates, 2009; Minzner et al, 2014; TCC Group, 2010) that may make EBP engagement more difficult, such as difficulty in tracking client outcomes, assessing program level outcomes, using data to guide program planning, and engaging in strategic planning.

**What is Evidence-based Practice in Nonprofit Human Service Organizations?**

In this paper, I propose a conceptual model to explain EBP in NPHSOs, beginning with the following operational definition: *the routine and sustained use of best available evidence to guide programming decisions aimed at improving client outcomes*. Four key characteristics of EBP in NPHSOs include: 1) EBP as an organizational-level decision-making process; 2) types of evidence used to guide decisions; 3) how evidence is used; and 4) stakeholder needs and preferences.
EBP as a Decision-Making Process in NPHSOs

In the social work literature, EBP is widely regarded as a process of routinely incorporating research evidence into practice decisions as well as clinical expertise and consideration of client characteristics, circumstances, and preferences (Drisko, 2014; Gambrill, 1999, 2006, 2012; Mullen, Bledsoe, & Bellamy, 2008). According to Gibb’s (2003) EBP decision-making framework, the practitioner poses a specific question related to addressing an identified client need, identifies and critically assesses research evidence that may answer the question, determines whether and how this research evidence can inform an intervention decision, and evaluates the outcomes of the intervention (Gibbs, 2003; Gibbs & Gambrill, 2002).

Gibbs’ framework may not be applicable in contexts where practitioners lack the time, resources, and autonomy to make treatment decisions on a client-by-client basis. In most NPHSOs, decisions concerning interventions are made by managers, supervisors, and direct practitioners based on assumptions about what services and activities will meet the needs of clients (Kettner, Moroney, & Martin, 2013). These decisions are also affected by the requirements and/or priorities of public and private sector funders. According to Pfeffer and Sutton (2006), managerial decisions should be informed by the continuous use of evidence from within and outside the organization. Among human service organizations, this process of using evidence – referred to as evidence-based management (EBM) “…offers social service managers a set of methods to clarify how they use information to make strategic decisions, and thus provides a mechanism for improving the quality of managerial decision making and problem solving” (Briggs & McBeath, 2009, pp. 243-244). To further illustrate, adaptive capacity in nonprofit organizations includes “use of research data to support program planning and advocacy”, the highest level at which an organization has the following characteristics:
• respected by peers as both consumer and producer of data;
• dedicated research staff capable of working with complex data and making assessments about relevance and cultural appropriateness of findings for its community or clients;
• research regularly scanned for relevant data to support decisions, proposals, and advocacy; and
• important organizational questions answered through research; ability to effectively present data using charts, tables, and graphics for a variety of audiences (Marguerite Casey Foundation, 2012).

**Types of Evidence Used to Guide Programmatic Decisions in NPHSOs**

EBP is conflated with empirically supported interventions (ESIs) (Barth et al., 2012; Drisko, 2014), yet NPHSOs should consider multiple sources of (Gambrill, 2006; Johnson & Austin, 2006) and best available (Austin, 2008; Soydan & Palinkas, 2014) evidence to inform programming decisions. The quality of research evidence concerning interventions NPHSOs might choose to implement varies along a most to least rigorous continuum from meta-analyses and systematic reviews to anecdotal case reports, respectively (Thyer, 2006). However, the availability and quality of evidence aligned with NPHSOs’ missions varies considerably. For example, NPHSOs with behavioral health missions can find several candidate interventions in the Substance Abuse and Mental Health Services Administration (SAMHSA) National Registry of Evidence-based Programs and Practices. Conversely, NPHSOs interested in promoting financial security among lower-income families or combating human trafficking will discover no systematic reviews or meta-analyses and very few relevant intervention studies.
Because of the variability in research evidence available to a wide range of NPHSO missions, data and evidence from within the organization should also be used (Carnochan, Samples, Myers, & Austin, 2014). This may include data and evidence concerning 1) the social problem(s) the NPHSO is addressing; 2) client needs and characteristics; and 3) the effectiveness of various programs. For example, an NPHSO that promotes financial security among lower-income families could examine variation in program participation and outcomes based on client intake and assessment data. This NPHSO might discover that clients without checking accounts and who have poor credit histories participate in and benefit from financial counseling more than clients with bank accounts and intact credit.

Expanding a definition of EBP to include evidence NPHSOs generate is important for two key reasons. First, the availability of intervention research evidence is unevenly distributed across NPHSO practice fields. For example, a search for systematic reviews in the social welfare category of the Campbell Collaboration library published in the last five years yielded 21 results, categorized as follows:

Table 2.1. Social Welfare Systematic Reviews Published from 2009-2014

<table>
<thead>
<tr>
<th>Practice field</th>
<th>Number of Reviews</th>
</tr>
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<tbody>
<tr>
<td>Behavioral health</td>
<td>9</td>
</tr>
<tr>
<td>Domestic or sexual violence</td>
<td>3</td>
</tr>
<tr>
<td>Child/youth development</td>
<td>2</td>
</tr>
<tr>
<td>Parenting, child welfare</td>
<td>2</td>
</tr>
<tr>
<td>Aging/elder care</td>
<td>1</td>
</tr>
<tr>
<td>Disability</td>
<td>1</td>
</tr>
<tr>
<td>Employment</td>
<td>1</td>
</tr>
<tr>
<td>Housing</td>
<td>1</td>
</tr>
<tr>
<td>International development</td>
<td>1</td>
</tr>
</tbody>
</table>

National Institutes of Health research funding may help explain the larger number of behavioral health systematic reviews in recent years. Second, NPHSOs provide emerging, innovative, and
dynamic programs that have not been rigorously studied but have potential for establishing a practice-to-research pipeline. For example, Macy, Ermentrout, and Rizo (2012) present findings of a feasibility study concerning a novel program developed by a domestic violence NPHSO and a child abuse prevention NPHSO for female victims of intimate partner violence who had been court mandated to services because of defensive violence against their male partners. The authors used evidence-based practice development steps to conduct their study, offering an illustration of how NPHSOs can generate evidence to test and improve programs, not just implement existing evidence-based programs, particularly when little if any intervention research evidence exists.

Best available evidence should also include evidence concerning community problems – not just the efficacy of interventions. NPHSO leaders all have theories about the nature of the problems they are addressing, whether or not assumptions and hypotheses are consciously acknowledged. For example, a program director of a homeless shelter may believe that the primary risk factor of homelessness is substance abuse. Another program director may view the primary risk factor as a lack of affordable housing units in the community. EBP in NPHSOs should include using evidence to test assumptions about community problems to identify intervention leverage points (Fraser, Richman, Galinsky, & Day, 2009; W. K. Kellogg Foundation, 2004).

**How Evidence is used to Guide Programmatic Decisions in NPHSOs**

Evidence can be used in direct and indirect multiple ways by NPHSOs to guide program planning and implementation. An NPHSO may use evidence directly by accessing and reviewing evidence, whether from individual intervention studies or from meta-analyses and systematic reviews and then translating this evidence into program design and implementation. There is plenty of room for error, assuming NPHSOs have access to academic journals in addition to
publicly available sources like the Campbell Collaboration library of systematic reviews. NPHSO managers may lack the knowledge and skill to critically discern the quality of evidence. The translation into practice may be inaccurate due to a lack of detailed information about the intervention. The evidence may have limited external validity and be misaligned with the community and populations served by the NPHSO.

An NPHSO may use evidence indirectly by choosing to implement a well disseminated ESI, such as Nurse-Family Partnership or Assertive Community Treatment. NPHSO managers need not directly access, understand, and translate the research evidence into program design; they only need to select the intervention, though the degree to which the intervention is effectively implemented is beset with a host of challenges (Fixsen et al., 2005, 2009).

Yet even the selection of an ESI is not risk-free. For example, Multi-Systemic Therapy (MST) is a widely disseminated ESI aimed at reducing externalizing problem behaviors in adolescents. Authors of the most recent meta-analysis of MST indicated that MST is more effective with younger and non-ethnic minority youth and in well-controlled treatment conditions (van der Stouwe, Asscher, Stams, Deković, & van der Laan, 2014). A NPHSO’s selection of MST thus is not a guarantee – even if implemented with high fidelity – of effectiveness with all at-risk youth, in all community settings.

Intermediary organizations – universities, foundations, training and technical assistance centers, state and national professional associations, and government agencies – may play a key role in NPHSO’s indirect use of evidence to improve programs. These entities can identify interventions with varying levels of evidence from “top tier” to best or promising practices. These entities may also indirectly disseminate research evidence in the form of practice guidelines (Howard & Jenson, 1999). In short, intermediaries are important because NPHSOs
and practitioners need help in finding and using evidence relevant to the client outcomes they are trying to achieve (Rosen, 2003). NPHSOs’ indirect use of evidence may also be efficiently channeled through funding requirements. For example, a nonprofit mental health organization may elect an ESI such as Assertive Community Treatment (ACT) (Bond, Drake, Mueser, & Latimer, 2001) because the state Medicaid program reimburses for this service.

NPHSOs may use research evidence in direct and indirect ways to improve programs. Direct methods are inherently more risky, yet indirect methods may depend on NPHSOs’ access to and engagement with intermediaries and funders.

**Stakeholder Needs and Preferences**

NPHSOs, like nonprofit organizations in general, have multiple stakeholders – groups of people and other organizations with an interest in what the NPHSO does to fulfill its charitable mission. Stakeholders of NPHSOs are varied and include persons who receive direct services from the NPHSO, funders, volunteers, staff members, other organizations, local government, and community residents. A key responsibility of the Board of Directors is to act as stewards of the NPHSO as a community asset that fulfills the needs of stakeholders.

In the same sense that a practitioner ought not make an intervention decision without considering client needs and preferences, NPHSO managers should consider stakeholder needs and preferences, not only evidence, in making programmatic decisions. The challenge for NPHSO managers is to consider all stakeholder perspectives while ensuring that persons most directly affected by the community problem(s) the NPHSO is addressing receive priority consideration. For example, a NPHSO manager identifies housing first in the Substance Abuse and Mental Health Services Administration’s (SAMHSA) National Registry of Evidence-based Programs and Practices as a model for assisting homeless persons living with serious mental
illness and/or substance abuse disorders (Collins et al., 2012; Padgett, Stanhope, Henwood, & Stefancic, 2011).

**Factors Affecting EBP Engagement in NPHSOs**

EBP in NPHSOs represents a significant change in organizational practice (Barwick et al., 2005; Gambrill, 2006; Johnson & Austin, 2006; Maynard, 2010; Risley, 2011). Multiple factors affect EBP engagement in NPHSOs, such as organizational culture and access to knowledge through networks. These factors broadly fit two categories, capacity and readiness. Capacities are the functions of NPHSOs necessary to consistently and reliably offer programs and services to the community. Without them, EBP engagement is a moot issue. Readiness is the set of conditions that support EBP engagement as a strategy to improve programs and services. Each of these categories is described below.

**Organizational Capacity**

Organizational capacity is comprised of the organizational competencies that enable nonprofit organizations to effectively and efficiently fulfill their charitable missions (Connolly & York, 2003; Eisinger, 2002; Glickman & Servon, 2003; Light, 2004; McKinsey and Company, 2001; Millesen, Carman, & Bies, 2010; United Nations Centre for Human Settlements, 2002). Specific types of capacity – management and technical, evaluation, networking, and resource – are especially important for EBP engagement.

**Management and technical capacity.** Management and technical capacity is the infrastructure and systems a NPHSO needs for the efficient and effective use of organizational resources (Connolly & York, 2003; TCC Group, 2009), including a well-articulated mission statement, strategic plan, sound fiscal management, and a human resources system (Sowa, Selden, & Sandfort, 2004). Sufficient staffing, reliable volunteers, bookkeeping and accounting,
equipment and facilities, resource development, and information technology are needed to reliably and consistently offer programs and services (Cassidy, Leviton, & Hunter, 2006; Connolly & York, 2003; Glickman & Servon, 2003; Marguerite Casey Foundation, 2012; McKinsey & Company, 2001). To effectively implement programs, NPHSO managers also need to recruit well-qualified staff, provide training and coaching, and assess performance using data systems to monitor program fidelity and evaluation data (Fixsen et al., 2009). Facilitative administration in human service organizations “provides leadership and makes use of a range of data inputs to inform decision making, support the overall processes, and keep staff organized and focused on the desired intervention outcomes” (Fixsen et al., 2009, p. 535).

Additional management capacity indicators related to EBP engagement include:

- having a diverse, experienced, and skilled senior management team and staff committed to ongoing learning and professional development;
- outcome-focused goals and a common set of practices designed to produce impact;
- detailed operational plans that are regularly updated and refined and linked to strategic planning activities and a well-developed set of policies and procedures to ensure efficient and effective operations;
- well-run meetings and transparent and participatory decision-making processes;
- integrated communication and coordination of effort across programs and functions;
- frequently used and well organized knowledge management systems;
- and robust systems for recruitment, supervision, and development of managers, staff, and volunteers (Marguerite Casey Foundation, 2012).
Absent these competencies, a NPHSO may lack the programmatic stability through which EBP can be used to improve client outcomes. A lack of these competencies may also harm implementation of evidence-based programs (Fixsen et al., 2005, 2009).

**Evaluation capacity.** Evaluation capacity is the NPHSO’s ability to a) define intended client outcomes in clear and observable terms that relate to meaningful quality of life changes for the individuals, families, and communities it serves (Hunter, 2006; W. K. Kellogg, 2004); b) engage in formative, process, and outcome evaluation to assess program effectiveness (Fine, Thayer, & Coghlan, 2000; Hoefer, 2000; Poister, 2010); and c) collect, manage, analyze, and interpret evaluation data (Cousins, Goh, Elliott, & Bourgeois, 2014). If an NPHSO is unable to define the outcomes it hopes to achieve for clients, it will not know what research evidence might be used to improve its programs. Even if research evidence is identified and used to improve a program, the NPHSO needs to know how to evaluate the program and use and analyze data to determine if the use of evidence improves client outcomes.

Several studies indicate that NPHSOs struggle with evaluation (Carman, 2007; Carman & Frederick, 2008; Hoefer, 2000; Innovation Network, 2012; Leake et al., 2007; Pejsa, 2011; Sobeck, 2008; TCC Group, 2010), hampered by a lack of resources (e.g., time, funding, staff), expertise, and leadership support and implementation challenges (e.g., data management) (Carman & Frederick, 2010). Carnochan et al. (2014) found that defining measurable outcomes was difficult for NPHSO leaders because of the challenge in reconciling aggregated vs. case-specific data, the “dynamic and complex nature of client progress toward goals” (p. 6), and differences between staff and funder outcome definitions. The authors also found that NPHSOs struggled to design and use data systems for measuring outcomes. Thus, NPHSOs may need to strengthen evaluation capacity before engaging in EBP.
**Networking capacity.** Networking capacity is the ability of nonprofit organizations to create, develop, and sustain relationships with other organizations (Glickman & Servon, 2003). Eisenger (2002) defines having “links to the larger community from which an organization might draw help” (p. 118) as a critical capacity element among NPHSOs. Weber and Khademian (2008) stated that “networks are defined by the enduring exchange relations established between organizations” (p. 334) and are important for organizing collective action to solve challenging, complex, and unstructured community problems and as a platform for sharing knowledge. Similarly, a growing collective impact movement is based on the idea that cross-sector collaboration is needed to solve community problems that no single organization can solve alone (Austin & Seitanidi, 2012; Kania & Kramer, 2011).

Organizations with low proximity, weak ties to external networks are more likely to learn about innovations that can improve their practices (Rogers, 2003). Thus, the more networked an NPHSO is, the more likely it will be exposed to new ideas for improving outcomes, including the use of EBP. NPHSOs need to have connections to organizations and networks outside of the communities they serve. This may occur when a NPHSO identifies with a field of practice (James Irvine Foundation, 2009) and engages in shared evaluation and learning activities (Kramer, Parkhurst, & Vaidyanathan, 2009) through intermediary organizations such as foundations. NPHSOs need networks to efficiently access, understand, and apply research evidence.

**Resource capacity.** Resource capacity is the degree to which an NPHSO has the financial and non-financial resources it needs to implement and sustain effective programs. How well the readiness (leadership, culture, access to knowledge) of a NPHSO to engage in EBP translates into actual EBP engagement will vary by resource capacity. Sufficient and stable
resources are critical for EBP engagement (Durlak & DuPre, 2008; Fixsen et al., 2005; Franklin & Hopson, 2007; Mullen et al., 2008; Schoenwald & Hoagwood, 2001). Funding, human resources, space, technology, and training are needed to support EBP implementation (Fixsen et al., 2005). Acquisition, training, monitoring, supervision, consultation, and ongoing licensing for proprietary evidence-based programs may be cost prohibitive for many NPHSOs (Franklin & Hopson, 2007). Costs associated with EBP engagement also include the unfunded time of staff to engage in research, planning, and training activities, new facilities, equipment, qualified staff, and information technology (Fixsen et al., 2005; Hayes, 2005; Schoenwald & Hoagwood, 2001).

A lack of resource capacity also exerts an indirect harmful impact on EBP engagement due to the diversion of time, energy, and resources from implementing effective programs to fundraising. NPHSOs that lurch from one restricted grant to the other may be continuously changing the focus of their programming to meet funder demands, which makes applying EBP untenable.

Financial resources include both contributed and earned revenue sources, including grants, contracts, program fees, individual and corporate donations, special events, investment income, and commercial enterprises. Financial resources may also include loans, lines of credit, program-related investments, tax-exempt bonds, and other financial instruments. Non-financial resources include in-kind donations and services provided at no cost by volunteers and other organizations.

In addition to the resource flows noted above, resource capacity includes the net assets of the NPHSO, such as the depreciated value of fixed assets (e.g., land, building, and equipment), operating reserves, and board-designated endowments. Resource capacity can be measured with a range of indicators using NPHSO financial statements to indicate near-term and long-range
financial health (Besel, Williams, & Klak, 2011; Bowman, 2011; Bowman, Tuckman, & Young, 2012; Calabrese, 2013; Chabotar, 1989; Chang & Tuckman, 1991).

Lack of resource capacity hinders the adoption and implementation of EBP. Funding concerns were a major issue that affected decisions to adopt MST among stakeholder organizations in 13 systems of care (Carstens, Panzano, Massatti, Roth, & Sweeney, 2009). Organization leaders anticipated costs of adopting and implementing MST would exceed current revenues based on fee-for-service reimbursements. Barwick et al. (2005) found executive directors of Canadian mental health organizations were motivated to adopt EBP, but lack of sufficient staff, time, and money were a barrier. In a study assessing fidelity outcomes associated with five different evidence-based mental health interventions, Bond et al. (2009) found higher fidelity was observed for interventions with more favorable government reimbursements and more state-level technical resources and guidance. Funding was identified as a key challenge in using EBP by managers of community-based substance abuse treatment programs (Guerrero, 2013). Packard (2010) found adequate funding and effective resource allocation were factors perceived by managers and practitioners to be important in supporting the performance of human service organizations assisting at-risk youth.

