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In human services, all resources are valuable, and hence should be utilized with care. Budgets can be tight, funding often cut, and workers transient. When crises arise, consultants are typically called upon to provide a solution, yet their outcomes can be questionable. Taking an outsider perspective can result in seeing disconnects in optimal infrastructure; however, the lack of understanding of the subtleties of the organization can mitigate success. Given the complexity of human services and the need for individualized intervention plans, consultant promises may be deemed unrealistic and essentially turned down by the administrators. In contrast, others may naively trust the consultant, as crisis often breeds dependence and vulnerability on the part of the agency. Administrators and service providers in general should come to understand that within human service settings, there is little that can be fully controlled, and there are few interventions that can solve every problem in one swift application. Instead, they should assume some level of control could be found in the immediate environment, and with the help of a solid systems infrastructure, the vision of “control” may be actualized despite relative mishaps or, worse, crises. To do so requires a mutual understanding at the administrative and consumer level,

and is of primary interest in the relationship shared between all parties. In many ways, behavior of these individuals becomes the input in the human service organization, and likewise affects the behavior of clients and consumer families.

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### Organizational Infrastructure

Organizational infrastructure is a term most appropriately utilized to describe a systematic framework comprised of specific features and expectations. Infrastructure provides a basis of support by means of strategic planning of service execution by administrators and employees within an organizational hierarchy (Townsend, 2006). Organizational growth is directly influenced by the presence or non-presence of a solid, thoroughly planned infrastructure, responsible for incorporating the missions, goals, and expectations for any entity, which stems from the initial phases of development. Every successful organization, no matter the current size or consumer impact factor, began with a single idea. Ideas may have been constructed in remote environments of the day-to-day life of their originator. They are developed with careful consideration as they became shaped to represent realistic outcomes, and some ideas flourish to provide some insurmountable influence on consumers. Some of the most successful contemporary organizations in the realms of consumer products (Apple computers) and human services

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(e.g., The United Way; Goodwill Industries International, Inc. [Goodwill]) began as a result of one person or a small group of people. Ideas that helped establish these successful organizations were likely sparked by a passion for better circumstances in products or services. For Steve Jobs, a goal of easier access to information and increased socialization abilities comprised the solid foundations for his enterprise (Isaacson, 2011). United Way and Goodwill shared the goal of prosperity for those not currently able to provide for themselves and their families (United Way, 2011; Goodwill, 2011). This led to the establishment and attainment of various goals and eventual realities of affordable, effective, quality services for underserved populations provided by these and other human service giants.

The imminent necessity of thorough planning, and the influence early action plays as the organization matures, suggest that early stages of development should be conducted with careful consideration and future outcomes in mind. Definite activities, people, and goals should be linked with accuracy through thoroughly planned systems and processes. To better ensure such outcomes, careful planning must be committed to designing an insurmountable infrastructure upon which foundations for consumer services may reside (Townsend, 2006).

## Infrastructure in Human Services

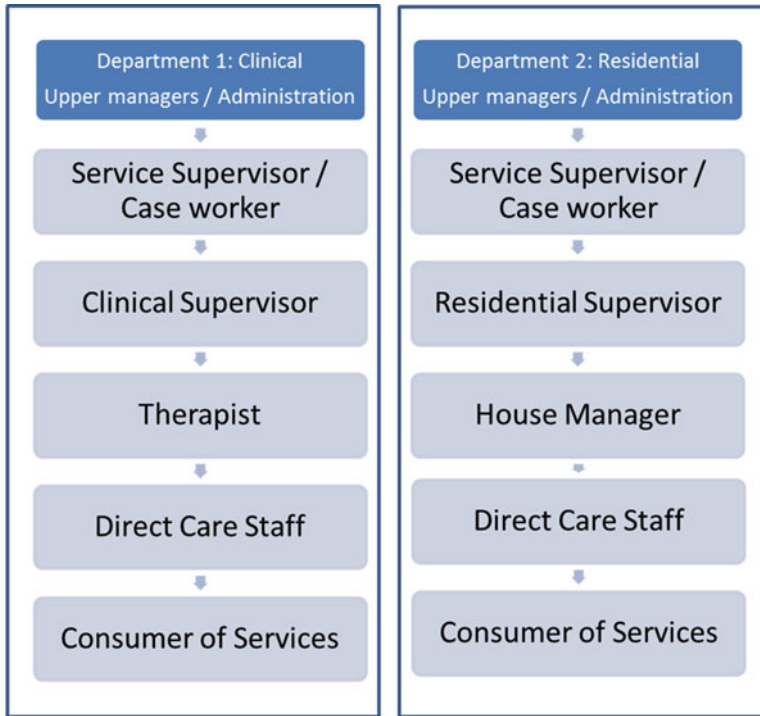
Like other organizations, human services were founded as a means to improve the lives of those affected in various ways, but in this arena of consumer interest, the concept of infrastructure becomes of utmost importance—not for the sake of profit alone, but for the sake of health and life quality. Over two decades ago, the assertion was made that human services would touch the lives of all Americans at some point (Riley & Frederikson, 1984). Today one may confirm such a notion, as the influence increases and impacts all, from the normal functioning adult to the adult or child with mental or physical disabilities. Infrastructure plays a major role in adaptation

and building a foundation upon which effectiveness, cost, and productivity lie, with ongoing interventions devised to help “pound out the kinks” in the day-to-day processes. This may be especially true of those who specialize in caring for individuals with developmental disabilities, whose lives depend on the stable, effective provision of services by skilled professionals working with this population.

Consumers of disability services often begin their relationship with an agency due to an unfortunate life event or bodily condition requiring their fight in a constant battle against exacerbated challenges in daily living. Challenges and resulting behavior likely influence every decision the individual forms. Features of such decisions are commonly both sensitive and life-altering in terms of resulting functional deficiencies present in various aspects of the consumer’s everyday experience (Falvo, 2009). Proper management of detrimental behavior warrants the need for human service professionals to step in and influence the change for the better, though requires intensive treatment and an ongoing, effective approach (Phillips, 1998; Sturmey, 1998; Sulzer-Azaroff & Mayer, 1992).

In today’s world, advancing technologies and high demand for additional services resulting from an increase in diagnoses lead to increased expectations for quality (Falvo, 2009; Wilk, 2009). Consequently, costs accrued by organizations to better meet consumer needs and provide a competitive edge against other agencies who offer similar services necessary to maintain operations are at an all-time high (Wilk). Service delivery, affordability, facility appearance, and even amenities offered during a routine visit have all become relevant factors upon which consumers determine permanent health care providers, thus instilling a sense of urgency by small business or low-income providers to increase profits, increase services, and increase the quality of experience to even compete with high-income providers.

