Chapter 25

Do Good, Take Data, Get a Life, and Make a Meaningful Difference in Providing Residential Services!

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Abstract

This chapter describes the evidence-based, organizational model and system used at Community Living Opportunities, Inc. (CLO), which has been collaboratively developed in partnership between CLO and the Department of Applied Behavioral Science at the University of Kansas across the last 30 years. This partnership has contributed to the development of unique models and supports which work together to improve eleven important community outcomes. This chapter provides a description of its outcomes, where they came from and how they are measured, as well as indepth explanations of CLO's service models and organizational systems that are used to help achieve these outcomes. Additionally HomeLink Support Technologies are described, which are technologies developed by CLO to remotely supervise, coach, collect data, and support its homes and programs. This technology is used to remotely connect professionals and deployed staff to support clients living in their home, and is also used to collect data for use in developing interventions or ensuring treatment integrity when caregivers are working in homes without on-site supervision. The goal of these models, organizational systems, and technology is to affordably provide best-practice care, teaching, and support for clients living in highly decentralized, small homes across urban and rural settings.

Residential Services: Do Good, Take Data, Get a Life, and Make a Meaningful Difference!

25.1 An Introduction to Dragon-Wrestling 101

25.1.1 Giving Due

The chapter title and the introduction title are tributes to the four publications that may best describe the principles and beliefs blended into the development of best practice community services (i.e., Risley, 2001; Risley, 1996; Hart & Risley, 1995; Wolf, Kirigin, Fixsen, & Blasé, 1995). They are essential reading directly from the masters of their craft for those who wish to attempt to build an effective community support program. Much has come from their work and much is owed to the quality of life they have made possible by their achievements. Each reading unpacks a clearer vision for what may need to be done and why.

With these publications as a backdrop, this chapter will focus on important program design components of effective community living models that support people with a wide range of developmental disabilities. The models that we describe may not be familiar to most readers; as a result, this chapter will provide a brief historical overview of our partnership before highlighting the current and ever-evolving services we offer such as the Family Teaching Model (FTM), Extended Family Teaching Model (EFTM), and HomeLink Support Technologies (HomeLink).

25.1.2 About the CLO/KU Applied Behavioral Partnership

Community Living Opportunities (CLO) was founded in 1977 by professors from the Department of Human Development and Family Life (now Applied Behavioral Science) at the University of Kansas (KU) and a group of families who had family members with multiple severe developmental disabilities. From these very small beginnings, CLO has grown to become a sizable and highly regarded service provider, meeting the needs of over 485 adults and children on an annual budget of approximately $22 million dollars. Additionally, CLO has helped develop over $65 million dollars of annual budgeted community living services by creating sister organizations in multiple states, primarily to help develop community living opportunities for people leaving state-operated institutions that were closed or downsized.

The CLO/KU partnership has spanned over three decades of research and development activities that have contributed to the development, use, revision, and dissemination of CLO's service models. CLO has many programs, services, and support models, which are described in detail at www.clokan.org and www.homelinksupport.com. Space does not permit us to describe all of these in the present manuscript.

25.1.3 A Brief Overview of CLO's Family Teaching Model and HomeLink Support Technologies

The roots of CLO's FTM and EFTM models are buried deep in its KU partnership. The FTM began as an adaptation of the Teaching-Family Model, created by the Achievement Place

Training Project at KU (Wolf, Phillips, & Fixsen, 1972). From these beginnings and with the help and mentoring of the founders of the Teaching-Family Model at Achievement Place, CLO's version took form and has been adapted and revised for over three decades and across multiple agency disseminations.

Before discussing what we believe are some of the important factors for providing high-quality and effective community services, it may be best to very briefly describe CLO's FTM, EFTM, and HomeLink program. Details and examples of these programs will be increasingly provided as important components of a program design are discussed.

25.1.3.1 Family Teaching Model (FTM). With the FTM, a Family Teaching Couple (FTC) and their family live adjacent to three or four people with developmental disabilities in an adjoining home and provide support. The homes are typically duplexes with two separate living arrangements, often connected by a door to allow the FTC access to the home of persons receiving support (herein, clients). We require the FTC to live in the adjoining home; as a result, their only job is to serve the clients as a live-in FTC.

The FTCs have four general responsibilities: (1) they are the on-site manager of the home; (2) they coordinate, arrange, access, and provide community living, health, adaptive, and behavioral care for the clients; (3) they are the primary liaison with families and guardians; and (4) they supervise all support and relief staff providing services on evenings and weekends.

As a requirement of employment, the FTCs must be certified annually by CLO/KU. This certification includes workshop and seminar didactic training; monthly in-home coaching and mentoring by an experienced "coach"; practice evaluations of the implementation of key processes and achievement of important person-centered outcomes; and achieving high expectations on in-depth, independently conducted professional and consumer evaluations.

25.1.3.2 Extended Family Teaching Model (EFTM). The EFTM is essentially a very specialized adult foster care program (CLO has a children's foster version of this program, too). It functions and operates almost identically to the FTM program as described above, with the following exceptions: (1) only one or two clients are typically supported in an EFTM home; (2) the clients live with the extended family teachers (EFTs) and their family in one home (often owned or leased by the EFTs); (3) although the EFTs complete the same training, coaching, and annual certification requirements as the FTCs, the EFTs participate in additional training and meet additional requirements for foster placements; and (4) EFTs are paid as independent contractors rather than as employees of the organization.

This program was called the Extended Family Teaching Model simply because it was viewed as an extension of the Family Teaching Model previously described. The majority of EFTs were previously FTCs, direct care employees, home coaches, or clinicians at CLO who had long-term relationships with one or possibly two persons they helped to support. For an EFTM placement to occur, the family/guardian, the client, CLO, and the prospective EFT must agree to the placement. Additionally, the prospective EFT must participate in pre-placement home studies, additional extended family background checks, and other training beyond what is required of FTCs.

25.1.3.3 HomeLink Support Technologies (HomeLink). HomeLink is an amazing breakthrough use of technology that creatively combines advanced security and smart-home technologies with specially-trained professionals to provide remote and deployed support. HomeLink can deliver health and behavioral support, home security, in-home care, or emergency support to an individual in the home when and where it is needed. It can be used to remotely supervise the provision of care, simply answer a question, or offer remote assistance or training. At CLO, HomeLink is used to connect our supports to one or many homes in need, "virtually" anywhere.

HomeLink is *individually designed* to meet the needs for supporting a client's independence. An application may involve the use of a variety of sensors, including security, health, or behavioral sensors. It can also involve low or no light cameras or interactive speakers/microphones in a home. It might involve installing innovative technology that leverages home television systems to become teleconferencing systems that connect the right people to offer training, support, or advice personally and interactively to a person or support staff in need.

And while this all sounds very "technical", perhaps the "art" of HomeLink is that it doesn't require any technical abilities by the person in need. At the heart of this technology is its state-of-the-art monitoring and virtual support center, located in Lawrence, Kansas. From there, a professionally trained support team monitors homes under individually designed support agreements, provides in-home remote help, and/or dispatches and monitors local networks of care as needed. CLO's HomeLink program offers support to its FTM homes, and is developing additional grant-funded technology to offer this support to its EFTM homes and to private homes.

25.2 Defining and Measuring Service and Person-Centered Expectations

25.2.1 Quality of Life Outcomes

The first step to implementing a best practice community service program is to define service expectations and the outcomes to be produced. CLO/KU began developing its service expectations and critical program outcomes in the early 1990s and it is a process that is in continuous refinement.

We began with a review of the literature that focused on efforts to define a successful community placement or a high-quality community lifestyle (Strouse, 1995). Most studies on successful community placements, however, were post-institutional studies of successful and non-successful community placements. Most studies were correlational in nature, and there was very little agreement as to what exactly constituted a successful community placement other than remaining in the community placement for long periods of time and avoiding institutional or in-patient placement. Measures of community success commonly reported in literature included improved adaptive skills (Borthwick, Meyers, & Eyman, 1981; Kleinberg & Galligan, 1983; Willer & Intagliata, 1982), perceived quality of life from the viewpoint of family and friends (Landesman, 1986; Seltzer, 1981; Shalock, Keith, Hoffman & Karan, 1989), absence of problem behavior (Bruininks, Chen, Lakin & McGrew, 1992; Thiel, 1981; Willer & Intagliata, 1982), successful employment (Haring & Lovett, 1990), and various descriptive measures and/or

conclusions based upon direct observation (Edgerton, 1967; Edgerton & Bercovici, 1976; Landesman-Dwyer, 1981; Seltzer, 1981). Although there were many attempts to measure some aspects of a good community life, this information fell far short of defining quality of life or the components that need to be in place to achieve it.

When our review fell short, we queried community providers who provided best-practice community programs, respected professionals in the field, and families and guardians about the important aspects of a high-quality community lifestyle. It seemed as if everyone had a different view of what comprised "a good life" and no one (to our knowledge) had yet achieved it. A good community life seems to involve a collection of daily experiences, which often vary for different people.

However, we also found certain characteristics of a good life that are generally agreed upon by most people. For example, nearly everyone we queried expressed a desire to be healthy, safe, and treated with respect; to engage in purposeful, interacting activities; and to spend time with people they like while enjoying activities they prefer. In addition, individuals appear to want some control over their lives, to learn and try new activities, to live in a nice home in a good community, and to surround themselves with good people they trust to help them when help is needed.

In the end, the CLO/KU team identified 11 outcome areas that describe many of the areas identified by those we queried and created indicators to assess the achievement of each outcome (available at www.clokan.org). Over time, we essentially conducted an ongoing social validity assessment of CLO's outcome measures (Wolf, 1978) by simply discovering that the ratings by consumer groups (outcome 11) were often associated with similar ratings of homes on the first 10 outcome areas (which we occasionally refined to reflect consumer preferences). These quality of life outcomes have been modified across the years and are presented below.

1. Pleasant and safe surroundings
2. Observance of legal and personal rights
3. Positive relationships with others
4. Living healthy lifestyles
5. Opportunities for choice and control
6. Effective learning opportunities
7. High level of participation in daily experiences
8. Community involvements
9. Effective communication
10. Pleasant social environment
11. Satisfied consumers

25.2.2 Person-Centered Measures of a Quality Lifestyle

In addition to CLO's measures of a high-quality of life, each client has his or her own idea about how he or she might want to live. This more personal definition of life quality is typically described with a person-centered plan (Smull, 2002). A person-centered plan is one based upon detailed assessments of interests, skills, and needs from various perspectives;

interviews and input from those who know and care about the person; and feedback from the client. The end product is a clear description of the kind of lifestyle reasonably desired, the most important skills and opportunities needed to realize this lifestyle, as well as the supports that might be needed to be successful. Goals and objectives are developed from this plan, which serve as a measurable guidepost for assessing individualized life quality.

