LEND Brief

Positive Behavior Support • Summer 2014

Introduction

By Joe Reichle, PhD, and Tim Moore, PhD, LP, BCBA-D

What is the Minnesota LEND?

The University of MN LEND (Leadership Education in Neurodevelopmental and Related Disabilities) Program is an interdisciplinary leadership training program spanning a number of health, allied health and educational disciplines across the University of Minnesota and is funded by the Maternal and Child Health Bureau (MCHB) of the US Department of Health and Human Services.

With the formation of the University of Minnesota's LEND program our university community has the opportunity to have increased training, engagement, and support for children with Autism Spectrum Disorders (ASD) and other neurodevelopmental disabilities. The academic disciplines within the University have collaborated to create unique and powerful learning experiences for students. LEND fellows are graduate and post-graduate students selected for their outstanding skills and commitment to improving the quality of life for children with neurodevelopmental disabilities and their families.

The MN LEND's Interdisciplinary Training Program curriculum incorporates both didactic, research and practicum experiences using a combination of activities located in both clinical and community training sites. More information on LEND can be found at http://lend.umn.edu/

What is the LEND Brief

Twice a year LEND publishes LEND Brief. This publication is written for a general audience that includes but is by no means limited to parents, practitioners, policy makers, administrators and researchers who have an interest in neurodevelopmental disabilities. In each publication we focus on research, policy, and service delivery mechanisms in the area of education, health and public health that require an interdisciplinary team effort. Articles appearing in LEND Brief are intended to inform the readership about ongoing activities within a segment of the service delivery system or research and practice that should inform practice, policy or research in the area of neurodevelopmental disabilities.

What is the focus of this LEND Brief?

This issue of the LEND Brief focuses on person-centered positive behavior support and on individuals living in community settings who have benefitted from systematic and longitudinally delivered positive behavior support and person-centered planning.

What is positive behavior support?

Positive behavior support (PBS) is a package of evidence-based strategies to increase quality of life and decrease problem behavior by teaching new skills and making changes in a person's environment. PBS combines: (a) a focus on valued outcomes for the individual; (b) the combined utility of behavioral and biomedical science; (c) an emphasis on research-validated procedures; and (d) systems change to enhance quality of life and reduce problem behaviors (Carr, Dunlap, Horner, Turnbull, Sailor, Anderson, Albin, Koegel, & Fox, 2002). Positive behavior support takes a preventative approach to the topic of problem behavior by supporting the individual, in the environments where he or she learns, works, plays and lives, to maximize control over his/her environment via socially-desirable behavior and the acquisition of self-regulation skills.

Person-centered planning (PCP) is designed to provide support to an individual in planning their desired life and supports that are needed to achieve that life. It represents a life planning model to enable individuals who require support to increase their personal self-determination and improve their independence while shifting supports from program-centered to person-centered. PCP is accepted practice in many countries. It has been advocated as a planning strategy that could benefit many segments of society who find themselves disempowered by current service delivery methods that cannot always fit unique needs of individuals into rigid program structures (e.g. children, people with physical disabilities, people with mental health issues and elderly persons).

Developing person-centered positive behavior support in a system wide effort requires effective resource allocation, staff development (including team building and collaboration), and consideration of the fit of the support strategies for the consumer, the family, and the people who will implement the plans. Implementation of positive behavior support that utilizes PCP, assessment and intervention strategies must engineer the larger environment within an organization and home to ensure success.

In this issue, **Reichle and Moore** provide an overview of positive behavior support strategies with an emphasis on preventative approaches, along with a brief discussion of the component strategies that comprise PBS. **Kleist and Amado** provide an overview of PCP along with the range of specific protocols for PCP. They also discuss implications for service providers in human services. They briefly overview the Olmstead court decision which ruled that unjustified segregation of persons with disabilities constitutes discrimination in violation of Title II of the Americans with Disabilities Act. The Court held that public entities must provide community-based services to persons with disabilities when, (1) such services are appropriate; (2) the affected persons do not oppose community-based treatment; and (3) community-based services can be reasonably accommodated, taking into account the resources available to the public entity and the needs of others who are receiving disability services from the entity. Person centered planning represents a useful tool in upholding the spirit of this ruling which is discussed.

Carlson-Britting, Rotholz, and Moseley summarize findings from a national survey exploring state policies and practices in behavior supports for persons with intellectual and developmental disabilities in the United States. Their findings suggest a number of areas that require the attention of policy makers, personnel preparation entities, and in-service-training and technical assistance providers that will require careful consideration in improving the service delivery system.

Freeman, Enyart, and Matthews offer an example of steps being taken to establish an integrated state-wide system for preventing problem behavior in home and community settings in Kansas that in its relatively brief history has made an impact.

Hieneman and Cessna describe the implementation of PBS in community settings. They provide an ecologically-based multi-tiered perspective offering examples of positive outcomes as a result of privately delivered technical assistance to agencies. Finally **Danov and Amado** offer the story of an individual with severe problem behavior who, as a result of persistent implementation of the strategies discussed in this Brief, has a significantly improved lifestyle and a future she and her family could not have imagined was possible.

Conclusion

The MN LEND hopes that you enjoy this issue of LEND Brief. Follow LEND activities on the website. We hope to post information about upcoming LEND Briefs in the near future that focus on more important and cutting-edge health services for children and adults with Neurodevelopmental Disabilities. If you have comments regarding this publication please direct them to Dr. Joe Reichle or Dr. Tim Moore at knye@umn.edu

1. Carr, E.G., Dunlap, G., Horner, R.H., Koegel, R.L., Turnbull, A., Sailor, W., Anderson, J., Albin, R., Koegel, L.K., & Fox, L. (2002). *Journal of Positive Behavior Interventions, 4*(1), 4-16. Copyright (2002) by PRO-ED, Inc.

Overview of positive behavioral support

Joe Reichle, PhD, and Tim Moore, PhD, LP, BCBA-D

Significance and challenges in addressing the needs of persons with problem behavior

Problem behavior consistently ranks as one of the top service challenges reported by providers (Horner, Diemer, & Brazeau, 1992; Horner, Sugai, Todd, and Lewis-Plamer, 2005). It is associated with more significant cognitive impairment and severe communicative limitations. Problem behavior is increasingly more likely among individuals who experience severe and multiple developmental disabilities (Harvey, Boer, Meyer, & Evans, 2009). Epidemiological estimates suggest 15-20% of individuals with intellectual or developmental disabilities (IDD) exhibit one or more topographies of problem behavior (Emerson et al., 2001; Lowe, Allen, Jones, Brophy, Moore, & James, 2007).

Developmentally, some problem behavior appears early in almost all children regardless of their disability status. For example, approximately half of interactions among two year olds involve problem behavior (Patterson, 1987) while Campbell (2006) reported that approximately 10-15% of all typical preschool children have chronic mild to moderate behavior problems. For these children, problem behavior represents a potentially significant barrier to success (Campbell, 2002; Johnston, Richler, Feely, & Jones, 2012), yet one that is diagnostically difficult to address because of its widespread occurrence. We know that chronic and persistent problem behavior has been associated with greater risk for lower educational achievement (Campbell, 2002). Approximately 18% of preschoolers with early onset moderate to high levels of aggression have been associated with a progressive worsening of problem behavior. By the mid to late elementary years, these children display poorer academic and inferior social skills when compared to their peers. Additionally, *(Miller & Prinz 1990)* reported a strong correlation between chronic anti-social behavior in childhood and psychopathology and criminality in adolescence and adulthood.

For some children, significant early educational challenges may begin a cycle in which instruction becomes aversive. As failure and corresponding escape attempts increase, interactions with educators become more punitive with a decrement in learning (Scott, Nelson, & Liaupson, 2001). Often, in this type of scenario emerging problem behaviors are maintained and strengthened as a result of coercive social interactions in which problem behavior can become reinforced for the child as well as the adult (Gunter, Jack, DePaepe, Reed, & Harrison, 1994). For example, a student may tantrum to escape difficult work. Educators may release the learner themselves to escape the aversiveness of the tantrum. Thus both the learner and the adult are negatively reinforced by the removal of an aversive event.

Without effective intervention, problem behaviors contribute to poor physical and mental health, worsened educational, social, familial, and residential outcomes, and decreased community participation (Brown, MacAdam-Crisp, Wang, & Iarocci, 2006; Malick-Seltzer & Krauss, 2001; Mugno, Ruta, D'Arrigo, & Mazzone, 2007; Werner et al., 2009). Much of the variability in the degree to which these aspects of life are impacted can be accounted for by the presence or absence of problem behavior in the course of daily routines (Hastings, 2002; Malick-Seltzer & Krauss, 2001; Mugno et al., 2007). We know that persons who produce problem behavior may receive less positive attention from others and the attention that they receive may be more directive and reprimanding in nature (Fry, 1983; Reichle, 1990; Carr, Taylor, & Robinson, 1991). Problem behavior has been shown to result in restricted school and residential placements along with more limited community opportunities. These variables in turn, can place considerable stress for all of the involved stakeholders (O'Neill, Vaughn, & Dunlap, 1998; Sinclair, Thurlow, Christenson, & Evalo, 1996).

The goal of comprehensive positive behavioral support (PBS) is to prevent problem behavior and to produce rapid, durable, generalized reduction in problem behaviors while improving opportunities for success in work, home and community environments (Horner & Carr, 1997).

Describing a framework to discover why individuals engage in problem behavior

Events that maintain the use of problem behavior can be either non-social (the behavior is maintained by reinforcers that do not require the mediation of other people) or social (the behavior is maintained by a reinforcer whose delivery is mediated by other people). An example of behavior that is non-socially maintained might involve an injury or health issue (e.g. ear infection, severe flu, urinary tract infection). An example of a problem behavior maintained by a social event

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might be a peer offering an individual a cup of coffee after they threw a cup at the individual. With respect to social events maintaining problem behavior, many researchers and practitioners have described social events that can maintain problem behavior that include; (a) attention seeking/maintaining, (b) tangible seeking/maintaining, and (c) escape/avoidance maintaining. By the early to mid-1980s researchers were focusing on intervention strategies that directly addressed socially maintained problem behavior as a member of one or more of these groups of maintaining variables (Reichle & Wacker, 1993).

Functional behavior assessment (FBA) is aimed at determining the "reasons" or maintaining variables that continue to reinforce learners for producing problem behavior. Tools used involve interview, direct observation, and (in a number of instances) a functional analysis. With respect to functional analyses, a number of early investigators (e.g. Carr, Newsom, & Binkoff, 1980; Iwata, Dorsey, Slifer, Bauman, & Richman, 1982 and 1994) demonstrated the efficacy of manipulating consequences in an experimental evaluation to determine social functions associated with problem behavior. Functional analyses are distinguished from functional assessment because they allow for a determination of causal relationships between problem behavior and the circumstances that influence its occurrence and maintenance over time, rather than simply addressing correlative relationships between the problem behavior and a social function (see Table1). Although functional analyses may yield quicker answers addressing the function of problem behavior (particularly with behavior that occurs relatively often), analysis such as ABC analysis in which a practitioner carefully records the form of the problem behavior along with the events that occurred prior to and immediately following the episode. These recordings are then summarized to look for patterns of antecedents and consequences that appear to be associated with the problem behavior. In this section we will cover a discussion of linking assessment to intervention. In practice,functional analysis requires a higher level of intensity, expertise, and resources, and is generally considered an approach to use when less-intensive functional assessment procedures have failed to identify the relationship between environmental circumstances and problem behavior sufficiently to design an effective intervention. Numerous studies have demonstrated the efficacy of functional behavioral assessment (less intensive than the experimental functional analysis) paired with PBS in reducing problem behavior (e.g. Carr & Carlson, 1993; Kemp & Carr, 1995; Mace, Lalli, & Lalli, 1991; Carr et al., 2002; Durand, 1990; and numerous others).

Linking assessment to intervention

Carr and Durand (1985) were among the first to clearly demonstrate the importance of directly linking information gleaned through a functional behavior assessment with the pragmatic function of the communicative act chosen for intervention. This research showed that by selecting a communicative alternative that served the same social function as problem behavior (i.e. escape, obtain or maintain access to goods and services, and obtain or maintain attention) interventionists were successful in teaching an alternative to problem behavior. Teaching an alternative behavior made it no longer necessary to engage in problem behavior that was not as efficient as the alternative. Teaching a viable communicative alternative resulted in collateral decreases in problem behavior (see Durand, 1987; Durand & Carr, 1985, 1991). Evidence also demonstrates that when the selection of a communicative alternative is not well matched to the events that reinforce an individual's problem behavior, teaching communicative alternatives will not result in a corresponding decrease in problem behavior. Thus communicative alternatives selected as an alternative to problem behavior must be functionally equivalent in that they are associated with the same exact reason that an individual has chosen to produce problem behavior.

Identifying one of the major social functions (reinforcer that maintains the learners production) of a particular problem behavior may not be sufficient to result in a direct linkage to intervention. Determining that a problem behavior serves to gain escape from an activity may be only the first step towards informing the interventionist's choice of a functionally-equivalent communicative alternative. For example, suppose that an individual produces problem behavior to escape activities only when they are significantly longer than usual. Although to escape is the social function, the appropriate communicative alternative can be more narrowly pinpointed. In this case requesting a break might be the best matching communicative alternative. On the other hand, if the learner escaped because an activity was excessively difficult, requesting assistance may be the best option. Thus, simply knowing the function that a behavior serves would not be sufficient to make the best selection of an intervention strategy (Johnston, Reichle, Feely, & Jones, 2012; Reichle, Drager & Davis, 2002).

Table1. Examples of information obtained from a functional assessment

Scenerio: John is a 45 year old who lives in a community residence serving him and two other individuals. A functional assessment is being completed in order to address yelling outbursts that occur throughout the day. Below is an excerpt from an A-B-C observation that was completed over the course of two days.