Leaders of organizations deemed most successful given the market today, likely spend a considerable amount of time and preparation in devising a solid infrastructure, and will have



**Fig. 2.1** Visual depiction of a vertical hierarchy that may exist in human service organizations

already factored such performance and service advancements in their overall guarantee to consumers they serve. These factors lie amongst the additional, essential process factors required to adequately habilitate those in need, often designed with the consideration of limited resources (Sturmey, 1998). In such analyses of infrastructure components, organizational goals are identified and directly related to the processes and people expected to help attain them (Townsend, 2006).

### The Vertical Organizational Hierarchy

Like other organizations, human service organizations have a definite hierarchy, or assumed “chain of command” followed with regards to people of authority and process of services. As many hierarchies are founded, organizations have an almost cliché, vertical hierarchy that is known and followed (sometimes referred to in the organizational literature as a “silo” effect on hierarchical

planning; Rummler & Brache, 1995). In vertical hierarchies, upper management lies at the very top of command, with middle managers and clinicians lying somewhere in the middle, who then supervise the direct employees that provide care to the consumer. In the case of residential facilities, these refer to the direct care staff, or in the case of school settings, the paraprofessionals and volunteers who assist clients and are responsible for implementing treatment in any given day. Figure 2.1 illustrates the vertical hierarchy as seen in most human service agencies.

In organizations that use a vertical infrastructure, middle managers may serve as liaisons to manage the gap and translate expectations from upper management or administration to front-line employees, and as a result, interaction between top management and direct care staff is essentially nonexistent. Rummler and Brache (1995) describe this as a silo effect for many reasons, but mainly because it seems there is a clear linear command chain that is followed by all in the agency, which promotes altercation

when low-level employees attempt to address leaders above their immediate supervisors. Further, the linear model is constructed within organizations which may have various departments (e.g., residential, clinical), so communication rarely occurs between middle managers across such departments, and issues that involve more than one department involve only top managers who really have other things they should be working on, that perhaps, middle managers below them could devote time to solving. Oftentimes, organizational “silos” breed competition between departments, and blame is passed from one to the next with upper management frustrated and jumping through hoops to solve the issues. Incidentally, these issues may simply be miniscule process issues that should not pose much effort in resolving, and require little technical knowledge of the process whatsoever (e.g., mishandled/misfiled paperwork). Information is said to be lost between the cracks, or, as their book title suggests, “within the whitespace” of the organization, often not formally managed by anyone. Rummler and Brache state, “an organization behaves as a system regardless of whether it is being managed as a system...if you put a good performer against a bad system, the system will win every time” (p. 13, 1995).

### **An Alternative Approach: A Horizontal Matrix or Adapting Across Performance Levels**

The vertical approach to infrastructure was successful in industrialized America. However, as the country moved from a “stuff” producing market to a “service” delivery market, the top-down approach tended to not work as well. The beauty of the vertical approach was that each worker was boxed into a small set of responsibilities and skills. It resulted in highly skilled, yet narrowly defined workers. When “stuff” is being produced, high precision is needed. Yet, the dynamic nature of service delivery tended not to fit such a mold. Instead, services that involved interaction with people appeared to need more variability in deliv-

ery. Today’s human service organizations grew out of the antiquated model of state-operated facilities for persons with mental retardation or mental illness. In addition to the variety of human rights issues that resulted in a cascading of closures to state facilities, the entire vertical management model was brought into question. Furthermore, stakeholders across the country wondered, could more be done with less? The answer to this question is an encouraging “yes,” and great strides have been made utilizing the principles of behavior analysis in human service settings.

Organizational behavior management (OBM), as a subfield of applied behavior analysis (ABA), directs its focus on large-scale behavior change, in organizations just described. OBM professionals serve as consultants, both internal and external to organizations, and provide insight to processes and performance likely to allow an organization to develop and meet outlined goals and missions to the degree necessary to provide a competitive edge in the consumer market (Bucklin, Alvero, Dickinson, Austin, & Jackson, 2000; Geller, 2003). Recent advancements in organizational research, and a stated need for improved quality of organizational management, have led the way for behavior analysts and organizational managers to influence the human services sector (see Phillips, 1998; Sturmey, 1998, for literature reviews of OBM’s influence in human services). Just as applied behavior analysts effectively improve the behavioral repertoires of individuals, OBM professionals strive to identify causal variables likely to produce and maintain desirable performance at three distinct levels within any organizational system: level of the performer, the department, and organization (Austin, Carr, & Agnew, 1999; Malott, 2003; Rummler & Brache, 1995).

#### **Performer Level**

At the level of the performer, common issues include productivity, quality, and consistency in work produced or outcomes achieved. Clearly specified expectations, individualized feedback on performance, and necessary reinforcement/correction for desired behavior

increase the abilities of the performer and provide a means by which employees can advance within the organizational hierarchy (Malott, 2003; Rummler & Brache, 1995).

In human service agencies, oftentimes direct care providers represent the performer described here. Following an initial training, ongoing performance monitoring allows for individuals to succeed in accomplishing the assigned work tasks and consumer goals. With continuous monitoring, ongoing, in situ training will allow performers to constantly evaluate and improve upon individual performance. In OBM, behavioral skills training or the application of a four-component package intervention consisting of instructions, modeling, guided practice, and performance feedback, plus reinforcement for correct performance (Komaki, Barwick, & Scott, 1978; Sulzer-Azaroff & Mayer, 1991), offers a concise, consistent, and empirically validated method for implementing such training, with repeatedly demonstrated outcomes of success associated with the use of training with human service direct care providers. All four components comprise the training model, but in some cases, single components or combinations of single components are often utilized with other methods as alternative package interventions to address issues when more immediate adaptation is necessary. Most often, feedback is commonly targeted as a stand-alone intervention for improving individual and group performance (Austin, Kessler, Riccobono, & Bailey, 1996; Balcazar, Hopkins, & Suarez, 1986). Beyond training, however, other factors must be considered and addressed to ensure success within any human service agency.

