



Development of Quality Management Capacity in Child-Serving Nonprofit Agencies

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Abstract

Quality or performance management capabilities allow agencies to identify effective practices in routine care, implement new practices, and learn to adapt practices as contexts change. Within child-serving human service systems there is not a dominant model of quality management capabilities and how they are deployed. Quality management capabilities and their development were explored at nine different child serving agencies. Agency respondents described four emergent core quality management capabilities: generating shared goals, managing information, routinizing problem-solving, and propagating a culture of quality. None of the nine agencies we studied excelled at all four. Each capability is described and implications for research, policy and practice are discussed.

Keywords Quality improvement · Performance management · Implementation · Organizational culture

Child serving mental health agency stakeholders are experiencing increasing pressure from funders and regulators to demonstrate that they can routinely provide meaningful impact on the health and wellness of children and families they serve. Federally, the adoption of cross-agency outcome priorities and plans indicates a growing recognition of the importance of being able to identify and work towards achieving quality targets (Agency for Health Care Research and Quality 2017). Recent federal lawsuits against state behavioral health and human service agencies have successfully sought to include the redesign of quality management procedures and targets in their remedies and ongoing oversight (*T.R. v Dreyfus*; *Jeff D. v C.L. “Butch” Otter*). Advocacy organizations have also highlighted the critical importance of quality management in promoting person-centered processes and outcomes (The Federation of Families

for Children’s Mental Health 2018). Yet the attainment of routinely implemented, demonstrably effective quality management processes (also called performance management) within children’s mental health and related sectors continues to be elusive. The purpose of this article is to describe the strategies that private child mental health service agencies are using to mount, grow, align, and sustain quality management practices.

Quality (or performance) management processes and approaches are widespread in the organizational management literature outside of the human services. Examples of these approaches include Transformational Quality Management (Houston and Dockstader 1988), Six Sigma (Smith 1993), Lean (Monden 2011; Ohno 1988; Sugimori et al. 1977), and the use of Plan-Do-Check-Act process cycles (Deming 1981). These processes and approaches originated in industrial systems concerned with the high-quality production and distribution of manufactured goods. Persons working within these systems address the complicated problem of insuring that the components of a distributed manufacturing process work together as an ensemble for the timely delivery of a product with clearly defined capabilities.

Child serving mental health agencies, however, do not deliver a manufactured product. They work to facilitate transformation in the lives of agency participants, a complex task. In contrast to the complicated task of assembling and verifying the quality of a manufactured object,

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the components of transformative endeavors are persons. These persons interact in a specific and changing context of resources and relationships in order to change individuals' mindsets, attitudes, behaviors, and access to resources (Snowden and Boone 2007; Hodges et al. 2012). Neither the inputs of change nor their outcomes are necessarily well-defined.

Beyond the problem of definition, there is a further problem of the stability of inputs and outcomes. Processes which worked at one time, representing effectiveness within a snapshot of mindsets, attitudes, behaviors, and resources, do not necessarily carry over into another time frame. Thus successful quality management processes in the human services must be fashioned to address dynamic perspectives, resources and relationships in the pursuit of transformational outcomes (Power 2009).

Perhaps because of these complexities, quality management processes from manufacturing have not permeated human services organizations. A systematic review of the performance management literature across health, education and social sectors identified five overarching quality concepts applied in these sectors: collaboration, learning and innovation, management perspective, service provision, and outcomes. However, the authors also indicated that "very few frameworks from or for the education and social services sectors were identified," (Klassen et al. 2009, p. 48) indicating a relative immaturity of the development and uptake of such frameworks in the social sectors.

Existing process improvement frameworks in the human services have largely worked to install well-defined, targeted programs for specific populations (Fixsen et al. 2013; Massoud et al. 2006). Though they have demonstrated benefits in addressing the installation of well-defined intervention protocols for specific populations, organizations typically serve multiple populations and rarely have well-defined or empirically supported practices installed for all populations (Chorpita et al. 2011; Garland et al. 2013). Data on the accessibility of evidence based practices in human services indicates that the installation and use of these practices often represents just a small portion of intervention practice (Garland et al. 2010). Improving the quality of interactions to more frequently facilitate a client's desired transformation requires much broader adoption of quality management processes and principles. In short, when human service providers look to the broader literature for relevant quality management approaches, they face problems of both process type and scale.

In this paper we look to identify how child-serving mental health agencies develop quality or performance management systems. Given that there is not a single, clear path to developing effective agency-wide quality management processes,

we focus on identifying the developmental drivers of how agencies decide to enact, choose, and implement quality management structures and processes. For the purpose of this study we define developmental drivers as a condition or set of conditions motivating people to initiate or further the development of a quality capability.

Research Methods

A multicase study (Stake 2006), involving nine agencies, was employed to help us understand how child and family agencies were mounting, growing, aligning and sustaining performance management systems and processes. In this method, each case has its own story emerge, but the focus is on the collection of cases and how the unique life of each case contributes to the understanding of the collection (Stake 2006).

