FISEVIER

Contents lists available at SciVerse ScienceDirect

Children and Youth Services Review

journal homepage: www.elsevier.com/locate/childyouth



Moving forward without looking back: Performance management systems as real-time evidence-based practice tools

Scottye J. Cash ^{a,*}, Stephanie D. Ingram ^c, Denise S. Biben ^b, Shann J. McKeever ^b, Ronald W. Thompson ^c, Jared Z. Ferrell ^d

- ^a College of Social Work, The Ohio State University, 1947 College Rd, Columbus, OH, United States
- ^b Program Fidelity, Father Flanagan's Boys' Home, Boys Town, NE, United States
- ^c National Research Institute, Father Flanagan's Boys' Home, Boys Town, NE, United States
- ^d Psychology Department, University of Akron, Akron, OH, United States

ARTICLE INFO

Article history:
Received 10 September 2011
Received in revised form 8 December 2011
Accepted 8 December 2011
Available online 16 December 2011

Keywords: Dashboards Program evaluation Model fidelity In-home services

ABSTRACT

Performance management systems provide child welfare agencies with tools to monitor program components, make real-time changes, and build an empirical base for the intervention. The two primary components of the performance management system discussed in this paper are balanced scorecards and dashboards. The goal is to provide an overview of the process, to describe how a performance management system was developed and the rationale behind it, and to provide examples of how the process was implemented at a national and site level. The paper provides an overview of performance management systems and an example of how performance management tools can be applied to child welfare agencies. These tools can assist in planning and quality improvement and can be used to support the ongoing development of an empirical base for service programs.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

Over the last two decades, there has been a significant movement towards establishing an evidence-base to support whether a particular service or program has the desired effects on certain problems and/or with certain populations. One of the challenges of establishing this evidence-base is the amount of resource and time it takes to obtain feedback on what works. Service program evaluations often focus on data from a program from the prior year or two, and the feedback loop on making program improvements may be nonexistent. While this "rearview mirror" approach may ultimately contribute to an empirical base, through randomized controlled trials, a gap exists in how to move programs forward ensuring that programs incorporate evidence-informed practices, are implemented based on a strategic plan, incorporate feedback loops, and incrementally add to the program's empirical base (McCue Horwitz, Chamberlain, Landsverk, & Mullican, 2010; Ryan & Schuerman, 2004).

Today's technological resources and business models on organizational improvement are essential to taking our social service program models to the next level (Chorpita, Bernstein, & Daleiden, 2008; Eckerson, 2011; Kaplan & Norton, 1992; McCue Horwitz et al., 2010; Pecora, Seelig, Zirps, & Davis, 1996). Given these advancements it is possible to capitalize on the opportunities to use real-time knowledge

* Corresponding author. E-mail address: cash.33@osu.edu (S.J. Cash). of progress both within and across social service programs. This knowledge can be used to generate an ongoing feedback loop. Performance management systems are one tool that organizations and programs can use where they glance in the rearview mirror, but continually look forward to make real-time changes and progress.

Utilizing performance management systems within social services provides a framework to ensure that the organization's strategy is executed successfully and outcomes are in the intended direction with variances managed. Performance management systems become a critical component of organizational vision/management and can serve multiple purposes. For example, at the practitioner level, the data from the system can help practitioners understand the impact their work has on their clients, or in other words, build an evidence base that guides decision making. For management, the data can be aggregated across sites and used to determine how the organization is progressing on its strategic plan, identifying the most feasible practices and deploy from there how variance were achieved or addressed. This information can be communicated, in a single frame of reference, across an organization via dashboards that monitor operational processes. Scorecards can also be used to monitor strategic goals by creating a process that identifies the organization strategy, assists in planning on how to implement the overarching goals, is capable of monitoring and analyzing the ongoing data, and creates a mechanism to act and/or adjust strategies so they better reflect the intended goals (Eckerson, 2011). Specifically, performance management systems enable strategic communication and refinement, while increasing visibility and coordination to stakeholders with information that can be acted upon quickly

(Poister, 2010). These systems can also be used to help monitor program implementation. Program implementation replication within family-based services has not been addressed adequately. Pecora, Reed-Ashcraft, and Kirk (2001) write that there is a significant need in this field to "achieve program consistency and rigor with respect to model specification, staff selection, staff training, program funding, quality control, staff turnover, and planned program refinement in contrast to model 'drift' (p. 21). Literature on performance management in social services and more specifically in child welfare is significantly limited. This paper seeks to add to this limited knowledge base through describing how a performance management system, using both balanced scorecards and dashboards, within a non-profit organization, was implemented to address the needs identified in the literature (Pecora et al., 2001).