### **Maintaining Motivation**

Performance of employees in human service agencies greatly benefit from behavioral skills training procedures, with quality of service and expected outcomes for consumers especially impacted. Over time, without constant supervision of a supervisor, it is likely that employees will drift away from procedures on which they were initially trained and cut corners to make tasks more efficient and less aversive or cumbersome. To maintain desired performance in the

everyday environment, care must be taken to ensure motivation or the demonstrated desire (Malott, 1993; Reid & Parsons, 2006) of direct care providers to work toward client goals and objectives (Reid & Parsons). Plainly stated, the nature of human service employees (e.g., socioeconomic status, education, motivation) and, further, the nature of human service tasks (e.g., laborious duties, long work hours) determine the level of motivation an employee is likely to possess independent of supervisory intervention (Reid & Parsons). In the OBM literature, employees demonstrate what is termed “Discretionary Effort” (Daniels & Daniels, 2006), when one exhibits performance above and beyond expectations of the employers or the status quo. Employers often attribute the traits identified by employees as originating within the skin of the performer and often utilize theories of unobservable phenomenon to account for the often described, “motherly nurturing” demonstrated by employees toward the consumers.

What employers fail to recognize, however, are the various aspects of the job that allow the employee to contact intrinsic reinforcement, whether by means of small personal successes in the clients with whom they work or feelings of accomplishment associated with the completion of tasks identified as crucial to the success of the organization or position. In human services, residential and unit supervisors assume the task of enhancing Discretionary Effort® of direct care providers by motivating employees to *want* to perform, with difficulties often exceeding simple delivery of praise and tangible rewards to employees who exhibit this trait (Daniels & Daniels, 2006; Reid & Parsons, 2006). Specialized OBM-based analyses and implementation of contingencies of reinforcement provide a reference point for supervisors that are relatively easy to implement, but all must begin with an infrastructure designed to allow for adaptation to new situations, not always part of the employee’s expectations.

### **Department Level**

At the job or departmental level, contingencies must be developed and implemented that expose

members of a group to opportunities that may result in success of all members, with feedback and reinforcement used as small-scale methods of contingency arrangement responsible for shaping and maintaining desirable outcomes which meet the mission of the department and contribute somewhat to the overall mission of the organization (Brethower & Smalley, 1998; Rummmler & Brache, 1995). In human services, interdisciplinary teams comprised of direct care providers (e.g., family, guardian, and support personnel), residential supervisors, and clinicians may advance specific skills of a consumer. Each of these groups of people should be provided with specified group goals to strive to accomplish that further the outcomes and enhance the likelihood of consumer success over time. Ideally, these goals and outcomes should be stated at the start of the team member's role in caregiving position. Again, OBM interventions have been developed and utilized which allow for such influence, with performance-based lotteries (Cook & Dixon, 2006), and preference assessments for reinforcing employee behavior (Wilder, Rost, & McMahon, 2007; Wilder, Harris, Casella, Wine, & Postma, 2011) easily implemented and utilized within departments and across groups of individuals.

### Organizational Level

Goals and mission statements are constructed in an attempt to define the purpose of an organizational system (Malott, 1993; Daniels & Daniels, 2006). Frequent analyses of whether such goals are being met, or are met to the degree in which they support the organization's mission, signify necessary components of any evaluation of the infrastructure's effectiveness during implementation. Missions are brief statements of accomplishments that can be expected from an agency, with clearly defined outcomes and measures of outcomes indicated (Daniels & Daniels). Organization administrators create a mission statement as a means to convey a sense of purpose and desired outcomes for the consumers they serve, as a broad depiction of company initiatives (Malott, 2003). Performance of the organization is affected by the discrete actions shaped

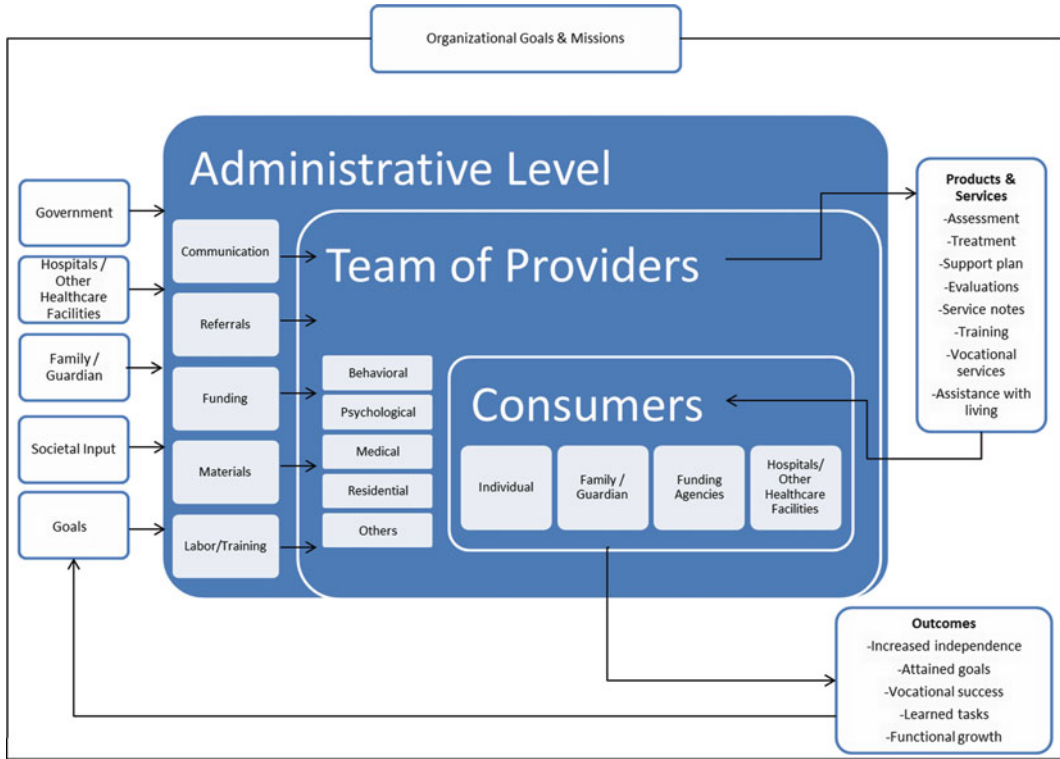
and maintained by individuals on the department and performer levels discussed previously. When problems arise and behavior fails to exceed expectations at the performer or departmental analysis, total systems analyses (Brethower & Smalley, 1998; Rummmler & Brache, 1995) can be conducted to allow administration to determine where exactly in the process disconnects occur. Once identified, further analysis of the issue may better inform management on variables maintaining the issue, and intervention can allow for resolve.

### Process Mapping

The concept of "process mapping" has gained popularity in recent years as a procedure that allows an outsider to observe how materials and resources invested as inputs into an agency can lead to effective outputs (e.g., products and services that benefit organizational consumers). First utilized in the area of business administration (Brethower & Smalley, 1998; Rummmler & Brache, 1995), and later introduced as one of a few crucial first steps of the consultation procedures (Rummmler & Brache), process mapping ensures that individual contribution is accounted for and all inputs are used to their potential. Further, process mapping ensures that inputs and processes result as expected, in a definite product that either moves on to a separate system or department, or rather, results in a terminal link or final product of consumption. Throughout the procedure, individual relations may come to be identified that were previously overlooked and included as variables that surround individual performance and influence terminal success.