Recruitment

The current study's procedures were reviewed and approved by the institutional review board of the University of Chicago. We sought (a) multi-program child serving non-profit mental health agencies that served overlapping populations (children, youth, families) in multiple sectors (early childhood education, child welfare, juvenile justice, mental health), (b) that had contracts with state or county child welfare authorities, and (c) were located in the U.S. West or U.S. Midwest, where the first and second authors lived. We purposefully sought agencies of various sizes and in different stages of maturing their performance measurement processes. Two professional associations were asked to notify member agencies of the study and the opportunity to volunteer; association staff contacted the staff of member agencies, in order to protect their confidentiality. Representatives from 13 agencies responded to initial queries. Ten completed a screening process. The screening included the completion of a short online questionnaire, a phone interview, and completion of written assurances to protect employees participating in the research. Near the end of recruitment, when it became clear we had not yet recruited an agency just beginning its performance management work, we contacted an organizer of a state working collaborative on performance management in child welfare agencies to contact and inform agencies who were new to this work about the study. This yielded one additional agency. Of the 11 total agencies that completed the screening, we invited nine agencies to participate and all nine completed the case study process. Three of these agencies saw themselves as being leaders in performance management and one saw their agency as recently initiating performance management efforts. Three of the agencies reported annual revenue between \$2 million

and \$12 million, three reported revenue between \$30 million and \$60 million, and three reported annual revenue between \$65 million and \$100 million. The two agencies not invited to participate were large agencies that saw their performance measurement maturation as moderately developed. Because other agencies included in the sample had similar characteristics to these two agencies in both scale and developmental stage, we excluded these two agencies in the interests of a balanced representation of cases.

The first or second author or both visited each of the nine agencies for one or two-day visits in 2015–2016. Agencies were compensated \$1000 for time and effort in cooperating with the study. Case study methods included key informant interviews, review of agency web sites and program information, agencies' 990 tax forms, review of agency performance management documents and reports, and on two occasions, observation of meetings where performance management data was discussed. A total of 77 key informant interviews were completed with over 80 employees (some interviews involved more than one employee). Key informants were typically identified in an initial phone call with agency staff. We requested interviews with agency chief executives, chief operating officers, employees responsible for quality management, program supervisors and program staff. Program staff were often nominated by other agency staff.

Initial interview protocols were developed for each employee type. They typically involved nine or ten main questions, with suggested probes. Questions included those aimed to elicit the trajectory of agency use of data, the kinds of data each informant saw and used, how these foci came about, successes, and challenges. Interviews were often informed by the agency's or program's written performance reports, since they were provided to the team before an agency site visit. Since interviews were typically scheduled back-to-back, they tended to last 50–60 min to keep on schedule. Interviews were conducted onsite, in a private space. Interviews were audio-recorded and transcribed by a professional transcription company. The transcripts were then de-identified, and reconciled as needed with the audio recording by a research assistant.

Data Analysis

In multiple case study research, the cases are typically presented intact and these cases used for cross case analysis (Stake 2006). A case report was written for each of the nine agencies, prior to any coding of data, with one basic research question: how to characterize the story of performance measurement maturation at that agency. One secondary question was also addressed: what were the drivers of the maturation story. The

de-identified case reports are available in full online at: <https://www.researchgate.net/project/Developmental-Drivers-of-Quality-Management-Cultures>. The data for these reports were the uncoded key informant interview transcripts, researcher notes, agency documents, and observations. These case reports were shared with representatives from the participating agencies and some amendments were made based on feedback to assure accuracy.

The primary analytic activity for this paper was cross-case, the reading of individual case reports to apply their situated findings to the main research questions (Stake 2006). After agreeing on major themes, the analysts split up the work, focusing on specific cases. The analysts re-read each case, applying the situation to their narrowed questions, taking extensive notes mostly focused on the prominence of the theme in each case, the utility of the case for examining the theme, and how the context of the situation related to the theme in each case. The analysts then read code reports for greater depth of understanding, identifying explanatory quotes that did not make it into the case reports, and finding in some cases, disconfirming information.

For this, first cycle (Saldaña 2013) inductive codes and their definitions were developed by the first and second authors after data collection was completed and case reports written, but before the cross case analysis. The codes were applied in NVIVO 11 by two research assistants trained on the codes. Reliability was established via the following process. The two research assistant (RA) coders and the second author read two transcripts together and coded them together aloud. The two RA coders read another 2 transcripts and each coded them independently. The group reviewed the coded passages and talked through disagreements until the group reached consensus on all codes. The next transcript was coded by each individual. Of forty-eight codable passages, there was agreement on the code for thirty-nine passage, or 81% of the time. This rate of agreement was deemed acceptable, and RA coders coded the rest of the vignettes independently.

The first and second authors used this cycle of scoping in and out of the cases in order to identify the emergent, cross-case quality capabilities present in developmentally and structurally diverse organizations. Capabilities may also be understood as 'factors' per ethnographic understandings, suitable for 'semistructured data collection techniques' (Schensul et al. 1999, p. 66). The researchers worked iteratively to create an initial 'chain of evidence' regarding these capabilities and their development which fit across cases (Yin 2003, p. 122). Given the multi-causal nature of complex phenomenon we worked to identify the most parsimonious set of developing capabilities observed across sites, and the conditions under which a given capability's development appeared to accelerate, slow, or even reverse.