2. Performance management systems

2.1. Balanced scorecards

In 1992, Kaplan and Norton introduced the Balanced Scorecard (BSC) as an innovative business management tool, reflective of a report card with an organizational global focus. The goal of the BSC was to move from focusing solely on financial indicators, usually generated in the accounting department, to a more comprehensive system that includes linked intangible and tangible measures that contribute to a company's well-being (Bieker, Dyllick, Gminder, & Hockerts, 2001; Bontis, Dragonnetti, Jacobsen, & Roos, 1999; Kaplan & Norton, 1996, 2001; Norreklit, 2000). The BSC capitalized on technological advances to help businesses and managers change their evaluation system from checklists and ad hoc performance measures to integrated measures that could be used to identify areas where improvement could be seen on a more regular basis. Thus, the BSC provides a way to continually look forward using a priori measurements, without having to look back and make retrospective changes based on out-of-date data (Niven, 2006). The BSC was developed for the for-profit sector, and has now been applied to the non-profit sector as well in order to account for the variations in organizational goals, funding structures, and consumer types (Modell, 2004; Niven, 2008; Santiago, 1999).

2.2. Performance dashboards

The performance dashboard is analogous to the dashboard in a car or a heads-up display in an airplane, where one can look at the metric and make real time changes, specifically focused on monitoring, analyzing, and managing performance (Eckerson, 2011; Poister, 2010; Simpson, 2002). The dashboard provides more detailed monitoring of critical data points to facilitate making ongoing adjustments to ensure that the vision and strategies are being implemented as designed. The dashboard, in the nonprofit sector, provides a framework to increase communication regarding the agency's mission and strategies between various stakeholders and align the different BSC perspectives to demonstrate cause and effects that can be contributed to service programs (Eckerson, 2011; Niven, 2008). Additionally, dashboards help establish and maintain continuous improvement based on real-time and current data and create an empirical base for interventions and treatment approaches (Chorpita et al., 2008; Lambert, Harmon, Slade, Whipple, & Hawkins, 2005; Percevic, Lambert, & Kordy, 2004). Performance dashboards improve coordination between different levels and people in the organization and improve control over the interventions and operations by visually demonstrating progress on key indicators to improve practices. At the core of the dashboards is the information technology system that streamlines collection and reporting of the data used to create the dashboard (Eckerson, 2011).

The focus of this paper is to describe the utilization of the performance management system framework to inform key stakeholders and build a real-time data monitoring system for an in-home family services program. Using a performance management framework such as the one described in this paper is a relatively new addition to the literature base in social services and specifically child welfare. The methods and approaches described have been tried and tested in a large national child welfare agency proven to be promising in their impact on program management, improvement, and implementation. This is one aspect of a larger effort to build the program's evidence-base.

3. Boys town, the balanced scorecard, and in-home family services dashboard

3.1. Boys town

Boys Town provides services to children and families in 10 states and the District of Columbia via an integrated continuum of services ranging from intensive residential treatment to parent training and education services within the community, serving over 24,000 children in 2010. Recently Boys Town culminated a strategic planning process that provided focus to the mission and vision of an integrated continuum, linked in philosophy and intervention methods across all levels. The five-year plan included several national goals and initiatives; a primary focus is to expand and to establish the evidence base for Boys Town's In-Home Family Services (IHFS) program. It is this effort to grow that has propelled further research and program refinement for this program.

3.2. Boys town and the balanced scorecard

The first step in measuring and monitoring the strategic plan was the implementation of a Balanced Score Card (BSC). Utilizing Kaplan and Norton's application of the balanced scorecard, the four perspectives (i.e., financial, customer, internal processes, and learning and growth) provided the structure for the BSC with functional areas incorporated within. This organization of perspectives was done strategically to better align national support services and build organizational capacity. The goal was to create a tool that would be used to measure and manage strategy at a site level, as well as a national roll up of organization-wide results.

The scorecard was based on a variance model that was designed using designated shadings (Fig. 1) to communicate variance. This checkerboard approach provides a standardized summary of performance using program variability as a metric. While each affiliate site had its own scorecard, a national roll up is also provided with a perspective of each support service as well.

The scorecard was embraced relatively easily due to a number of inherent organizational capabilities. First, leadership recognized the need for a system that could monitor and manage strategy. Second, Boys Town's culture was already established and emphasized building a work force that is highly mission focused, has high integrity, is highly competitive, utilizes a research based approach with model fidelity assessment, and is familiar and comfortable with utilizing data for decision making. As such, incorporating a process for measuring strategy was a logical addition.