Resource constraints are a particular problem for NPHSOs. Authors of several studies have documented financial challenges of NPHSOs (Abt Associates, 2009; Besel, Williams, & Klak, 2011; Brown, 2008; Minzner et al., 2014; Salamon & Geller, 2007; Sobeck & Agius, 2007; Sontag-Padilla, Staplefoote, & Gonzalez Morganti, 2012; Weerawardena, McDonald, & Mort, 2010; Yung et al., 2008; Zietlow, 2010), such as below-cost reimbursement, late payments from government funders, and lack of funding for evaluation. Given the up-front costs associated with EBP engagement, low operating reserves are a particular problem for NPHSOs (Bowman,
Organizational Readiness Conditions

Organizational readiness conditions are factors identified in the implementation science literature as affecting organizations’ use of EBP (e.g. Bond et al., 2009; Fixsen et al., 2005). These factors include leadership quality, a learning culture, and access to knowledge.

Leadership quality. Leadership quality is the ability of managers, supervisors, and the board of directors to 1) articulate a vision for and maintain a steady commitment to improving client outcomes; 2) promote a learning culture that predisposes the NPHSO to use evidence to improve programs; and 3) develop resources and accountability to ensure that evidence-based programs are well implemented and sustained. Use of EBP is conceptualized as a multi-stage process, beginning with the decision to adopt new practices (Fixsen et al., 2005). EBP is a practice innovation – a new approach for most NPHSOs in planning, implementing, and evaluating programs. For innovations to be adopted, the innovation must be recognized as better than current practice, an assessment influenced by the role of champions, change agents, and opinion leaders (Rogers, 2003). In NPHSOs, the chief executive officer, with the support of the Board of Directors, needs to champion the use of EBP as a strategy to better fulfill the NPHSO’s charitable mission (Hayes, 2005). McKay et al. (2004) found that efforts to promote EBP depend on whether organizational leaders recognize the benefits of EBP, think creatively, and are open to new practice ideas.

The decision to engage in EBP invokes organizational change (Aarons et al., 2009; Barwick et al., 2005; Franklin & Hopson, 2007; Johnson & Austin, 2006; Mullen et al., 2008; Panzano et al., 2005; Plath, 2012; Proctor et al., 2009; Roberts-DeGennaro, 2010; Rosencheck, 2011; Nonprofit Finance Fund, 2013; Nonprofit Operating Reserves Initiative Workgroup, 2008).
2001), the process of which requires deft leadership skills such as team building, clear communication, and conflict management. Several studies have found a relationship between leadership styles and behavior and EBP engagement. Both transformational (i.e., promoting a vision for change) and transactional (i.e., setting goals and expectations, motivating staff with rewards) leadership had statistically significant, positive correlations with EBP attitudes (Aarons, 2006). Transformational leadership was found to be associated with client outcomes in human service organizations (Poertner, 2006) and the adoption of program innovations in NPHSOs (Jaskyte, 2011). Similarly, adoption of Multi-Systemic Treatment (MST), an evidence-based program, was associated with leaders who expressed a greater vision for how MST adoption could promote use of evidence-informed programs and services and build legitimacy and influence in the community (Carstens et al., 2009).

After making a commitment to EBP to improve programs, managers and supervisors play an important role in supporting and sustaining program implementation (Fixsen et al., 2005). Leadership support, including ongoing supervisor communication, was viewed by staff as an important factor in the implementation of SafeCare, an evidence-based home visitation program (Aarons & Palinkas, 2007). Also, leaders play an important role in managing organizational culture to accept change, and in helping staff members cope with the loss they may feel in changing their practices (Austin & Claassen, 2008a).

**Learning culture.** Learning culture is an organizational culture in which exploring new ideas, risk taking, and continuous learning occurs. To increase their effectiveness, organizations need to engage in an ongoing process of critical reflection, questioning underlying assumptions concerning their practices (Argyris, 1977; Brown & Duguid, 1991). Cousins et al. (2014) contend that the learning capacity of organizations is supported by a clear mission and vision, a
strong culture of experimentation supported by leaders, internal and external knowledge transfers, learning from failure, and an emphasis on teamwork and group problem solving. Managers and supervisors can promote a learning culture by facilitating a process in which staff analyze and interpret data to make improvements (Garvin, Edmondson, & Gino, 2008; Johnson & Crean, 2008; Linnell et al., 2002) and feel psychologically safe taking risks (Edmondson, 1999). Feedback loops are also needed to monitor implementation in dynamic organizational settings (Fixsen et al., 2009).

NPHSOs with learning cultures characterized by curiosity, data collection, and intellectual discourse may be more likely to value and adopt EBP. For example, Plath (2012) proposes that EBP be regarded as an ongoing and cyclical process in which research evidence is critically appraised by staff to inform and improve practice. Similarly, Gambrill (2006) emphasizes the importance of critical thinking among all staff members in organizations to generate ideas for improving services in relation to practice-related evidence. Illustrating what she sees as the connection between EBP and organizational learning, she states “The notion of a learning organization suggests an active pursuit of the flow of knowledge including errors and their causes rather than a passive stance that characterizes many (most?) social service organizations” (p. 350). An indicator that a NPHSO has a learning culture is that it regularly uses theories of change to identify and examine assumptions about how program services and activities will result in desired outcomes (Hunter, 2006; W. K. Kellogg Foundation, 2004)

Becoming learning organizations can help NPHSOs develop the “critical thinking skills needed to understand and assess research as well as adapt and apply findings to practice situations” (Austin, 2008, p. 570). To do this, NPHSOs need to develop certain competencies, including how to create an organizational culture that promotes learning, access and assess
different types of research evidence related to practice, manage and share knowledge, and apply learning to practice (Austin, 2008).

Maynard (2010) also argues that applying the theory and practice of organizational learning can help social service organizations overcome the barriers to EBP engagement. Organizational learning components that promote EBP engagement regard the organization as a complex system influenced by both internal and external factors, personal mastery of staff members, revealing implicit practice assumptions, creating a shared vision for change, and engaging in team learning. By becoming learning organizations, NPHSOs can create the conditions and capabilities conducive for EBP engagement. Similarly, Gitterman and Knight (2013) state “Natural curiosity, a willingness to take a risk and follow hunches, and the ability to learn from mistakes are sine qua non of artistry” (p. 74).

**Access to knowledge.** Access to knowledge is the extent to which the NPHSO is able to access research evidence to improve its programs. Access to knowledge capital relates to what Rogers (2003) describes as the agenda setting and matching process, when organizations recognize a performance gap, access information about an innovation that can reduce this gap, and consider the innovation’s fit with the organization.

Access is strongly influenced by the relationships the NPHSO has with external organizations and networks. NPHSOs have difficulty in finding relevant research evidence (Barwick et al., 2005; Edmond et al., 2006; Kirk, 1999). Passive dissemination strategies are ineffective (Fixsen et al., 2005), as managers may lack the time and expertise to find and assess the relevance and quality of evidence. NPHSOs can benefit from interacting with “purveyors” - organizations and networks dedicated to the sound implementation of evidence-based programs (Fixsen et al., 2009). NPHSOs can also gain access to knowledge via shared evaluation and
learning networks supported by foundations (James Irvine Foundation, 2009; Kramer, Parkhurst, & Vaidyanathan, 2009) and through interactions with nonprofit capacity-building intermediaries such as United Way (Brown, 2008; Minzner et al., 2014; Shea, 2010). Larger NPHSOs can cultivate internal communities of practice to help managers identify and know how to use evidence to improve programs (Milway & Saxton, 2011).

**A Conceptual Model of EBP in NPHSOs**

Based on the organizational capacity and readiness factors described above, the following conceptual model explains how EBP engagement occurs in NPHSOs:

Figure 2.1: A Conceptual Model of EBP in NPHSOs

According to the model, organizational readiness conditions like the quality of leadership will lead to the routine and sustained use of evidence to guide programming decisions, as partially mediated by the degree of fit of evidence and whether EBP as a routine practice is viewed as advantageous by NPHSO managers. However, the readiness conditions that facilitate EBP engagement and EBP engagement itself will be directly influenced by the capacity of the NPHSO to execute its charitable mission. These constructs and relationships are discussed in fuller detail below.
EBP Engagement

As defined above, EBP in NPHSOs is *the routine and sustained use best available evidence in addition to stakeholder needs and preferences to guide programming decisions aimed at improving client outcomes*. Using evidence to guide programming decisions may include, but is not limited to selecting, implementing, and sustaining a particular empirically supported intervention (ESI). EBP engagement will occur in varying degrees and stages in NPHSOs (Meyer & Goes, 1988) and represents a shift in organizational practice, from not using to using evidence to improve programs and client outcomes. It may begin with simple steps such as an NPHSO that assists the homeless learning more about the housing first model or about how homeless persons living with serious mental illness might benefit from having an ACT team.

In its fullest form, EBP engagement in NPHSOs reflects an ongoing and sustained cycle of applying and adapting evidence to programs, evaluating outcomes, and making further refinements. With respect to ESIs, EBP engagement means implementing the intervention to fidelity, ensuring that ongoing resources are available to sustain fidelity, evaluating the outcomes of the ESI, and adapting the intervention as needed to improve outcomes.

Organizational Capacity

Organizational capacity is a necessary precondition to EBP engagement. NPHSOs with insufficient capacity are unlikely to engage in EBP. Also, ESIs implemented by NPHSOs with insufficient capacity will be poorly implemented. The following hypotheses related to organizational capacity are identified in the conceptual model:

\[ H_1: \text{NPHSOs need sufficient and sustained organizational capacity to attain readiness to routinely use evidence to improve programs}. \]
H₂: NPHSO’s organizational capacity will directly impact the routine and sustained use of evidence to improve programs.

Organizational Readiness

Readiness is the conditions under which EBP engagement is more likely to occur in NPHSOs: leadership quality, a learning culture, and access to knowledge. According to the proposed model:

H₃: Organizational readiness conditions – leadership quality, learning culture, and access to knowledge - will make an NPHSO more likely to engage in EBP.

The Relationship between Organizational Capacity and Readiness

Figure 2.2 below depicts the theory of change concerning how specific types of organizational capacity affect readiness for EBP engagement as an explication of the left half of the conceptual model in Figure 2.1:

Figure 2.2: The Relationship between Organizational Capacity and Readiness Conditions

<table>
<thead>
<tr>
<th>Organizational Capacity</th>
<th>Organizational Readiness Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management and Technical Capacity</td>
<td>Leadership Quality</td>
</tr>
<tr>
<td>Evaluation Capacity</td>
<td>Learning Culture</td>
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<tr>
<td>Networking Capacity</td>
<td>Access to Knowledge</td>
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<tr>
<td>Resource Capacity</td>
<td></td>
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</tbody>
</table>
Management and technical capacity is hypothesized to directly impact evaluation capacity because adequate staffing, supervision, management information systems, and information technology are needed before NPHSOs can evaluate their programs. For example, lack of supervision may result in lack of accountability needed to drive evaluation. Inability to collect, manage, and analyze data will thwart most evaluation efforts.

Management and technical capacity is also viewed as a precursor to leadership quality. Whereas the management function of NPHSOs is focused on the efficient and effective use of resources to operate programs, leadership means articulating a vision for change and motivating and supporting staff in pursuing this change. Yet leaders cannot pursue change if the management function has not established the NPHSO’s programmatic structure.

Evaluation capacity influences a learning culture in three ways. First, a NPHSO needs clear definitions of the client outcomes it is trying to achieve and an understanding of evaluation concepts before it can critically assess evidence to improve programs. Second, in judging whether and how research evidence might improve programs, an NPHSO needs to understand how effective its programs are. Third, an NPHSO needs to be able to evaluate a research-informed program to determine whether it is effective. Leadership quality also affects learning culture. In general, leadership behaviors have a substantive effect on organizational culture. Specifically, transformational and transactional leadership are positively associated with attitudes among staff concerning EBP (Aarons, 2006).

An NPHSO’s ability to form relationships with other organizations (networking capacity) will affect its access to knowledge, including research evidence. In turn, accessing knowledge will provide inputs to support a learning culture. For example, an NPHSO manager regularly attends learning network meetings organized by a local foundation and brings new information
back to the NPHSO to be discussed and critically assessed for improving programs. Finally, as detailed above, a lack of resources can undermine almost everything an NPHSO does in relation to EBP engagement, e.g., not having computers and internet access to access evidence, constant diversions of time, energy and attention from improving client outcomes to raising money, and being unable to hire competent staff.

**Mediator: Evidence Fit with Mission and Capacity**

*Evidence fit* refers to the degree to which evidence to which the NPHSO has access and may consider for improving programs is aligned with its mission, community, and capacity. According to the proposed model:

$$H_4: \text{The relationship between organizational readiness and EBP engagement is partially mediated by the fit of evidence with the NPHSO’s mission and capacity.}$$

An NPHSO may be ready to engage in EBP as a function of leadership, culture, and access to knowledge, yet whether readiness leads to EBP engagement depends on how well aligned the evidence is. NPHSO leaders need to assess the best available evidence (Austin, 2008) to improve programs, yet leaders need to be able to locate evidence that is both relevant and usable.

Evidence alignment relates to what Rogers (2003) describes as determining the fit between the innovation and the organization. The questions a NPHSO manager must answer to determine this fit include “can this evidence or this evidence-based program be used to help fulfill our mission?”, “might it help us better respond to the needs of our community?”, and “do we have the knowledge, skills, and resources to put this evidence into practice?”
Mediator: Perception of EBP Opportunity and Risk.

*Perception of EBP opportunity and risk* refers to the degree to which leaders feel that EBP engagement will help the NPHSO fulfill its mission to a greater extent than the NPHSO’s current efforts, while not incurring a risk to the NPHSO’s current and future financial health. According to the proposed model:

$$H_5: \textit{The relationship between organizational readiness and EBP engagement is partially mediated by whether EBP is viewed as an opportunity or a risk by NPHSO leaders.}$$

In addition to the availability of aligned evidence, the relationship between readiness and EBP engagement depends on the perception that engagement EBP is advantageous for the NPHSO. Greenhalgh et al. (2004) found in a large systematic review that the innovation must be perceived as advantageous for it to be considered for adoption. Similarly, Rogers (2003) states that the innovation must be seen as better than current practice. Thus, NPHSO leaders must perceive that by engaging in EBP, programs and client outcomes will be improved, and that organizational survival will not be threatened.

From a strategic management perspective (Barney & Hesterly, 2012; Hill & Jones, 2008; Oster, 1995), EBP could be considered a part of a continuous process of “innovation, strategic analysis, formulation and implementation” (Courtney, 2002, p. 8) to help the NPHSO achieve community impact and attract funding. In other words, EBP may be viewed by NPHSO leaders as a strategy to better fulfill mission and to secure resources. Based on resource dependence theory (Pfeffer & Salancik, 1978; Froelich, 1999; Hillman, Withers, & Collins, 2009) EBP may be viewed by NPHSO leaders as a strategic response to the changing needs and expectations of funders on which they depend. For example, 17 state Medicaid programs reimburse for
Supported Employment – an evidence-based program (Holladay, 2013). Thus, an NPHSO may be compelled to adopt EBP for no other reason than externally-imposed funding conditions, though as explained by other factors in the model, this reason alone does not ensure the NPHSO will effectively implement and sustain new practices to improve client outcomes.

**Practice Implications**

The conceptual model presented in this paper can be used by NPHSO leadership teams to understand how to guide their organizations toward greater EBP engagement. This ought to start with an assessment of readiness. NPHSO leaders can assess their capacity using tools like the Marguerite Casey Foundation’s organizational capacity assessment tool\(^3\) to determine functions that might be strengthened as a precondition for EBP engagement. Leaders can then assess their readiness for EBP engagement by using tools like the Evidence-Based Practice Attitude Scale (EBPAS)\(^4\). The benefits of engaging staff, volunteers, clients, and board members in these assessment activities are to use the process to build a collective vision for engaging in EBP as a strategy for improving client outcomes, and to identify barriers to EBP engagement and the resources the organization needs to overcome these barriers. To help overcome attitudinal barriers, leaders should emphasize how EBP engagement is a strategy – but not the only conceivable one – that can improve client outcomes. EBP engagement should be tightly linked to the NPHSO’s mission and not be characterized merely as a means of securing additional funding.

The next major step for NPHSO leaders is to promote a learning culture. This can be done in simple ways, such as devoting time in staff meetings to engage in discussions about why (or why not) programs and services appear to be effective in meeting client needs. Staff may also

\(^3\)See [http://caseygrants.org/resources/org-capacity-assessment/](http://caseygrants.org/resources/org-capacity-assessment/)

be encouraged to introduce new ideas about effective programs from conferences or their own learning. Leaders should encourage risk taking and hold individual staff accountable not for client outcomes (which may be affected by multiple factors), but for the development of new knowledge and skills. Accountability for client outcomes should be expressed as a collective responsibility.

To promote learning and encourage active use of evidence, leaders should ensure their organizations are active participants in networks organized by intermediary organizations such as foundations, state associations, and universities. Through these networks, NPHSO leaders and staff can learn about best available evidence and practice guidelines related to their field(s) of practice. Leaders should actively seek help from intermediaries in understanding how to apply evidence to practice.

Lastly, NPHSO leaders should ensure their organizations have the financial stability to engage in EBP. As effective, evidence-based programs are developed, leaders should ensure they can be sustained over time. Financial sustainability is primarily a function of funding policies (see below), though there are many strategies leaders can take irrespective of funding reforms. These strategies are beyond the scope of this paper, though there are several helpful practice-oriented resources (e.g., Bell, Masaoka, & Zimmerman, 2010; Jean Francois, 2015; Peters & Schaffer, 2005)

**Research Implications**

The conceptual model presented and discussed in this paper offers a set of hypotheses that can be tested to build research evidence concerning factors that influence EBP engagement. Structural equation modeling (SEM) could be used with cross-sectional data from NPHSOs to test relationships among model constructs, including the two partial mediators. Appendix 2.1
lists instruments that can be used to measure certain model constructs. Using SEM to analyze the strength of relationships among model constructs can help identify possible leverage points for organizational development and capacity-building interventions to promote greater use of EBP among NPHSOs. For example, leadership development, including individualized coaching, may build NPHSO capacity (Austin, Regan, Samples, Schwartz, & Carnochan, 2011). A sample of NPHSOs interested in capacity-building could be randomly assigned into leadership coaching plus group-based training, group-based training alone, and a control group.

A key idea from the conceptual model is organizational capacity affects conditions under which NPHSOs are more likely to engage in EBP. This links two otherwise disconnected literatures – nonprofit capacity and effectiveness and implementation science. For researchers interested in nonprofit capacity, this model can help focus capacity-building interventions in areas directly related to strengthening programs to improve client outcomes. For researchers interested in implementation science, this model can help identify specific capacity issues that may explain variation in program fidelity.