Results

Interactive and Synergistic Development of Capabilities

Four key quality management capabilities were described by agency participants. These dimensions are: generating shared goals, managing information, routinizing problem-solving, and propagating a culture of quality (see Table 1 for abbreviated definitions and illustrative quotes). We asked key informants about the first two of these dimensions directly and repeatedly. The other two were more emergent. Each dimension can be viewed on developmental continua representing increasing capability for impactful quality management. Each is described, using examples from participants. We came to view the processes which underlie development along these dimensions as cyclical and dynamic. They involved social processes of building shared understanding and shared goals, taking meaningful risks, and extracting and communicating meaningful lessons from the risks taken. Progress on one dimension at times facilitated progress on other dimensions or across dimensions. Counter-examples of regression in capability were also described.

Generating Shared Goals

In the nine case studies, participants described a continuum of activities centered on creating shared, meaningful organizational goals. Goal creation varied in terms of the content, scope and ability to measure generated goals.

Goal Content The content of agency goals varied from those focused on revenue generation and compliance with documentation standards to goals based in a clear understanding of the needs and strengths of the population being served and their desired transformations. The value described as most central to meaningful goals in the context of human service system performance management was consistency with person-centered transformation. As one agency CEO stated:

We could do client counts and kind of process oriented stuff, but are people getting better? That's the Holy Grail. Trying to get staff to think about that. That's the ultimate. How do you know they're getting better?

Across several sites, in the absence of clearly defined agency-wide transformational outcome goals, meeting fiscal goals became the core focus of management efforts. Examples of data use and program performance metrics centered on the use of fiscal data. Per an agency executive:

Interviewer: In your job, on a daily, weekly basis, what data are you looking at?

Executive: I'd say most of my data is data that relates to financial performance of the division, first. Second, I would say compliance... I am looking at things like our daily census. How do our budgeted number of children [compare] versus actual [numbers] for each center across the state.

The importance of focusing on fiscal goals was not shared by persons in every role. A focus on financial goals was perceived by one front line-worker as inconsistent with their motivation for the work:

[Administrators] have to make sure they're following procedures, they're getting the money they need, they're running the programs. Whereas, I need to make sure my families are getting the best service I can provide them. I'm not money-oriented at all. When they speak to me about money, it's frustrating. Because that's not my purpose in this field, for you guys to make money...

[What motivates me is]...how it would benefit my clients, definitely. What would it do for our programs, being able to provide better services for our clients? Not just how it'll help you keep your job.

There was not a linear progression from the use of fiscal or compliance oriented goals to quality or outcome oriented goals. Goals that focused on quality of care were sometimes set aside in order for fiscal goals to be addressed. The quality director at one agency stated:

I can't say that we've been too successful. We've had a lot of changes at the agency. Last fiscal year we had some pretty major financial challenges. The quality care plan, those goals were set aside. We had to go into what the agency called at the time, remediation mode -- tend to focus on basically generating revenue.

Alignment of Goals Alignment refers to the ability to generate shared meaningful goals across different roles of the organization and populations served. At one end of the spectrum are broad, undifferentiated goals applied across all agency personnel and populations of persons served by the agency. At the other end of the spectrum are goals that 'roll-up.' These goals are specific to the roles of agency personnel and the persons served by particular personnel, and also retain meaning as they are applied to increasing numbers of persons. One agency CEO described a process they use to align goals and performance evaluations across agency and program levels:

Then from those agency goals, all of our program directors, we've totally modified our performance

Table 1 Definitions of quality management capabilities

Capability and strategies	Definition	Example quote
Generating shared goals	Internally generated goals consistent with agencies. Goals are consistent with person-centered transformation: they focus on helping people become better	“We could do client counts and kind of process oriented stuff, but are people getting better? That’s the Holy Grail…… Trying to get staff to think about that. That’s the ultimate. How do you know they’re getting better?”
Goal content	The ability to generate shared meaningful goals across different roles of the organization and populations served	“Then from those agency goals, we’ve totally modified our performance evaluations. How did we do in relation to our agency goals for that fiscal year? That is all tied together. We want everything to flow from that plan.”
Alignment of goals	The extent to which agencies and/or individuals are able to monitor change through performance	“We’ve really gotten specific about what we’re asking the staff to do, making a measurable, smart goal, and then trying to reward that… we’re actually going to the merit system and truly a performance-based scenario.”
Ability to measure		
Building data management capacity		
Data in and data out	Data in refers to an agency’s capacity to enter, manage, and integrate data into systems. Data out refers to an agencies capacity to export data from systems, use it, and transfer it to stakeholders	
Fresh data	Fresh data refers to the extent to which an agency can have up-to-date, linked, predictive data	“Ultimately, I hope to have data that would actually be before the outcome, so we could have some predictions that we are moving in the wrong direction, or need to apply more pressure, or so I can move my resources someplace else.”
Routinizing problem solving		
Elevate issues	Extent to which identified problems are being elevated to the person/people who can solve them	“Now, emotional illness can be covered under our sick leave time. You used to be able to have to exhaust all of your vacation. That’s no longer the case. Change is again identified in sort of the grass-roots level that trigger up, and then people are able to see those.”
Use data to solve problems	Using data to improve services and outcomes	“So what? We have all this information now. What are we going to do with it? [MaxIt!] has given us that next step.”
Bring problem solving process(es) in from another sector	Extent to which an agency is influenced by other sectors or agencies to adapt their performance management processes	“Then, we were able to use that policy for a couple of our other facilities that were not driven the same way as a nursing, the compliance issues of a nursing facility, but still needed some good best practices indications, and we were able to do that.”
Address quality issues in practice	The extent to which an agency was able to (a) identify patterns, (b) understand potential causes and effects of said patterns, and (c) brainstorm, develop, and test internal practice solutions as prevention or intervention tools to ameliorate the issue	“We are looking at how to move people in and out of services faster, because we pretty much have a constant wait list. We are trying to look at trends and figure out, maybe we can develop step down systems.”
Propagating culture of quality		
Putting performance management into supervision	The extent to which an agency integrates metrics with regular clinical supervision	“It’s through our clinical supervision models. We use the MAP dashboard and then through clinical supervision. Our clinical supervision model is an adaptation from the MAP supervision model and then we’ve adapted it to other things like, “Did you do your paperwork on time? Did you write it a good progress note?”