The balanced scorecard became a catalyst for an entire strategy management system, guiding the system for not only what the organization would do but also what the organization wouldn't do. Strategy based budgeting was incorporated to create a methodology for aligning operational support with attainable strategies. What was once expected financial support, with limited respect to performance or alignment, became earned financial support based on strategic initiative alignment. Alignment plans across all functional areas were developed to focus all efforts on achieving the plan and detail the mapping of the strategy.

June	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12	National
Program													
Human Resources								1 1 1					
Finance											- 1- - 1- - 1-1-		
Development				72				U					
Marketing													
												100-85	

Fig. 1. Checkerboard.

Local accountability for the plan was emphasized to acknowledge that strategy is not executed at the national level, but at the local level. Quarterly strategy review meetings were implemented to provide a forum for planned monitoring of the plan at a high level with all functional area leaders. This further emphasized the balance of resources to help sites do the right thing to execute the strategy and build capacity from support services related directly to site needs. Through these strategic review meetings it became apparent that as an organization, strategy is ever evolving; the plan is never left on the shelf. In the first year of its implementation 82% of the measures monitored improved over the prior year performance. The BSC alone was not responsible for this impact; the system that supported the scorecard was key to creating a culture that valued this single frame of referenced data and opened the door to utilizing similar processes in other areas.

3.3. Boys town and the performance dashboard

Building off the success of the balanced scorecard and the plan for growth, a major initiative was undertaken to monitor critical indicators of successful implementation of the IHFS program across all national sites. Domains monitored included finance, consumer satisfaction, outcomes, compliance, implementation (i.e., model fidelity ratings), and service documentation. The goal was to have a successful widespread dissemination and effective, replicable implementation of the model.

To meet program specific needs, performance dashboards were developed (see Table 1 for a list of the dashboard indicators and the corresponding definitions of the indicators as used by Boys Town). Similar to the balanced scorecard, the four perspectives (i.e., financial, customer, internal processes, and learning and growth) were included, with the greatest emphasis on internal processes (i.e., implementation of the revised model). Additionally, during model revision the Balanced Scorecard's four perspectives were considered. For example, to make the model desirable, not only did it have to have a positive impact on the lives of children and families, but it also had to be financially feasible, meet the needs of consumers (clients), and provide training that would develop new skills and be easy to use for existing and new employees.

3.4. Creating the dashboard

Since the dashboard provides a wide array of organizational data, many agency departments contribute to the data used for monthly reports. Specifically, systems are in place for each department to monitor data applicable to their role. For example, the human resources department provides information regarding staff turnover, while the finance department provides cost recovery data. The staff evaluation department is responsible for monitoring consumer

survey feedback as this information is utilized in staff certification. Finally, the research department monitors service data through a national database system that all programs and sites use for case planning, program management, program evaluation, program fidelity, and research. The database contains information that describes youth and families at admission, diagnostic/outcome measures, behavior or progress shown during program stay, status at departure, and status at some point after program departure. A service-planning module for IHFS identifies strengths and key problems, formalizes the selection of priorities in needs, and prompts the development of goals and intervention strategies.

Table 1In-home family services program implementation dashboard components and definitions.

	D. C. W.				
Component	Definition				
Finance					
Cost recovery	Site revenue/site expenses				
Staff turnover	Number of terms during the month/number of				
	active employees as of end of month				
Consumer feedback					
Family survey	Number family surveys returned / number				
	family surveys handed out				
Agency survey	Number agency surveys returned / number				
	agency surveys mailed				
Outcomes					
Goal attainment	Number of family goals met at discharge/				
	number of family goals set				
Strengths and stressors	Number of items improved/number of				
improvement	completed items that could improve (ratings =				
	-3, -2, -1, 0, +1, +2)				
Compliance					
Two staff attend first	Percent of sample families in which 2 staff				
family visit	attended the first visit				
Approved qualified	Percent of IHFS staff (nationwide) who are				
screeners	'approved' Qualified screeners				
Model implementation	Madel Edelite nations from the HIEC family				
Model fidelity observations:	Model fidelity ratings from the IHFS family				
average domain ratings	consultant assessment observation/				
Service review/documentation	documentation review form by each domain				
Quick and early solutions (QES)	Number of cases that identified the use of QES/				
Quick and early solutions (QES)	total number of cases in sample				
Social notwork man (SNM)	Number of families who completed the SNM/				
Social network map (SNM)	total number of families in sample				
Strengths and stressors (SS)	Percent of families who completed both intake				
Strengths and stressors (55)	and discharge SS				
Family problem area (FPA)	Number of families who identified at least one				
rainity problem area (FPA)	FPA/total number of families in sample				
Goal progress assessed	Number of families in which goal progress was				
Goat progress assessed	assessed/total number of families in sample				
	assessed/total number of families in Sample				