Time	Activity	Antecedent	Behavior	Consequence	Possible function(s)
8:30 a.m.	Breakfast	Staff asks John if he would take his turn in setting the table	John yells "I'm not going to do this"	Peers laugh Staff sets table	Attention from peers and/or escape from task
8:35 a.m.	Breakfast	Housemates are sitting around a table eating breakfast	John yells "get me out of here"	Staff says okay and John leaves the group	Escape from task and possibly attention
8:40 a.m.	Clean up	Housemates are clearing table	John yells "I hate cleaning"	John allowed to terminate cleaning	Escape and attention from staff member
8:55 a.m.	Chores	Housemates are completing individual chores	John begins singing/ yelling the incorrect lyrics to the song playing on the radio	Peers laugh	Attention from peers
9:02 a.m.	Free time	A staff member offers John a magazine	John screams "I hate reading"	Staff member asks John to join him and begins to read to John	Attention from teacher/ Amd escape (from self reading)

This excerpt is representative of the entire observation. From, the above data is it not possible to determine the precise functional relations between the yelling behavior and environmental events. A functional (experimental) analysis must be completed. In a functional analysis, antecendents and consequences are manipulated so that their individual effects on the problem behavior can be determined. In this case, the conditions that would be presented are shown below.

Condition	Antecedent condition	Consequences from problem behavior
Free time (control)	Preferred activities are available, no demands are placed on John	Yelling is ignored
Contingent attention	Attention is withheld	Attention in the form of mild reprimands, e.g., "stop yelling"
Contingent escape	Task demands are delivered frequently	Break from task is given

The function that the yelling behavior serves for John can be determined based on data collected in each of the above conditions. Elevated yelling in the attention condition would mean that the behavior is maintained by positive reinforcement. Elevated yelling in the escape condition would mean the behavior is maintained by negative reinforcement associated with being released from the adversive siutation. The PBS framework does not include provision for the use of punishment techniques to suppress problem behavior. Positive punishment (delivering aversive stimuli contingent on problem behavior, such as faradic shock) and negative punishment (removing desired items or activities contingent on problem behavior, such as restricting access to TV or removing earned reinforcers such as tokens) were once state-of-the-art in behavioral supports but are increasingly prohibited by states on human rights grounds (e.g. see State of Minnesota rule 245D).

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Proactive interventions: Examples of a communicative alternative and antecedent focused intervention strategies

Communicative alternative example

What is request a break?

- Sometimes persons seek escape from an activity because it is longer than an individual's ability to successfully sustain engagement. When this occurs an individual may seek escape. A request for a break is a communicative intervention in which an individual completes a portion of an activity and then requests a break. Following the break, the individual returns to the activity.

Who would benefit from being taught a request a break response?

- Individuals whose behavior is escape-motivated would benefit from being taught to request a break. Consider a young boy who participates in a structured activity for a brief amount of time and then begins to engage in aggressive behaviors toward his peers when he wishes to leave the activity. Another individual may scream when they have lost interest in an activity. These individuals can be taught to request a break using a communicative strategy involving spoken, gestural, and/or graphic symbols (access to preferred activities).

How do you teach a request for a break?

- The first step is to identify through a functional behavior assessment how long the individual can stay engaged with a particular activity or task before engaging in the problem behavior. This will assist the interventionist to determine when the break should be offered to proactively address the challenging behavior. In other words, you want to teach the request a break strategy before the challenging behavior occurs and not during an episode of problem behavior.
- To teach this strategy, the interventionist should approach the individual while they are still engaged in the activity and ask Want to take a break? or approach the individual with a sign for break or a graphic symbol. The break should provide a choice of preferred activities for the person. This will provide negative reinforcement (escape from the activity or task) as well as positive reinforcement.
- Returning to the activity can be difficult for many who may resist leaving a preferred activity to return to a non-preferred activity or task. Here are some suggestions that may help —
  - » Select reinforcers that are available during break time that are consumed or naturally dissipate. Once the reinforcer is gone, it is more of a natural consequence and an easier transition for the individual to return to the activity or task. Some examples might be a small number of snack items. The key is to find a reinforcer that is motivating.
  - » When the individual does comply and return to the activity or task, a reinforcer should be delivered that is available only when they return without challenging behavior. This reinforcer should not be available at any other time and should be highly preferred.

Antecedent focused support strategy

What is tolerance for delay of reinforcement?

- This strategy influences problem behavior by cuing an individual that they are about to obtain a desired outcome (attention, escape or access to a desired activity contingent on continued participation for a slightly longer period. For example, an individual was taught to request a break a job supervisor might say, "Just finish up two more and we'll go outside".
- In this strategy, the individual is taught to tolerate the delay of reinforcement . The strategy can be helpful in teaching a person to better regulate their participation in familar activities. Alternatively, with individuals seeking to gain access to desired attention and breaks, it can help teach them to be more patient.
- With individuals who have learned a communicative alternative, it can teach them to moderate the use of communicative acts such as requesting help or requesting a break.

Who would benefit from implementing the tolerance for delay of reinforcement strategy?

Teaching a tolerance for delay of reinforcement is useful when persons engage in challenging behavior to —

- Escape or avoid a task- Rachel runs from the TV area after puting away one of the three videos that she had out.
- Obtain desired objects/activities- Karen tantrums each time she requests a magazine that another individual is examining.
- Obtain or maintain attention- Jason acts aggressively toward his peers when left to engage in an activity independently without adult attention.

How do I implement a tolerance for delay of reinforcement as an intervention strategy?

- First, conduct a Functional Behavioral Assessment to determine the function of the problem behavior. If the function is to escape/avoid a task, obtain a desired object or activity, or obtain or maintain attention, then implementing a Tolerance for Delay of Reinforcement would be appropriate.
- Choose a specific activity or time of day to begin to implement this strategy. Pick a time when you know the problem behavior generally occurs.
- Decide whether the person will need to wait for a specific amount of time or participate in a specific activity in order to receive the reinforcer.
- It is important to decide ahead of time what you are expecting the individual to do. He/she must understand what is expected of them in order to receive the reinforcer. If you need a person to wait, make sure it is for a short and specific amount of time. If he/she needs to participate in an activity, make it clear exactly what they will need to do in order to receive the reinforcer. Be realistic about the persons's current abilities. It is better to work incrementally in small steps helping the individual to achieve success rather than in large steps that may set the child up for failure. Given that you are either asking for the person to wait for a specific time or you are asking them to complete a certain activity, this intervention is comprised of two different cues: a time-related delay cue and a task-related delay cue.

What are delay cues?

- A delay cue in general is a verbal, gestural, or graphic signal given to the individual to indicate that participation in the task is about to be terminated or a preferred item/event is about to be delivered, contingent on the absence of problem behavior.
- A time-related delay cue communicates that reinforcement will be delivered contingent on refraining from engaging in challenging behavior for a period of time. The period of time can be specific such as, "We'll be done in 3 minutes", or indefinite such as, "We'll be done soon". Using a clear signal (visual timer or other audio or visual cues) is helpful to make the concept of time more concrete for the person.
- A task-related delay cue communicates that reinforcement will be delivered contingent on a certain amount of task engagement with no challenging behavior. Task engagement or waiting to access a positive reinforcer can be incrementally increased to increase the time the individual is engaged in the specified activity.

What is a release cue?

- A release cue is a verbal, gestural, or graphic signal to indicate the delivery or onset of reinforcement. When the person has complied and met the task demands, it is important to have a cue to let them know that they will be receiving their reinforcer. Examples of release cues include saying "We're done" when the child has completed the activity or "Here it is" when a desired item is delivered.
- It is important to remember that both delay cues and release cues should be chosen based on the individual's comprehension and the specific activity.

This Fact Sheet of the Challenging Behaviors Series was abstracted from LEND.umn.edu

Describing the components in individualized PBS

PBS rests upon three major pillars: person-centered practices, inclusion/ social role valorization, and applied behavior analysis (Carr et al., 2002). Assessment and intervention methodologies reflect this breadth of perspective, and measurement/evaluation practices are guided accordingly by behavioral science. In PBS individualized intervention procedures are guided by functional behavior assessment and an evaluation of ecological factors that may contribute to problem behavior. PBS strategies contain a strong emphasis on proactive strategies that address not only the individual but the environments in which they live and work.

Ultimately a PBS plan includes four primary sections —

1. Designing antecedent focused interventions/strategies to alter provoking triggers associated with problem behavior,
2. Teaching socially acceptable behaviors that replace problem behavior (e.g. communicative alternatives to problem behavior) and modifying instructional delivery or events that may alter the learners acceptance of instruction or social interaction,
3. Reinforcing positive/ socially desirable behavior, and
4. Arranging for the absence of reinforcing consequences (or outcomes) for problem behavior so the behavior becomes inefficient for the person

A comprehensive PBS plan with specific, individualized components in these four sections serves as a set of systematic guidelines for the actions of others who interact with the learner (Carr, Levin, McConnachie, Carlson, Kemp, & Smith, 1994; Durand, 1990; Reichle, McEvoy, Davis, Rogers, Feeley, Johnston, & Wolff, 1996; and numerous others). Each of these four intervention areas must be applied at an individualized level with the intensity required to establish progress towards the person's goals.

It takes a village

A system-wide PBS framework includes high-quality preventative measures applied to all individuals in a tiered system designated for PBS. Recent school-wide PBS initiatives have developed a three-tiered framework.

- **Tier 1**- involves proactive social methods for the systematic delivery of more consistent and dense schedules of positive reinforcement for desired social behavior paired with consistent consequences and support strategies directed at problem behavior for all students.
- **Tier 2**- targets individuals who will need some additional intervention that does not require a detailed and highly individualized plan. For example, weekly social skills groups for students who require support for initiating and maintaining friendships.
- **Tier 3**- focuses on individuals participating within the system who require highly individualized supports.

These three intervention tiers and their implementation in a systems change effort are discussed further in the articles by *Heineman and Cessna and Freeman et al.* in this issue. Systems change efforts in home, community, work and school need to be implemented by individuals who have a clear vision of the outcomes. In-service workshops and training efforts will not be effective if staff members are not clear about why they should "buy in" in learning new skills. In school-wide PBS there is general agreement that around 80% of an agency's staff must "buy in" or want to engage in the system change initiative to have a real chance to sustain the effort.

Summary

The aim of this article has been to briefly describe aspects of implementing assessment and linking assessment to intervention strategies. In doing so, we have been careful in describing a number of different "bins" of intervention strategies that often need to be coordinated to provide the support that a person with significant problem behavior requires. For example teaching a learner to say no thank you rather than engaging in aggression to avoid a particular item may be acceptable. However, that same communicative alternative does not represent an acceptable alternative behavior for problem behavior emitted to avoid taking seizure control medication.

An important feature of PBS in community settings that we have emphasized is the need to consider not only individualized intervention strategies (Tier 3 as we have described) but strategies that can be implemented within the system itself to provide required support. This level of coordination is not always quick and easy to achieve but it is critical in developing a culture within a service delivery system for providing high quality care.

In developing more comprehensive service delivery systems several areas require continued attention. First, the bulk of the evidence base supporting PBS has been accumulated in public schools. To date, relatively few systems demonstrations have been executed in adult community services. Furthermore, relatively limited evidence has been generated regarding system-wide use of the strategies with populations who experience mental illness or disabilities such as Alzheimers Disease or

Tramatic Brain Injury.

Additionally, although PBS embraces the practices utilized in PCP, many professionals implementing PBS often have little or no experience in the area of person-centered planning (see *Kleist & Amado*, this issue). This will require additional training for many professionals who already feel very qualified. Finally, as *Carlson- Britting et al.* (this issue) point out, many states have significant work related to addressing the standards, expertise and quality assurance required to put a truly effective system of service and technical support to provide high quality service in supporting the needs of individuals who engage in a significant level of problem behavior. In spite of the significant challenges ahead we believe that the increasing attention to comprehensive PBS and person-centered planning networks represents progress toward enhancing our service capability in this area.

Joe Reichle, PhD, is the director of MN LEND and a professor in the Department of Educational Psychology and Speech Language and Hearing Sciences at the University of Minnesota. Dr. Reichle's research areas include establishing communicative alternatives to challenging behavior, validating instructional procedures to teach individuals with significant developmental disabilities to use augmentative communication systems, and establishing and evaluating school based technical assistance in the area of positive behavioral support.

Tim Moore, PhD, LP, BCBA-D is clinical director of the Minnesota Life Bridge program at the Minnesota Department of Human Services where he and his team provide residential and mobile services for adults with IDD and severe challenging behavior using a person-centered PBS framework. Previously he was a post-doctoral MN LEND Fellow, and spent many years working in the community developing a home-based, family-centered behavioral intervention program that continues as a resource for parents of children with significant behavioral challenges.

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An overview of person-centered planning and implications for human services

Angela Novak Amado, PhD, and Barbara A. Kleist, MEd, JD

Person centered planning: A family of approaches

Person centered planning is best described as a family of approaches designed to help people plan for their future. It's a process of learning how a person wants to live and then describing what needs to be done to support them moving toward that life (Smull & Sanderson, 2005). The goal of person-centered planning is to help develop meaningful life goals for an individual based on his or her strengths and skills, using personal, natural, and creative supports and services (Kincaid et al., 2002).

Anyone could benefit from person-centered planning, and many demonstrations of the process have involved children and adults with neurodevelopmental disabilities and the people who care and support them. The effectiveness of person-centered planning can also complement the creation of services and supports that address problem behavior that an individual may be experiencing. In this article, we provide an overview of person-centered planning for those who have had limited previous exposure.

The origins of person-centered planning

O'Brien and O'Brien (2000) described person-centered planning as evolving from the early days of the deinstitutionalization movement and the seminal work of Wolfensberger (1976) on the principle of normalization, defined as "the use of culturally valued means in order to enable, establish, and/or maintain valued social roles for people" (Wolfensberger & Tullman, 1982, p.131). This principle was developed at a time when many children and adults with neurodevelopmental disabilities were institutionalized, and its basic tenet was that a more desirable goal was to assist such individuals to live a life as normal as possible in the community. These ideas came from a perspective of seeing the person as a whole person rather than the common view of seeing them as their disability or diagnosis. Moving from an institutional model of services and supports for persons with neurodevelopmental disabilities required a new way of thinking. Services and funding were driven (and still are to a significant degree) by a medical model that focused primarily on health and safety. For most individuals with neurodevelopmental disabilities, decisions about many aspects of their lives are often dictated by others – parents, guardians, other family members, school personnel, or medical and social service professionals (O'Brien & O'Brien, 2000). Often, options about how people live are dictated by available funding streams or by existing rules and regulations. Often persons with quite complex behavioral challenges and difficult behaviors are not involved in the planning process; instead, decisions are made by the "services system" regarding what is best for them (O'Brien & O'Brien, 2000).