Researchers must address two distinct challenges in this area. First, using organizations as the units of analysis makes achieving statistical power in intervention studies difficult. An alternative is to use organizational units, such as treatment teams, as the units and use multi-level modeling to account for clustering of teams within organizations. Second, most organizational research includes obtaining observations through self-report, which raises internal validity threats such as ability to recall and accurately depict complex organizational phenomena (Podsakoff & Organ, 1986), thus requiring methods such as competence-based weights (Van Bruggen, Lilien, & Kacker, 2002) and within-unit consistency analysis (Glisson et al., 2008) in aggregating responses.
Policy Implications

The conceptual model also conveys implications for funding strategies. Funders and other intermediaries engaged in impact-focused funding efforts like social impact bonds and strategic philanthropy can use the model as a guide for assessing the capacity and readiness of NPHSOs to implement and scale up effective programs. It may be tempting to simply compel NPHSOs to engage in EBP by making it a condition of receiving funding, yet funding and policy mandates alone are insufficient for effective implementation (Fixsen et al., 2005).

If funders want to see NPHSOs increase their use of EBP, they should help build NPHSO capacity (Buteau, Brock, & Chaffin, 2013), particularly concerning evaluation (Brock, Buteau, & Herring, 2012). Rogers (2003) cautions that the adoption of innovation among people and organizations with greater resources and capacity may exacerbate inequality. To mitigate this risk with respect to EBP – particularly given how it is preferred by funders – NPHSO capacity-building warrants attention. Minzner et al. (2014) found that among small NPHSOs, capacity in multiple domains can be positively impacted with training, technical assistance, coaching, and targeted funding.

Another implication of the proposed model is funders should consider an inclusive standard with respect to evidence (Schorr, 2012), which relates to the standard of best available evidence in the definition of EBP engagement in this paper. An inclusive standard means synthesizing evidence from multiple sources along a hierarchy of evidence to “continuously make interventions more effective” (Schorr, 2012, p. 54). Rather than limit funding to interventions at the top of the evidence hierarchy (i.e., interventions deemed effective via meta-analyses and systematic reviews), funding may be directed toward NPHSOs that embody the
definition of EBP engagement in this paper: routine and sustained use of best available evidence to improve programs.

However, orienting funding strategies toward EBP engagement is insufficient; how funding is allocated is important. NPHSOs struggle with below-cost funding (Nonprofit Finance Fund, 2013; Nonprofit Operating Reserves Initiative Workgroup, 2008), which comprises their ability to implement effective programs. For example, Heckman (2006) notes how the evidence regarding early childhood interventions warrants greater public investment in this area, yet low wages and high turnover plague the early childhood sector and compromise effective implementation. In addition, NPHSOs need longer-term and unrestricted sources of funding to build EBP-related capacity and sustain effective programs. Put simply, disruptions in funding disrupt effective implementation, which leads to poor outcomes.

**Limitations of the Model**

The conceptual model presented and discussed in this paper seeks to explain EBP engagement among NPHSOs. A key limitation is the model’s implicit assumption that client outcomes will improve if NPHSOs engage in EBP (as broadly defined in this article), which is an untested proposition. There may be other program design and implementation strategies and tactics NPHSOs can employ with equal if not superior improvements in client outcomes.

Another model limitation is that organizational behavior and the community problems NPHSOs address are complex and dynamic. There may be factors and processes operating both within and outside of the NPHSO affecting EBP engagement and client outcomes that are unaccounted for in the model and evade definition and measurement as model constructs. The model may be limited to NPHSOs addressing community problems amenable to direct service interventions implemented in relatively stable operating environments.
Conclusion

In this paper, I present and discuss a conceptual model to explain EBP engagement among NPHSOs. I propose that the adoption, implementation, and sustainability of EBP is affected by multiple organizational capacity and readiness factors, as partially mediated by the availability and fit of evidence and the perception of an NPHSO’s leaders that EBP engagement is advantageous. This model can benefit implementation science by further conceptualizing factors facilitating or hindering use of evidence to improve programs and offering a set of testable hypotheses to inform capacity-building efforts to reduce the research-to-practice gap in social work.
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CHAPTER 3: ASSESSING PSYCHOMETRIC PROPERTIES OF AN NPHSO CAPACITY AND PERFORMANCE SURVEY

Nonprofit human service organizations (NPHSOs) are a significant and growing part of the social safety net in the US (Garrow, 2011), providing a range of critical services such as child care, emergency housing, and child abuse prevention (Boris, de Leon, Roeger, & Nikolova, 2010). NPHSOs are under increasing pressure to demonstrate their impact in communities (Benjamin, 2013; Campbell, 2002; Ebrahim & Rangan, 2010; Stern, 2013) yet have a host of capacity deficits in areas such as staff supervision and strategic planning (Abt Associates, 2009; Minzner et al., 2014; TCC Group, 2010).

Capacity deficits impede opportunities for NPHSOs to increase their community impact in two key ways. First, program implementation effectiveness is affected by factors such as training, supervision, leadership, and resources (Aarons, Sommerfield, & Walrath-Greene, 2009; Austin & Claassen, 2008b; Bond, Drake, McHugo, Rapp, & Whitley, 2009; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Plath, 2013). Second, NPHSOs struggle with the ability to evaluate programs (Carman, 2007; Carman & Frederick, 2008; Hoefer, 2000; Innovation Network, 2012; Leake et al., 2007; Pejsa, 2011; Sobeck, 2008; TCC Group, 2010), which acts as a barrier to improving client outcomes through evidence-based practice (Austin & Claassen, 2008a; Franklin & Hopson, 2007; Johnson & Austin, 2006; Kovner, 2014; Maynard, 2010).

Capacity-building is a strategy to help NPHSOs and other nonprofits improve their performance in areas such as human resources, program development, and governance (De Vita
In organizational research, standardized measures exist for leadership (Avolio, Bass, & Jung, 1999; Posner & Kouzes, 1993), organizational climate and culture (Aarons & Sommerfeld, 2012; Anderson & West, 1998; Cooke & Rousseau, 1988; Glisson et al., 2008), readiness for change (Lehman, Greener, & Simpson, 2002), and attitudes toward EBP (Aarons, 2004). However, there are no standardized measures for NPHSO capacity to help determine the effectiveness of capacity-building interventions (Wing, 2004).

The purpose of this paper is to validate a model for measuring capacity in NPHSOs by conducting confirmatory factor analyses using data from a NPHSO capacity survey. A validated capacity measure can be used in three key ways. First, it can be used by NPHSO practitioners to assess areas where performance could be strengthened. Second, a validated measure could be used to assess the effectiveness of capacity-building interventions with NPHSOs, particularly to identify which areas of performance gains (e.g., strategic planning, governance, human resources) are most associated with improved client outcomes. Third, a validated measure can be used to assess how factors like staff performance evaluation and administrative supports affect the implementation of evidence-based practices and programs in NPHSOs (Fixsen, Blase, Naoom, & Wallace, 2009).

**What is Organizational Capacity?**

Organizational capacity refers to the competencies, systems, and resources a nonprofit organization needs to fulfill its charitable mission (Connolly & York, 2003; Eisinger, 2002; Glickman & Servon, 2003; Light, 2004; McKinsey and Company, 2001; Millesen, Carman, & Bies, 2010; United Nations Centre for Human Settlements, 2002). Capacity is multi-dimensional; it comprises the major structures and functions of nonprofit organizations including mission,
vision, and values, governance, strategic planning, program development, evaluation, management systems, human resources, fundraising, fiscal management, public relations, and partnerships (Mary Reynolds Babcock Foundation, 2010). These structures and functions appear in numerous textbooks on nonprofit management and leadership (e.g., Agard, 2010; Renz & Herman, 2011).

Structures and functions that comprise capacity vary in their relative importance to different types of nonprofit organizations. For example, Hasenfeld (2010) highlights the central purpose of NPHSOs to provide services aimed at facilitating changes in people. The work of NPHSOs is service-intensive and highly interpersonal. Thus, human resources, supervision, and organizational culture are particularly important aspects of capacity. Conversely, Glickman and Servon (2003) emphasize the importance of developing relationships with formal and informal networks, residents, and the political and corporate power structure of a community as central to the work of nonprofit community development corporations.

For NPHSOs, organizational capacity relates well to factors identified in implementation science as enabling conditions for effective program implementation. Fixsen et al. (2005, 2009) identified the following core components of implementation: staff selection, training, ongoing coaching and consultation, staff performance reviews, data systems, facilitative administration, and external systems support to ensure sufficient resources. Authors of other studies found that capacity-related factors affect implementation quality, such as leadership (Aarons, 2006; Aarons & Palinkas, 2007; Aarons & Sommerfeld, 2012; Bond et al., 2009; Carstens, Panzano, Massatti, Roth, & Sweeney, 2009; Hayes, 2005; McKay et al., 2004), and resources (Bond et al., 2009; Durlak & DuPre, 2008; Fixsen et al., 2005; Franklin & Hopson, 2007; Mullen et al., 2008; Schoenwald & Hoagwood, 2001). Thus, capacity matters greatly in relation to the opportunity
Theoretical Assumptions of Organizational Capacity

Organizational capacity of nonprofit organizations is comprised of multiple domains. McKinsey and Company (2001) defined capacity as comprised of seven domains: aspirations, strategy, organizational skills, human resources, systems and infrastructure, organizational structure, and culture. The Marguerite Casey Foundation (2012) modified and re-organized the McKinsey and company (2001) conceptual model, identifying four capacity domains: leadership, adaptive, management, and operational. The TCC Group (2010) defined the same domains, substituting technical for operational capacity. Definitions of these domains are:

1. **Leadership capacity**: ability of organizational leaders to inspire, prioritize, make decisions, provide direction, and innovate;

2. **Adaptive capacity**: ability of a nonprofit organization to monitor, assess, and respond to internal and external changes;

3. **Management capacity**: the ability of a nonprofit organization to ensure the effective and efficient use of organizational resources; and

4. **Operational/technical capacity**: the ability of a nonprofit organization to implement key organizational and programmatic functions (Marguerite Casey Foundation, 2012).

From the above definitions, three characteristics are noteworthy. First, the unit of analysis for three of four domains is the entire organization, yet it is the aggregated actions of multiple individuals that comprise what is observed at the organizational level. Second, leadership capacity refers to the actions of more than one person, which implies persons in addition to the
chief executive officer (CEO) of a nonprofit organization can exert influence. Third, leadership and adaptive capacity reflect strategy – determining goals and ways to achieve them – whereas management and operational/technical capacity reflect execution – implementing steps to achieve goals. Similarly, Millesen et al. (2010) characterized nonprofits’ efforts to strengthen adaptive and leadership capacities as proactive skills to promote organizational effectiveness and technical and management capacities as reactionary competencies to comply with the demands and requirements of funders and other stakeholders. The TCC Group (2010) regarded adaptive and leadership capacities as higher order and more important competencies nonprofits should develop to better meet community needs. Liebler and Ferri (2004) draw a distinction between standard and generative capacities. The former refers to the basic functions of organizations, while the latter refers to higher order functions regarding nonprofits’ effectiveness in meeting community needs.

Organizational theory helps explain organizational capacity. Adaptive capacity - “creating internal organizational processes and procedures to maximize goals and opportunities” - relates to strategic management theory (Millesen, Carman, & Bies, 2010, p. 7), which posits that organizations make purposive decisions to strengthen their responses to changing environments (Barney & Hesterly, 2012; Hill & Jones, 2008; Oster, 1995). Millesen et al. (2010) relate leadership capacity - in its emphasis on the role of executive managers and board members in securing resources – to resource dependence theory, which views organizations as striving for growth and sustainability (Pfeffer & Salancik, 1978; Froelich, 1999; Hillman, Withers, & Collins, 2009). The authors relate technical and management capacities - core functions of nonprofits, such as financial management - to agency and institutional theories. According to agency theory (Eisenhardt, 1989), technical and management capacities are
developed by nonprofits, which play the role of principals accountable to public and private funders as agents. According to institutional theory (DiMaggio & Powell, 1991), the technical and management capacities of nonprofits in similar fields (e.g., mental health) are very similar and are conditioned by institutional norms and expectations.

Capacity can be examined relative to organizational life stages: organic, enterprising, intentional, robust, and reflective. At earlier stages, organizations focus on developing solutions to community problems. At later stages, operating systems are developed to sustain effective programs and the organization tries to expand its impact (Light, 2004). How important various capacities are at any given time depends on the organization’s life stage. For example, the TCC Group (2010) suggested that the relative importance of the four capacity areas described above (adaptive, leadership, management, and technical) depend on the following stages of development:

- stage 1 – core program development, the NPO is managing and supporting its core programs well;
- stage 2 – infrastructure development, the NPO adapts its operations to take programs to scale by serving more people effectively;
- stage 3 – impact expansion, the NPO engages in community building and/or system reform to extend its impact beyond what it can accomplish by itself;
- stage 4 – stagnation, the NPO is unable to adapt to internal and external factors that influence its effectiveness; and
- stage 5 – dissolution or merging, the NPO is nearing either dissolution or the need to merge with another, more effective and healthier NPO.
Each capacity area – leadership, adaptive, management, and technical – should be at a level appropriate to the NPO’s life stage. For example, adaptive and leadership capacity is critical beginning in stage 1 to facilitate program development, while management and technical capacities are important in stage 2 to support infrastructure development.

Organizational capacity is defined as what needs to be in place for NPHSOs to be effective. Capacity is a multi-dimensional construct comprised of both higher and lower order functions of organizations which reflect key principles and assumptions of organizational theories. Higher order functions such as adapting strategy to changing internal and external conditions may be more difficult for NPHSOs to develop, whereas best practice guidelines are readily available to develop lower order functions such as staff performance review guidelines and successful fundraising tactics. These domains should be understood from a life-stage perspective; different domains figure more prominently depending on the NPHSOs’ particular point in its growth trajectory.

**How Organizational Capacity is Measured**

Capacity assessment tools are comprised of multiple domains, each with a set of indicators that reflect structures and functions of NPHSOs, such as strategic planning and human resources. McKinsey and Company (2001) identified 58 functional indicators of seven capacity domains (i.e., aspirations, strategy, organizational skills, human resources, systems and infrastructure, organizational structure, and culture). Each indicator has an ordinal response scale: clear need for increased capacity, and basic, moderate, and high levels of capacity already in place. For example, program relevance and integration is an indicator of strategy and is defined at a high level as “all programs and services are well defined and fully aligned with mission and goals” (p. 86).
The Marguerite Casey Foundation (2012) modified and re-organized the McKinsey tool, using four capacity domains (i.e., leadership, adaptive, management, and operational) – originally identified and described by Connolly and York (2003) - and 59 distinct indicators. Each indicator is assessed at one of four levels. For example, senior management team is an indicator in the management domain, the highest level at which is defined as “extensive and varied experience in nonprofit and for-profit management; team drawn from extraordinarily diverse backgrounds and experiences, and bring a broad range of outstanding capabilities; outstanding track record of learning and personal development; contagiously energetic and committed.”

The TCC Group’s (2010) Core Capacity Assessment Tool (CCAT), developed from initial work of Connolly and Klein (2003), uses a structure similar to the McKinsey and Company (2001) and Marguerite Casey Foundation (2012) tools. The CCAT is a 146-item survey that assesses leadership, adaptive, management, and technical capacities and organizational culture. Each capacity domain has a set of sub-capacities, such as organizational learning and program resource adaptability under adaptive capacity. Scores on a 300-point scale are generated from the CCAT for each capacity and sub-capacity to indicate strong, satisfactory, and challenging levels of performance.

The instruments described above share three common and important features. First, capacity is measured by multiple domains; there is no single, unifying measure of capacity. As noted in the previous section of this paper, each domain has a different meaning with respect to organizational performance. Second, each domain is comprised of multiple indicators, which suggests NPHSOs must have many, not just a few, structures and functions in place to have capacity. Multiple indicators reflect the complex and dynamic nature of organizations. Third,
capacity domain indicators are measured using ordinal response scales, which reflects capacity as a developmental process and a life stages perspective (Light, 2004; TCC Group, 2010).

Though the measurement tools described above are used in nonprofit capacity-building practice, no capacity measures have been validated. For example, Minzner et al. (2014) acknowledged the lack of a standardized measure as a limitation of a randomized controlled trial of NPO capacity-building. The purpose of this study was to validate a measure of NPHSO capacity. Establishing a validated capacity measure can help NPHSOs more accurately assess their performance at different points in time and provides researchers an opportunity to more formally assess organizational factors that explain variation in program implementation effectiveness.

**Methods**

**Sample**

Data used for this study came from a baseline survey administered in 2006 to a sample of 1,221 NPOs that participated in the Compassion Capital Fund (CCF) Demonstration program sponsored by the federal Administration for Children and Families (ACF). The aim of the CCF Demonstration was to strengthen the capacities of faith- and community-based NPHSOs that provided social services to lower-income individuals and families by offering technical assistance, group training, and financial assistance from intermediary organizations (e.g., universities, foundations, United Ways) (Abt Associates, 2009; Minzner et al., 2014).

**Measures**

Measures for this study were from the baseline survey of the CCF Demonstration program outcome study (Abt Associates, 2009). The survey was constructed based on a review of literature as well as feedback from organizational capacity experts and from NPO
representatives who pre-tested survey items (Minzner et al., 2010). The survey included 215 items, 54 of which were related to NPO capacity in the following five capacity domains: organizational, program, revenue, and leadership development, and community engagement. The survey included two types of capacity measures: 1) concrete indicators of capacity; and 2) level of focus (LOF) indicators. Concrete indicators included items such as “does your organization have a strategic plan?” and “in the past 12 months, has your organization conducted or participated in an assessment of organizational strengths/needs?” Concrete indicators had binary (i.e., yes/no) response options.

LOF indicators were items that measured the degree to which the NPHSO had made progress in achieving a capacity, such as “expanding services to include a new group of service recipients or geographic area,” with the following ordinal response options:

5 = not a focus area because we are satisfied with our achievement in this area;
4 = have implemented steps to address focus area;
3 = have developed plans or ideas to work on this, but haven’t implemented them yet;
2 = know we should work on this but we lack the time or resources; and
1 = not an area of focus at this time.

Items were excluded from the analysis if they were not indicators of capacity (e.g., competencies, systems, and resources NPHSOs need to achieve their missions) (e.g., Connolly & York, 2003; Eisinger, 2002; Light, 2004; Millesen, Carman, & Bies, 2010) and/or items that were not indicators of capacity domains (Marguerite Casey Foundation, 2012; TCC Group, 2010). Items concerning the organization’s primary programmatic areas, reasons for pursuing capacity-building assistance, how the organization learned about CCF services offered through intermediaries, and training and technical assistance activities were excluded. Also, items were
excluded if they could be considered proxies for the size and tenure of the organization, such as the number of paid full-time staff or the number of foundation grants applied for and approved. These items reflect organizational characteristics, interests, and experiences, but not capacity.