Process mapping, or this means of adopting a horizontal organizational hierarchical viewpoint, can be a complex endeavor, however may be especially useful in human service agencies. Here, various employees serve to produce a variety of services deemed necessary requisites to other employees or as final products in the lives of consumers who utilize them. To illustrate, consider the following example of a residential facility that serves individuals with severe developmental disabilities. Administration and case managers produce means by which the fund-





**Fig. 2.2** Visual representation of the interworking components of a human service agency from a systems standpoint

ing and services may be afforded to the clients by completing essential paperwork and contacting various representatives responsible for releasing funds to consumers. Funds produced by administration and case managers serve as input resources to clinicians who specialize in providing evaluation and treatment to the various individuals. These services may also be observed in the form of various therapies provided depending on the clinician's role within the interdisciplinary team described previously (medical, behavioral, psychological, physical, occupational, speech, etc.). Evaluation and therapies delivered can be seen as a product by which consumers immediately benefit and also may produce some form of internally based, informational resources (service reports, behavior support plans, etc.) by which procedures for emergency responding may be outlined and explained at a level that is understandable to direct care providers within the residence or on residential units. Reports, then, serve as internally supplied input to the direct care pro-

viders, who utilize the information as guidance for providing definite outcomes (e.g., attained goals, increased independence) to consumers in the form of effective service delivery (terminal output). Refer to Fig. 2.2 for a visual depiction of this process, and notice the cyclical or bidirectional nature of processes as they impact all levels of the organization.

The illustration just provided outlines a very basic overview of input/output exchange amongst employees at varying levels of expertise. More often, however, thorough analysis of this same procedure will surmount to a tangled web of exchange with difficulties likely in the initial establishment. The final product of comprehensive service delivery, however, is then possible to be carefully outlined and explained using process mapping that is easy for administrators and consumers to comprehend. Once constructed, any disconnect in services rendered by consumers or members within the organizational hierarchy are easily identified, and interventions may

be implemented to remedy the variables causing the stopped progression of services. Performance and process management are likely to benefit those in areas where disconnects occur and may lead to an increase in future consumer progress.

### Total Systems Analysis

Like process mapping, total systems analysis relies on the identification of resources that serve as necessary inputs to maintain successful operation of any agency but also provide a more thorough analysis of interworkings between agencies or departments of a single agency. Total systems analysis implies that every single input and, likewise, every single output is accounted for, with clearly specified links identified between each component. This means that the roles of each employee are thoroughly analyzed, with direct links between process and outputs blatantly identified and evaluated for effectiveness. In the illustration depicting process mapping, a total systems analysis would include all information of the process map, but with specific detail addressing the bidirectional influences of various employees, departments, and organizations, all serving the individual consumer of developmental training and services.

Brethower developed and termed "Total Performance System (TPS)" (Brethower & Smalley, 1998) as a behaviorally framed total systems analysis. As the name suggests, Brethower's model allowed for a total analysis of performance as a function of the varied levels and types of resources (termed inputs) that eventually amount to products or services through organizational processes (termed outputs; see Hyten (2009) for a comprehensive discussion). A major benefit of Brethower's system was that incongruence in performance as it relates to the organizational goals could be easily identified as they occur given a thorough analysis of relevant variables and processes of turning inputs to outputs. This could be conducted at all levels of performance including the organization as a whole (regardless of its size), an individual department, or employee (Hyten). Rummler and Brache (1995) have expanded on TPS to provide a more comprehensive and efficient method for charting

organizational interactions. They analyze performance at the three specific levels and consider relationships neural, or in other words, across all departments and levels within the organizational hierarchy. In their analysis, business evaluation exists for strategy, processes, and behavior, with emphasis on fundamental analyses that contribute to the system as an interacting agent, serving functions for leaders who build them, and consumers left to rely upon them for their livelihood. Processes described here and the evaluations of such provide a means by which essential growth and organizational movement may be identified and accounted for in the organizational hierarchy. Business administrators and OBM consultants provide essential examples of such processes being utilized to better the already efficient services contained within the organizational infrastructure initial quality and planning.

Since its introduction roughly three whole decades ago, behavioral systems analysis has been the subject of many conceptual and introductory research articles, and the applicability of its construction has been reviewed in an objective, critical manner by skilled behavioral psychologists and OBM consultants (Abernathy, 2009; Brethower & Smalley, 1998; Diener, McGee, & Miguel, 2009; Gilbert, 1996; Hyten, 2009; Keller, 1968; Krapfl & Gasparatto, 1982; Malott, 2003; Malott, Vunovich, Boettcher, & Groeger, 1995; Mawhinney, 2000; Williams, Di Vittorio, & Hausherr, 2003). In a more recent article, Abernathy (2009) describes a future for behavioral systems analysis and relates it to early fictional work of Skinner (1948/1976), which describes the use of contingency management in creating and maintaining a successful utopian community. Reawakening the idea of horizontal systems viewpoints and the need for systems analysis, and as a means to promote potential future contributions to the experimental analysis upon which it was based, Abernathy (2009) stresses the importance of organizational contingencies and interactive effects occurring at all levels. Though Skinner's *Walden Two* was a fictional account of behavioral technology's presumed application, the apparent applicability should not be lost in translation as foci of



research interests continue to morph into consumer behavior analysis (Foxall, 2010; Hantula & Wells, 2010) or other recent trends.

## The Nature of Human Service

Caregivers of consumers in human service agencies may consist of one person, or many people, but all share the common characteristic as someone upon whom the consumers of services inherently rely to respond appropriately given various life encounters (Riley & Frederikson, 1984). Caregivers of individuals with developmental disabilities often consist of a team of medical and clinical therapists, few or many residential direct care staff, and members of the consumer's immediate family (or a state-designated caregiver, hired by and paid for with federal or state funds) (Odom, Horner, Snell, & Blacher, 2007; Reid & Parsons, 2006). The demonstrable range of services deemed appropriate for a consumer and their family, and execution of service delivery to individuals with disabilities becomes apparent, especially when one considers the implications surrounding the fact that consumers may potentially interact with a minimum of five different caregiving individuals on any given day (potentially more if the consumer resides full time in the agency providing 24-h services). Caregivers may even diverge further according to an array of trait variables that relay crucial information to relevant others in the lives of consumers. Caregiver traits may be categorized and described in terms of experience level, knowledge of the consumer's needs, educational influence on the expected and demonstrated comprehension of caregivers, and degree to which the caregiver demonstrates motivation to provide services in the client's best interests (Odom et al., 2007; Reid & Parsons, 2006; Sulzer-Azaroff & Mayer, 1991). The nature of human services staff and the nature of human service tasks are often at fault for an unwarranted decline in service quality rendered, and outcomes for obtaining the personally identified goals become meager, unlikely to be met given such expectations (Reid & Parsons, 2006).

