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City University of New York, 1989

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Integrating Management Information and Program Evaluation at Boysville of Michigan

by

Anthony J. Grasso

A dissertation submited to the Graduate Faculty in Social Welfare in partial fulfillment of the requirements for the degree of Doctor of Social Welfare, The City University of New York.

1989

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Abstract

Intergrating Management Information and Program Evaluation at Boysville of Michigan

by

Anthony J. Grasso

Adviser: Professor Irwin Epstein

This dissertation describes the design, implementation, and evaluation of an integrative model of management information, program evaluation and practice decision-making at a residential childcare and family treatment agency. The Boysville Management Information, Program Evaluation and Practice Decision Making System (BOMIS) represents an attempt to integrate computer technology with practice research utilization. Its ultimate purpose is to develop an information-driven model of administration and direct practice.

After identifying the need for the development of such integrative models, the dissertation presents a review of theoretical issues that must be addressed by design if such a system is to be successfully implemented. These issues include the unique character of social work administration, the proper role of research and information technology in social service agencies, and the need to integrate organizational performance with client service.

From a philosophical point of view, however, the major obstacle to implementation is the conflict between performance based on information technology and the traditional, humanistic values of social work. Failing to address this conflict in the design of an integrated system results in serious implementation problems.

After describing the agency setting and the information system itself, the study presents evidence concerning how fully BOMIS was implemented and how effectively it achieved its organizational objectives. Using a "Design and Development" research strategy, multiple sources of data concerning multiple programs were used to evaluate organizational performance before and after the introduction of BOMIS.

The evidence offered includes a quantitative study of research and information utilization by staff, a qualitative case study of the use of BOMIS generated information in external policy advocacy, a quantitative evaluation of fundraising efforts and a quantitative evaluation of client outcomes. Although the evidence presented is generally positive, a more qualitative, organizational analysis of administrative resistance to BOMIS explains why it hasn't been fully implemented.

Implications for utilization, implementation and design of BOMIS-type systems are discussed. While still unsure of all the of elements required for successful

integration, the Boysville experience supports the assumption that how a human service organization integrates performance, information processing, and conflict management will determine its efficiency and effectiveness.

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I would also like to acknowledge the members of my Dissertation Committee who were always available to provide helpful comments and suggestions: Irwin Epstein, Mike Smith and Tony Tripodi. I have learned a great deal from all of them.

This dissertation could not have been completed without the unending suport of my friends and relatives. Irwin Epstein and Edward Overstreet deserve extra thanks for their special roles as mentor and friend. Together,

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TABLE OF CONTENTS

TITLE PAGE. i

COPYRIGHT PAGE. ii

APPROVAL PAGE iii

ABSTRACT. iv

ACKNOWLEDGMENTS vii

LIST OF TABLES. x

LIST OF FIGURES. xii

Chapter

1. STATEMENT OF THE PROBLEM. 1

2. LITERATURE REVIEW 13

3. METHODOLOGY 36

4. THE INTEGRATED MODEL. 56

5. A QUANTITATIVE STUDY ON RESEARCH UTILIZATION. . . 108

6. USING BOMIS DATA FOR POLICY ADVOCACY: A CASE STUDY 131

7. THE IMPLEMENTATION OF BOMIS: PROBLEMS AND SUCCESSES 155

8. SUMMARY AND CONCLUSIONS 183

REFERENCES. 202

LIST OF TABLES

TABLE

5.1 Numbers and Percentages of Respondents Agreeing with Items Indicative of Favorable Attitudes Towards Research Before and After the Implementation of BOMIS. 124

5.2 Numbers and Percentages of Respondents Agreeing with Items Indicative of Perceptions of Utilization Facilitators. . . . 125

5.3 Numbers and Percentages Responding "Frequently" or "Occasionally to Research Utilization Items 126

5.4 Stepwise Multiple Regression in Analysis with Research Utilization as the Dependent Variable and Perception of Facilitators, Attitudes Towards Research, Agency-Based Research Training and Level of Education as Independent Variables 127

5.5 Correlation Matrix Between Facilitators and Individual Utilization Items (Pearson Correlation Coefficients) 128

5.6 Number of Respondents and Matrix Utilization Scores by Items Between Treatment and Non Treatment. 129

6.1 Crosstabulation of Program Outcome at 3 Months after Termination by LOS. 151

6.2 Crosstabulation of Closing Status by LOS 152

6.3 Crosstabulation of Program Outcome by Closing Status at Termination. 153

6.4 Crosstabulation of Program Outcome by LOS, Controlling for Success at Time of Termination. 153

6.5 Crosstabulation of Program Outcome by LOS, Controlling for Failure at Time of Termination. 155

LIST OF TABLES
(CONTINUED)

TABLE

7.1 Boysville Program Outcome Data 180

7.2 Boysville Program Outcome Data 181

LIST OF FIGURES

FIGURE

3.1 Boysville of Michigan Organizational Chart . . . 55

4.1 System Instrumentation 106

4.2 Flow of Information. 107

5.1 Statistically Significant Relationships in Research Utilization Model. 130

7.1 Boysville of Michigan Program Organizational Chart for the Integrative Model. 182

Chapter One

STATEMENT OF THE PROBLEM

Multiple problems confront today's human service agency. These range from securing adequate funding to meeting the needs of increasingly difficult to serve clients. This multiplicity of problems has had varying impacts on agency functioning, one being that as client and organizational problems have become more complex and the technologies for dealing with them more specialized and differentiated, the practice of social work in agency settings has become more fragmented (Fabricant 1985, Gruber 1974). The resulting effect has been poor services to clients and, as competing interests in agencies have vied for dominance and control, unresolved organizational conflicts. As a result, it is not uncommon to hear direct service practitioners complain that administrators at their agencies are more concerned with budget items than with the well being of clients, or to hear agency adminstrators accuse line workers of failing to achieve on objective measures of program success. Add to these problems additional strains put on agency operations by the introduction of a new information technology and its no wonder the modern human service agency is struggling (Caputo, 1988).

Not only is the human service agency struggling but so is the social work administrator who, confronted with the daily pressures of these complex problems, finds him/herself ill prepared to respond.

In the past, the most common route to a career in social work administration involved training in interpersonal practice, two or three years of post-Master's experience in an agency, promotion to a supervisory position, after some years promotion to program management, and finally movement into agency administration (Patti and Austin, 1977). Thus, most administrators in social work came to their positions with little or no formal training in administration. Nevertheless, in the process of career development they were steeped in social work values and direct practice as well as supervisory skills.

This path to administration was still organizationally appropriate when accountability requirements were simpler, funding sources were more plentiful and human service organizations had single-service missions. But as social service systems, treatment and information technologies became more complex, and the competition for limited resources intensified, social work administrators were caught unprepared to deal efficiently and effectively with these changing conditions. And, since social work had not developed its own indigenous models of administrative

practice, many social service organizations hired individuals trained in administration in other fields. In so doing these organizations gained some prestige and administrative and/or technical expertise, but, to a certain degree, subordinated a client service orientation to a concern for efficiency (Patti, 1985).

As a result, administration as a practice specialty in social work has reached a critical stage in the past decade. Today, a serious challenge confronts social work administration as to whether it represents a unique field of practice, separate from other forms of organizational administration (Patti, 1983). As stated above, more and more social work agencies are being headed by individuals with degrees in public administration, management studies, business administration, school administration, public health administration, and human relations, to name the most prominent. If it is to remain a viable field of study, social work administration must differentiate itself in relation to other types of administration. Writing on this topic, Patti (1983) comments:

> ...the issue that confronts social work is whether it will take responsibility for defining the parameter of professional administrative practice in social welfare...The failure to do this in the years ahead will render social work a supplicant to the field of administration and blur the distinctive contribution its practitioners can make to furthering the effectiveness of social welfare organizations (p. 19).

In looking at this problem from a historical perspective some of the root causes of the problems confronting the modern service agency can be identified. For example, the conflict identified above involving direct service practitioners and administrators finds its origins in the politics of scarcity in the 1970's that led to the application of PPBS and cost-benefit analyses to human services with little or no regard for direct effect on clients (Patti, 1983). This fragmentation of social work service and administration into different areas of practice however, was not always the case. So, for example, discussing administrative practice in the 30's, Dunham (1939) notes that at that time, administrative practice was not ordinarily distingished from direct practice nor thought of as a separate function.

The introduction of accountability systems, information technology, and computerization has recently magnified the problem of service and information fragmentation. By focusing the agency on measurable aspects of program functioning and on routine reporting on these measures we have given greater credence to those forms of practice and practice effects that are most amenable to quantitative measurement, thereby narrowing both agency focus and administrative conceptions of performance. For example, discussing the misuse of managemant information systems Clark (1985) remarks:

> Management information systems can be improved technically, but they are askew because their relationship to the organization is misunderstood. They are serving administrative decision making... [MIS systems] gather the wrong information, from the wrong sourses, for the wrong users, at the wrong organizational level. (p. 71)

This misuse of information technology has resulted in new conflicts between the direct service practitioner, the administrator, and information specialists such as computer programmers, program evaluators and system managers.

It should be pointed out, however, that the separation of information from those who apply it was not always the case in social work. Thus, for example, Tratner (1973) discribes the way in which Jane Addams incorporated information collection, analysis and evaluation into her approach to direct practice.

No one would argue that separation of function as a way of dealing with these problems isn't a valid response. Nor would anyone deny that dramatic changes have taken place from the times when agencies could best be characterized as loosely organized groups of voulnteers working to address the "evils" of social injustice. Since then, the burgeoning agencies of the 1980's have been forced to deal with increasing complex and diverse internal and external environments. So, while not taking exception to the value of greater specialization and technological

advance, this dissertation project is based on the assumption that when these processes are not integrated with a client service orientation the resulting fragmentation has a negative effect on the agency, the direct service practitioner and the client.

Although an incremental strategy may be necessary to resolve issues too large to include in single practice paradigms, the lack of a unifying vision leading to integration of multiple frameworks of practice has been destructive. In addition, the commonly held assumption that the resolution of individual organizational problems somehow leads to the cumulative effect of resolving complex interrelated problems has not helped. On this point, Lincoln (1985) in discussing paradigm shifts in other fields identifies a need for a new organizational theory. She states:

> We have behaved as if the world was simply additive; that is, complex elements were simply aggregations of much simpler entities. We are now beginning to understand that systems are not merely the sum of more simple units;... (p. 34)

In sum, there is a clear and recognized need to find administrative models in social work that successfully integrate advances in research, information technology and client service.

Responses to this current state of fragmentation of agency practice have taken diffrent forms. In viewing the problem from a management perspective, several authors note

the need for unifying themes for agency operations. Patti (1985), for example, sees the problem as an outgrowth of a lack of a clear, fundamental purpose for social welfare adminstration and argues that service effectiveness should be the unifying philosophy of human service organizations. Rapp and Poertner (1987) agree and see this shift in perspective as a means of moving the client "center stage" by focusing the assessment of agency performance on client outcome. Correlatively, Grasso and Epstein (1987) suggest that the value of helping clients runs across all levels of an organization and argue that by centering on improving staff skills at each level one can improve overall service effectiveness.

Each of the foregoing approaches offer suggested strategies for mediating conflict in human service agencies. Patti sets a necessary tone for unifying organizational culture around a commom theme, Rapp and Poertner use this to center agency administration on the task of conceptualizing agency performance, and Grasso and Epstein begin to address the issue of how to link staff skills development to improved organizational performance.

Centering on the schism between information technology and social work practice, others have proposed strategies ranging from reconceptualizing the practitioner as an information specialist (Briar, 1980) to viewing the

organization as a "host" to a research and development (R and D) function (Rothman, 1974). Still others search for an elusive mathematical formula envisioned by decision theorists and made conceivable by the computer that, if found, would ensure totally rational decision making and would miraculously eliminate organizational conflicts (Dickson, 1983).

Although computer technology moves us into directions of service restructuring unthought of a decade ago, it offers no solutions to the problem of the fragmentation of social work practice. Nonetheless, it is still too early to assess the impact of computers on social work practice. In the 1960's and 1970's, computers in human service agencies where used primarly for accounting and record keeping. In the past 10 years however, the impact has been much more extensive in that the computer is now seen as a tool to facilitate direct service with clients (Grasso & Epstein, 1987). Changes in the next 10 years should prove even more profound with the advent of artificial intelligence and its application to social work practice (Henderson, 1986). At this point, we cannot say whether or not these futuristic models of information processing will offer effective and viable solutions to problems of fragmentation of practice. However, at this point in the evolving relationship of human service agencies and information technology the latter seems to add to the problems of the

former.

Certainly, these problems are complex. However, it is my contention that the need to conceptually and organizationally integrate social service delivery, training, research, program evaluation, administration, policy and social work values into effective organizational models for social work is the central task for social work administration. Such an ideal integrative model, guided by basic social work values, would incorporate the most advanced information and treatment technologies available, but would center on the line-level practitioner working with the client. With regard to management information system design such an integration would rest on the following principles: 1) Administrative priority should be given to actual as well as measured performance. 2) Performance assessment should be based on valid and reliable information regarding actual performance of line staff. 3) In return for this information, line staff should receive information-feedback about clients that is timely and readily applicable to their practice .

More generally, effective integration rests on the principle that one can only improve organizational performance by improving individual staff skill at each level of the organization. This organizational principle is rooted in the assumption that the primary function of a social service agency is found in the exchange between the

practitioner and the client and that all other agency structures and processes must be designed to facilitate this exchange. If this assumption is correct, when conflicts in organizations exist they must be resolved around the informational and decision-making requirements of the direct service worker.

This dissertation project involves an effort to integrate organizational theories concerning information technology and apply them to organizational performance in a human service agency. In describing this effort, a number of problems will be discuseed which face information specialists and social work administrators alike who try to integrate their respective technologies with the practice needs of the direct service worker, and ultimately with the needs of clients. Overall the goal of this project is to develop an integrative approach for addressing the conflicts inherent in the merger of these technologies, structures and processes.

While still unsure as to the complete list of elements required for such an integrative organizational theory, it is clear that how a human service organization integrates performance, information processing, and conflict management will determine its capacity to improve its efficiency and effectiveness. The strategy for articulating the necessary components of this integrative

model involves the design, implementation and evaluation of an information-driven model of administration and direct practice at Boysville of Michigan, a residential child-care and family treatment agency. Before describing the development and implementation of the Boysville Management Information, Program Evaluation and Practice Decision-Making System (BOMIS), Chapter Two presents a review of the literature which suggests a number of theoretical issues and organizational conflicts that must be taken into account if such a system is to be successful. More specifically, it discusses the conflicts generated by the introduction of research and information technologies into social service agencies and the potential contribution of these technologies to organizational performance.

Chapter Three describes the agency setting in which the project study was conducted, the agency's need for an integrated model of administration and information utilization. It goes on to describe the research design and methodologies employed in this study to assess the impact of the model implemented at Boysville.

Chapter Four details the components of the Boysville model including the information system itself, hardware, software, organizational structure and process. In this chapter, practical issues related to the implementation of the model are presented as well.

Chapters Five, Six and Seven assess the effectiveness of the Boysville model in different ways. Chapter Five offers a quantitative study of research and information utilization based on staff responses to a questionnaire concerning worker attitudes towards research, the effects of agency based training on these attitudes and staff perceptions of the impact of structural facilitators of research utilization.

Chapter Six presents a qualitative case study of how data generated by the Boysville management information system was used to successfully influence child welfare accountability standards in Michigan. Included in this policy advocacy case study are quantitative findings on client length of stay and its relationship to program outcomes at Boysville.

Chapter Seven presents some additional external and internal uses of the Boysville information system and shows how organizational performance has dramatically improved in both fundraising and in client outcomes since the introduction of this innovative, integrated model of administration.

Chapter Eight concludes the study with a summary of the findings and a discussion of their implications for social work administration and for future research.

Chapter Two

LITERATURE REVIEW

A review of the literature concerning models of social work administration, the role of research and information technology in social service agencies, and the integration of these suggests a number of problems related organizational performance as well as a series of conflicts in application that must be addressed if an integrated model is to be successful. These include:

1) conflicts between external accountability requirements and internal organizational needs;

2) conflicts generated within the organization based on the role-obligations associated with different positions in the organizational hierarchy;

3) conflicts associated with the introduction and ongoing utilization of computers in social service agencies;

4) conflicts among various models of research and research utilization in social service agencies.

After a discussion of these theoretical aspects of organizational performance, a more detailed discussion of each of these conflicts will follow.

Organizational Performance in Theory and Practice

The issues related to organizational performance are some of the most difficult problems facing the social service administrator. They are both practical and

theoretical. The practical problems encountered by the social work administrator are discussed later in the section on conflicts within organizations. However, there are theoretical aspects to this problem which also require attention if an effective integrative model of administration is to be achieved. In this first section of the literature review I will present the theory-based aspects of the problem and show how an integrated model attempts to address them.

The issue of organizational performance was first described in detail in the organizational literature by Frederick Taylor, whose classical book, Scientific Management, was published in 1911. Taylor proposed that by systematic observation and measurement any job could broken down into a set of simple physical tasks. To accomplish this, he conducted time and motion studies of various menial jobs and empirically determined which series of tasks performed in which order produced the most efficient and effective result. It is important to point out however, that Taylor didn't intend by this approach to educate the worker to be a better employee through the understanding of scientific management principles. Instead, this education was reserved for the manager. Hence, for Taylor the answer to the problem of organizational performance did not lie in the line workers' lack of knowledge but rather in the knowledge deficits of managers. As Taylor put it:

> And yet these foremen and superintendents know, better than anyone else, that their skill falls short of the combined knowledge and dexterity of all the workmen under them. The most experienced managers therefore frankly place before their workmen the problem of doing the work in the best and most economical way. (1911, pp. 32-33)

Ultimately, Taylor was trying to address the problem of organizational performance by giving management control over the line workers and using scientific principles and empirical studies to do so. In this regard, his primary beliefs where:

1. Man is only interested in money and will by nature underwork;
2. Work can be broken into simple parts so through routine you can gain efficiency;
3. The simpler the job, the less dependent an organization is on workers since replacements can be easily found and trained.

Given these basic beliefs about man as a worker Taylor used an empirical, research-based approach to reinforce the control of work by management as the way to improve organizational performance. As Vroom and Jago observed:

> Taylor's scientific management undoubtedly reestablished management control in the American corporation. (1988, p.11)

After Taylor other schools of management followed. Most notable among these were the Human Relations motivational theorists, whose approach was a reaction against the dehumanization of the worker inherent in

Scientific Management theory. By contrast, Human Relation theorists emphasized the social nature of work and asserted that worker participation in decisions was an important determinant of productivity. This model fit more closely with social work values than did Scientific Management and was adopted as the major theoretical approach to administration within social work (Patti, 1985). However, a serious problem with this model of management was that it assumes a positive relationship between worker satisfaction and worker performance which has never been adequately demonstrated (Brayfeild and Crockett, 1955; Herzberg, Mausner, Peterson and Capwell, 1957; Kahn, 1960; Opsahl and Dunnette, 1966; Smith and Cranny, 1968 and Vroom, 1964). Nevertheless, all of the current participatory approaches to management such as quality circles are an outgrowth of Human Relations theory and as such are more syntonic with social work values although their relation to improving organizational performance is still in question.

Despite the inroads made by Human Relations approaches, Scientific Management still dominates American industrial management today because at the very least, Scientific Management has proven its ability to improve organizational efficiency while other models of organization have failed on this crucial demension. As Braverman noted:

> It is impossible to overestimate the importance of the scientific management movement in the shaping of the modern corporation and indeed all institutions of capitalistic society which carry on labor processes. The popular notions that Taylorism has been superseded by later schools of industrial psychology or human relations . . . represent a woeful misreading of the actual dynamics of the development of management. (1974,pp.86-87)

Attempts to apply Scientific Management techniques to social work organizations have encountered resistance from those who would argue for the "softer" more humanistic character of social work practice (Fabricant, 1985 and Gurber, 1974). These writers see a basic value conflict in the way social work and the Scientific Management school view the worker and the work. In regard to the nature of the work, Scientific Management has been rejected by social workers because it suggests that the craft or art of practice can be reduced to a set of minute tasks that can be aggregated into the role of the social worker. This coupled with the view of the worker as untrustworthy resulted in their wholesale condemnation of Scientific Management on a value basis.

Unfortunately, in doing this, Social Workers have also rejected an aspect of the approach which is potentially compatible with social work values and at the same time likely to improve organizational performance. That being, Scientific Management teaches us that we can improve organizational efficiency and effectivness by the

strategic use of information relevant to the performance of each individual worker.

Although Taylor emphasized the way in which information empowers the manager to control the worker, the proposed integrative model suggests that this same information given to the worker, empowers him/her with the ability to improve practice decisions.

In its original form, Scientific Management approach could not be successful in improving organizational performance in human services because it only empowers the manager to control. Seen from a different vantage point, however, it is an information driven decision making approach which has the potential to empower workers at every organizational level. A successful integrative model for social work would link organizational performance with social work values through line-worker empowerment with information to improve their performance.

Conflicts Between Accountability Requirements and Internal Organizational Needs

Although social workers have resisted the incursions of Scientific Management and organizational sociologists have warned us against over-reliance on effectiveness models (Etzioni, 1964 and Hasenfeld, 1983), the accountability movement, the advent of the computer, and

the resort to business administration techniques in times of scarcity, have led human service organizations and their funding sources to place great emphasis on statistical measurement of effort, effectiveness and efficiency. For agencies and programs, life and death decisions are often based on statistical indicators such as number of client contacts, number of units of service delivered, number of closed cases, average length of stay, and the like (Bielawski and Epstein, 1984 and Conrad, 1985).

This emphasis on quantitative measures of effectiveness and efficiency has resulted in a number of different types of conflicts and displacements inside of organizations. So, for example, in discussing the phenomenon of over-measurement, Etzioni (1964) points out that:

> Frequent measuring can distort...organizational efforts because as a rule, some aspects of its output are more measurable than others. Frequent measuring tends to encourage overproduction of measurable items and neglect less measurable ones. (p. 9)

To illustrate this point, Conrad (1985) has shown that the Program Assessment System (PAS) applied to New York City foster care workers, encourages them to put more emphasis on accomplishing a certain number of parental visits, for example, or the placing of a child in an adoptive home by the required date, rather than tne way it

is accomplished. At the administrative level she shows how the same measurement system puts pressure on foster care administrators to "displace the goal of family reunification because of the very procedures devised to achieve this goal" (p. 642).

Elsewhere, Hasenfeld (1983) has warned of "the tendency by the organization to reify these measures as true indicators of effectiveness." In doing so, "the organization allocates its resources and concentrates its efforts to score well on these criteria, despite their real limitations" (p. 212). Whether or not the criteria are inherently valid, organizations may seek clients that most approximate "output criteria" at intake (Dale, 1983-1984). If they cannot control intake, programs may jettison unpromising clients before they can show up as indicators of program failure (Lerman, 1968). Finally, Walker (1972) has talked about the "strain towards falsification", whereby, staff are pressured to lie with statistics in order to make their programs and themselves look good in the eyes of external evaluators and internal superiors.

Underlying the causes of these dysfunctions are, among others, "the multiplicity and ambiguity of organizational goals, the indeterminacy of the service technologies, and the inherent difficulties in observing and measuring human attributes", such as client change (Hasenfeld, 1983, p. 10-11). Moreover, in contrast with industrial organizations

where the orientation of staff are highly instrumental and focused upon outputs, workers in human service organizations tend to stress professional autonomy, humanistic rather than instrumental objectives and professional "process" (Kouzes and Mico, 1979). Nevertheless, and despite the resistances described above, it is probably safe to predict that effectiveness models and statistical assessment are here to stay.

In social agencies, the most commonly used measures involve number counts of staff activity (e.g., client contact, services provided, etc.), client outputs (e.g., cases closed, type of program completion, satisfaction with service, etc.), and client outcomes (e.g., recidivism, post-treatment adjustment, etc.).

More generally, in the study of human service organizations, some have suggested that the common administrative practice of measuring success to meet external accountability often conflicted with internal program needs. Thus, in discussing PAS, Conrad (1985) comments:

> Whether the primary motivating force behind these...[measures] is to improve services or reduce costs, their imposition has created as many problems as it has resolved. Thus, the sheer number and complexity of these requirements post an enormous problem for administrators, supervisors, and workers alike (p. 640).

Despite their common administrative origins, these

difficulties get played out in different ways at different program levels inside the organization. This is because each level is likely to have a different set of criteria for assessing effectiveness and efficiency, different organizational loyalties, different informational needs and different central tasks. On this latter point, Patti (1983) remarks:

> While there are essential similarities this should not obscure the fact that the relative emphasis given to tasks and thus the activity configurations of management varies significantly with the organizational level in which the practice occurs(p.43).

The development of external accountability systems has magnified this conflict regarding organizational performance. Irrespective of the type of agency and level of analysis, external accountability efforts assume that staff should be held "accountable for specific service outputs and...rewarded according to their ability to attain them" (Hasenfeld, 1983, p. 174). A successful social work administrative model must satisfy external accountability requirements, yet at the same time support and reward line-level practitioners for the best possible work with clients.