Table 1 (continued)

Capability and strategies	Definition	Example quote
Systematizing processes	The degree to which certain processes take place at a known and predictable times and that certain reports are received and discussed at dedicated time intervals, which helps agencies build in a sense that performance measurement matters at the agency	“It was not good. It was quarter-to-quarter. I would never go back to it because you’d be like, “OK, we’ll set that up next quarter.” Then you’d forget at the end of the meeting. It wasn’t a good way to practice. This [systematizing] is a good way to practice.”
Building identity	Building performance measurement activities into existing agency identity	At one smaller agency, the CEO was trying to build an identity of being the best. “We want to be the best at everything.”
Branding performance management efforts	An agency’s effort to brand/trademark their performance management systems	In the early 2000s, one agency developed a core training for all employees on performance management. Core to the training was the 14 Mandated Tasks of Quality, tasks the agency still talks about and can recite today. The current Director of Quality, who had another job at the time, said “everyone knew the 14.”

evaluations. It’s a focal review, instead of once a year, at the end of the fiscal year. How did we do in relation to our agency goals for that fiscal year? That is all tied together.

Ability to Measure Helping people at different levels of the organization to act in concert on goals may be facilitated by goal clarity, and the ability to measure progress toward goal achievement. Many respondents indicated difficulty or discomfort trying to generate measurable transformational goals. One program director described the difficulty in finding appropriate measures:

Really, the goal of most programs is to improve well-being, which is a really hard thing to measure I think we don’t measure well-being in a whole way, and that’s something that I think would be a very valued measure.

A clinical director at an agency described what indicators of change they look for:

I go online and try to get examples of data collection. What’s important? What do funders look for? Things like that, trying to educate myself a little bit, but it’s complicated. Then, we have so much other things to tend to. How much can we really dive in and try to figure out what kind of survey is good, and what’s going to be attractive to funders?

The situations reviewed indicate that across agencies, several conditions supported the generation and ongoing use of goals in performance management efforts. These included the collaborative development of impact-focused goals, communication and alignment of goals across roles in the organization, and the use of measurable goals. A singular focus on compliance or fiscal goals, reversal of goals, and inability to find appropriate measures for important outcomes appeared to impede the development of robust performance management capabilities. Thus the development of meaningful shared goals was facilitated by intentional processes across an organization to create such goals, and leadership’s ability to manage tensions between external compliance demands and an internal focus on outcome-directed goals.

Managing Information

While agencies were aligning data collection based on shared goals, they simultaneously undertook developing the capacity to structure and manage the data they were collecting. This involved getting data into systems, getting data out of systems, integrating data, and getting data that was fresh enough to be useful.

Data in and Data Out The structures of the data systems that agencies were using had little in common. The agency with the least evolved data management systems did not even possess their own computer systems. Concerned about their abilities to keep data secure, their employees used a VPN to access a state agency's computer systems, even for word processing. The clinical director said this about the agency's quality director:

She's really walking with the dinosaurs in there. She's looking at stuff and getting out a calculator and trying really hard. She literally has files and they are piled everywhere. She's, by hand, combing through things at times. I know there has got to be a better way.

Seven of the nine agencies had developed some agency-wide database systems to manage client data, although they differed in the degree to which they could integrate program data with the agency's larger overall data system. Two agencies had no ability to link a program metric with an individual client. Agency sites differed markedly along every decision point: whether to build out a completely custom data system or to start with a system developed for service providers and build from there, whether to go paperless with electronic records, how much money to invest in professional data managers, and how to get data out of their systems. Some agencies developed hundreds of canned reports to extract data from their systems. Others had none. One agency used a statistical software package to extract data.

The agencies we visited did not rely solely on their internally maintained data. Most faced a complicated mixture of external, cloud-based data sources, external state data systems, internal client management databases, financial databases, human resource databases and more. Agencies differed on how much time and effort they spent in integrating their data systems, which usually required a professionally trained data manager. Said one agency administrator:

We just had a twenty team meeting about the fact that my HR data is not integrated with my financial data. I have to build a bridge by IT to get that data to match. If I wanted it every day. I could get a report on how many kids I have in care. But I would never know – if I have 100 kids in care, do I have 100 workers too? It doesn't match. It isn't integrated.

One agency that had invested the most effort into integrating data struggled to automate those processes. "There is no automation at all. It is a manual, 'Oh crap, it's time to go back into the data' kind of system."