## Behavioral Challenges Faced by Consumers and Caregivers

Individuals with disabilities often present some level of maladaptive behavior associated with consumer-specific functional limitations impeding on consumer livelihood and expectations for habilitation throughout the course of treatment. Self-injurious behavior, aggressive behavior, impulsive decision-making, and various other maladaptive behaviors commonly exhibited by individuals with intellectual and developmental disabilities require precise definition and measurement, and further, sufficiently effective and least restrictive behavioral support plans to ensure the consumers are subjected to least potential harm, through implementation of interventions which properly address the varying issues as they arise. These and other features shared with populations served by human service agencies provide rationale for thorough support planning, regardless of the severity or frequency upon which the behaviors occur, and the organizational system must therefore demonstrate some preplanned level of preparedness upon which responding to emergencies may rely. For this reason, proper planning and support for the unexpected lay at the forefront of any operation, and the need for a solid infrastructure becomes more apparent.

## Constructing a Support Plan

One essential component of organizational preparedness includes the construction of predetermined responses to behavior as it occurs, which anyone and everyone in the consumer's life may adopt and implement. Behavioral targets may include adaptive features, identified as more likely to advance a client toward relevant goals. Contrastingly, maladaptive behaviors (self-injury, impulsive decision-making, disruptive behavior, and others) are more often identified for behavioral reduction due to the implications of engaging in such behavior for the consumer and those who interact with that individual. Behaviors that impede on the implementation of

rehabilitative services are likely to occur with developmentally disabled populations and are determined as high-potential targets for intervention. In doing so, physicians and clinicians first address medication and organic causes for a behavior to allow for clinicians in other areas (e.g., behavior analysts, cognitive therapists) a better chance to eliminate variability in performance. Resulting expectations focus on increasing the consumer's ability to meet goal-directed objectives likely inhibited previously due to disturbances in normal behavioral functioning.

Key factors commonly identified in any effective response to problem behavior identified in disabled populations include (a) proper identification of variables responsible for the occurrence and foregoing maintenance of maladaptive behavior (functional analyses; Iwata, Dorsey, Slifer, Bauman, & Richman, 1982/1994; Mace, Lalli, & Lalli, 1991), (b) function-based antecedent strategies and behavioral interventions (deemed necessary and appropriate given the frequency and severity of the target behavior) (Bailey & Burch, 2005; Cunningham & Schreibman, 2008), and (c) consistent, reliable implementation and follow-up analyses of rate and severity over the course of treatment by direct care staff members and clinicians. This ensures probable, beneficial outcomes for the client based on individualized goals and person-focused objectives.

## Implementation and Process of Support

In human services, consumers are often provided with a guarantee that essential needs are met, with services provided in a vast array of modalities, contingent on factors likely to determine a best course of treatment. A variety of factors are said to influence the services received, and most often, each may be directed back to the infrastructure devised by the agency serving the client. Factors alluded to here may include, but are not limited to, proper identification and evaluation of needs, accessibility to services in less-populated areas, and adequate funding for services from a variety of clinicians trained to enhance personal abilities (psychological/cognitive abilities, activities of

independent living, emotional and behavioral support, physical and occupational skill sets—which may require retraining if bodily injury is apparent and/or mobility is compromised—and medical monitoring for ongoing treatment evaluation of factors likely to affect all other areas addressed).

Services provide a basis of support for the individual to accomplish personalized goals and objectives, increase access to reinforcing items and activities, and engage in behavior that will allow the consumer to progress through life unaffected to the best possible degree. This, and other information, is summarized in the consumer's person-centered plan, which essentially provides an in-depth depiction of all relevant variables in the consumer's personal life.

Later in this book, the construction and implementation of function-based intervention strategies will be presented, with considerations that ensure the least variability in how processes are carried out. Behavioral support plans may be viewed in this way, as a mini-infrastructure that sets a foundation for responding to a consumer, given the necessity for action, which is directly related to the personal history and contingencies surrounding behavior. Building upon each other, each of these mini-models of responding comprises a larger model, and the overall preparedness of the organization excels to ensure solid service delivery.

## Implications for Human Service Organizations

Consumers of human service agencies include individuals affected by disability and their families and relevant others who care for and support the individual as he or she progresses through life. Additional supports afford individuals the opportunity to experience life to the fullest extent possible, a luxury that those living without the effects of disability may often take for granted. Great care must be taken when working with consumers, and agencies supporting the advancement of those living with disability take on an important task which requires immediate intervention and

ongoing support to ensure the clients receive the best care with the most effective outcomes.

Human service specialists and the agencies providing supports for consumers are often faced with behavioral issues demonstrated by individuals whom they serve, which often require the use of emergency-intervention procedures. To ensure procedures are implemented with the consumer's best interests intact and addressed, processes and planning are required in the previously described identification, intervention, and follow-up of behavioral support plans expected to maintain advancements in the consumer's behavioral repertoire, thus inducing the need for an organizational infrastructure worthy of supporting the implementation and maintenance of best-practice procedures. Each level of support provides a foundation from which consumers and their families can better their lives, and human service agencies allow them to realize their goals of a brighter future.

### **Current Trends: Building an Organizational Culture That Shines**

A buzz phrase in the behavioral and business literature in the past decade is the concept of organizational *culture*. Culture is defined broadly as a set of behaviors that have been consistently reinforced (or previously punished) over time (Tosti & Herbst, 2009). According to these authors, a common view held by organizations and consultants specializing in organizational culture is that establishing a strong organizational culture requires a common vision, a vision likely outlined at the inception of any organization and promoted publicly via organizational slogans or mission statements. Whether the organization holds a vision to obtain perfect customer and employee satisfaction or higher qualities of life for the individuals they serve, organizations need to set these and remain consistent in all actions contributing to the overall missions, thus branding their promise to consumers.

Oftentimes large established agencies run into the issue of staff who show a blatant disregard for, or to the contrast, only a slight incongruence between their mission and actual behavior surrounding that mission (Daniels & Daniels, 2006).