25.2.3 Home Quality Evaluations

All homes within CLO are evaluated at least once a year based on 11 quality-of-life outcomes and individually-identified person-centered outcomes. These multi-component evaluations include: (1) a professional evaluation or review; (2) consumer evaluations of satisfaction; (3) CLO's At-A-Glance evaluation; (4) care reviews; and (5) clinical reviews. Each of these components individually contribute to the overall assessment of quality of life for persons served by CLO, and will be briefly described in the following paragraphs.

25.2.3.1 Professional Evaluations. The professional evaluation is a detailed in-home review lasting two to three days conducted by an evaluator with specialized training in reliably assessing CLO's outcomes (and who is not associated with the home being evaluated). Professional evaluators meet with the home staff to discuss what they can expect to happen during the evaluation, arrange a time to review records, and schedule a lengthy meeting to interview home staff and observe the home and community activities and interactions. The interview and observation activities typically last eight hours. The professional evaluators review the quality of life indicators, complete the assessment tools, and calculate outcome scores.

25.2.3.2 Consumer Evaluations. In addition to an in-home professional evaluation, consumer satisfaction evaluations are distributed to consumers and their guardians to solicit feedback about program quality and determine areas in need of improvement. These measures ask consumers to evaluate, rate, and provide comments on items designed to assess the home performance in the outcome areas previously described. To supplement these ratings, guardians are also personally interviewed on a quarterly basis to determine if there are issues or concerns they may have about the home where their family member resides. Results of the consumer evaluations and guardian interviews are instrumental in determining whether stakeholders are satisfied.

25.2.3.3 At-A-Glance Evaluations. The CLO/KU team also wanted to capture quality information from planned and unplanned visits to homes by families, clinicians, managers, advocates, or others. The At-A-Glance evaluation was developed for this purpose. This evaluation asks fairly simple, general rating questions that can be easily completed by persons with little training. Moreover, this evaluation can be easily completed after a 15- to 20-minute home visit. The At-A-Glance evaluation tool allows CLO/KU to collect multiple samples of home performance across a month, with some samples of unannounced visits.

25.2.3.4 Care Reviews. Another component to the CLO/KU home evaluation process is a review conducted by CLO's advocacy and protection specialist. Any report of a care concern or unexplained event or incident is reviewed by an advocacy and protection specialist who is administratively independent of the provision of services and reports directly to CLO's Quality

Assurance department. A care review might include reviews of a fall, an unexplained injury, property damage, a concern of poor care, a safety concern, or any other similar issue.

25.2.3.5 Clinical Reviews. The final "internal" review of quality that contributes to the overall evaluation of CLO's services is its clinical review process. This process is completed semi-annually or quarterly (or more often, if needed) for clients who exhibit very challenging behaviors or have significant health concerns. A skilled behavior analyst (often faculty from the University of Kansas, Department of Applied Behavioral Science) leads a CLO team review where information on progress and concerns are presented and recommendations are made to ensure progress. A key expectation of this clinical review team is to review the progress of clients who may be taking medications for behavioral control. A liaison from this group works closely with physician specialists (e.g., psychiatrists and neurologists) to organize and present data for their consideration and use.

25.2.4 Establishing Criteria for Success

The quality assessment process described above gathers information about the performance of CLO's community living support services and examines outcome measures that are considered important indicators of quality. The job of quality assessment, however, is not complete until decisions are made to determine if overall performance on various measures/indicators meets (or does not meet) our quality expectations in each of the outcome areas. To determine this, measures/indicators within and across outcome areas are examined and rated on a 5-point scale, from 1 (*unacceptable*) to 5 (*exceeds standards*). Average outcome ratings of 4 (*meets standards*) or greater, tabulated across each of the outcome areas, are required for a home and/or FTC to receive certification. While there are many measures of performance based upon observational and other verifiable data, ratings are used to determine if performance data meets or exceeds expectations (the criterion performance). Evaluators are expected to obtain 90% or higher agreement (i.e., inter-rater reliability) on critical decisions regarding whether an outcome area is considered "passing" (averages 4 or greater) or "not passing" (averages less than 4).

25.3 Creating A Service Model to Achieve Expected Outcomes

It is nearly impossible to create a best practice community living program without developing a reliable and valid measure of quality of life and service expectations. That said, measuring outcomes is not the service model. The service model (i.e., the intervention) includes the collective strategies for delivering services. The following pages will describe some factors that may be important in the development of a best-practice service model. We will provide examples on our attempts to implement these factors in the FTM or EFTM services.

25.3.1 The Home, its Size, and its Location

25.3.1.1 Home Size. Most studies on home size and quality are correlational, but they generally show that home size is inversely related to quality (Heller, 2002). We have found the same result in our own homes, where our smaller homes reliably achieve greater measured outcomes than do larger homes. It isn't clear why small homes out-perform larger homes, since only correlational or descriptive research has focused on this issue.

That said, we believe that small homes are critically related to good care because they can allow greater flexibility in meeting needs, have fewer different people involved in care, and provide an opportunity for deeper relationships to develop between clients and caregivers. Figure 1 compares outcomes achieved at CLO in 2011 from a selection of homes of different sizes. While this figure shows differences by home size, it also should be noted that at CLO larger homes (group homes) are supported exclusively by shift staff, while three-person and two- or less person homes are typically Family Teaching and Extended Family Teaching homes, respectively.

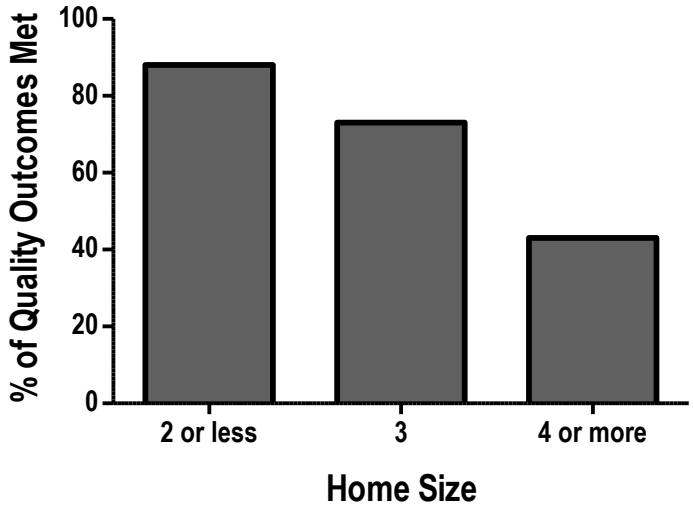

Figure 1. The percent of quality outcomes met by size of CLO home in 2011.

25.3.1.2 Home Design Requirements. The design of the home needs to be appropriate to meet the needs of the clients residing in the home. Persons with ambulation and accessibility needs must have accessible accommodations to promote independence. In general, universal design concepts (Frailey, 2005; Nunn, Sweaney, Cude, & Hathcote, 2009) are preferred and most collectively meet the needs of multiple populations. Universal design is a design concept where accessibility-friendly features are embedded into typical home designs that are created for the general public so that they meet current and future needs for accessibility of occupants.

Communities have very different zoning and building code requirements, and it is critical to ensure that these requirements are met. We find it helpful to visit with the planning, zoning, and codes department in the community in which we wish to provide services in order to understand local code expectations. It is also important to consult with your state fire marshal's office to obtain any information that might impact housing choices. The greater the number of people living together and/or the greater the needs, the more stringent (and costly) the building and fire safety codes. As a general rule, homes that house three or fewer unrelated persons have fewer code requirements, as do homes that house families or foster families with a member with a developmental disability. Homes that are leased or owned directly by the clients are also more likely to have less stringent code requirements than homes owned by a provider of services.

CLO supports persons with developmental disabilities in a variety of different kinds of homes. As much as possible, CLO avoids multi-level homes in favor of single-level homes. Even when clients are ambulatory, one-level living is generally safer and easier for evacuation. CLO's foster homes are typical residential houses with the same code requirements that exist for typical families. CLO's Family Teaching homes are three bedroom typical duplexes where the family lives on one side and three clients live on the other (which is considered a separate home). The codes are identical to those in place for regular tenants of duplex-style homes because only three people with developmental disabilities live on one side (one home), and they typically lease the home directly from a community landlord (not from CLO).

In contrast, CLO owns some eight person group homes that have significantly more stringent building requirements, and are built to the most stringent life-safety codes, which include automatic sprinkling systems and fire rated doors and corridors.

25.3.1.3 Location, Location, Location. The amenities and resources of a well-selected community and neighborhood can have a tremendous impact on the quality of life for clients. Safety, availability and types of jobs, independence, food, health care, recreation and interesting activities, transportation, zoning, and most importantly the people who provide support are important considerations when determining home location.

Wolf Wolfensberger was one of the pioneers of creating normalized lifestyles for people with developmental disabilities, and created one of the first assessments of important community attributes of a well-selected home and community (Flynn, 1999). Fifty years later this assessment still prompts the asking of very relevant questions about home location. Is the home in a safe and attractive neighborhood, away from busy streets? Are there green spaces close or parks for enjoyment? Are shopping, medical care, restaurants, possible job or volunteer opportunities, family and friends, and other amenities that are important to the person served close? Is public transportation or specialized transportation available for access? Will the desired location offer affordable and appropriate housing choices for the population's needs? Some neighborhoods, home associations, and city planning requirements can make it very challenging and expensive for homes to be located in certain areas, especially if the home size is too large or out of character relative to the neighboring homes. Finally, are sufficient staff support resources close to the home and will the home and location be highly desired by good support staff? The proximity and attractiveness of the neighborhood to talented employees may well be the most overlooked and understudied consideration for home selection. It might be helpful to examine the businesses and services in the location of a proposed home. What industries are there? What is the crime rate? How reputable are the schools? Is there a college or junior college nearby? How much do service agencies pay workers in the community closest to the neighborhood selected? What is the unemployment rate? Are there resources, activities, and amenities in this area that will be attractive for support staff? Will the neighborhood and community location offer affordable and talented staffing supports?