**Analysis**

Confirmatory factor analysis (CFA) is a technique to assess how well a hypothesized latent factor structure fits observed data by assessing factor loadings, variance, and covariance (Bowen & Guo, 2012; Schreiber, Nora, Stage, Barlow, & King, 2006). In this study, CFA was used instead of exploratory factor analysis (EFA) as an initial procedure. A latent factor structure for nonprofit capacity has been specified and used as a basis for reporting outcomes of CCF studies (Minzner et al., 2010; 2014) and nonprofit capacity domains are well identified in the literature (e.g., Connolly & York, 2003; Glickman & Servon, 2003; Millesen, Carman, & Bies, 2010). Therefore, CFA as a theory-driven technique (Schreiber et al., 2006) was chosen because latent variables representing types of NPHSO capacity are well hypothesized.

In this study, CFA was used to test the fit of three hypothesized factor structures in comprising a measurement model of NPO capacity:

1. **Model 1: CCF demonstration impact study capacity domains.** Authors of a report (Minzner et al., 2010) and one peer-reviewed publication (Minzner et al., 2014) concerning results of the CCF demonstration impact study proposed five capacity domains: organizational, program, revenue, and leadership development, and community engagement. Thus, Model 1 is a five-factor model corresponding to these domains. Individual survey items were hypothesized to load on these five factors according to how pre-to-posttest changes were reported as outcome measures for the CCF impact study. For example, the outcome for the survey item “Does your organization conduct formal
measurement/assessment of the results and benefits of the services provided to individuals or families?” is reported by Minzner et al. (2010; 2014) in the program development capacity domain.

2. **Model 2: Marguerite Casey Foundation organizational capacity assessment tool.** The Marguerite Casey Foundation (MCF) (2012) publishes for public use an organizational capacity assessment tool comprised of four capacity domains: leadership, adaptive, management, and operational. Each of the 54 items from the CCF survey selected for analysis was mapped onto the MCF tool. For example, items related to program evaluation and development were labeled as adaptive capacity and items related to record keeping, financial management, and use of technology were labeled as operational capacity. Thus, the MCF model is a four-factor model of NPHSO capacity comprised of leadership, adaptive, management, and operational capacity as latent variables. The MCF domains were originally identified and described by Connolly and York (2003) and represent a re-organization of a model of NPHSO capacity developed by McKinsey and Company (2001). It represents a widely disseminated framework to conceptualize and assess NPHSO capacity.

3. **Model 3: CCF demonstration capacity domains – level of focus (LOF) only.** Like Model 1, Model 3 incorporates domains from the CCF studies, yet includes only the level of focus (LOF) survey items. LOF items from the CCF instrument are distinct because they represent capacity-building progress. LOF items, thus, may represent a better way to measure capacity in the context of NPHSO’s efforts to build capacity, i.e., as self-assessed, incremental progress in contrast to a static assessment of whether a particular function (e.g., a designated person for financial management) exists in the NPHSO. LOF
items are conceptually well aligned with the life stages perspective of NPHSO capacity (Bess, 1998; Hasenfeld & Schmid, 1989; Light, 2004; Simon, 2001; Stevens, 2002), which views capacity as a developmental process.

Because factor analysis results should be cross-validated to assess factor stability (Bowen & Guo, 2012; deVet, Adër, Terwee, & Pouwer, 2005), two random samples without replacement were taken from the CCFO sample: a calibration sample (N = 611) to test the fit of the three models described above; and a sample (N = 610) to validate the selected measurement model. There were no statistically significant differences between the calibration and validation samples for NPHSO size, tenure, type, and paid executive director, which were the four covariates used in prior CCF studies (Minzner et al., 2010; 2014).

For each model, specification steps recommended by Bowen and Guo (2012) were followed. Observed indicators (survey items) with measurement error were specified as loading onto latent variables. To set scales, the path of each latent variable to the first observed indicator was fixed to one. In Table 1 below, latent variables, observed indicators, subject-to-variable (STV) ratios, and degrees of freedom are specified for each model. STV ratios are sufficient for CFA relative to sample size (de Vet et al., 2005) and all three models are well over-identified (Hoyle, 1995; Kline, 2011).

Table 3.1. Model Specification.

<table>
<thead>
<tr>
<th>Model</th>
<th>Latent Variables</th>
<th>Observed Indicators</th>
<th>STV Ratio</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: CCF</td>
<td>Organizational development</td>
<td>27</td>
<td>11:1</td>
<td>1367</td>
</tr>
<tr>
<td></td>
<td>Program development</td>
<td>13</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Resource development</td>
<td>7</td>
<td></td>
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<td></td>
<td>Leadership development</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community engagement</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: MCF</td>
<td>Operational capacity</td>
<td>18</td>
<td>11:1</td>
<td>1371</td>
</tr>
<tr>
<td></td>
<td>Leadership capacity</td>
<td>15</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Adaptive capacity</td>
<td>12</td>
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</tr>
</tbody>
</table>
Models 1-3 were estimated using mean- and variance-adjusted weighted least squares (WLSMV) in Mplus version 7.3 (Muthén & Muthén, 1998-2012). WLSMV produces a polychoric correlation matrix, which is recommended for use with nominal and ordinal data (Brown, 2006; Flora and Curran 2004; Garrido, Abad, Ponsoda, 2013; Holgado–Tello, Chacón–Moscoso, Barbero–García, & Vila–Abad, 2008; Muthén, du Toit, and Spisic 1997; Norris & Lecavalier, 2010). Root-mean square error-of-approximation (RMSEA), comparative fit index (CFI), and Tucker-Lewis Index (TLI) were used as fit indices, which are recommended for use with the WLSMV estimator (Bowen & Guo, 2012; Schreiber et al., 2006). RMSEA is an absolute fit index, which reflects the extent to which sample data are reproduced by the specified model, while CFI and TLI are incremental fit indices, which compare fit improvement of the specified model compared to a nested baseline model (Hu & Bentler, 1998).

To make judgments concerning quality of fit of Models 1-3, the following recommended cutoff values were used: RMSEA < .06 (90% upper bound confidence interval < .08); CFI > .95; and TLI > .95 (Bowen & Guo, 2012; Hu & Bentler, 1999; Schreiber et al., 2006; West, Taylor, & Wu, 2012), though RMSEA < .08, CFI > .90, and TLI > .90 are also considered acceptable cutoffs (Hoe, 2008). The Chi Square goodness-of-fit indicator was excluded because it is typically statistically significant with larger samples (N ≥ 400) (Dimitrov, 2010; Hoe, 2008; Hoyle, 1995; Kenny, 2014).
To improve model fit, two strategies were used. First, modification indices were reviewed to identify sources for improving fit by correlating the measurement errors of within-factor observed indicators. This is an acceptable fit improvement step if conceptually substantiated, such as when observed indicators share the same question stems or constructs (Anderson & Gerbing, 1988; Bowen & Guo, 2012; Schreiber et al., 2006) and correspond to the same latent variable (Hooper, Coughlan, & Mullen, 2008). For example, in Model 1, the measurement errors of the following two survey items were correlated to improve fit: “organization keeps records on the number of individuals or families enrolled in/served through programs” and “organization keeps records on individual service recipients' outcomes.” It is reasonable to assume organizational record keeping has a common source of measurement error.

Second, observed indicators were dropped if they met two or more of the following criteria: low factor loading (< .32), cross-loading (i.e., indicators that load on more than one latent variable according to modification indices), low R square (< .20), and/or source of multiple high residual correlations (Bowen & Guo, 2012).

For the model with the best fit, a final analytical step was to assess group invariance by tenure using the DIFFTEST command in Mplus 7.3 with Satorra Bentler scaled Chi Square. This step was taken to assess whether the best fitting model showed consistent fit for both younger (i.e., less than six years in operation) and older (i.e., six or more years in operation) NPHSOs. A model with unconstrained factor loadings was compared to a nested model with factors loadings constrained to be equal by tenure. A statistically significant result of the DIFFTEST would suggest retaining the unconstrained model, which means there was systematic variance by tenure. In contrast, a non-significant DIFFTEST result would indicate the model was invariant by tenure (Kline, 2011).
Missing Values

Though there is no consensus in the literature about an acceptable level of missing data for CFA, up to 20% is considered acceptable (Peng, Harwell, Liou, & Ehman, 2007). Mean covariance coverage across 77 analysis variables was 88% and the average rate of missing values was 3.8%. All but three items had a missing value rate of less than 20%. These three items – annual performance reviews for paid staff, written job descriptions for paid staff, and obtained funding from a new source in the last 12 months – had a missing values rate of 31%, 30%, and 29%. To examine missing data patterns, dummy variables were created for missing values on these three items and regressed on covariates. Having no paid staff was a significant predictor ($p < .001$) of all three items. Similarly, missing data for several other items with non-negligible, but less than 20%, missing values were also predicted by other observed variables. Also, all “don’t know”, “refused”, and “not applicable” responses were coded as missing values in the CCF Outcome study (Campbell, n.d.). Thus, it is highly likely most missing values represented “not applicable” responses as predicted by other variables, suggesting data were missing at random (MAR) (Graham, 2009).

Missing data were handled using full information maximum likelihood (FIML) in Mplus version 7.3 (Muthén & Muthén, 2012) so all available information was used. FIML as a means of handling missing data in structural equation modeling has been found to produce unbiased and efficient estimates (Asparouhov & Muthen, 2010; Enders & Bandalos, 2001).

Results

Sample Characteristics

Table 3.2 displays characteristics of the study sample. Reflecting the purpose of the CCF demonstration to reach smaller NPHSOs, most NPHSOs (58%) had annual revenues of under
$100,000, compared to 40% of all public charities in the U.S. that had total expenses under $100,000 in 2011 (Pettijohn, 2013). The type of NPHSO was roughly evenly divided between faith- and community-based. The majority of NPOs (i.e., 63%) had been providing services for 10 years or less. The most common primary programmatic areas were services for at-risk children and youth (70%) and education (51%). Less than a quarter of NPHSOs focused on other areas, including services to immigrants, economic and community development, hunger, health services, and substance abuse. The median number of persons served by NPHSOs in the most recent month was 90.

Table 3.2. Study Sample Description.

<table>
<thead>
<tr>
<th>Covariate*</th>
<th>% or Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenure – years of providing services (N = 1,175)</td>
<td></td>
</tr>
<tr>
<td>Younger (less than six years)</td>
<td>43%</td>
</tr>
<tr>
<td>Older (six or more years)</td>
<td>57%</td>
</tr>
<tr>
<td>Type (N = 1,205)</td>
<td></td>
</tr>
<tr>
<td>Faith-based organization</td>
<td>52%</td>
</tr>
<tr>
<td>Community-based organization</td>
<td>48%</td>
</tr>
<tr>
<td>Size± (N = 773)</td>
<td></td>
</tr>
<tr>
<td>Smaller (less than $100,000 in revenue)</td>
<td>58%</td>
</tr>
<tr>
<td>Larger ($100,000 or more in revenue)</td>
<td>42%</td>
</tr>
<tr>
<td>Paid Executive Director± (N = 827)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>62%</td>
</tr>
<tr>
<td>No</td>
<td>38%</td>
</tr>
<tr>
<td>Communities served (N = 1,214)</td>
<td></td>
</tr>
<tr>
<td>Urban only</td>
<td>55%</td>
</tr>
<tr>
<td>Large town only</td>
<td>12%</td>
</tr>
<tr>
<td>Rural area only</td>
<td>11%</td>
</tr>
<tr>
<td>Suburban only</td>
<td>4%</td>
</tr>
<tr>
<td>Two or more types</td>
<td>18%</td>
</tr>
</tbody>
</table>

* Covariates defined by prior CCF research (Minzner et al., 2010, 2014); ± Retrospective observations at follow-up. Lower N due to attrition.

Most NPHSOs had a paid executive director, yet the average number of paid full-time (M = 3.5, SD = 16.6) and part-time (M = 2.2, SD = 4.5) staff was very low. NPHSOs applied for

5Though revenues and expenses are different financial indicators, they are roughly comparable because NPOs tend to expend very close to what they raise rather than retain large amounts of revenue due to demand for services.
capacity-building assistance through the CCF for several reasons, the most common of which were to strengthen long-term sustainability of the organization (75%), increase or diversify funding and resources (66%), and expand or strengthen community partnerships or networking (61%).

**Model Fit**

As seen in Table 3.3, initial model fit based on recommended cut-off values (Hu & Bentler, 1999) was good based on RMSEA, but not for CFI and TLI. However, following steps to improve model fit described above (i.e., correlated measurement errors, dropping poor performing items) improved fit across all three models, as seen in Table 3.4. Though fit improved for all three models, Models 1 (CCF) and 2 (MCF) still failed to achieve recommended fit thresholds across all fit indices. However, Model 3 (Level of Focus items only) achieved very good fit for all three fit indices. This finding was corroborated by running the model with a separate validation sample, which resulted in even better fit. No observed indicators were dropped from the model. All 19 observed indicators had statistically significant loadings on the four latent variables (i.e., resource, board, and program development, and management capacity).
as seen in Appendix 3.1. The final model included six sets of correlated measurement errors, three sets each within the board and program development latent variables. All of these correlated errors were for items that had a common or conceptually similar question stem. A full list of the 19 CCF LOF survey items can be found in Appendix 3.2.

**Single Factor and Second Order Alternatives for Model 3**

With Model 3 (LOF items only) selected as the final model, two alternative model specifications were assessed to determine whether fit improved. First, a single factor model was specified, in which the 19 observed indicators were hypothesized as loading onto a single organizational capacity latent variable. Fit worsened with a single factor model ($\chi^2 = 437$, $df = 146$, $p < .001$; RMSEA = .057, [90% CI] = .051, .063; CFI = .919; TLI = .905). Next, a second order model was specified, which specified that the four latent variables from Model 3 (resource, board, and program development, and management capacity) loaded onto a higher order latent variable, organizational capacity. Fit improved with a second order model ($\chi^2 = 290$, $df = 142$, $p < .001$; RMSEA = .041, [90% CI] = .034, .048; CFI = .959; TLI = .950). However, results of the DIFF TEST in Mplus indicated that fit improvement was not statistically significant ($\Delta \chi^2 = 3.92$, $\Delta df = 2$, $p = .14$). Consequently, Model 3 was retained as a more parsimonious model.

**Group Invariance Test for Model 3**

The final analytical step was to conduct a test to determine whether Model 3 was an invariant measurement model of capacity-building based on tenure, i.e., whether Model 3 is applicable to both younger (in operation for less than six years) and older (in operation for six or more years) NPHSOs. The selection of tenure as an organizational characteristic by which group invariance was tested was informed by the life stages perspective of nonprofit organizations (Light, 2004; TCC Group, 2010), which views capacity and performance as a

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6Criteria for identifying younger and older NPHSOs are defined by prior CCF research (Minzner, et al., 2010, 2014).
developmental process. The question a group invariance test answered was whether Model 3 is a valid way to measure capacity irrespective of an NPHSO’s life stage.

The group invariance test using the DIFF TEST procedure in Mplus by tenure was non-significant ($\Delta \chi^2 = 11.16, \Delta df = 14, p = .67$), indicating Model 3 as a four-factor model of capacity-building had equally good fit for younger and older NPHSOs. Consequently, Model 3 can be used as a scale for NPHSOs irrespective of tenure.

**Poor Performing Items in Models 1 & 2**

Table 3.5 lists observed indicators that were dropped from Models 1 and 2 because they failed to sufficiently load on a latent factor ($\geq .32$) and/or had low R square values, and/or cross-loaded on more than one latent factor. The nine poor performing items from the CCF survey reflected multiple capacity domains, including four of five CCF survey items concerning technology, which were in the CCF organizational development and MCF operational capacity domains.

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NPO engages in partnerships with other organizations</td>
</tr>
<tr>
<td>2. NPO has a fundraising plan</td>
</tr>
<tr>
<td>3. Primary activity of the board is outreach</td>
</tr>
<tr>
<td>4. Primary activity of the board is reviewing executive director performance</td>
</tr>
<tr>
<td>5. NPO has access to the internet</td>
</tr>
<tr>
<td>6. The number of functioning computers is sufficient</td>
</tr>
<tr>
<td>7. The internet is used in support of organizational activities</td>
</tr>
<tr>
<td>8. The internet is used to support the organization’s website</td>
</tr>
<tr>
<td>9. LOF: organization incorporates new approaches to providing services</td>
</tr>
</tbody>
</table>

Note: Items 1-8 were dropped from both models. Item 9 was dropped from Model 1 only.

**Discussion**

The goal of this study is to validate a model for measuring NPHSO capacity using baseline survey data from a large federal NPHSO capacity-building demonstration project. Competing conceptual models of NPHSO capacity were tested, yet neither Model 1 nor 2 fits the
data well. However, a third model – limited to measuring capacity-building progress – fits the data well for both younger and older NPHSOs. Model 3 is a 19-item scale with four subscales (resource, board, and program development, and management capacity) NPHSO leaders can use to assess organizational structures and functions to improve. Researchers can use this scale to assess NPHSO capacity-building interventions.

The conceptual distinction between the first two models and the third is subtle, but important. Models 1 and 2 purport to measure whether NPHSOs have certain types of structures and functions in place, such as having a designated staff member responsible for financial management and keeping records on client needs, services provided, and referrals. Model 3 purports to measure an NPHSO’s self-assessed progress in strengthening these functions, such as steps toward developing a fundraising plan or increasing the scope of services provided. Because Model 3 fits the data well, the implication is it is possible to accurately measure efforts to increase capacity, yet difficult to accurately measure organizational performance as attempted with Models 1 and 2.

NPHSO administrators and managers could use the 19-item scale validated by Model 3 to identify areas on which to focus capacity-building efforts and to track progress in resource, board, and program development and management capacity. Conceptually, Model 3 is well aligned with a life stages perspective of organizational development (Hasenfeld & Schmid, 1989; Light, 2004; Simon, 2001; Stevens, 2002). For example, Bess (1998) conducted a study of early life stage NPOs, using a Likert scale measure self-assessed progress in achieving capacity-building initiatives. Model 3 could be particularly useful for NPHSOs in earlier life stages, in which the organization is developing programs and building the infrastructure (e.g., fundraising, supervision) to support program implementation.
Though Model 3 fits the data well, it is important to consider why Models 1 and 2 do not. The overall reason is that the hypothesized relationships between indicators and latent variables in Models 1 and 2 are poorly specified. This means these two models of NPHSO capacity are not well conceptualized. There may be other, unnamed capacity domains that more accurately reflect sets of organizational functions. Another possibility is fit indices used to assess structural models are sensitive to misspecification, but not to different types of models (Fan & Sivo, 2007). For example, Breivek and Olsson (2001) and Kenny and McCoach (2003) (as cited in Fan & Sivo, 2007) found as the number of observed indicators are increased in a model, RMSEA declined, yet CFI and TLI were less affected by the number of indicators, but tended to indicate worse model fit. This mirrors findings in the present study, where RMSEA, but not CFI and TLI results indicate good fit for Models 1 and 2, which have a large number of indicators (N = 54) compared to Model 3 (N = 19).