Conflicts Associated With Differences in the Organizational Hierarchy

In the study of human service hierarchies, Patti (1983) has identified four levels for analysis. These are:

the executive management level; the program management level; the supervisory management level; and the program staff level. The problems associated with the development of an administrative model for social work have implications at each of the different program levels inside the agency. In small agencies, a number of different problems simultaneously confront the same individuals (i.e., those with multiple roles and responsibilities). In large, highly differentiated agencies, these same dilemmas and conflicts confront different staff levels in singular ways and cause conflicts between staff levels.

Beginning at the program staff level, individuals have a primary obligation to deliver quality service to agency clients. Workers at this lowest level in the hierarchy must mediate the conflicts between two external sets of demands, those of the client for more service and those of accountability sources for greater efficiency. The latter demands are expressed through their supervisors.

The supervisory level in the organization is the first point in the organizational structure where position in the hierarchy places a strain on role occupant from above and from below the organization. Because of their clinical training and program staff origins, the ideological commitment of supervisors is more likely to be with the preservation and implementation of the professional

technology than with organizational maintenance. Because of this, supervisors often identify with the direct service professionals in an organization rather than with those in higher levels of administration. The role of the social worker is particularly problematic because it involves "soft", people-changing technologies that have not as yet been demonstrated to have clear cause and effect relationship. Nevertheless, supervisors are ultimately responsible for the outcomes or performance of the staff below them. Consequently, role conflict for social work supervisors results from being held responsible for service effects without having the information necessary to properly teach, monitor and evaluate client interventions.

Despite their commitment to direct service concerns, their hierarchical positions place supervisors in a constant struggle with line workers over the control of the treatment process. Line workers often seek total autonomy. Supervisors seek accountability, even if only to them. As the management process is formalized in the agency, accountability is often translated into activity counts of some kind (number of phone calls, number of client sessions conducted, etc.). Consequently, the service practitioner often complains that paperwork gets in the way of helping clients while supervisors are required to ask for completed reports and high scores on activity measures.

The program management level in the organization is

more committed to organizational maintenance than to the preservation of professional autonomy. Although committed to the primary value of accountability, middle managers who are trained as social workers have found it problematic responding to models of accountability developed in the corporate sector. These models place middle-level managers in conflict with supervisors. The latter emphasize the utilization of professional skills, while the former are primarily responsible to report and control. In addition, the middle-level manager is faced with the problem of distinguishing between ritualized compliance and really high quality work. Often identifying with business or corporate models of administration, social workers at this level in organization have a more tenuous identification with the field of social services than their subordinates. Instead, they sometimes see themselves as corporate managers.

Corporate identification aside, the inexactness of human service technology severely limits the applicability of corporate management information systems and administrative models in human services. Frustration at the middle-management level is associated with a lack of appropriate assessment approaches that provide for accountability but also supports human service management and administration.

The executive level in the organization is the level where role incumbents are more concerned with general operations than with the day-to-day management of the organization. In relation to service delivery, their primary concern is the production of demonstrable results as opposed to the conduct of professional process. The executive staff level may experience conflict in communicating to the external environment as they find themselves defending the good work that their organization does, while at the same time dealing with information from middle level managers about far from perfect program outcomes.

These hierarchical differences have generally been discussed in the social work literature in the context of a conflict between bureaucratic and professional authority (Scott, 1965 and Aiken and Hage, 1968). It is generally assumed that those higher in the organization structure will be more committed to bureaucratic authority while those lower in the hierarchy will emphasize professional autonomy. Empirical studies of this issue have demonstrated, however, that social workers at all levels struggle to reconcile conflicting commitments to client need, professional values and agency accountability (Billingsley, 1964 and Epstein and Conrad, 1978).

With regard to the use of information in the agency, these problems are often translated into a conflict over

qualitative versus quantitative measures of worker performance. For direct service workers, effectiveness is not reduceable to quantitative measures of numbers of client contacts or cases closed, but instead relates to whether clients experienced a qualitative improvement in a painful circumstance. For such workers, number counts do not adequately reflect what they do or accomplish. On the other hand, because of accountability pressures and the appropriate concern of administrators to describe program accomplishments externally, administrators emphasize aggregate, quantitative measures of program performance.

With administration pressing for performance criteria, however, a major epistemological problem emerges. More specifically, emphasis on quantitative measures of client contacts reflects an assumption about the relationship between intervention activity and its effect. This implicit hypothesis is rarely tested. Even if such a correlation exists, questions about causation are likely to remain unanswered (Kadushin, 1976 and Smith, 1976).

As a consequence of this pressure for quantification, practitioners come to resent evaluative systems because they do not take into account the difficulty of a case or level of skill required to achieve desired outcomes. Nevertheless, direct service workers see these measurement systems being used by administration for individual

performance evaluation as well as for program evaluation.

In considering this problem, Weissman (1977), asserts that evaluation must provide operating staff directly with information not only on how well or how poorly they are doing their job, but much more significantly with information that will offer guidance on how staff can improve their own work. He states that if human service professionals are merely held accountable for results, but are not given the kind of informational help that will improve their performance, misinformation about success may be introduced into the system or, as Merton (1952) pointed out, overconformity and excessive caution in action may result. Weissman further states that in order to mitigate the defensive perception by staff that they rather than their program are being evaluated, program evaluation must be separated from individual staff evaluation.

An effective model of social work administration must successfully mediate the conflicts between the different organizational levels in such a way as to support high quality performance at each organizational level and reduce conflicts between them. In addition, it should promote staff learning and professional growth at each level.

Conflict Associated With the Introduction of Computers

In this age of computers, any administrative model for social work must incorporate computer and information

technology. However, the introduction of computer technology into a social work agency presents several dilemmas and conflicts. The first conflict has to do with the allocation of resources within the organization. With practitioners primarily focused on individual client needs, and since organizations have limited resources, the introduction of computers inside a social work organization creates a perceived and real conflict over scarce resources among staff. In this context, direct service practitioners often feel that money could better be spent on serving individual client needs, whereas those in administration who view computers as promoting accountability and efficiency are more likely to be committed to the development of an information systems. As a result, they are willing and able to free limited resources up for development and purchase of computer hardware and software.

In addition, the implementation of a computerized information system places more demands on staff who have now to take time away from serving individual clients in order to fill out forms. This resource conflict is fairly universal in that most organizations are not able to hire additional staff or reduce work loads with the introduction of computer technology and information systems in social work agencies.

Computers also promote a "systemic" approach to

program design and implementation. For social workers steeped in a "case-by-case" orientation to practice that emphasizes the uniqueness of each client, such a systemic approach may present serious ideological conflicts.

Another conflict that arises in the development of a computer system has to do with the need for specific, measurable, quantitative information that can be entered into the computer, stored and retrieved in quantitative report formats. Since human service organizations do not often deal in exact technology and measurable terms, the specifications of these conditions inside the organization is often problematic. The introduction of the computer exacerbates these conflicts by compelling practitioners to think in terms of measurable objectives and information-based and justified decision-making. Frequently, they respond negatively to this pressure.

Finally, the introduction of a computerized information system into an agency necessititates the integration of a new technology into social work practice and a new professional orientation which, to a certain extent, may represent an opportunity for those associated with it to be at an advantage in the competition for the administration's time, energy and resource allocation. To the extent that this new technology promotes organizational structures that emphasize performance and accountability it

creates a profound power shift inside the organization with a new locus of power that has control over information as well as capital resources inside. In addition, it provides those at the upper reaches of the organization with more information concerning the activity of staff at lower levels. As indicated earlier this change may be dysfunctional however, when line staff are not equally empowered with the information required to improve their skills and performance.

Although it expresses itself in the context of computerization, these dysfunctions have roots in basic human learning behavior and implications for social work practice. Thus, for individuals to learn, they must be free to doubt. When pressured by administration to perform better but denied the resources to do so, workers no longer feel that freedom. As a result, computerization may put pressure on staff to conceal their practice problems and to hide their professional doubts from themselves as well as from their superiors. Clearly this inhibits professional growth and performance improvement.

An effective, administrative model for social work must incorporate computer technology but, at the same time, minimize these potential dysfunctions by empowering workers with practice relevant information for improving performance.

Conflicts Associated With Different Models of Research and Research Utilization

Discussions of the failure to incorporate research into social work practice and administration range from those placing emphasis on the conflicting attitudes of practitioners and researchers to the institutional commitments of academically-oriented researchers. So, for example, Briar (1980) has explained the lack of integration of practice and research in the light of the practitioner's inability to formulate or resistance to formulating practice interventions and treatment objectives in researchable terms. As he puts it:

> It appears to be general principle in social work never to use a specifically descriptive term if a more abstract one is available. The nearer terms get to operational or behavioral specificity, the more social workers turn away from them (p. 33).

In a more even-handed discussion of practitioner and researcher attitudes, Rothman (1974) locates the problem in the interaction between practitioner and researcher. He comments:

> Different styles and modes of thinking divide the two types (practitioner/researcher) which makes communication difficult and utilization of each other's contributions and products problematic. There exists formidable social distance characterized by mistrust, differing outlooks and ostensibly contrasting goals which, in the past, has inhibited fuller articulation between social scientists and social practitioners (p. 545).

Rather than stressing the anti-research attitudes, Gordon (1984) posits blame on practitioners' lack of skill

in deriving practice applications from research studies as one of the central points in the conflict. Lewis (1980), on the other hand, is critical of the conceptual and methodological paradigms that researchers bring to the study of practice. Thus, he suggests:

> It is the design of research including its implementation and the form in which its findings are developed that one must locate the principle impediments to utilization (p. 26).

Similarly, in stressing formative rather than summative evalative research designs, Epstein and Tripodi (1977) have sought to develop conceptual frameworks that link research to program development and to clinical decision-making (Tripodi and Epstein, 1980).

Still other authors have located a problem in the integration of research and practice that relates to the products of research efforts themselves. Weiss (1972), for example, has noted that research findings are frequently not applicable to practice. Rothman (1974) suggests that findings, when applicable, still require too much translation for the practitioner to see as useful. Seidl (1980), has commented on the failure of researchers to produce their findings in a timely and usable form for practitioners.

A final set of explanations has to do with the structural and physical location of the researcher and the

practitioner. Thus, Bushnell and O'Brien (1979) have discussed several reasons why university-based research is not likely to find itself applied in practice. Arguing instead for the location of research at the agency, Seidl (1980) notes that:

> If research is to be timely and space specific, and to deal in practitioner's language with relevant and researchable variables, it must be conducted where direct practice is carried out (p. 60).

Even when research is agency-based, its applicability to practice can vary depending upon the model of research employed. Thus, Kirk (1979) has discussed the utilization pros and cons of three models of agency-based research articulated by Havelock (1969):

> The R&D models emphasized the role of the research and development and the rational planning of diffusion efforts but it pays little attention to the role of the consumer of knowledge. The social interaction model perspective carefully documents the importance of social networks and understanding the flow of knowledge and utilization through a user system, however, it fails to articulate the linkage between the producer and users of knowledge. The problem solver model directs attention to the psychological conditions under which a new knowledge may be sought out and used by consumers but it over-emphasizes the extent to which consumers are capable of generating their own solution to problems (p. 7).

Placing emphasis on the service consumer rather than on the research consumer, Weissman (1977) proposed an agency-based evaluation system based on client perception

and satisfaction. However, he points out that such a system will only succeed to the extent that service providers are committed to it and it provides timely and useful information.

The literature concerning research utilization suggests that there is no one single correct explanation for the failure to incorporate research into our models of administrative practice. Nevertheless, programs designed to promote and assess utilization of research must address staff attitudes towards research, staff skills in utilizing research, the timeliness and applicability of the research products themselves, the location and orientation of the researchers, and the model of research employed. An effective, information research-based, integrative model of social work administration must do all of the above.

Chapter Three

METHODOLOGY

This chapter describes the agency setting in which the dissertation project was implemented, the agency's need for an integrated administrative model and the research methodology employed in studying the implementation and effectiveness of the integrated model. The model incorporates the most advanced information technology available to date. Its purpose is to enhance the functioning of the direct service workers, agency supervisors and administrators as well as to improve overall organizational performance. Consistent with the principles outlined in the previous chapter it is intended to empower agency staff at all levels in the hierarchy with information to improve their practice skills.

In the course of development and implementation of this model, Boysville leadership were persuaded that besides improving services to clients, BOMIS would improve agency performance in fundraising, in competing for purchase contracts, and on outcome measures mandated by contractual arrangements with funding agencies. To determine how effectively BOMIS achieved these and other objectives, multiple strategies were used to gather information and evaluate the effects of BOMIS'

implementation. An approach that relied on numerous methods of evaluation was necessary in order to more adequately assess the proposed administrative model.

Setting for the Project

This dissertation project was designed, implemented and evaluated at Boysville of Michigan, the state's largest private agency serving troubled adolescents. Since its founding in 1948 with 15 boys, the agency has grown to where it now serves 550 boys and girls with treatment centers located at its main campus in Clinton, a smaller campus in Saginaw, and group homes in Detroit, Ecorse, Mt. Clemens, Redford, Saginaw, Mt. Morris, Alpena, and Monroe, Michigan, and in Toledo, Ohio.

Historically, Boysville's treatment technology was based on a modified version of positive peer culture in which the natural influences of the adolescent peer group were enlisted to bring about change in client behavior and attitude. Over the last few years, however, Boysville has expanded its intervention repertoire to include an intensive family therapy program on the main campus for all youth in placement, specialized foster care for youth unable to return to their natural family, and a metro area emergency placement program.

While a growing number of Boysville youth are neglected-abused, most are adjudicated delinquents with

serious behavioral, social and educational problems. Most come from the tri-county Detroit area. This year, in response to needs expressed by both the public and private sectors, Boysville expanded its mission to include services to girls.

As of 1987, the client characteristics in the program were as follows: 54.2% were black, 41.9% were white, 2.2% were Spanish-American, and 1.6% other. Of the parents of clients, 36.6% were married, 28.4% were divorced, 9.5% separated, 10.6% were widowed and 14.8% were unmarried. Of the family types, 6.4% were reconstituted, 13.6% were nuclear families, 58.5% were single parent families, 4.0% were foster families, 3.2% were adopted families, and 14.2% were extended families. Of the placement type, or the reason for placement at Boysville, 49.2% were delinquent, 44.9% were dependent-neglect, 3.3% were abuse, 1.8% were status offender, and 0.7% were other. The average age at intake was 15.8 years old with a minimum of 12.46 and a maximum of 18.55 years old and the mode was 15.92 and the median was 15.78 years old. The average number of adjudications prior to placement at Boysville was 3.10 with a minimum of zero and a maximum of 22, the mode was 2 and the median was 3 adjudications. The average number of previous placements was 1.39 with a minimum of zero and a maximum of 18, the mode was zero and the median was 1.0 previous placements.

The time period covered in this project begins in 1982, when the need for an information-driven system was first identified and ends in 1987, when the Boysville system was substantally implemented. This period was selected to allow for a description of the planning and implementation of the major components of BOMIS as well as a pre- and post-study of staff responses to it.

Figure 3.1 is the Boysville of Michigan organizational chart as of January 1987. This organizational chart locates the position in the hierarchy and lines of authority between the Board of Directors, an Executive Office, eight executive staff positions, six regional directors, 14 residential care program sites and specialized foster care which was its own program type.

The organizational chart denotes levels of authority starting with the Executive Office, the executive staff at the second level, the Regional Directors at the third level, Program Supervisors at the fourth level, and program staff grouped into three separate professional identities below them. The separate professional identities at Boysville are teachers, group therapists, family workers and child care staff. Representatives from each group of teachers, group therapists, family workers and child care workers are assigned to a treatment team and supervised by the location of their worksite.

As of 1987, the characteristics of the staff were: 61% male, 39% female. Eight percent of the staff were between 20 and 24 years old, 74% are between 25 and 49 years old, and 18% of the staff are 50 years old or older. As for religious affiliation, 35% were Catholic, 12% were Protestant, less than 1% were Jewish, 5% indicated no religious orientation and 46% listed themselves as "other". Race distribution of the staff was 73% white, less than 1% Hispanic, 21% black, and 3% unspecified. Education level of the staff indicated 15% less than a high school degree, 30% had a high school degree and/or some college, 46% had at least a B.A., 21% had a master's or higher, and less than 1% had a doctoral degree. Looking at years of employment at the agency, in 1986, 29% were employed less than one year, 40% were employed 1 to 4 years, 19% were employed 5 to 9 years, and 10% were employed 10 years or longer at the agency.

Boysville's Need for an Integrated Management, Information, Practice Decision-Making, Program Evaluation and Applied Research System

As with many social work organizations, Boysville began as a small agency adopting a "human relations" administrative approach (Etzioni, 1964) and a participatory management style. However, as the organization grew in size, structural complexity and intervention repertoire its

informal and non-hierarchical ethos became increasingly dysfunctional.

Prior to the implementation of BOMIS, although the mission and goals of Boysville were clearly articulated, efforts to fulfill this mission were often undermined by different professional staff working on different aspects of program without a clear understanding of what their overal goals and objectives were. This led to specialties within the organization, such as education, treatment, dorm living, family services, etc., working towards conflicting individual client objectives, thereby subverting efforts at achievement of desired overall goals (Katz and Kahn, 1978).

This problem was increased at Boysville by a lack of clear specification of desired client outcome in the organization. Each particular specialty in the treatment organization often worked toward completion of goals and objectives in their own area without any effort at overall individual or program integration (Perrow, 1974 and Etzioni, 1960).

Because of these conflicting perceptions of goals and objectives, operations directors were faced daily with the necessity of making immediate and reactive decisions which often had a negative impact on the overall objectives of the organization. They did so without comprehending the organizational significance of these decisions.

Nevertheless, the human relations model did fit well with the religious orientation of the Holy Cross Brothers employed by the Michigan Diocese to administer the agency. Dedication to this approach showed itself at Boysville in the form of administrative staff's genuine concern for the well-being of "co-workers" and the continuing expression of need to promote the idea of a work community at Boysville. Here human relations motivational theory functioned as an ideological underpinning to all organizational decision-making.

However, this ideology and its associated management style caused a great deal of uncertainty and ambiguity regarding the decision-making at Boysville because it offered no clear delineation of role or responsibilities at different levels of the organization. Most conflicts in the organization were viewed as personality conflicts rather than as structural problems that might be resolved by a rational, analytic,organizational process (Katz and Kahn, 1966).

As the organization grew, it became more decentralized, with sub-units of varying size located throughout the State. A conflict inevitably emerged between a need for uniformity across programs and a need for responsiveness to diverse local conditions. Those at the executive level of the organization concerned with

finances, control and personnel issues tended to favor standardization. Advocating standardization on a theoritical level, Handy (1976) states that there are advantages associated with standardizing operations, these being related to a need for control of process inside the organization, the need for a standardized product, and the need for specialization and the desire for central control. Because increased size had placed such strain on the structure of the agency, pressure towards standardization was generated from the top of the organization. Resistance to this pressure came from the regional units. By contrast, regional administrators favored decentralization and organizational diversity. Despite presures toward centralization from some individuals on the executive staff the prevailing ideological commitment to a human relations model influnced the trend towards the latter.

As Boysville became more technologically complex, staff size increased as well as professional skill and diversity. With this increase in skill, specialization and diversity came demands for higher quality and more specialzed information that would facilitate practice decision-making of various kinds at different levels in the organization by different kinds of practitioners.

These specialized needs for information coincided with an increased need of central administration for

quantitative program information for internal administrative decision-making as well as for external accountability purposes and program expansion. As Katz and Kahn hypothesized (1966), the greater the distance between the higher and the lower levels in an organization, the greater the dependence upon quantitative versus qualitative information in decision-making. This greater dependency on quantitative information for decision-making was also consistent with the need felt by some at the executive level for greater uniformity and standardization within the organization.

Because of changes mentioned above, the treatment system at Boysville gradually became fragmented, uncoordinated and unintegrated with each specialty pursuing its own institutional needs and goals. This meant, for example, that family workers tended to be exclusively interested in family process and saw their specialty as the central intervention approach of the agency. The same was true of group workers, treatment specialists, teachers, and so on. In addition, the work at different Boysville sites varied markedly according to the unique history and staffing patterns at these sites.

Officially, the coordinating body for each treatment unit was the treatment team. A treatment team was made up of one core teacher, two treatment specialists, a group leader and one family worker for every twelve children in

care. The teams met weekly and reviewed treatment plans and process as well as developed an interdisciplinary treatment plan for each client that was to be monitored and updated on an ongoing basis while the child was in care. The treatment director (group leader) in the program had traditionally been given the formal authority for the coordination of the different treatment specialties on the team, but informally, they were actually seen as co-equal with all other team members. This structural contradiction, explained by prevailing human relations orientation of the agency subverted the coordination function of the Treatment Directors. In other words, they were given the responsibility for coordinating treatment at the team level, but they did not possess the informal authority to implement treatment decisions across different treatment specialties.

Higher level decision-making was equally fragmented and contradictory. Despite the participatory ideology, the Executive Office traditionally made all major agency decisions unilaterally. This might have been appropriate in a small, undifferentiated, centralized setting. Now, it meant uncoordinated decision-making throughout the agency. For example, in 1982 Boysville had no long-range strategic plan in place. Most decisions were therefore made on an ad hoc basis. And, because of an informal structure which allowed lower-level managers access to the Executive

Office, there was a great deal of pressure for immediate responses to problems as opposed to planful, coordinated problem resolution. This is not unique to Boysville, Katz and Kahn (1966) writing on this stated:

> Immediate pressure often seems so overriding to executives that they will accept some hasty solutions and bypass a thorough analysis of the problem and the careful weighing of the likely major consequences of their action. The objective circumstances may be of such an emergency nature, that decisive actions must be embarked upon immediately. Often, however, specific organizational pressure and personality considerations are responsible for decision being reached without an adequate analysis of the problem, or an intelligent assessment of the consequences (p. 275).

Hence, a frequent complaint by Boysville staff regarding decision-making in the organization was that policy-making and its implementation was a function of the last person to get into the Executive Office with a recommendation.

In relationship to the external environment, Boysville was experencing presures to change as well. The Michigan Department of Social Services (MDSS) was developing purchase of services contracts requiring performance obectives related to number of program sucesses at time of program completion, placement status of the client after program completion and client length of stay in agency programs. In addition, Boysville was being asked by MDSS to serve a more difficult client which required greater

staff skills. The agency leadership recognized that to continue to function under these changing conditions required a new approach.

The foregoing organizational changes and problems suggested the need for a new management information, practice decision-making and program evaluation system at Boysville. Pressures from external accountability, funding and accrediting systems reinforced this need.

Research Methodology

In response to the internal and external presures described above, the Boysville Information System (BOMIS) was conceived as an integrative model of administration and practice based decision-making system which employed computerized information and applied research and fedback practice-relevant information to all levels of the organization. In Chapter Four the operationalization and implementation of BOMIS to date and plans for its future expansion will be described. The method used to evaluate and assess the impact of BOMIS, both anticipated and unanticipated, involves the use of a multiple assessment approach. It employs both qualitative and quantitative data concerning the historical development and utilization of BOMIS as well as its impact at Boysville.

For evaluation purposes, primary emphasis was placed on a quantitative study of research (BOMIS) utilization by

Boysville staff at all program levels. More generally, the project makes use of what Thomas (1984) has referred to as the "design and development model" of innovation, implementation and evaluation. This approach considers a situation prior to and after an innovative intervention has been implemented. In this context, the innovative intervention is the BOMIS system itself. To evaluate the effectiveness of BOMIS, staff attitudes towards the system were assessed retrospectively and currently. Staff perceptions of research facilitators were viewed as intervening variables. Dependent variables involved staff self-reports of research and information utilization. More specifically this portion of the project was designed to answer the following questions:

1. What are staff's attitudes towards research perceptions of efforts to facilitate research on utilization and self-reportive patterns of research utilization?

2. Have staff attitudes towards research changed after the implementation of the Boysville Management Information System?

3. Are the current attitudes towards research and perceptions of facilitators associated with research utilization?

4. Are positive change in staff attitudes towards research associated with agency-based research utilization, research training with perception of facilitators and reported educational level, and receipt of agency-based training?

5. Are geographical location, education level, and receipt of agency-based training associated with more positive attitudes towards research facilitators and utilization?

Some more specific questions are:

1. How do practitioners use BOMIS information in direct practice?

2. What variables facilitate different modes of BOMIS utilization?

3. Are there specific differences in patterns of utilization between staff who receive agency-based training and those who did not?

In this part of the study, the data collection strategy involved the distribution of a self-administered questionnaire concerning these variables to 138 staff at all program levels. On the attitudinal variables, a retrospective then post format was used with staff asked to indicate on a five-point scale whether they strongly agree to or strongly disagree with 11 statements about the agency's research program and its usefulness prior to and after it became operational. Although some question the desirability of such a retrospective approach, Howard (1980) suggests that it is in many ways superior to a pre/post measurement. The questionnaire used in this study is included in the appendix. The rationale for the organization of the survey instrument is as follows.

1) In the questionnaire, specific items reflect perceived conflicts between information needs of the management information system and practice needs of staff, agency monitoring of worker performance and worker perception of actual performance, resources spent on

research versus direct service delivery, and so on. BOMIS' effectiveness is operationalized in terms of a perceived reduction in these conflicts over time.