Influenced by Wolfensberger's (1972) conceptualization of the principle of normalization regarding how society views and responds to persons with disabilities, a network of people working to promote these ideas began to question the proper role of human services in society and in people's lives. Subsequently, person-centered planning emerged in the early 1980's as a tool for changing service practices and improving the lives of children and adults with disabilities (O'Brien & O'Brien, 2000, p.5). Early pioneers in person-centered planning included Judith Snow, Beth Mount, Connie Lyle O'Brien, John O'Brien, and Michael Smull. Each added their own contributions to creating methods for capturing a person's hopes, dreams, aspirations and goals as they plan their future. Over the last 40 years, the initial approaches have blossomed into at least eleven different methods (O'Brien & O'Brien, 2000, p.23). While all of these approaches to person-centered planning have their unique attributes, one common thread in each of these is the role of the individual for whom the plan is designed. This person is at the center of the planning process – they are the expert in their own lives.

Characteristics of person-centered planning

Person centered planning is a dynamic and interactive process that defines the preferred lifestyle that a person wishes to live. Further, it identifies actions that are needed to support that person in living that life. The process of person-centered planning includes strategies to increase: 1) the person's quality of life, 2) relationships, and 3) activities that build on their strengths, priorities, values, and preferences. The desired outcome of a person-centered plan is a better life for the child or adult (Amado & McBride, 2001). Person-centered planning requires the active participation of the people that are important to the person with neurodevelopmental

disabilities and may include family, friends, neighbors, service providers and other professionals, depending on the purpose for developing a person-centered plan. The style and format of a person-centered plan can vary, depending on the approach used.

In an article defining positive approaches, O'Brien and Lovett (1996) identified five foundational beliefs in person-centeredness common to all person centered approaches. These are —

- Person-centered planning answers two essential questions, who is this person and what is important to him/her;
- Person-centeredness aims to change common patterns of community life, stimulate community hospitality, and enlist community members in assisting persons to define and work toward a desirable future;
- Person-centeredness fundamentally challenges practices that separate people and perpetuate controlling relationships;
- Honest person-centered planning can only come from respect for the dignity and completeness of the person;
- Assisting people to define and pursue a desirable future tests one's clarity, commitment and courage (O'Brien & Lovett, 1996).

Common person-centered planning approaches

The most common person-centered planning approaches used with children and adults with neurodevelopmental disabilities include: 1) Personal Futures Planning, 2) MAPS (initially called McGill Action Planning Systems), 3) Planning Alternative Tomorrows with Hope (PATH), 4) Essential Lifestyle Planning (ELP), and 5) Person Centered Thinking. While these approaches share the common characteristics and fundamental beliefs stated previously, each approach also has unique qualities and usefulness described in the Table 1.

As mentioned previously, O'Brien & O'Brien (2000) have described other person-centered planning approaches that have also been developed. Such approaches are designed for specific purposes such as assisting someone to get a job or planning for retirement. For example, one approach used in employment is called Discovering Personal Genius™ (Griffin et al., 2012) and is also known as the Discovery process. It's a person-centered approach used in job development efforts that explores "who the job seeker is, what they

Table 1. Common approaches to person-centered planning

Approach	Unique quality	Useful for
Personal Futures Planning (Mount, 2000)	This process emphasizes getting to know a person, creating or recognizing a person's dreams, developing their ideas for their future, and taking action on those ideas.	The process is useful for creating a person's dream using the creative thinking of a group of people committed to assisting them in realizing their dreams for a better and more meaningful life.
MAPS (O'Brien, Pearpont & Kahn, 2010)	A person-centered process that results in a plan that helps people see where they are now, decide where they want to go, and how they can get there.	The MAPS process is a version of Personal Futures Planning which has been useful for supporting inclusion of students with disabilities in school settings.
PATH (O'Brien, Pearpoint & Kahn, 2010)	A powerful tool for defining an inspiring future, and defining the action steps to take toward that future. PATH plans empower people to understand and take control of the situation.	This process is useful when a person has a group of people supporting them who are committed to making the things happen that are on the person's PATH plan.
Essential Lifestyle Planning (Smull & Burke-Harrison, 1992)	A planning process for learning how a person wants to live now and the steps to establish that life. This process was originally developed for people with "severe reputations" – those whose behavior was challenging to those who supported them.	This process can be used with anyone at any time. It is particularly useful when someone's life is in chaos or crisis, when the emphasis is on how to help the person have a better life right now.
Person Centered Thinking (Smull, 2009)	A structured set of skills and tools for getting to know people and help them plan. These tools can also assist agencies and systems in transforming from system-centered to person-centered organizational practices. The concepts and tools provided by Person Centered Thinking help practitioners from any discipline learn to listen in new ways.	The tools are useful for helping people direct their own lives. They can also support organizational culture change in the service systems by establishing more effective and efficient methods of using available resources.

know, and where they best fit." Another example is an approach for people facing retirement which uses person-centered planning to support older adults with disabilities to transition from a work life to retirement (Stancliffe et al, 2013). As person-centered planning continues to evolve, different approaches and uses will likely continue to emerge.

The future of person-centered planning: Moving a mountain

Over the last 40 years, person-centered planning has influenced changes in federal and state policies to support people to live in communities rather than institutions. A court case that has propelled the use of Person-Centered Planning forward was the 1999 case *Olmstead v L.C.,* in which the United States Supreme Court issued a ruling that requires states to eliminate unnecessary segregation of persons with disabilities and to ensure that persons with disabilities receive services in the most integrated setting appropriate to their needs. This ruling set the stage for recent changes in policy and service delivery across the United States.

As a result of the Olmstead Decision, states are rethinking how they design, deliver and fund services to support people with disabilities to live in the community. At the federal level recent changes in federal regulations for allocating funding for Home and Community Based waiver services include specific requirements around person-centered planning and supports (42 CFR 441.540 – Person-Centered Service Plan). One example of person-centered planning in federal regulations is the Home and Community Based Services (HCBS) option 1915 (c) which now requires the State's HCBS Waiver programs to "Ensure that services follow

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Olmstead v L.C.

Olmstead v L.C. involved two women from Georgia who had mental illness and developmental disabilities. Both women had been voluntarily admitted to the psychiatric unit in the State-run Georgia Regional Hospital. They were ready to move to a community based program after completing their medical treatment and the mental health professionals treating them agreed that they were ready to move. However, each of the women remained confined in the institution for several years after the initial treatment was completed despite no longer requiring the level of care that had been provided by the institution.

The women filed a lawsuit under the Americans with Disabilities Act (ADA) for release from the hospital. Their case made its way up to the

U. S. Supreme Court and the Court in a landmark decision said states cannot confine people with disabilities to live in institutions or institutional settings and must provide funding for access to community based services and supports to children and adults with disabilities in the most integrated setting. From the United States Department of Justice Civil Rights Division, Information and Technical Assistance on the Americans with Disabilities Act in their overview of the Olmstead decision —

On June 22, 1999, the United States Supreme Court held in Olmstead v. L.C. that unjustified segregation of persons with disabilities constitutes discrimination in violation of Title II of the Americans with Disabilities Act. The Court held that public entities must provide community-based services to persons with disabilities when (1) such services are appropriate; (2) the affected persons do not oppose community-based treatment; and (3) community-based services can be reasonably accommodated, taking into account the resources available to the public entity and the needs of others who are receiving disability services from the entity.

The Supreme Court explained that its holding "reflects two evident judgments." First, "institutional placement of persons who can handle and benefit from community settings perpetuates unwarranted assumptions that persons so isolated are incapable of or unworthy of participating in community life." Second, "confinement in an institution severely diminishes the everyday life activities of individuals, including family relations, social contacts, work options, economic independence, educational advancement, and cultural enrichment." ("About Olmstead " n.d.).

an individualized and person-centered plan of care" (42 CFR 441.540 – Person-Centered Service Plan). Additionally in the recently approved regulations for Self-Directed Personal Assistant Services (PAS), section 1915 (j) requires a Person-Centered and Directed Planning Process that includes the following —

- The Service Plan is based on an assessment of need for Personal Assistance Services (PAS).
- The Service Plan and budget plan are developed using a person-centered and directed process.
- Participants can engage in and direct the process.
- Participants can choose family, friends and professionals to be involved as needed/wanted.
- Participants' preferences, choices and abilities, and strategies to address these preferences must be identified in the service plan.

The plan must include an assessment of contingencies that pose no risk of harm to participants and an "individualized backup plan" to address those contingencies, as well as a "risk management plan" that outlines risks participants are willing to assume (Person-Centered Service Plan 42 CFR 441.540).

In response to some of the changes in law and regulation at the federal level, some states have developed policies and regulations for integrating person-centered planning into the service delivery system. These states include, among others, Arizona, Georgia, Michigan, Vermont, Washington, Missouri, and Minnesota. The mountain continues to move and the principles of person-centered thinking and planning can be found throughout the systems of services and supports for children and adults with neurodevelopmental disabilities including the federally funded Leadership Education in Neurodevelopmental Disability program (LEND).

Person-centered planning and LEND

There are several implications for the Leadership and Education in Neurodevelopmental and Related Disabilities training (LEND) programs regarding the concepts and values of person-centered planning. The increasing emphasis on person-centeredness in federal and state laws and regulations presents a unique opportunity for LEND's interdisciplinary approach to educating future leaders in neurodevelopmental disabilities. LEND trainees from diverse professional disciplines come together to learn with the goal of becoming leaders in their respective fields and to cultivate high levels of interdisciplinary clinical competence. LEND is guided by Maternal and Child Health (MCH) Leadership Competencies and includes family-centered care as one of 12 core competencies. The definition of family centered care has similar characteristics with person-centered planning approaches described earlier. Family centered care is defined in the MCH Leadership Competencies as —

> *"Family-centered care ensures the health and well-being of children and their families through a respectful family-professional partnership that includes shared decision making. It honors the strengths, cultures, traditions, and expertise that everyone brings to this relationship. Historically, in the field of MCH, the concept of family-centered care was developed within the community of parents, advocates and health professionals concerned for children with special health care needs (CSHCN)" ("Family-Centered Care" n.d.).*

Other definitions of person centered principles have been defined by a number of disciplines represented in LEND. Although there are many discipline specific examples, several are included in this article. In nursing, patient centered care has been defined as "understanding the personal meaning of the illness for the patient by eliciting their concerns, ideas, expectations, needs, feelings and functioning; promoting the understanding of the patient within their unique psychosocial context; sharing power and responsibility, and developing common therapeutic goals that are concordant with the patient's values" (Drach-Zahavy, 2009 in McCance et al., 2011). In the discipline of family social sciences, family centered care has been described as "a way of caring for children and their families within health services which ensures that care is planned around the whole family, not just the individual child/person and in which all the family members are recognized as care recipients" (Shields, Pratt, & Hunter, 2006, in McCance et al, 2011). In special education, the purpose of the Individual Education Plan and the Positive Behavioral Support Plan provides specific measurable goals centered on the specific learning needs of the student. Additionally the concept of school wide positive behavioral support attempts to implement support strategies for an entire environment of typically developing students and students with disabilities. In mental health, principles of person-centered planning are found in evidence based practices such as Wellness Recovery Action Plan (WRAP) and Wrap-around, a planning process used with children with emotional and behavior disorders that empowers the family and focuses on their child's strengths.

One common theme across these different definitions is that the child

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or adult who is being supported is at the center of the planning process, a larger community around the child or adult plays an integral role in support which reflects a core principle of any person-centered planning approach. Anyone who will be working in health and human services now or in the future will need to be grounded in the values and principles of person-centered planning as a foundation for any health and human service endeavor.

Conclusion

The evolution of the human services system in the last 40 years has evolved from a primarily institutional and service-focused design toward a focus on person-centered values. This evolution has been influenced by different types of planning processes, court cases, public policy and other forces. The transformation of the current service system for supporting children and adults with neurodevelopmental disabilities and their families will continue to be influenced by person-centered principles and practices as federal and state policy continues to shift funding and resources from institutional models of care to community-based services and supports. Practitioners supporting children and adults with neurodevelopmental disabilities will continue to play a vital role in person-centered planning processes as an important tool for identifying, planning and executing needed services and supports.

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State policies and practices in behavior supports for persons with intellectual and developmental disabilities in the U.S.: Abbreviated findings from a national survey

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In late 2010, the National Association of State Directors of Developmental Disabilities Services (NASDDDS), in partnership with the Center for Disability Resources (CDR) at the University of South Carolina, conducted a national survey of state developmental disabilities agency policies and practices regarding behavior supports. The survey, the first of its kind, was initiated in response to the need to document the nature, type, and scope of behavior support services that are provided to adults with intellectual and developmental disabilities (IDD) through publicly funded service systems in the United States. Specifically, the study assessed: (a) the settings in which behavioral supports are offered; (b) qualifications practitioners must meet to be eligible to provide the service; (c) reimbursement strategies and funding mechanisms; (d) behavior support provider training requirements; and (e) state policies and practices governing the oversight and provision of behavioral supports, quality assurance, availability of behavioral support providers, and the challenges experienced by state agencies in this area. The need for this information is pressing as states fund, permit, and regulate a variety of interventions to meet the needs of people with challenging behaviors, all while there is no national standard for behavioral support practices or source of information on the status of behavior support policies, practices, and services for adults with IDD at either the state or national level.

In the absence of solid national data on the qualifications of professionals providing behavior supports and the nature of the services provided, states have historically been left to develop their own service definitions and professional qualifications or draw them from other sources.

While full details of this study and the corresponding results can be found in the original complete manuscript titled "State Policies and Practices in Behavior Supports for Persons With Intellectual and Developmental Disabilities in the United States: A National Survey" in the journal *Intellectual and Developmental Disabilities* published by the American Association on Intellectual and Developmental Disabilities (AAIDD), this abbreviated adaptation will highlight some of the key takeaways that emerged and that are likely to be of interest. These include —

1. the absence of standard and consistent service definitions;
2. the lack of widespread licensure for qualified behavioral support providers;
3. differing policy/procedural and skill requirements across treatment setting; and
4. the overwhelming need for qualified providers.