With CLO, the FTCs and EFTs and their family members *live in* the same neighborhood as the clients they support. Therefore, their needs and preferences can play a very large part in the selection of a home location. CLO's FTM homes are generally located in duplex-home developments and this can narrow options for some locations. EFTM homes, which are

specialized foster-care homes, can be located almost anywhere. Group homes can be specially constructed and larger than typical housing, and consequently, it can be challenging to find the right place that fits everyone's needs.

25.3.2 Roommate Considerations

Roommates must be compatible, and their collective needs must be ones that can be reasonably, reliably, and willingly met by the available direct support staff. The right roommates may even reduce the need of support because of complimentary skill sets for everyday living. Similarly, incompatible roommates can cause the need for additional staff support. There are assessments that attempt to identify the intensity of support needs for individuals. In many states, these assessments are linked to funding tiers, which make sense, since cost is partly related to support needs. There are several assessments that might be helpful in evaluating support needs, including the Supports Intensity Scale (Bossarert, Kuppens, Buntix, Molleman, Van Den Abeele, & Maes, 2009), the Inventory for Client and Agency Planning (Hennike, Myers, Realon, & Thompson, 2006), and the Developmental Disabilities Profile (Hennike et al., 2006).

While assessments can be helpful to look at individual needs, we have found none that look at the collective needs and/or the complimentary skills of proposed roommates as a group. This, however, is a necessary activity to determine if and how a small group can be best served with the support available. To evaluate the support needs for roommates, consider the daily and weekly routines that will be required to collectively support persons proposed to be living together in a home. Then consider the available staff supports to meet these routine needs across various times of the day. Are there too many needs of the same type or occurring at the same time? Are there too many elopement risks given the available staff? Are there too many challenging behaviors or loud behaviors? Do persons served require more assistance than can be reasonably provided by available staff? Or do some persons exhibit behaviors that might provoke challenging behaviors of others? Will it be challenging to access the community with available staff if too many persons need help with ambulation or too many people need specialized transportation? Are there too many up-at-night needs relative to the available support? On the other hand, do roommates have some complimentary skills that could be a benefit or even reduce staffing needs, like cooking or cleaning skills or home safety or stranger safety skills?

Helping create effective roommate strategies is a balancing act of pairing clients who enjoy each other's company, while also assuring that there are appropriate staffing resources for care across daily routines. The best advice is to consider all aspects in resolving roommate groups, especially the relationships of people. Perhaps the most important consideration is to ensure that decisions have input from people who know the clients well, accurately understand the staffing resources and limitations, and are very familiar with the availability of community services.

Finally, regardless of the work that goes into selection, it is critical to recognize that roommates often do not work out for many reasons, and while roommate moves need to be minimized, they will most certainly need to occur and should be expected. One of the biggest

mistakes is to resist making changes to incompatible roommate situations or when clients present too many needs for available staff.

25.3.3 Direct Service Workforce Stability

While there are many considerations to the provision of best practice community services, none are more important or challenging than providing a client the support of a stable workforce of talented and caring people. Unfortunately, numerous comprehensive national studies of the developmental disabilities (DD) community workforce reliably show very high turnover rates that exceed 70% per year (Braddock & Mitchell, 1992; Larson & Lakin, 1992). This instability will surely worsen as baby boomers become seniors and as nationalized healthcare begins to offer services to 49 million uninsured persons.

There has been a considerable amount of research attempting to determine factors related to instability in the DD workforce. Most of this research, however, attempts to correlate various factors with turnover (Braddock & Mitchell, 1992). Turnover is generally defined as an annual percent, which is based upon the number of staff it takes in a year to fill the number of positions scheduled to provide care. Factors significantly correlated with turnover include poor pay, difficult working conditions in increasingly dispersed settings, reduced supervision, inadequate training, undesirable work schedules, rapid expansion of community services, difficult-to-serve populations, high competition for service employees, and other factors (Braddock & Mitchell, 1992; Larson & Lakin, 1992). While correlational research has helped to potentially identify some factors that may be related to turnover, this kind of research has apparently not fostered many useful strategies for creating a more stable model of staff support.

Strouse, Carroll-Hernandez, Sherman, and Sheldon (2003) proposed looking at staffing stability differently in order to gain more insight on how to develop strategies that may provide more consistent care. Instead of focusing on turnover, Strouse and colleagues examined payroll data by home within CLO to account for why there were far more caregivers involved in care across time than there were positions. This involved examining pay records and standard schedules of positions and determining why, for each instance, a different person worked who was not permanently scheduled to work in that specific schedule. Looking deeply in one home across time to examine these reasons can generate much more insight into solutions to improve staff consistency. Vacancies (caused by turnover) was a significant reason for more people to be involved in care. There were, however, other reasons for the staffing situation. Once these "causes" are identified, strategies can be developed (organizational and individual interventions) to improve performance in and across homes and programs.

Causes of instability measured by too many people involved in care might include: (1) inefficiently designed work schedules that require more people (e.g., overlapping, working wrong time, or part time workers) than necessary to provide care for the ratios of staff needed; (2) loss of staff (e.g., turnover); (3) inability to efficiently and quickly hire staff for vacant positions; (4) training strategies that remove people from work schedules; (5) non-preferred work schedules or poorly conceived differential pay strategies that cause people to move into more preferred schedules that may be in other homes or programs (when they become vacant); (6)

poor substitute strategies where many different substitutes are used across many different homes; and (7) absenteeism, family medical leave, vacation, and other leave-related issues.

The causes and interventions used at CLO are beyond the scope of this chapter, but they are partially discussed by Strouse and colleagues (2003) who empirically evaluated an intervention package developed at CLO that significantly improved the stability of its shift staffing program by implementing a new scheduling strategy that reduced the number of people needed to provide care and turnover, without decreasing care ratios. While this research produced significant (and meaningful) improvement, researchers concluded that CLO's FTM and EFTM services provided a much more stable workforce (i.e., over 350% less turnover) than possible under the best of shift-staffing conditions, and this is still the case at CLO. Figure 2 depicts the differences in annual staff turnover by the type of home (shift, FTM, and EFTM) in 2010. These data suggest that the EFT homes are the most stable of all homes.

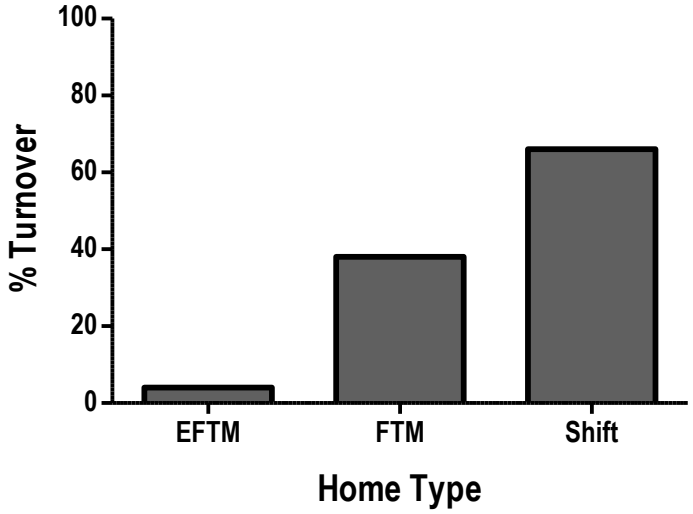

Figure 2. The percent annual staff turnover by home type in 2010.

25.3.4 Staff Selection

25.3.4.1 Goals for Selection. To help provide the best supports, it is important to hire and match talent to the lifestyle needs of clients. This process, however, would be much easier if there was a large pool of people interested in working for the agency. If the pool is small, then a best practice selection process is pointless. Consequently, the hiring process has two primary goals: (1) to recruit as many caring people to apply as possible; and (2) to make sure that the "best" people from this pool are hired as quickly as possible. Goal 1 is essentially marketing and sales (yes, sales). Goal 2 requires the implementation of an applicant-friendly hiring process that ensures that the best people are selected quickly. Agencies that experience challenges with hiring staff often spend too little time on goal 1 and/or their strategies for addressing goal 2 are not applicant friendly or timely.

25.3.4.2 Recruitment Strategies for Direct Service Employees. Recruitment strategies are multifaceted strategies that include advertising, marketing, eMarketing, referral programs,

recruitment fairs, and many personal visits to places and communities from which employees are sought. For many reasons, the best recruitment effort begins in the neighborhoods and surrounding communities of the home or program needing support staff. If staff can be found close to where support is needed, then support will be available more flexibly and it is far more likely that the employee will be vested in both the home and the neighborhood, which benefits the clients. In our experience, the best way to accomplish this is to focus upon neighborhood activities, clubs, churches, grocery stores, community boards, local community centers, billboards, bus route advertising, sign (or van sign) advertising by industries in the area, neighborhood flyers, local newsletters, local radio, and targeted eStrategies that provide geographical targeted advertising. As was mentioned previously, the availability of affordable talent is a major consideration to home location.

The best recruitment source, however, is a network-driven referral strategy that includes asking recently hired candidates, employees, past employees, parents, advocates, friends, and even vendors for employee referrals. "Asking" people to help should be a formal and regular part of normal operations and should involve all parts of the provider company. We recommend that this strategy (i.e., asking) be embedded into routines such as annual planning conferences, reviews of care, tours of services, home visits, conferences, neighborhood gatherings, trips to the grocery store, and other activities. The request (or ask) should be accompanied by a presentation of a simple business card with contact information on one side and a small description of employment opportunities on the other. We recommend designing the card so that there is a space to note the name of the person referring a potential applicant.

All recruitment efforts might best be held together by social networking strategies, such as Facebook, twitter, and Google+. It certainly is possible to pay for referrals, but it is not yet clear that this presents any more participation than could be obtained by asking regularly. A final point is to consistently ask candidates where and/or from whom they learned about an employment opportunity. If they learned from a referral source, make sure that there are formal and informal efforts for recognizing the contribution of this source. We also recommend that agencies gather data about the frequency of referrals from a particular source so that the agency can adjust future strategies accordingly.

25.3.4.3 A Customer Friendly Selection Process. Engerman, Strouse, Sherman, and Sheldon (1997) developed and evaluated a hiring strategy that was designed to make informed employment decisions (both on the agency's and applicant's parts). This strategy includes a screening process, an interview and detailed application, a home visit, and a background check, all of which cumulated into a hiring decision. This package intended to provide both CLO and the applicant the information needed to make a good decision. It also attempted to include research-supported components that are important to making an informed hiring decision, such as screening, realistic job previews, and other selection strategies (see Caldwell & O'Reilly, 1985; McEvoy & Cascio, 1985; Premack & Wanous, 1985).