Most agencies struggled with getting data out of some of their data systems. Four agencies reported substantial effort putting data into external systems to meet a contract requirement, but getting no information back from those systems. Similarly, agencies put information into externally

maintained data systems from which they received data back, but they could not manage that data or control how information came back to them. The most typical complaint was that they received aggregate data reports from these sources and therefore could not merge that with client data they maintained.

These externally maintained proprietary data systems played an important role in helping agencies develop meaningful shared data roles. In several cases, these systems modeled to the agencies what was possible with data, spurring them to better measure and build systems to manage their data. As one example, an early childhood data program yielded a metric of kindergarten readiness the agency found useful. Program managers and even the board of directors began talking of finding other metrics in other programs that were as useful. In another example, an employee attended a conference associated with an evidence-supported intervention and saw demonstrations of what their proprietary data systems could do. She decided this was, "exactly what we need to be doing" with their own data.

Fresh Data With this complicated mix, several agency administrators, supervisors and clinicians described their "dream systems" where up-to-the minute data was available on individuals' computers with the ability to filter this data by site, program, supervisor, and worker. One agency had given up on this dream. Their director of information technology said,

That was the dream. Maybe because of me that hasn't happened. It is a huge amount of effort for a huge amount of cost. I don't think our social service agencies have the data that makes it easy to do something like that.

One agency had been successful in getting fresh data into the hands of clinicians through an external vendor, the Partners for Change Outcomes Management System (PCOMS). This vendor's cloud-based data systems recorded and provided feedback on session-by-session variation in clinician-client alliance. One agency invested in a software system designed to bring live drillable dashboards across programs to staff at multiple levels, but the effort was not on track at the time of the agency site visit. They were having trouble getting data out of their many databases and into that program.

None of the nine agencies we visited had the data management systems they wanted. The agency with the grandest vision for data structure currently had a system focused on financial, not client goals. Another agency had ambitious efforts underway to develop meaningful measurement indicators and hired data managers from the corporate world to help them structure their data well, but experienced integration issues—their data were in too many different places. One small agency was measuring

youths' daily and cumulative progress towards behavioral goals, but was only capturing these data at a spreadsheet level, not integrating their outcome data with other systems. The agency that got fresh data into the hands of clinicians struggled to build meaningful indicators for the main intervention model from which they built their programs.

The development of information management capability was a discontinuous process across sites. Reliable functioning of data entry, storage and reporting capabilities regarding key performance indicators appeared to be heavily dependent on the capabilities of persons hired for information management roles. Investment in novel information management systems rarely resulted in the routine generation of desired practice and outcome information. Information management was further complicated by a lack of interoperability of the myriad billing and outcome management systems required to transmit, store, and analyze data. Organizations making the most progress focused on the distillation and integration of practice and outcome indicators for use with specific populations or programs, and were flexible in the technologies used in the ongoing communication of key indicators. All nine agencies struggled with a core quality process: using their data to solve quality problems and improve programs.

Routinizing Problem Solving

The ability to identify and solve problems is a core incentive for agencies to improve their performance management capabilities. Having data on hand may make it easier for agencies to detect and define problems earlier. None of the agencies in our study were efficiently and routinely using data to solve problems. None of the agencies were using any of the named quality management approaches described in our literature review. Several agencies, however, were developing and refining specific strategies that they hoped would get them to this goal.

Elevate Issues One agency used a team strategy to identify problems, discuss their causes, and to elevate these issues to the attention of persons at a higher level in the agency hierarchy. However, the discussion of specific improvement strategies, and study of their effects, were missing. At this agency, every employee served on what they called a Quality Improvement Team (QIT). Problems discussed in the QIT meetings were derived from quarterly report data, employee observations, and employee experience. The examples agency employees provided of problems fixed through this cycle, however, were not issues with service processes or outcomes. Instead, noted successes were about leveling a sports field and adopting a more humane bereavement leave policy.

Use Data to Solve Problems At another agency, administrators were in the initial stages of using a newly imported strategy to try to improve outcomes that were now being monitored and reported out to staff. These administrators realized they were collecting lots of data, but were not using the data to improve services and outcomes. Administrators searched for a known method and decided to use a process used in Wisconsin (KidStat) and Colorado (C-Stat) in children's programs. It is based on the use of community policing data pioneered in New York City under the name CompStat. They sent two staff members out-of-state to observe the process and bring it back to their agency. They adapted and trademarked their adapted process (we will call it MaxIt! for this article), and branded their agency to the community and funders using this process. MaxIt! was designed to fix several problems: diffuse foci, limited involvement in problem-solving, and generating impact. To improve focus, "the maximum number of metrics is four, not 104, which is what we had on some of these programs," said one administrator. To involve more people in problem solving: "It isn't the program director's job to figure out how to make it better. It is everyone's," said the same administrator. They do this by bringing clinical teams into meetings with data staff and administrators to solve problems and "move the dial." In the words of one regional director, "So what? We have all this information now. What are we going to do with it? [MaxIt!] has given us that next step."

Bring Problem Solving Process(es) in from Another Sector A different agency was unique in our sample in that it also operated nursing homes. The nursing homes utilized a federally mandated and well-defined Quality Assurance and Performance Improvement (QAPI) process. They had recently imported this strategy to their foster care programs and had targeted medication management as their initial improvement target. The agency was still waiting for the process to generate an improvement in outcome.

