

Nothing In– Nothing Out: Barriers to the Use of Performance Data in Social Service Programs

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ABSTRACT. There is an increased expectation that social service programs will measure outcomes. This article presents data from a multi-site statewide evaluation of a state-funded family support program. Using multiple methods, we observed that participating programs did not consistently make use of the information systems that would help them collect data required by the funder, even with a great deal of support, technical assistance, and training. This Nothing In Nothing Out phenomenon represents a major barrier to data-based program planning and management. The impact of leadership, attitudes, accountability expectations, and organizational culture on how programs collect and utilize data are described in this multi-site case study. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2003 by The Haworth Press, Inc. All rights reserved.]*

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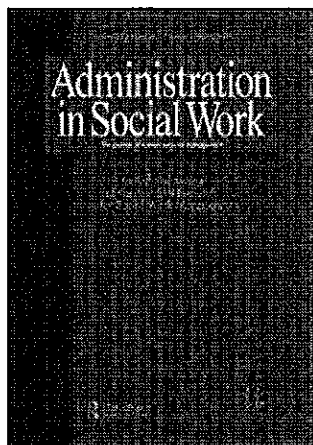
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KEYWORDS. Outcomes, data utilization, information systems, accountability, organizational culture, leadership and change

In human service programs, there is an increased expectation that outcomes will be articulated and measured (Julian and Clapp, 2000, Horsch, 1996). Frequently policy makers, when asked to make decisions about funding social services programs, look for guidance from researchers and program evaluators. In turn, researchers and program evaluators work with human service professionals in the field who are actually implementing the programs being studied. Ideally, effective programs and services should emerge from a dynamic engagement among policy makers, researchers, and practitioners in the field (Carrilio, 2002), as it has been suggested that human services professionals can use data and data systems as a means of empowerment and quality management (Bilson, 1995).

Although there are a number of cogent reasons for evaluating program processes and outcomes including accountability (Julian and Clapp, 2000), supervision of employees (Rapp & Poertner, 1992) and the like, there are often complex barriers to the collection and use of data in human service programs ranging from onerous and sometimes conflicting funder expectations (Kettner, Moroney, & Martin, 1999) to internal factors such as staff resistance, which will be discussed below. Primary barriers to the collection and use of evaluative data in human service programs include a lack of expertise (Mutschler, 1992) or adequate fiscal resources to undertake such efforts (Rapp & Poertner, 1992, 91). Yet, even when adequate intellectual and fiscal resources are available, human service professionals may resist the use of evaluative data to guide services on ideological grounds (Clapp and Burke, 1997). Related to this, Dorsey (2002) reported that, in addition to a lack of skills and knowledge, other factors related to the failure of information technology implementation included lack of top management commitment and a failure to gain user commitment.

This paper presents an analysis of the use of computerized management information systems (MIS) in a statewide child abuse prevention initiative as means of measuring program processes and client outcomes, and providing information to practitioners to guide and alter their practice. We present a multi-site, mixed methodology case study describing the data collection mechanisms and supports, as well as the actual compliance of program staff with the data collection and quality systems. In this case, required data were infrequently entered into the agency MIS, suggesting to the researchers a variation of the old axiom about computer utilization "garbage in—garbage out." The phenomenon here—"nothing in—nothing out" resulted in a lack of data that could be used for case review and evalua-

tion. The report adds to the extant literature concerning data-based planning, evaluation and policy by demonstrating the complex dynamic associated with the collection and utilization of evaluative data in applied human service settings even when adequate resources and supports exist.

DATA COLLECTION AND UTILIZATION IN THE HUMAN SERVICES

Researchers have identified barriers to the collection and use of client data in human service agencies. These range from historical and environmental forces affecting agencies to internal factors such as the skills and attitudes of management and line workers, organizational leadership, and the organization's culture.