Most often a drifting effect occurs over time. At first, minor behavioral discrepancies pass without notice, until after enough time has passed, visions are misaligned and behavior is inconsistent with obtaining those missions. At this point, when noticed, a means of reorganization is required, and having anticipated such shifts and needs in the outset of organizational planning will help with remedying the circumstances. Culture, taken as the organization views it, occurs regardless of planning. Without proper planning, leaders and administrators end up with a culture that is not highly preferred or even insufficient for effective processing and performance. Leaders are called upon to clarify expectations, and reinforcement must be provided for employees when the right things are getting done. This "catch 'em being good" strategy is a technique identified in managers most effective and most active in the day-to-day operations of their agencies (Daniels & Daniels, 2006). Importantly, managers must identify that culture is tied to performance, so the most important thing a company can do is tie a desired outcome to objective measures likely to be identified in daily employee performance (Dakens, 2009a, 2009b).

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### **Behavior Analytic Applications in Human Services**

Professionals in OBM and ABA have long since demonstrated the need for organizational planning and procedural implementation for effective services in various agencies and with a large scope of individual types. Riley and Frederikson (1984) set the case for application to human services because of the inherent need for a different kind of evaluation in these settings, stemming most directly from the general nature of limited resource availability, and constant staff turnover resulting from burn out and other job-related issues (Lawson & O'Brien, 1994). Interventions in behavior analysis allow for cost-effective and simplistic delivery when building a strong system upon which service delivery lies. Research findings in behavior analysis and OBM have proven worthy when working to resolve issues

within human service organizations. The research presented here includes such interventions that allow behavior analysts to fulfill the promise of socially valid and effective procedures, such qualities that founded the behavior analytic tradition (Wolf, 1978). General application and potential future avenues are outlined to a greater degree in sections that follow.

## Skills Training

With little hesitation, one can state with great confidence that staff training is conducted best when done so in an orderly and well-structured manner (Chapter 5 of this volume describes empirically supported staff training techniques in greater detail). Years of behavior analytic research on performance show that training is most effective when initial planning and eventual training processes link behavior to the natural context in which skills and knowledge are expected to be applied (Brethower & Smalley, 1998; Methot, Williams, Cummings, & Bradshaw, 1996). In a way, just the training component can be treated as a total system discussed previously and may be structured and carried out in the same fashion expected as the overarching organizational system would. Benefits of doing so include the idea that remote contingencies likely to contribute to behavioral maintenance, despite their delayed effects (Michael, 2004) could be anticipated and better controlled. Further, interactive and almost pyramidal effects of training may likely be identified for the most efficient dissemination of knowledge across departments and within residential units to individual contributing to the greater team of skilled professionals working with multiple individuals. OBM researchers conduct a wide array of training, whether training staff to work directly with individuals with disabilities, or training them to conduct assessments, such as preference assessments prior to delivering instruction. Roscoe, Fisher, Glover, and Volkert (2006) examined the role of variables likely to promote or demote effective training with human service staff. The authors trained the staff members to identify client preference by conducting behavior

analytic assessment of reinforcing items in the natural environment. Other incentives and reinforcement were available during training and were deemed important when enhancing the likelihood that staff would maintain their skills following training. Importantly, consideration and application within the natural setting were granted to the individual being trained, with transfer of skills, and discriminative functions appropriately demonstrated throughout (Roscoe et al.).

## Feedback

Performance feedback, described previously as a common component of the effective behavioral skills training, is said to be the one component likely to contribute a high impact as a stand-alone treatment, independent of all other components of the package intervention (Balcazar, Hopkins, & Suarez, 1985). Feedback delivery may occur in a variety of ways, including (a) visual or graphic presentation, (b) post hoc review of video clips produced while performance occurred in the natural setting, (c) written feedback in the form of memos and progress summaries or reports, and (d) direct face-to-face, spoken feedback, delivered from an observer to the performer either immediately as behavior occurs or some time thereafter (Daniels & Daniels, 2006). Major benefits afforded by the use of performance feedback include a varied array of delivery methods and the ability to creatively tailor delivery according to the specific settings and individuals receiving feedback. Recent work in human services demonstrates the usefulness of feedback on staff performance, with methods that can be used across settings and with varying individuals with little need for alteration (Cook & Dixon, 2006; Guercio & Dixon, 2010). Guercio and Dixon delivered feedback to direct care staff members of a rehabilitation facility that serves individuals with traumatic brain injury as a means to improve the quality of client and staff interactions. Feedback delivery consisted of video modeling and was paired with further behavioral skills training to enhance the impact on less-sufficient staff performance, thus demonstrating the flexibility

of feedback, given the necessary resources. Just prior to this study, Cook and Dixon (2006) demonstrated substantial gains in performance when staff members in the same facility were provided feedback, but also had the opportunity to earn additional, albeit probabilistic bonus reinforcement for meeting their established observational performance criteria.

Other researchers assessed the impact of intervention in general, which often includes feedback as a major component, in similar complex settings. Brackett, Reid, and Green (2007) assessed the reactive effects of observation on the performance of job support coaches responsible for ensuring clients completed assigned duties independently rather than having coaches complete forgotten or incomplete tasks for them. Using a multiple probe design that included follow-up, results suggested reactivity to observation and performance feedback may have been responsible for improved performance. The authors then showed it is possible to decrease such reactivity and maintain improved performance over time. The study noted various limitations, however, which are subject to future research for clarity and conclusive effects yielded by intervention.

In an attempt to demonstrate the effects of feedback systems on performance in rehabilitative settings (Coles & Blunden, 1981), the addition of feedback, including private staff performance data and public display of client engagement, was said to have contributed to the increase in materials offered and activities provided to individuals with limited mental capacity. Both targets and improved performance scores demonstrated maintenance multiple weeks following initial implementation with little variation. Left unanswered in each of the aforementioned studies, however, is the question of how much each component of packaged interventions contributes toward progress and maintenance, given the fact that formal analysis of the problem plays an important role already. Uncertainty arises with regards to relative effectiveness due to the concurrent implementation of feedback and a structured recording system, with no additional analyses to separate and confirm the added value of each (Coles & Blunden). Even still, research since then has

shown the valuable effects feedback alone provides in performance management with individual and group behavior (Alvero, Bucklin, & Austin, 2001; Balcazar et al., 1985).