3.5. How are the dashboards used?

Reviewing and discussing the dashboards at a national level has paid off as adherence to implementation continually increased as a result of ongoing monitoring from a single frame of reference. The purpose of the monthly review process is to share organizational knowledge and innovation for continuous quality improvement of the IHFS Boys Town model and includes as primary consumers site program leaders/practitioners and national support services. When strengths are identified, sites are asked to share implemented innovations (e.g., what systems or processes have been put in place to make things work at the site). For areas below expectation, barriers and challenges are discussed and plans are formulated with the site to help them improve in the particular area. Due to the lessons learned by data monitoring, additional reporting mechanisms and processes have been added. With national support services present, site directors can quickly respond to any adjustments in training, administration, consultation and/or evaluation. In addition, these data points are monitored by immediate supervisors to assess model implementation, which allows supervisors to target ongoing training and coaching of direct service staff. Depending on the indicator that has fallen below expectations, the larger organization is also able to mobilize additional supports (e.g., coaching, training, observations, and supervision) for the site.

National dashboards allow the organization to have a snapshot of the entire program and across all sites. However, given the complexity in the structure and context in which the programs operate at the different sites throughout the U.S., there are times, when it is necessary to look at site-specific dashboards so that adjustments can be appropriately targeted. At the site level, monthly dashboards provide the opportunity to see incremental changes, both positive and negative. When it is determined that there is a decrease (indicating an area that requires attention) in ratings on any of the indicators, immediate action can be taken, this process is also known as "drilling down" (Eckerson, 2011). Specifically, if one of the implementation indicators (e.g., Teaching) is below expectations, immediate action can be taken that will optimally reverse the trend as quickly as possible (see Fig. 2).

During the last year, one of the IHFS site's dashboard showed several indicators in the Service Review/Documentation dashboard (see Fig. 3 for the breakout of this component) that were below expectations. Data in October 2010, only 12% of families had a Family Problem Area¹ (FPA) identified, and 0% were assessing progress. When the fidelity issue was discovered, the research team met with the program staff to discuss any staff confusion and misunderstandings of the model component. To provide clarity to the process, a refresher training was developed and provided to meet this site's needs and systems were developed to avoid duplication of Boys Town and contract requirements. During the months following specific monitoring on the model component for this site was conducted to assist in any other implementation concerns. Due to the combined efforts, from administrators and practitioners, to increase implementation of the model, the site has made significant increases in core components of the model that are critical to the successful implementation of the model. From October to December 2010, the percentage of families where an FPA was identified increased from 12% (October) to 100% (December). For Progress Assessed, there was also improvement from October to December, with 0% of families having their Progress Assessed in October to 50% of families with Progress Assessed in December. This example demonstrates how the dashboard was used to identify an area of variance

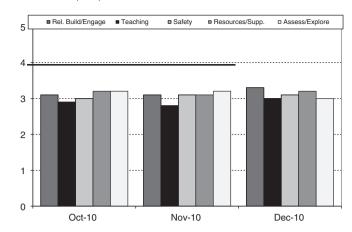


Fig. 2. Snapshot of model fidelity ratings.

and the issue was quickly addressed; the dashboard provided an almost immediate feedback loop.

While dashboards are often used to discuss areas that need improvement, they are also used to convey positive results across and to the sites. Site directors have used the dashboards to praise the staff on their adherence to the model or for meeting/exceeding benchmarks. The discussions that occur at the site level with all of the staff also serve as an engagement process to keep the staff informed and actively engaged as an integral part of the national organization. The staff are provided with the opportunity to talk about the findings and to problem solve ways to increase, for example, model fidelity or client outcomes.

4. Conclusion

The purpose of this paper was to 1) provide a background on performance management systems, 2) describe how a performance management system was implemented and used in a national child welfare organization, and 3) demonstrate how the system was used to create real-time feedback that contributes to program management, evaluation, and successful implementation. These are critical components of establishing the evidence base for interventions. The example provided in this paper demonstrates that the tools and processes are very applicable to today's social service programs. The performance management process at Boys Town has contributed to an ability to operationalize a strategic plan, create indicators to monitor the plan at multiple levels, communicate the program's implementation and effectiveness to multiple stakeholders across multiple sites through an ongoing feedback loop, and contributes to the program's evidence base. The tools provide a visual indication of the progress and allow for ongoing monitoring of any programmatic changes suggested as a result of ongoing data and feedback. The days of program

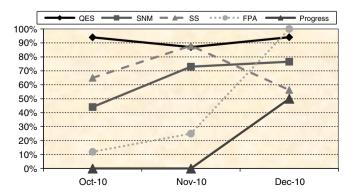


Fig. 3. Snapshot of service review/documentation by site.