Some of the challenges in developing information systems in human service organizations have been based on their historical uniquenesses, including "fuzzy" goals, a preference for measuring means rather than ends, and the resultant difficulties in measuring outcomes (Lewis, Lewis, Packard, & Souffle, 2001). These are aspects of broader dynamics affecting the agency, particularly environmental forces such as stakeholder expectations. Perhaps because of limited resources, agencies tend to gather data required by funders rather than more comprehensive data that might provide valid feedback on the results of services delivered (outcomes). Funding organizations are increasingly trying to shift to a focus on outcomes, but agencies are not inclined to put a great emphasis on expensive and complicated outcomes measurement if funders do not demand it.

The outcomes/accountability movement has been addressing these challenges, and Schorr (1997) noted that those who resist this push may fear, among other things, that agencies will measure what is easy to measure rather than what is most important, that measurement will show that "*even effective programs will seem to accomplish less than they actually do*" (p. 121). As an antidote, Schorr suggests that program evaluations use a strong theoretical base; collaborative, rather than adversarial relationships among evaluators, program staff, and funders; multiple evaluation methods; and an emphasis on relevance over evaluation design elegance. These principles were applied in the case described below, and there was still resistance to valuing and using an information system, pointing to internal barriers to data collection and use.

Implementing an automated MIS and attempting to move an organization toward a culture which focuses on client outcomes is in fact a major organizational change. In an influential discussion of the dimensions of

successful organizational change, Tichy (1983) noted that a change has technical, cultural, and political aspects, and that these need to be addressed simultaneously in a coordinated way. Consistent with this model, a discussion of the challenges of knowledge diffusion and technology transfer in social work agencies (Herie & Martin, 2002) noted that political and cultural dynamics need to be addressed if an innovation is to be successfully adopted. In the example here, the new MIS represents the technical change, while movement towards an outcome-oriented culture represents cultural change. Political aspects of the change emerge in two ways: the increased power of data entry staff, and perhaps service delivery staff anxiety about this; and the behaviors of the organization's leaders to make the change happen. We found in the case described below evidence of the need to consider cultural and political factors when introducing a new MIS.

Bilson (1995) noted skills, knowledge, epistemological concerns, and staff attitudes need to be considered when introducing a MIS to human services practitioners and administrators. For example, Rapp and Poertner (1992, 174) quoting Carter (1987), suggest that this attitude can be represented by a worker saying, "Why should I risk finding out if the parent is satisfied with the care provided to their child? If it's lower than expected or assumed, then I lose." Schoech (1995) emphasized the importance of organizational leadership (e.g., top-level management support) in the successful development of information systems. Leaders need to articulate the need for an information system in a way that can address staff attitudes of resistance, and ultimately change the organization's culture regarding the use of information. In a study of children's mental health centers, Hodges and Hernandez (1999) found that an organization's culture can be an important factor in the extent to which client outcome information is valued and used to guide decision making. In particular, agencies with a culture that supported using data, including customer satisfaction data, did, in fact, more fully use outcomes data for program improvement. Part of maintaining this culture is ongoing technical assistance to orient new staff to the importance of using data.

Agency administrators can use principles of organizational culture change to improve the functioning of their organizations. Total Quality Management (TQM) has been one of the most popular methods for systematically studying and improving an agency's operations (Sluyter, 1998; Hodges & Hernandez, 1999). Principles of organizational learning have also been adapted in human service organizations. Rapp and Poertner (1992, 93) emphasized the role of agency administrators in constructing a culture which is supportive of the use of information systems, noting, "there must be an information system, an ongoing system,

to measure, store, retrieve, and report performance-enhancing information.”

One final principle of organizational change used in the study described below is action research. A core technology of organization development for fifty years, action research involves gathering data on a problem, choosing a solution and implementing and repeating the process to see if the problem has been solved (French & Bell, 1990). This becomes a cycle of continuous monitoring and changing to ensure that the organization remains dynamic and responsive. Patton (1997) has noted that action research has been used in program evaluation, and the case reported below had such an action research component.