The results gathered through this seminal survey, which included responses from 44 states plus the District of Columbia (see Table 1), provide a starting point for appropriately informed and coordinated quality improvement efforts.

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Table 1. States, plus the District of Columbia, that participated in the survey

Alabama	Hawaii	Michigan	New York	Tennessee
Arizona	Idaho	Minnesota	North Dakota	Texas
Arkansas	Illinois	Missouri	Ohio	Utah
California	Indiana	Montana	Oklahoma	Vermont
Colorado	Iowa	Nebraska	Oregon	Virginia
Connecticut	Kentucky	Nevada	Pennsylvania	Washington
Delaware	Louisiana	New Hampshire	Rhode Island	West Virginia
D.C.	Maryland	New Jersey	South Carolina	Wisconsin
Georgia	Massachusetts	New Mexico	South Dakota	Wyoming

Setting the stage: Positive behavior supports as a personal, state, and national issue

Publicly financed service systems for people with IDD are significantly challenged in their efforts to support individuals with intensive behavioral needs, their families, and the providers who work with them. Ideally, support strategies and therapeutic approaches are tailored to the specific needs of the individual and function to strengthen his or her ability to live a productive and satisfying life in the community with friends and family. State IDD agencies support a variety of interventions to meet the needs of people with problem behaviors. A review of the service definitions included in states' home and community-based Medicaid waiver programs furnished under Section 1915(c) of the Social Security Act reveal that virtually every state offers some type of behavioral support service to eligible individuals with IDD. The application of behavioral supports, particularly positive behavior supports (PBS), has resulted in significant behavioral and quality of life changes in the lives of many people with IDD (e.g., Carr et al., 1999; Carr et al., 2002; Reichle, Freeman, Davis, & Horner, 1999; Risley, 1996). Unfortunately, research into the widespread use of behavioral approaches has been hampered by two of the survey's key takeaways–service definitions and provider qualifications.

Service definitions and terminology

The term "behavior supports" was used in this study to capture information on services that include behavioral assessment and intervention to increase appropriate behavior, decrease inappropriate behavior, and teach new skills to replace problem behavior. Such services are referred to in different settings and states as applied behavior analysis, behavior management, behavioral intervention, behavior supports, and/or positive behavior supports. These services can be provided alone or as part of a broader support plan (ideally, person centered). Depending on a state's service definition, the plan may be called a behavior support plan, behavior intervention plan, PBS plan, or document with some other title.

From a professional perspective, Applied Behavior Analysis (ABA), refers to "the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for the improvement in behavior" (Cooper, Heron, & Heward, 2007, p. 20). From a more practical perspective, ABA uses functional assessment and analysis to determine the relationship between a person's behavior and environmental variables, and then makes changes in those variables to improve the occurrence of socially significant behaviors. These changes are then experimentally assessed to verify the impact of the intervention (see Baer, Wolf, & Risley, 1968 for a more complete description).

Many states and treatment programs have begun using the term "positive behavior support" (PBS) to refer to certain types of services available to ameliorate problem behaviors. The term PBS, originally introduced by Horner et al. (1990), is defined as "a set of research based strategies used to increase quality of life and decrease problem behavior by teaching new skills and making changes in a person's environment" (Association for Positive Behavior Support [APBS], 2007). It was recently described as an approach that "grew from the scientific and procedural foundations of applied behavior analysis, benefitting, in particular, from the technologies of functional assessment and analysis" (Dunlap, Carr, Horner, Zarcone, & Schwartz, 2008, p. 683).

Key literature on PBS has described the approach as emerging from "three major sources: applied behavior analysis, the normalization/inclusion movement, and person-centered values" (Carr et al., 2002, p. 4). Although the practice of PBS has become more fully developed for use with both children and adults over the past twenty years (see, generally, Journal of Positive Behavior Interventions), the PBS literature includes a preponderance of studies focused on children (Marquis et al., 2000), particularly within primary and secondary education systems (see apbs.org and the Journal of Positive Behavior Interventions). Given the gap in the literature, this study focused on the use of behavior support strategies in publicly funded services for adults with IDD.

When states were asked if their agency uses the term "positive behavior supports" in its policy or training efforts, 87% of states reported such use of this term. Those responding "yes" to this question were asked to provide an indication of how PBS is defined in their state. However, only 62% of the states that reported using the term positive behavior supports provided a definition. Of those states that did provide information on their state's definition of PBS, very few included information reflecting even a minimal number of the components that comprise this approach (e.g., addressing the function of the problem behavior, focus on teaching skills to replace problem behavior, increasing quality of life). In fact, many of the responses regarding states' use of the term positive behavior supports indicated that the state (a) did not have a definition of PBS, (b) that the definition is currently under development, (c) that the term is loosely defined, or (d) that the term is defined differently depending on the audience.

The findings concerning how states are defining PBS are problematic given that the term PBS directly implies implementation of supports that use research/evidence-based strategies to first enhance the person's quality of life and, second, to minimize problem behavior (APBS, 2007; Carr et al., 2002). The appropriate definition of PBS "renders problem behavior irrelevant, inefficient, and ineffective by helping an individual achieve his or her goals in a socially acceptable manner, thus reducing, or eliminating altogether, episodes of problem behavior" (Carr et al., 2002, p. 5). Thus, it is quite possible that "definition creep" is occurring in many states, if not nationally, regarding the use of the term PBS. That is, the term is being used by state IDD agencies in a manner that does not reflect the actual implementation of PBS practices.

Qualifications of behavioral support providers

Regardless of whether behavioral support services are referred to as behavioral supports, behavior management, PBS, or applied behavior analysis, important questions remain regarding the specific nature of the services that are furnished underneath these titles; the qualifications that are required to provide the service; and the methods used to ensure, measure, and maintain quality. Expertise in delivery of behavior supports requires specialized study, training, and skill, but the practice does constitute a licensed and/or certified profession, as is the case with medicine, physical therapy, social work, speech and language pathology, and other disciplines. Recent licensure of behavior analysts in a small number of states may be changing this picture in some areas, but for the most part, there is not universal agreement on the professional domain that has the right to provide these services, even though behavior support is based on a foundation of applied behavior analysis. In highlighting the complexity of the issue, Rotholz and Jacobson (1999) noted that most licensed psychologists do not have training in applied behavior analysis or PBS, nor do they practice in these areas. Likewise, certification in applied behavior analysis does not provide sufficient indication about the certificate holder's qualifications in the broader field of psychology or PBS. Although there is overlap in professionals practicing applied behavior analysis and psychology, the authors concluded that it would be a mistake to make assumptions about the qualifications of an individual professional based on certification or licensing alone. Complicating matters further, receiving certification in applied behavior analysis does not provide assurance of the certificate holder's experience in the services required to competently serve individuals with IDD. Applied behavior analysis is a broad field and not all practitioners work in the area of IDD nor do they all have expertise in all of the areas pertinent to the provision of person-centered planning and positive behavioral support.

To explore the provider qualification requirements that are in place across the nation, the survey asked respondents to indicate the minimum requirements needed for a person to write a behavior support plan for a person with IDD. Types of requirements from which respondents could select included psychology license, Board Certification in Behavior Analysis (BCBA), doctoral degree, master's degree, Qualified Mental Retardation Professional (QMRP), BA/BS under

Table 2. Percentage of states reporting specific requirements to provide behavior support services

Educational requirements	% of states reporting the requirement
Master's degree	47
Other	33
QMRP	29
Psychology license	29
BA/BS with supervision	22
BA/BS with no supervision	16
BCBA	13
Doctoral degree	13

professional supervision, BA/BS with no supervision, not applicable, and other. Forty-seven percent (47%) of states reported that a master's degree was the minimum requirement, followed by other (33%) (see comments below), Qualified Mental Retardation Professional (QMRP) (29%), psychology license (29%), BA/BS under professional supervision (22%), BA/BS without supervision (16%), BCBA (13%), and doctoral degree (13%; see Table 2).

As noted above, one third of the respondents reported having "other" minimum requirements for a person to write a behavior support plan that were not among the alternatives included in the survey form. Approximately 2% of states indicated that a person must be a "PBS specialist certified by the University Center for Excellence," 4% of states indicated the requirement of BCBA, and 4% of states reported having no minimum requirements. The comments also listed additional qualifications such as master's degree in psychology, special education, social work, or counseling, and licensure as a psychologist, mental health counselor, physician, nurse, or social worker. Although one state required that the licensed professional have "competencies in applied behavior analysis, PBS, ethics, co-occurring mental disorders, and neurocognitive disorders," most did not. The comments provided by respondents indicated that a majority of states required qualifications that include training, experience, skills and/or licensure in areas that do not necessarily reflect competence in applied behavior analysis or PBS.

Policy, procedural, and skill requirements across treatment settings

In addition to the significance of service definition and the discussion surrounding provider qualifications, the settings in which behavior supports are provided and the corresponding procedural requirements of that setting warrant attention. The survey asked several questions on policies, the first of which ascertained whether or not procedural requirements for behavior support services differed between Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID) and home and community based settings (HCBS). Fifty-six percent (56%) of states indicated that such requirements differed across settings, with 36% of states whose requirements differed indicating that the requirements were less stringent in HBCS.

Although a significant proportion of the individuals served in institutional settings are in need of behavior support services, the overwhelming majority of adults receiving services funded by state developmental disability agencies, including those with significant problem behaviors, are being supported in local communities and settings (although the quality of this support has not been well scrutinized [Larson, Scott, Salmi, &Lakin, 2009]). Twelve states have closed all of their public institutions for people with IDD and have shifted the base of service delivery

Table 3. Difference in state behavior support provider qualifications: Required skills for state and non-state employees by percentage of states

Skills	State employees (% of states)	Non-state employees (% of states)
Conducting functional assessment or functional analysis of behavior (FBA)	36	51
Defining behavior in objective terms	38	49
Development of behavioral support plan based on FBA Results	33	49
Analysis of data to determine function and assess progress	33	47
Objective(s) and data reporting on target behaviors to BOTH increase and decrease behavior	33	44
Training caregivers	33	44
Design of data collection systems	31	44
Specific procedures to teach/increase replacement behavior	33	42
Assessment of consumer's interests and preferences	31	40
Conducting consumer interviews	36	38
Conducting staff interviews	33	38
Working collaboratively with a team	33	38
Person-centered planning	29	31
Graphing of behavioral data	20	27
Assessment of consumer satisfaction	20	18
Assessment of quality of life	18	18

to the community. The movement of significant numbers of individuals with intensive needs to the community raises questions regarding the appropriateness of the less stringent requirements in community programs regarding the provision of behavior supports, provider qualifications, and state oversight responsibilities.

A discrepancy in qualification requirements between state and non-state employees was also evident (see Table 3), with key PBS skills more often required for non-state employees. While it is unclear whether this discrepancy results from the progression from public to private settings as the primary choice for services, closer examination of the reasons why the requirements differ is crucial. This discrepancy is particularly important since most people with IDD are supported in community settings (i.e., HCBS) and these individuals experience behavioral and other challenges just as serious and complex as those served in ICF/IID programs. Thus a key question is why many states have different requirements for ICF/IID programs and HCBS and how best to ensure appropriate requirements in the HCBS.

It is evident that state agencies serving individuals with IDD are challenged in their efforts to develop and maintain high standards in provider qualifications, training, and quality assurance. While in most areas of professional practice (e.g., medicine) clear professional requirements set the minimum qualifications for practitioners with respect to education, training, supervised experience, and licensure necessary to insure "industry standards of quality," this is not the case in the area of behavior supports. The lack of a rigorous, professionally endorsed national standard such as medical licensure that applies to behavior supports for people with IDD raises significant questions regarding the ability of states and provider agencies to set practice criteria and assure the quality and appropriateness of the services being provided across settings (i.e., ICF/IDD and HCBS). Although it is worth noting that there is a national certification in applied behavior analysis from the Behavior Analyst Certification Board, that certification does not address the skills required for PBS that go beyond applied behavior analysis. At present, it appears that states interested in ensuring provision of PBS may need to take direct action to meet this obligation.

Lack of qualified providers

The last set of questions asked in the survey had to do with state policies and practices that govern the oversight and provision of behavioral supports, quality assurance methods, the availability of behavioral support providers, and the challenges experienced by state agencies in these areas. When asked if there are enough high-quality providers of behavior supports in their state, 82% of states responded "no" and 18% responded "yes." While this finding has relevance in many ways, we can only speculate on the reasons that led to such responses. For example, while the 82% of states that reported insufficient numbers of highly qualified providers demonstrated an important national need, we cannot report on how some states meet that need. It's possible that some states have training programs that either enhance professionals' skills in this area or train new providers in PBS sufficient to meet service needs. It is also possible that some states excel at providing truly person-centered community training and supports that reduce the need for behavioral supports from their state ID/DD agency. In either case, this is an important topic to explore in future research.

Conclusion

The finding that behavior supports are furnished by all states responding to the survey underscores the importance of this key service. But the data also reveal many of the challenges that state agencies serving persons with IDD experience in the delivery and oversight of behavior supports and behavior support providers. The vast majority of states indicated that they did not have enough high quality providers of behavior supports. This shortage, plus the lack of a national consensus or standard

Continued on page 21

regarding staff qualifications, service definitions, professional oversight, and quality assurance underscores the need to address these issues at both the state and national levels. This study undertaken by NASDDDS and CDR was intended to be the first step to that end. Hopefully, the next step is for collaborative efforts to improve policy and, most importantly, practice in the area of behavior supports in all states.

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Establishing an integrated state-wide system for preventing problem behavior in home and community settings: The Kansas model

Rachel Freeman, PhD, Matt Enyart, MSED, and Kris Matthews, MSW, LSCSW

As described by *Reichle and Moore* (2014) earlier in this issue, positive behavior support (PBS) refers to a set of strategies and tools that are used to increase quality of life and assist individuals across the lifespan in living successfully within their home, school, work, and community. The PBS team and the individual receiving support, together, work to identify the reasons why a person is engaging in problem behavior. Biochemical and physiological factors associated with problem behaviors also are considered during this functional behavioral assessment as are other key mental health-related issues associated with a person's mental status.