2) In the attitudinal section, the specific conflicts that were identified as prohibitors to the implementation of this kind of an approach are teased out question-by-question. Analysis was done item-by-item to determine what specific changes and conflicts that have historically prevented the design of this kind of model have been reduced or eliminated with the introduction of this kind of integrative approach. BOMIS' effectiveness is operationalized in terms of perceived increase in positive attitudes towards the elements of the system over time.

3) Four items in the questionnaire deal with staff perception of program efforts to facilitate research utilization. On the same five-point scale format, staff were asked to indicate their agreement or disagreement with effectiveness of research program efforts to produce computer graphics and research reports that were useful, understandable and timely, and report on their impression of the adequacy of training provided in the use of research. BOMIS' effectiveness was operationalized interms of a perceived positive perception facilitators.

4) Finally, ten utilization items were used that reflect staff self-reported utilization of research and

direct discussion with clients, clients' parents, co-workers, superiors, team members and representatives of outside agencies in assessing client change and assessing one's own effectiveness. Response categories reflect staff's answers on a never, occasionally and frequently specifying utilization of MIS output for these purposes. BOMIS' effectiveness was operationalized in terms of self-reports of amounts and types of practice use of information.

A final set of items measured independent variables such as the geographical location of staff and their worksite, their educational level, and their position in the agency. Since Regional Directors, supervisors and family workers had received specific training in the use of BOMIS output for managerial, supervisory and clinical decision-making, the latter variable was also used as an indicator of who received agency training and who did not.

In general, in quantitative study, it was hypothesized that positive attitudes towards research and research facilitators would be positively associated with utilization and ultimately program success. It was hypothesized that staff attitudes towards research would be more positive after implementation of BOMIS, and that the degree of change would be associated with research utilization. Since family workers and supervisory staff

had received extensive practice training in the use of client and family coping measures in their own work, it was hypothesized that their attitudes towards research, research facilitators, and the utilization scores would be highest. It was further hypothesized that higher levels of education would be associated with more positive research attitudes and utilization patterns.

The data analysis section in chapter five includes descriptive information on physical location of staff, level in the organizational hierarchy, job classification and level of education. Also, an item-by-item analysis of staff responses is included. An analysis of specific patterns of utilization by staff was conducted as well. Statistical methods used included:

1) a McNemar test on shift in attitudes from pre- to post-reporting;

2) a correlation matrix on utilization, pro-research attitudes and facilitators (relationship of variables);

3) multiple regression with research utilization as the dependent variable and facilitators' attitudes towards research training and level of education as the independent variables (amount of utilization explained by each independent variable);

4) chi square with each utilization item as dependent and training the independent variable;

5) correlation matrix with each utilization item and all other variables; and

6) one-way analysis of variance of mean differences between trained and untrained staff on individual utilization items.

The second part of the evaluation of BOMIS involves an organizational analysis of how organizational conditions at Boysville have changed since the introduction of BOMIS. More specifically, this analysis looks at:

1) the goals of the organization and how they've changed since the implementation of BOMIS;

2) the coordination of services at Boysville since the implementation of BOMIS and

3) decision-making patterns at Boysville since the implementation of BOMIS.

Organizational documents, interviews with staff and case examples of program change and/or resistance to change are employed in this section of the disertation project. To assess overall program effectiveness/performance at Boysville service statistics prior to implementation of the BOMIS in 1982 and post-implementation in 1987 are compared. Comparisons include differences in clients characteristics and outcome measures in 1982, in 1987.

Client outcome measures include successful program completion, length of stay for successes, post-placement living situation at time of client termination and post-placement living situation three months after client termination.

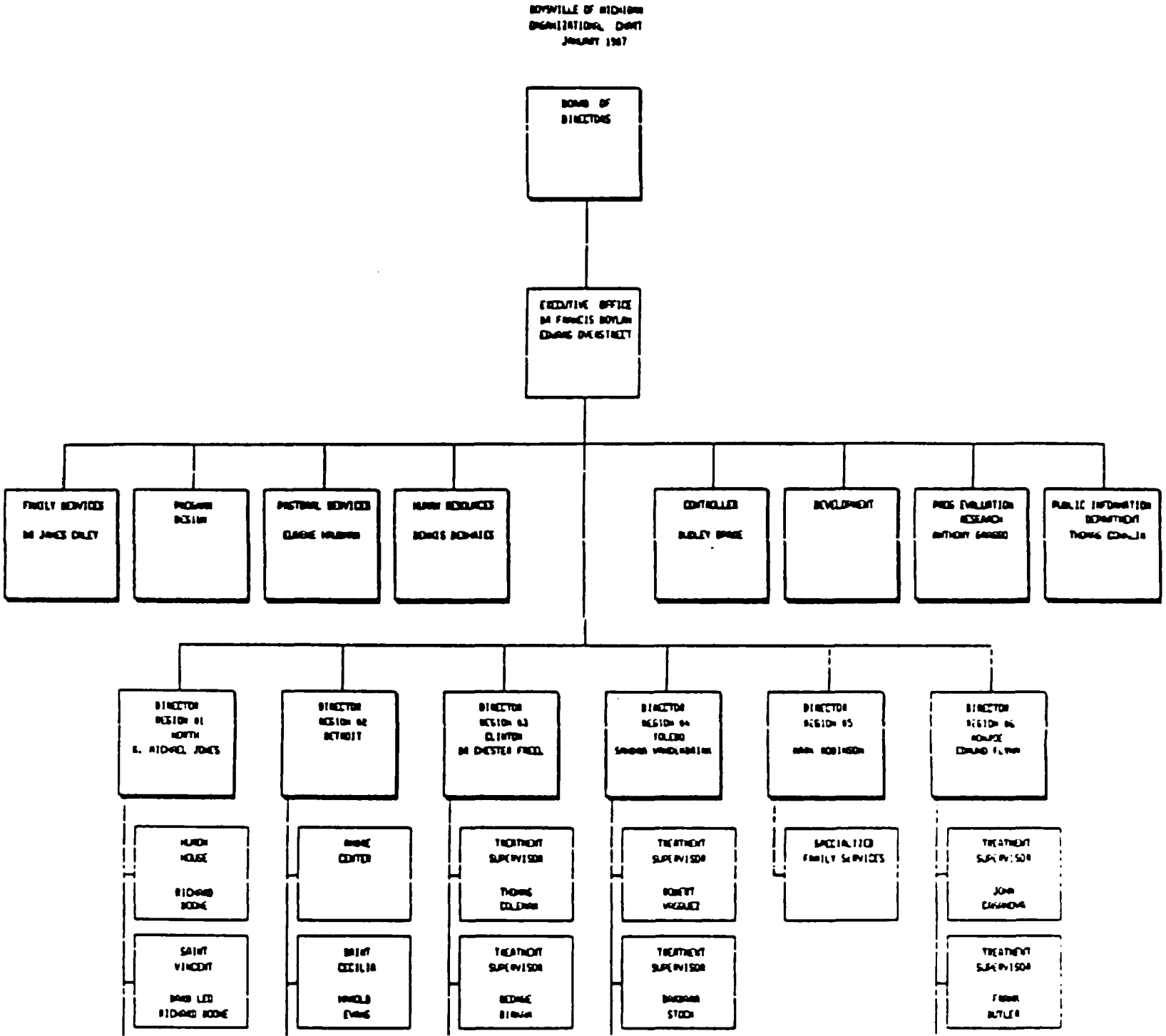
To describe BOMIS' effect on public policy, a case study is presented to demonstrate how information was used with both the Department of Social Services' contract

section regarding the length of stay policy, and a case study of how information was used in order to stop the state of Michigan from expanding their institutional beds for delinquent males.

Finally, an analysis is presented regarding the level of funding at Boysville in 1982 compared to current funding and a discussion of BOMIS' role in its expansion. In addition, data arepresented on program expansion at Boysville and the way BOMIS has contributed to Boysville's favorable positioning with contracting organizations since its implementation.

The forgoing case examples illustrate the usefulness of an integrated information system such as BOMIS. Utimately, however, the task of this dissertation project is to reflect on the extent to which BOMIS has succeeded in creating a fully integrated model of information use in administration and practice at all levels of the organization. To the extent that it has not succeeded, the task of this project is to describe the organizational conditions that are missing at Boysville and must be in place if such a model is to succeed.

Figure 3.1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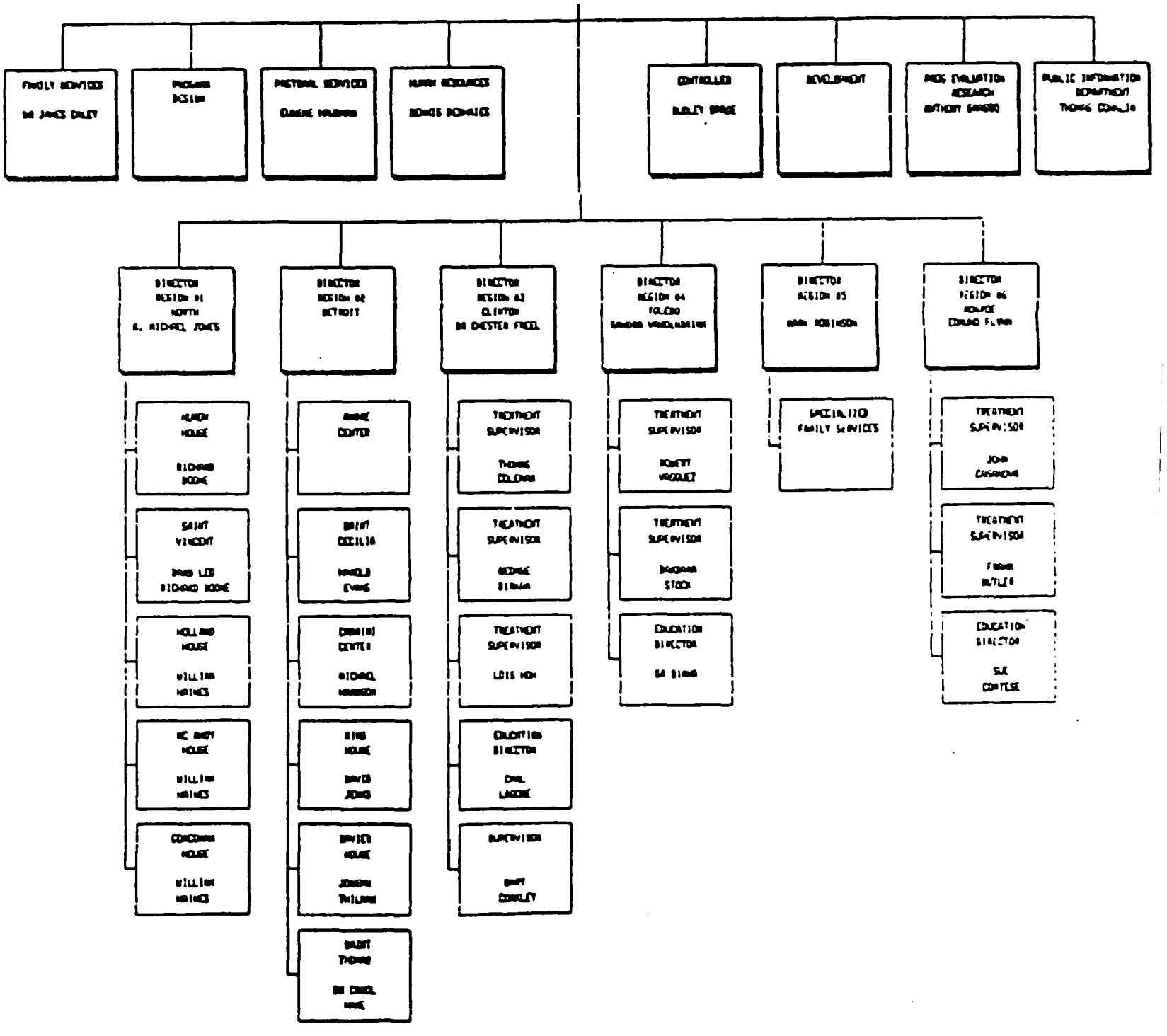

Chapter Four

THE INTEGRATED MODEL

The key to the success of an information driven model of organizational administration is that the model be properly "integrated." An integrated model for social work administration would have as its primary aim the facilitation of the practitioner's work with the client. It would integrate the different levels of the organization through a set of goals, objectives and processes that start with individual client service objectives, and move to individual worker performance objectives, next to individual program objectives, and ultimately, to agency objectives. Such a model would integrate different treatment and intervention orientations at the client level in the interdisciplinary treatment plan, and at the worker level through team performance objectives.

An integrated model also would provide information to each role-incumbent in the organization relevant to his/her unique role-obligations, task orientation and decision-making needs. At the program level it would provide information to practitioners useful in direct intervention with clients. At the program supervision level, it would provide supervisors with information useful for monitoring worker performance and teaching treatment and other intervention skills. At the program management level, it

would provide information useful for assessing program performance. And at the executive Level, it would provide information for policy formulation and agency interpretation to the community.

Such a system would measure client change by both quantitative instrumentation and qualitative worker observations. It would gather information on specific worker interventions and its effect on producing targeted behavior change. It would contain a potential for the conduct of applied research on a development and design model as well as formative evaluation so that a program's course could be altered during implementation as well as after program completion. Ideally, it would provide information for basic research on social problems and social intervention as well for the field in general.

Such a design would not only increase agency effectiveness and efficiency but would allow the organization to compete favorably with other organizations for grants, both foundation and governmental, contracted services and individual donations. It would be an advantage because of its ability to demonstrate specific achieved outcomes for dollars invested in a program and its ability to report on performance in relationship to these specified objectives.

BOMIS is intended to be such an integrated, computerized information system. This dissertation project is intended to describe this system and its organizational impact.

Project Design at Boysville

In contrast with an externally-designed compliance-oriented (PAS) system described by Conrad in 1985, BOMIS was based on the assumption that only if you simultaneously improve the service technology of the organization, could a management information system improve actual performance of the organization as well the measured performance. In developing this model, primary emphasis was placed on providing useful information to the direct service professionals so as to improve their helping skills. The common value of the system that is intended to run across all levels of the organization is related to helping Boysville's clients. In introducing BOMIS to line staff, it was emphasized that by participating in the utilization of BOMIS they can improve their skills and thereby provide more effective services to clients. It was further assumed that an information system that improved the delivery services to clients could be used to more accurately assess program effectiveness in ways required by three other levels of the organization.

Most management information systems have tended to

neglect the needs of supervisory and service-delivery levels. Consequently, management information systems and social services have been effective in providing information to top-level management and middle-level management on broader-based policy issues and contract compliance, but have failed to promote an improved service technology. This difficulty is magnified because information systems such as these are most dependent upon the lower level of the organization for reliable and valid data. As a result, they typically go through a cycle of failure and falsifiction because practitioners do not see them as useful. Instead, these systems and the staff units responsible for maintaining them are viewed as excessively controlling or punitively judgemental of staff efforts.

By contrast, BOMIS is intended to be a fully-integrated management information system of the sort proposed by Briar & Blythe (1985) and Mutschler & Hansenfeld (1986) that supports clinical intervention. Its primary purpose is to maximize the effectiveness and efficiency of the Boysville efforts to help children and their families and to describe these efforts accurately to funding and accountability agencies (Tripodi, Fellin and Epstein, 1978). This model differs in two fundamental ways from the hypothetical models mentioned above, however. First of all, it is not hypothetical. Introduced in 1983, the program has been operational since 1985. Second, BOMIS

is not geared to internal information needs of the agency only. Instead, it is intended as well to provide practice-based research knowledge to other family and child care agencies, to professionals within the juvenile justice child care and family treatment communities, and to social work managers and administrators in general.

The system designed at Boysville also differs from the foster care-oriented management information models described by Conrad (1985) and Fanshel (1977). In the former, the research instruments, data analysis, and research project objectives are externally authored by funding and accountability agents. In the latter, information is directed to the needs of managers and administrators. As with most MIS systems, both place a heavy reliance on line staff for reliable and valid information about what they do. Neither is designed to feed back information directly applicable to practice decision-making with individual clients. As a result, the systems described by Conrad and by Fanshel are especially vulnerable to what Walker (1972) has gracefully termed "the strain towards falsification."

Underlying Assumptions/Practice Principles

As stated earlier, the theoretical assumptions underlying BOMIS that emerged from the management and organizational literature can briefly be described as the

following:

1. Effective integration of the service technology and the accountability system of an agency maximizes actual as well as measured performance.

2. Effective integration of the service technology and the accountability system requires valid and reliable information from line staff.

3. Line staff will provide this information to the extent they receive in return research products and information that are timely and readily applicable to their practice.

Consistent with the assumptions listed above, the system at Boysville places an emphasis on providing, on a regular basis, useful information to direct service professionals so as improve their helping skills. To the extent achievable, this is particularly important since the technology of service delivery is "inexact" (Hasenfeld, 1983) and evolving.

The primary goals of the BOMIS system are:

1. The provision of planning and accountability data to external funding sources and accrediting agencies.

2. The provision of formative evaluation data for administrative, supervisory and clinical decision-making within the organization.

3. The development testing and utilization of state-of-the-art computer technology, both hardware and software for child and family treatment programs.

4. The development, implementation and dissemination of a prototype R & D model of program evaluation and applied research.

5. The generation of basic research knowledge concerning child and adolescent development, and family functioning.

6. And most importantly, the provision of practice relevant information for line-level decision making with clients.

Client Information and Career Stages

More generally, BOMIS attempts to provide information to each level of the organization that is appropriate for decision-making at that particular level. Since the treatment technology of the agency is heavily committed to structural family therapy at this point in time, the management information system at Boysville routinely collects family assessment information based on four instruments developed by Olsen and McCubbin (1982), and two staff rating instruments which assess client behavior. The instruments developed by Olsen and McCubbin are discussed more fully in a following section on the use of BOMIS in family treatment. Line staff administer these measures to clients in a time series and receive in return easily-understandable graphic computer printouts concerning family structure and client and family change. This and other information is gathered at four discrete stages of a client's career in the agency -- intake (input), intervention (throughput), program completion (output), and follow-up (outcome). A full copy of the research instruments and examples of reports generated are available by request from the author.

At intake, information concerning client characteristics such as previous placements in other programs, seriousness of offense, family composition and standard demographic information (race, sex, etc.) is collected in addition to the previously mentioned diagnostic information. With these background and diagnostic data agency staff are able to systematically assess clients who come to Boysville and develop client treatment plans.

At the intervention stage, BOMIS stores and analyzes information on worker/client interactions, critical incidents, staff rating of client behavior and client change. This information is used in conjunction with the child and family instruments for modifying and improving treatment interventions as well as for some program management decisions at the supervisory level.

Upon program completion, BOMIS collects information on conditions at client termination. This includes data regarding success/failure, placement destination, completion of family work program as well as individual and family coping scores at time of termination. This information is used to determine whether individual clients and their families have achieved treatment goals and through aggregation makes possible individual worker, unit and program level evaluation.

At the follow-up stage,information is gathered at three, twelve and eighteen months after client termination. This information includes client placement status with the family, jail or other settings; educational status; employment status; and client/police contacts. This information allows Boysville to make inferences about the impact the program has had on the clients after termination.

In addition to the foregoing data concerning client progress, BOMIS gathers information concerning staff activity on an individual worker and unit basis. Using this information in conjunction with assessment measures, supervisors can provide more effective individual and group supervision and identify staff training needs. This information is aggregated further and distributed in reports for management staff concerning program performance and contract compliance; and finally, BOMIS provides executive staff with data which are used for assessing broad agency policy, influencing public policy external to the agency and in procuring additional funding.

System Enhancements

After two years of operation of the system as described, it became clear that there was a need to increase the scope of data collection and potential for practitioner feedback as emerging client needs dictated.

The educational and sexual abuse information systems outlined below represent additions to BOMIS based on more recently identified informational needs. Nevertheless, the same principles which governed the development of the original system were employed in the design of these new components.

Observing the benefits that treatment staff were deriving from BOMIS, line educational staff requested expansion of the educational information system so as to lead to more effective decision-making regarding clients' educational performance.

This request led to the following system enhancements. At intake, additional information is collected concerning past educational history, describing previous educational settings, disciplinary problems, special education status, etc. Additionally, a complete psychological test (Wechsler, 1981), a classroom behavioral assessment (McCarney, 1985), as well as reading, math and written language achievement tests are administered (Woodcock and Johnson, 1977). This information improves the educational staff's ability to systematically assess a client and to develop individualized educational plans in response to identified needs.

At the intervention stage achievement tests and behavioral assessments are readministered for the purpose

of assessing and improving educational interventions. This information is again collected at program completion which allows for contractual accountability requirements to be fulfilled.

At the time of program completion additional information is collected regarding the child's educational placement while at the facility, specifically special education services, tutoring, etc. Although some of this information previously had been collected manually, the addition of this component to BOMIS provided standardized information processing, data collection and reporting protocols which are essential for agency-wide educational evaluation and training efforts.

Further expansion came about as agency treatment staff came to value BOMIS but identified other information gaps in the system such as the incomplete sexual abuse histories of youth in placement. This informational need became apparent as discrepancies emerged between clinical impressions of clients by treatment staff and the remarkably low incidence of sexual abuse in client intake information and produced in BOMIS reports. This apparent discrepancy between clinical observation of children in placement and intake data led to a extensive study of the case files.

The study found that, according to ongoing treatment

files, the incidence of youth involvement with sexual abuse prior to placement was probably between two and three times higher than that reported in the intake data. This finding led to the development of a major information collection and clinical training initiative targeted at equipping staff with specific skills for collecting sexual abuse information and for addressing the treatment needs of this previously underreported population. In this instance, concepts and tools employed in the training program (e.g., a sexual offender typology, and a sexual abuse disclosure validation process) were incorporated into data-collection instruments to be completed by treatment staff. In this new package separate offender and victim instruments assess information about the last sexual abuse event, i.e., the specific behaviors involved, circumstances surrounding the event, sexual abuse history, etc. Another instrument focuses on the family's reaction to disclosure of the information and the family's role in the incident. A final instrument identifies progress toward the resolution of specific issues in the treatment process.

The new sexual abuse component of BOMIS is now utilized to facilitate the clinical assessment, treatment and evaluation process for youth identified as sexual abuse victims and/or perpetrators. It provides concrete assessment tools that suggest specific treatment approaches, monitoring and evaluation measures.

Next, a system for coding clinical interventions in the resident and family service programs is planned. Ultimately, a system for integrating management, treatment and personnel functions is envisioned so that the reward system for staff can be linked to demonstrated effectiveness in service to children and their families. Naturally, as the agency introduces new programs such as in-home services and specialized foster care, the system will be expanded to meet those needs.

HARDWARE AND SOFTWARE

BOMIS was originally designed on the relational database Condor but has been recently rewritten in Rbase System V in order to take advantage of network capacity not offered with Condor. Graphics programs were written, as external procedures to the database, in Turbo-Pascal using Halo Graphics language. All other external routines such as computation of complex family scores are written in Turbo-Pascal using an Rbridge utility function. The central storage and processing system is a Novell S with off-site direct access capability. Graphics are generated on an IBM XT 640 with a 20 meg hard disk drive and a Number Nine Revolution Graphics Board using a Data Products 8070 Colorgraphics printer. Report generation and statistical analysis is done on an IBM AT 1 meg with a 30 meg hard drive system. All data entry is done on IBM XT's with 640

K and 20 meg hard drive located at each of Boysville's 40 sites. The machines are also used for word processing and other functions by secretarial staff.

The process for data entry, verification and storage is as follows:

1. Data entry and internal verification at one of the 24 Boysville sites;
2. Electronic data transfer and second verification in the Research Department;
3. Transfer of data to permanent files;
4. Computation of and permanent storage of secondary data;
5. Routine graphics and report generation;
6. Transfer of data to SPSS-PC for applied and basic research functions.

Figure 4.1 provides a schematic representation of the current informational components of BOMIS, the stage at which the information is collected, the staff responsible for information collection, and the focus of the information.

Organizational Structure of BOMIS

BOMIS as operated currently is part of the Boysville Institute, a research and training institute that contains three primary structural components; the Research Department which also includes MIS , the Office of Clinical Development (OCSD) and the National Research Advisary Committee (NRAC). In Chapter five a more detailed

description of the development and functioning of the Boysville Institute is presented. It should be noted here however, that other than the three specific areas listed above, all other internal operations of BOMIS, such as data colection and data entry, are subsumed under regular agency operations and staff positions. The following sections address the operations of the Research Department, NRAC and OCSD.

Research Department Structure and Staffing

BOMIS information processing operations are run by a Research Department that is made up of a Director of Research who is accountable to the Director of the Boysville Institute. An Assistant Director of Research, a Manager of MIS, a Research Assistant, a Computer Operator, 2 Computer Programmers and a Secretary.

The Research Director is an MSW with a concentration and extensive post-masters experience in Program Evaluation. The Assistant Director is an MSW with a concentration in inter-personal practice and a Bachelor's degree in Economics. The Manager of MIS has a Bachelor's degree in Computer Science. The department is structurally linked to the Office of Clinical Staff Development by its relationship with the Boysville Institute. Beyond the formal linkage, a close working relationship between the two departments is cultivated since the use of Research

based information for staff development and training is central to this design.