The applicant was evaluated at the screening, interview, and home visit and rated on dimensions that CLO identified as important in hiring an employee. An overall rating on a 4-point scale was computed for each candidate. Similarly, the candidate rated the hiring process before and after a hiring decision was made so that we could learn from their perspective how to

improve the process. Candidates who were rated highest (3+) at each step (i.e., screening, interview, and home visit) were prioritized to proceed through the process more quickly for a hiring decision. Candidates who were rated a 1 at any step were not selected to complete the next step and sent a regret letter. We attempted to reduce the number of trips, amount of time, and response effort of each candidate during this process.

25.3.4.4 Family Teacher Selection. The process for selecting CLO's FTCs is somewhat different and needs to be separately discussed. FTCs are live-in or live-near positions that provide care and support. The recruitment process for FTCs includes all the marketing components discussed above, but there are also regional and national marketing strategies for finding people who want this lifestyle. These strategies include foster care (or house-parent) websites or newsletters, as well as mission-oriented entities like the Peace Corps. The greatest recruitment source, however, is from within CLO's own program where shift caregivers who support Family Teachers learn about this lifestyle and decide that it is something they want to pursue.

The hiring process for FTCs is also different. This process often takes longer and involves more time spent with existing Family Teachers, who help mentor them in learning about their lifestyle. This normally includes an extended home visit with one or two experienced FTCs, and includes an opportunity to dine with an experienced FTC. These activities are accomplished in the absence of recruitment professionals who arrange the visits, so that discussions can be honest and personal. Additionally, CLO provides a website to learn about life as a Family Teacher, including video interviews of FTCs who discuss the merits and challenges of this lifestyle. Files of interested Family Teachers are maintained until a suitable matching placement is found. Of course, this process may be different and abbreviated if the candidate is already a CLO employee. Hiring decisions are team-based and stipends may be offered for relocation, depending upon distance, agency need, and other circumstances.

25.3.4.5 Extended Family Teacher Selection. The process for selecting EFTs is also different and even more detailed because it is essentially a foster placement within the EFTs home. The great majority of all EFT home placements are generated from long-term standing relationships that are generally formed between Family Teachers and one or two persons they support. Consequently, most EFTs fully understand the expectations and lifestyle they are considering before they begin. Occasionally, EFT placements are considered from outside of CLO's network of employees, but generally these placements involve an EFT candidate and a placement (and family) who have known each other for an extended period of time (e.g., a paraprofessional in the school or an employee from another provider or closing institution and a person with whom they have worked for years).

Regardless, CLO requires that the EFT family spend considerable time with a possible placement and their family prior to making a placement decision. Additionally, a comprehensive home study is conducted to make sure that the home environment and interests are all aligned prior to making a placement decision. All placement decisions must be agreeable to CLO, the EFT and their family, the client, and the family/guardian of the person to be placed. It is a long process that can be made more efficient when the EFT candidate already works with a client (e.g., a direct support staff, clinician, manger, or family teacher).

For all of these reasons, EFTs are essentially "home grown" and are considered a logical extension of other placements or long-term relationships.

25.3.5 Staff Development, Performance Coaching, and Certification

25.3.5.1 Overview. All good programs will have a great staff development program to ensure that those individuals who provide support have the skills and detailed knowledge they need. Readers are encouraged to see chapter 5 of this handbook for more information. Harchik, Sherman, Sheldon, and Strouse (1992) evaluated a process developed and used at CLO that includes formal workshop/seminar training, regular in-home opportunities for practice and ongoing coaching from an experienced consultant, and structured evaluations and feedback. Wolf et al. (1995) details a process of training, coaching, practice evaluations, and formal evaluations that result in certification used in the Teaching-Family Model for programs providing homes for adjudicated youth. Sherman, Sheldon, Morris, Strouse, and Reese (1984) details an adapted version of this process used within programs that provide supports for persons with developmental disabilities. These processes are essentially embedded into CLO's FTM and EFTM programs, and have been refined across three decades of evidence-based use.

25.3.5.2 Certification. The primary goal of CLO's training process for all FTCs and EFTs is to meet annual certification requirements through an independent evaluation process by meeting or exceeding requirements of CLO's outcome expectations (described previously). The certification process involves workshop training, ongoing coaching and feedback, independent "practice" evaluations, and finally the formal certification evaluation where key processes and outcomes are independently evaluated to ensure that employees are performing to high standards. FTCs and EFTs who become certified are recognized and rewarded in many ways, including a bonus program that encourages participation and demonstration of skills during and after this certification process. Certification is also a requirement for ongoing employment or placement. Consequently, the goal of "certification" helps align the agency's goals of high performance of those who are asked to achieve these goals.

25.3.5.3 Workshop Training. Workshop training is the first step in the certification process. A primary goal of workshop training is to teach standardized and person-centered techniques designed to increase rated outcomes and consumer satisfaction. Additional important goals, however, are to ensure that there is a good match between the philosophy and expectations of the agency and the FTC and EFT participants, and to develop relationships between participants and with persons responsible for training and mentoring them through the certification process (coaches).

Training includes two weeklong workshops. The first workshop occurs prior to working in a home, and is followed by a structured in-home orientation to learn the specific needs and teaching strategies of the clients they will support. A second workshop typically occurs between 90 and 120 days after the first workshop and describes more detailed strategies for achieving CLO's service and individual outcomes. All training workshops are skill-based, and competency in learning is assessed by written test and by role-play.

In recent years, CLO has worked to incorporate eLearning strategies to improve its training for its curriculum topics. Its eLearning modules are available online and complements CLO's workshop training program by providing online resources available in the home to assist support staff who are learning skills to implement various components of CLO's service model.

25.3.5.4 On-going Coaching. Perhaps the most essential component of the certification process is monthly in-home, coaching and mentoring. FTCs and EFTs participate in an ongoing home-coaching process where an experienced coach helps them adapt and implement strategies they learned in workshop training in their home for clients (Harchik et al., 1992). This process involves bi-weekly in-home visits; reviews of strategies and techniques to be implemented (often using online instruction and video training for discussion); help with adaptation and implementation; observation and feedback; and mini-outcome evaluations. The time spent on various learning modules is individualized to the couple, persons served, and needs of the home. This process is implemented to systematically and positively prepare for a successful certification evaluation. The consulting modules covered as part of monthly coaching visits in the first year generally revisit topics presented in workshop training and focus on adapting and implementing strategies that we feel best achieve our service and person-centered outcomes.

25.3.5.5 Independent Evaluations. A private "trial" evaluation is conducted by an independent professional evaluator sometime between the sixth and eighth month of the FTC or EFT's first year of providing support. Feedback from this evaluation is presented by the evaluator to the coach and the FTC/EFT, and will result in additional coaching during the final months prior to the certification evaluation. Because this is a trial evaluation, the findings do not impact ratings or scores on the annual certification evaluation. Finally, the annual certification evaluation is conducted with the expectation that FTCs and EFTs will achieve and/or maintain their certification.

While every effort is made to ensure that couples are successful in achieving certification, instances where couples do not meet all standards typically result in a revisit conducted within four months from the original evaluation. Revisits are often done more quickly if areas in need of attention are minor. It is a requirement of employment (FTC) or contractual requirement (EFT) that they are certified within 18 months from beginning training. While it is possible that FTCs or EFTs might not achieve this goal, it is rare that this would happen simply because the coaching process would work through these issues earlier. It is also possible that the FTC or EFT would realize that the position was not a good match and select out of this service-delivery option sooner.

25.3.6 Intervention Considerations

In a review of implementation and generalization, Stolz (1981) concluded that many useful interventions were not used widely or at all. Several explanations may account for this observation including a lack of understanding by the individuals who are expected to implement the intervention, a belief that the intervention will not work, and that the interventions are not reinforcing to use (Fixsen, Blasé, Timbers & Wolf, 2001). Thus, it is important to consider using interventions that are positive, straightforward and simple, potentially effective, and are

motivating to use and implement by the support staff charged with the responsibility of implementing them.

This is a challenging goal for community support programs where staff are often highly decentralized in the community, unsupervised, and "on their own." To improve the probability that teaching interventions are implemented (and potentially effective), efforts must be made to make teaching moments natural, functional, non-stigmatizing, and convenient to implement during a typically busy day.

At CLO, we work to create a teaching culture among FTCs, EFTs, and support staff. Components of this somewhat "standardized" approach include: (1) an enriched and active lifestyle filled with natural opportunities for learning; (2) daily and weekly routines for essential activities of daily living; (3) an incidental and planned teaching style that include specific praise, meaningful rationales, regular and frequent opportunities for practicing new and alternative skills, and rewards for good effort; (4) frequent opportunities for self-government, problem-solving, choice and control; and (5) the use of effective communication strategies. The effectiveness of these components is then amplified by good mutual relationships between "teachers" and clients.

25.3.6.1 An Enriched Lifestyle. Nothing can serve as a substitute for interesting things to do, both for improving the lives (and behaviors) of persons with developmental disabilities as well as those who support them. The best way to consistently offer interesting activities is to embrace the naturally-occurring resources of an enriched community and engage in activities considered to be interesting and meaningful as determined by person-centered support plans. FTCs and EFTs help clients they support to "get a life" (Risley, 1996) partly by successfully involving clients in their busy family life of soccer games, school events, weekend excursions, and other family necessary and/or fun activities. One of the most challenging tasks is ensuring that there aren't unnecessarily long gaps of low or no activities where clients fill voids by engaging in behaviors that are often designed to enrich a bored existence (e.g., gaining attention inappropriately or engaging in non-functional or maladaptive behaviors). Few teaching strategies can be effective unless they are delivered in front of a backdrop of interesting, engaging activities.

25.3.6.2 Routines. Carefully planned, organized, and reasonably consistent daily and weekly routines are essential for creating greater independence in daily living. With consistent and logical routines, persons with intellectual disabilities learn how to navigate their day timely and efficiently and with less assistance from teachers instructing them about what needs to be done and by when. Over time and with consistent teaching, many clients will require progressively less support and will feel more pride in the independent completion of daily living chores. Weekly routines like laundry, banking, shopping, and other routine activities help persons better plan their week and budget their time so that they can engage in recreational, family, and other preferred activities. Conversely, the absence of routines creates needless prompting by support staff about what to do next, and consequently a dependency on staff for direction, which can become less positive and frustrating for clients who may want more independence.