An important goal of PBS is to encourage and assist individuals in expressing themselves more positively through the implementation of self-management, self-determination, and self-regulation skills resulting from a range of positive support strategies (see Reichle & Moore this issue). Changes are made to an individual's routines in order to naturally prevent problem behavior. Interventions that may be chosen to support the individual include, (a) PBS support strategies that have been described earlier in this issue, and (b) therapeutic interventions promoting behavioral health and wellness are included as part of a holistic multi-component intervention plan.

Person-centered, team-based PBS processes rely on the wisdom and experience of the individual, his family, close friends, and others who know the person well. Professionals invited to participate in the interdisciplinary team provide expertise in the therapeutic, educational, and social evidence-based intervention strategies that can help improve an individual's quality of life in part through reducing exposure to circumstances that, in the past, have been associated with problem behavior. In Kansas, a state-wide project was organized to provide a certification and training system that teaches facilitators to lead teams in functional assessment and action-planning processes.

Kansas Institute for Positive Behavior Support

Training overview

The Kansas Institute for Positive Behavior Support (KIPBS) was established to provide PBS training opportunities for professionals across mental health, intellectual and developmental disabilities (IDD), foster care, and other human service settings. The KIPBS certification training involves teaching individuals how to facilitate PBS plans with children and young adults. Professionals who successfully complete the KIPBS training program are eligible to bill Medicaid for PBS services for children under the Kan-Be- Healthy program (a Medicaid service supporting the health of children 20 years of age and younger in Kansas).

The larger mission of KIPBS is to build healthy communities by working collaboratively with state leaders to establish regional capacity so that PBS facilitators representing different human service systems are available across all regions of the state.

Individuals attend KIPBS training classes where the main concepts of PBS are introduced and they have a chance to learn from the perspective of other professionals representing a variety of regions, disciplines and fields. Online training materials are used during independent study to further understanding of PBS concepts. Finally, and perhaps most importantly, professionals within the training program facilitate a PBS plan with a child or young adult while receiving mentoring from experienced PBS facilitators.

Each individual participating in the training is observed facilitating key elements of the PBS process by a person with behavioral expertise. A minimum of three onsite observations are scheduled to observe trainees while they facilitate their case study child's PBS plan. The project mentor who conducts the observations provides positive feedback to the trainee, assists in problem-solving sessions, coaches the person on specific strategies, and encourages opportunities for the trainee to engage in reflection and dialogue about PBS.

Professionals learn more about other human service systems from classmates, develop leadership skills, and establish closer collaborative connections with colleagues from nearby agencies. Different agencies send professionals to the KIPBS training from organizations supporting individuals with IDD, mental health, juvenile justice, children and family services, and education. Graduates of the KIPBS course report that the opportunity to learn more about the experiences and challenges of col-

leagues from other agencies provides important insights and creates closer relationships across local and regional settings in Kansas.

Location of students, instructors and program graduates

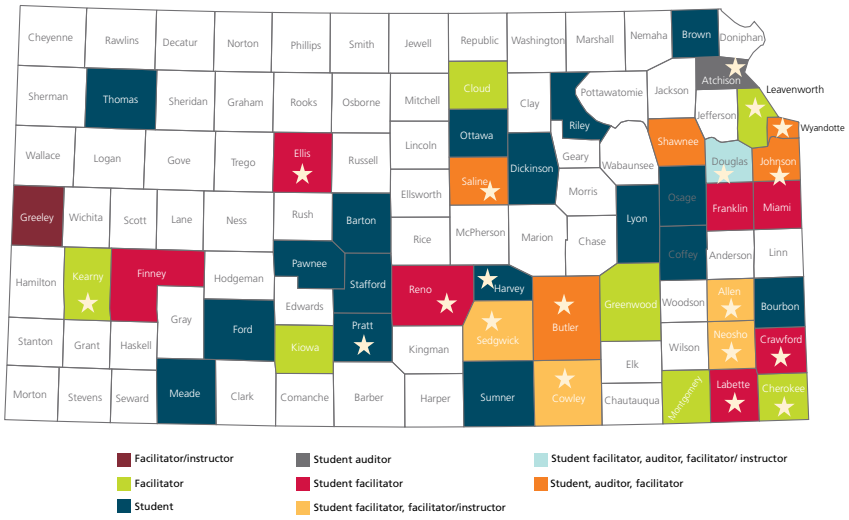
Figure 1 shows where KIPBS students, instructors, and graduates are located. Facilitators listed in Figure 1 represent graduates from prior KIPBS courses. Instructors refer to individuals who assist in teaching KIPBS courses. Students are individuals who are currently finishing the course while auditors refer to people who participate in the course for educational reasons but do not intend to bill Medicaid for PBS services in the future. Although more work is needed to establish behavioral support systems across the state, the map in Figure 1 shows the growth of PBS Facilitators with higher numbers of professionals located in urban areas or locations where PBS was already being implemented (a black star in Figure 1 indicates more than one individual attended training in that county).

An important feature of PBS is its emphasis on the use of systems change and implementation research to guide larger prevention-based efforts. Teaching individuals to facilitate PBS is considered insufficient for establishing effective and sustainable change (Freeman et al., 2002). Organizations supporting children and adults across life domains must consider the systems issues within and across human services such as —

- Allocation of resources,
- Funding for transition planning,
- Staff training within a participating agency,
- Team building, and collaboration within an agency in creating agency wide PBS.

The policies and procedures within a human service setting can either promote prevention-based approaches or create barriers for effective practice. Addressing these larger organizational systems issues can help to ensure the success.

Figure 1. Location of students, instructors, and graduates across the state of Kansas



The KIPBS and KMHPBS projects are reaching across Kansas by working with individuals in several capacities. Each color-coded county in this map shows the location of a KIPBS/KMHPBS facilitator, instructor, student, or auditor throughout the state. Note: KMHPBS students are plotted by the county where their CMHC headquarters is located. ★ Indicates more than one individual attended training from that county.

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The bigger picture: Achieving larger systems change

To achieve a larger systems change outcome, funds are braided at a state-wide level across different PBS projects. This allows the state system to achieve a larger and more significant impact on the prevention of problem behavior across human services and to leverage limited resources. Braided funds can be used to encourage unified training systems, provide seamless transition planning for individuals at different life transition periods, and to integrate evidence-based practices related to prevention. One project that was braided with KIPBS is the Kansas Mental Health & Positive Behavior Support (KMHPBS) project.

Kansas mental health and positive behavior support

The purpose of the Kansas Mental Health Positive and Behavior Support (KMHPBS) project was to introduce PBS to mental health professionals across the state using a layered training approach (see Figure 2). Technical assistance was provided using this continuum of intensity, since it is not necessary for every staff person working within a mental health center to become a certified PBS Facilitator. A majority of staff members will benefit from an awareness-level knowledge of PBS if and when they participate as team members within an individual's planning process. Skill-building trainings are used to increase the level of PBS experience and knowledge over time for mental health professionals who are interested in becoming facilitators. The smaller number of individuals who *are* selected within a mental health center to assume the role of PBS Facilitator learn to lead the training and technical assistance layers outlined in Figure 2 within the centers where they work.

Figure 2. Levels of the KMHPBS training

Four levels of integrated training
1. Awareness training in PBS
2. Skill-building training for professionals in PBS (in-service)
3. Training facilitators to lead teams
4. Training experienced leaders who will provide training in areas 1-3

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A total of 21 mental health centers participated in the KMHPBS project with funding provided for 18 months to support staff participating in the training. KMHPBS project staff worked with each team to —

- Establish internal expertise in PBS within each center by recruiting 28 mental health professionals across centers to participate in PBS Facilitator training;
- Ensure wide-scale participation of staff members in online awareness trainings and regional workshops;
- Teach a small team of 5-8 professionals within each center how to establish a long-term plan for ongoing expansion of PBS and to embed tools and strategies into the center's meetings and processes;
- Support a "coach" in each center to facilitate the agency's team-based, long-term planning meetings in collaboration with one or more PBS Facilitators;
- Integrate PBS training materials and data-based decision-making systems with other systems and practices;
- Demonstrate how to facilitate regional interagency planning meetings for assessing and mapping community strengths and using the information gathered to create a plan for building common language and practices across agencies and departments; and
- Utilize technology (computers, projectors, printers, etc.) provided to centers by the KMHPBS project in order to provide telebehavioral support to families in their homes and create closer communication between regional interagency partners.

Each of the 21 teams conducted a self-assessment and created an action plan for integrating PBS processes within the existing systems of each mental health center. The self-assessment allowed each center to assess policies and procedures related to the prevention of problem behavior, identify ongoing staff development opportunities, discuss how changes in data collection systems could be made, and explore how PBS could be integrated with other mental health practices such as wraparound planning, systems of care, trauma informed care, and school-based mental health interventions. An assessment of interagency communication and service coordination was also included in the self-assessment. Examples of action plan objectives included improving data systems for decision making, creating ongoing PBS inservice training opportunities, and integrating PBS within wrap-around implementation.

"...it's been very easy to keep it going because it's been integrated...into the philosophy of what we do and how we do it..."
-Interview with mental health professional

The KMHPBS awareness training described how schools implement PBS (e.g. school-wide positive behavior support or SWPBS) in a manner that encourages the need for close collaboration between education and mental health (Eber & Barrett, 2014; Eber, Hyde & Suter, 2011). The three-tiered SWPBS model is outlined in the initial article in this LEND Brief. The triangle (Figure 3), first presented in the public health field (Gorden, 1983) was later adopted by the World Health Organization as a conceptual model for describing disease prevention efforts, and further modified in order to address the prevention of problem behavior (WHO, 2004; Walker et al., 1996).

As discussed in *Reichle and Moore* (this issue), in schools —

- **Primary prevention** or Tier 1 represents the importance of implementing universal interventions including teaching and reinforcing social and emotional skills for all students within a school.
- **Secondary prevention** or Tier 2, school data are used for the early identification of and intervention with children at risk for serious problem behaviors.
- **Tertiary prevention** or Tier 3 involves more intensive and individualized wraparound or person-centered planning and PBS for students in need of home, school, and community supports (Freeman, et al., 2006).

PBS involves constituencies beyond persons with developmental disabilities

The left hand side of Figure 3 represents how mental health leaders are implementing three-tiered prevention efforts. The original SWPBS was implemented primarily in school settings. The unit of analysis within the three-tiered prevention model was the school building. Mental health centers implementing a three-tiered model for prevention of problem behavior must expand the unit of analysis to evaluate interventions implemented with families and across an entire community.

At the indicated and intensive levels, mental health efforts target the prevention of mental illness symptom expression and diagnosis, and provision of early intervention to ameliorate symptoms of mental illness in children who have received a diagnosis. Many centers are already implementing interventions that fit within the different prevention levels of the triangle in Figure 3 in ways that are helpful for schools implementing PBS.

In some areas of Kansas, the three-tiered model described in Figure 3 is being implemented within juvenile justice settings, early childhood, across school districts, and in mental health, with early implementation efforts beginning in organizations serving people with IDD. Because mental health centers are often involved in collaborative efforts occurring with education and human service settings, professionals who work in mental health settings can play a central role as interagency facilitators who link prevention-based efforts across community partners.

Figure 4 represents the major elements of the KMHPBS project that were implemented by mental health center teams and describes how key activities were organized to facilitate interagency collaboration. On the right side of Figure 4, activities occurring within mental health centers are described including team-based action planning, staff development and training, data systems for problem solving, and the intensive training in PBS involving one or more professionals in each mental health center.

Figure 3. Three-tiered model for the prevention of problem behavior: Mental Health Center-wide PBS and SWPBS

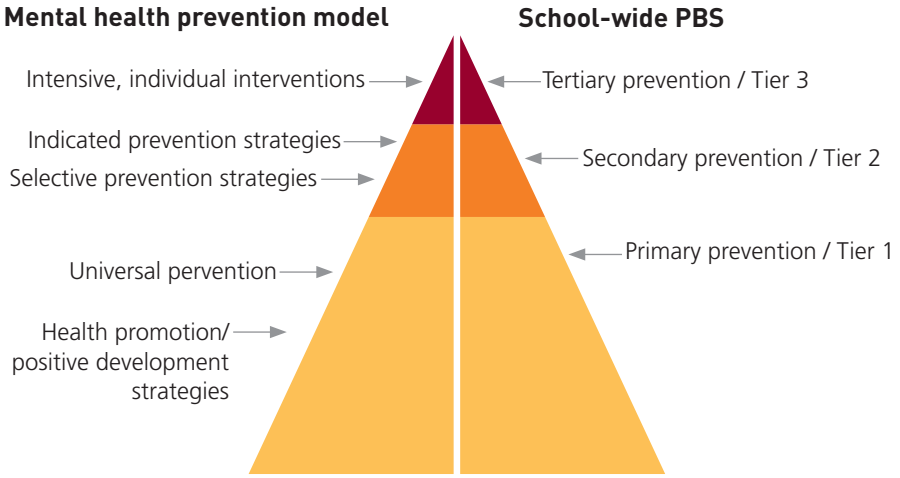

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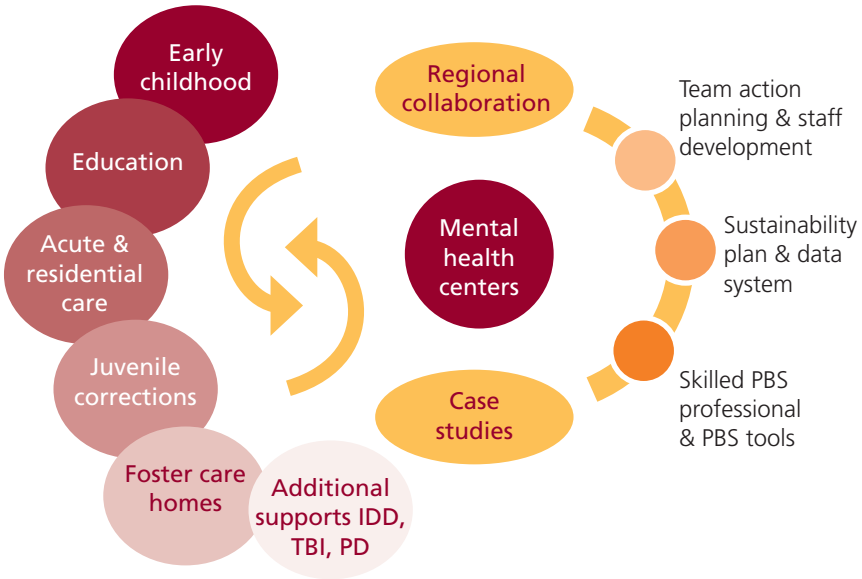
Figure 4. Team-based planning and regional interagency collaboration



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Regional interagency collaboration: Establishing working relationships

The KMHPBS project identified five regions across the state that would be involved in regional interagency collaboration and action planning. Each of the teams focused on improving service coordination for children receiving PBS. Each team included multiple mental health centers, school districts, IDD organizations, juvenile justice facilities, and other agencies involved in serving children in need of behavioral support. Examples of these services are listed on the left side of Figure 4.