¹ Family Problem Areas are generated from individual items on the Strengths and Stressors assessment (Berry, 2009), where practitioners in conjunction with the family identify specific areas of stress that is currently affecting their family. These FPA's are then used identify and provide targeted services to the family. For a more in-depth discussion on the In-Home Family Services program model, please see Ingram, Cash, Oats, Simpson, & Thompson (under review).

evaluations based on old data without feedback loops should be in the past. The technological tools and business-defined performance management processes can move our field forward, with differentiating impact, so that we can continue to find ways to move forward glancing back, while still moving forward.

References

- Berry, M. (2009). Strengths and Stressors, v. 2.0. Lawrence, KS: Author.
- Bieker, T., Dyllick, T., Gminder, C. U., & Hockerts, K. (2001). Towards a sustainability balanced scorecard. Linking environmental and social sustainability to business strategy. *INSEAD research working paper*.
- Bontis, N., Dragonnetti, N. C., Jacobsen, K., & Roos, G. (1999). The knowledge toolbox: A review of the tools available to measure and manage intangible resources. European Management Journal, 17(4), 1–20.
- Chorpita, B. F., Bernstein, A., & Daleiden, E. L. (2008). Driving with roadmaps and dash-boards: Using information resources to structure decision models in service organizations. Administration and Policy in Mental Health, 35, 114–123.
- Eckerson, W. W. (2011). Performance dashboards: Measuring, monitoring, and managing your business (2nd ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Kaplan, R. S., & Norton, D. P. (1996). Translating strategy into action: The balanced scorecard. Boston, MA: Harvard Business School Press.
- Kaplan, R. S., & Norton, D. P. (2001). Transforming the balanced scorecard from performance measurement to strategic management: Part I. Accounting Horizons, 15(1), 87–104
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard Measures that drive performance. Harvard Business Review, 71–79.
- Lambert, M. J., Harmon, C., Slade, K., Whipple, J. L., & Hawkins, E. J. (2005). Providing feedback to psychotherapists on their patients' progress. *Journal of Clinical Psychology*, 61, 165–174.

- McCue Horwitz, S., Chamberlain, P., Landsverk, J., & Mullican, C. (2010). Improving the mental health of children in child welfare through the implementation of evidence-based parenting interventions. *Adm Policy Men Health*, 37, 27–39.
- Modell, S. (2004). Performance measurement myths in the public sector: a research note. Financial Accountability & Management, 20(1), 39–55.
- Niven, P. R. (2006). Balanced scorecard: Step-by-step: Maximizing performance and maintaining results (2nd ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Niven, P. R. (2008). Balanced scorecard: Step-by-step for government and nonprofit agencies. Hoboken, NJ: John Wiley & Sons, Inc.
- Norreklit, H. (2000). The balance on the balanced scorecard—A critical analysis of some of its assumptions. *Management Accounting Research*, 11, 65–88.
- Pecora, P. J., Reed-Ashcraft, K., & Kirk, R. S. (2001). Family centered services: A typology, brief history, and overview of current program implementation and evaluation challenges. In E. Walton, P. Sandau-Beckler, & M. Mannes (Eds.), Balancing family-centered services and child well-being (pp. 1–33). New York: Columbia University Press.
- Pecora, P. J., Seelig, W. R., Zirps, F. A., & Davis, S. M. (1996). Quality improvement and evaluation in child and family services: Managing into the next century. Washington, DC: CWI A Press
- Percevic, R., Lambert, M. J., & Kordy, H. (2004). Computer-supported monitoring of patient treatment response. *Journal of Clinical Psychology*, 60, 285–299.
- Poister, T. (2010). Performance measurement: Monitoring program outcomes. In J. S. Wholey, H. P. Hatry, & K. E. Newcomer (Eds.), Handbook of Practical Program Evaluation (3rd ed.). Jossey-BassSan Francisco, CA.
- Ryan, J. P., & Schuerman, J. R. (2004). Matching family problems with specific family preservation services: A study of service effectiveness. *Children & Youth Services Review*, 26, 347–372.
- Santiago, J. M. (1999). Use of the balanced scorecard to improve the quality of behavioral health care. *Psychiatric Services*, *50*(12), 1571–1576.
- Simpson, D. D. (2002). A conceptual framework for transferring research to practice. Journal of Substance Abuse Treatment, 22, 171–182.