An additional reason why Models 1 and 2 do not fit the data well may be that measuring complex organizational behaviors is elusive and difficult to accurately capture. For example, an observed indicator which corresponds to program development in Model 1 (CCF) and adaptive capacity in Model 2 (MCF) is “does your organization conduct formal measurement / assessment of the results and benefits of the services provided to individuals or families?” The real answer to this question may not be revealed through a binary response choice option (i.e., yes or no) and may come with a set of caveats and conditions that eschew quantitative measurement. For example, most NPHSOs offer more than one program or service. An NPHSO may regularly conduct outcome measurement for Program A because outcomes are easier to assess and/or the funding agency or foundation for Program A compels and/or provides the resources for the NPHSO to measure outcomes. Conversely, Program B may be new, poorly defined, or address
client needs that make outcome measurement difficult to accomplish. In this case, would the NPHSO answer the above question affirmatively or not? Ordinal level measurement may be better.

However, it may not be that certain organizational behaviors are so complex they eschew measurement. Models 1 and 2 may not fit the data well because there are too many domain indicators on the CCF survey that do not reflect the operational realities of smaller NPHSOs, which the sample represents. Because their organizations are smaller and less complex than larger NPHSOs, respondents may have had insufficient frames of reference to answer questions.

Model 1 and 2 results also expose measurement shortcomings of the CCF survey. Nine items are poorly performing and were dropped. Four of these items are related to technology. How technology is harnessed to support the infrastructure of an NPHSO may be difficult to measure, particularly given rapid changes in information technology. Other dropped items may be poorly constructed. Another dropped item was “NPO engages in partnerships with other organizations.” “Partnerships” could mean many different things depending on the particular NPHSO. For a youth-serving NPHSO, partnerships could be regarded in relation to receiving referrals from schools, while for NPHSOs addressing hunger, partnerships could be regarded in relation to receiving in-kind donations from food retailers and wholesalers. Other dropped items used “outreach” and “new approaches” to service delivery, which may also mean very different things depending on the NPHSO’s mission or are simply too ambiguous to act as valid measures of capacity.

This study has several limitations to note. Survey responses were provided by a single representative of each NPHSO, usually the executive director. Respondents may not have offered accurate assessments of organizational behavior because of inconsistent knowledge and
awareness of several different organizational functions. For example, an executive director who is directly engaged in writing grants and soliciting donations may offer an accurate assessment of resource development capacity, but not of program development capacity if a different staff member (e.g., director of client services) has primary managerial responsibility in this area. The respondent might also have not been with the NPHSO long enough to offer accurate observations of organizational capacity. The length of the survey (more than 200 items) also introduces the possibility of respondent fatigue, particularly considering the very busy and often chaotic work days of executive directors of smaller NPHSOs.

The most significant limitation of this study is the measure of capacity validated in this study (Model 3) is an insufficient representation of organizational capacity as conceptualized in the literature. While it may have utility for smaller NPHSOs to assess areas for growth, it is less useful for and generalizable to larger NPHSOs interested in assessing a richer set of capacities captured in tools like the TCC Group’s (2010) 146-item Core Capacity Assessment Tool (CCAT).

Research on NPHSO capacity could be improved in three ways. First, rather than depend solely on self-report survey responses from a single respondent, responses could be aggregated across multiple staff members, which is a practice with other organizational instruments such as the Organizational Social Climate tool (Aarons et al., 2012) and the Multi-Factor Leadership Questionnaire (Avolio, Bass, & Jung, 1999). Second, capacity observations could be triangulated by adding using observational check lists and/or rating forms based on researchers’ interviews with NPHSO staff members and on-site reviews of organizational records. Third, NPHSO leaders themselves could be more involved in developing capacity instruments using expert review, cognitive interviewing, and pretesting methods.
Conclusion

NPHSOs are a growing and an important part of the social safety net in the U.S. Many NPHSOs are very small and in need of strengthened capacity to reliably and effectively implement programs to help individuals and families with a wide variety of needs. Capacity-building efforts of foundations, government agencies, and other intermediaries can be enhanced with valid measures to help assess capacity outcomes. While organizational capacity is difficult to measure accurately, this study finds a 19-item scale NPHSOs and their capacity-building partners can use to measure progress in building capacity.
REFERENCES


http://www.polytechnic.edu.na/academics/schools/engine_infotech/civil/libraries/urban_planning/NGO_CBO%29Capacity_aUSERguide.pdf


CHAPTER 4: ASSESSING EVIDENCE-BASED PRACTICE-RELATED OUTCOMES OF AN NPHSO CAPACITY-BUILDING INTERVENTION

The social welfare system in the U.S. is largely comprised of community-based nonprofit human service organizations (NPHSOs) offering services to meet a wide array of individual and family needs. In most communities, NPHSOs address homelessness, domestic violence, child maltreatment, mental illness, substance abuse, and other social problems of critical concern to the social work profession. In an era of increased reliance by government on NPHSOs to perform a social safety net function (Garrow, 2011), NPHSOs are expected to be competent stewards of taxpayer and donor support (Ebrahim, 2003; Gibelman & Gelman, 2001; Light, 2004). However, NPHSOs fail to demonstrate how they improve outcomes for the people they serve (Stern, 2013). Consequently, there is increased demand for NPHSOs to demonstrate positive client outcomes and community impact (Benjamin, 2013; Bradach, Tierney, & Stone, 2008; Campbell, 2002; Colby, Stone, & Carttar, 2004; Ebrahim & Rangan, 2010).

Evidence-based practice (EBP) is a promising strategy NPHSOs can use to improve client outcomes and increase community impact (Austin & Claassen, 2008; Franklin & Hopson, 2007; Johnson & Austin, 2006; Kovner, 2014; Maynard, 2010). However, many NPHSOs – particularly smaller ones7 - experience capacity deficits in key functions such as human resources, fundraising, and evaluation (e.g., Brown, 2008; Leake et al., 2007; Minzner et al, 2010; TCC Group, 2010; Yung et al, 2008).

\(^7\)77% of all public charities – including NPHSOs – in the US had total annual expenses of less than $1 million in 2012 (McKeever & Pettijohn, 2014).
Capacity deficits diminish the prospect of EBP engagement among NPHSOs in two ways. First, a lack of capacity makes it difficult for NPHSOs to develop, implement, and consistently offer programs and services. Absent reliable service delivery, EBP engagement is a moot issue. Second – and assuming NPHSOs are able to overcome capacity deficits to consistently offer programs and services - adequate staffing, supervision, and other resources and capacities are needed to promote fidelity and effective program implementation (Bond et al., 2009; Carstens et al., 2009; Durlak & DuPre, 2008; Fixsen, Naom, Blase, & Friedman, 2005; Gearing et al., 2011; Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004).

Capacity-building is a strategy aimed at helping NPHSOs and other nonprofit organizations develop the knowledge and skills to improve performance. Foundations, local United Ways, universities, management service organizations, and consultants offer capacity-building assistance, usually targeting smaller NPHSOs and other nonprofit organizations. Though many NPHSOs and other nonprofits participate in capacity-building (501 Commons, n.d.), the effectiveness of capacity-building is not well studied. It is unclear whether capacity-building helps NPHSOs implement and sustain functional improvements and whether such improvements result in positive client outcomes. In particular, there is a lack of evidence capacity-building can enhance NPHSOs’ abilities to engage in EBP.

In its current iteration, capacity-building has evolved from improving organizational functioning in areas such as board development, to also enhancing organizations’ contributions to collective efforts to solve complex social problems (Raynor, Cardona, Knowlton, Mittenthal, & Simpson, 2014). Foundations have shifted away from using evaluation as a means of ensuring accountability to using evaluation to promote organizational learning, advocacy, and overall effectiveness among nonprofit organizations (Grantmakers for Effective Organizations, 2011).
The purpose of this study is to assess the effectiveness of a randomized controlled trial of an NPHSO capacity-building demonstration project. This study aims to answer the following question: Does providing capacity-building assistance improve NPHSOs’ capacity to design and evaluate programs? Results from this study will inform efforts to build capacity to enhance NPHSOs’ readiness to engage in EBP.

**Capacity-Building Needs of NPHSOs**

Authors of several studies have documented a range of capacity deficits across several organizational functions among NPHSOs – particularly smaller organizations. Among smaller faith- and community-based NPHSOs ($N = 1,221$), financial sustainability, governance (i.e., board of directors performance), and financial management were the most critical needs identified by NPHSO leaders (Abt Associates, 2009). In a related study, NPHSO ($N = 454$) leaders identified long-term sustainability, increased funding, increased number of clients served, and improved community partnerships as top capacity-building goals (Minzner et al., 2010).

Yung et al. (2008) found resource development capacity was a priority among a sample of 659 of NPHSOs in Ohio, including identifying funding opportunities, grant writing, and developing fundraising plans. Lack of resource development capacity among nonprofit organizations was a top need identified in several other similar studies (American Planning Association – New Jersey Chapter, 2011; Arizona Nonprofit Capacity Building Initiative, 2003; Brown, 2008; Gilmer, 2012; Kapucu, Healy, & Arslan, 2011; Popescu & Dewan, 2009; Sobeck & Agius, 2007; Sobeck, 2008; Wright, 2011), which reflects findings from other studies concerning financial challenges of nonprofit organizations (Besel, Williams, & Klak, 2011; Bowman, 2010; Nonprofit Operating Reserves Initiative Workgroup, 2008; Salamon & Geller,
Authors of nonprofit capacity studies identified other needs including volunteer management and use of technology (501 Commons, n.d.), reporting to federal agencies, financial management, organizational policy development, and staff professional development (Brown, 2008), community assessment, communications, and marketing (Popescu & Dewan, 2009), program monitoring and evaluation and board development (Sobeck & Agius, 2007; Sobeck, 2008) human resource management (Wright, 2011), and leadership development (Austin, Regan, Samples, Schwartz, & Carnochan, 2011). Capacity deficits are experienced across all major organizational functions, yet lack of sufficient resources is a recurrent theme in this literature and puts NPHSOs in a real bind. NPHSOs that wish to strengthen programs to improve client outcomes struggle to secure the resources needed to hire well-qualified staff, pay for training and technical assistance, and develop supportive infrastructure such as information systems to collect, manage, and analyze outcome data.

**Capacity Needs Related to EBP Engagement**

Evaluation capacity is the NPHSO’s a) ability to define the quality-of-life changes it hopes to achieve for the individuals, families, and communities it serves; b) engage in formative, process, and outcome evaluations; and c) effectively manage data and knowledge gained from evaluation activities to improve programs. Evaluation capacity may promote EBP engagement among NPHSOs.

However, studies indicate that NPHSOs struggle with evaluation (Hoefer, 2000; Innovation Network, 2012; Leake et al., 2007; Pejsa, 2011; Sobeck, 2008; TCC Group, 2010). For example, 32% of faith- and community-based NPHSOs (N = 454) did not track client
outcomes and more than half (51%) had not evaluated program-level outcomes (Minzner et al., 2010). In another study, only 18% of faith- and community-based youth-serving NPHSOs had outcome evaluation plans (Leake et al., 2007). Innovation Network (2012) found that most (79%) nonprofit organizations conducted outcome evaluation, but only 4% and 6% used quasi-experimental and randomized control trial designs, respectively. Most organizations (73%) indicated they spend less than 5% of their annual operating budgets on evaluation.

To increase EBP engagement among NPHSOs, a good place to start is to build evaluation capacity. Skill in collecting and analyzing client data will enhance staff understanding of research evidence to apply to programs and services. Robust program monitoring and evaluation systems in NPHSOs will help NPHSOs adapt evidence-based programs to fit client needs and community contexts.

**Capacity-Building Interventions**

Capacity-building is a process of funders and other intermediaries\(^8\) offering training, technical assistance, and targeted funding to improve nonprofit organization performance (Raynor et al., 2014) or address a specific organizational challenge or opportunity such as meeting new funding requirements (Light, 2004). Building capacity is a management strategy to ensure organizational survival (Pfeffer & Salancik, 1978; Froelich, 1999; Hillman, Withers, & Collins, 2009) and to enhance NPHSOs’ competitive advantages (Barney & Hesterly, 2012; Courtney, 2002; Hill & Jones, 2008; Oster, 1995).

Common capacity-building activities include group-based training, technical assistance, leadership development, and targeted funding to address multiple (Austin et al, 2011; Ladner, 2007; Light, 2004) or distinct capacities such as data management and analysis (Wetta-Hall, 2011).

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\(^8\)These may include universities, management service organizations, management consulting firms, and independent consultants.
Ablah, Oler-Manske, Berry, & Molgaard, 2004). Lack of funding and time is a common barrier to capacity-building among nonprofit organizations (Arizona Nonprofit Capacity Building Initiative, 2003; TCC Group, 2010; Yung et al., 2008). To build evaluation capacity, foundations should pay for nonprofit organizations’ evaluation costs, support skills coaching, training, or workshops, and promote evaluation communities of practice (Grantmakers for Effective Organizations, 2011).

**Capacity-Building Intervention Outcomes**

Limited empirical evidence exists concerning the effectiveness of capacity-building (Light, 2004; McKinsey & Company, 2001; Sobeck & Agius, 2007), as only a few studies have found modest, self-reported gains in various capacities among mostly smaller NPHSOs. Leake et al. (2007) found small NPHSOs (N = 90) experienced gains in 11 of 12 capacity areas, such as fundraising and program evaluation. Greater gains were associated with receiving technical assistance and grants compared to workshops only. Popescu and Dewan (2009) found most (70%) NPHSOs (N = 21) experienced capacity gains, yet only 42% increased service capacity. Similarly, Markovitz, Magged, Florez, and Klein (2008) found capacity gains among NPHSOs (N = 56), yet increases in clients served were not statistically significant relative to a comparison group.

Among domestic violence NPHSOs (N = 54), statistically significant gains – attributed primarily to grants, not technical assistance - were made in government funding, use of information technology, staff size, and board performance relative to a comparison group of NPHSOs. However, NPHSOs also experienced performance declines in fundraising, strategic planning, asset mapping, and use of theories of change (Brown, 2008). Kapucu, Healy, and Arslan (2011) found mixed results among small NPHSOs (N = 23) that received workshops,
technical assistance, and grants. Gains in management knowledge were statistically significant, but not gains in management skill or staff size. In eight areas of performance, percentages of NPHSOs making no improvements ranged from 44% to 71%.

To date, the federal Compassion Capital Fund (CCF) Demonstration Program from 2003-2008 was the largest NPHSO capacity-building initiative in the US. CCF studies assessed the impact of training, technical assistance, and capacity-building grants offered through intermediaries on organizational capacities based on self-report surveys completed by NPHSO representatives. In the Communities Empowering Youth (CEY) study, Francis et al. (2011) found NPHSOs (N = 436) made statistically significant improvements in several capacities across four domains: leadership, organizational, and program development, and community engagement. The greatest changes occurred in program development and community engagement, such as increases in clients served and partnerships with other organizations. However, statistically significant improvements in only a minority of capacities (36%) were observed from baseline to 30-month follow-up. Also, many significant outcomes were modest indicators of organizational performance.

In the CCF outcome study, statistically significant positive changes were made by NPHSOs (N = 1,221) on 72% of capacities in several domains. For example, a greater number of NPHSOs had written strategic plans at follow-up (70%) compared to baseline (46%) (p < .001), conducted staff performance reviews (73% vs. 68%; p < .01), and provided formal orientations for new board members (64% vs. 47%; p < .001). Results were mixed concerning resource development; the number of NPOs that sought and obtained new sources of funding decreased. Also, the sample average total amount of funding received from non-federal sources decreased from baseline to follow-up.
In the CCF impact study, mean treatment effects were statistically significant for all five capacity domains, including leadership, organizational, program, and resource development ($p < .001$) and community engagement ($p < .01$). However, for only 21 outcomes – just 10% of all outcomes –, treatment-control group change score differences were both statistically significant ($p < .05$) and had effect sizes of .40 or higher (Minzner et al, 2010, 2014) (see Appendix 4.1). Also, most of the 21 outcomes reflected intervention outputs, e.g., engagement in the training component of the intervention. These results could be considered fidelity or dosage observations, but not organizational capacity outcomes. In addition, outcomes were greatest concerning level-of-focus outcomes\(^9\) compared to actual changes in organizational behavior. Thus, much of the overall treatment effect observed was related to intervention engagement and awareness of and initial steps to address capacity deficits.

The effectiveness of capacity-building interventions may depend on funding and amount and type of NPHSO engagement. Patrizi et al. (2006) found multi-year, unrestricted grants helped six juvenile justice NPHSOs strengthen information technology and fundraising, launch new business models, and strengthen and expand programs. Similarly, Ryan and Taylor (2012) found large, unrestricted grants helped three NPHSOs chosen for their use of evidence to improve programs increased the number of youth served by 69% over a four-year period. Sobeck (2008) found investments of $2,810, $3,262, and $3,317 in capacity-building assistance were associated with one standard deviation improvements in planning, grant writing, and evaluation capacities, respectively, among small NPHSOs (N = 125).

Pejsa (2011) found involvement of both managerial and front line staff members, a flexible and tailored learning approach, sufficient time for capacity-related discussion, and use of

\(^9\)These outcomes related to questions that aimed to assess NPOs’ self-reported incremental progress in building capacity, from recognizing the need to improve a capacity to developing and then implementing capacity-building steps.
an outside facilitator were effective capacity-building methods. However, the intervention was abruptly discontinued due to a loss of funding. Austin et al. (2011) found participants in a NPHSO leadership development intervention had limited time to participate and insufficient support from their employers; 10 of 22 originally enrolled participants dropped out due to work demands.

**Does Capacity-Building Work?**

Based on a limited number of studies, capacity-building seems to positively impact capacity awareness, knowledge, and skills of NPHSOs, yet evidence concerning organizational performance and client outcome-related impacts is modest. Longer-term follow-up is needed to assess impact on organizational performance and client outcomes. Also, few studies used comparison or control groups; observed improvements may have been due to maturation. Other evidence reviewed above indicated that receiving capacity-building grants – irrespective of training or technical assistance received – may alone improve organizational performance (Markovitz et al., 2008; Patrizi et al., 2006; Ryan & Taylor, 2012). Also, improvements are more likely among stable NPHSOs (Patrizi et al., 2006).

**Study Purpose**

The studies reviewed above assessed NPHSO capacity-building interventions in very broad terms; the impact of capacity-building using different intervention methods or focused on particular topics is unclear. Research in this field can be improved by better understanding the impact of different types and amounts of capacity-building assistance on capacities most directly related to improving client outcomes, such as evaluation capacity.

Assessing capacity-building impacts on evaluation capacity is important because this is a particular area of difficulty for NPHSOs. Enhanced evaluation capacity can help NPHSOs better understand whether programs and services are achieving desired client outcomes and how
programs and services might be improved by engaging in EBP. Evaluation capacity is also important for monitoring and evaluating implementation of evidence-based programs.

Using CCF impact study data, this study sought to answer the following questions:

1. Does offering program evaluation capacity-building assistance increase the likelihood of enhanced evaluation capacity among NPHSOs?
2. Which organizational characteristics are associated with greater likelihood of evaluation capacity gains among NPHSOs that receive program evaluation capacity-building assistance?

Answering these questions may inform targeted efforts to help NPHSOs strengthen programs and services through enhanced evaluation.