## Performance Checklists

Checklists have become one of the least complex, and perhaps most efficient way of ensuring ends are being met and tasks are completed, leaving a positive impact on the people and processes affected by their use. Development of checklists that sustain complex or large-scale behavior requires consideration with planning, and methods for doing so are outlined within the works of behavior-based safety, a subfield in behavior analysis and OBM most sensitive to critical description of work tasks (McSween & Matthews, 2001). Early works in OBM afford the checklist many positive contributions in terms of behavior change and maintenance of interventions (LaFleur & Hyten, 2005) in a variety of settings to increase behavior of individuals and groups alike (Bacon, Fulton, & Malott, 1982). In a recent work, Gwande (2009) describes the varied use of checklists that have helped to improve effectiveness and safety within settings that range from architecture to hospitals, during routine survey work, or while in the surgical room with patient lives depending on their use. Checklists may be implemented to increase accountability and decrease the number of mistakes made due to human error in memory or other distractions, and in all settings, require little effort of skill on the part of those utilizing them. The need for simple interventions that cost the least amount in resources is especially great in the realm of human services and implementation of care and thus should be expanded to the realm of human services.

## Differential Reinforcement of Desirable Performance

A variety of methods have been developed and adopted to positively reinforce appropriate staff behavior that can lead to increased adaptation

and willingness to act, even when situations are new or pose some degree of uncertainty. Positive reinforcement strategies repeatedly demonstrate their worth in human services, with reinforcing stimuli including tangible, social, nonsocial, or sensory consequences for appropriate performance (see Daniels and Daniels (2006) and Reid and Parsons (2006) for an exhaustive list of reinforcer types and delivery methods). Evaluating staff preference for varying forms of functional reinforcement is essential before implementing reinforcement systems in any agency, and though varying methods of observation, interviewing, and trial and error may be attempted (Cook & Dixon, 2006; Wilder et al., 2007, 2011), research shows it may be more efficient and equally effective to simply ask employees what they like. Asking, in this case, may consist of providing staff with a list of items and having them rate items in order of preference, or perhaps, asking staff to generate the list of preferred items themselves (Wilder et al.). Further ways of manipulating the means of contacting reinforcement in the organizational setting may involve the inclusion of lottery systems or bonus contingencies (Cook & Dixon, 2006) or manipulating compensation to mimic the successful pay-for-performance systems (Murphy, 1995). Of course, in doing so, careful consideration should be granted to devising and defining desirable performance of staff members, to ensure objective, unbiased performance criterion that staff members are capable of meeting.

## Contextual Behavioral Contributions

Contextual behavioral psychology, known to the behavior analytic community as the “third wave” of behavior therapy (Hayes, 2004), stems from the empirical works of behavior analysis and traditional psychological endeavor. As the title suggests, contextual behavioral psychology adds a variable of context to the already investigated, first- and second-order, form and function of behavioral phenomenon. In this way, third-wave therapies seek to address specific, psychological functions intertwined within broad psychological and behavioral repertoires that have emerged through the ongoing interactions between the

whole organism and environmental contexts over time (Hayes). From the expanded scope of experience, therapists attempt to reduce functions via experiential change strategies (often by use of metaphor and visual imagery tasks) that may be linked to functionally similar, yet formally unrelated situations. In this way, new wave therapists work to expand the scope of therapeutic subject matter to experiential and indirectly accessible experience. In turn, unobservable psychological phenomena may be directly applicable to investigation, and interventions may simultaneously address many broad, functionally related response repertoires to enhance greater flexibility in responding.

In third-wave therapies, personal values, goals, and past experiences become relevant components of the psychological and behavioral analysis and may be used to directly relate one or more formally dissimilar situations with functionally or contextually related equivalents. Third-wave principles and techniques are often mistakenly interpreted by novice behavior analysts and are considered a highly complex area of behavioral science—complex in terms of technological understanding, application, and delivery of services—and thus are often approached with hesitation or abandoned before they can be adopted. Despite the hesitation surrounding the perceived complexity, contextual-based therapies offer a variety of simple interventions that are easily adopted by novice therapists and delivered by way of experientially based strategies to expanded circumstances.

Third-wave behavior therapies lend methods to a systems application that expands the scope of OBM and traditional behavioral intervention options. Though not as simple to grasp and implement as organization-wide interventions described previously (i.e., the checklist), methods from contextual behavioral psychology have led to great advancements in single-subject research and application and only recently have been demonstrated empirically effective with use in large organizations.

Pingo (2010) examined the role of personal values as they relate to performance improvement in a treatment facility for individuals with intellectual and developmental disabilities.



Measurements from various psychometric analyses were administered pre- and post-intervention, which consisted of brief sessions of Acceptance and Commitment Therapy (ACT), focusing on employee values and psychological flexibility in relation to assigned employee roles. Employee performance following brief sessions of ACT was objectively evaluated compared to a control group receiving no such therapy. Results yielded vast improvements in the performance of those individuals participating in the therapeutic group. Employees demonstrated greater proactive service planning, increased interaction with individuals at the facility, and an increased provision of materials for instruction available, all targets that previously lacked in all participants. Moreover, with improved employee psychometric ratings, objective observation concluded that not only were materials available for use, but in addition, consumers were provided with more frequent, meaningful, and relevant task materials throughout treatment than they were prior to intervention. Further, outcomes enhanced post-training were never specifically targeted in the ACT sessions, which, as the ACT model suggests, is common with use of experiential reduction techniques. The study provides great implications for use of alternative training methods and interventions that allow for skills gained by participants to be related and applied to other areas of the work environment that function in similar manner for the employee and also for improvements in active treatment delivery in the absence of specific, often costly training.

## Future Directions

Since Riley and Frederikson (1984) proposed the need for OBM in human service agencies, many accomplishments continue to improve the functions upon which services are based, and effectiveness, as determined by the number of individuals now residing in the community compared to those housed under institutional care (Odom et al., 2007). In the way of OBM application in behavioral systems analysis, and the application of behavior-based interventions to large-scale organizations in the past four

decades, there exists still an abundance of research not yet conducted in the field, and more specifically, demonstrated in the realm of human services. No set boundaries dictate the future direction for work in behavior analysis within a human service framework, though avenues introduced in ABA and behavior therapy with typically developing individuals may be readily applied and subject to examination in the organizational setting, expanding the breadth of such interventions to that of disabled populations or the staff members responsible for their care (e.g., Pingo, 2010).

One avenue of future research may consist of the experimental analysis of behavior systems analysis. Although numerous studies show improvement in systems when a systems analysis procedure, such as process mapping is conducted, no study to date examines its effectiveness in comparison to basic contingency management as used in single departments for small-scale problems. Behavioral systems analysis is a lengthy, and oftentimes complicated, procedure which requires the expertise often a behavioral consultant fluent in conducting such analyses, so examining the true applicability and benefit it brings in comparison to brief, informal performance functional assessments (Austin et al., 1999) and A-B-C contingency management (Daniels & Daniels, 2006) is warranted. If less-complicated methods are equally effective, valuable resources may be saved and performance gains likely to continue.