METHODS

This case is drawn from a project in which the authors have been involved as evaluators. As noted above, the case includes data from several sources representing 17 human service programs. The timeframe for the case is July 2000–June 2002.

CONTEXT

The ABC Program: The project, the third of a series of increasingly complex efforts to develop a “best practices” approach to family support programs for highly vulnerable families, is a comprehensive, seventeen-site program initiative being carried out statewide in California. The first two initiatives have been described in detail elsewhere (Landsverk et al., 2001; Carrilio, 1998). The third initiative, Answers Benefiting Children (ABC) is an ambitious 17-site initiative, which attempted to build upon the prior two initiatives as well as to introduce new components. In addition to further elaborating the components of the first two initiatives, the ABC initiative targeted “systems” change by funneling the funds through counties and requiring a county wide planning effort and public-private collaborations as part of the program. The initiative follows an “action research” philosophy. Action research (Patton, 1997; Garvin, 1997) emphasizes participation of key stakeholders in the design and implementation of the evaluation. In action research, data are fed back to stakeholders and analyzed, with adaptations made for the next phase of data collection to address emergent questions and insights. In the ABC evaluation, this has involved multiple

site visits and a periodic collaborative feedback process in which the evaluation team shares key findings with the sites for their response. The evaluation is looking at client level outcomes, issues of implementation, and systems change.

The MIS: The same core MIS was used for each of the projects, with modest updates and improvements over time. The MIS was developed so that programs could collect accurate and timely client and service data, prepare staff time reports, score standardized client assessments, as well as monitor and manage caseloads and productivity. The Standardized Instruments included in the MIS were:

- Maternal Social Support–MSS (Pascoe et al.,1988)
- Adult-Adolescent Parenting Inventory–AAPI (Bavolek,1999)
- Center for Epidemiological Studies Depression Scale–CES-D (Radloff,1977)
- Alcohol Use Disorders Identification Test–AUDIT (Saunders et al.,1993)
- Drug Abuse Screening Test–10 Item Version–DAST-10 (Gavin et al.,1989)
- Conflict Tactics Scale CTS: Physical Assault Scale (Straus et al.,1996)

The use of the standardized instruments was intended to serve several purposes. First, the standardized measures were chosen for ease of use and were intended to provide some guidelines for further clinical assessment and service planning. An underlying assumption was that the sites would follow good case management principles, which included: (1) timely initial assessment; (2) development of an individualized service plan; (3) periodic reassessment and monitoring of the service plan. The instruments were chosen for several reasons: (1) they are consistent with those used in two prior program evaluations (described below); (2) they are normed in both English and Spanish, the two primary languages of clients served by this program initiative; (3) they are short and easy to understand. It was the expectation that they would be used by staff to help focus their assessments and intervention plans. While this use of standardized instruments would not constitute an outcomes study, there was an expectation that by measuring clients systematically over time we would be able to identify trends that would point towards improvement for families.

This MIS was an outgrowth of a system originally developed as part of a research project over 20 years ago (Carrilio et al., 1985), and re-

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financed in several different organizational settings. As part of the initial implementation of the ABC project, the funder requested that the evaluators purchase and install computers at each site, along with the MIS and basic office software (data base, word processor, spreadsheet, web browser, and file utilities). Evaluation staff ordered identical computers for each site and installed the hardware and software prior to the initiation of services. Program staff received eight hours of hands-on training on the use of the MIS in addition to the 56 hours of training on program concepts and operation required by the funder. Each site was provided with a detailed *User Manual* (Carrilio et al., 1999) that provided detailed, step-by-step information and instructions about the use of the MIS. During the eight hours, staff and administrators at the site were trained in how to track data input forms, enter data, prepare reports for internal and external use, and received instruction on how to manage the system. For the first six months of MIS operation, the evaluation team was "on call" for project staff to handle questions, emergencies, and resolve software and hardware problems. At the end of six months, projects were assigned to a four-hour time block every week during which time they could contact the evaluation team "help desk." Additionally, staff remained "on call" to programs and to the funding agency to handle crises and ad hoc reporting requests. The evaluation team trained the funders in the MIS and provided them with a copy of the software. Additionally, the evaluation team provided a monthly report to the funder, which included a summary of key activities and demographic data for all seventeen project sites. Monthly memos were sent to the sites to update the *User Manual*, and to help the program sites make better use of the system's capacities. Periodic updates to the MIS were distributed to the sites with detailed memos and updates to the *User Manual*.