25.3.6.3 Incidental and Planned Teaching: Wolf (1978) described a social validation process used to first develop components of a generally standardized, effective teaching style for use by teachers using the Teaching-Family Model for adjudicated youth populations. This study identified the teaching components that were most liked and believed to be most effective and then incorporated these components into standardized teaching interactions. Sherman, Sheldon, Morris, Strouse, and Reese (1984) discuss adaptations of these teaching components for use in teaching persons with intellectual disabilities. Hart and Risley (1976) discuss the components of incidental teaching, which focus on noticing and creating ongoing, natural opportunities for learning (and teaching) skills.

CLO/KU has worked hard to encourage a teaching culture that adapts and includes these strategies into its generally standardized "teaching interactions." Three general teaching interactions are taught for use by its staff including: (1) rewarding appropriate behavior or approximations of appropriate behavior; (2) teaching new skills; and (3) teaching replacement skills for maladaptive behavior. Specific praise, rationales for appropriate behavior, specific descriptions (steps) for new or expected behavior, opportunities to practice, and rewards for good effort are all steps that are embedded as appropriate in these three teaching techniques. Although the teaching techniques are generally standardized, they are natural, positive, and generally effective for most learning opportunities.

Additionally, as much as possible CLO teachers are encouraged to orchestrate, recognize, and take advantage of naturally occurring opportunities for learning or applying learned skills regularly and frequently across typical daily activities. Planned and preventative teaching is encouraged for persons who need more preparation to exhibit a skill when natural opportunities occur, and often just precede the occurrence of these opportunities.

25.3.6.4 Self-Government, Problem-solving, and Choice and Control. A primary goal of a best practice community support program is the promotion of independence and self-control empowering those persons that they support (Bannerman, Sheldon, Sherman, & Harchik, 1990). Thus, a key component of effective intervention programs must be teaching persons with intellectual disabilities to learn how to solve everyday problems effectively and learn skills that will allow them to take more control over their daily lives.

Teaching self-government and problem solving is a continuous process, which is often embedded within incidental and planned teaching interactions where steps of appropriate skills and rationales for using them are "problem-solved," and every day opportunities for choice and control are recognized and taught as they arise. This might include discussing and selecting items for menu planning, activities to do, shows to watch, clothes to wear, how to handle a disappointment, and countless everyday choices that can be easily missed simply by not offering these opportunities. If 20 or 30 incidental and planned choices are taught across a day, or simple problems are solved (occasionally with deeper discussions that might include rationales or weighing advantages and disadvantages of various options), then choice, decision-making, and problem-solving skills will most likely be increasingly learned and independently used.

Decision-making and problem-solving skills can also be improved when more formal systems of self-government are used (Bannerman et al., 1990). Sherman et al. (1984) describe

how daily family conferences can be used to make decisions and solve problems while also teaching and practicing the steps for mastering these skills. At these meetings, persons living in a home or community meet, decide upon group activities, determine house jobs or discuss how to fairly divide daily or weekly responsibilities, and raise or propose solutions for problems and concerns.

Decision making skills include: (1) specifying the decision to be made; (2) generating options; (3) discussing the advantages and disadvantages of the options; (4) making a decision; and (5) discussing how and when to implement the decision. Problem-solving skills include two more initial steps, including: (1) specifying the problem, and (2) discussing why it is a problem (followed by the five steps previously presented).

25.3.6.5 Effective Communication Strategies. Many persons with developmental disabilities have communication challenges expressing their wants, needs, or emotions (Sigafoos, 1977). Similarly, receptive language skills are often lacking, making it difficult to learn skills or to rely on fewer prompts. The lack of expressive and receptive communication skills can lead to misunderstandings, frustrations, and can often result in challenging behaviors that could be avoided with better communication strategies. Much work and teaching must be done to communicate expectations, requests, and choices in a way that is individually understandable (Bannerman et al., 1990). Picture boards, picture schedules, gestures and signs, or communication technology are all used to help persons express wants, needs, and emotions effectively or used by staff to help communicate expectations or options. There are many good systems for assisting with communication, but the Picture Exchange Communication System (PECS) is one of the most widely used (Sulzer-Azaroff, Hoffman, Horton, Bondy, & Frost, 2009).

25.3.6.6 Relationship Development. While little empirical research exists on the role of good staff relationships on effective teaching persons with intellectual disabilities, it is widely considered both necessary and preferred (Risley, 1996; Sherman et al., 1984; Wolf, 1978; Wolf et al., 1995).

Good relationships, however, do not happen by accident. Great relationships are created when caring people spend significant amounts of quality time together and learn about, help, teach, and positively support each other. The presence of good relationships might potentially be assessed by observing mutual statements of caring and regard, the use of personal rationales, frequent instances of positive reinforcement and encouragement, reciprocal smiles, and frequent close proximity (including appropriate physical contact). Presumably too, these same strategies might be used to facilitate or develop relationships across time. It seems to us that a positive relationship with a family teacher or support staff exists if a person they support works hard repeatedly across time to gain their attention or avoid losing it.

Once this is achieved, the artful contingent application of attention can build strong skills, while corrective feedback or withholding attention for brief periods of time can effectively reduce inappropriate behavior. The importance of a good relationship—while hard to define and challenging to produce—cannot be overstated. The most critical dimension for the development of deep personal relationships, however, is simply spending substantial time together, a task only

possible by the presence of very stable, vested, tenured teachers consistently supporting only a few people across time.

25.3.7 Clinical Supports for People with Significant Needs

To serve people with significant health, adaptive, or behavioral needs it is essential to develop a strong and highly coordinated clinical team that closely connects the FTC/EFT or key support staff and agency clinicians with professional clinical support and specialists. CLO's collective clinical services offer wellness care, technical support and training, as well as home-based behavioral, health, and adaptive services to support FTCs and EFTs. CLO's HomeLink Technologies (to be discussed later) is beginning to offer opportunities for FTCs and EFTs to receive remote health and behavioral support that will allow better and more frequent support in the home for persons they serve.

To coordinate health, adaptive, and behavioral support with quality of life support, CLO conducts regular clinical reviews of care (described earlier in this chapter). A skilled clinician (often times faculty from the KU Department of Applied Behavioral Science) leads this review, with the goal of integrating health, adaptive, behavioral, and other professional support to help improve the quality of life of persons served. When specialists (e.g., psychiatrists or neurologists) are consulted for challenging behaviors or concerning medical conditions (e.g., uncontrolled seizures, serious aberrant behavior possibly related to a psychiatric diagnosis), data are organized and questions are considered (in these reviews) prior to a specialist visit. During the visit, a liaison from the clinical team presents data and discusses conditions that may be a concern. Recommendations are gathered from the specialist along with treatment risks and benefits for various treatment approaches.

It is critical to point out that specialists such as psychiatrists or neurologists have only a limited amount of time to consider data and recommend or make a treatment decision, so it is important to be organized and concise. We find it especially helpful to organize progress on various dependent measures around the various treatment approaches (or medications) or to define treatments in effect when behavioral/medical outcomes are particularly good or bad. This helps the specialist see the impact of various past treatments at a glance. Anecdotal information is rarely helpful unless it is supported by data. The goal of the clinical review team at CLO is to ensure data are properly taken and arranged so that the right treatment conclusions can be made based upon reliable data.

25.3.8 Organizational Considerations

Three decades of community services has embedded some beliefs about several management strategies that we feel are important from an organizational viewpoint. We expect our FTCs and EFTs to be situated to effectively manage and orchestrate high quality community lifestyles for the people they support. We work hard to ensure these teachers have all of the tools and training required to make everyday life decisions that push forward a good life for each client. This is inherently different from divisional approaches where experts know part of people while "paraprofessionals" are there to keep people busy until the expert arrives. Instead, we believe in what Fixsen and colleagues (2001) describe as the triadic model, which is a strategy

where professionals develop general intervention skills of teachers and/or caregivers, who in turn use these skills to positively impact the lives of those persons they support. Organizationally, we build our services around this principle.

25.3.8.1 Decentralized, Whole Person Management. There are many benefits for multi-disciplinary involvement in the provision of services for persons with intellectual disabilities living in the community. That said, these different perspectives and services must be seamlessly integrated into an enriched, preferred, teaching-oriented lifestyle.

At CLO, interdisciplinary input and support services are integrated by a management structure where one manager is responsible for the provision of services for a caseload of people. At the direct implementation level, the FTC or EFT is charged with putting integrating services and supports to serve a small caseload of one to three persons living in their home. This model extends upward in the organizational chain. At CLO, those individuals who directly supervise FTCs or EFTs are called "coaches" and are similarly charged to integrate services across disciplines into an enriched community lifestyle with a larger caseload (10 to 16 people served). Individuals who supervise coaches are called "site directors" and they also oversee and integrate services for a caseload of approximately 50 clients (or 4 to 5 coaches).

Thus, at the FTC/EFT, coach, and site director level we expect this "whole person" approach to management where ultimately one person is in charge of seamlessly integrating various services for a person or a caseload of people. There are many support services, such as clinical supports (e.g., health, behavioral, or OT/PT), vocational supports, human resources, finance, and other services, but there is always a manager (an FTC/EFT, coach, and site director) who is responsible for ensuring that these parts are integrated into services that matter and work seamlessly to create an enriched community life for the whole person. When possible, support services (e.g., nurses, behavior analyst, case managers, or vocational professional) are aligned so that these professional's caseloads are as consistent as possible with FTCs/EFTs, coaches, and site directors.

An important organizational goal at CLO is to reduce the number of different professionals involved in care within a home or program to its minimum number. The "team" for a home or program must include the right people, but it does not include more than is necessary. This can mean that caseloads of, say, a nurse, behavior analyst, or a case manager, might change so that three different support professionals (e.g., three nurses) are not needed for one home that serves three different people. Ultimately, we want our FTC/EFTs to work with a small core group of professionals to access the help they need so that their life is less complicated and focused on care.

25.3.8.2 Continuous Support Verses Day and Residential Programs. The traditional service dichotomy within the community is residential and day services. Day services are typically offered during business hours (i.e., 9 AM to 4 PM, Monday through Friday) and often consist of teaching-oriented activities of daily living, prevocational, or vocational activities (including supported employment). Residential services, ironically, do not refer to "home" services, but rather this term refers to "not day services." As a result, residential services provide

supplemental support to serve a client when day services are not in session or the client is unable to receive day services for adaptive, behavioral, or health reasons.