Address Quality Issues in Practice Agencies that were more advanced in their performance management capacities appeared to have a heightened ability to use their data to (a) identify patterns, (b) understand potential causes and effects of said patterns, and (c) brainstorm, develop, and test internal practice solutions as prevention or intervention tools to ameliorate the issue. The quote from an agency clinical director demonstrates this process in action:

[Community partner] is really tracking how long it takes for someone to get from [community partner] into our services. They are not pleased with how long it takes, because the average wait right now, at least, in the last data set, it's about 33 days. The [community partner] is about 60 percent of our clients, but it's not

all of them. We are looking at how to move people in and out of services faster, because we pretty much have a constant wait list. It ebbs and flows. We are trying to look at those trends and figure out, maybe we can develop step down systems. We are looking at offering group therapy that might be a step down for people and individual who's been here a while and accomplished much of their goals. We can give those therapists more clients just to move people through. We are looking at different ways to reduce wait times and increase capacity.

The CEO of this same agency described another example of using data to identify problems and create solutions (below). In this example, the CEO discusses noticing a pattern that 90% of disruptions in foster care placements happen within the first 60 days. He discusses their process of developing a solution to this—frontloading services and relationship building in the first 60 days of the placement, expediting the process.

Ninety percent of the disruptions happen – this is probably obvious, but – 90 percent of them are happening within the first 60 days of placement. It seems like, at least for our program, if you got past that 60 days, magically, the majority of those placements are going to stick, and they're not going to be disruptions, which is what we want...What does that mean? We had biweekly mandatory home visits as part of our expectation of service. But we figured from that, we could take that...the first 60 days is so critical, let's front load it. Let's make sure the social worker is there at least weekly. That's what I want us to do is to get better and not just to demonstrate, "Hey! We have good outcomes," but it informs our practice to them, and so we adapt to it.

This process—identifying patterns in data, understanding the cause and effects of these patterns, and developing and testing solutions within the agency—appears to be one of the highest hurdles for agencies in the development of their performance management capacities. Said the CEO of the agency we saw as the most advanced in their development, "I think we have an appetite for it, but we don't know how to apply it very well."

Both internal and external drivers facilitated the development of ongoing problem solving processes. External drivers included exposure to federally-mandated processes in other service sectors and, in one case, the requirements of an accrediting body. Internal drivers included routine communication of data throughout regularly occurring meetings, key individuals realizing the need to make sense of increasingly available information, and the desire for recognition as a unique quality management approach or brand.

Propagating a Culture of Quality

Respondents at five different agencies were cognizant that they were intentionally trying to ignite employee interest in quality or performance management and create and spread a culture that valued metrics and their use to track and improve agency performance. They were at various places in this effort and were using different strategies.

The experiences of the agency described earlier that had initiated performance management work provided useful information about where agencies may need to start to build cultures that value this work. Asked about whether there was much accumulated knowledge within the agency about what this kind of work was supposed to look like when she started in the job, the director of quality answered, "No, not at all. There was absolutely no knowledge. They would say, 'this is a social service agency. Nobody was trained to do math.' They had no idea."

Recognizing the need to rally staff and get them to start valuing data, administrators at a different agency decided they needed a signature event to mark a change in the importance they were going to start giving to performance measurement. They mounted a "data summit" involving all agency programs and regions, an event vividly remembered several years later by employees, "They had a chocolate-something recipe contest and they used that as a metaphor to play with data and to make it noninvasive and nonthreatening. It really caught fire in the staff."

One common struggle was the need to transform a performance measurement culture that was at one time focused on compliance to one that fostered the creation of data that mattered and a willingness to use it to improve performance. Each of the five agencies that were involved in spreading a culture of performance management discussed this challenge. One CEO thought they had been successful in this regard.

People are feeling secure and comfortable enough to believe that's the culture here. I am not telling you it's never been a 'got you' approach here. But as we get more specific and we have more data and we tie it to providers, and ... we use it to help them grow, [we can] release the fear of them thinking that there is somehow going to be a retribution.

Once agencies had made inroads into building internal acceptance of performance management, they used a variety of strategies to more deeply ingrain performance management into their cultures. We mention four strategies here that were used in at least one of the five agencies actively engaged in these culture building efforts: clinical supervision, systematizing processes and products, building identity, and branding.

Putting Performance Management into Supervision One way to spread performance management deeply into an agency is to integrate metrics with regular clinical supervision. One CEO explained their process:

It's through our clinical supervision models. Our clinical supervision model is an adaptation from the MAP supervision model and then we've adapted it to other things like, "Did you do your paperwork on time? Did you write a good progress note?" Things like that.

At another agency a program director described using their clinical supervision process to understand and act on the needs of a specific group of persons:

We ran a length of stay report....[W]e did it by clinician and so we gave each supervisor each of their clinicians and said, "Anyone who's been here longer than a year, if you don't know what's going on with them, ask and figure out if they could possibly step down, if we did start a group or if they are ready to be discharged or maybe they need a different service, or not making progress." We are at the tail end of that. The supervisors are supposed to report back to me by next week.

Systematizing Processes The knowledge that certain processes were going to take place at known and predictable times helped agencies build in a sense that performance measurement mattered. One agency shared with us their schedule of performance management activities for every program for the upcoming year. Another agency thought a turning point in building a culture for performance management was when they developed a common format for quarterly reports across all program lines with colors that represented progress.