Initially, interagency regional meetings were facilitated by KMHPBS staff. Over time, coaches or other mental health professionals took over the facilitation role with ongoing support from project staff members. Each of the regional interagency pilot sites used community mapping and a team-based action-planning process to assess the strengths and barriers associated with communication across agencies and systems, policies and procedures related to preventing problem behavior, community-based technical assistance, and the extent to which effective transition planning was in place for children moving back into community settings from acute care hospitals or psychiatric residential treatment facilities due to chronic and severe problem behavior.

Each mental health center identified one or more children in need of both PBS and service coordination across participating regional interagency partners. Case studies were facilitated by professionals with experience working with the KMHPBS project as staff members or as a hired local consultants. Mental health center professionals co-facilitated the PBS meetings in order to observe and participate in the process. The case studies were de-identified and major themes were summarized in order to describe the strengths and barriers related to regional service coordination. Case study data were summarized and shared with recommendations provided to state leaders outlining important considerations for supporting children at risk for out-of home-placements.

Effective and sustainable PBS across systems takes several years to implement. Teams must gather data to guide their systems and practices on an everyday basis.

Figure 5. Positive social expectations for mental health center staff

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Experiences of mental health centers

The implementation of PBS within a mental health center (or any organization) is not implemented overnight. Effective and sustainable PBS across systems takes several years to implement. Teams must gather data to guide their systems and practices on an everyday basis. A mental health professional described this long-term planning approach by saying: "It's [PBS] a philosophy. It's a way of life. It becomes you."

Several mental health centers began PBS by implementing primary prevention strategies within their own centers with interventions targeting the behavior of all staff mem-

bers. For example, a team worked with all mental health staff members to identify the most important social expectations for the center (Figure 5).

Strategies were implemented for acknowledging and reinforcing staff members who were observed engaging in these positive social expectations. One professional who participated in the process said: "I think we forget as adults, just 'cause we're adults…we still like to know that people see that we're doing something good." Another person indicated that by applying PBS within the center that: "…you understand, it feels good, and you…just have a better understanding of it and then you're able to do it."

Figures 6 and 7 provide examples of primary prevention strategies that were designed with and for children receiving mental health services. Positive social expectations were used to teach children important social skills that are expected while they were engaging in center activities. Children were given opportunities to practice new skills and to receive positive reinforcement for engaging in these behaviors.

In summary, although the 21 mental health centers in Kansas are in the initial stages of implementing PBS, they have made important progress this year. By leveraging two statewide PBS systems (KIPBS and KMHPBS) our state leaders have given mental health centers in Kansas a chance to establish a sustainable and lasting evidence-based problem-solving process for improving the lives of children and adults across the state.

Figure 6. Positive social expectations for children created by a mental health center

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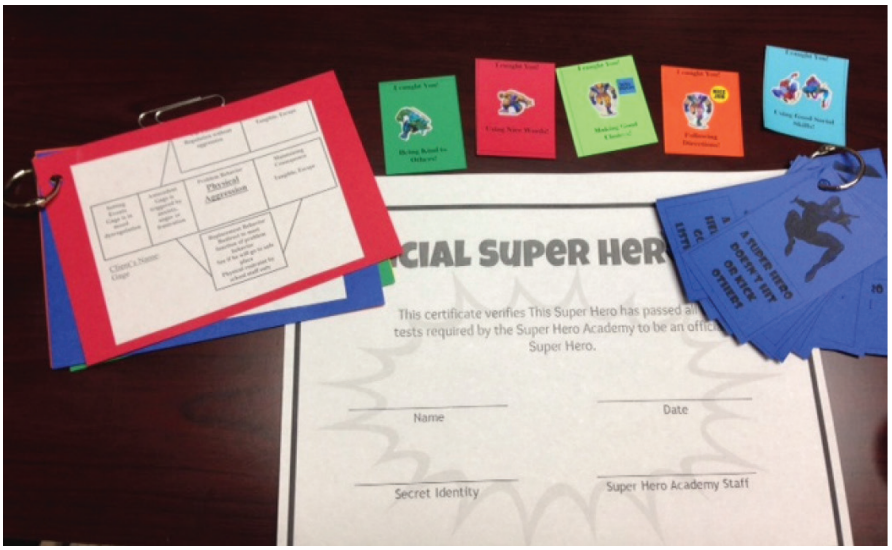
Figure 7. Strategies for providing reinforcement to children receiving mental health services



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Integrating wraparound planning and personcentered planning

One way in which communities establish a common language of prevention is by considering the strengths of various practices across fields. In mental health, an important child/youth and family-centered process used to improve service coordination and outcomes for persons with emotional and behavioral disorders is referred to as wraparound planning (Vandenberg, 1998). In the field of intellectual and developmental disabilities (IDD), person-centered planning (PCP) evolved as a similar process that is led by an individual in collaboration with his team, including people who know that person well at home, at school or work, and in the community (O'Brien & O'Brien, 2002 [see Kleist & Amado, this issue]).

Both wraparound and PCP help an individual to establish a vision for a preferred lifestyle and to improve quality of life. Goals are set by the individual and her team to achieve these positive outcomes and to tailor services based on the strengths and needs of each unique person. Wraparound or PCP should be used to launch PBS processes because they contribute to a clear understanding of the valued outcomes that are considered important for an individual (APBS Standards of Practice, 2006; Freeman et al 2006).

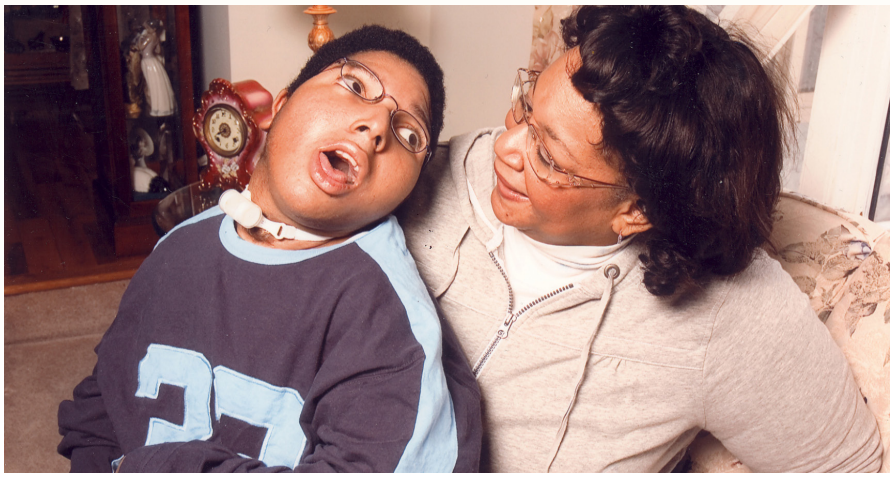
While wraparound planning and PCP focus on similar outcomes, each process has unique characteristics and strengths. For instance, the focus on systems for improved service coordination and communication is emphasized in wraparound to ensure outcomes improve across all of an individual's life domains including family, social, emotional/psychological, safety, legal, and medical (Eber et al., 1997). PCP provides structured planning processes that emphasize the use of visual drawings, pictures, and images that are used to encourage communication and self-determination (Pearpoint, O'Brien, & Forest, 1993). Mental health professionals participating in the KMHPBS project combined the best of both wraparound and PCP and reported great success.

For instance, one professional described using a combined approach, PCP and wraparound, with a child with autism who traditionally said very little during meetings. A common strategy in PCP is to organize the PCP meetings in ways that reflect a person's interests. Pictures and other visual elements are often used to enhance communication during meetings. In this case, the mental health professional met with the child prior to the PCP meeting and asked him to help her find pictures of activities and events that he enjoyed. She also asked the child to show her what he wanted to be when he grew up.

She discovered that the child "…wants to be a farmer. So, we had tractors, and pictures of crops, and farm animals." Together with the child, they planned the meeting with "…snacks that were kind of farm oriented…we had green napkins and we had John Deere book and a tractor pillow and I mean, it was just really thinking about what he enjoys, what he values, and we added that and it made an unbelievable difference…"

Common wraparound planning elements at the child's meeting included discussing how to improve the child's quality of life across all life domains and ensuring that services were coordinated and tailored to meet the needs of the child and family. The facilitator indicated that before changing the planning process it was difficult to engage the child: "…when I first started engaging with the family to even get him to look at me or speak to me…he wouldn't even answer with a yes or a no… he wouldn't even shake or nod his head…"After implementing elements of PCP within the wraparound process:

"…he absolutely wouldn't quit talking! I mean, he was interrupting us and stopping us as we were talking…and it was a wonderful… wonderful problem to have because like I said before, I couldn't get him to talk to me at all."



Summary

This article has emphasized the importance of; (a) having multiple coordinated tiers of training and support available to service providers in the areas of PBS/PCP, (b) having strong interagency coordination, and (c) working to include constituencies in the planning process that go beyond the population that has most often been the recipients of this practice.

To provide effective support for children and adults, especially in situations where dual diagnosis (mental illness and another type of disability) are present, interdisciplinary teams are in need of a common language and unified planning. Teaching the common features of wraparound and PCP in a proactive manner to professionals representing different areas of service (e.g. IDD, traumatic brain injury, emotional and behavioral disorders, etc.) will improve outcomes for children and adults receiving services in state systems. By sharing planning processes, individuals and their families will face one less layer of complexity as they advocate for the exemplary services that their children deserve.

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"I think we forget as adults, just 'cause we're adults...we still like to know that people see that we're doing something good." Another person indicated that by applying PBS within the center that: "...you understand, it feels good, and you...just have a better understanding of it and then you're able to do it."

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Positive behavior support in the community

By Meme Hieneman, PhD, BCBA, and Tahra Cessna, BCBA

As addressed in *Reichle & Moore* (this issue), positive behavior support (PBS) is an approach for supporting individuals with behavioral challenges in integrated home, school, work, and community settings (Horner et al., 1990). PBS has an extensive research base demonstrating its efficacy across populations and circumstances (Carr et al., 1999; Sailor, Dunlap, Sugai & Horner, 2008). PBS has not, however, been fully established as the standard of practice for communitybased intervention for people with autism or for adults with developmental disabilities including individuals who may be dually diagnosed with mental illness. The purpose of this article is to describe how PBS can be used within human services programs to support individuals with behavioral excesses and deficits that impede full participation in inclusive environments and activities.

Some background related to PBS

Early applications of PBS were focused on individuals with severe developmental disabilities. As PBS has evolved, however, processes and practices have been applied to a broader range of individuals and contexts. Over time, it also became apparent that simply addressing the needs of individuals is insufficient, because systems (e.g., schools, agencies) need to support intervention as well. PBS has therefore expanded into schools, early intervention programs, and community agencies (Sugai et al., 2000; Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). Pioneers are now implementing systemic PBS interventions in applied behavior analysis (ABA), mental health, and family support programs.

Defining characteristics

Regardless of the focus, context, or level of application, PBS can be described as having particular features and a consistent process for implementation that can be readily interfaced with community services (Carr et al., 2002; Dunlap, Hieneman, Knoster, Fox, Anderson, & Albin, 2000). PBS is not an expert-driven method, but is instead guided by trained facilitators focused on engaging the collaboration and ownership of individuals, families and other caregivers, and direct service providers. Second, PBS is individualized in that all interventions are preceded by assessments of the functional relations between behavior and the environment, as well as the overall ecology affecting behavior. Finally, PBS involves a combination of strategies geared toward improving quality of life, as well as behavior. Defining features are summarized in the table below.

The specific nature of these elements will vary across the environments in which they are implemented. Overall, however, the process of PBS typically involves the following steps described by Anderson, Brown, Scheurman, Baker, Depry, Dukes,and Schall (2007) —

1. Engage individual and key stakeholders as a collaborative team.
2. Identify goals and behaviors of

Table 1. Defining features of positive behavior support

Feature	Description
Contexual relevance	Goals for behavior change are meaningful to individuals and their caregivers and appropriate to the contexts in which support is provided and change is desired.
Proactive approaches	Interventions include an altering of environmental variables to help individuals appropriately respond to circumstances, reducing the probability or severity of problem behavior.
Systematic instruction	Individuals are taught skills to participate more fully in community life and meet the purposes of challenging behavior using instructional practices derived from ABA.
Functional consequences	Contingencies are managed to maximize reinforcement for positive behavior (vs. problem behavior). Punitive or non-evidence based strategies are avoided.
Systemic perspective	Supports are provided at multiple levels (See discussion of multi-tiered perspective), in a variety of settings (e.g. home, work, community), and with consideration of the ecology in which intervention occurs.
Consistent Implementation	Behavior support plans are implemented as designed and with precision (fidelity) using procedures that are defined clearly for all implementers.
Meaningful measures	Objective data are collected on the development of skills that compete with problem behavior, reductions in behaviors of concern, and achievement of quality of life outcomes.

concern.

3. Gather information through record reviews, interviewing, and direct observation.
4. Analyze and summarize patterns.
5. Design interventions that are proactive, educational, functional, and supportive.
6. Implement the strategies with consistency.
7. Gather data to evaluate outcomes (comparing to baseline established at outset), adjusting strategies as needed.