At CLO, "day" services have become "community inclusion" support services where health, therapeutic, community enrichment, volunteer, and work activities are offered to support enriched "out of home" lifestyles. CLO's day services space is generally small, and includes activity spaces, space for a health and wellness clinic, space for occupational therapy/physical therapy support, and other essential services space. The remaining space needed for services is provided naturally in the community. Community opportunities are generally provided through an individual schedule developed and coordinated by the FTC/EFT and coach who work across hours and days, not confined to typical 9 AM to 4 PM time limits of traditional day services. Non-residential community services at CLO are viewed more like class offerings of a community college. Persons might have "class" or activity opportunities in the morning, afternoon, evening, weekdays, or weekends, depending upon the needs, interests, and opportunities of persons served.

This philosophy is a paradigm shift which may help open the door to possibilities that jobs, activities, and lifestyles are available at any time and any place. If a person needs to have opportunities available in 2-hour out-of-home intervals of activities, then we attempt to make arrangements for this particular need. If a job is better available on a Saturday, then we ensure the client has the opportunity to participate if s/he has an interest. CLO's general strategy replaces traditional day services with community opportunities that are not confined by the hours of operation of a more traditional day services program. There certainly are people (managers) who coordinate "outside the home" activities at CLO but these opportunities are essentially "zones" of opportunities or "themes" of opportunities, and often occur outside of normal time expectations offered by many programs.

25.3.8.3 Virtual Offices, Information Management, and Learning Management. At CLO there is progressively less and less of a "place" for management. EFTs, coaches, site directors, and support staff must be mobile and accessible to the home and community. The "office" has become the laptop, wireless access points, and web-based information management systems that can be collaboratively accessed by anyone anywhere. Experience has taught us that offices are where managers and clinicians are, but not necessarily where you want them to be. If you want professional and support staff to spend time in a person's home or in the community, then that is where their office needs to be located. To accomplish this, we must eliminate barriers of where people keep the "stuff" they need and want to do their job and provide access to information and resources virtually.

Very good information systems are available that are "web-based," secure (HIPAA), and accessible from any location. One system that deserves special mention is "Therap" (see www.therapservices.net) which is a web-based system that combines all facets of information (clinical, management, service coordination, financial, and more) and integrates this information around a "whole person." This system is highly customizable for most every local use and is nationally used and developed collaboratively across a large provider network. Because it is web-based there is no handcuff to local servers or technology expertise.

Another web-based software (also called "software as-a-services") that deserves special mention is "Google Business Apps for Non-Profits." This service provides user-friendly business web-based applications that include word processing, spreadsheets, presentation, contact management, document management, and "closed" and "open" social network solutions that are available anywhere. Google offers these secure applications free for non-profits for up to 3,000 users. Additionally, Google allows third party integration for many useful add-on programs that improve collaboration and networking for teams focused around client "circles."

One last technology innovation (also cloud-based) that deserves special mention for best practice community services is eLearning. Learning needs to occur at places and times that are convenient for the FTC/EFT and coach. While there are places and uses for "traditional" training workshops (described earlier), there is a need for training and re-training opportunities to be made virtual and available when and where they are needed. The very best cloud-based eLearning system for our use has been "Elsevier's College of Direct Supports." This is a highly developed national curriculum of community learning developed by Elsevier in collaboration with the University of Minnesota. Community programs, like CLO, can adopt and use these eLearning classes as mix and match modules with an agency's own curriculum supplements (including videos if desired) uploaded to the Elsevier hosted website. This strategy allows endlessly flexible curriculum combining both the best that a program has with great coursework developed by national experts who are associated with the College of Direct Supports. Online tests are embedded within the web-based software to ensure that knowledge is acquired, while data on covered modules and test performance is always accessible to the learner. Many automated features exist to assist agencies in maintaining records and reports of learning compliance. It is a great, flexible, and cost-effective system for providing and tracking learning, and the existence of a flexible but nationally developed curriculum makes this choice a simple one.

25.3.9 Pay Strategies and Performance

Pay strategies are critically important for best practice supports. CLO's overriding goal is to pay as much as it realistically can to those who deliver care and pay this amount in the best way possible to push forward the goals of providing a highly vested, stable, workforce. To accomplish this, several important considerations are worthy of discussion.

25.3.9.1 Take home pay. Most direct service staff want to maximize their take home pay. Unfortunately, they are often the lowest paid agency employees. Shift workers are typically paid hourly and are often required to pay for benefits they do not want or cannot afford. Many of these benefits (those they do not want) are desired and used by managers and clinicians who make considerably more money. A major consideration for hourly staff is not just how much they are paid, but rather how much money they take home (after deductions and taxes). Agencies that provide direct support using hourly paid staff would benefit by carefully examining what must be deducted from their pay check and ask themselves if it is a benefit for which the staff want to pay. In some cases, because of the federal Uniform Reciprocal Enforcement of Support Act (URESA), benefits provided for managers must be provided for all staff whether they want them or not. This, of course, takes limited resources away from what is available for pay.

One potentially useful alternative strategy is to consider using a Professional Employment Organization (PEO) to separate the hourly workforce in ways that allow different workforces to receive the benefits they desire without paying for benefits they do not desire. This strategy can be used to move hourly workers to a new corporation and then lease them back to the service corporation. It is called "co-employment." Using a PEO requires much consideration and is well beyond the scope of this chapter, but it can be a very useful strategy so that different workforces can receive the benefits and pay they want.

Another way to maximize take home pay is the provision of living accommodations that are a requirement of work. Family teachers MUST live in an adjoining space to provide "as needed" care. While the FTCs certainly benefit from a free home and living accommodations, these costs are not taxable under the right conditions. As a result, live-in FTCs can maximize their pay (presuming that they must pay for housing regardless of where they work). EFT's compensation, again under the right circumstances (that are also beyond the scope of this chapter), is largely non-taxable if they meet requirements for foster care (adult or children). These requirements became more accessible for adult developmental disabilities populations in with the passage of the Job Creation and Worker Assistance Act of 2002, which includes the Bunning/Lewis Foster Care Tax Bill. There are many considerations for adult and children foster care, but under the right conditions it can be highly effective for maximizing funding for care (and lowering provider costs in non-care areas).

25.3.9.2 Pay Schedule. Another way to maximize funding to benefit caregivers is to pay weekly or bi-monthly, but not bi-weekly. In our experience, most caregivers prefer more frequent pay, so weekly pay is most preferred. CLO has administered many surveys of its caregivers and most prefer weekly pay and do not like to wait long periods of time to receive compensation. Additionally, weekly pay makes pay differentials and bonuses (to be discussed later) more effective, because these contingencies are not delayed and are more immediate.

Another issue, though, is that typical household bills are either weekly or monthly but rarely every two weeks (bi-weekly). Car payments, house payments, and utilities are typically monthly. If your annual earnings are divided into monthly equal amounts, then your maximum earnings are available by month. If, on the other hand, your annual earnings are divided by 26 weeks (bi-weekly pay), then you are not getting the maximum amount of pay per month. Instead, there are two extra pay periods per year and this effectively reduces the amount of money available for typical monthly bills by a little over 12%.

If an organization is trying to provide the most money possible for their staff to pay their bills, then it is best to provide pay in ways that maximizes the money available within a month. Weekly pay essentially allows this because monthly bills often have a small window of flexibility as to when they are due, which will fit well within a weekly pay system. While this may sound like splitting hairs, we encourage readers to ask an hourly worker if she would like to have 12% more money a month for bills and readers will learn that this is an important issue.

25.3.9.3 Schedule Migration and Differential Pay. Schedule migration can happen if some work schedules are more preferred than other schedules. If schedules are differently preferred, then as more preferred schedules become available, caregivers leave their position and migrate to these preferred schedules and homes. This process causes needless turbulence in care

and leaves the least preferred (and hardest to fill) schedules open to recruit new employees to fill, which can cause chronic vacancies and overtime.

At CLO, schedules are designed to be as equal as possible while data are collected on schedule openings to ensure that certain types of schedules do not have excessive openings with long latencies for filling positions. Additionally, we regularly examine transfer requests to ensure that schedule migration is minimized. We use two strategies to equate the desirability of schedules. One strategy is to design the schedules so they are equally desirable (e.g., the schedules have an equal share of hours, days off, and weekend work—there are very few Monday to Friday positions). The second is to add compensation to certain days, times, and schedules to equate their desirability (i.e., a shift differential). There has been a considerable amount of research on CLO's scheduling strategy for direct service hourly staff and relief staff positions. It is possible to pay more money per hour, have less staff turnover, and improve care, all without paying more (overall) for employment costs. For more information, please see Strouse et al. (2003).

25.3.9.4 Overtime. There are many causes for overtime and just as many remedies. Overtime is an essential measure for successful community providers and is most typically worked by only a small percent of the workforce who want more hours. If overtime is forced, it is our experience that excessive-required work may lead to additional turnover. Overtime certainly leads to overwork, which can lead to poor care. As overtime increases, so do costs and turnover. We employ multiple strategies to limit overtime (many already described).

Three strategies, which work in concert, deserve discussion: (1) scheduling, (2) superimposed positions (additional positions beyond what is needed for a home or program), and (3) differential pay for hard–to-fill hours.

We cannot predict vacancies and openings in any given home for any given day. Since CLO is a fairly large provider, however, we can predict fairly accurately how many openings we will fill *by schedule type across homes and programs*. To address this known number we then "over hire" staff to work superimposed schedules with expectations that they will move to these openings (wherever they are) to provide relief. We developed a position of "scheduling coordinator "whose primary job (and incentive pay) centers on effectively managing the replacement of open positions and keeping overtime low.

Additionally, this "superimposed" replacement process allows new staff to sample vacant positions to make sure that they like the home and position before agreeing to become a permanent staff of that home or program. This process has become a standard placement process at CLO so that staff can have some experience in sampling homes before a decision is made about where to work. A goal of this sampling strategy is to better match new employees to a home and program that they will enjoy. Our hope is that this strategy will contribute to reduced turnover, but we are still examining its impact. Of course, lower turnover equals fewer openings and lower overtime.