Building Identity At some agencies, informants talked about how they were building their performance measurement activities into existing agency identity. At one smaller agency, the CEO was trying to build an identity of being the best. "We want to be the best at everything," said the CEO. "I cheer for the Steelers, the best team in football history. I cheer for Jack Nicklaus and Tiger Woods, the two greatest golfers. We just want to be the best at everything." Performance metrics fit with this identity. They could show staff that they were exceeding expectations or where they needed help. They eagerly were participating in a new voluntary benchmarking effort at the state level. The agency CEO expected it to show they were the best.

Other agencies were building identities around named clinical strategies and then building their performance management capabilities around these strategies. This was most evident at an agency that had adopted the Managing and Adapting Practice (Chorpita et al. 2014) strategies for

matching clinical need and intervention components and at another agency that had developed and published its own clinical strategy.

Branding Quality Management Efforts Two agencies made some effort to brand their performance management efforts. At one agency, agency administrators trademarked two processes, a process of working with teams to get a better fit between program activities and metrics, and a process to use data to generate improvement ideas. Although they had not trademarked the name, another agency had spread the culture of performance management with their "Fourteen mandated tasks of quality," reflecting an employee training effort from the early 2000s to help employees understand new performance measurement activities taking place. The director of quality, who had another job at the time, said everyone knew the fourteen. "You'd walk up to a staff person. 'How many tasks do we have in quality improvement?' 'Uh, fourteen.'" These fourteen tasks "have been evolving overtime, but it really helped define us as a team, and helped people understand their role in them, because it wasn't just us, it was them."

Across agencies, development of a culture of quality was supported by attention to social processes, particularly identifying and catalyzing readiness to set and act on meaningful goals. Catalyzing readiness involved the use of organizational events and meetings to 'kick off' and raise awareness of quality processes, as well as bringing in outside consultants to generate interest and new perspectives. Administrators' and supervisors' modeling a willingness to hear and respond to uncomfortable questions about performance and the use of performance metrics helped facilitate a shift from addressing compliance-driven goals to growing a performance culture. This shift was further translated into an emergent culture as quality-relevant tasks and strategies were braided through key meetings and organizational development processes.

Discussion

The efforts of agencies in our study to develop quality management capabilities reflect a landscape in which there is no dominant model of quality management processes, and little consistency in the approach to implementing quality management regimes. Across these nine sites, only one implemented a well-defined set of quality management processes across programs. Through these case studies we were able to identify four emergent dimensions of quality management capability in child-serving human service agencies (see Table 1).

The extant literature provides an indication of how quality management frameworks and their operationalization

develop. New quality management frameworks build on existing ones, and defined processes are adapted to local resources and desired end products (Holweg 2007). Recent reviews of quality management processes in the health and human service systems indicate that such adaptation and proliferation is occurring across social sectors, though slowly and not systematically (Klassen et al. 2009; Forman-Hoffman et al. 2017). Development along each dimension of capability identified in this study is expected to reflect an increasing capacity for organizational quality management activities to help child-serving agencies to achieve their intended ultimate outcomes.

The dimensions identified here differ in some meaningful ways from the quality concepts identified in a previous review of the literature (Klassen et al. 2009). The content of the dimensions identified here may be thought of as the problem sets which organizations report encountering as they develop quality management capabilities, as seen in the structure of participants' quotes when they discuss these capabilities (see Table 1). They are not generated from explicit theories of organizational behavior or tests of theory-based quality frameworks. The review of quality concepts by Klassen et al., describes concepts whose applications largely occur in medical service systems with clear directives for outcomes, mechanistic procedures for achieving such outcomes, and well-defined feedback loops designed to generate increasing expertise in applying defined procedures to specific populations. Persons in systems we studied identified a lack of consensus on measurable outcomes, paucity of efficient and generalizable procedures for getting to outcomes, information technology capabilities which did not deliver on routine communication of practice and outcome information, and tensions between operating philosophies based on managing regulatory requirements and those directed toward achieving client outcomes.

These different contextualized experiences likely place a limiting value on the similarities in the dimensions of capability identified in this study and the quality concepts in the Klassen et al. (2009) study. For instance, this study identified the generation of person-centered goals which are meaningful across roles and able to be measured, as a critical capability (see Table 1 for illustrative quotes). Klassen et al.'s review identifies achieving outcomes, including client-valued outcomes, as an overarching quality concept. This concept focuses on the attainment of outcomes: the current study identifies the very definition of meaningful outcomes as an evolving capability. Though the concepts of "goals" and "outcomes" bear surface similarity, they allude to very different operational processes in the current study versus the review. Most similar are the "learning and innovation" concept identified by Klassen et al., and the capability of propagating a culture of quality. In descriptions of both the concept

and the dimension there is a focus on systematization of information exchange and knowledge creation processes, and application of knowledge to workforce development processes. However, even on this dimension there is a contextualized difference. Whereas in the review learning and innovation processes are described in terms of operational and outcome applications, child-serving agencies also focus on addressing marketplace realities, such as the need to build a market identity and clear brand for their products.