Methods

Sample

Data used for this study were from the CCF demonstration program impact study (Minzner et al., 2010; 2014). NPHSOs were randomly assigned to a treatment group (N = 237) that received capacity-building assistance or a control group (N = 217) that did not. Treatment effects were estimated using intent-to-treat (ITT) difference-in-differences (DiD), i.e., pre-post dependent variable change score differences between treatment and control group NPHSOs. Unadjusted and adjusted (i.e., controlling for tenure, type, total annual expenditures, and paid executive director status) differences and effect sizes\(^{10}\) were calculated.

For this study, I re-sampled a subsample to conduct an efficacy subset analysis related to evaluation capacity. The treatment group (N = 120) was comprised of NPHSOs that received capacity-building assistance from a CCF intermediary related to program evaluation. The control group (N = 141) was comprised of NPHSOs that did not receive capacity-building assistance

\(^{10}\)Using the standard deviation for the control group at follow-up.
from a CCF intermediary nor any other entity related to program evaluation program. Bi-variate tests to assess treatment and control group differences for the four covariates\(^\text{11}\) used by Minzner et al. (2010; 2014) in the impact study (tenure, type, size, and paid executive director) were statistically non-significant, indicating sample balance.

**Measures**

Measures used in this study came from the survey of NPHSO representatives, usually the executive director, completed at baseline and 15-month follow-up. As described above for the CCF impact study (Minzner et al., 2010; 2014), the surveys contained questions about NPHSO characteristics, capacity-building interests and experiences, and capacities in five domains.

**Dependent variables.** The following measures were selected as indicators of evaluation capacity and used as dependent variables in analytical models. All five variables were in the program development domain (Minzner et al., 2010; 2014). For items 1-3, responses were re-coded as change scores, i.e., “1” if the NPHSO experienced a positive change (from no to yes) from pre- to post-test and “0” if they did not. For items 4 and 5, responses were re-coded as change scores, i.e., “1” if the NPHSO experienced movement up the response scale from pre- to post-test and “0” if they did not.

1. **Conducts outcome measurement.** This variable was measured with the following survey item: “Does your organization conduct formal measurement /assessment of the results and benefits of the services provided to individuals or families?”

2. **Keeps outcome records.** This variable was measured with the following survey item: “Organization keeps records on individual service recipients' outcomes.”

\(^{11}\)According to Minzner et al. (2010), covariates were included in analyses to increase the precision of outcome and treatment effect estimates. The selection of these four particular covariates “reflects the professional judgments of the project staff and consultants about the baseline characteristics most likely to matter in explaining subsequent differences in organizational capacities” (p. A-5, technical appendices).
3. **Seeks client feedback.** This variable was measured with the following survey item:
   
   “Organization seeks and obtains regular feedback from individuals/families on their satisfaction with services.”

4. **LOF: Evaluates effectiveness.** This variable was measured with a level of focus (LOF) survey item. For the following statement, “Strengthening the organization's ability to evaluate its overall effectiveness,” respondents indicated “not an area of focus at this time,” “know we should work on this but lack time or resources,” “have developed plans or ideas to work on this, but haven’t implemented,” “have implemented steps to address focus area,” or “not a focus because satisfied with achievement in this area.”

5. **LOF: Improves service quality.** This variable was measured with a level-of-focus (LOF) survey item. For the following statement, “Incorporating a new approach to services to improve quality/effectiveness,” response choices were the same as for item 4.

**Independent variables.** For treatment status, responses were coded as “1” if the NPHSO was assigned to the treatment group to receive capacity-building assistance and received program evaluation assistance. Responses were coded as “0” if the NPHSO was assigned to the control group and did not receive program evaluation assistance. The following covariates were used in analytical models to control for factors expected to affect dependent variables. Items 1-4 were used by Minzner et al. (2010; 2014) in the CCF impact study. Items 5 & 6 were used as additional covariates for this study.

1. **Tenure:** Responses were coded as “1” if the NPHSO had been in existence for less than six years old and “0” for six or more years old.
2. **Type:** Responses were coded as “1” if the NPHSO was a faith-based organization (FBO) and “0” if it was a community-based organization (CBO).

3. **Size:** Responses were coded as “1” if the NPHSO had < $100,000 in total annual expenditures and “0” if expenditures were $100,000 or greater.

4. **Paid executive director:** Responses were coded as “1” if the NPHSO had a paid executive director and “0” if it did not.

5. **Amount of grant assistance:** This was a continuous variable indicating the total amount of grant funding the NPHSO received during the past 12 months from a CCF intermediary. This covariate was added because prior research indicates NPHSO capacity gains are sensitive to funding as an intervention component (Brown, 2008; Leake et al., 2007; Patrizi et al., 2006; Ryan & Taylor, 2012). The amount of funding NPHSOs received might explain capacity-building gains.

6. **Purpose for applying:** Responses were coded as “1” if the NPHSO indicated – irrespective of randomly assigned treatment status – it applied for CCF capacity-building assistance to “develop a system for tracking outcomes” and “0” if it did not. This covariate was added to control for motivation. Without controlling for motivation, capacity-building gains may have been due to the desire of the NPHSO to build capacity (i.e., as a source of unobserved heterogeneity) – not the assistance received.

**Analysis**

To assess effects of program evaluation capacity-building on outcomes related to evaluation capacity, efficacy subset analysis (i.e., treatment-on-the-treated) was used, which produces treatment effect estimates only for participants who received a treatment.

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12 According to Minzner et al. (2010), NPHSOs selected the category of their choice – FBO or CBO – to describe their organization, absent definitions concerning what constitutes each organization type.
Galinsky, 2010; Guo & Fraser, 2010). This analytical approach differs from the CCF impact study (Minzner et al., 2010; 2014) in two key ways. First, as described above, the CCF impact study used average treatment effects (ATE) (i.e., intent-to-treat) estimates comparing treatment-control pre-post change scores (i.e., difference-in-differences). In this study, estimates were calculated only for treatment group NPHSOs that received program evaluation assistance and for control group NPHSOs that received no such assistance, which resulted in case exclusion.

Second, this study assessed the conditional probability of having made a capacity gain as a more precise treatment effect estimate. All analyses were completed using Stata version 13 (StataCorp, 2013).

To answer research question 1 concerning whether capacity-building enhances evaluation capacity, logistic regression was used to assess the likelihood of capacity gains based on treatment status and controlling for other factors that may explain variation in capacity gains. The formula representing this method is as follows:

$$\ln\left(\frac{\hat{p}}{1 - \hat{p}}\right) = \beta_0 + \beta_1(T_k) + \beta_2X_2 + \ldots + \beta_nX_n + \epsilon$$

Where

\(\hat{p}\) is the conditional probability of the capacity gain

\(T_k\) is treatment status (1=treated; 0=control) for the \(k^{th}\) survey respondent.

\(X_{2\ldots n}\) are covariates (organization type, size, tenure, paid executive director, amount of grant assistance received, motivation to receive evaluation assistance) and

\(\epsilon\) is an error term, adjusted for clustering by intermediary.

The number of observations per predictor variable was 31, which far exceeded the recommendation of 10 observations per variable for logistic regression (Hosmer & Lemeshow, 2000; Peng, Lee, & Ingersoll, 2002; Vittinghoff & McCulloch, 2007).
Three methods were used to reduce biases in estimating treatment effects. First, logistic regressions included a sampling weight to adjust for NPHSO non-response at follow-up, a method used by Minzner et al. (2010; 2014). Second, robust standard errors using Huber-White sandwich estimates of variance were used to adjust for correlated observations among NPHSOs that received capacity-building assistance from the same intermediary, whereas Minzner et al. (2010; 2014) included intermediaries as a fixed-effect covariate in regression models. Adjusting standard errors for clustering relaxes the independence of observations assumption in multivariate analysis (Nichols & Schaffer, 2007) and reduces the risk of Type I error. Third, because cases were excluded post-randomization and because there was non-randomized selection on receipt of evaluation assistance, bi-variate analyses were used to assess sample balance and conditional ignorability. To further remove bias based on treatment-control group differences in covariates (i.e., size, type, and tenure, and whether the NPHSO has a paid executive director) (Rosenbaum & Rubin, 1983), sensitivity analyses were conducted using a propensity score weight. Weights were calculated by regressing treatment status (treated or control) on tenure, size, type, and paid executive director and calculating a probability for treated status ($p$). Next, a propensity score for the treatment group was calculated by using the inverse of probability ($1/p$) and for the control group using $1/(1-p)$ (Guo & Fraser, 2010).

Treatment estimates from three different analytical models were calculated:

**Model 1:** Conditional probability of making capacity changes, controlling for four covariates used by Minzner et al. (2010; 2014).

**Model 2:** Conditional probability of making capacity changes, with amount of grant assistance and motivation to receive evaluation assistance as two additional covariates.
**Model 3**: Same as model 2, yet using propensity score weights to reduce bias due to selection on evaluation assistance\(^\text{13}\). Model 3 was used to conduct a sensitivity analysis for Model 2, i.e., to adjust for post-randomization selection bias.

To answer research question two concerning NPHSO characteristics associated with greater likelihood of capacity gains, predicted probabilities for tenure, size, type, paid executive director, and grant amount were calculated for each of the five dependent variables. Probabilities for each predictor variable were calculated using the MARGINS command in Stata version 13, holding other predictors constant at their means. For grant amount, a continuous predictor, predicted probabilities in increments of $5,000 were examined.

**Results**

**Sample Characteristics**

NPHSOs in the study sample (N = 261) had an average of 4.3 and 2.1 paid full- and part-time staff members, respectively, compared to 4.2 and 2.2 paid full- and part-time staff members, respectively, in the full sample (N = 454). In the most recent month, NPHSOs served an average of 341 persons (SD = 807) compared to 364 persons in the full sample (SD = 874). The most common primary programmatic areas were services to at-risk children and youth (67%) and education (52%). Almost half (49%) only served urban communities; very few (7%) only served rural communities. The remainder served other or multiple types of communities.

Characteristics of treatment and control group NPHSOs were very similar between the full (N = 454) and study (N = 261) samples. Bi-variate tests to assess re-sampling balance were all statistically non-significant. However, some imbalance was observed. A greater proportion of treatment group NPHSOs (65%) than control group NPHSOs (55%) in the study sample had a

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\(^{13}\)While NPHSOs receiving evaluation assistance had been randomly assigned to receive capacity-building, determination of the focus of capacity-building- including evaluation – was non-random.
paid executive director. Presence of a paid executive director could make an NPHSO more likely to experience a capacity gain. Model 3 adjusts for this and other potential biases in estimates resulting from study sample imbalances.

**Capacity-Building Assistance**

**Workshops.** Nine out of ten intermediaries offered capacity-building workshops using a group-based training format, ranging from 2 to 30 sessions. Most (N = 7) intermediaries offering workshops allowed any NPHSO to attend (Minzner et al., 2010). More than half (59%) of NPHSOs participated in CCF capacity-building workshops, with an average of 64.3 hours (SD = 132.7). Treatment group NPHSOs (M = 77.4, SD = 145.7) received significantly more workshop hours than control group NPHSOs (M = 13.1, SD = 12.9); t(141) = 2.37, p < .01. Over half (59%) of NPHSOs judged workshops to be very helpful.

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14Workshops were the only type of capacity-building assistance intermediaries could offer to control as well as treatment group NPHSOs. Thus, the control group was exposed to CCF-sponsored workshops, though the treatment group received greater exposure.
**Technical assistance.** Technical assistance was comprised of customized assistance offered by intermediaries or consultants selected by intermediaries using single liaisons, technical assistance teams, or specialized contacts who offered consulting, coaching, or mentoring services (Minzner et al., 2010). Less than half (41%) of NPHSOs received technical assistance from CCF intermediaries, with an average of 44.6 hours ($SD = 71.5$). Only 5 control group compared to 88 treatment group NPHSOs received technical assistance$^{15}$. A majority (70%) of NPHSOs judged technical assistance to be very helpful.

**Capacity-building grants.** Under contract with the Administration for Children and Families, intermediaries were required to devote 40% of their awards to offer sub-grants to NPHSOs. Grants were targeted to strengthen NPHSOs’ efficiency and capacity, not to support direct services, fundraising, or capital projects. Six intermediaries required NPHSOs to submit applications and/or budgets to receive grants, while four did not (Minzner et al., 2010). Under half (44%) of NPHSOs received grants from intermediaries, with a mean award of $4,564 ($SD = $7403). Far more treatment (81%) than control (6%) group NPHSOs received grants $\chi^2 (1, N = 228) = 129.15, p < .001$. Treatment group NPHSOs ($M = $8,569, $SD = $786) received significantly greater grant awards compared to control group NPHSOs ($M = $413, $SD = $242); $t(218) = 9.77, p < .001$. More than a third (37%) of NPHSOs received no capacity-building assistance from CCF intermediaries, including 4% of treatment and 71% of control group NPHSOs.$^{16}$

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$^{15}$Intermediaries were not permitted to provide technical assistance to the control group. This finding indicates a modest level of treatment contamination.

$^{16}$In addition to some CCF exposure, control group NPHSOs were not prohibited from receiving capacity-building assistance from other sources.
Capacity-Building Gains

**Uni-variate results.** At pre-test, less than half (48%) of NPHSOs said they conducted outcome measurement, which increased to 61% at post-test. A larger proportion of NPHSOs (68%) said they recorded data related to client outcomes at pre-test, increasing to 73% at post-test. The discrepancy between these two variables suggests more NPHSOs are collecting and recording versus analyzing client outcome data. Seeking client feedback about services is more common; a large majority (77%) of NPHSOs said at pre-test they seek client feedback, increasing to 83% at post-test. At pre-test, only 20% of NPHSOs said they have implemented steps to evaluate overall effectiveness, rising to 36% at post-test. Similarly, only 31% of NPHSOs said they have implemented steps to improve service quality, rising to 44% at post-test.

**Bi-variate results.** At pre-test, treatment and control group NPHSOs were very similar with respect to the five dependent variables (see Table 4.2). However, the proportion of treatment group NPHSOs engaged in the five evaluation capacities at post-test was greater than control group NPHSOs. There was a statistically significant and greater likelihood that treatment group NPHSOs made a positive change from pre- to post-test compared to control group NPHSOs for three (i.e., conducts outcome measurement, evaluates effectiveness, and improves service quality) evaluation capacities, but not for keeping outcome records and seeking client feedback. Pre-test levels for these latter two capacities were high, which raises the possibility there was less of a chance NPHSOs would show improvement at post-test.

**Multi-variate results.** Based on multi-variate analyses using logistic regression, the probability of capacity gains made by treatment group was greater compared to control group NPSHOs for all five evaluation capacities across all three models (see Table 4.3). However, the
Table 4.2. Unadjusted Pre-Post Differences in Evaluation Capacity Gains.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment</td>
<td>Control</td>
<td>Treatment</td>
</tr>
<tr>
<td>Conducts outcome measurement</td>
<td>48%</td>
<td>49%</td>
<td>68%</td>
</tr>
<tr>
<td>Keeps outcome records</td>
<td>71%</td>
<td>65%</td>
<td>75%</td>
</tr>
<tr>
<td>Seeks client feedback</td>
<td>77%</td>
<td>77%</td>
<td>89%</td>
</tr>
<tr>
<td>LOF: evaluates effectiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not a focus area</td>
<td>5%</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>Know we should work on this</td>
<td>27%</td>
<td>27%</td>
<td>8%</td>
</tr>
<tr>
<td>Have developed plans</td>
<td>35%</td>
<td>31%</td>
<td>28%</td>
</tr>
<tr>
<td>Have implemented steps</td>
<td>32%</td>
<td>30%</td>
<td>46%</td>
</tr>
<tr>
<td>Satisfied with performance</td>
<td>1%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>LOF: improves service quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not a focus area</td>
<td>2%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Know we should work on this</td>
<td>49%</td>
<td>54%</td>
<td>19%</td>
</tr>
<tr>
<td>Have developed plans</td>
<td>29%</td>
<td>23%</td>
<td>28%</td>
</tr>
<tr>
<td>Have implemented steps</td>
<td>19%</td>
<td>20%</td>
<td>45%</td>
</tr>
<tr>
<td>Satisfied with performance</td>
<td>1%</td>
<td>0%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Notes: *$p < .05$, **$p < .01$, ***$p < .001$; $^1$ Chi-square tests for having made a positive pre-post change comparing treatment and control group NPHSOs.

The substantive difference between the two models is Model 2 controls for the amount of grant assistance received and whether the NPHSO was motivated to receive evaluation capacity.

...
Table 4.3. Logistic Regression Analyses of the Impact of Capacity-Building on Evaluation Capacities of NPHSOs.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Model Estimated Coefficients &amp; Odds Ratios (Robust S.E.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 (N=255)</td>
</tr>
<tr>
<td></td>
<td>β (SE)</td>
</tr>
<tr>
<td>Conducts outcome measurement</td>
<td>.698 (.403)</td>
</tr>
<tr>
<td>Keeps outcome records</td>
<td>.228 (.389)</td>
</tr>
<tr>
<td>Seeks client feedback</td>
<td>.610 (.275)*</td>
</tr>
<tr>
<td>LOF: evaluates effectiveness</td>
<td>1.01 (.238)***</td>
</tr>
<tr>
<td>LOF: improves service quality</td>
<td>.932 (.156)***</td>
</tr>
<tr>
<td></td>
<td>Model 2 (N=215)</td>
</tr>
<tr>
<td></td>
<td>β (SE)</td>
</tr>
<tr>
<td>Conducts outcome measurement</td>
<td>.956 (.433)*</td>
</tr>
<tr>
<td>Keeps outcome records</td>
<td>1.19 (.431)**</td>
</tr>
<tr>
<td>Seeks client feedback</td>
<td>.309 (.504)</td>
</tr>
<tr>
<td>LOF: evaluates effectiveness</td>
<td>.690 (.278)*</td>
</tr>
<tr>
<td>LOF: improves service quality</td>
<td>.664 (.298)*</td>
</tr>
<tr>
<td></td>
<td>Model 3 (N=215)</td>
</tr>
<tr>
<td></td>
<td>β (SE)</td>
</tr>
<tr>
<td>Conducts outcome measurement</td>
<td>.957 (.422)*</td>
</tr>
<tr>
<td>Keeps outcome records</td>
<td>1.16 (.413)**</td>
</tr>
<tr>
<td>Seeks client feedback</td>
<td>.242 (.513)</td>
</tr>
<tr>
<td>LOF: evaluates effectiveness</td>
<td>.678 (.280)*</td>
</tr>
<tr>
<td>LOF: improves service quality</td>
<td>.662 (.291)*</td>
</tr>
</tbody>
</table>

Notes: *p < .05, **p < .01, ***p < .001

Building assistance. Statistically significant evaluation capacity gains remain in Model 2 for evaluating overall effectiveness and improving service quality after controlling for grant assistance and motivation. Two additional gains - conducting outcome measurement and recording client outcomes - are also statistically significant in Model 2 but not in Model 1. Results are very similar for Models 2 and 3, suggesting little selection bias from re-sampling.