DATA SOURCES AND COLLECTION

The authors were asked to evaluate this complex, statewide program initiative after it had been underway for about one year. This late start greatly restricted the approach we could take as evaluators. Thus, we sought to implement the action research model described above to help the programs provide quality services. Data from all seventeen sites were collected in three cycles, at six-month intervals. After each data collection cycle, the data were analyzed, and the evaluators met with the funders and the program sites to review the findings. As part of this

larger evaluation, we were interested in exploring the way in which data was used for program management and quality enhancement.

For the purposes of this case, we used the following data sources:

MIS data: Data from the comprehensive management information system. Specifically, we report data entry statistics to demonstrate compliance to the program model.

Data Entry Staff Questionnaire: An 8-item questionnaire was completed by the data entry staff member at each site ($n = 17$). The questionnaire gathered information from the respondents about their experience with implementing and operating the MIS in their specific setting. Questions addressed the accuracy of their job description, data entry staff training, and the characteristics of the agency's MIS. Examples include "I follow a schedule for ongoing data entry" and "Forms are turned in accurately." A 4-point Likert scale was used for responses.

Data Use Attitudes Questionnaire: After the first data collection cycle and report-out, there was a comprehensive, day-long re-training. At this training meeting, the team leaders, administrators and data entry personnel were asked to complete a "Data Use Questionnaire." The questionnaire gathered data about respondents' ($n = 43$) skills, knowledge and attitudes regarding the utility of computerized management information systems. The attitude items ($n = 30$) were 6-point Likert-type items (1 = strongly disagree, 6 = strongly agree). For analysis purposes, we created an index reflecting respondents' perceptions concerning the usefulness and user friendliness of the ABC MIS ($\alpha = .87$). In addition, we created two indexes assessing respondents' attitudes toward measuring client outcomes. The first reflected the extent to which respondents believed client outcomes could be measured quantitatively ($\alpha = .55$). The second reflected the extent respondents believed that client outcomes are not easily measured ($\alpha = .55$). Although the .55 alpha level is low, Nunnally (1967) suggested alpha levels of .50 are adequate in exploratory research such as this. The small "n" precluded using factor analytic methods to derive latent factors for index construction. As such, we used a conceptual categorization to develop these indexes in which similar items

were combined. The valid value for the MIS index is 5-30, while the valid value range for the outcomes measurement indexes is 2-12. For all three indexes, higher scores indicate more support for the construct.

Case File Review: A case record review of 900 (about 9% of the case files) randomly selected cases from each site was completed, utilizing a case file checklist. The checklist included a review of the site's utilization of the standardized assessments required by the program model. Research staff recorded the existence of an initial assessment and of subsequent reassessments. The funding and program model called for an initial use of the standardized assessments and reassessments at six-month intervals.

FINDINGS

MIS-Utilization

Across three data collection cycles there were a total of 9,716 families entered into the ABC program MIS. Of those, 5,186 received at least one service and, based on program protocols should have been given baseline and follow up assessments. Based on the data entered into the MIS, the percentage of eligible clients receiving a full baseline assessment battery was 30% by the end of the ABC program. Partial baseline assessments were entered into the MIS for an additional 49% of the families served by the program, while 21% of the families had no baseline assessment data entered. The (n = 1,554) clients with complete baseline assessments had the possibility of having both complete baseline and follow-up assessment batteries. Of that group, however, only 575 (37%) clients had complete follow-up information entered into the MIS. Thus, only 11.1% of the total clients served had complete assessment data entered in the MIS. Although this low percentage is an indicator of poor model compliance across the sites (that is, sites were required to collect, enter and use these data), the MIS data alone does not adequately assess the extent to which the data were actually collected.