The four dimensions of capability identified in this study build on one another. Generating shared goals focuses attention on a critical set of indicators or actions to manage. Managing information allows for all parties to regularly monitor and make sense of their performance and contribution to reaching shared goals. This information directs problem-solving resources to the concerns most critical to achieving agency goals. Successful problem-solving cycles, and the sense of accomplishment that comes with engaging in them, help propagate a culture of quality. However, engagement in one process did not lead with certainty to another process, or even the continuance of the initial process. In one agency, a robust quality-management process created clearly measurable goals, but these goals were then tallied and communicated on paper. In another agency, a focus on clinical processes driving ultimate outcomes was interrupted by a fiscal crisis and leadership change which led to renewed focus on income-generation and compliance activities. Changes in fiscal context, leadership, or key quality management staff all could disrupt progress towards the development of increasing quality management capabilities.

Our observations indicate that the lack of a dominant, relevant quality management model, coupled with uneven pressures to implement any quality management regime, may account for much of the variation in capability observed within dimensions and across sites. This was most evident in efforts to routinely translate data to action. With the exception of one medium sized agency, every agency struggled to routinely connect information with a clear set of aligned actions to meet their stated impact goals. The lack of external pressure to regularly set, review and act on meaningful person-centered goals, coupled with fiscal incentives focused on service generation rather than service quality, reinforced ineffective quality management processes. Focusing on growing the capability to set, track, and act on goals meaningful to children and families may provide a pivot point for agencies. First, it may require agency personnel to 'look backward' and to collaboratively define meaningful goals which all agency personnel can commit to achieve. Then, stakeholders may 'look forward' to reorganize existing resources (meetings, data systems, reports produced, advancement criteria) to continually focus attention on meeting these goals.

There is some empirical evidence that implementation of quality improvement efforts should begin with equipping teams, and persons managing teams, to be well-versed in quality improvement processes (Lemieux-Charles et al. 2002). The current findings indicate that even among agencies self-identifying as having made deep commitments of capital and staff time to developing quality management capabilities, there is little to no evidence of the routine application of thorough Plan-Do-Check-Act processes to understand and improve multi-level practices thought to lead to impact. Given that the same failure is also documented in the current research literature, this finding is unsurprising (Taylor et al. 2014). The failure to observe the routine use of such processes indicates a fruitful area for research into why this is the case and how to implement such processes.

There are notable limitations to this study. The study sampling procedure was designed to represent differences in geography (urban and rural, coastal and inland), maturation of performance management capabilities, and agency size. However, many of the agencies sampled in this study perceived themselves as excelling or having a distinct contribution to offer regarding their performance management capabilities. This may indicate that this sample is systematically biased towards agencies that have an identity and stakeholders that value performance management activities more than a random sample of child-serving human service agencies. In future studies, a broader representation of performance management capabilities may be discovered by studying a random sample of child-serving agencies.

The study authors used a semi-structured interview protocol to elicit narratives of the development and application of performance management capabilities. However, the interviewers may have introduced bias and constrained open dialogue due to their standing and frame as researchers, potentially constricting the exploration of important dynamics regarding power and voice in organizations. A mix of standardized and open-ended measures, as well as the use of both in-person and fully anonymized response options may provide for a richer opportunity to identify how power dynamics underlie assumptions and actions involved in performance management activities.

Policy and Research Implications

The development and application of quality management capabilities requires the re-imagining of current investments (human resources, meeting time, project implementation resources), as well as the investment of new time and capital. Re-investment of time and energy from traditional compliance-related efforts may appear in the short term to threaten revenue streams and the solvency of the agency, as observed at two of the agencies in this study. Multiple respondents reflected their uncertainty both about

how to engage in quality management activities, and the effects of such activities. Given the thin operating margins of many non-profit agencies, the lack of certainty of return on such an investment represents a continuing barrier to embarking on broader, sustained development of quality management capabilities.

Given that non-profit agencies deliver the bulk of human services in many state behavioral health and child welfare systems, initial capability-building efforts are the type of targeted investments which appear to line up very well with the desires of private foundations to provide non-profits with investments which have potentially large social impact. Investment in the development of quality management infrastructure has the potential to positively affect non-profits' community impact over multiple years. Investment in quality management infrastructure may provide the opportunity to balance direction-giving (such as the need for organizations to show the impact of donations) with organizational and community input on the specific goals and initiatives to pursue to achieve greater impact (Brest 2012).

Ongoing efforts to learn from quality management processes, and to adapt practices accordingly, may best be funded with ongoing revenue streams provided by federal and state programs. Existing federal and state external quality review procedures could also be bolstered by providing a clearer link between quality processes and payment rates. This would represent a philosophical evolution from current practices that emphasize the content and verifiability of service claims data in review processes termed 'quality' reviews. Such a shift would also reinforce to agency stakeholders the need to frame all actions in terms of the quality of the service delivered.

Future research on the development of quality management capabilities may benefit from the use of an action-research framework (Stringer 2013). Action research may assuage agency stakeholders' concerns about the return on the investment in such research. The use of mixed methods research may also provide space for participant voice and emergent meaning to surface while attending to generalizability and traditional tests of quality control. Though our understanding of the development and core content of quality management capabilities in the children's mental health sector is still nascent, their importance in ensuring that organizations provide positive impact for children, families and communities is likely to only continue to grow.

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Compliance with Ethical Standards

Conflict of interest All authors indicate no conflicts of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Ethical approval was obtained from the University of Chicago's Institutional Review Board. A memorandum of understanding was also obtained from the administration at each participating agencies indicating that participants would be held harmless for statements made in the interviews.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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