Ecological, multi-tiered perspective

Applying PBS principles in the community can be a complex endeavor. To be maximally effective, interventions must ensure "contextual fit" (adhering to the values and educational beliefs of stakeholders involved in PBS). This means that behavioral support strategies must be tailored to the individuals and settings in which they are applied, meet the needs of the people who are engaged in day-to-day support efforts, and be reasonable and appropriate within the systems in which services are provided (Hieneman & Dunlap, In Press; Lucyshyn, Binnendyk, Fosset, Cheremshynski, Lohrmann, Elkinson, & Miller, 2009).

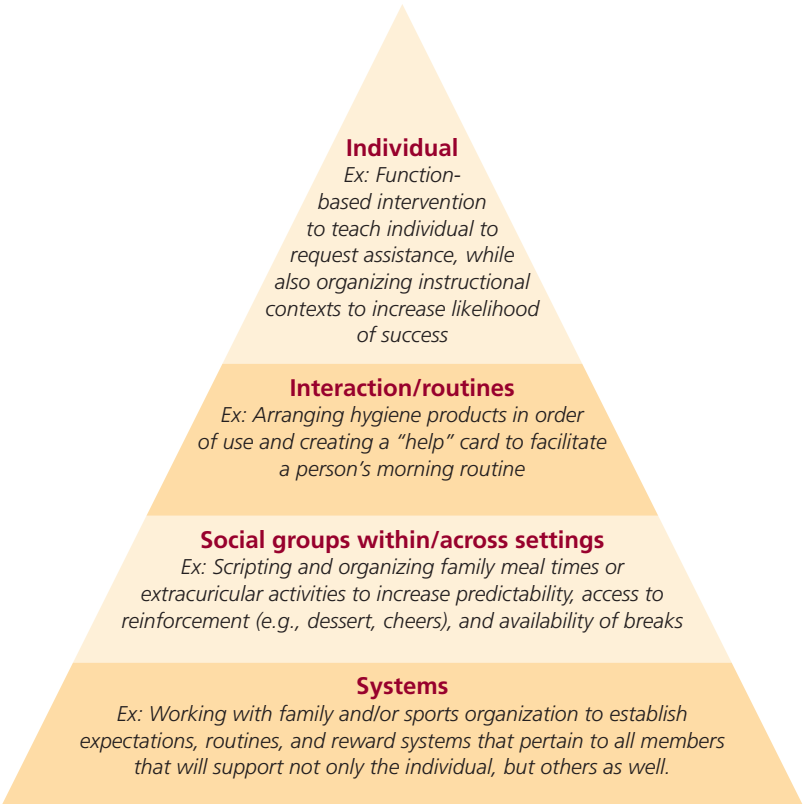
The evolution of an ecological, multi-tiered perspective in conceptualizing and implementing PBS has helped in the achievement of contextual fit and in defining how support systems may be designed and accommodations occur in complex communities. This multi-tiered model, adapted and expanded by school-wide systems currently in widespread use is depicted in Figure 1 and explained below.

Using this multi-tiered perspective, we recognize that individuals function within and in response to daily interactions and routines. These interactions and routines occur within groups of individuals (e.g., families, classrooms, peer groups, workplaces), as well as within and across settings which may affect behavior. The behavior of groups, as well as individuals within these groups, is impacted, encouraged, or constrained by policies, procedures, and normative behavior of organizations, communities, and other systems in which they function (Biglan, Metzler, & Ary, 1994). In order to effectively support people with behavioral challenges in complex community settings, practitioners must understand and intervene within and across these different levels.

Example of community-based PBS

To highlight how PBS can be utilized in the community, we offer an illustration of a program that originated in Florida. The program was established to support individuals with significant behavioral difficulties (including people diagnosed with autism) within the state waiver program, and expanded rapidly as services became covered under Medicaid and insurance. The program's leadership demonstrated a strong commitment to evidence-based practice and therefore embedded PBS principles into every aspect of their service delivery. Comprehensive functional and ecological assessment procedures are used to inform multi-component interventions that include environmental arrangement, teaching functional replacement skills and related adaptive behavior, and delivering instructional consequences when challenging behavior occurs. Measurement systems provide a process to scrutinize and support implementation fidelity. All designed

Figure 1. Multi-tiered model of community-based intervention



interventions were individualized based on the components described in Table 2.

A unique aspect of the program was their adoption of a quality-of-life tool, adapted with permission from West Virginia's Autism Training Center). The tool evaluates an individual's well-being across six domains including community participation, social relationships, self-determination, productivity, satisfaction, and affect. This questionnaire is used to help establish goals and evaluate outcomes for the clients. The approach is illustrated in the following case example of "Maggie".

Table 2. Components of PBS interventions

Examples of strategies	Instructional techniques	Management strategies
Environmental changes to prompt positive behavior (e.g., visual schedules, choice menus, rearranging setting, clarifying expectations) and make problem behavior unnecessary	Teaching skills to replace behaviors of concern (e.g., communication, coping, self-management) and allow the individual to be more successful in daily activities	Responding to behavior to reinforce positive behavior and withhold reinforcement for problem behavior (e.g., managing access to attention, activities, escape)
Addressing broader setting events and making lifestyle changes (e.g., enrollment in extracurricular activities, addressing sleep and diet, modifying overall instruction)		
Supporting caregivers to implement interventions consistently (e.g., ensuring buy-in and contextual fit, coaching, feedback, environmental supports)		

Maggie

Maggie was a young woman with autism who was over 6 feet tall and weighed in excess of 250 pounds. She lived with her parents and brother and attended a day program. Her communication was limited to a few signs, grunting, and gestures. Maggie engaged in severe aggression that resulted in injury to her family and providers, slapping of her own head and chest, property destruction resulting in thousands of dollars' worth of damage, dropping to the floor, and tantrums. As a result, her family was unable to take her out, even for medical care, and had begun considering residential placement. Several behavioral interventionists had worked with the family, using predominantly consequence-based procedures to teach Maggie compliance and basic skills. These were not realistic for the family to implement and did not help with daily life; therefore the parents had begun to lose faith in the interventions previous behavior analysts had employed.

The agency described in this article recognized that they needed to support Maggie and her family differently. They conducted a comprehensive functional behavioral assessment involving review of records, interviews with caregivers, and observations across circumstances. Based on this assessment, they determined that Maggie's behavior problems occurred primarily to: 1) obtain items and activities when she was told no, to wait, or to transition to less preferable circumstances, 2) escape or delay demands to complete self-care or daily living tasks, and 3) regain attention from caregivers when engaged elsewhere. Using these patterns, the family and staff developed the following strategies —

- Visual schedule of daily activities and other cues (e.g., picture grocery list)
- Social stories that included descriptions of upcoming events and specific expectations
- Discrimination cards showing when people and activities were and were not available
- Prompting of communication (i.e., signs, pictures, objects on Ipad) to request interaction, activities, and breaks – as well as simply say "no" to unpleasant circumstances
- Use of a "conversation book" to prompt nonverbal give-and-take with caregivers
- Teaching waiting and self-calming strategies such as deep breathing and "safe space"
- Providing attention, preferred items and activities, and escape from tasks only when Maggie engaged in appropriate communication and behavior
- Safe and consistent crisis management, including removing dangerous items and getting Maggie into a seated position when necessary to block her strikes

These strategies were implemented within the context of typical daily routines such as self-care, chores, leisure activities, and community outings. The program staff coached the family through the routines and strategies, fading their assistance as quickly as possible. The outcomes of Maggie's support plan have been reductions in her behaviors of concern, increases in targeted skills, and improvements in her quality of life as well as that of her family. The following graphs depict the behavioral improvements, comparing the frequency in first month of baseline to the sixth month.

Figure 2. Maggie's behaviors of concern before and after intervention

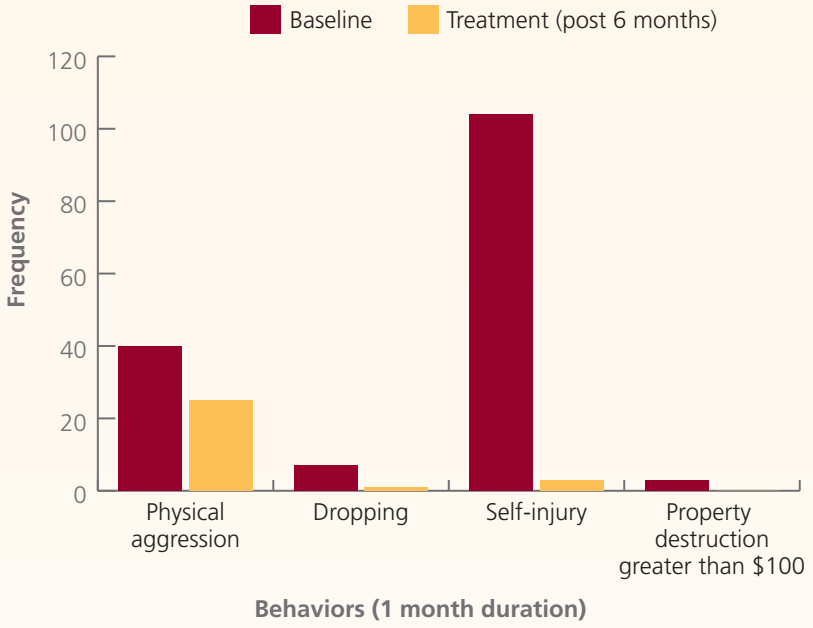
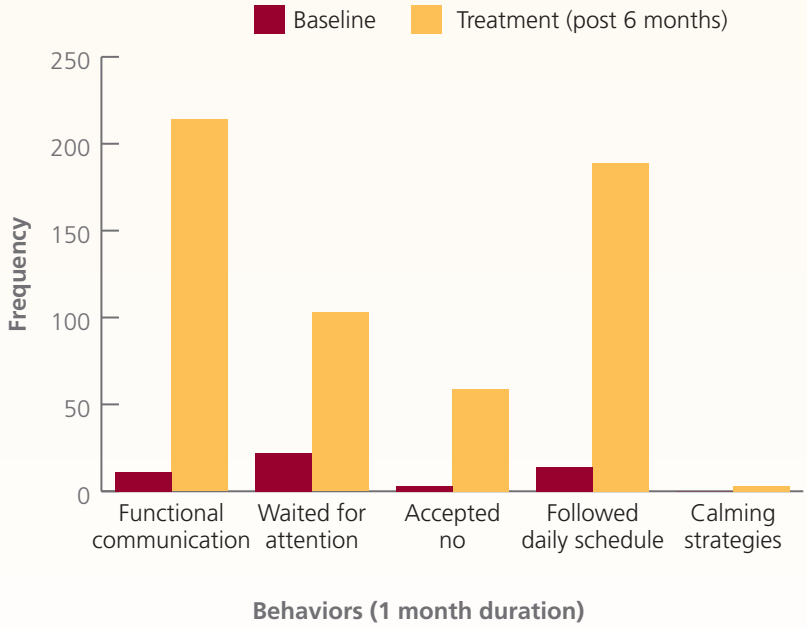


Figure 3. Maggie's adaptive skills before and after intervention



After six months, Maggie's score on the quality of life assessment improved substantially, with positive changes in all areas, including self-determination and affect. She was able to join a friends group and participate in a wider array of social activities and community outings. She learned to complete chores and dress herself. These changes allowed her parents time for themselves and to dedicate to their other child for the first time in years.

As mentioned in the earlier description of community-based PBS, it is necessary not only to adopt individualized PBS practices, but also to make those practices an integral part of the system. Therefore, in the support described in our example it was necessary to revise promotional materials, policies and procedures, consents, and other relevant documents to match the guiding features of PBS. Initial orientation and ongoing training of staff members emphasized the principles of PBS. Resource materials and tools for assessment, intervention, and measurement were also aligned (e.g., interviews that capture ecological features, routine-based teaching plan formats, data tools focused on community participation and social relationships, as well as discrete behavioral changes). Finally, the program has developed, and is in the process of implementing, a comprehensive evaluation plan that assesses quality-of-life outcomes across service recipients and reduced dependence on professional supports over time (i.e., measured by service hours provided directly and indirectly in the form of coaching and feedback).

Future directions and conclusion

PBS is an evidence-based approach for supporting individuals in a range of community environments. When implemented with fidelity, coordination with natural caregivers, and in a way that respects the integrity of settings and systems in which services are provided, true life-changing results can occur. Advancing an organization to the level of best practices in PBS requires commitment from the leadership down to direct support professionals, resources for training and development, and tools and models to serve as guides towards the ultimate outcome. Researchers and practitioners working to en-

hance and expand PBS processes and measure their effects in community settings have the potential for substantial impact in human service agencies.

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Emily's story

By Stacy Danov, PhD, LP, and Richard S. Amado, PhD, LP, NADD-CC

Traditionally, individuals with significant levels of problem behavior receiving residential and employment services have received relatively prescriptive supports that have afforded the service recipient limited decision making input (Rea, Martin, & Wright, 2002). This has included, in many cases, limited client input in designing aspects of their daily routine, determining where to live and where to work. In turn this lack of input tends to exacerbate the challenges faced by individuals who rely on the service system (particularly those who engage in problem behavior). In a Problem-Based model of human services (Rea, Martin, & Wright, 2002), the focus has been on what is important for a person: health, safety, and acting in socially acceptable ways. What is important for a person is typically delivered through complex treatment plans. This "important for" approach has been difficult to change in spite of recent findings that people are more likely to engage when they understand how to make the treatment plans important to them (Sanderson, Smull, & Harvey, 2008). What is important to someone are the persons, activities, and settings that really matters to him/her. What is important for someone are the things that help the person become or stay healthy and safe. These same authors have shown that this balance of what is important "to" and what is important "for" a person is likely to produce increased engagement in treatment programs and an increase in the person's quality of life (Sanderson, Smull, & Harvey, 2008).

Person-centered planning is a process of discovering how a person wants to live and then describing what needs to be done to support the person toward that life (Smull & Burke-Harrison, 1992). As described by Amado and Kleist (this issue), person-centered planning is rooted in values, goals, and outcomes that are important to the person, but also takes into account other important factors that impact a person's life. Person centered planning can provide the opportunity for the person who uses services and the individuals who support them to fully understand, (a) the life that person has experienced, and (b) the quality of life the person is currently experiencing. Additionally, person-centered planning can provide an opportunity to explore, understand, and create specific action steps toward the life the person envisions for the future. What follows is one example of the person-centered planning process in action. We describe the life of Emily, including a brief history, description of the services she received, and the circumstances under which she lived prior to her first opportunity for person-centered planning at the age of 29.