Case File Review

To augment the MIS data, we conducted a random case file review to determine the extent to which the above findings were a result of poor

data entry compliance or poor data collection compliance. Of the 900 files reviewed, 819 (91%) had received one service and therefore should have had baseline and follow-up assessments. Of this group, 57.1% (n = 468) of the files had complete baseline assessments. Again, this group with complete baseline assessments had the possibility of being complete by having follow up assessments as well. Almost 69% of the files with a complete baseline also had complete follow up assessments. Thus, the random sample of case files suggests that 38.3% of the clients received the required baseline and follow up assessments. This number is higher than the 11% of complete cases found in the MIS, but considerably lower than what was required by the model. To examine the reasons for the disparity between the model requirements, the MIS compliance and the actual data collection compliance, we conducted two additional surveys.

Data Entry Staff Survey

The data entry staff responded to a number of questions about the ways in which their organization's systems supported accurate collection and management of data. Seventy-eight percent of the data entry staff reported that they received training on the MIS. Ninety-three percent agreed or strongly agreed that they followed a regular schedule for entering data. Most respondents (89%) felt that the staff provided them with accurate data for entry into the MIS. There seemed to be fairly high agreement that staff received training in the MIS and that there were systems in place to collect and enter data in a systematic way. Yet, when staff was asked if their agency had a system in place for updating or editing information, only 43% of the respondents felt that this was so. While 61% of the respondents indicated that there was a good fit between their job descriptions and their actual day-to-day activities, 39% felt that the fit is poor between what they do and what is described in their job descriptions. The data indicate that staff was trained, and that some systems were in place to manage data. However, there appear to be some difficulties with the ways in which the data entry role is conceptualized in some organizations. Interestingly, although agencies seemed to have systems in place for managing initial data entry, the systems for updating information in the system were not well developed.

Data Attitudes Survey

Results of the data attitudes survey suggest that program managers viewed the MIS as being useful ($M = 21.4$, $SD = 4.6$). Only 4.8% of the

cases fell into the “non-useful” range (12.5 or below) of the MIS index distribution. Similarly, on average, respondents tended to agree ($M = 9.9$, $SD = 1.3$) that evaluation was useful and possible. Interestingly, however, on average ($M = 6.3$, $SD = 2.2$), respondents also agreed (although not as strongly) that client outcomes could not be measured easily by using standardized tests.

As might be expected, the index that reflected outcome measures were useful and possible was moderately and positively correlated ($r = .50$, $p = .001$) to the MIS usefulness index. As expected, the index reflecting the extent to which outcomes are not easily measured was inversely ($r = -.38$, $p = .02$) related to the MIS index. The two outcome indexes were inversely related ($r = -.37$, $p = .02$).

When looking at individual items, the majority of respondents (81%) reported that they agreed that their agency had adequate resources to use the MIS. Thus, for the most part, respondents felt the MIS provided useful information, that their agency had adequate resources to use it, and that monitoring client outcomes was important.

DISCUSSION

Although we had an adequate data collection mechanism in place, with standardized assessment instruments and a highly supported MIS (including staff training), we found that sites complied only partially with the funder’s request to provide data for program evaluation. Programs consistently provided process data, which described who got what, how much, and for how long. However, the standardized assessment instruments needed to assess client improvement were not administered as expected. We attempted to see if the instruments were being done, but not entered into the system, and found that there was a gap between the information in the case files and what was entered into the computerized MIS.