Flow of Information

Figure 4.2 describes the flow of information throughout the system. Data are collected by treatment staff administering survey instruments to youth and families. The information is entered and verified by the on-site secretaries and forwarded to the research department for more complete verification and processing.

The Research Department also packages information to meet specialized consumer needs through routinely generated, customized reports. For example, treatment staff receive specific feedback on individual youth and families throughout placement in an easy to read graphic format. Supervisory staff receive single program summary reports of various types of process information, such as the number and types of staff/family contacts or the number of runaways from programs. Management level reports capture the same information in a total program format. In addition, management level staff receive outcome information including success/failure rate, length of stay for program units. The executive staff receive outcome information organized at the level of the entire agency.

Another major use of this information is the statistical analysis of aggregate data to reflect on issues that have relevance beyond the agency itself. Already. a number of articles are scheduled for publication that represent examples of this database being utilized to shed empirical light on practice, administrative, and policy questions. This information is shared through a department newsletter, and disseminated externally through publication in professional journals.

APPLICATION OF PRINCIPLES

The previous discussion has provided a general description of BOMIS that should serve as a backdrop for describing the management principles associated with "running" the system. In this regard it should be stated that the primary management principle is that line program staff are the primary consumers of BOMIS information. This principle is a basis for setting departmental priorities, for designing research instruments, and for defining the practitioner's role in the operation of the system.

Setting Departmental Priorities

Since a basic design principle used in the development of BOMIS stated that utilization will only occur when the system can provide practitioners with valid and reliable information. The routine operations of BOMIS are organized

around the same premise. Thus, in times of conflicting demands for information, the department's priorities are determined by the proximity of an information need to the direct service practitioner.

Typical of any Research Department function, there are a wide variety of organizational constituencies to serve. In product terms, these constituencies demand everything from a monthly list of youth for laundry assignment to a request for a multiple regression analysis of predictors of post-placement incarceration. However, a clear set of departmental priorities exists and is applied whenever there are conflicting demands, the system malfunctions, or there is a need for system modifications or additions. Simply stated, whenever possible, priority is given to the reporting needs of the practitioners.

As a result, the departmental functions receiving top priority are the verification/processing of clinical data and the generation of single case reports in a graphic format for use by the agency's treatment staff. If problems develop in this area all unrelated efforts are interrupted until these difficulties can be remedied.

As indicated earlier, smooth operation in this area facilitates the receipt of valid and reliable information <u>from</u> practitioners and the feedback of timely and useful information <u>to</u> practitioners. In addition, it is

important to remember that it is necessary to have valid and reliable single case information if one is intending to aggregate this information for program monitoring and evaluation purposes.

Instrument Design Issues

Another way in which line staff commitment to the information system and utilization is fostered is that instrument design is focused on practitioner need. Thus, the research instruments that supply the data-base for BOMIS focus on the youth in placement and his/her family as the unit of analysis. This strategy allows BOMIS to provide extremely detailed treatment-relevant information to the practitioner regarding every case carried. Information needs at other levels are effectively met through aggregate reporting of practitioner information.

It is also critical for research instruments to conceptualize client/practitioner interaction in a framework that is consistent with the practitioner's treatment technology and associated frame of reference. So, for example, the family diagnostic instruments built into BOMIS are consistent with the agency's structural family therapy approach. Along the same lines, the sexual abuse instruments make use of concepts that are directly linked to the agency's training for assessment and intervention in this area.

Finally, instrument design and implementation must take into account the role-demands on the practitioner. Although clinicians are generally quite skillful in collecting information, this data-gathering task must always be manageable in the context of other legitimate role-demands and must never appear to be an end-in-itself. Thus, each Boysville practitioner has a myriad of important duties associated with the treatment of individual youths and their families. Therefore, it is important to view the practitioner's role in the data collection process in this light.

For example, the design of the sexual abuse instrumentation, deliberately centered on detailed information concerning the most recent incident of sexual abuse. This was seen as not only the most clinically relevant but the most manageable data collection strategy for the already burdened clinician. Although the final instrument does include some questions about the client's previous experience of sexual abuse, an exhaustive and detailed history is not routinely taken. In this regard, the costs in time taken from other treatment functions of collecting comprehensive and fully detailed information concerning the client's experience with sexual abuse was judged to out-weigh the potential treatment benefits.

Practitioner's Role in Information Processing

In addition to minimizing the collection of information that does not have a high potential utilization benefit/cost ratio, an attempt is made to minimize the costs and maximize the "secondary" clinical benefits of collecting the information. For example, Boysville treatment staff are trained to administer the family assessment instrument in such a way as to promote the initial engagement of the family/youth through the process of collecting clinically-relevant information.

Moreover, practitioners are instructed to make qualitative observations of clients at this stage and to do an initial impressionistic review of responses to the instruments. At this point, the completed instruments are given to a secretary for data-entry and verification. The system makes no further demands on the practitioner's resources or time availability to participate in either of these tasks. Once verification and processing are completed by Research Department staff, the practitioner receives a graphic display of the initial assessment information. Additional verification of this information takes place in the first step of the clinical application of this information when the treatment worker compares graphic information with his/her clinical observations and impressions. If inconsistencies arise the practitioner is encouraged to bring these to supervision and to question

the data rather than to automatically accept the validity or reliability of the computer output. This process promotes validity and reliability of the data-base and, simultaneously increases staff assessment skills.

By not involving social workers in direct contact with the computer BOMIS has minimized problems associated with computer phobia. On the other hand, by involving the practitioner directly in the gathering of information only when a potential clinical benefit exists, by promoting the "secondary" clinical benefits of information gathering, and by taking into account the multiple demands on their time, BOMIS continues to receive a relatively high level of practitioner support. Quantitative evidence of this support will be presented in Chapter five.

The preceding discussion has enumerated a variety of strategies that the research staff have employed for enhancing BOMIS's contribution to clinical decision-making at Boysville of Michigan. Ultimately, the practitioner's perception of the usefulness of the information system will determine its success. For without practitioner legitimation, effort and support there is no valid or reliable information to process, analyze or report.

In the following section the process used for training staff in the use of information in direct service work will be described as well as problems encountered with staff

resistance.

Office of Clinical Staff Development

The Office of Clinical Staff Development has the primary responsiblity of translating the information from BOMIS into direct service practice interventions. Rothman (1974) describes such a function as providing specialists who perform a necessary linking of research information to direct practice utilization. At Boysville an entire department is assigned to perform this function since the use of information by practitioners for decision making is so central to the BOMIS conception. From the beginning BOMIS planners recognized that the greater the need to independently translate information into direct practice by the practitioner the less likely the information would be used. In addition, it was felt that this translation function required specfic skills not readily found in most practitioners (Lippitt, 1966; Havelock, 1969 and Rothman, 1974). Further, computer-generated information assumes linear causality which creates other problems since practice seems more akin to a process of mutual causality. Because of this we knew that just giving computerized information directly to practitioners without specific training in the ongoing usage of it would reduce the likelihood that the practitioner would draw correct conclusions from reports, no matter the report format.

Finally, like the direct service practitioner, we also felt that without the experiential process of teaching embodied in the more traditional case supervision models, important qualitative data about individual worker cases could be discarded under the weight of an automated process.

After consideration of this dilemma, we decided to dedicate a department (OCSD) of 16 agency staff to this translation and education function. In a later section on the use of BOMIS in family therapy more detail is given to the the actual process of training staff in the use of information in practice including case examples. The following section presents the organizational rationale for forming OCSD, the organization of staff in OCSD and the structures used to train staff.

The Office Clinical Staff Development - Its Origins and Function

In recent years, Boysville had found that many prospective treatment staff, even those with graduate education, were inadequately prepared to meet the service needs of its population and inadequately trained to use the kind of information BOMIS generated for meeting those needs. The concurrent need for expertise in an area of treatment, integrated teamwork, research aplication, and outreach to families required coordinated educational efforts and learning of specific skills. In accord with Boysville's evolving conception of itself as a learning-

teaching agency, staff professional development was seen as an ongoing process directly related to the provision of quality service to clients based on BOMIS information.

As a result, the agency expanded and formalized training by establishing an Office of Clinical Staff Development to provide education/ training for all treatment staff and to develop extensive training models to be replicated by other agencies. The training is comprehensive and integrated across Boysville's diverse programs and sites. The training is designed to be individualized for each staff member so that veteran staff are updated, mid-level staff proceed steadily toward greater competency, and entry-level staff have a sufficient base for beginning work.

The Director of OCSD is an MSW with a concentration and extensive experience in interpersonal practice. Fifteen clinical supervisors report directly to the director and have specific areas of practice speciality for which they are responsible. These areas of speciality are: Family Treatment, Group Work, Group Living, Education, Foster Care and Home-Based Services. The first four specialties are grouped into 3 teams with a Family Treatment, Group Work, Group Living and Educational clinical supervisor on each team. These teams have responsiblity for regional area training. The other 3

trainers are responsible for training in the areas of Foster Care,In-Home Care and a Home Builders programs.

Training takes place in two primary formats, classroom presentations given once weekly by speciality and in weekly supervision/training sessions by team. As mentioned above, materials and topic covered are related to current cases of clients under direct care of the clinicians. In this manner practitioners are given experiential referrents. Practice principles taught are reviewed in the context of current and direct practice. The following section on the use of BOMIS in Family Treatment provides a fuller explanation of how this learning process works.

The Use of BOMIS in Family Therapy

Whether recognizing it or not, the profession of social work has always been committed to an "information-driven" approach to service delivery (Tratner, 1979). Thus, irrespective of the model of practice employed, social workers have relied on information about the client and his or her environment for making practice decisions. Attempts to systematize their use of information, however, especially when invideously referred to as "research" have generally met with indifference, fear, defensiveness and hostility.

The objections that many clinicians raise concerning efforts to systematize the use of information in practice decision-making is that these approaches are mechanistic, deny the significance of clinical intuition, thwart spontaneity, and are overly reliant on quantitative data. In this context, quantitative measures are viewed as antithetical to qualitative, and incompatible with the humanistic quality of clinical practice (Epstein, 1985). This mistaken belief has severely limited the range of alternatives available to practitioners for assessment, intervention planning, monitoring and evaluation (Tripodi and Epstein, 1980). An unfortunate and paradoxical consequence of the rejection of research-based techniques and procedures in the name of humanistic practice is that the result may be less effective service delivery to clients.

Through staff training, OCSD attempts to bridge the perceived gap between quantitative research information and clinical practice. This takes place within the context of a family therapy treatment program which routinely employs quantitative data in the assessment, monitoring and evaluation of individuals and families in treatment. To achieve this end, it was necessary for clinical staff to specify a treatment modality, and for the research to locate and/or design assessment instruments and treatment interventions which were mutually compatible. In addition,

it was necessary to implement organizational support structures to train, supervise and reward practitioners for proper use of the quantitative information provided by the system.

However well designed, the understanding, integration, and application of a clinical information system represents a challenge and a developmental process for all staff. For the clinicians in the agency, the process involved four stages: awareness, anxiety, acceptance and application. Careful training and clinical supervision, as were necessary to facilitate this developmental process. In so doing, the Boysville treatment staff with varying degrees of clinical and research competency and various treatment orientations had to be taught to question their own practice perceptions, implicit practice theories and hypotheses, and routine interventions. The training model necessary to do this was briefly referred to above. In the next section the clinical assessment instruments on which this treatment program is based are described as is the process by which staff came to accept and effectively utilize them.

History of Treatment at Boysville

Currently, Boysville provides both short and long term treatment for adolescents and their families. Youth in care are referred by the court system as either

adjudicated delinquents or dependent/neglect wards. These youth have exhibited serious acting-out behaviors and demonstrated poor judgment in the home, school, and community. Offenses range from home and school truancy to serious felony offenses including criminal sexual conduct and homicide.

Although Boysville provides individual and family treatment, it has not always done so. In fact, in recent years, the agency has fundamentally re-shaped its conception of its "client" from the youth in placement to the youth and his family. Correlative with this change in perspective has been an expansion in the range of treatment technologies offered by the agency. As a result, family therapy and other more sophisticated group intervention methods have been routinely incorporated into service delivery.

Boysville's work with delinquents began in the early 1970's. Its early group treatment efforts involved the use of a Positive Peer Culture approach. Ultimately, this was integrated with elements from Reality Therapy, and eventually Interpersonal Group Therapy.

Despite the recognized value of these group intervention methods, early evaluation efforts convinced staff that treating youth in isolation from their families and communities was less effective than desired. This

awareness led to further evolution in the Boysville treatment approach. As a result, in 1981, the decision was made to incorporate some type of family treatment into the work with every youth in placement.

Notwithstanding this general commitment to family treatment, no particular model of family therapy was adopted or consistently implemented by the agency until 1983. In that year, an administrative decision was made to commit the agency to the practice of Structural Family Therapy. This decision was based on the fact that many of the operative concepts in Structural Family Therapy had parallels in the existing group treatment program. In addition, the emphasis that this form of family treatment placed upon empowerment of the family through the development of internal strength was philosophically congruent with the agency's mission and direction. Consequently, Structural Family Therapy was officially adopted as Boysville's framework for family diagnosis and intervention.

Nonetheless, the process of integration of family therapy with the existing treatment program was arduous and fraught with both attitudinal and logistical difficulties. Thus, the effort to routinely incorporate this new treatment technology into the service delivery system of the agency and to integrate it with other existing treatment technologies in the agency was greeted with an

effort on the part of some staff members to isolate family therapy practitioners. Opponents of this approach conceived of this form of practice as incompatible with the existing group treatment program. Organized attempts were made by these resistant staff members to treat family therapy as an insignificant component of the agency's treatment program. At times, open conflict was expressed between groups of staff committed to one or the other treatment approach.

In this regard, Boysville's experience is not unique. Hence, it is quite similar to the process described by others who have attempted to insinuate family treatment into their agency's treatment technology (McConkey-Radetzki 1987). What distinguishes Boysville from these other settings, however, is the manner in which the subsequent introduction of an agency-based information system served as a structural device to facilitate the integration process.

Treatment Instruments and Reports

The information system designed for use by treatment workers at Boysville involves the collection of data relevant at both the individual and family system levels and the routine generation of reports intended to enhance practice decision-making. Specific instruments developed at the University of Minnesota were chosen for inclusion in

the Boysville system because they were based upon key Structural Family Therapy concepts and theory (Olson and McCubbin 1982) and addressed individual and family variable.

For example, instruments focusing on the individual include the A-File and the A-Copes. The A-File (i.e., Adolescent-Family Inventory of Life Events and Changes) examines the life changes and stressful events which the adolescent may have experienced during the course of his/her development. This instrument identifies the occurrence of major life events and changes within the context of family life. The A-File divides the occurrence of family life events and changes into six general categories, (transitions, sexuality, losses, responsibilities and strains, substance abuse, and legal conflict) distinguishing between a normative and non-normative range in frequency of events.

For analytic purposes, these events are also divided temporally into the immediately preceding twelve-month period, and the adolescent's life prior to that twelve-month period. Based upon these data, BOMIS generates a graphic printout which describes the youth's developmental experience for the practitioners' use.

The A-Copes (Adolescent Coping Orientation for Problem Experiences) was designed to identify those behaviors which

adolescents find most helpful in managing problems or difficult situations. Using data from this instrument a graphic printout is produced by BOMIS for each youth in placement which describes the youth's coping skills along six scalar dimensions (self-confidence, family relationships, social support, positive perceptions, diversions, substance use and expression of anger).

Instruments focused on the family include the F-Copes and the FACES II. The F-Copes (Family Crisis Oriented Personal Evaluation Scales) was developed to identify problem solving and stress reduction behavior strategies employed by the family. This information comes from adult family members, in response to specific problems or difficulties. Based upon their responses, BOMIS provides a numerical printout to staff which displays family responses in relation to five scalar dimensions (reframing, passive appraisal, social support, spiritual support, and mobilization of resources). FACES II (Family Adaptability and Cohesion Evaluation Scale) was developed to measure family problem-solving abilities and how family members relate with one another. The instrument measures these aspects along two primary dimensions--Adaptability and Cohesion. Adaptability relates to the ability of a family sub-system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress. Sub-dimensions

included in adaptability are assertiveness, leadership, discipline, negotiation, roles, and rules. Cohesion is the emotional closeness within family relationships. Sub-dimensions included are emotional bonding, external boundaries, coalitions, time, space, friends, decision making, interests, and recreation.

On the FACES II instrument, all family members are asked to indicate their perception related to each item in the current state (the "Real" response) and how they would like things to be (the "Ideal" response). This dual response format allows for comparison of "Real" and "Ideal" perceptions for youth in placement as well as for other family members. Discrepancies between "Real" and "Ideal" are used by treatment staff to indicate the sources and extent of dissatisfaction with family functioning for each family member.

Based upon FACES II data, a set of graphic printouts are routinely produced in the form of a grid displaying the perception of every youth in placement's "Real" and "Ideal" family organization on the two dimensions. A numerical printout is also produced which displays all family members' responses for the "Real" and "Ideal" components of each sub-dimension. By displaying all family members' responses on one report, systemic family characteristics and problems can be more easily identified by family treatment workers. These include conflicting alignments of

family members on the various sub-dimensions.

A final instrument, the Family Contact Report, is used as a measure of staff activity. This instrument is completed by the staff member who makes contact with any family member of the youth in placement. The instrument is designed primarily to monitor Family Worker activity in the treatment team. It produces a measure of worker process useful in individual staff professional development as well as in overall program planning. This instrument also provides some limited information on differing intervention approaches such as face-to-face versus telephone contacts with family members.

From the family contact instrument a numerical report is regularly generated which provides information on who was involved in the contact, location of the contact, type of meeting, theme of the session, category of therapeutic intervention used, evaluative assessment of the interaction itself, and the length of the meeting in minutes. This report is provided to the Clinical Supervisor who periodically reviews the information with individual workers.

To facilitate the use by direct service practitioners of the above-mentionned reports and the information they contain, OCSD employs a full time training/clinical supervision staff. These individuals are all experienced

clinicians, who have received special training for their roles as "translators" of research information into practice application. The members of this department operate on the principle that effective staff development leads to improved service delivery to clients. Their general strategy is to increase practitioner use of information by decreasing the amount of practitioner effort required to interpret information and successfully apply it to practice.

To further develop practitioners' skills at report interpretation and information application, OCSD staff engage in a full range of educational and supervisory activities. These include general training sessions, individual case reviews, videotape reviews, and live supervision. Nonetheless, the practice implementation and utilization of the information system for clinical decision making has proven to be a complex developmental process. As with most developmental processes, it may be useful to conceptualize its progression in terms of stages. At Boysville, the information-utilization process by family treatment staff has roughly followed four stages -- awareness, anxiety, acceptance and application.

Awareness

In the first stage of implementation of the

information system, training staff focused on informing family treatment workers about the range of available individual and family information and its treatment relevance. Basic treatment concepts which were embodied in the instruments were systematically illustrated. Potential practice applications were considered as well.

One of the more successful training devices used to promote treatment staff awareness of the new information system involved an "autopsy" of a treatment failure based on a FACES II analysis of what might have gone wrong. So, for example, at a Family Worker General Training Session, a practitioner presented a case in which a Boysville youth from a single-parent family, was arrested for assault and battery three months post-release. The FACES II, along with the other instruments, had been administered to the youth and his family during an early period in the development of the information system. At that time, however, there was no training offered to staff regarding the application of this information to decsision-making with clients. Hence, although the information was available, it was not used by the practitioner in assessment or in the provision of treatment to this family.

In this particular case, through the course of treatment, the youth in placement had demonstrated increased responsibility, and interpersonal skills in his residential treatment group. At the same time, the mother

had taken obvious steps to become more involved in the community, increase her leadership, disciplinary, and decision-making skills. Moreover, she had recently enrolled in college. As a result, she was clearly more empowered in her family and her community. Because of the positive changes in the behavior of both the youth and his mother, the treatment worker recommended that the youth be returned to his family.

The FACES II information introduced into the case review, revealed previously unrecognized problems, however. On the final FACES II instrument, given to the youth and his mother prior to discharge there was a sizeable discrepancy between the youth's "Real" and "Ideal" scores on the family sub-dimensions of leadership, discipline, and decision making. There was no such discrepancy for the mother. In other words, review of the FACES II data indicated that although the youth had formed perceptions similar to his mother's based on her "Real" recent changes, he did not share with her the view that these changes were "Ideal". In fact, he found them undesireable.

So although the youth's group treatment program and the mother's family treatment program appeared to successfully address the respective functioning and behavior of each, the discrepancies between their "Ideal" conceptions of treatment outcomes went unaddressed.

Apparently the youth, full of high expectations based on recent in-program success, wanted to take a more active role in leading his family. Although his mother had relegated this role to him in the past, she now felt more confident and capable of taking on her proper parental leadership role. Consequently, she resisted his attempts to resume the role as family leader. In the language of Structural Family Therapy, she no longer needed or wanted a diffuse parent/child sub-system boundary. He did.

The desire on his part to regain the role of family leader was further evidenced in the offense for which his was subsequently arrested. Hence, after frustrated attempts to direct his mother's behavior, the youth assaulted a neighbor who threatened his brother. In this context, the youth had inappropriately tried to demonstrate the protective authority of a parent.

Had the FACES II information regarding the discrepancy between "Real" and "Ideal" conceptions of individual and family functioning been available and understandable to the family therapist involved in the case, more effort could have been directed toward supporting an appropriate role for the youth in his reconstructed family, the organization of which involved more defined adult/child boundaries.

Clearly, the process of case review and dramatic examples such as this, offered compelling evidence to

practitioners of the utility of the information that was newly available. The impact of this case review on some of the agency's practitioners was sufficient to motivate them to develop skills in applying computerized information to other cases. Nevertheless, it remained apparent during this stage of development of the information system that more had to be done to increase the practitioners' awareness of the applicability of the information to their direct practice decision-making.

In general then, an information systems approach which linked conceptual categories and theoretical frameworks with treatment technology was introduced into the awareness of practitioners through extensive training and case illustration. Instruction included the use of the instruments in assessing, monitoring and evaluating clinical work with individuals and their families. Full days of training were set aside for agency practitioners to focus on the A-File, A-Copes, F-Copes, and FACES II and their uses in relationship to traditional file material and clinical observations. This extensive effort served to bring about an increased awareness of the utility of the instruments and a decreased adherence to the view that quantitative, computerized data and clinically-relevant information are inherently incompatible.

Anxiety

Despite increasing staff awareness of the potential for information use, they still used denial and avoidance to resist change during the early stages of development of the information system. In this stage it became clear that awareness of the utility of the instruments was not sufficient to motivate all clinicians to actually use the information. Many recognized its availability but denied its utility. So, for example, in an empirical study of changes in staff attitudes towards the information system , 52% of the overall agency staff remained resistant to the use of the information system subsequent to its introduction (see Chapter Five).

Resistant staff who avoided administering the research instruments or using the information in their practice, justified their avoidance by citing the following reasons: (1) a lack of confidence in the validity, reliability and accurancy of the data received; (2) a lack of understanding of the instruments and reports; and (3) a lack of opportunity to apply the information to their clinical practice. Moreover, despite continued Clinical Supervisors' assurances that the information system was designed to improved service effectiveness and practitioners' skills, many remained suspicious that the primary purpose of the system was to maintain individual worker accountability. During this stage, the intended pattern of administration

of the instruments on a four-month cycle was not achieved. Workers reported that a distressingly large number of families were "refusing" to complete the instruments, or that families could not be located when scheduled testing was to take place.

Upon further investigation, it became apparent that although Clinical Supervisors were emphasizing the utility of the information system, some Program Managers were subverting its use by stressing to staff the need to only comply with the administration schedule. This resulted in continued resistance by treatment staff to utiliizing the information for service delivery purposes. Some managers continued their subversion of information utilization in the face of explicit warnings against it. Ultimately the negative effects of these managers were neutralized through the continued use of the case review approach described briefly in the foregoing section. Mooradian and Grasso (1989) describe this process in greater detail in their article on the use of information systems to teach Structural Family Therapy. This training approach finally achieved attitudinal integration in the Acceptance Stage described next.

Acceptance

Although individual agency practitioners varied greatly in regard to their degree of acceptance of the

information's utility in the avoidance stage, they gradually came to accept and legitimate the information system. In the acceptance stage, staff demonstrated a newly acquired conceptual understanding of the dimensions of the instruments and their intended utility. Through supervision, more sophisticated applications were developed, and further attitudinal commitment to the information utilization was secured.

As with other skills training efforts however, staff could not apply the skills they had been taught without the provision of structured opportunities to do so and specific opportunities for the clinician to apply the concepts directly to a case in which he or she was professionally involved. However, Clinical Supervisory activity during this stage was focused on teaching practitioners new bases for conceptualizing clients problems and treatment approaches. Case reviews, joint supervision of group workers and family therapists, and live supervision of family therapy sessions as well as videotape reviews, were all based on information from the instruments used in conjunction with anecdotal case information.

Predictably, therapists who most quickly moved into the stage of acceptance were those who were already committed to the theory and practice of Structural Family Therapy, and/or those who were the newest to the agency.