For logistic regression, odds ratios serve as effect size estimates. From Model 2, treatment group NPHSOs were 160% and 227% more likely to have made gains in conducting outcome measurement and recording client outcomes, respectively, compared to control group NPHSOs. Treatment group NPHSOs were also 99% and 94% more likely to have made gains in evaluating overall effectiveness and improving service quality, respectively, compared to control group NPHSOs. Though treatment group NPHSOs were 36% more likely to have made a gain in seeking client feedback, this result was statistically non-significant.

Using subset efficacy analysis, this study found a different pattern of evaluation capacity results than reported by Minzner et al. (2010; 2014), who used average treatment effects irrespective of whether NPHSOs received evaluation capacity (see Table 5). In this study,
Table 4.4. Summary of Statistical Significance of Model Estimates of Impact of Capacity-Building on Evaluation Capacities of NPHSOs.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Minzner et. al (2010; 2014)</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducts outcome measurement</td>
<td>ns</td>
<td>ns</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Keeps outcome records</td>
<td>ns</td>
<td>ns</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>Seeks client feedback</td>
<td>ns</td>
<td>*</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>LOF: evaluates effectiveness</td>
<td>**</td>
<td>***</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>LOF: improves service quality</td>
<td>***</td>
<td>***</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Notes: *p < .05, **p < .01, ***p < .001

statistically significant capacity gains were made for four out of five indicators of evaluation capacity; Minzner et al. (2010; 2014) found significant results for only two of five indicators.

**Predicted probabilities of capacity gains by NPHSO characteristics.** In addition to treatment group status, other NPHSO characteristics were associated with capacity gains. Younger NPHSOs were less likely to experience gains in conducting outcome measurement ($\beta = -0.800, p < .001$) and seeking client feedback ($\beta = -0.833, p < .05$). Smaller NPHSOs were less likely to experience gains in conducting outcome measurement ($\beta = -0.609, p < .05$). Conversely, paid executive director status and type (faith- or community-based organization) were not statistically significant predictors of gains for any of the five evaluation capacities.

Predicted probabilities are roughly similar based on NPHSO characteristic for most capacity gains (see Table 4.5). For example, the percentage difference in predicted probability of making a gain in conducting outcome measurement was only 0.7% based on type of NPHSO. However, there are some exceptions, mostly by tenure and size. Older NPHSOs were nearly 10 percentage points more likely than younger NPHSOs to experience a gain in conducting outcome measurement. Probabilities were higher among larger NPHSOs for gains in all five capacities. Results were inconsistent for type and paid executive director status. For example, NPHSOs with paid executive directors were more than 12 percentage points more likely than those without paid
executive directors to make gains in improving service quality. Yet, NPHSOs without paid executive directors were almost 10 percentage points more likely to experience a gain in evaluating effectiveness.

Table 4.5. Predicted Probabilities of Capacity Gains.

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Evaluation Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
</tr>
<tr>
<td>Younger (&lt; 6 yrs.)</td>
<td>9.8%</td>
</tr>
<tr>
<td>Older (≥ 6 yrs.)</td>
<td>19.5%</td>
</tr>
<tr>
<td>Type</td>
<td></td>
</tr>
<tr>
<td>Faith-based</td>
<td>14.8%</td>
</tr>
<tr>
<td>Community-based</td>
<td>15.5%</td>
</tr>
<tr>
<td>Size</td>
<td></td>
</tr>
<tr>
<td>Smaller (&lt;$100k)</td>
<td>12.3%</td>
</tr>
<tr>
<td>Larger (≥$100k)</td>
<td>20.5%</td>
</tr>
<tr>
<td>Paid Exec. Director</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14.6%</td>
</tr>
<tr>
<td>No</td>
<td>15.9%</td>
</tr>
</tbody>
</table>


Because tenure and size were significant predictors in Model 2, predicted probabilities by tenure and size were further interrogated. Predicted probabilities were calculated fixing tenure and size at young and small and older and larger, respectively, while holding other predictors (type, paid executive director) constant at their respective means. This resulted in a direct comparison of the likelihood younger (< 6 years) and smaller (< $100,000) NPHSOs experienced capacity gains relative to older (≥ 6 years) and larger (≥ $100,000) NPHSOs. As seen in Table 4.6, the differences in probabilities of evaluation capacity gains are more pronounced by tenure and size. Older and larger NPHSOs are more likely to experience gains for all five evaluation capacities.

Predicted probabilities are also examined by increments of capacity-building grants, as prior research showed capacity gains are influenced by grant amounts (Brown, 2008; Leake et
Table 4.6. Predicted Probabilities of Capacity Gains: Small and Young vs. Larger and Older NPHSOs.

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Evaluation Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Small/Young</td>
<td>7.9%</td>
</tr>
<tr>
<td>Larger/Older</td>
<td>26.0%</td>
</tr>
</tbody>
</table>


al., 2007; Patrizi et al, 2006; Ryan & Taylor, 2012). For conducting outcome measurement and seeking client feedback, there is a modest benefit of receiving greater amounts of grant assistance. For example, at $30,000, the probability of a gain in outcome measurement is 24.7% compared to 14% for receiving no grant assistance. However, for the other three evaluation capacities, increasing grant amounts are associated with decreasing probabilities of gains.

Table 4.7. Predicted Probabilities of Capacity Gains by Levels of Grant Assistance.

<table>
<thead>
<tr>
<th>Amount</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>14.0%</td>
<td>12.8%</td>
<td>9.0%</td>
<td>41.5%</td>
<td>44.8%</td>
</tr>
<tr>
<td>$5,000</td>
<td>15.5%</td>
<td>5.9%</td>
<td>10.1%</td>
<td>40.2%</td>
<td>42.5%</td>
</tr>
<tr>
<td>$10,000</td>
<td>17.1%</td>
<td>2.6%</td>
<td>11.3%</td>
<td>39.0%</td>
<td>40.3%</td>
</tr>
<tr>
<td>$15,000</td>
<td>18.8%</td>
<td>1.1%</td>
<td>12.6%</td>
<td>37.7%</td>
<td>38.1%</td>
</tr>
<tr>
<td>$20,000</td>
<td>20.6%</td>
<td>&lt;1%</td>
<td>14.1%</td>
<td>36.5%</td>
<td>36.0%</td>
</tr>
<tr>
<td>$25,000</td>
<td>22.6%</td>
<td>&lt;1%</td>
<td>15.7%</td>
<td>35.3%</td>
<td>33.9%</td>
</tr>
<tr>
<td>$30,000</td>
<td>24.7%</td>
<td>&lt;1%</td>
<td>17.4%</td>
<td>34.1%</td>
<td>31.8%</td>
</tr>
</tbody>
</table>


Levels of grant assistance were also examined only for less advantaged NPHSOs, i.e., small, young NPHSOs with no paid executive director. Results were similar to those in Table 4.7, suggesting the marginal effects of grant assistance on capacity gain probabilities are not different for less advantaged compared to more advantaged NPHSOs.

Discussion

Capacity-building interventions may help NPHSOs strengthen performance. In this study, gains in evaluation capacity among NPHSOs resulting from a capacity-building intervention...
were closely examined. Results indicate NPHSOs strengthened their evaluation capacity as a result of receiving capacity-building assistance, even after controlling for NPHSO motivation and grant assistance. Using an efficacy subset analytical approach (i.e., outcomes among NPHSOs that received evaluation-related assistance), NPHSOs had gains in four of five capacities, whereas Minzner et al. (2010; 2014) found gains in only two of five capacities. Smaller and younger NPHSOs were somewhat less likely to experience capacity gains and increasing amounts of grant assistance had only a modest effect on two of five capacities.

Evaluation-related capacity gains were found as a result of receiving capacity-building assistance through intermediary organizations even after controlling for motivation (i.e., having applied to receive evaluation-related assistance) and money (i.e., amount of grant assistance received). All four capacities in which statistically significant gains were made – conducting outcome measurement, recording outcome data, evaluating overall effectiveness, and improving service quality – are important for improving client outcomes in NPHSOs. Capacity gains were based on self-report survey data and were similar to results of other capacity-building studies showing moderate gains in knowledge and skills (e.g., Kapucu et al., 2011; Leake et al., 2007).

The nonprofit capacity-building field is cluttered with a host of actors addressing a wide array of capacities. The focus of many capacity-building efforts may have little to do with improving client outcomes. For example, having a strategic plan is widely considered an organizational best practice, yet there is no empirical evidence that having one improves client outcomes. Thus, the promise of this study is NPHSOs can strengthen capacities directly related to improving client outcomes. A NPHSO that records and analyses client outcome data is more likely to use results to improve programs and services. Capacity to assess outcomes and improve
service quality may also make it more likely NPHSOs will use research evidence to improve programs and services.

NPHSOs did not experience statistically significant gains in seeking and obtaining client feedback about services. One explanation may be because the baseline level was so high (77% of NPHSOs sought client feedback), there was little room for improvement. Another explanation is the other four evaluation capacities can be expressed with minimal client engagement and input, whereas client feedback about services is a deliberate form of client engagement and input. Thus, NPHSOs may be good at measuring outcomes, but not as good at reaching out to clients. This is problematic for two reasons. First, a hallmark principle of evidence-based practice is to incorporate client preferences. Second, seeking and receiving client feedback is an important practice for ongoing monitoring and evaluation of human service programs. Client feedback can help identify reasons for lack of engagement in services, barriers to improving outcomes, and indicators of service quality. NPHSOs may value client input, yet need help in understanding how to effectively elicit it. This is a problem capacity-building can remedy. However, if the underlying reason an NPHSO fails to seek client input is client preferences and needs are not valued, this requires changes in leadership and organizational culture capacity-building probably cannot engineer.

This study discovered smaller and younger NPHSOs are somewhat less likely to strengthen evaluation capacity as a result of capacity-building assistance. From an organizational life-stage perspective (Bess, 1998; Hasenfeld & Schmid, 1989; Light, 2004; Simon, 2001; Stevens, 2002; TCC Group, 2010), younger NPHSOs may still be in a process of defining their programs and services; evaluation may be premature and/or difficult to conduct due to
information management system deficits. Evaluation may be more relevant among older NPHSOs with well-defined programs and services amenable to evaluation.

Smaller and younger NPHSOs may need additional assistance, starting with an assessment of capacity deficits to address before addressing evaluation capacity. Financial challenges among NPHSOs are well documented (e.g., Besel et al., 2011; Nonprofit Operating Reserves Initiative Workgroup, 2008; Sontag-Padilla et al., 2012) and associated with lack of evaluation capacity (Innovation Network, 2012). Thus, grants may be an important capacity-building strategy.

However, evaluation capacity gains were mostly unaffected by variation in grant amounts in this study. There are two plausible explanations for this finding. First, grants may have been used by NPHSOs to address capacity deficits other than evaluation capacity, such as by hiring a staff person to recruit and manage volunteers. Second, NPHSOs may have trouble identifying ways for grants to be used to build evaluation capacity. Should grant funds be used to upgrade information technology, hire a program planner and evaluator, or contract with a university to conduct a program evaluation? Thus, NPHSOs may need both funding (Grantmakers for Effective Organizations, 2011) and technical assistance targeted for evaluation capacity.

There was little difference by organizational type (FBO or CBO) concerning the likelihood of evaluation capacity gains. There may be no substantive distinction between FBOs and CBOs that accounts for variation in capacity-building. Federal regulations\textsuperscript{17} allow FBOs to engage in religious expression as long as they do not use funds for services and not worship activities and do not discriminate on the basis of religious identity in offering services (Cnaan &

\textsuperscript{17}These regulations presumably were enacted in the CCF, which was sponsored by the federal Administration of Children and Families.
Boddie, 2002). Adhering to these regulations thus may not affect the likelihood FBOs can strengthen evaluation capacity relative to their CBO peers.

Results concerning the likelihood of evaluation capacity gains were mixed by presence of a paid executive director (PED). NPHSOs with a PED had 12 percentage point higher predicted probabilities of service quality improvement gains, while NPHSOs without a PED had 10 percentage point higher predicted probabilities of gains in evaluating overall effectiveness. Knowing how to improve service quality may be a more complex endeavor that requires having a PED to coordinate efforts among several people and perhaps partner organizations. Conversely, evaluating overall effectiveness may be something a volunteer-led NPHSO is able to do, particularly if this is interpreted as engaging in board-led discussions of organizational strengths and weaknesses.

Because organizational characteristics explained some variation in the likelihood of evaluation capacity gains, capacities may differ in their relative complexity and sensitivity to organizational factors. For example, gaps by size and tenure were much greater for conducting outcome measurement than for keeping outcome records. The former capacity may entail a more complex set of practices that require greater resources and skills, while the latter capacity may reflect a common condition of receiving funding and be easier to execute. The implication is that capacity-building providers should not view capacities as uniformly achievable relative to the size and tenure of NPHSOs they are assisting. Smaller and younger NPHSOs may need to receive more intensive assistance.

Limitations. There are three study limitations to note. First, observations were based on self-reported survey responses of a single NPHSO representative, usually the executive director. Responses may have been biased due to social desirability, poor recall, or the particular skill set
and interests of the respondent (i.e., a respondent with greater aptitude and/or interest in evaluation may offer more accurate responses about this capacity). An executive director who is new to the NPHSO may not have a sufficient understanding of the organization to accurately depict capacities or may bias responses. Executive Directors are also famously busy people. Respondents may have lack the time and attention needed to accurately and thoughtfully complete such a lengthy survey.

Researchers should use shorter surveys and have multiple staff and board members complete the survey. Using multiple respondents is particularly important to elicit expertise about the organization’s competencies and practices in different areas like fundraising and evaluation. Researchers should also triangulate observations by incorporating third party observations of NPHSO capacities (e.g., an audit and rating scale for the quality of outcome measurement systems). Given the large number of capacities to measure, a survey should include items concerning organizational priorities to understand the relative importance of various capacities to each NPHSO.

Second, though some observations were available concerning intervention characteristics (e.g., hours of workshop attendance), capacity-building as an intervention strategy was not well defined in the CCF demonstration. For example, how staff members of intermediaries facilitated workshops or engaged in one-on-one technical assistance was not measured. This makes it difficult to understand what about capacity-building assistance is more or less useful to NPHSOs. Future studies should test interventions with clear capacity-building curricula and service standards coupled with fidelity observations (e.g., extent to which curricular topics were covered) to more accurately gauge capacity-building impacts. Also, researchers should make
greater effort to ensure capacity-building treatment is offered in a uniform manner and avoid
treatment contamination to more clearly assess treatment and control group differences.

The third and most important limitation is there is no indication of whether NPHSOs
improved actual program performance and client outcomes as a result of receiving capacity-
building assistance, Future research should follow NPHSOs for a longer period of time to better
understand whether performance and client outcomes are improved.

Conclusion

Nonprofit human service organizations (NPHSOs) are a critical part of the social safety
net in the US, yet they experience capacity challenges which diminish their ability to address
community problems like domestic violence. Capacity-building is a promising strategy to help
NPHSOs strengthen their community impact. This study found NPHSOs strengthened evaluation
capacity after receiving capacity-building assistance, yet smaller and younger NPHSOs
benefitted less than larger and older ones. More emphasis should be placed on strengthening
programs to improve client outcomes among NPHSOs. Future research should better define
capacity-building assistance and examine whether capacity-building results in better programs
and improved client outcomes.
References


StataCorp (2013). *Stata statistical software: Release 13.* College Station, TX: StataCorp LP.


CHAPTER 5: INTEGRATIVE DISCUSSION

The overall goal of this study was to examine the use of EBP among NPHSOs to improve programs and deepen community impact related to social problems like domestic violence and substance abuse. This study aimed to explain how organizational factors affect EBP engagement in NPHSOs using a model to test hypotheses in future research. This study also sought to discover a valid way to measure NPHSO capacity and to determine whether capacity-building can help NPHSOs strengthen performance related to EBP.

Key Findings

There were several findings from this study which inform the goal of improving NPHSO performance through EBP engagement. In Chapter 2, a conceptual model to explain EBP engagement in NPHSOs was presented. This model offers an important contribution to the field of EBP in social work in three respects. First, it is the first model to conceptualize EBP at the organizational level in NPHSOs, incorporating and linking research evidence on organizational capacity and readiness factors like leadership and culture.

Second, by defining EBP engagement as the use of best available evidence to inform program design, the model makes EBP relevant and applicable to NPHSOs. Considering a wider range of evidence increases the likelihood NPHSOs in a variety of practice fields can identify and apply evidence to improve programs.

Third, as informed by diffusion of innovation theory (Rogers, 2003), the model in Chapter 2 explains how and why the process of EBP engagement fits into the larger strategic
framework of NPHSOs by considering relative advantage and fit. The model helps leaders identify how to increase the chances of successful EBP engagement and offers researchers a set of testable hypotheses for better understanding implementation effectiveness in NPHSOs.

In Chapter 3, a four-factor model comprised of resource development, program development, management, and governance capacity was identified to measure NPHSO capacity. NPHSO leaders and capacity-building intermediaries can use this 19-item scale to identify areas for which an NPHSO may need to focus attention and resources to strengthen capacity. This is the first study to examine the psychometric properties of an instrument to measure NPHSO capacity. NPHSO capacity is discussed in prior studies, but no attempts have been made to assess how to accurately measure capacity.

As described in Chapter 4, capacity-building had a positive effect on four out of five EBP-related outcomes for NPHSOs. Capacity-building focused on evaluation and offered by intermediary organizations may help NPHSOs – even small ones – strengthen practices related to EBP engagement. This was the first study to focus on the effects of a capacity-building intervention on NPHSOs’ evaluation capacity controlling for the influence of financial assistance and NPHSOs’ motivation to improve evaluation efforts.

Limitations

Though the findings of this study illuminate how to strengthen NPHSO capacity related to EBP engagement, several limitations should be noted. The conceptual model in Chapter 2 is an attempt to explain EBP engagement at the organizational level in a parsimonious fashion. However, organizational behavior may be more complex than is reflected in the model. The process of change for many NPHSOs may not be linear and may be fraught with a series of fits and starts. For example, an NPHSO leader may make progress in promoting a learning culture
that spurs evidence-based decision-making among program managers. Yet this leader may leave and be replaced by a leader with less interest in EBP or ability in promoting a learning culture, or funding cuts may shift the NPHSO’s priorities from enhancing programs to simply avoiding staff layoffs.

Another key limitation of the model in Chapter 2 is that capacity and readiness constructs may not be uniformly applicable to all NPHSOs. For example, resource capacity may have different meanings in small versus large and new versus well-established NPHSOs. In small and new NPHSOs, sufficient resources may mean the ability to consistently pay staff, while in larger and well-established NPHSOs, sufficient resources may mean the ability to add new programs and serve new communities. A lack of sufficient resources in smaller and newer NPHSOs may be so severe that engaging in EBP is simply not possible. Also, with an emphasis on using evidence to strengthen programs, the model may not be applicable to NPHSOs that focus on emergency assistance and other episodic interventions and/or NPHSOs that combine direct services with advocacy.