We hypothesized that the lack of compliance, particularly with respect to reporting on case management and assessment data, might be related to attitudes and beliefs about data and research. The results of the data use questionnaire indicate that in fact, there may well be a relationship between negative attitudes about research and data collection and compliance with the MIS. This is unfortunate on two counts: (1) when we did have sufficient data, we were able to identify positive trends, indicating that there may well be some positive effects from the program; (2) the benefits of using the MIS for quality management and

planning were not available to those program sites that were resistant to utilizing the MIS.

There are several plausible explanations for our findings. First, hesitation of agency staff to use an MIS may have to do with difficulty of use and intimidating interfaces, and that data collection tools will be more effective if they are easy to use and understand. Because staff in the case above reported being comfortable using the MIS, and ample training and technical support were available, other factors probably contributed to the low usage of the MIS.

Second, the managers or staff of the programs may have been philosophically opposed to evaluative efforts, or the specific instruments used. Some important dimension of program implementation and quality management are the knowledge, beliefs, and attitudes of the administrators and supervisors of a program. In order to manage quality and to perform program evaluations, consistent, systematic use of data is required. Yet, despite the urging of funders and the need to manage programs well, we have seen that administrators and supervisors do not always see the importance of these systems.

An organizational culture which is interested in high quality organizational performance and achieving demonstrable results will be more likely to value and support the use of an MIS. As Schoech et al. (2001, 16) said, "Organizational culture changes, as information/knowledge is recognized as a basic asset that increases in value as it is shared and used." One explanation for the indifference to performance measurement is offered by Sluyter (1998, 52-4), who blames centralized or bureaucratic structures, rigid policies and procedures, no perceived relationship between performance and rewards, and managers blaming employees for problems. In an environment where both leadership and employees are more concerned about avoiding blame than improving quality, progress towards the effective use of data for planning and quality management is not likely. Sluyter suggests (1998, 54-61) that changing such a culture of blame starts with recognition at the leadership level that performance improvement is an organizational value. Leadership must recognize that the existing culture is "out of sync with its performance improvement vision" (54), and construct a new organizational vision and culture.

Finally, pressure from funders to demonstrate results beyond documentation of units of services may be a powerful incentive to move towards an increased use of an MIS. As Hasenfeld and Patti (1992, 233) put it, "Administrators are more likely to use research when it strengthens their political positions, reinforces their interests, and assists in mobilizing resources or buffers against attacks." Therefore, in addition to con-

tinuing to refine an agency MIS and ensure that staff are trained in its use, administrators may be able to enhance MIS usage through changing an organization's culture toward valuing organizational learning and demonstrating value to outside forces such as funders. This, of course, has policy implications. As Schorr (1997, 115) noted, "what matters is whether public purposes are being accomplished," and a comprehensive, well-used MIS can be an accountability tool to assess this.

This is consistent with the management axiom, "what gets measured gets done." Given the resource constraints in most human service organizations, administrators are not likely to take on a new way of capturing program information without outside pressure. The trend towards a greater emphasis on outcomes in our field has been discussed in academic and program evaluation circles for some years, although practice has thus far lagged behind. The slow progress in this area is perhaps understandable: this is a radical change in both technologies of information systems and organizational culture. Light (2000) has articulated a need for a greater focus on capacity building toward performance accountability, adding that, unfortunately, "capacity building is the most expensive, time-consuming path to accountability and arguably the least popular politically" (2000, p. 98). In the case described above, the funding organization articulated clear, specific expectations for implementation of the program model and the MIS, but there were no processes in place to ensure that the agencies did, in fact, demonstrate accountability for behavioral change of clients as documented through the MIS.

A key implication of our findings is that efforts to change organizational culture from the outside, even with powerful incentives and sanctions, may not be effective without considerable commitment on the part of key leaders within the organization. Future research is needed to further examine the organizational dynamics related to the collection and use of evaluative data.

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