Obviously, the former saw the information as congruent with their operative or developing framework, and as providing a tool for improved service delivery. The newcomers, on the other hand, recognized that this represented the future orientation of the agency and were relatively quick to sign on. Indeed, some were attracted to the agency because of the emphasis on practice-research utilization.

Since Clinical Supervisors remained steadfast in their insistance that the information based upon the administration of the instruments was an integral part of supervision, some clinical supervision sessions with highly resistive staff members were quite conflictual. In fact, some were cancelled when practitioners did not bring the materials necessary to follow this supervisory approach. Although this occurred in relatively few circumstances, word got around. This supervisory strategy structurally reinforced the message that the information was an essential part of service delivery at the agency. And, where Program Managers supported Clinical Supervisors acceptance was highest.

Application

It has been noted by many clinical authors that the fundamental goal of clinical supervision is to develop practitioners' skills to the point where they actually surpass their supervisors in the application of these

skills (Minuchin and Fishman 1981 and Breunlin, Liddle and Schwartz 1988). This principle guided supervisors in the process of teaching practitioners to use the new sources of information. Since these informational tools had never been available to the supervisors before, they needed to be comfortable with the fact that their supervisees, once successfully trained, might accomplish more with youth and their families than they had.

With this possibility in mind, Supervisors emphasized teaching the practitioner how to learn more about client systems through use of systematically gathered, quantitative information. And, whereas the focus during the acceptance stage was on making the instruments an integral part of the supervision process, emphasis during the application phase was on making the information generated by practitioners an integral part of the treatment planning and service delivery.

A basic assumption of the training effort at this point in the process was on increasing worker awareness of opportunities to apply information to practice. In addition, they were encouraged to independently generalize this awareness to other treatment cases. At the time of this writing there are still sizeable differences in clinical staff utilization of information in practice decision making (see Chapter 5). Nevertheless, the organizational culture surrounding the information system

has changed sufficiently and with that change basic attitudes and practices involving resistance to the clinical use of the information system have also shifted. Practitioners who make statements regarding how numbers and practice are incompatible are now more likely to be discredited by their peers. In fact, some clinicians themselves have become the "disciples" of this new information approach to helping clients. As a result, the pockets of staff resistance to this effort are disappearing. In other words, the application stage signals the institutionalization of the utilization of the information system in agency practice.

In its approach to family treatment training and supervision, the Boysville experience has shown that under the proper organizational conditions, clinicians can increase the effectiveness of their practice through the application of an integrated agency-based information system. To accomplish this, such an information system must be congruent with practitioners' conceptual and theoretical frameworks as well as their established treatment regimens. Ultimately, it must demonstrably improve the quality and effectiveness of practice. Even under the best conditions, however, the evolution of such a system must go through a set of stages that include awareness, anxiety, acceptance and application. Supervisory, administrative and informal processes can facilitate or impede this process. The

importance of the integration of service delivery into the management, program evalation and information processing is central to a sucessful system.

The next section describes another essential component of the BOMIS project implementation, the National Research Advisory Committee (NRAC).

National Research Advisory Committee

In the overall design of the BOMIS project, the National Research Advisory Committee (NRAC) is intended to serve as a counter balance to the problems that arise from locating a research and evaluation function entirely within an agency. Such a group, made up of research and practice experts from around the nation can serve as a "watchdog" so that the research department will objectively analyze information pertinent to the agency, as well as initiate research efforts on topics important to the field in general. In the initial selection of the Research Advisory Committee it was determined that representation should come from evaluation research, child welfare, family treatment and instrument development. We sought people of high repute and skill who would not be or could not be accused of being "bought off" by the agency in serving strictly agency needs. We felt that these individuals because of their professional experience, expertise and reputations would make a significant contribution to the

overall design and implementation of this project.

The BOMIS system now functions with the advice and guidance through quarterly mettings of NRAC and its nationally recognized experts. To the orginal areas of specialization have been added experts in the fields of adolescent development, delinquency prevention, family treatment, child welfare policy, education, religion and program evaluation research* . This Committee has three major functions:

1. To provide internal consultation on policy and procedures regarding the collection and utilization of information within Boysville;
2. To provide external consultation with regard to the search for new funding options;
3. To promote the conduct and dissemination of applied and basic research knowledge generated by the program through publications that fully exploit the BOMIS data base.

NRAC meetings are equally devoted to discussions of agency research policy and procedure, funding possibilities, and presentations by committee and/or staff members of papers in progress. Already, eight papers have been written by various combinations of Boysville Staff and NRAC members, and four are scheduled for publication in major peer-review journals. In addition, a monograph is planned that will describe the BOMIS system, will include applied and basic research papers authored by members of the Research Advisory Committee and as well papers

describing the use of BOMIS for practice decision-making at various levels of the organization. The latter set of papers will emerge from a Practice-Research Seminar conducted in the agency this past fall. Although formal meetings of the Research Advisory Committee are held four times a year, members continuously pursue their research

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*National Research Advisory Committee Members, Affiliations and Areas of Expertise

Dr. Irwin Epstein, Hunter College-Evaluation Theory and Program Development (NRAC Chairman).

Dr. Shirley Vining Brown, Univ. of Maryland--Adolescent Development.

Dr. Leon Chestang, Wayne State University--Social Work Education.

Dr. Gary Hessler, Macomb Intermediate Schools and Wayne State University--Adolescent Educational Development.

Dr. Dee Kilpatrick, University of Illinois (Chicago Circle)--Child Welfare Policy.

Dr. Hamilton McCubbin, University of Wisconsin (Madison)--Family Cohesion and Adolescent Coping.

Dr. Donnell Pappenfort, University of Chicago--Demography of Residential Child Care.

Dr. Mel Raider, Wayne State University--Religion and Family Functioning.

Dr. Sheldon Rose, University of Wisconsin (Madison)--Group Work Evaluation and Treatment (Visiting Institute Chair).

Dr. Tony Tripodi, University of Pittsburgh--Evaluation Research Methodology.

Dr. James Whittaker, University of Washington--Residential Child Care Services and Support Networks.

interests by requesting data runs directly from the Boysville Research Department or by borrowing data sets for their own processing. Naturally, the latter are programmed to protect client confidentiality.

The next chapter considers quantitative measures of the effectiveness of BOMIS. Before leaving this Chapter however, it is perhaps valuable to repeat the principle that underlies the work of Research/MIS, OCSD and NRAC, i.e., the successful integrative organizational design must facilitate the practitioner's work with the client, failing this point inevitably limits individual as well as program performance.

Figure 4.1

System Instrumentation

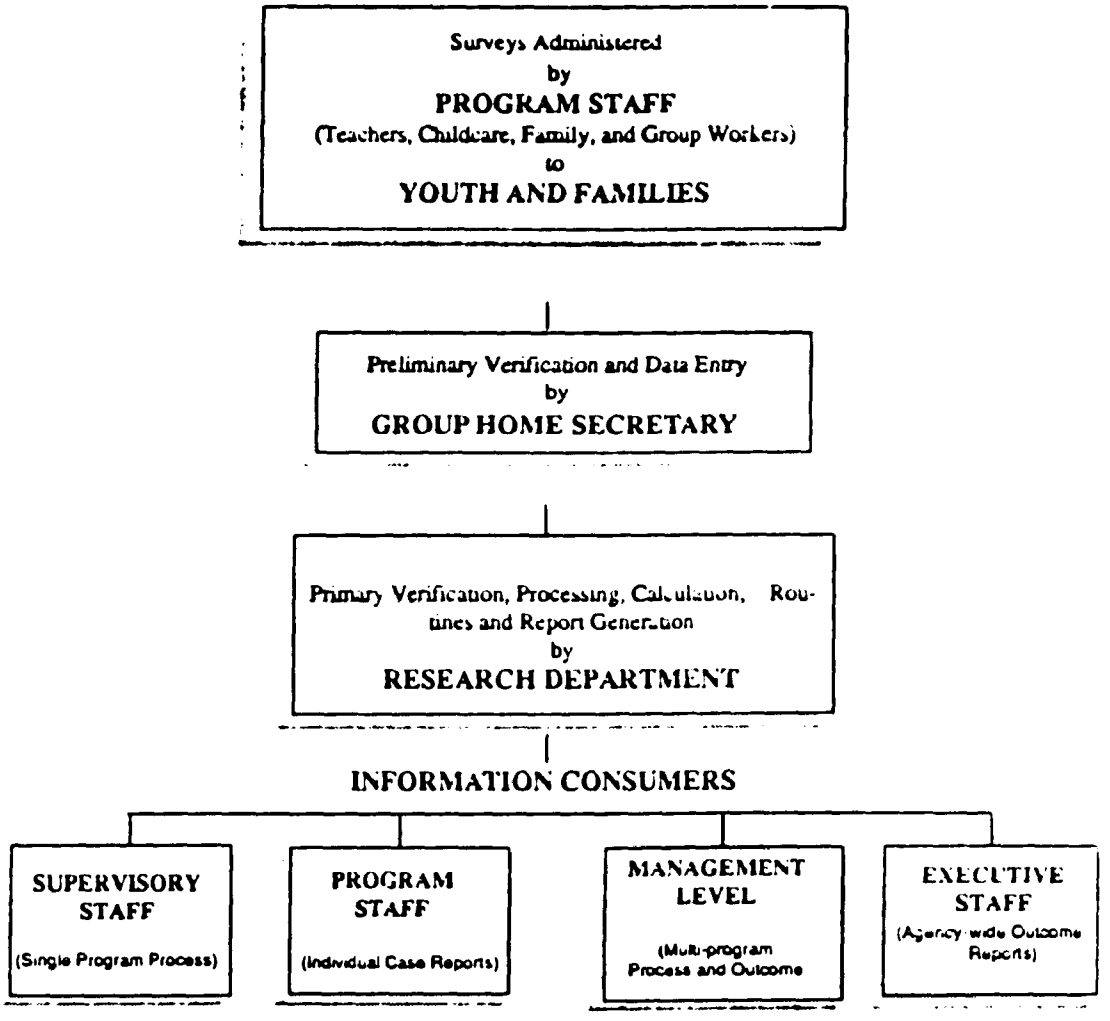
	input	throughput	output	outcome
INTAKE gt y	X			
FAMILY STRESS fw f	X			
COPING SKILLS gt y	X	X		
COPING SKILLS fw f	X	X		
FAMILY STRUCTURE fw f	X	X		
FAMILY CONTACT fw gt c f	X	X		
INCIDENT gt y		X		
BEHAVIORAL c y (DAILY LIVING)	X	X		
BEHAVIORAL t y (CLASSROOM)	X	X		
CLOSING gt y			X	
FOLLOW-UP ra y				X
EDUCATION				
INTAKE ssw y	X			
INTELLIGENCE ssw y	X			
ACHIEVEMENT ssw y	X	X		
BEHAVIORAL t y	X	X		
TERMINATION t y			X	
SEXUAL ABUSE				
OFFENDER d g f	X	X	X	
VICTIM d gt y	X	X	X	
FAMILY AT DISCLOSURE d fw f	X	X	X	
FAMILY AT TERMINATION fw f	X	X	X	

Responsible staff
gt group therapist
ra research assistant
fw family worker
t teacher
c childcare worker
ssw school social worker

Information Focus
d instrument completed upon disclosure of abuse
y information focuses on youth
f information focuses on family

Figure 4.2

FLOW OF INFORMATION



Chapter Five

A Quantitative Study on Research Utilization

The previous chapter offered a qualitative description of Research/MIS's, OCSD's and NRAC's efforts to promote the successful implementation of BOMIS. This chapter presents a quantitative study of research information utlization by Boysville staff. More specifically, the chapter will present information on:

1) Staff attitudes towards utlization of research in practice before and after BOMIS;

2) Staff perception of facilitators in research utilization;

3) Effects of agency based training on research utilization;

4) Utilization patterns comparing trained versus untrained staff groups.

As described in the methodology chapter, in 1987 a questionnaire was distributed to 138 Boysville staff in an effort to study research information utilization. Its intent was to answer the following questions:

1. What are staff attitudes towards research, perceptions of efforts to facilitate research and self-reported patterns of research utilization?

2. Have staff attitudes towards research changed after the implementation of BOMIS?

3. Are current attitudes towards research and perceptions of facilitators associated with research utilization?

4. Are positive changes in staff attitudes towards research associated with research utilization, perception of facilitators, educational level and receipt of agency-based training?

5. Are geographical location, educational level and receipt of agency-based training associated with attitudes towards research, perceptions of research facilitators and research utilization?

Sample Characteristics

Of the 138 staff members receiving the questionnaire, 137 (99%) responded. (This, in itself, may be interpreted as a positive reflection on the system.) A breakdown of location, level in the staff hierarchy and job classification indicates that 55 (40%) were from the Clinton campus, 40 (29%) were from the North region and 42 (31%) from Detroit area group homes; 68 (50%) were line workers, 48 (35%(service professionals and 21 (15%) managers and administrators; and with respect to job classification 40 (29%) were family workers, supervisors, or regional directors who received agency-based research training and the remaining 97 (71%) were group leaders, childcare staff, teachers, or others who did not; regarding level of education 24 (18%) had less than a B.A., 76 (57%) had a B.A. and 33 (25%) had a graduate degree.

Research Attitudes, Perceptions of Facilitators and Self-Reported Utilization

Tables 5.1, 5.2 and 5.3 contain the responses of staff to items reflecting their attitudes toward research,

perceptions of utilization facilitators and self-reported research utilization after the implementation of BOMIS. Referring to Table 5.1, it is noted that favorable attitudes towards research are evident when there is agreement with items 2, 5, 6, 8 and 10, and the reverse with items 1, 3, 4, 7, 9 and 11. The post-implementation findings indicate that the majority of staff are favorable to research on seven out of eleven items. Specifically, the majority disagreed with statements that the research unit was not interested in their information needs, that filling out reports was more work than it was worth, that research tasks keep them from helping clients, that agencies should spend less money on research, that one can't measure client change with numbers and that research is not relevant to their work. Moreover, they agreed that the existance of a reseach department in an agency setting shows concern for clients. Respondents were about equally favorable and unfavorable on three items. Specifically, that research is helpful in improving theirs and agency performance and that administering the research instruments facilitates treatment. Respondents were predominately unfavorable to only one item. That item read, "The research instruments provide a good measure of my effectiveness."

Hence it appears that despite their generally favorable attitudes towards BOMIS, in 1987 Boysville staff

were still reluctant to have their practice effectiveness assessed through the use of research instruments.

Table 5.2 describes current staff perceptions of the utilization facilitators employed by BOMIS. In this table favorable perceptions are evident when there is agreement with Items 1, 3 and 4, whereas the reverse is true for Item 2. The findings in this table indicate that although the majority of staff understand the research reports that are routinely produced by BOMIS, that at the time of the study most still did not perceive their usefulness nor their timeliness. The final facilitator item offers a possible explanation for this in that at the time of the study over two-thirds of staff still did not feel that they had received adequate training in the use of research. The effects of having received research training are considered later in this chapter.

Finally, respondents were asked to indicate how often they used research information in ten different ways. Notwithstanding their less than enthusiastic perception of facilitators, Table 5.3 indicates that BOMIS generated information <u>is</u> used, with the frequency determined by <u>how</u>. Thus, the range of self-reported use is from 18% for discussion with D.S.S. workers to 55% in discussions with team members, 60% in treatment planning and 61% in assessing client change.

Attitude Changes

Referring back to Table 5.1 we can observe the perceived attitudinal change before and after the implementation of BOMIS. Percentage differences between the before and after responses is an indicator of attitudinal change. On all eleven items differences are in the direction of more favorable attitudes towards research. However, using McNemar's Chi-Square test for change and the binomial where appropriate, it is observed that there are statistically significant changes for seven of the items with the greatest improvement registered in the perception that the research instruments facilitate treatment, improve the overall performance of the agency and that of individual workers as well. Moreover, despite staff reluctance to having their effectiveness measured by the research instruments, there is a statistically significant increase in their agreement with this item after BOMIS'implementation.

Associations Among Variables

To investigate the associations among pro-research attitudes, attitude change, perceptions of facilitation, self-reported utilization, level of education and receipt of agency-based research training, various indexes were created and correlational patterns were studied. Thus ,

for example, an additive index of attitudes towards research was constructed by reversing the scale values of agreement for current pro-research attitudes, 1, 3, 4, 7, 9, and 11 (see Table 5.1) and summing the responses for all eleven items so that the possible scores for any respondent ranged from 11 to 55. Likewise, by reversing Item 2 in the set of facilitator items (see Table 5.2) an index was constructed that ranged from 4 to 20.

An index of self-reported utilization was based on the summed responses to the first nine items in Table 5.3 on a four-point scale ranging from 1 for "never" to 4 for "frequently." (Item 10 was omitted from the index since it was related to working with parents of clients which is limited to family workers and would have resulted in instrument bias.)

An index of positive attitude change was constructed by summing the differences between before and after BOMIS research attitudes. For the four indexes, the higher the score the more positive the current research attitudes, the more positive the perception of facilitators, the greater the self-reported research utilization, and the more positive the change in research attitudes.

Correlational analysis indicates that positive attitudes towards research are significantly associated with perceptions of facilitators ($r = .43$, $p < .001$)

and with reported utilization ($r = .39$, $p < .001$). The most powerful relationship, however, is between perception of facilitators and utilization ($r = .51$, $p < .001$). Positive attitude change was correlated with self-reported utilization ($r = .18$), but the relationship was not statistically significant.

The fact that the research unit that administers BOMIS is located on the main campus of Boysville raised questions whether the physical proximity to the Research Department and its staff might be associated with attitudes towards research, perception of facilitators and information utilization. Despite the considerable decentralization of the agency, no statistically significant relationships were found based on geographic location. This finding suggests a relatively high level of research involvement throughout the agency and reflects a substantial investment by the Research Department in sustaining this involvement.

Finally, the relationships among the foregoing research relevant indexes and staff level of education and receipt of agency-based research training were explored. Level of staff education was only found to be significantly positively associated with pro-research attitudes ($r = .24$, $p < .05$). Receipt of agency-based research training, on the other hand, was more powerfully associated with pro-research attitudes ($r = .33$, $p < .01$) and with attitude

change ($r = .41$, $p < .001$) as well. Surprisingly, receipt of agency-based research training was not directly associated with perception of facilitators ($R = .06$). The significant relationships identified in the findings are schematically represented in Figure 5.1.

In an effort to determine the amount of variance in self-reporting research utilization explained by the empirical model, a step-wise multiple regression analysis was performed, using the latter as the dependent variable and level of education, receipt of agency-based training, pro-research attitudes, and perception of facilitators as independent variables. (See Table 5.4). This multivariate analysis revealed that 31.2% of the variance on the dependent variable was explained by the independent variables taken together. Looking at their individual contributions to the regression equation, perception of facilitators is the most powerful predictor of research utilization, explaining 27.7% of the variance ($p < .001$), with pro-research attitudes explaining an additional 3.5% ($p < .05$).

These findings strongly suggest that research facilitators such as perceived timeliness, comprehensibility and usefulness of reports are key determinants of BOMIS-generated information utilization. In addition, pro-research attitudes play a lesser but

significant role. In turn, these attitudes are positively affected by agency-based research training and to a lesser degree by educational attainment outside the agency.

A second part of this quantitative study of BOMIS effectiveness was designed to answer the following questions:

1. How do practitioners use information in direct practice?
2. What variables facilitate different modes of utilization?
3. Are there differences in patterns of utilization between staff who receive agency-based training and those who did not?

Patterns of Staff Utlizations

In studying specific patterns of self reported utlization a review of Table 5.3 indicates that BOMIS information is most often used by staff to assess individual client change (61.0%), in planning client treatment (59.8%) and in discussion with team members (55.4%). The next highest staff uses of information generated by BOMIS where in direct discussion with students (48.0%) and in discussions with co-workers (47.7%). Since the original design of BOMIS gave most attention to the needs of the direct service practitioners, higher scores on these types of uses reflect our success in accomplishing

these aims.

Although we emphasized as well the importance of BOMIS information in promoting a learning environment in the agency only 44.7% of the staff reported that they used BOMIS data in discussions with their supervisors. Likewise, 44.4% reported that they used BOMIS data to assess their own effectiveness.

Looking at the other three types of staff data uses specified in the questionaire, 31.1% of the staff used data to assess other staff's performance, 29.6% used data in discussions with parents and 17.6% used data in discussions with DSS workers. These latter three uses are more specific to particular types of jobs so that their relatively low scores are more likely to represent role-differences rather than low utilization. Hence, supervisory staff are more likely to assess other staff's performance and Childcare staff are less likely to meet with DSS workers, just as Family Workers are more likely to have discussions with parents. These differences in role responsibilities are likely to effect percentage of staff who report "frequent" or "occasional" use of BOMIS for these purposes.

Training and Patterns of Staff Utlization

Referring to Table 5.5 we can observe the mean differences in self-reported staff utlization of BOMIS

information between those who received agency training and those who did not. The comparisons of mean differences by these groups indicates that staff who received agency training were significantly more likely to report using data in discussions with supervisors ($f = 5.30$, $p < .05$) in assessing their own effectiveness ($f = 5.40$, $p < .05$), in planning client treatment ($f = 9.74$, $p < .01$) and in discussions with parents ($f = 9.11$, $p < .05$) than those who did not receive agency training. The reported use of information from BOMIS on the first two items, related to worker performance, coincide with the findings on attitude changes on item 5, which asks about information's help in improving the workers own performance and on item 2, which asks about information's usefulness to measure their own effectiveness before and after BOMIS implementation.

The greatest differences in mean scores, however, were related to planning client treatment and discussions with parents. However, the latter is likely to be a result of the fact that family workers where both trained and most likely to work with parents thereby increasing the likelihood of scoring high on this dimension. Nonetheless, the finding with regard to planning client treatment would suggest that for all treatment workers training was significant in increasing the use of BOMIS data.

Facilitators of Utilization

To investigate the association among facilitators and self reported patterns of utilization correlational patterns were studied. To do this it was necessary to reverse the scoring on item 2 of the facilitators, which looks at dificulty in understanding reports. Table 5.6 shows correlations between the facilitators and all the utilization items. Item 1 of the facilitators, which relates to the usefulness of reports in working with clients, correlates significantly with worker self reported utilization on items: 1) direct discusion with students ($r = .32$, $p < .001$), 2) assessing client change ($r = .33$, $p < .001$), 3) discussions with supervisors ($r = .35$, $p < .001$), 4) assessing effectiveness ($r = .42$, $p < .001$), 5) discussions with co-workers ($r = .44$, $p < .001$), 6) discussions with team members ($r = .36$, $p < .001$), 7) planning treatment ($r = .25$, $p < .01$) and with 8) assessing staff performance ($r = .30$, $p < .01$).

These findings indicate that the staff perceptions of the usefulness of BOMIS-generated graphs in working with clients is associated with higher self-reported utilization in all specified aspects of practice except in working with DSS workers and in working with parents. Of these last two items concerning utilization, only the item which relates to work with parents correlated with one of the facalitators and this was the item associated with

timeliness of the reports. The second facilitator item, which relates to how difficult reports are to understand, correlated positively with the following two items; 1) discussions with students (r = .27 p. < .01) and with 6) discussions with team members (r = .26 p. < .01).

These findings suggests that if the reports are perceived as easy to understand workers are significantly more likely to use them in working with clients and in working with team members. It appears then that the less interpretation required by the report, the more likely the report will be used.

Item 3 of the facilitators, which asks about the timeliness of the reports, correlates positively with items 4) assessing a workers own effectivenass (r = .24, p < .01), 8) assessing staff performance (r = .25, p < .01) and 10) working with parents (r = .26, p < .01).

This suggests that quick turnaround on information increases the likelihood that workers will use information to assess staff performance and their own effectiveness and in their work with families.

Item 4 of the facilitators, which asks about training adequacy, correlates positively with self-reported utilization items: 1) direct discussion with students (r = .45, p < .001), 2) assessing client change (r = .28, p <

.01), 3) discussions with supervisors ($r = .34$, $p < .001$), 4) assessing effectiveness ($r = .36$, $p < .001$), 5) discussions with co-workers ($r = .26$, $p < .01$), 6) discussions with team members ($r = .34$, $p < .001$), 7) planning treatment ($r = .26$, $p < .01$) and with 8) assessing staff performance ($r = .28$, $p < .01$).

These suggest that staff perceptions of the adequacy of training received in using the reports from BOMIS is significantly associated with self-reported utilization in all specified areas of practice except in working with DSS workers and in working with parents.

Overall, these findings on patterns of utilization indicate that agency-based training and other structural devices for promoting utilization has a signicant positive effect on staff utilization. More specifically, training , the timeliness and perceived usefulness of reports increased the likelihood that staff would use BOMIS information to assess their own performance and effectiveness. Additionally, training increases the likelihood that staff will use BOMIS information in discussions with their supervisors.