The third leg of the overtime stool is paying differentials for various days and times of day. At CLO the workweek is Monday through Sunday (the weekends are the last of each

workweek). We pay a $2.00 per hour differential for weekend work, *providing that the staff worked their full schedule during the week (prior to the weekend beginning).* Thus, if a staff person worked her required weekday hours she would receive $2.00 per hour additional pay for weekend hours worked. This contingency significantly reduces call-offs in the week and on the weekend, and encourages staff to work their assigned schedule. This, of course, improves care, decreases call-off vacancies, and makes life more livable for managers who must ensure that staffing is consistent across time.

Figure 3 displays the overtime hours before and after the full package of these contingencies were in force.

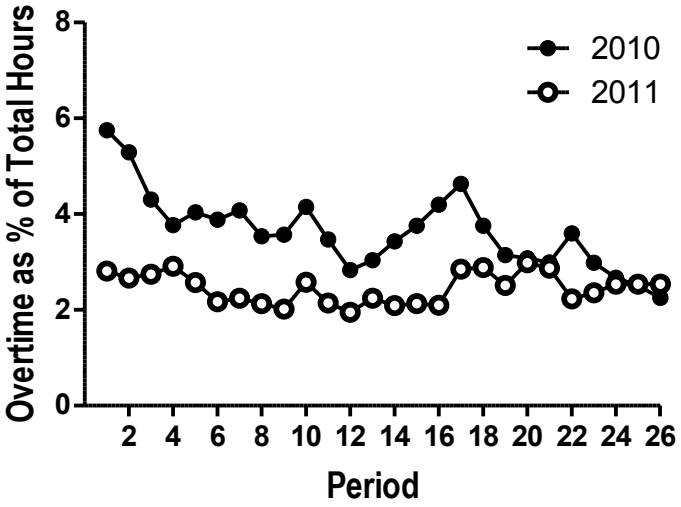

Figure 3. Overtime as a percent of total hours in 2010 (before contingency) and 2011 (after contingency).

25.3.9.5 Performance Bonuses. If you are a behavior analyst, it is hard *not* to consider performance bonuses to improve services. We certainly use them at CLO. They must be, however, carefully considered. Bonus pay must comply with labor law requirements (be sure to consult a good labor attorney) and they must align employee/clinical/manager goals so that programs and departments are not competing with each other. The latter outcome can easily happen if performance is assessed only by department, if the goal is not related to the agency's overall performance, or if the goal is not the same for all staff.

We recommend a resource entitled *The Goal: A Process of Ongoing Improvement* (Goldratt & Cox, 2004), which is a simple and well-written book that is important reading for promoting strategies for achieving agency performance in ways where various interests do not compete against each other. This book examines how various groups can either work in harmony or at odds with each other all in the name of agency performance.

CLO essentially pays bonuses to FTCs, EFTs, coaches, and site directors for achieving the same critical home outcomes, implementing important processes, and for providing appropriate supports (that are necessary for the success of the first two performance

expectations). A bonus is provided to FTCs or EFTs for key practices and outcomes being present within an assigned home. A coach is provided a bonus for the same key practices and outcomes being present to a high degree in assigned homes. Similarly, a site director is provided a bonus for the same practices and outcomes being present in a larger caseload of homes. Bonuses are paid monthly and everyone is generally interdependent upon each other for joint success.

25.3.10 HomeLink Support Technologies

25.3.10.1 On-Demand Labor. We believe budgets would go farther and services would be less costly if labor could be provided only when a need arose and only for as long as a need existed. Costs are driven upward primarily based upon the cost of "just in case" labor. Many programs pay an overnight staff person "in case" a client awakens and requires assistance. Depending on the needs of the clients, some programs have two staff available in the home in case situations intensify due to problem behavior escalation. If not for intermittent and unpredictable needs most agencies could provide less coverage (lower staffing ratios) if there was a way to know when additional support was needed and a way to deliver it immediately. Historically, we have been unable to predict with certainty when help is needed and then provide extra help only when that need arises and only for as long as that need exists.

But if we make this prediction, two outcomes are possible. First, we could save money or at least spend our money on more enriching supports. Second, we could provide supports in smaller homes, because one of the reasons group homes exist is to pool staffing resources to address the intermittent needs of the clients who live in the home.

Cutting edge technology, however, is now changing what is possible from a care perspective. Like no other innovation, technology offers the ability to "know" when a need exists and provides a deployment methodology that can allow programs to meet a need "on demand." The technology must be effective and highly reliable. Additionally, there must be a new model of services that are highly deployable. Great technology combined with a new service model will become the next paradigm in care fueled by high growth in dependent populations and flat resources, and pushed forward further by a very high desire of people to receive care in their own home.

25.3.10.2 The Development of HomeLink Support Technologies. CLO has been pioneering remote support technology since 2000, and has invested considerable resources in pursuing its next phase of service options. Because CLO uses "live in" or "live near" supports in its service models it already had the ability to allow support to ebb and flow around the needs of our clients because help was available in, next to, or near the home if we only knew when those needs were to happen.

CLO began its HomeLink support program by remotely monitoring homes at night, using its technology to deploy support (either from live in Family Teachers or people who roved across a neighborhood supporting multiple homes at night). This strategy allowed CLO to save hundreds of thousands of dollars a year in paying for nightly staffing costs, which was reinvested in quality of life supports during the day. Additionally, it allowed CLO to promote nighttime

environments that resulted in improved sleeping conditions for persons we supported because we could better assure an environment where people could sleep (low lights, quiet, and free from distractions and the presence of staff who might inadvertently reward attention-seeking clients for not sleeping at night.

From these beginnings (and a dozen years of work and investment in technology and on-demand support models of care), HomeLink, combined with new deployment models of support, offers many more options and services 24-hours-a-day seven days a week to improve the lives of persons with developmental disabilities. A client may now live in a small apartment alone or with one roommate (with or without a disability) and receive staffing support tailored to his or her need. Service models are still being regularly shaped to meet the new rules of on-demand support. The focus of these new service models is the creation of a community of support. In this approach, the resources of a neighborhood are gathered to support persons (potentially across dependent populations) who live in that neighborhood. Our goal at CLO is that those who live in the neighborhood would largely support its neighbors. This can happen by recruiting people from within the neighborhood to help or by encouraging (via live-in stipends) people who want to provide on-demand support to live in the neighborhood where clients in need of intermittent help reside. This model has many financial and quality of life advantages for those who need support and those who provide support. Social networking sites combined with technology, virtual communication technology, and contracting and pay strategies can offer new ways for reliably making a meaningful difference in the everyday lives of people with significant needs. HomeLink technologies and CLO's deployment systems continue to evolve to fit hand-in-hand.

25.3.10.3 HomeLink Behavioral and Health Support and Treatment Integrity. HomeLink is increasingly used to improve the behavioral and health services provided for CLO's homes and better ensure the integrity of treatment during times when managers or clinicians are not present in the homes. HomeLink Technologies can record activities (video/sound) from multiple angles and locations in a home simultaneously. These simultaneous recordings can be reviewed anytime remotely by clinicians (health or behavioral clinicians) or home/program managers (coaches or site directors).

Additionally, devices (alert pendants) can be worn by home staff and used to "mark" instances of a behavior occurring in a home to allow clinicians or managers an easy way to later locate these. Clinicians can search a video database for these marked videos to see what occurred before, during, and after a particular behavior. This essentially allows for a remotely-gathered collection of video/audio "first hand" data to help in a functional assessment of a problem behavior.

Additionally, by examining samples of archived video/audio in a home it is also possible to determine if interventions are implemented as they were intended and are having the intended results. Further, it is possible to remotely watch staff members interact live with clients of a home and remotely coach them using a mobile phone with ear buds to provide private assistance on how to interact.

Courtemanche et al. (2012) demonstrated that it is possible to ensure that effective procedures were implemented when the clinician was not present by using an incentive bonus strategy based upon reviewing archived video made possible by HomeLink. More recently, grants are in process to utilize HomeLink to provide remote house calls by RNs and Physician's Assistants and to collect remote health data (e.g., seizure and vitals data).

With HomeLink, it is unnecessary to watch hours and hours of video footage to observe the low rate, high intensity behavior a clinician wanted to see first hand. Additionally, since the clinician isn't in the home it is unlikely that he/she is impacting a client behavior. Since data are first-hand-recordings or live instances, much more information is available compared to traditional data collection. These uses of technology are rapidly changing the quality and cost of behavioral and health support, and will likely help enormously with treatment integrity over time. To learn more about what is presently possible and under development (as well as HomeLink's privacy protocols) see www.homelinksupport.com.

25.4 A Retrospective Analysis

Nearly seven years ago, a group comprised of clinicians from CLO and faculty from KU evaluated approximately 15 years of data on agency performance (Sherman, Sheldon, Strouse, Price, Bannerman Juracek, & Sweeney, 2007). We were familiar that better outcomes (described previously) were achieved in our FTM and EFTM programs compared to our shift and group home programs. Our clinical review team also knew (from numerous years of clinical reviews of care) that many individuals experienced tremendous improvements in important personal outcomes when they moved from our group homes and shift homes to our FTM and EFT homes. From these experiences and beliefs, this group examined the behavioral and medical outcomes for a selected sample of persons we had served in multiple homes across 15 years. The purpose of the review was to compare progress on long-term managed behaviors and medical conditions across types of residential home.

Our review clearly confirmed what our clinicians already knew, which was that the FTM and EFT homes made a reliable and meaningful difference in the quality of life of persons they supported who have very challenging behavioral and medical conditions, including elopement, self-injurious behavior, pica, aggression, obesity, and many other conditions. What the data showed is that when persons lived in shift homes, behavioral and medical challenges were generally higher than when they lived in FTM and EFTMs. We also learned that progress often reversed if they moved back to shift homes. Table 1 contains data generated from this retrospective review.

Table 1

Average Incidence per Month by Home Type

Client	Group Home	FTM	EFT
Weight (Average pounds per month)			
Harriet	NA	199	201
Joe	285	240	230
Tammy	146	NA	135
Aggression (Average instances per month)			
Bob	NA	31	1
Brad	16	0	0
Christy	72	35	2
Doris	266	46	NA
Harriet	NA	8	4
Joe	867	300	200
Troy	NA	27	4
Self-injury (Average instances per month)			
Christy	26	13	5
Dana	112	66	10
Tammy	28	NA	3

25.5 Dragon Wrestling 101, putting it all together

The goal of this chapter is to discuss strategies for providing cost-effective, best practice services to support people with developmental disabilities (and perhaps other populations) to live enriched community lifestyles in the community.