> Person-centered planning is a process of discovering how a person wants to live and then describing what needs to be done to support the person toward that life (Smull & Burke-Harrison, 1992).

Emily's childhood experience

Emily grew up an only child living in a single parent family with her mother. She began having violent tantrums when she was three years old. At seven she was diagnosed with a mental illness (although she had been receiving psychiatric treatment since age 3). Emily was successful in special education with occasional mainstreaming until 9th grade when her psychiatric symptoms (and problem behavior) escalated. In addition to having trouble socializing with others, she experienced eating disorders and engaged in self-injurious and aggressive behaviors.

Emily's adolescent and young adult experience

Since the age of 15 or 16, Emily had been in a variety of treatment facilities that varied in size from 2 to 200 people. Due to her high rate of problem behavior that included self-injury and aggression towards others, Emily was admitted to a secure hospital setting for approximately three years. While there, 987 episodes of self-injurious behavior (SIB), 43 incidents of reported suicidal ideation, and 11 reported suicide attempts were recorded. Due to the severity and rate of these behaviors, Emily was moved to a more secure hospital setting for another three years.

In this setting, she had very limited privileges and spent most of her day in a restraint chair and/or a seclusion room. She acquired a reputation for being dangerous. During her time in the secure hospital settings, Emily and her family participated in Problem-Based services. Historical records indicated that the majority of her treatment during this time was focused on the reduction of self injury and aggression that were considered to be dangerous by her treatment team. Mechanical restraint was implemented an average of 15 times per month between January and March of 2010.

In preparation for Emily's move to a community provider, a consultant

provided assistance in summarizing support information, determining possible functions of problem behavior, and assisting with developing a crisis plan for Emily and others to implement after she left the secure hospital setting. During this assessment, a member of Emily's support team at the secure hospital began to implement a token economy (although there was not a clear written description of the plan being implemented) and planned ignoring when aggression or self injury was produced. These strategies were not based on the results of a functional behavior assessment. The outcome of this strategy was some decrease in restraint use and seclusion. In June of 2010, other but not clearly specified support strategies were implemented that further decreased Emily's problem behavior. However, restraint was still required on some occasions.

Emily's experience with traditional community-based supports

As the result of progress in the decreased use of restraint and seclusion, Emily's treatment team that included her guardian, county case manager, and mental health professional decided to discharge her from a secure hospital and move her into a community residence. Emily moved to an adult foster home designed to care for two people with 24 hour support to ensure her safety. Her treatment team continued to implement the same support plan from the secure hospital which included a token economy and the use of a mechanical restraint chair for her severe problem behavior. Restraint was used almost twice weekly over the first six months at the adult foster care home during 24 hour supervision. The token economy included a response cost. Emily could earn tokens for being "safe" (defined as absence of problem behavior) and completing tasks (defined as completing chores, using sensory items, grooming, using her massage chair, making her bed, not taking a nap, 30 minutes of exercise, and attending her therapy sessions). Tokens were taken away if Emily engaged in problem behavior. Tokens could be traded in for the following reinforcers: pop, chips, making a snack with staff, karaoke night, ordering take out, visit from the therapy dog, going to a restaurant, going to the gas station, grocery store, library, theater, fast food. As was the case with other components of the plan to manage Emily's behavior, the token economy was not designed based on the results of the functional behavior assessment.

There were many restrictions in Emily's new home. She was supervised when using household items that might have been harmful if swallowed. Emily was allowed to help in the kitchen but with only blunt tools. She was not allowed to take a vacation (her placement was unwilling to give up the per diem when she would be away from the home). The goal for her behavior support program included teaching coping skills including listening to music, sitting in the massage chair and using sensory items as well as reduction of challenging behavior. The treatment team continued to use a Problem-Based approach focusing on trying to "fix" Emily. The result of the support that Emily received was a lifestyle that was very controlled and supervised. Whenever she left home, she was accompanied by a staff person, she did not have a paid job but she volunteered at a nursing home a couple times a week accompanied and supervised by residential staff. She went on various outings and church once a week accompanied by residential staff. The one time during the week when she was not supervised was when she visited her family's home. During home visits, problem behavior was not an issue.

Emily's first experience with person-centered planning

After about one year of living in adult foster care, Emily was offered the opportunity for person-centered planning (with a full explanation of the purpose and the process). The first step in the planning process was to constitute her circle of support. When asked "who would you like to have help you with the plan?" she selected her aunt, father, uncle, a family friend, and some people she had known from a church youth group prior to moving into state institutional services. When asked if she wanted any of her residential staff or case managers to attend the planning she said "no". Consistent with person-centered planning her preferences for members of the planning team were honored.

Before meeting with Emily's newly constituted circle of support/person-centered planning (PCP) team, the PCP facilitator met with her privately and discussed a vision for her future. Elements of the vision that Emily articulated included: (a) where she wanted to work, (b) where she wanted to live, (c) what she wanted to do in her free time, and (d) who she wanted to have in her life. Prior to her first PCP meeting, the facilitator sent a questionnaire to her newly constituted team. Its purpose was to get her team members thinking about person-centered planning issues (since most had never participated in a PCP circle of support) and to collect information about Emily's

The day of the first meeting, people in her circle of support were hanging out and grilling dinner at her Aunt's house as Emily had planned.

strengths, accomplishments, and preferred lifestyle. After the information was obtained, the facilitator and Emily planned the first meeting. Emily decided she wanted to meet at her aunt's house and have dinner prior to doing the person-centered planning. She prepared hand written invitations to the first person-centered planning dinner and work session. The day of the first meeting, people in her circle of support were hanging out and grilling dinner at her Aunt's house as Emily had planned. After the meal and some chit chat, the person-centered planning began. Emily and her circle of support discussed many of her strengths and accomplishments. These included being a caring and compassionate person who likes to be with other people. A majority of the meeting was spent discussing Emily's hopes and dreams and envisioning her future. Emily dreamed about living independently in an apartment, having a job in childcare, getting married, owning a dog, singing a solo on a stage, cooking, and taking a vacation. Her circle of support truly listened to what she said. They openly discussed some of their concerns but supported her in envisioning her future. Not only did the group discuss the dreams she had for her own future but also the dreams the members of her circle of support had for her as well. These included; living independently, choosing her roommate, going on a family vacation, not restricted by having to be in her adult foster care home every night, obtaining a salaried job, and buying things. She talked with her circle of support about working with children or seniors. During the discussion, Emily expressed liking a volunteer experience in which she participated (but also described a desire to be paid). With respect to employment, Emily knew that she did not want to work as a janitor or participate in a day or work program, as she had done in the past. She wanted to choose her own job based on her preferences.

Emily and her circle of support discussed her love for spending time at church. She participated in worship and women's group accompanied by her residential staff. She wanted to attend church without her residential staff. She also shared that she would like to volunteer at the nursing home without being accompanied by staff.

Possible barriers that might affect Emily in achieving her preferred lifestyle were also discussed at her first PCP meeting. A primary barrier was her problem behavior that had been targeted for reduction. Emily told her circle of support that she feels disappointed after she engages in self-injury and is not able to turn it around. Her circle of support talked about how this could affect

Table 1. First person-centered planning actions steps

To do:	By whom:	By when:	Was this completed
• Check into childcare certificate programs • Go online and look at certificate programs	Aunt and Emily	2/12	Yes
• Check with church childcare about shadowing • Aunt to show Emily who contact person is • Staff help Emily make the connection	Aunt, Emily, and staff	2/12	Yes
• Go to different dog kennels and dog daycares and see if they have opportunities for work or volunteer • Check on places and hours • Uncle will go and look at places and then call Emily • Emily will go during the day to see the places	Uncle and Emily	2/13	Yes
• Talk with nursing home volunteer supervisor about paid opportunities • Emily will talk with her supervisor • Emily will continue to volunteer • Look into becoming an aid or working with the activities coordinator	Emily (with support from aunt)	1/31	Yes
• Become more independent in her current living situation • Add vacuuming and cleaning to the calendar • Work on cooking meals on her own at home-like sandwiches • Practice cooking with her aunt on the weekends	Emily, aunt, and staff	2/13	Yes

her in aspects of her life such as finding and sustaining a job. However, Emily's circle of support did not criticize her or tell her she needed to be "fixed." They listened and provided support. Before the first meeting ended, Emily and her circle of support began to create an action plan. They determined the steps and when they would have identified actions completed (see Table 1). At the end of the first planning meeting, a time and place had been set for the second meeting. During the time in between the first and the second person-centered planning meeting, team members followed up on action steps. Prior to the second person-centered planning meeting, Emily and the PCP facilitator talked about the process and how Emily felt about co-facilitating the meeting. Emily decided to open and close the meeting with her comments. For follow-up PCP meetings, Emily decided where they would occur and what food she wanted to have. Some of the meetings were held at members of the circle of support's homes, and others were held at local restaurants (one of the meetings at her friend's home Emily cooked the dinner with help from two members of her circle of support).

Anxious to provide support, Emily's team began to work with Emily on completing action steps that led to Emily achieving her dreams. Her aunt continued to help connect her to the church's childcare and set up informational interviews and observation times, her aunt began to research music classes, her church friends spent time cooking meals with her and teaching her to use sharp knives and follow recipes.

Emily and her person-centered planning facilitator sat down with her residential lead staff to discuss the person-centered planning meetings. Residential staff were very supportive of Emily's person-centered planning and began to embrace a person centered perspective. Person centered approaches were embedded throughout the home with the help from supportive staff. For example, Emily began to cook her own meals, spend time in her room alone, spend time at church without her residential staff, and volunteer at the nursing home without her residential staff's support. Emily's residential staff supported her in joining a gym and working with a trainer, and she no longer needed her token reinforcers for exercise. Residential staff began balancing those things that were important to Emily and those things that were important for Emily. It is also important to note the data indicated that incidences of Emily's problem behavior had decreased to near zero levels as she was beginning to develop a life that worked for her.

Person-centered planning has helped increase Emily's quality of life as she is more involved in her community, she has more positive control over her life, and she has strengthened old relationships and developed new relationships.

Emily's experience living a life of her choosing

Unlike a Problem-Based treatment team, this circle of support met every 4 to 6 weeks and continued to move Emily's life forward. After about 4 PCP meetings, Emily invited a residential staff to her circle of support. Within the first six months, under her own initiative and without staff to supervise her and accompany her, she was going to Zumba class for exercise, cooking class, singing class, volunteering on her own, spending time at the mall by herself, going to church by herself, spending the night at her aunt's house, and went on a short vacation with her family.

By the sixth meeting, the family began to take over the facilitation of the PCP meetings. They were actively engaged and were seeing the positive changes in Emily's life. As the use of Person Centered Processes evolved and Emily's life was enriched, the restraint chair was removed from Emily's home. Also, Emily was able to put her restraint program in a shredder, because it was not necessary anymore and her commitment to the Commissioner of the Department of Human Services was not renewed. Within 2.5 years Emily was completely restraint-free. She was living a good life and was a part of her community and not just in her community.

As the PCP process continued, Emily achieved many more accomplishments. Without supervision, Emily engaged with her community and participated in a number of activities. She began to go to more places on her own including church and shopping. She learned to use the metro mobility service independently to go out in the community without requiring residential staff for transportation. She participated in a singing class and sang a solo on a stage. She participated in a cooking class and was making her own meals at home. She went on vacation to San Diego and swam with the dolphins. She continued to plan more vacations with her family.

Today Emily is a busy person who was once believed to be dangerous and required close proximity to mechanical restraints to ensure her safety and the safety of those around her. As the PCP process evolved and Emily began to experience a more desirable future, it became clear that very little individualized positive behavior supports (PBS) were needed because she had a life that was meaningful for her. She had a circle of support and residential staff that were supportive and helped to balance the things that were import-

ant to her and important for her. She has accomplished many of her goals and she is happy. Person centered planning has helped increase Emily's quality of life as she is more involved in her community, she has more positive control over her life, and she has strengthened old relationships and developed new relationships. She is living out many of her hopes and dreams.

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Final thoughts

By Joe Reichle, PhD

Although there have been a number of changes in service delivery for persons who engage in significant repertoires of problem behavior there continue to be significant gaps in the community based service delivery system in spite of demonstrations of individualized interventions that have been extremely successful. Within the last 20 years there has been a quickly emerging technology of system wide PBS. To a great extent these demonstrations have focused on school-wide educational and behavioral outcomes for children with problem behavior through implementation of School-wide positive behavior intervention and support (SW-PBIS). More recently states have begun to apply the logic SWPBC to larger systems that involve aspects of the Human Services field. This has been challenging in that this system is much larger in terms of potential stakeholders. Additionally when one considers residential work and community services there is limited top-down coordination at a mentor/supervisory level. Further the persons who serve clients often are acquiring their expertise via on-the-job training compared with licensure and certification processes for professionals providing service in school settings. All of these variables are challenges. Nevertheless, in this publication we have highlighted ongoing system change efforts in Kansas. Kansas was one of the first states to develop a state sanctioned staff development activity that incorporated didactics with longitudinal onsite support, mentoring trainees through case studies to apply information learned in didactics.

A positive addition to serving persons with problem behavior in community settings has been the incorporation of systematized Person Centered Planning. As discussed in this issue, there are a number of PCP systems that have been developed over the past several decades. Increasingly, administrators and service providers are recognizing the importance of PCP in providing grounding an enhancement of service provision in home, school and community settings.

Increasingly there appears to be awareness and a growing evidence base that supports the implementation of system-wide interdisciplinary planning for preventing problem behavior in home and community settings. Although much of the current supporting evidence base is in school settings, there is growing acceptance that the model is viable in community and residential services. However, as we stated in our opening article in this issue, "it takes a village". Research, funding and policy changes will be needed to identify national standards for high quality providers of behavior supports that included staff qualifications, service definitions, professional oversight and quality assurance. More translational research is needed to measure impact of person centered positive behavior support on the person's quality of life and fidelity of implementation of positive behavior support plan. There is a need for improved interdisciplinary collaboration around the integration of positive behavior supports into other intervention and prevention models such as those used in fields of mental health, aging, traumatic brain injury and other acquired disabilities.

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