Consumer motivation and choice have grown as interest and research in consumer behavior become more accessible (Fagerström, Foxall, & Arntzen, 2010). OBM professionals have adopted and expanded the analysis of consumer behavior, practiced in later years of Watson's career, and maintained under the umbrella of interests that comprise behavioral economics (see Buckley (1982) and Kreshel (1990) for a review of Watson's contributions to the study of consumer behavior and advertising). A recent special issue in the *Journal of Organizational Behavior Management* (see introductory work by Foxall, 2010, and Hantula & Wells, 2010) is home to many groundbreaking articles for organizational analysis. Each of the included works speaks to

consumer behavior, and the value of environmental manipulation and behavioral observations within the consumer sector is expressed. Still, an analysis of consumer behavior as it relates to consumers of human services may likely enhance the insight afforded to administrators and managers when determining the allocation targets for the already-sparse resources, or as described in traditional consumer analysis, inputs, for most desirable and effective outcomes in service for consumers, even if meaning across settings for input and output can vary substantially (Riley & Frederikson, 1984).

Another avenue likely to improve methods in organizational management resides in the study of complex human behavior from a contextual behavioral viewpoint, particularly in human services. As previously identified, recent work derived from Relational Frame Theory demonstrates the utility of ACT used in a human service agency to improve the type and quality of active treatment afforded to individuals with disabilities (Pingo, 2010). A common outcome of contextual psychological methods is additional benefits in the absence of training specific targets, and this work demonstrates vast improvements obtained without direct training. Work in human services requires some degree of investment toward the betterment of others, particularly, in terms of the clients with whom one works and in the quality of life experienced by such individuals. Direct care staff members and clinicians are responsible for such influence, so interventions derived from this type of research may afford employees and clients a greater flexibility in day-to-day activities and increase their ability to cope with issues as they arise.

Further research and potential application of contextual psychology may come from the analysis of mindful behavior of direct care staff. Langer (1989) suggests that repetitive, structured, familiar tasks lead to mindless behaving or an equivalent sort of mental laziness. Mindless behaving may be observed in those who conduct many repetitive tasks seemingly without demonstrating the need to think about it. This type of performance may often be identified in the roles adopted by staff working with individuals in human

service settings. Bathing clients, delivering sequenced instruction, or teaching structured tasks to children and adults with developmental impairments may follow this sort of repetitive, mindless activity, so demonstrating the ability to complete tasks in this way often allows for more efficient task completion. Langer asserts that because of this mindlessness, difficulties arise when the repeated task is slightly modified or a new step is introduced (or in the case of disability, crises arise). At this point in time, the once-proficient professional may become less adaptive and unable to respond in the same efficient manner. Instead, novice performers may outshine those who have many years of experience in their ability to cope with these unexpected procedural complications, thus enhancing the complexity of the interacting organizational system.

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## Conclusions

Human service organizations and the professionals working with individuals with developmental disabilities and other disorders face a major task of improving the lives of those suffering from detrimental conditions while providing services deemed appropriate by society and research in that area. With the continuously increasing rates and varying degrees of disability reported each year (Falvo, 2009), the job of human service professionals continually changes, with unique challenges faced on a daily basis—some with life-threatening consequences. Unlike traditional organizations, human service organizations face a consumer demand for effective services, which means something entirely different than the consumer market of traditional business and economics. Effective organizational operation means not that any clearly defined “inputs” result in specific products, or “output,” through some form of organized process; rather, inputs may refer to a blend of time, energy, knowledge, and other personal traits of a service provider, and outputs then refer to constructs describing client progress (e.g., independence, intellectual growth, and increased ability to lead a normal life) which are hard to define and clearly measure uniformly across

individuals. Despite the fact that tangible outputs are not as easily categorized and measured for effectiveness, constraints and regulations required of such service providers increase just as expectations for accountable, reputable services are demanded by insurers and families of those in need (Falvo). For this reason, organizations specializing in human services have a unique task of providing services and accounting for the progress in others, with data to support their efforts.

In the beginning of this chapter, examples were provided of organizations that began as a means to improve the human experience. Human services for individuals with intellectual or developmental disabilities may just fit as one of these organizations, with specialization in disabilities that arise quite early in life. Every organization begins small but can have large influences on people in many unique ways. Ideas proposed by founders of human service organization giants such as Goodwill Industries and United Way were constructed by individuals continually thinking outside the box to develop a better means by which services could be delivered to the consumer market necessitating such services (Townsend, 2006). Human service agencies today continue this trend, with lessons from predecessors providing the building blocks of efficient planning.

In many ways, and throughout this chapter, one can see the very need for organizations to enhance services and assume from inception, a proper infrastructure upon which it may stand as a means to maintain progress and further develop over time. Especially sensitive to the needs of infrastructure are those organizations specializing in the evaluation and treatment of developmental disabilities, considering the maximal likelihood of unexpected behavior and high-risk populations in such settings. Such organizations require a procedural foundation capable of ensuring the appropriate processes and performance that have come to be expected by consumers influenced by the agency or organization, which allows them to handle emergency situations that call for immediate, direct action on the part of the employees. In human service organizations, a firm infrastructure will ensure that services are being delivered in a safe, efficient, and effective

manner, limiting the sudden procedural changes often resulting when plans fail to meet expectations during execution. Such preparedness occurs if processes are developed and properly implemented as planned during initial stages of organizational development. Further, data, materials, and supplies that enhance employee roles will likely provide the necessary means by which employees may contribute to the attainment of organizational goals and objectives, maintaining optimal status with funding agencies.

### **Demonstrating a Need for Infrastructure**

Human service organizations that demonstrate the ability to produce a solid performance infrastructure should find that they continually meet and exceed overall expectations with constant monitoring and shaping of job, department, and organizational goals and objectives to ensure success, with or without the aid of consultation services that ensure smooth operation and advancement of the organization during difficult times. It may be assumed that administrators under which these organizations operate possess the skills necessary to identify and establish the correlating variables between processes and people within the organizational hierarchy to directly enhance and contribute to goal attainment and realize the missions of the provider. When organizational goals are achieved, and missions upon which the organization was founded are met, consumers can be confident they are receiving efficient, consistent care, leading to positive outcomes and sensitive to changing life situations.

Becoming successful in providing services for humans with disabilities is no easy task and demands leaders a search for constant improvement. Improvement requires the use of new tools for adaptation, beyond the initial planning stage, and behavioral technologies may intervene when infrastructure and execution become weak. Even still, beginning with a solid (clearly defined and comprehensive) infrastructure will undoubtedly raise the ability of staff and clinicians to perform to their best.

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