The conceptual model in Chapter 2 explains how a single NPHSO can improve client outcomes by using EBP to strengthen programs. However, addressing complex social problems (Grand Challenges for Social Work Executive Committee, 2013) requires more than a focus on program-level outcomes (Campbell, 2002). NPHSOs also need to work with other organizations to promote systems and community change (Boyce, 2013; Bryson, Crosby, & Stone, 2006; Kania & Kramer, 2011; Kramer, Parkhurst, & Vaidyanathan, 2009; Scearce, Kasper, & McLeod Grant, 2010).

The key limitation from Chapter 3 regarding measuring NPHSO capacity was that a valid way to measure NPHSOs’ self-assessed progress in building capacity was discovered, but not a
valid way to measure actual performance. Consequently, this 19-item scale should not be used to determine whether capacity-building impacts organizational performance. It may not be possible to accurately measure actual organizational performance in areas like evaluation only using self-report survey data from a single NPHSO respondent, as was the case with the CCF data used in this study. Single respondents may not have a full understanding of their organization and certain organizational performance behaviors may prove too complex to measure with survey items.

The key limitation from Chapter 4 regarding the effects of capacity-building on NPHSO capacity related to EBP engagement was that organizational improvements were self-reported and not directly observed. For example, a respondent indicating her or his NPHSO engaged in outcome measurement was reflecting what her or his perception, not a performance standard for what outcome measurement comprises. Respondents also may have been motivated to say they engaged in a practice like outcome measurement to justify the time and effort spent in CCF activities. Most importantly, it is unknown whether any EBP-related capacity gains were sustained beyond the intervention period after which resources were retracted, nor whether NPHSOs began using evaluation results to improve programs. These methodological limitations make it difficult to conclude that capacity-building substantively moves NPHSOs toward EBP engagement and improved programs.

For both Chapters 3 and 4, no prior studies have been conducted on measuring NPHSO capacity and assessing evaluation capacity gains resulting from capacity-building assistance, respectively. The findings reviewed and discussed in Chapters 3 and 4 cannot be related to prior studies that offer a baseline against which to compare results. Consequently, it is difficult to critically assess the findings, e.g., how the measurement model identified in Chapter 3 compares
to other capacity measures and whether the evaluation capacity gains observed in Chapter 4 are
greater or less than in prior capacity-building studies.

**Practice Implications**

EBP is a promising strategy for improving client outcomes, yet leading an NPHSO is
difficult work with many competing demands. Having evidence-informed guidance about
programs that are likely to achieve desired client outcomes may help NPHSO leaders clarify
strategies and attract and focus resources on higher impact activities. However, engaging in EBP
is not a simple choice nor is it easy to do. NPHSOs need sufficient capacity in key areas like
evaluation, information technology, and staffing to support EBP engagement. Compared to
larger and older NPHSOs, the capacity deficits of smaller and newer NPHSOs may be so great
that organizational survival is jeopardized, making EBP a moot issue.

Capacity-building is an important strategy, yet it could be improved. The capacity-
building field is rife with significant noise and distractions for NPHSOs: advice from authors,
consultants, and funders about everything from running good board meetings to planning
successful fundraising events.

A better approach is to focus capacity-building on strengthening programs and services –
the activities of NPHSOs most likely to improve client outcomes. As explored in Chapter 4, this
includes evaluation capacity. Human resource strategy should also be a priority. Hiring well
qualified staff, providing effective supervision and professional development opportunities, and
improving work conditions (e.g., compensation, organizational climate) to promote satisfaction
and retention will directly affect the quality of program implementation, including use of EBP
(e.g., Glisson et al., 2013). Leadership development is also important (Austin et al., 2011). To
promote EBP engagement, NPHSOs leaders articulate and maintain a vision for achieving
greater impact, promote a learning culture, and help secure the resources and partnerships needed to support improvement efforts (Hayes, 2005). Evaluation, human resources, and leadership are capacities with a proximal relationship to program effectiveness and thus should be prioritized in capacity-building interventions. Still, smaller and newer NPHSOs may need help in several, not just a few capacity areas before they can focus on how to increase program effectiveness whether through EBP or other strategies.

NPHSOs need help to engage in EBP. Intermediaries – universities, professional and state associations, nonprofit networks, government agencies, and foundations – could make EBP more accessible and easier to use. This could be accomplished in three ways. First, intermediaries could identify and/or develop and disseminate evidence-based practice and program guidelines (Howard & Jenson, 1999) with low implementation thresholds, i.e., that do not require robust capacity and complex, lengthy organizational change processes – especially to make EBP feasible for lower-resourced NPHSOs. Second, intermediaries could help NPHSOs use relevance mapping - a structured process of comparing characteristics of an organization’s clients to the characteristics of intervention research study participants (Chorpita, Bernstein, & Daleiden, 2011) to help identify best available evidence.

Third, intermediaries can promote field building and shared learning among NPHSOs with similar missions (James Irvine Foundation, 2009). For example, a foundation could convene NPHSOs in a field like homelessness to review current intervention evidence and facilitate dialogue among NPHSO leaders about implementation challenges and new and innovative practices. These practices can help NPHSOs compensate for a lack of time and expertise in finding and applying evidence to improve programs.
Policy Implications

Concerning the policy implications of this study, two major trends should be noted. First, state and federal government increasingly depend on the private sector to deliver human services (Alexander, 2000; Schmid, 2013). For example, a key feature of North Carolina’s mental health reform efforts has been to shift direct service provision away from large public agencies to several smaller non- and for-profit agencies. Second, state and federal government are increasingly interested in funding programs with known effectiveness via pay-for-success initiatives (Office of Management and Budget, n.d.; Kohli, Besharov, & Costa, 2012; Schorr & Farrow, 2011; Stid, Neuhoff, Burkhauser, & Seeman, 2013). Thus, through state and federal contracts, NPHSOs will increasingly be expected to engage in EBP.

However, most NPHSOs in the US are small and have capacity deficits which, left unaddressed, will diminish state and federal government efforts to promote EBP. Thus capacity-building efforts like the Administration for Children and Families’ Compassion Capital Fund (CCF) – data from which was analyzed in Chapters 3 and 4 – should be continued and expanded, albeit more explicitly focused on strengthening programs as discussed above. Smaller and newer NPHSOs may need more intensive capacity-building assistance than larger and older NPHSOs and to receive assistance for longer periods of time to ensure capacity gains are sustained.

Foremost among the capacity deficits experienced by NPHSOs is a lack of sufficient funding. More funding is needed to pay both for the start-up (e.g., licensing fees, unreimbursed planning time, and training) and ongoing implementation costs associated with evidence-based programs. Government agencies could offer full-cost\(^{18}\) or cost-plus\(^{19}\) contract and Medicaid reimbursements tied to evidence-based programs. Below-cost contract and third party

\(^{18}\)Direct and indirect costs of a program.

\(^{19}\)Full costs, plus a premium.
reimbursements force NPHSOs to divert precious time and energy toward fundraising and away from supporting program implementation and evaluation.

The Office of Adolescent Health’s Teen Pregnancy Prevention (TPP) initiative may be a prototype for coupling EBP and capacity-building other state and federal agencies might consider. TPP provides funding and technical assistance to local NPHSOs to implement one of several models with demonstrated effectiveness in reducing risk for adolescent pregnancy. Agency leaders felt they had sufficient support from OAH to implement an evidence-based program, including start-up funding, technical assistance to promote program fidelity, and long-term and sufficient funding to sustain programs (Stid et al., 2013).

Foundations also could offer unrestricted general operating grants so NPHSOs could strengthen functions related to EBP and sustain program implementation rather than lurch from one restricted grant to another. Restricted grants too often result in program termination, rendering EBP a moot issue and a wasted opportunity. Smaller and newer NPHSOs in particular can benefit from unrestricted funding compared to larger and older NPHSOs because they have fewer fundraising resources, less community visibility and name recognition, and less of an opportunity to have developed financial and non-financial assets over many years of existence. A model for accomplishing this is the Edna McConnell Clark Foundation’s Growth Capital Aggregation Pilot (GCAP), which provides long-term, unrestricted and significant amounts of funding to NPHSOs to expand effective programs (Ryan & Taylor, 2012).

Though the TPP and GCAP are examples of how public and private entities can promote EBP with sufficient resources, both of these initiatives were highly selective, as is the Obama Administration’s Social Innovation Fund. Selectivity in EBP initiatives runs the risk of driving a wedge in the nonprofit sector between larger and smaller NPHSOs, resulting in mere pockets of
implementation effectiveness across the country. Better-resourced NPHSOs may be selected to receive even more resources because they have greater capacity to implement and sustain EBP. Less-resourced, grassroots NPHSOs may get left behind as resources are increasingly allocated to fulfill a goal of scaling up effective programs. One strategy to mitigate this risk is to provide incentives, if not requirements, for larger NPHSO contract and award recipients to sub-contract with smaller NPHSOs to deliver direct services. Another strategy is to ensure resources are allocated for capacity-building among smaller NPHSOs.

Pay-for-success policies, even if successful in including smaller NPHSOs, will not help solve complex social problems with structural causes. For example, to solve the problem of chronic homelessness, the supply of affordable housing must be addressed in addition to supporting evidence-based programs such as Critical Time Intervention (CTI) (Herman, Conover, Felix, Nakagawa, & Mills, 2007). Similarly, economic inequality is associated with poor outcomes in children (e.g., McLoyd, 1998; Walker et al., 2013). NPHSOs’ use of evidence-based programs to improve outcomes for vulnerable children will have limited impact without advocating for structural change. Thus, NPHSOs can and should engage in advocacy (Garrow & Hasenfeld, 2014; Hasenfeld, 2015; Grant & Crutchfield, 2007; Mosley, 2013), yet need support from private funders to do so.

**Research Implications**

More research is needed to better understand organizational and contextual factors associated with NPHSOs’ ability to adopt, implement, and sustain EBP. An enhanced understanding of these factors can inform capacity-building interventions that target specific factors associated with program effectiveness.
A starting point may be to better understand how NPHSO leaders and staff conceptualize EBP, including whether – as proposed in Chapter 2 – the standard of best available evidence has utility and meaning. Next, researchers can use the conceptual model in Chapter 2 to test specific hypotheses to help better understand factors related to EBP engagement, e.g., the degree to which different leadership styles of NPHSO administrators and managers explain variation in receptivity to and use of EBP.

With an enhanced understanding of organizational and contextual factors that explain EBP engagement, researchers can assess the feasibility of interventions to manipulate factors associated with EBP engagement. Testing feasibility is important because NPHSOs lack time to engage in complex organizational change initiatives. Brief interventions such as technical assistance to implement specific practice guidelines may prove more feasible than protracted engagement with consultants to facilitate changes in organizational culture.

To assess outcomes of capacity-building interventions aimed at promoting EBP engagement, researchers should assess both changes in organizational performance and in client outcomes using experimental, longitudinal designs. Random assignment could occur at either the organizational level or at the program or team level, though effort should be made to less the risk of contamination and adjust for clustering with the latter strategy.

Standardized measures exist for the constructs in the conceptual model, yet as discovered in Chapter 3, more work is needed to develop a valid way of measuring NPHSO capacity. A more parsimonious approach may be to develop capacity constructs based on NPHSO functions and characteristics directly related to program effectiveness. For example, a capacity measure may be limited to items related to human resources, e.g., adequate staffing, performance review,
and supervision, yet exclude capacities only indirectly related to program effectiveness, such as board development.

After identifying capacities with a proximal relationship to program effectiveness, exploratory factor analysis should be used to identify a latent factor structure. In using a capacity scale with survey-based methods, multiple responses should be elicited from the NPHSO. For example, supervisors and staff may have different perceptions of the degree to which performance reviews are used. Researchers should also use direct observation such as the use of fidelity scales to augment survey data to help measure NPHSO capacity and performance.

Including sufficient samples of NPHSOs to achieve statistical power is a key challenge for researchers in this field. It may be helpful to work with intermediaries such as state associations that share an interest in promoting EBP engagement to help recruit NPHSOs.
REFERENCES


## APPENDIX 2.1: MEASURES RELATED TO THE CONCEPTUAL MODEL OF EBP IN NPHSOS

<table>
<thead>
<tr>
<th>Model Construct</th>
<th>Instrument and Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational capacity</td>
<td>Organizational Capacity Assessment Tool (Marguerite Casey Foundation, 2012)</td>
</tr>
<tr>
<td>Organizational readiness conditions:</td>
<td></td>
</tr>
<tr>
<td>Learning Culture</td>
<td>The Learning Organization Survey (Garvin, Edmondson, &amp; Gino, 2008)</td>
</tr>
<tr>
<td></td>
<td>Team Learning and Psychological Safety Survey (Edmondson, 1999)</td>
</tr>
<tr>
<td>Organizational readiness conditions:</td>
<td></td>
</tr>
<tr>
<td>Leadership Quality</td>
<td>Leadership Practices Inventory (LPI) (Carless, 2001; Pozner &amp; Kouzes, 1993)</td>
</tr>
<tr>
<td></td>
<td>Multifactor Leadership Questionnaire (MLQ) (Antonakis, 2001; Avolio, Bass, &amp; Jung, 1999; Muenjohn &amp; Armstrong, 2008)</td>
</tr>
<tr>
<td>EBP Engagement</td>
<td>Evidence-Based Practice Attitudes Scale (EBPAS) (Aarons, 2004)</td>
</tr>
</tbody>
</table>
APPENDIX 3.1: A MEASUREMENT MODEL OF NPHSO CAPACITY-BUILDING

Note: all factor loadings are statistically significant at \( p < .001 \)
## APPENDIX 3.2: MODEL 3 COMPASSION CAPITAL FUND LEVEL OF FOCUS SURVEY ITEMS

<table>
<thead>
<tr>
<th>Item Abbreviation</th>
<th>Latent Variable</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fundraising plan</td>
<td>Resource Development</td>
<td>Developing a fund-development plan (including setting fundraising goals).</td>
</tr>
<tr>
<td>2. New sources gov’t funding</td>
<td></td>
<td>Identifying and pursuing new sources of government funding.</td>
</tr>
<tr>
<td>3. New sources non-gov’t funding</td>
<td></td>
<td>Identifying and pursuing new sources of in-kind donations.</td>
</tr>
<tr>
<td>4. New sources in-kind funding</td>
<td></td>
<td>Identifying and pursuing new sources of nongovernment funding.</td>
</tr>
<tr>
<td>5. Client data system</td>
<td></td>
<td>Developing a way to collect more information about our clients, including number and characteristics of clients as well as how they are helped by.</td>
</tr>
<tr>
<td>6. Evaluation system</td>
<td></td>
<td>Strengthening the organization's ability to evaluate its overall effectiveness.</td>
</tr>
<tr>
<td>7. Increase number of clients</td>
<td>Program Development</td>
<td>Increasing the number of clients served by the organization.</td>
</tr>
<tr>
<td>8. Service new clients or communities</td>
<td></td>
<td>Expanding services to include new group of service recipients or geographic area.</td>
</tr>
<tr>
<td>9. Increase scope of services</td>
<td></td>
<td>Increasing the number or scope of services offered to clients.</td>
</tr>
<tr>
<td>10. Incorporate new services approach</td>
<td></td>
<td>Incorporating a new approach to services to improve quality/effectiveness.</td>
</tr>
<tr>
<td>11. Budgeting process</td>
<td></td>
<td>Putting in place a budgeting process that ensures effective allocation of resources</td>
</tr>
<tr>
<td>12. Financial mgmt system</td>
<td>Management Capacity</td>
<td>Developing systems that will help manage the organization's finances more effectively</td>
</tr>
<tr>
<td>13. Volunteer management</td>
<td></td>
<td>Recruiting, developing, and managing volunteers more effectively.</td>
</tr>
<tr>
<td>14. Staff leadership development</td>
<td></td>
<td>Creating a plan or locating resources to help our executive director and other staff improve their leadership abilities.</td>
</tr>
<tr>
<td>15. Staff professional development</td>
<td></td>
<td>Providing staff with professional development and training to enhance skills in service delivery or skills in administration and management.</td>
</tr>
<tr>
<td>16. Cross-section of community</td>
<td>Board Development</td>
<td>Developing a Board that represents a cross-section of our community.</td>
</tr>
<tr>
<td>17. Diverse expertise</td>
<td></td>
<td>Recruiting Board members with diverse expertise.</td>
</tr>
<tr>
<td>18. Ties to different constituents</td>
<td></td>
<td>Developing a Board with ties to differentiate Constituencies.</td>
</tr>
<tr>
<td>19. Better understand governance</td>
<td></td>
<td>Providing information to the Board so they can better understand their responsibilities and create plans for improving their performance.</td>
</tr>
</tbody>
</table>
## APPENDIX 4.1: KEY OUTCOMES FROM THE COMPASSION CAPITAL FUND DEMONSTRATION IMPACT STUDY

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Effect Size</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain: Organizational Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated in an organizational assessment in last 12 months</td>
<td>0.54</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td># of staff that participated in management training in last 12 months</td>
<td>1.79</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Volunteer management[^b]</td>
<td>0.45</td>
<td>&lt; .001</td>
</tr>
<tr>
<td># of functioning computers is sufficient</td>
<td>0.43</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Developing a board with ties to different constituencies[^b]</td>
<td>0.48</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td><strong>Domain: Leadership Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of types of training that head of NPO participated in last 12 months</td>
<td>0.59</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Any board member participated in board training in last 12 months</td>
<td>0.50</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Professional development opportunities for staff[^b]</td>
<td>0.47</td>
<td>&lt; .001</td>
</tr>
<tr>
<td><strong>Domain: Program Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing the # of clients served[^b]</td>
<td>0.43</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Increasing the scope of services offered to clients[^b]</td>
<td>0.47</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>New approaches to improve service quality and outcomes[^b]</td>
<td>0.49</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Strengthening ability to evaluate overall effectiveness[^b]</td>
<td>0.55</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Strengthening ability to evaluate overall effectiveness[^c]</td>
<td>0.41</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Collect data on client characteristics and program participation[^a]</td>
<td>0.42</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td><strong>Domain: Revenue Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head of NPO participated in fundraising training in last 12 months</td>
<td>0.44</td>
<td>&lt; .01</td>
</tr>
<tr>
<td># of staff that participated in fundraising training in last 12 months</td>
<td>1.05</td>
<td>&lt; .01</td>
</tr>
<tr>
<td># of applications for federal funding in last 12 months</td>
<td>0.47</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Total # of revenue sources over past 12 months</td>
<td>0.40</td>
<td>&lt; .001</td>
</tr>
<tr>
<td># of NPOs receiving federal funding for first time</td>
<td>0.45</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Pursuing new sources of in-kind donations[^b]</td>
<td>0.56</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Development of a fundraising plan[^b]</td>
<td>0.41</td>
<td>&lt; .05</td>
</tr>
</tbody>
</table>

[^a]: Level of focus outcome: knows it should work on this capacity but lacks time/resources
[^b]: Level of focus outcome: developed plans and steps to work on this capacity
[^c]: Level of focus outcome: implemented steps to work on this capacity