It was not by accident that CLO has shifted toward its FTM and EFT models as preferred models of care. They provide much more stable staffing supports and allow a starting point for "on-demand" support to be cost-effectively leveraged by high technology. Live-in, Live-with, and Live-by models of care combined with HomeLink-like technology may become the *quality and cost "X factor"* for providing high quality and affordable services by offering a way to leverage a caring community to benefit the needs of dependent populations within a small neighborhood.

Providing best practice services, however, is as much about doing many, many small things correctly as it is about doing very big things well. This chapter presents many considerations, large and small, that work together to push forward service quality and best

practice community living supports. In all likelihood, the suggestions or considerations might raise more questions than they solved simply because they would need more explanation than would be possible within the scope of a book chapter.

Our hope is that this chapter helps construct a list of strategies to be explored and offers a road map for community providers to systematically evaluate and implement systems-level supports. Most, if not all providers lack sufficient resources to leverage service quality in ways that provide what they want for people in need. Our belief, though, is that much more is possible if the doors of best practice are fully open. We are in very challenging, fast moving, tight, and exciting times. It is times like these, however, that fuel important innovations.

References

Bannerman, D. J., Sheldon, J. B., Sherman, J. A., & Harchik, A. E. (1990). Balancing the right to rehabilitation with the right to personal liberties: The rights of people with developmental disabilities to eat too many doughnuts and take a nap. *Journal of Applied Behavior Analysis, 23(1),* 79-89.

Borthwick, S., Meyers, C. E., & Eyman, R. (1981). Comparative adaptive and maladaptive behavior of mentally retarded clients of five residential settings in three western states. In R.H. Bruinicks, C.E. Meyers, B.B. Sigford, & K.C. Lakin (Eds.), *Deinstitutionalization and community adjustment of mentally retarded people* (pp. 351-359). Washington, DC: American Association on Mental Deficiency.

Bossaert, G., Kuppens, S., Buntinx, W., Molleman, D., & Van Den Abeele, A., & Maes, B. (2009). Usefulness of the Supports Intensity Scale (SIS) for persons with other than intellectual disabilities. *Research in Developmental Disabilities, 30(6),* 1306-1316.

Braddock, D., & Mitchell, D. (1992). *Residential services and developmental disabilities in the United States: A national survey of staff compensation, turnover and related issues.* Washington, DC, US: American Association on Mental Retardation.

Bruininks, R. H., Chen, T. H., Lakin, C. K., & McGrew, K. S. (1992). Components of personal competence and community integration for persons with mental retardation in small residential programs. *Research in Developmental Disabilities, 13,* 463-479.

Caldwell, D. F., & O'Reilly III, C. A. (1985). The impact of information on job choices and turnover. *Academy of Management Journal, 28(4),* 934-943.

Courtemanche, A. B., Sheldon, J. B., Schroeder, S. R., Sherman, J. A., Bell, A. R., & House, R. R. (2012). Teaching staff to reduce self-injury using feedback and contingent money. (manuscript in preparation).

Edgerton, R. B. (1967). *The cloak of competence: Stigma in the lives of the mentally retarded.* Berkeley, CA: University of California Press.

Edgerton, R. B., & Bercovici, S. M. (1976). The cloak of competence: Years later. *American Journal of Mental Deficiency, 80(5),* 485-497.

Engerman, J., Strouse, M., Sherman, J. A., & Sheldon, J. B. (1997). Developing and evaluating a direct-service employee selection process for a large community-based program serving persons with developmental disabilities. Unpublished data.

Fixsen, D. L., Blasé, K. A., Timbers, G. D., & Wolf, M. M. (2001). In search of program implementation: 792 replications of the Teaching Family Model. In G.A. Bernfeld, D.P. Farrington, & A.W. Leschied (Eds.), *Offender rehabilitation in practice: Implementing*

and evaluating effective programs (pp. 149-166). New York, NY: John Wiley & Sons Ltd.

Flynn, R. J. (1999). A comprehensive review of research conducted with the program evaluation instruments PASS and PASSING. In R. J. Flynn, & R.A. Lemay (Eds.), *A quarter-century of normalization and social role valorization: Evolution and impact* (pp. 317-349). Ottawa, ON, Canada: University of Ottawa Press.

Frailey, L. (2005). Review of universal designed "smart" homes for the 21st century. *Journal of Applied Rehabilitation Counseling, 36*(4), 43.

Goldratt, E. M., & Cox, J. (1984). *The goal: A process of ongoing improvement.* Great Barrington, MA: The North River Press.

Harchik, A. E., Sherman, J. A., Sheldon, J. B., & Strouse, M. (1992). Ongoing consultation as a method of improving performance of staff members in a group home. *Journal of Applied Behavior Analysis. 25*, 599-610.

Haring, K. A., & Lovett, D. L. (1990). A follow-up study of recent special education graduates. *The Journal of Special Education, 23(4),* 463-477.

Hart, B. M., & Risley, T. R. (1976). Incidental teaching of language in the preschool. *Journal of Applied Behavior Analysis, 4*, 411-420.

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul H. Brooks Publishing.

Heller, T. (2002). The effects of involuntary residential relocation: A review. *American Journal of Community Psychology, 10*, 471-492.

Hennike, J. M., Myers, A. M., Realon, R. E., & Thompson, T. J. (2006). Development and validation of a needs-assessment instrument for persons with developmental disabilities. *Journal of Developmental and Physical Disabilities, 18(2),* 201-217.

Job Creation and Worker Assistance Act of 2002, Pub. L. 107-147, 116 Stat. 21 (2002).

Kleinberg, J., & Galligan, B. (1983). Effects of deinstitutionalization on adaptive behavior of mentally retarded adults. *American Journal of Mental Deficiency, 88(1),* 21-27.

Landesman-Dwyer, S. (1981). Living in the community. *American Journal of Mental Deficiency*, *86,* 223-234.

Landesman, S. (1986). Quality of life and personal life satisfaction: Definition and measurement issues. *Mental Retardation*, *24,* 141-143.

Larson, S. A., & Lakin, C. K. (1997). *A longitudinal study of turnover among newly hired residential direct support workers in small community homes serving people with developmental disabilities: Summary Report, Report 50*. Minneapolis, MN: Research and Training Center on Residential Services and Community Living, Institute on Community Integration.

McEvoy, G. M., & Cascio, W. F. (1985). Strategies for reducing employee turnover: A meta-analysis. *Journal of Applied Psychology, 70(2),* 342-353.

Nunn, T. L., Sweaney, A. L., Cude, B. J., & Hathcote, J. M. (2009). Consumer receptiveness to universal design features. *International Journal of Consumer Studies, 33(1),* 11-19.

Premack, S. L., & Wanous, J. P. (1985). A meta-analysis of realistic job preview experiments. *Journal of Applied Psychology, 70(4),* 705-719.

Risley, T. (1996). Get a life! Positive behavioral intervention for challenging behavior through life arrangement and life coaching. In L. Kern Koegel, R.L. Koegel, & G. Dunlap (Eds.), *Positive behavioral support: Including people with difficult behavior in the community* (pp. 425-437). Baltimore, MD: Paul H. Brooks Publishing.

Risley, T. R. (2001). Do good, take data. In W. O'Donohue, D. Henderson, S.C. Hayes, J. Fisher, & L. Hayes (Eds.), *A history to behavioral therapies: Founders' personal histories.* (pp. 267-287). Reno, NV: Context Press.

Schalock, R. L., Keith, K. D., Hoffman, K., & Karan, O. C. (1989). Quality of life: Its measurement and use. *Mental Retardation, 27(1),* 25-31.

Seltzer, G. B. (1981). Community residential adjustment: The relationship among environment, performance, and satisfaction. *American Journal of Mental Deficiency, 85(6),* 624-630.

Sherman, J. A., Sheldon, J. B., Morris, K., Strouse, M., & Reese, M. R. (1984). A community-based residential program for mentally retarded adults: An adaptation of the Teaching Family Model. In S.C. Pan, T.B Bellamy, & B.W. Wilcox (Eds.) *Human services that work: From innovation to standard practice* (pp. 167-179). Baltimore, MD: Brookes Publishing Co.

Sherman, J. A., Sheldon, J. B., Strouse, M., Price, J., Bannerman, D. J., & Sweeney, H. M. (2007). Living the good life: Measurement of quality of life outcomes for people with developmental disabilities across different residential models, Paper presentation, Association for Behavior Analysis International (ABAI) conference presentation, 2007, San Francisco, CA[1].

Sigafoos, J. (1997). Review of communication intervention programs for people with developmental disabilities. *Behaviour Change, 14(3),* 125-138.

Smull, M. (2002). *Person-centered planning: Research, practice, and future directions.* Baltimore, MD: Paul H. Brookes Publishing.

Stolz, S. B. (1981). Adoption of innovations from applied behavioral research: "Does anybody care?" *Journal of Applied Behavior Analysis, 14*, 491-505.

Strouse, M. (1995). In pursuit of success: Defining "success" in placing persons with developmental disabilities in the community (Unpublished doctoral review). University of Kansas, Lawrence, Kansas.

Strouse, M., Carroll-Hernandez, T., Sherman, J. A., & Sheldon, J. B. (2003). Turning over turnover: The evaluation of a staff scheduling system in a community-based program for adults with developmental disabilities. *Journal of Organizational Behavior Management, 23*, 45-63.

Sulzer-Azaroff, B., Hoffman, A., Horton, C., Bondy, A., & Frost, L. (2009). The Picture Exchange Communication System (PECS): What do the data say? *Focus on Autism and Other Developmental Disabilities, 24*, 89-103.

Thiel, G. W. (1981). Relationship of IQ, adaptive behavior, age, and environmental demand to community placement success of mentally retarded adults. *American Journal of Metal Deficiency, 86(2),* 208-211.

Willer, B., & Intagliata, J. (1982). Comparison of family-care and group homes as an alternative to institutions. *American Journal of Mental Deficiency, 86(6),* 588-595.

Wolf, M. M., Phillips, E. L., & Fixsen, D. L. (1972). The teaching-family: A new model for the treatment of deviant child behavior in the community. In S.W. Bijou & E.L. Ribes-Inesta (Eds.), *Behavior modification: Issues and extensions,* (pp 51-62). New York: Academic Press.

Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis, 11*, 203-214.

Wolf, M. M., Kirigin, K. A., Fixsen, D. L., Blasé, K. A. (1995). The teaching-family model: A case study in data-based program development and refinement (and dragon-wrestling). *Journal of Organizational Behavior Management, 15*, 11-68.