Summary and Conclusions

This chapter explores the impact of the implementation of BOMIS on worker utilization of information in practice decision-making. Descriptive

findings indicate that in 1987 there was a moderately high reported utilization of the research products of the system, less than positive perception of agency efforts to facilitate utilization, but increasingly positive attitudes towards research since the system was introduced. Multivariate analysis suggested that positive perceptions of structural facilitators are the most important predictors of utilization, but that pro-research attitudes make a contribution of their own. The latter attitudes are enhanced by agency-based training and, in turn, contribute to positive perceptions of research facilitators. Extra mural education contributes to positive pro-research attitudes but to a lesser degree than does agency-based research training. And finally, agency based training, timeliness of reports, and usefulness of reports have an effect on staff willingness to use information to assess their own performance and effectiveness and to use BOMIS information in supervision.

More generally the findings presented suggest that computerization of social agencies brings with it a positive potential for research utilization. However, to realize this potential agency-based research and evaluation units must attend to structural factors that facilitate this process, and must provide sufficient practice-oriented research training to sustain and enhance pro-research attitudes and utilization behaviors. In this

context, as in so many others, academic education is necessary but insufficient.

TABLE 5.1

Numbers and Percentages of Respondents Agreeing with Items Indicat
Attitudes Towards Research Before and After the Implementation of BO

	Agreement Before BOMIS		Agreement After BOMIS		Percent
	Number	Percent	Number	Percent	Change
1. The Research Dept. is more more interested in their own information needs than in the practice needs of staff like me. (-)	49	36.6	45	34.4	-2.2
2. The research instruments provide a good measure of my effectiveness.	23	17.4	40	30.5	-13.1
3. Filling out the research forms is more work than it's worth. (-)	39	29.8	28	21.4	-8.4
4. Research tasks prevent me from doing more important work with clients. (-)	43	32.6	36	27.5	-5.1
5. Information from the Research Dept. is helpful in improving my own performance with clients.	41	31.1	64	49.6	+18.5 1
6. Information from the Research Dept. has helped improve the overall performance of the agency.	39	29.3	61	46.2	+16.9 1
7. Agencies like Boysville should spend more money on direct services and less money on research. (-)	55	41.4	47	35.6	-5.8
8. The presence of a research dept. in an agency like Boysville demonstrates a real concern for clients.	62	47.0	81	61.4	+14.4
9. You can't measure client change with numbers. (-)	33	25.6	19	14.7	-10.9
10. Administering the research instrument facilitates treatment.	39	29.8	64	49.2	+19.4
11. Research is not relevant to my work. (-)	21	15.8	9	6.9	-8.9

* The Binomial test was used when there were cells below 5 in McNemar's Ch

TABLE 5.1

rcentages of Respondents Agreeing with Items Indicative of Favorable
s Research Before and After the Implementation of BOMIS

	Agreement Before BOMIS Number	Agreement Before BOMIS Percent	Agreement After BOMIS Number	Agreement After BOMIS Percent	Percent Change	McNemar Chi-Square*	Statistical Significanc
is more their own han in the taff like	49	36.6	45	34.4	-2.2	.2647	N.S.
ments ure of	23	17.4	40	30.5	-13.1	Binomial	p <.001
earch than it's	39	29.8	28	21.4	-8.4	2.2500	N.S.
ent me ortant (-)	43	32.6	36	27.5	-5.1	1.4412	N.S.
e Research improv- nce with	41	31.1	64	49.6	-18.5	11.6100	p <.001
e Research prove the of the	39	29.3	61	46.2	-16.9	13.0800	p <.001
ille should direct oney on	55	41.4	47	35.6	-5.8	.7813	N.S.
esearch like tes clients.	62	47.0	81	61.4	+14.4	Binomial	p <.001
lient . (-)	33	25.6	19	14.7	-10.9	Binomial	p <.01
esearch tes	39	29.8	64	49.2	-19.4	17.3600	p <.001
evant to	21	15.8	9	6.9	-8.9	Binomial	p <.001

s used when there were cells below 5 in McNemar's Chi-square test for change

TABLE 5.2

Numbers and Percentages of Respondents Agreeing with Items Indicative of Perceptions of Utilization Facilitators

ITEM	AGREEMENT	
	Number	Percentage
1. The research graphs are quite useful in working with clients.	54	40.6
2. The research reports are too difficult to understand	27	20.0
3. The research reports are received in a timely fashion.	42	31.8
4. I received adequate training in the use of research reports.	44	32.0

TABLE 5.3

Numbers and Percentages Responding "Frequently" or "Occasionally" to Research Utilization Items

Item	Response of "Frequently" or "occasionally" Number	Percentage
1. Direct discussion with students.	59	48.0
2. In assessing individual client change.	75	61.0
3. In discussions with my supervisor.	55	44.7
4. In assessing my own effectiveness.	55	44.4
5. In discussion with my co-workers.	61	47.7
6. In discussion with team members.	72	55.4
7. In planning client treatment.	76	59.8
8. In assessing staff performance.	38	31.1
9. In discussions with DSS workers.	21	17.6
10. In discussions with parents.	34	29.6

TABLE 5.4

Stepwise Multiple Regression in Analysis with Research Utilization as the Dependent Variable and Perception of Facilitators, Attitudes Towards Research, Agency-Based Research Training and Level of Education as Independent Variables

Independent Variables	Step	Multiple R	R^2	R^2 Change	F Change	Significance
1. Facilitators	1	.5265	.2772	.2772	34.519	p <.001
2. Attitudes	2	.5588	.3122	.0350	4.528	p <.05
3. Training	3	.5589	.3124	.0002	.023	N.S.
4. Level of Education *	-	-	-	-	-	N.S.

* Analysis did not proceed beyond Step 3

TABLE 5.5

CORRELATION MATRIX BETWEEN FACILITATORS AND INDIVIDUAL UTILIZATION ITEMS (PEARSON CORRELATION COEFFICIENTS)

	USEFUL WITH CLIENTS	DIFFICULT TO UNDERSTAND	TIMLINESS	TRAINING
1. Direct discussion with students.	.32 **	.27 *	.10	.45 **
2. In assessing individual client change	.33 **	.19	.18	.29 *
3. In discussion with my supervisor	.35 **	.18	.21	.34 **
4. In assessing my own effectiveness	.42	.09	.24 *	.36 **
5. In discussion with my co-workers	.44 **	.09	.15	.22 *
6. In discussion with my team members	.36 **	.26 *	.17	.34 **
7. In planning client treatment	.25 *	.14	.19	.26 *
8. In assessing staff performance	.30	.13	.25 *	.28 *
9. In discussions with DSS workers	.20	-.01	.16	.18

	USEFUL WITH CLIENTS	DIFFICULT TO UNDERSTAND	TIMLINESS	TRAINING
1. Direct discussion with students.	.32 **	.27 *	.10	.45 **
2. In assessing individual client change	.33 **	.19	.18	.28 *
3. In discussion with my supervisor	.35 **	.16	.21	.34 **
4. In assessing my own effectiveness	.42	.09	.24 *	.36 **
5. In discussion with my co-workers	.44 **	.09	.15	.26 *
6. In discussion with my team members	.36 **	.26 *	.17	.34 **
7. In planning client treatment	.25 *	.14	.19	.26 *
8. In assessing staff performance	.30	.13	.25 *	.28 *
9. In discussions with DSS workers	.20	-.01	.16	.18
10. In discussions with parents	.20	-.15	.26 *	.11

r - statistics
* - .01 sig.
** - .001 sig.

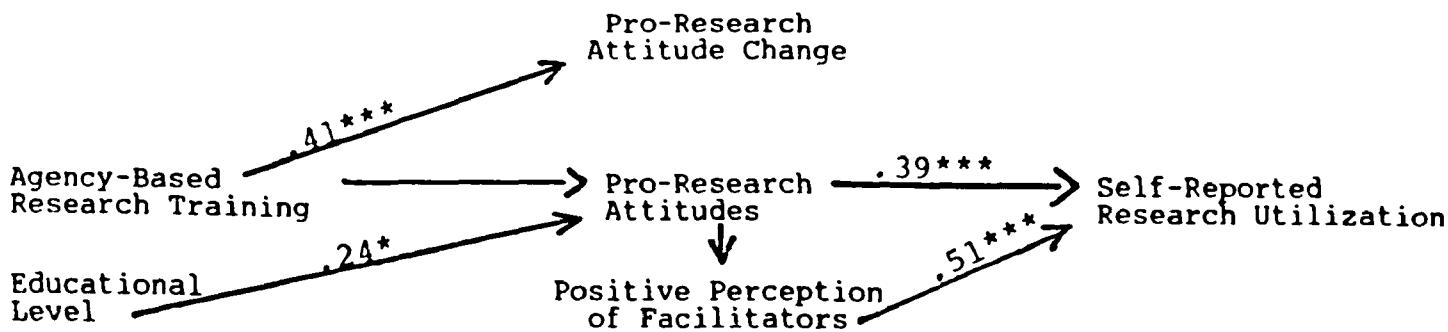
TABLE 5.6

NUMBER OF RESPONDENTS AND MATRIX UTILIZATION SCORES BY ITEMS BETWEEN TREATMENT AND NON TREATMENT (PEARSON CORRELATION COEFFICIENTS)

	NOT TRAINED NUM.	NOT TRAINED MEAN	TRAINED NUM.	TRAINED MEAN	DF	F	SIG.
1. Direct discussion with students.	89	2.52	34	2.12	1	3.60	NS
2. In assessing individual client change	88	2.63	35	2.74	1	.31	NS
3. In discussion with my supervisor	86	2.16	37	2.62	1	5.30	p <.05
4. In assessing my own effectiveness	90	2.18	34	2.65	1	5.40	p <.05
5. In disccusion with my co-workers	90	2.36	38	2.63	1	1.84	NS
6. In discussion with team members	92	2.53	38	2.68	1	.57	NS
7. In planning client treatment	91	2.44	36	3.08	1	9.74	p <.01
8. In assessing staff performance	86	1.94	36	2.30	1	3.00	NS
9. In discussions with DSS workers	85	1.61	34	1.71	1	.23	NS
10. In discussions with parents.	84	1.71	31	2.32	1	9.11	p <.05

Figure 5.1

Statistically Significant Relationships in Research Utilization Model



* p <.05
** p <.01
*** p <.001

Chapter Six

Using BOMIS Data for Policy Advocacy: A Case Study

This chapter presents a qualitative case study based on quantitative data. This apparent contradiction is resolved when it is explained that the chapter illustrates how BOMIS generated quantitative data concerning Boysville's clients was used by its executive staff to successfully block proposed accountability standards put forth by the State of Michigan.

Proposed by the Michigan Department of Social Services (MDSS) in an effort to cut childcare costs, the standards would have innapropriately linked future residential childcare funding to client length of stay statistics in each agency. The MDSS study from which this policy was generated was based upon faulty assumptions and flawed methodology. As a consequence, the policy implications derived from that study were erroneous and potentially harmful to residential childcare agencies and to the children they serve.

This chapter describes how a more methodologically sound study of client length of stay conducted at Boysville and using BOMIS data made it possible to alter the potentially harmful course of State policy. Although there are other child welfare policy, program and practice issues

associated with length of stay, the chapter limits itself to an illustration of the way in which the Boysville length of stay study refuted the assumptions, findings, and policy implications of the MDSS study.

More generally, this chapter indicates how an integrated information system such as BOMIS can be employed by agency executives in external policy advocacy. The first portion of the chapter details the political and fiscal climate which prevailed in Michigan in the late 70's and early 80's. The remainder presents some of the reasoning, quantitative data and policy analysis used by Boysville to mobilize executives from other residential childcare agencies throughout Michigan to counter the direction of State policy.

THE FISCAL AND POLITICAL CLIMATE

In late 70's and early 80's, economic conditions in the nation and Federal policy placed increasing pressures on human service organizations to contain costs in delivery of services to client populations (Patti, 1985). Programs which historically had gone unquestioned regarding their essential importance found themselves being asked to justify large financial expenditures in relationship to the effect of services provided. Human service administrators in residential care facilities throughout the country were

feeling this cost containment pressure in the form of pressure to reduce client length of stay. By the early 1980's, length of stay had become a constant and nagging theme for child welfare administrators in particular and human service agency administrators in general.

These pressures became most apparent in Michigan in 1983, when Governor Blanchard undertook the task of trying to balance the Michigan State budget. In an effort to do so, he increased the State income tax with the promise that once the budget was balanced, the tax would be reduced and the burden for tax payers would be relieved.

In addition to raising taxes, he charged the Commissioner of Social Services, Agnes Mansour, the task of finding new ways to reduce costs in her Department (MDSS) and its different divisions. In the context of residential childcare, this task was made all the more difficult by the rapidly increasing demand for residential childcare in the State. The following excerpt taken from a study conducted by MDSS reflects the conflicting priorities with which State childwelfare policy-makers were charged at the time:

> The State Department of Social Services needs to find a way to continue or expand service delivery for residential care, while at the same time reducing or at least not increasing costs for residential care (Cartwright,1982).

By 1985, rising costs in residential care in Michigan placed additional strain on the MDSS' efforts to provide

needed services to children and their families. In a meeting in November, Roger Lewis, the Deputy Director of the Michigan Office of Children and Youth Services stated that the Department of Social Services had to deal with approximately 1,000 new commitments each year. With the average costs of services about $36,000 annually for each client comming into care, the addition of 1,000 new commitments each year represented an enormous additional financial burden for the already beleagured Department of Social Services.

This problem was intensified by the fact the preceding five years had seen a dramatic reduction in State revenues as a result of job-loss in the auto industry. In this context, the Department considered the reduction of length of stay in residential childcare as one possible route by which costs could be reduced.

A BOMIS Use in Public Policy Adocacy

The remainder of this chapter presents a case illustration of how a quantitative study based upon BOMIS data, its underlying assumptions and its policy implications, was used to effectively deter MDSS from the potentially destructive policy course basing agency funding priorities upon client length of stay statistics.

In addition, it is intended to show that the uses of

integrated information systems such as BOMIS are not restricted to internal decision-making and can be applied to issues external to the agency as well. Ultimately, of course, both sets of issues are linked to each other since State policy regarding residential child care funding effects internal decision-making about the quality and quantity of care.

MDSS Length of Stay Study

In 1982 MDSS conducted their own length of stay study based upon the following goals and objectives:

> To assure the best use of available dollars, the Department is developing additional capabilities for operating, and/or contracting for, only those programs which provide the highest priority services and which do it well at the lowest overall cost. This study of children's residential services in Michigan was done to aid in developing these capabilities (Cartwright,1982).

Based upon accountability data from agencies throughout the State, the MDSS length of stay study found marked differences in average length of stay in different residential childcare agencies. In addition, they found a "U"-shaped, bi-modal, curvilinear relationship between client length of stay and "positive program outcomes". By the latter term is meant a positive disposition for the client three months after program termination. In other words, many clients were in positive placements three months after discharged following relatively short lengths of stay (i.e., 7 months) and an equally high proportion

following relatively long lengths of stay (i.e., 16 months). No data were provided on client status at time of program termination in the MDSS study to indicate whether positive program discharges were associated with post-discharge adjustment.

Inferring policy implications from their own study, MDSS proposed new guidelines for purchase of service contracts whereby performance objectives linked to length of stay would apply to all residential childcare agencies in the State. Moreover, funding priority would be given to those agencies which demonstrated shortest average length of stay. Finally, a general, statistical performance standard or norm was applied to all agencies based on the midpoint between the two peaks in the State's data (i.e., 11.5 months).

Upon release of this report, Boysville's executive staff were immediately concerned about the program and practice implications of a policy that simply rewarded those agencies with shortest average length of stay statistics. How would this simplistic policy affect quality of care received? Would it foster premature release of youngsters whose treatment appropriately exceeded the statistical norm? Would clients who were prematurely released increase in number only to enter the "revolving door" of recidivism post-release?

At the same time, Boysville research staff who were familiar with the BOMIS data concerning client length of stay were troubled by the assumptions and research methodology which were contained in the MDSS study. So, for example, they questionned the basic methodological assumption of the MDSS study that "program outcome" (i.e., client status three months post-discharge) was a consequence of length of stay. In fact, one might argue that the client discharge status determined the length of stay and also post-discharge status. More likely, length of stay was simply an "indicator" of the client discharge status.

Boysville research staff were concerned as well about the confounding effects of the MDSS study's including immediate program failures, i.e., youths who are discharged to another agency very early in their placements, in the computation of average length of stay for agencies. Without taking into account the type of release, the inclusion of these youth in the State's statistical computations lowered the average length of stay and incorrectly linked this average to an assumption of success.

Since BOMIS routinely collects extensive follow-up data on Boysville's former residents, research staff recognized that program effectiveness could not be fully assessed without information on client discharge status.

In response to MDSS's failure to consider client discharge status when studying client post-release status, both executive and research staff at Boysville agreed that performance standards based on this study could have a negative impact on how clients fare after they return to their communities.

Finally executive, research and program staff alike at Boysville were critical of MDSS' simplistic approach to arriving at a statistical norm and a performance standard for length of stay by taking the midpoint between the two peaks in their data. Executive staff were critical because the MDSS study had lumped together agencies which cared for less seriously troubled youngsters by providing relatively short-term treatment with agencies such as Boysville that accepted multi-problem youth who required long-term treatment. Research staff were concerned about the arrival at a statistical norm that did not take into account release and post-release status. Lastly, program staff were concerned that if the norm were to be applied, pressures would be exerted upon them by Boysville administration to release clients who were not ready to be released.

For all of the foregoing reasons, Boysville's Research Department undertook a length of stay study of its own based upon data that are routinely collected by BOMIS.

However, this external policy threat to the future functioning of the agency and other residential childcare agencies in the State, and the potential negative impact of this policy on children in care, required that these data be analyzed and interpreted in new ways.

The Boysville Length of Stay Study

In conducting its own length of stay study, Boysville research staff made use of a BOMIS data set containing information about 583 clients released from Boysville over a 3 year period. Included in this population were clients who were released from Boysville between 1982 and 1984. Unlike the MDSS study and data set, the Boysville study considered the relationship between post-release status and length of stay as well as information on type of release.

Operational Definition of Success and Failure Post-termination

The BOMIS study based its conception of positive program outcomes on clients who were living in less restrictive settings three months after they were released from Boysville. A less restrictive setting would be their own home or relatives' home, a shelter facility, independent living, the Armed Services, or a foster family home.

A negative program outcome was indicated by clients who were in detention centers, jails, secure campus based programs, private agency programs, or community based group homes at three months post-terminations. Thus, a negative outcome was indicated if post-release clients were in settings of equal or more restrictivenss to their Boysville placement. Clients who where in more restrictive settings three months after termination where considered "recidivists".

Operational Definition of Success and Failure at Termination

In contrast with the MDSS study which offered no data on client termination type, the BOMIS study based its conception of success and failure at time of release on whether a client termination was planned or unplanned, respectively. Planned terminations include those who are judged to have received maximum benefits in the program, as well as those who have successfully achieved the treatment objectives set for them by Boysville treatment staff. All other types of termination, e.g., for reasons of truancy, court termination, State termination, parents' removal, or unmanageable behavior are considered unplanned and therefore, failures at termination.

In general, operational definitions employed in Boysville study were consistent with those used in the 1982

MDSS study and in State policy guidelines. This allowed for comparisons of the findings of the two studies and was intended to minimize confusion in considering policy implications of te two studies.

As indicated earlier, from the start of the study, Boysville research staff believed that length of stay was not causally tied to success or failure in the way that MDSS assumed it was. Instead of length of stay determining client outcome, Boysville staff believed that success or failure more likely determined length of stay. Simply stated, failures tend to leave programs earlier than successes and unplanned terminations take place earlier than planned terminations.

Because of this it was felt that length of stay was not a true predictor of either success upon program completion or post-termination. Instead, the three variables, i.e., client length of stay, success at termination and post-termination success were interconnected in a manner much more complex than suggested in the MDSS study. Consequently, only by taking into account in the data analysis success or failure at time of termination and after release from the program could these complex interrelationships and their policy implications be properly understood. The BOMIS study sought to unravel these relationships and propose sound policies based upon

them.

More specifically, the Boysville study hypothesized that:

1) There would be a statistically significant positive association between length of stay and successful program outcomes at three months post termination.

2) There would be a statistically significant positive relationship between length of stay and success at the time of program completion. This relationship would be stronger than the relationship between length of stay and program outcome at three months post termination.

3) When type of client termination was controled for, the relationship between length of stay and client outcome at three months post termination would be markedly reduced.

BOMIS STUDY FINDINGS

Beginning with the basic length of stay data in the Boysville sample it was found that the mean length of stay was 11.9 months, the median was 12.2 months, the mode was 11.7 with a minimum of 1.0 months and a maximum of 32.7 months.

Study of client background characteristics revealed that the mean age of clients at intake was 15.7 years, with a median of 15.8 and a mode of 15.9 years. The youngest client at intake was 12.5 years old and the oldest was 18.55 years old. Looking at their records with juvenile courts, it was found that the mean, median and modal number of adjudications was 2 with the minimum 1 and the maximum

22. The mean and median number of previous placements was 1, the minimum was 0 and the maximum was 18. The mode was 0 previous placements.

Looking at program outcome data it was found that 55% were planned terminations whereas 45% where unplanned. Upon leaving Boysville, 56% of the clients went to less restrictive settings, 18% went to more or equally restrictive settings and the placement destinations of 26% of the clients where unknown most often because of truancy. At three months post-placement, 77% of those clients who could be located where in less restrictive settings and 23% where in more or equally restrictive settings.

Turning to the BOMIS study hypotheses, analysis of the relationship between positive client outcomes at three months after termination and length of stay (see Table 6.1), indicates, as predicted, a statistically significant, positive association (Tau-C = .24, $p < .01$). Thus only 53% of the clients who had been in care between one and six months were in a less restrictive setting 3 months after release, as compared with more than 85% of the clients who had been in care over 11 months. This suggests that, in general, the longer clients are in care, the <u>greater</u> the likelihood they will be in less restrictive settings after they leave the agency.

The next hypothesis tested concerned the relationship

between length of stay and type of termination from the program. As indicated earlier, the BOMIS study predicted a significant positive relationship between length of stay and successful termination. Testing this hypothesis, (see Table 6.2) the BOMIS study found, as predicted, a statistically significant positive relationship between successful termination and length of stay (Tau-C = .58, P <.01). In other words, the longer the length of stay, the more likely the client would be judged a success when he exits the program. Thus, only 15% of the children in care between one and six months receive a successful termination as compared with 80% of those in care over thirteen months.

Table 6.3 shows the close relationship between success at program termination and success at three months after release from the agency (Tau-B = .92, p <.001). Thus, 91% of Boysville clients who were defined as successfully terminated from the program were in a less restrictive setting at three months post termination as compared with only 55% who were defined as program failures upon release. These findings lend confidence in the validity and reliability of the BOMIS data-base as well as in the judgement of Boysville treatment staff who determine success upon termination.

Finally, the BOMIS study hypothesized that the relationship between length of stay and client outcome at three months was contingent on the type of termination. To

test this hypothesis, Tables 6.4 and 6.5 present the crosstabulations of client outcome at three months after termination, by length of stay, controling for success or failure, respectively. These crosstabulations, as predicted, clearly show that when one takes into account the type of termination, length of stay no longer has a statistically significant relationship to post-release client outcome.

Thus, Table 6.4 indicates that of the successes at termination from the program, 87% of those who were in the program between one and six months are in a less restrictive setting, as compared with 91% of those whose length of stay in the program was 13 months or more.

For program failures on the other hand, Table 6.5 reveals a relatively weak, but statistically insignificant positive relationship between length of stay and success at 3 months post-termination (Tau-C = .17, p. <.11). Thus, 44% of the program failures who were at Boysville between one and six months were in less restrictive settings as compared with 61% who were in the Boysville program thirteen months or more.

The BOMIS study inferred from the sharp reduction in the relationship between length of stay and post-termination success when success at termination is controled, a new explanation for the curviliner

relationship found between length of stay and program outcome in the original MDSS study. By not taking into account the effects of success at termination on length of stay, and by including in their sample both long and short-term treatment agencies, BOMIS study writers argued that a two peaked frequency distribution was artifically created. Consequently, the BOMIS study asserted that the policy implications that were drawn from the MDSS study were empirically and theoretically flawed.

Policy Implications of the BOMIS Study

The BOMIS study raised serious question about whether as a cost containment approach, a policy dedicated to reduction of length of stay would automatically improve program outcomes. And, by combining short and long term treatment programs in the analysis MDSS arrived at innappropriately low statistical norms for agencies doing long term treatment. Ironically, in so doing, the MDSS contract also proposed length of stay norms that were too high for many clients in long-term agencies who were successful at the time of release.

Additionally, the BOMIS study raised question about the long-term costs of a short-term, cost-containment program to reduce length of stay. By failure to consider the consequences of program failures that would inevitably

result from pressures to reduce length of stay, the proposed MDSS policy did not consider the costs to itself of future placements for recidivists and the costs to society of these placements and the deviant behavior that occasioned them. Thus, accurate assessment of cost of care policy must include the cost of additional service to clients as well as a recidivism factor for the recycling of clients who are not successful through the same or other programs. Length of stay considerations in isolation from success or failure are too narrowly conceived. Calculating service costs based upon a client's stay at one agency and not on what services cost for the entire placement career of a client who may recieve multiple placements leads to poor cost-containment policy (efficiency) as well as to poor program outcomes (effectiveness).

This is not only short sighted but carries with it the danger of what Etzioni (1964) refers to as goal displacement through over-measurement. In instances such as these, the performance norm becomes an end-in-itself rather than a means to cost-containment or program innovation. Originally developed as a device to reduce placement costs, the length of stay norms could easily become a spurious basis for MDSS' judging agencies as effective or inneffective; the former being those with the shortest average length of stay. Failure to factor in the

quality of program, characteristics of clients or program outcomes (at termination and post-release), would create an additional policy problem rather than a solution to a problem. Ironically, the unanticipated consequence of the proposed policy to reduce costs was likely to be an increase in the long-term costs of residential child care in the State.

External Policy Advocacy

Upon completion, the foregoing analysis was presented as a research report to the Assistant Executive Director of Boysville whose agency responsibilities included public policy advocacy. On his recomendation, the report was then presented at a retreat of Executive Directors of private agencies in Michigan.

Following the retreat, the Assistant Executive Director and other private agency executives presented the report and its findings to the Governor, State Legislators, the Commissioner of the Department of Social Services and other department administrators.

Based upon the BOMIS study and the support it generated from private agencies throughout the State, the 1986 contract language regarding length of stay of clients in residential childcare was changed. Agencies would not be held, as originally proposed, to prescribed client

lengths of stay for services. In fact, partly as a result of this experience, Boysville staff are currently working with the Department of Social Services to find alternative strategies for containing child welfare costs in residential care. These include the development of In-Home Care , Specialized Foster Care and Intensive After-Care programs.

Table 6.1: Crosstabulation of Program Outcome at

3 Months after Termination by LOS

		Length of Stay in Months				
		1-5.99	6-10.99	11-12.99	13 & Above	Total
Client Placement 3 Months After Termination	Less Restrictive	53%	70%	86%	85%	77%
	More Restrictive	47%	30%	15%	15%	23%
	Column Totals	72	96	55	231	454

N = 454
Chi-Square 37.68, df=3, p<.01
Kendall's Tau C = .24

Table 6.2 : Crosstabulation of Closing Status by LOS

Closing Status	Length of Stay in Months 1-5.99	6-10.99	11-12.99	13 & Above	Total
Success	15%	36%	65%	80%	55%
Failure	85%	64%	35%	19%	45%
Column Totals	130	118	65	270	583

N = 583
Chi-Square = 184.26, df=3, p<.01
Kendall's Tau C = .58

Table 6.3: Crosstabulation of Program Outcome by Closing Status at Termination

		Closing Status		
		Success	Failure	Totals
Client placement 3 months after termination.	Less Restrictive	91%	55%	77%
	More Restrictive	9%	45%	23%
	Column Totals	276	178	454

N = 454
Chi-square = 76.38, df=1, p<.001
Kendall's Tau B = .92

Table 6.4: Crosstabulation of Program Outcome by LOS, Controlling for Success at Time of Termination

		Length of Stay in Months				
		1-5.99	6-10.99	11-12.99	13 & above	Total
Client placement 3 months after termination.	Less Restrictive	87%	92%	92%	91%	91%
	More Restrictive	13%	8%	8%	9%	9%
	Column Totals	15	37	36	188	276

N = 276
Chi-Square = .40, df=3, p=.94
Kendall's Tau C = .00

Table 6.5: Crosstabulation of Program Outcome by LOS, Controlling for Failure at Time of Termination.

		Length of Stay in Months				
		1-5.99	6-10.99	11-12.99	13 & above	Total
Client placement 3 months after termination.	Less Restrictive	44%	56%	74%	61%	55%
	More Restrictive	56%	44%	26%	40%	45%
	Column Totals	57	59	19	43	178

N = 178
Chi-Square = 6.08, df=3, p.=.11
Kendall's Tau C = .17

Chapter Seven

The Implementation of BOMIS: Problems and Successes

A final empirical demonstration of the organizational usefulness of BOMIS involves the competitive advantage that such a system offers in fundraising. In this chapter, Boysville's fundraising record is described before and after BOMIS implementation. More generally, the chapter describes the theoretical underpinnings of BOMIS in contingency theory and how internal and external organizational performance has improved since its introduction.

The chapter then addresses aspects of the BOMIS design which still have not been successfully implementated. The reasons for this and the obstacles which have been encountered in the implementation effort are then described. In order to understand the ways in which full implementation has not been achieved, it is necessary to describe the ideal organizational structure contained within this integrated model and specific sources of resistance to its full implementation.

Despite the failure as yet to achieve full implementation, BOMIS has made significant contributions to the achievement of Boysville's internal organizational goals, service coordination and decision making. To

support this claim, the chapter concludes with evidence of improved internal organizational performance that has occurred since implementation of this innovative approach to the use of information technology.

Contingency Theory and the BOMIS Design

The organizational model designed for Boysville was based on a contingency theory approach which looks for the goodness of fit between the environment, the internal structure of the organization and the technology of the organization. This theoretical approach is more of a perspective than a theory. Those espousing a contingency approach have incorporated elements of Scientific Management Theory and have accepted many design principles from this theory that relate to formal structures and processes in organizations. Glisson (1981), for example, sees the contingency approach as a combination of the classical Scientific Management and Human Relations models. Following from this, Lorsch sees the key issues of organizational design related to the structure, rewards, training, the evaluation system, and the planning system:

> The organization designer must create a structure, rewards and measurements in other elements compatible with the external environment, strategy, tasks, organization members, top management style and existing culture.(Lorsch, 1977 p.14)

In using this design approach at Boysville an attempt

was made to integrate the foregoing elements. At Boysville as with any other agency, the problem with using the contingency aproach involves setting the priorities for selecting which contingencies are most important. The decision to implement BOMIS had a significant influence on priority setting concerning future contingencies and program design.

BOMIS' Impact on Fundraising

As indicated above, contingency theory recognizes the important linkage between internal organizational structures and processes and the external organizational environment. Nowhere is this linkage more apparent than in fundraising. One way in which BOMIS has made a significant contribution to supporting the development and maintenance of Boysville's programs has been capacity to directly and indirectly attract funding.

The presence of BOMIS, what it offers in terms of improved line worker performance, what it contributes to staff training and supervision, what it makes possible in terms of program monitoring and evaluation, and what it says about the agency that has implemented it, has enhanced Boysville's ability to compete with other less technologically advanced agencies for MDSS purchase of service contracts.

Information taken from annual audit conducted by

Arthur Andersen & Co. in 1982 before BOMIS was implemented and, most recently in 1987, demonstrates how Boysville's fundraising picture has improved and its internal programs have grown since the introduction and implementation of BOMIS. Although there is no way to establish a firm causal connection between the BOMIS implementation and fundraising success, the correlation is strong and the explanation is supported by informal comments of many representatives of funding agencies.

Looking first at Boysville's capacity to secure purchase of service contracts through MDSS, the data indicate that in 1982 the agency operated a single campus based program and five group home programs with the total agency budget of $5,892,094. By 1987, Boysville was running a large campus based program, two smaller campus based programs, eight group homes, one detention center, a specialized foster care program with multiple sites, an in-home detention program, a home based care program and a small multi-service facality in Ohio, with an annual budget of $17,751,698. This growth represents an increase in funding of over three times since 1982, and a significant augmentation of agency programs. This increase is certainly attributable in part to the development of BOMIS and funding agencies' recognition of Boysville's commitment to quality services as evidenced by their investment in BOMIS.

Moreover, in 1987 the Boysville Research Staff were asked to develop a management information system for MDSS in the Detroit region tailored along the lines of BOMIS. In addition, the Boysville Institute is currently replicating the BOMIS model with three other private provider agencies in Michigan. This suggests that BOMIS is not only able to contribute Boysville's ability to fund service programs by influencing funding agencies, but is able to extend its philosophical and technological influence to comparable service agencies as well.

Looking at agency fundraising efforts through private sources, a comparison was made between 1982 gift income and comparable data from 1988. Although there where additional fundraising staff added at Boysville over the course of these years, the presence of BOMIS was responsible for the procurement of one large gift directly in the amount of $522,650 from the Kellogg foundation and, according to the head of Boysville's furdraising staff, was influential in the procurement of numerous other gifts.

The listing below details Boysville's gift income in 1982, before the introduction of BOMIS and in 1988.

In 1982 gift income: $482,589 Largest gifts:

$120,000	K of C
$100,000	Calendar Giving
$ 60,000	Holy Cross Brothers

In 1988 gift income: $2,448,045 Largest gifts:

$522,650	Kellogg
$318,000	Skillman
$250,000	P. Cracchiolo
$126,182	Bequests
$120,000	K of C
$103,910	Golf Outing
$103,000	Corcoran Family
$100,000	Detriot Diocese
$ 99,000	R. Keller
$ 94,995	Calendar Giving
$ 80,000	Toledo Diocese

The dramatic increase in Boysville's receipt of gifts, increasing by over 5 times since 1982, suggests that BOMIS was able to significantly improve Boysville's ability to compete favorably with other private agency for private as well as public dollars.

Ideal Internal Structure

Turning our attention inward, a full understanding of the implementation and internal impact of BOMIS requires a description of the ideal internal structure that BOMIS designers envisioned. The proposed formal structure for Boysville after implementation of BOMIS is presented in Figure 7.1.

At the top of the proposed structure was to be the Executive Director, immediately followed by the Assistant

Executive Director. The division of labor between those two positions was intended to connect with the external and internal agency environments, respectively.

Responsible to the Assistant Executive Director, who was to be in charge of internal operations, was planned to be the Executive Staff made up of the Directors of Finances, Human Resources Development, Director of OCSD, Research/MIS, Public Information and a Director of Operations.

Under the Director of Operations were to be six Regional Directors. Five of the Regional Directors where intended to be in charge of departments organized by geographic areas. The sixth regional directorship was to be organized by specialization of product, that being the Foster Care and In-Home Care Departments.

Under the five Regional Directors were to be the Supervisors responsible for treatment teams with the Treatment Director of each treatment team responsible for coordination of the team made up of the Teacher, the Treatment Director, the Family Worker and the Dorm Counselors. Under the Director of OCSD, on a level equal to the program supervisors, was the Clinical Supervisors responsible for all treatment specialities, these being the family work, group work, educational and group living.

This structure was designed to allow for some

simplification in specialized tasks. Coordination of these tasks was to take place at the program level through the work of the Treatment Director, at the supervisory level through the work of the Regional Directors, with the coordination between training and operations taking place at the Executive Staff level between the Director of Operations and the Director of OCSD, and with finally the coordination handled for all the Executive Staff through the Assistant Executive Director. As indicated earlier, the coordination in tasks between the external and the internal environments was to take place between the Executive Director and the Associate Executive Director, respectively.

The foregoing organizational positions and the roles associated with them were to be heavily involved in the integration of information focused on treatment decision-making with the position of Director of OCSD as central to this coordinative process. Integration was designed to be a pooled strategy by which each individual unit was intended to be interdependent upon a central coordinating unit.

The integration of the efforts of the different regions was to be handled by bringing together the Regional Directors under a single department head, the Director of Operations, who would facilitate coordination and communication across geographical areas. The

advantages of this formal structure was that it foster greater centralization and control of organizational processes associated with the rapid growth of programs and the geographical expansion of the agency while allowing for some appropriate regional differences. For example, the regional directors would be responsible for operation of standardized accounting proceedures but would have regional descretion with regard to hiring decisions. The latter is necessary because of the dramatic regional differences in available workers in agency locations throughout the State.

In various other program areas, staff roles and functions that required further integration where to be monitored and coordinated in Executive Staff Meetings to be held weekly.

This overall approach to design was intended to give greater emphasis to the integrating and coordinating functions at Boysville than had been given in the past in an effort to more effectively cope with the dual problems of increasing agency size and a still, largely inexact treatment technology (March and Olsen, 1976).

Along with the formal structure outlined above, the mission, goals and objectives of the BOMIS Model were intended to effect all aspects of the program from the administration to client treatment. Detailed information about goal attainment at each administrative level was to

be collected, analyzed and fedback to staff in a timely and useful manner through a comprehensive evaluative process.

This process was intended to provide information to direct service practitioners relevant to diagnostic, treatment and evaluation decision-making for achieving service goals and in assessing effectiveness of interventions with regard to targeted behavior change in clients. In this process, line workers would administer standardized instruments to clients and receive feedback on changes in family dynamics as well as information about client changes in coping skills. The joining together of the measurement and evaluation process in the development of this model was central (Glisson, 1981).

More broadly the intent of the design was to make an inexact technology more exact and determinate in its implementation. In order for this broad goal to be achieved however, an organization must direct its major resoures and commitment to an effort to improve the treatment technology.

An organizational change of the magnitude proposed at Boysville would be expected to have major consequences both anticipated and unanticipated throughout the entire organization. Thus, proposed changes had profound implications for the structure, goals, processes and practice throughout the agency. The basic component of

this change involved veiwing the work of treating clients as the most important organizational function. In light of this perspective, the organization was to be designed with integrative structures including tasks, roles, rules, goals, and the technology into a process that allowed for a more effective intervention in clients' lives (Rapp, and Poertner, 1987).

With the improvement of treatment technology as central to the process, BOMIS designers hoped to reduce problems associated with more conventional compliance-oriented accountability systems. The latter encourage client "creaming" at intake or filtering out of difficult clients by staff once they are in the program.

To achieve this ideal also required a major philosophical shift in the agency that encouraged workers to learn and grow from their mistakes. This required the creation of a "learning environment" in the agency whereby the improvement in staff's technical skills would enhance performance by other levels of the organization (Morgan, 1986). The latter conception is presented in greater detail below.

A Learning Environment

In the creation of a true learning environment in any agency one has to construct information and reward systems

that promote learning. One difficulty in creating such systems is well described in an article by Weissman (1977) who points out that when you join staff evaluation to a performance oriented information system there is a greater chance that information made available in the system will be falsified. Robert Walker (1972) refers to this common tendency in all information systems as the strain towards falsification.

By centering on successful client treatment through skill development of staff as the key measure of line worker performance as opposed to individual "output" measures such as numbers of client contacts or case closed, it was hoped that the organization could reduce the tendency towards falsification of data in the overall information system.

In addition, non-monetary, professional rewards such as American Association of Marriage and Family Therapists (AAMFT) certification for family workers were to be incorporated into the reward system as staff showed greater competence in areas identified as important by the agency. This aspect of the proposed model builds on the work of John Wax (1963), who suggests that an organization should identify a competency level for each staff position, train staff at that position to achieve that level of competence, reduce supervision and save in costs while improving performance at all levels. This enhancement of worker

professional skill development was the primary function of OCSD training.

Boysville's Human Resourse Department was as well to contribute to the development of a learning environment by providing assistance to staff in procuring higher status jobs in the agency as well as outside for those leaving Boysville's employ. By working with staff in this manner the agency hoped to provide an incentive or reward for better professional performance of staff while still employed in the organization. Facilitating movement to other agencies was also necessary because, like other organizations, Boysville has only a limited number of high status jobs to which workers can aspire. However, by supporting worker development both within Boysville as well as outside it was hoped that Boysville staff at all levels would be encouraged to accept the challenge of further professional development.

Communication

In the ideal integrative model, communication in the agency was intended to be centered primarily on attempts to foster a learning environment inside the organization. The change in communication proposed for the organization was to be based on informational needs at each level as opposed to hierarchical needs for control from the top. To

create an organization that focuses on skill development for client services requires that high priority be given to informational reporting that is likely to facilitate the improvement of staff skills.

In exchange for this, staff are expected to participate fully in the functionning of the overall information system. It was hoped that as staff perceived the usefulness of BOMIS to them and their clients, threats of punishment or emphasis on compliance as a means to motivate staff to provide valid and reliable information to the system and to utilize the system's informational outputs would become unnecessary.

Accountablity

In the ideal integrative structure accountability was to shift from the more narrow, control-oriented traditional approach to an accountability system which judged workers' performance by their commitment to client service and their demonstration of commitment to professional development and growth. By using BOMIS to provide treatment-revelant information to workers, it was hoped that staff would see that improvement of their skill was possible and a professional obligation rather than merely organizational expectation.

To facilitate this shift, Boysville managers where to

be taught not to monitor staff activity from the vantage point of accountability alone, but rather to emphasize worker/client success. The ideal was to achieve a new form of supervision that didn't sanction or punish staff for non-complience but rewarded staff for demonstrated performance based on multiple sources of quantitative and qualitative information. As a safeguard against supervisors' total reliance on their own subjective impressions of worker performance standardized instruments developed by McCubbin and Olson (1982) were used to provide quantitative information about client change and, by inference, worker performance. This information was as well intended to empower the direct service practitioner against arbitrary organizational decisions based on the perceived needs of the organization rather than the needs of the client. As a result, this model represents a radical view regarding the empowerment of the worker with information and can lead to problems in implementation (Morgan, 1986).

As will be shown later in this chapter, these have had a negative impact on some of the coordinating functions of the agency.

Coordination

As discussed earlier, the coordination function in the ideal integrative design was to take place at the Treatment

Team level by the Treatment Director, at the Management/Training level by the Director of OCSD and the Director of Operations working with the Associate Executive Director. All other organizational operations and the treatment system where to be coordinated through the Executive Staff.

Decision-Making

Decision making in the ideal integrative model was to be based on an "information driven" approach, with objective, relevant and timely information available to all levels of decision making in the organization. This was intended to limit the reliance on subjective judgment and personal opinion in the making of decisions. Additionally, by the elimination of direct access to the Executive Director by program managers it was hoped that ad hoc, fragmented decision making based on immediate pressures could be reduced. This would allow for more planful, integrated decision making based on more reliable information.

The following discribes current agency operatations and some problems which remain unaddressed.

Problems in Implementation of BOMIS

Although the ideal BOMIS structure was clearly delineated in the early stages of its development, its implementation was problematic. Many of the problems associated with implementation of the structure have their origins at the very top of the organization. Thus for example, a major problem in the implementation of the ideal model involves the failure of the Executive Director to recruit and hire a Director of Operations. As a result, the six Regional Directors report directly to the Executive Director. This in effect does not allow for coordination of the staff and line positions in the agency under one head as orginally planned so that there is constant competition between the staff and line positions in the agency for control of organizational decision making.

This problem at the top of the organization has had futher repercussions regarding the coordinating functions throughout the agency. For example, Program Managers and Clinical Supervisors have had serious conflicts at the program level for control of program decision making that have not been resolved. Consequently, the current pattern of decision making in the organization remains highly politicized with the Executive Director settling conflicts on the basis of personal loyalties. Because of this, information from BOMIS is rarely used to resolve issues of

conflict at the management or administrative levels.

In effect, the problems of BOMIS' complete implementation can be seen as arising from a philosophical struggle. Thus, Boysville is now an organizational context in which there is a battle for control of the organizational decision making. The conflict is between those who favor an information driven management decision making approach and those who favor a decisional approach based on a more personal, human relations management style.

The Executive Office's organizational philosophy and style of administration can best be characterized as a human relations approach. The Executive Director and the Assistant Executive Director couple this with a "generalist" approach to service delivery and a "hands-on" approach to supervisory work with agency managers.

The philosophical approach and management style contained within the BOMIS model and favored by the author is a more "rational" approach based on information driven decision making. It emphasizes specialization and coordination of service delivery and supervision based upon more "objective" and systematic information feedback.

As efforts have continued in the agency to fully implement BOMIS, these two approaches are increasingly in conflict. As a result of this conflict, the agency is

having a problem retaining administrative staff. Thus, in the past two years, five regional directors, one executive staff member and numerous program managers have left the organization. Of the Regional Directors, three where asked to leave because information indicated questionable practice. In these three instances the Executive Director initially supported them but yielded when objective information was presented to him documenting substandard performance.

On the other hand, a manager was recently terminated because the Executive Director didn't like the manager's style even though there was no objective information to support this decision.

Finally, one manager left after transfering from one Regional Director's position to another citing difficulty in managing at Boysville as the reason for leaving. She was constantly caught in the struggle between line and staff positions using their influence to control decision making.

The one Executive Staff member who left claimed that unresolved conflicts regarding questionable treatment to clients and managers' decisions were the reasons for his resignation. More specifically, he alleged that in one region information indicated that children where being

poorly served and that he had evidence of unethical practice in that region. When the Executive Director refused to take action in response to these charges the Executive Staff member resigned.

At the Program Manager's level some terminations have been based on practice information and some based on personal style. In the Executive Director's view, most agency problems are related to personality conflicts, territorial conflicts and struggles for organizational power. These do not lend themselves to resolution through an information driven approach. From the author's standpoint many of the causes and solutions of the agency's problem have to do with the uses or misuses of information.

This situation, although unanticipated, has provided the opportunity to study conditions that will be experienced in social work agencies as old models of management and administration are confronted by new information driven approaches. In the Final Chapter the broader implications for the field of the Boysville experience with BOMIS will be discussed.

Clearly, the ideal organizational structure has never been fully implemented at Boysville. Consequently, alternative structures have been designed to deal with issues of coordination in two key areas of the BOMIS functioning, those being information management and

training. For example, to better coordinate departments key to the development of the BOMIS information system, changes where made to the original plans for the Boysville Institute that was established in 1986.

Originally the Institute was to function as a traditional research and training department with an external focus. In this capacity, the institute was to raise funds through research and training grants, plan conferences and coordinate external continuing education programs.

Because of problems in the implementation of the original design, the Institute function and structure was redefined to include the following departments; Office of Clinical Staff Development, Research/MIS and Human Resourse Development. Instead of emphasizing its intended external mission, in the past two years the Boysville Institute has been functioning as a internal "super department" in order to complete areas of the BOMIS design related to staff training, information system development, staff evaluation and the agency rewards system, organizational analysis and integrative processes. It is only now just beginning to work on conference development, grantwriting and other intended external functions.

BOMIS and Other Areas of Organizational Performance

Although BOMIS has not been fully implemented as yet, and accomodations have been made to less than completely favorable organizational conditions, many aspects of the intended design have been put into practice. The development and functioning of OCSD, Research/MIS and NRAC described in Chapter Four are examples of this. In addition, implementation of the model which involve the clinical use of information in direct practice, clinical training designed to enhance this practice, and specific strategies used at the direct practice level and supervisory level of the organization where discussed in Chapter Four.

Considering the conflicts discussed above regarding the Executive Office's administrative style and the administrative style required and fostered by BOMIS, the reader might justifiably ask why the model was ever endorsed for development at Boysville. The answer to this question involves the role that the external environment of the organization played in the agency's decision to introduce the BOMIS model. As the contingency theorists have pointed out, organizations must be able to respond to demands placed on them by the external environment if they are to survive and prosper. At the time of BOMIS adoption, the external environment (MDSS) was pressuring Boysville

to develop an information system for accountablity purposes. In addition, the interorganizational competition for unrestricted dollars from other Michigan private agencies suggested the value of the BOMIS approach to Boysville's Executive Office. Thus BOMIS was presented to the Executive Staff as a way to more effectively compete with other organizations for purchase of service contracts from MDSS as well as a method for improving organizational performance.

Additionally, BOMIS was seen as having the potential to improve the agency's ability to raise funds by being able to objectively demonstrate the organizational effectiveness to foundations and other potential funding sources. Because of this potential, the agency leadership decided to invest agency resources in the development of BOMIS. The evidence presented earlier in this chapter suggests the wisdom of this investment.

To assess the impact of BOMIS on other areas of organizational performance, information will be presented that compares client outcome information from 1982 before BOMIS was introduced with comparable information from 1987 and 1988.

This analysis will make use of data drawn entirely from Boysville's Clinton Campus. The reason for this is that the Clinton Campus is the site at which the BOMIS

model has been most fully implemented and has been in operation the longest.

Additionally, of all the other Boysville locations, the Clinton campus program has been the most stable, has experienced the least growth, has the most consistent client population and, consequently offers the most appropriate context in which to test the impact of BOMIS on program performance.

In looking at Table 7.1 at time of program completion we can see a 30.5% increase in successes, a 16.4% increase in less restrictive placements and a 1.7 months (10.8%) reduction in client length of stay when comparing 1987 to 1982 data.

Additionally, in looking at Table 7.2, at three months follow-up in 1987 clients were in less restrictive settings 75.4% which represents a 11.2% gain over 1982 figures.

These improvements in program performance at the Clinton Campus add further positive support to a favorable analysis of BOMIS' effect on Boysville's program effectiveness and efficiency since its implementation. And although other conditions changed at Boysville between 1982 and 1987, the implementation of BOMIS represented the largest singular change and therefore, can be considered to have the largest impact on changes in outcome data between 1982 and 1987.

Although the BOMIS model has never been fully implementated the information in this Chapter suggests that its partial implementation has had a positive effect on program performance at Boysville. The substantial gains the agency has made in growth and performace since the partial implementation of BOMIS is suggestive and merits further study. With the dissemination of the BOMIS design to other childcare agencies which may implement BOMIS, or a similar model more fully, a comparative organizational study on the effects of the model will be possible and desirable.

TABLE 7.1: Boysville Program Outcome Data.

	1982 Number	1982 Percent	1987 Number	1987 Percent	Gain/Loss
At Program Completion					
Successes	80	42.8%	96	73.3%	+30.5%
Failures	107	57.2%	35	26.7%	
Less Restrictive	108	57.8%	96	74.2%	+16.4%
Not Less Restrictive	77	42.2%	42	25.8%	
Mean Length of Stay	15.7 Months		14.0 Months		-1.7 Mths.

TABLE 7.2: Boysville Program Outcome Data.

	1982 Number	1982 Percent	1987 Number	1987 Percent	Gain/Loss
At 3 Month Follow-up					
Less Restrictive	120	64.2%	92	75.4%	+11.2%
Not Less Restrictive	27	14.4%	18	14.8%	
Unknown	40	21.4%	12	9.8%	

Figure 7.1

BOYSVILLE OF MICHIGAN
PROGRAM ORGANIZATIONAL CHART
FOR THE INTEGRATIVE MODEL

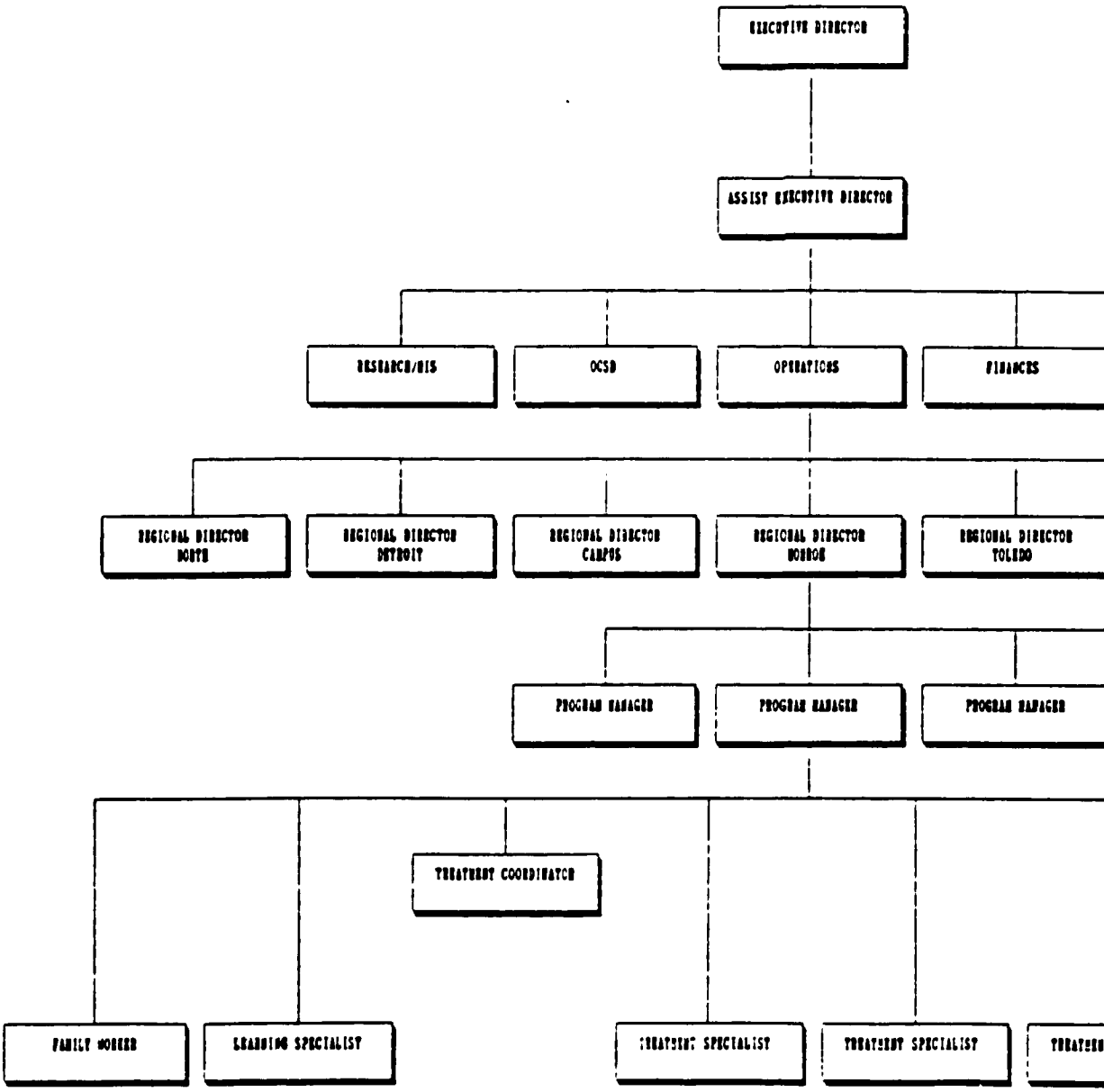
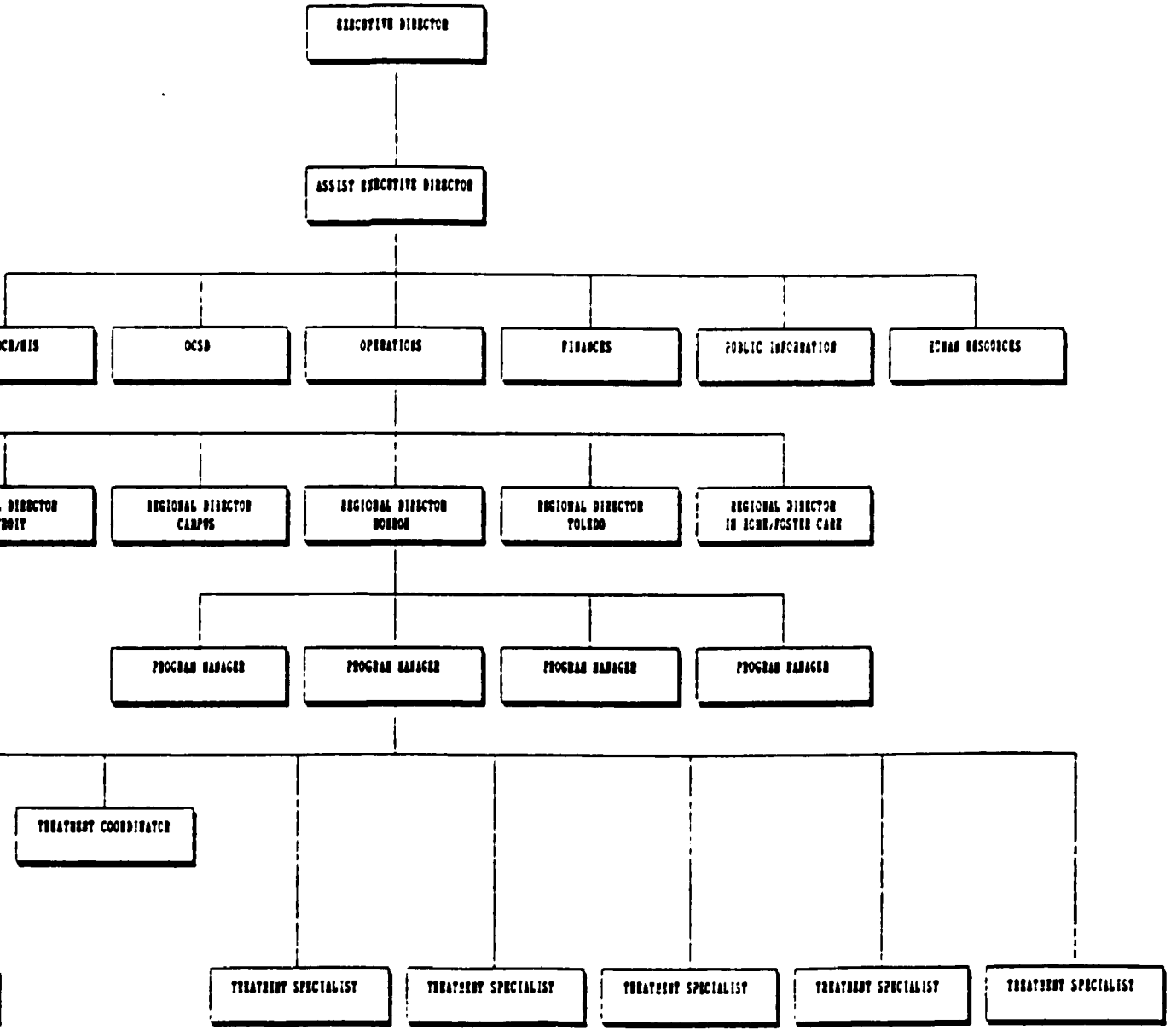


Figure 7.1

BOYSVILLE OF MICHIGAN
PROGRAM ORGANIZATIONAL CHART
FOR THE INTEGRATIVE MODEL



Chapter Eight

SUMMARY AND CONCLUSIONS

This dissertation project describes an effort to implement an integrated model of management information, program evaluation and practice decision-making at Boysville of Michigan. Its purpose is to articulate a theoretical model of administration that underlies such an information-driven system, to identify the components of such a system, and to derive the organizational and administrative supports required for the system to be fully operational and maximally effective. The basic premise of the project is that the manner in which a human service organization integrates performance, information processing, and conflict management will determine its capacity to improve its efficiency and effectiveness.

After introducing the problem to be addressed in this project in Chapter One, Chapter Two presents a literature review which suggests a number of theoretical issues and organizational conflicts that must be taken into account if such a system is to be successful. More specifically, it discusses the conflicts generated by the introduction of research and information technologies into social service agencies and the potential contribution of these technologies to organizational performance.

The literature review describes a range of theoretical models of social work administration, discusses the role of research and information technology in social service agencies, and suggests a number of conflicts associated with organizational performance and research application that must be addressed if an integrated model is to be successful. These include:

1) conflicts between external accountability requirements and internal organizational needs;

2) conflicts generated within the organization based on the role-obligations associated with different positions in the organizational hierarchy;

3) conflicts associated with the introduction and ongoing utilization of computers in social service agencies;

4) conflicts among various models of research and research utilization in social service agencies.

After a general discussion of theoretical aspects of organizational performance, a more detailed discussion of each of these conflicts is presented. From a theoretical perspective, the most fundamental problem is the reconciling of an advanced technological method of assessing and improving program performance and the traditionally humanistic values of social work practice. Nonetheless, it is argued in Chapter Two, that failing to address this general conflict and the more specific ones identified above results in a set of unsolvable problems in implementation.

Chapter Three describes the agency setting in which the project was conducted and Boysville's need for an integrated model of administration and information utilization at all levels in the organizational hierarchy. It goes on to describe the research design and methodologies employed to assess the impact of the particular model (BOMIS) implemented at Boysville.

BOMIS utilizes the most advanced information technology and family treatment-oriented research instruments available to date and was designed to enhance the functioning of the direct service workers, agency supervisors and administrators as well as to improve overall organizational performance. Consistent with theoretical principles outlined in Chapter Two it was intended to empower agency staff at all levels in the hierarchy with information to improve their practice skills.

In this project, it was assumed that research utilization and the systematic use of information would enhance the effectiveness and efficiency of treatment decisions made by direct service practitioners as well as by administrators. In this sense, research utilization was seen as "instrumental" for practice. More generally, principles derived from the literature on obstacles to and facilitators of research utilization were used in both the design of BOMIS and the assessment of its effectiveness.

So, for example, negative attitudes of workers towards research, structural facilitators of research utilization, agency-based education and training, and the need for an objective external accountability structure, were built into BOMIS from the start. Ultimately, the effectiveness of BOMIS is assessed by its differential use at various locations, for various purposes in the agency and its impact on service effectiveness.

Chapter Four details the components of BOMIS including the information system itself, hardware, software, its formal organizational structure and the process by which treatment staff are trained in its uses. In this chapter, practical issues related to the implementation of the model are presented.

Chapters Five, Six and Seven assess the effectiveness of the Boysville model in several different ways. In the course of designing and implementing this model, Boysville's leadership believed that besides improving clinical services to clients, BOMIS would improve agency performance in fundraising, in competing for purchase of service contracts, and, finally, in program performance on outcome measures mandated by contractual arrangements with funding agencies. To determine how effectively BOMIS achieved these and other objectives, a Design and Development research strategy was adopted (Thomas, 1984). This involved looking at evidence prior to and after the

implementation of BOMIS. In addition, a differential evaluation approach (Tripodi, Fellin and Epstein, 1971) was employed that relied on multiple sources and types of data from multiple programs and level in the agency. These multiple methods of evaluation were necessary in order to fully assess the effectiveness of BOMIS.

For program evaluation purposes, major emphasis was placed on a quantitative study of BOMIS utilization by Boysville staff at all program levels. In this study, staff attitudes towards the information system were assessed retrospectively and currently. These attitudes served as independent variables in the multivariate analysis. Staff perceptions of research facilitators were viewed as intervening variables. Dependent variables involved staff self-reports of research and information utilization. More specifically this portion of the project was designed to answer the following questions:

1. What are staff's attitudes towards research, perceptions of efforts to facilitate research, and self-reportive patterns of research utilization?

2. Have staff attitudes towards research changed after the implementation of BOMIS?

3. Are the current attitudes towards research and perceptions of facilitators associated with research utilization?

4. Are positive changes in staff attitudes towards research, perceptions of facilitators and self-reported research utilization patterns associated with agency location, agency-based research training and educational level?

In this part of the project, the data collection strategy involved the distribution of a self-administered questionnaire concerning the variables described above to 138 staff at all program levels. The results of the study indicated a significant degree of positive change in worker attitudes towards BOMIS since its implementation and considerable use of it in practice decision-making. In addition, while the system is by no means universally endorsed or applied, agency-based training in its practice uses appears to be the most significant predictor of its utilization.

Chapter Six offers additional evidence of the effectiveness of BOMIS in the form of a a qualitative case illustration of the use of system-generated quantitative data by Boysville's executive staff for external policy advocacy. More specifically, this chapter describes how Boysville management information system was used to successfully influence child welfare accountability standards in Michigan. Included in this policy advocacy case study are quantitative findings on client length of stay and its relationship to program outcomes at Boysville.

Chapter Seven presents some additional successful examples of external and internal uses of the Boysville information system. First, a study is conducted of the level of funding at Boysville in 1982 compared to current

funding. Next, a description of BOMIS' role in its expansion is presented. In addition, data are presented on program expansion at Boysville and the way BOMIS has contributed to Boysville's favorable positioning with contracting organizations since its implementation. These multiple sources of data suggest that, in so far as fundraising is concerned, organizational performance has steadily and dramatically improved since BOMIS was introduced.

Despite its obvious contributions, BOMIS has not been an unqualified success. Thus Chapter Seven goes on to discuss some of the organizational obstacles to BOMIS' full implementation. Many of these problems are rooted in a philosophical conflict between those in the organization that support a human relations approach to administration and those committed to the information-driven BOMIS approach.

More specifically, this portion of the chapter addresses:

1) the goals of the organization and how they've changed since the implementation of BOMIS;

2) the coordination of services at Boysville since the implementation of BOMIS and

3) decision-making patterns at Boysville since the implementation of BOMIS.

Organizational documents, interviews with staff and case examples are used to illustrate program change and/or

resistance to change.

Notwithstanding its incomplete implementation and the organizational ambivalence that surrounds BOMIS, the primary test of its contribution to program effectiveness at Boysville requires looking at its impact on clients. In an effort to assess its impact on overall agency performance, service statistics prior to implementation of the BOMIS in 1982 and post-implementation in 1987 are compared. Comparisons include differences in client discharge characteristics and outcome measures in 1982 and in 1987. On several of these measures such as successful program completion, length of stay for successes, post-placement living situation at time of client termination and post-placement living situation three months after client termination, Boysville has shown a marked improvement since the introduction of BOMIS.

The evidence presented in Chapters Five, Six and Seven amply illustrates the usefulness of an integrated information system such as BOMIS. Utimately, however, the task of this project is to reflect on the extent to which BOMIS has succeeded in creating a fully integrated model of information use in administration and practice at all levels of the organization. To the extent that it has not succeeded, the task is to describe the organizational conditions that are missing at Boysville and must be in

place if such a model is to succeed. The following sections of this chapter discuss these issues and their future implications for research and information utilization, for social agency administration, and for systems design.

Implications for Research Utilization

Chapter Five explored the impact of the implementation of BOMIS on worker utilization of information in practice decision-making. Descriptive findings indicate that in 1987 there was a moderately high reported utilization of the research products of the system, less than completely positive perception of agency efforts to facilitate utilization, but increasingly positive attitudes towards research since the system was introduced. Multivariate analysis suggested that positive perceptions of structural facilitators are the most important predictors of utilization, but that pro-research attitudes make a contribution of their own. The latter attitudes are enhanced by agency-based training and, in turn, contribute to positive perceptions of research facilitators. Extra mural education contributes to positive pro-research attitudes but to a lesser degree than does agency-based research training. And finally, agency based training, timeliness of reports, and usefulness of reports have an effect on staff willingness to use

information to assess their own performance and effectiveness and to use BOMIS information in supervision.

These findings suggest that computerization of social agencies brings with it a positive potential for research utilization. However, to realize this potential agency-based research and evaluation units must attend to structural factors that facilitate this process, and must provide sufficient practice-oriented research training to sustain and enhance pro-research attitudes and utilization behaviors. In this context, as in so many others, academic education is necessary but insufficient.

These findings also indicate that practitioners are willing to use information in practice decision-making if the information is relevant to their practice needs, timely and presented in useful ways. To accomplish this requires not only agency based training in the use of information but planful and practice-oriented system and software design.

Administrative Implications

At the beginning of this dissertation, it was argued that administration as a practice specialty in social work has reached a critical stage in the past decade. Today, a serious challenge confronts social work administration as to whether it represents a unique field of practice,

separate from other forms of organizational administration. If it is to remain a viable field of study, social work administration must differentiate itself in relation to other types of administration.

It was further argued that to be effective administrative models in social work must successfully integrate advances in research, information technology and client service. To do this the value of helping clients must be emphasized and operationalized across all levels of an organization. One way to do this is to invest organizational resources into improving staff skills at each level of an organization, thereby improving overall service effectiveness.

Furthermore, to mediate the conflicts that currently exist in human service agencies a unifying theme must be established that reinforces an organizational culture based on client service and focuses agency administration on the task of improving performance at every level in the organizationa hierarchy. To do this requires an administrative model that links staff skills development to improved organizational performance.

Certainly, these problems are complex. However, the need to conceptually and organizationally integrate social service delivery, training, research, program evaluation, administration, policy and social work values into

effective organizational models for social work should be the central mission for social work administration. Such an ideal integrative model, guided by basic social work values, should incorporate the most advanced information and treatment technologies available, but must center on the line-level practitioner working with the client.

With regard to management information system design such an integration rests on the following principles: 1) Administrative priority should be given to actual as well as measured performance. 2) Performance assessment should be based on valid and reliable information regarding actual performance of line staff. 3) In return for this information, line staff should receive information-feedback about clients that is timely and readily applicable to their practice .

More generally, effective integration rests on the principle that one can only improve organizational performance by improving individual staff skill at each level of the organization. This organizational principle is rooted in the assumption that the primary function of a social service agency is found in the exchange between the practitioner and the client and that all other agency structures and processes must be designed to facilitate this exchange. When conflicts in organizations exist they must be resolved around the informational and decision-making requirements of the direct service worker.

This dissertation project involved an effort to integrate organizational theories concerning information technology and apply them to organizational performance in a human service agency. In describing this effort, a number of problems were discussed which face information specialists and social work administrators alike who try to integrate their respective technologies with the practice needs of the direct service worker, and ultimately with the needs of clients. Overall the goal of this project was to develop an integrative approach for addressing the conflicts inherent in the merger of these technologies, structures and processes.

Despite the failure as yet to achieve full implementation, BOMIS has made significant contributions to the achievement of Boysville's internal organizational goals, service coordination and decision making. To support this claim, evidence of improved internal and external organizational performance has been presented.

As indicated earlier, one way in which BOMIS has made a significant contribution to supporting the development and maintenance of Boysville's programs has been through improving Boysville's capacity to directly and indirectly attract funding.

Another way in which BOMIS has enhanced agency

performance has been through improved line worker performance, what it contributes to staff training and supervision, what it makes possible in terms of program monitoring and evaluation, and what it says about the agency that has implemented it. As a result, BOMIS has enhanced Boysville's ability to compete with other less technologically advanced agencies for MDSS purchase of service contracts.

The improvements in program performance at the Clinton Campus add further support to a favorable analysis of BOMIS' effect on Boysville's program effectiveness and efficiency since its implementation. And although other conditions changed at Boysville between 1982 and 1987, the implementation of BOMIS represented the largest single organizational change and therefore, must be considered to have the largest impact on changes in outcome data between 1982 and 1987.

Although there was no way for this study to definitively establish a causal connection between the BOMIS implementation and fundraising success, the improved program performance and the gains in purchase of service contracts, the correlation was strong and the explanation is supported by the informal observations of many who are directly involved in this aspect of the program. With the dissemination of the BOMIS design or a modification of it to other childcare agencies, a comparative organizational

study on the effects of the model will be possible and can shed light on the extent to which the Boysville experience is generalizable.

Implications for Systems Design

Although BOMIS was originally designed to foster the coordination of specialized functions within Boysville, this aspect of the model has not as yet been achieved. Because of this, the overall integration of information focused on treatment decision-making has also suffered.

Thus, the failure to fully implement proposed changes has had profound implications for the structure, goals, processes and practice throughout the agency. The basic theme underlying this change was to involve viewing the work of treating clients as the most important organizational function. In light of this perspective, the organizational system was to be designed with integrative structures focusing on tasks, roles, rules, goals, and the technology. The ultimate purpose of this integration was to be more effective intervention in clients' lives. Finally, with the improvement of treatment technology as central to the process, BOMIS designers hoped to reduce problems associated with more conventional compliance-oriented accountability systems.

To achieve this ideal also required a major

philosophical shift in the agency that encouraged workers to learn and grow from their mistakes. This meant the creation of a "learning environment" in the agency whereby the improvement in staff's technical skills would enhance performance by other levels of the organization.

To build a true learning environment in any agency one has to construct information and reward systems that promote learning. By centering on successful client treatment through skill development of staff as the key measure of line worker performance as opposed to individual "output" measures such as numbers of client contacts or case closed, it was hoped that the organization could reduce the tendency towards falsification of data in the overall information system.

In the ideal integrative model, communication in the agency is also intended to be centered on attempts to foster a learning environment inside the organization. Accordingly, the change in communication patterns proposed for Boysville was to be based on serving informational needs at all levels as opposed to hierarchical needs for control from the top. To create an organization that focuses on skill development for client services requires that high priority be given to informational reporting that is likely to facilitate the improvement of staff skills.

In the ideal integrative structure accountability must shift from the more narrow, control-oriented traditional approach to an accountability system which judged workers' performance by their commitment to client service and their demonstration of commitment to professional development and growth. By using BOMIS to provide treatment-revelant information to workers, it was hoped that staff would see that improvement of their skill was possible and a professional obligation rather than merely organizational expectation.

As discussed earlier, the coordination function in the ideal integrative design was to take place at the Treatment Team level by the Treatment Director, at the Management/Training level by the Director of OCSD and the Director of Operations working with the Associate Executive Director. All other organizational operations and the treatment system where to be coordinated through the Executive Staff.

Decision making in the ideal integrative model was to be based on an "information driven" approach, with objective, relevant and timely information available to all levels of decision making in the organization. This was intended to limit the reliance on unsystematic information and subjective judgment in the making of decisions at every level in the organization.

Although the ideal BOMIS structure was clearly delineated in the early stages of its development, its implementation was nevertheless problematic. Many of the problems associated with implementation of the structure have their origins at the very top of the organization. As Morgan (1986) pointed out in his discussion of the weakness of an information driven system similar to BOMIS:

> First, there is a danger of overlooking important conflicts between the requirements of learning and self- organization on the one hand, and the realities of power and control on the other. Any move away from bureaucracy towards self-organization has major implications for the distribution of power and control within an organization, since the increase in autonomy granted to self-organizing units undermines the ability of those with ultimate power to keep a firm hand on day-to-day activities and developments. Moreover, the process of learning requires a degree of openness and self-criticism that is foreign to traditional modes of management. And the principles of requisite variety and minimum critical specification run counter to the inclination of managers who stress secrecy, exclusion, and the need to keep a tight rein on operations. Such attitudes and practices signify the presence of important countervailing forces that may prevent many modes of organizational learning and self-organization from becoming a reality. A second weakness, evident in the above, is the fact that since any move toward self-organization must be accompanied by a major change in attitudes and values, the realities of power may be reinforced by an inertia stemming from existing assumptions and beliefs. Learning and self-organization generally call for a reframing of attitudes, emphasizing the importance of activeness over passiveness, autonomy over dependence, flexibitity over rigidity, colaboration over competition, openness over closedness, and democratic inquiry over authoritarian belief. For many organizations this may call for a "personality change" that can only be achieved over a considerable period of time (pp.108-109).

Because of the failure of Boysville's administration to consistently support certain features of the model, its full implementation was never realized. However, as Morgan (1986) correctly pointed out, organizational change of this magnitude inevitably takes longer than systems designers anticipate.

Based on this experience, in working with other agencies, BOMIS designers discuss the full system implications with agency administration and seek their firm support and commitment before beginning any efforts at implementation. In those instances in which such understanding and support is forthcoming, comparisons with the Boysville experience can enhance our understanding of strategies of implementation of a BOMIS type innovations and their organizational consequences.

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