

Beyond Point and Level Systems: Moving Toward Child-Centered Programming

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Many residential treatment facilities and child inpatient units in the United States have been structured by way of motivational programming such as the point and/or level systems. On the surface, they appear to be a straightforward contingency management tool that is based on social learning theory and operant principles. In this article, the authors argue that the assumptions upon which point and level systems are based do not hold up to close empirical scrutiny or theoretical validity, and that point and level system programming is actually counterproductive with some children, and at times can precipitate dangerous clinical situations, such as seclusion and restraint. In this article, the authors critique point and level system programming and assert that continuing such programming is antithetical to individualized, culturally, and developmentally appropriate treatment, and the authors explore the resistance and barriers to changing traditional ways of “doing things.” Finally, the authors describe a different approach to providing treatment that is based on a collaborative problem-solving approach and upon which other successful models of treatment have been based.

Keywords: residential treatment, milieu, children’s programming, children’s inpatient treatment, collaborative problem solving

Traditionally, many residential treatment facilities and child inpatient units in the United States have been structured by way of motivational programming that is known collectively as the point and/or level system. Although empirical literature is available that examines token economies, there has been little attention focused on point and level system programming per se as actually implemented by staff members in treatment settings. Even less attention has focused on the whether the behavioral changes that may be seen during the program’s implementation are maintained across different settings and across time.

On the surface, point and level systems seem to be a straightforward contingency management tool that is based on social

learning theory and operant principles. This programming has been challenged in the past on the basis of its lack of utility, efficacy, and long-term effectiveness in changing children’s behavior (Mohr & Pumariega, 2004; VanderVen, 1995, 2000). Yet such programming remains a common way of organizing therapeutic milieu; staff members resist giving up such programming despite the fact that alternate models exist and have been implemented successfully (Greene, Ablon, & Goring, 2003; Greene, Ablon, Hassuk, Regan, & Martin, 2006; Martin, Krieg, Esposito, Stubbe, & Cardona, in press).

In this article, we offer a criticism of point and level programming. In the spirit of critique we argue that the assumptions upon which point and level systems are based do not hold up to serious empirical scrutiny or theoretical validity, ignore individual differences among children, and that point and level system programming may be counterproductive. By virtue of not taking into account individual differences and symptoms, it may undermine their progress, and at times can precipitate dangerous clinical situations. We contend that continuing such programming is antithetical to providing individualized, culturally, developmentally, and cognitively appropriate treatment and we examine the resistance and barriers to changing traditional way of “doing things.” Finally, insofar as there have been critiques of point and level systems over the years (Mohr & Pumariega, 2004; VanderVen, 1995, 2000), but few alternatives proposed, we describe a different

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model to providing treatment that is based on a collaborative problem solving approach. This model has been introduced in a number of facilities, replacing existing point and level systems with a person-centered approach that promotes collaboration and a therapeutic alliance (Martin et al., in press; Regan, Curtin, & Vorderer, 2006).

In this article, the use of the word children is meant to include both children and adolescents, and the discussion is focused only on this population.

Point and Level Systems

Point and level systems are presented by their proponents as behavioral management tools. They are designed and found in a variety of settings, including educational, juvenile justice, inpatient psychiatric, and residential treatment (Mohr & Pumariega, 2004; VanderVen, Smith & Farrell, 1993; 1995, 2000). For the purposes of the present article, we consider only inpatient psychiatric and residential treatment settings, because the variables operational in educational and correctional settings pose a different layer of complexity that is beyond the scope of this discussion. These include the fact that inmates in juvenile correctional facilities are adjudicated to these institutions and that the institutions' main focus is not on therapeutics; further educational facilities do not have the same kinds of staff or the same therapeutic mission as inpatient or residential treatment settings. In settings that employ point and level systems to manage the therapeutic milieu, children's behavior is monitored continually and calculated by staff members periodically. Most often points are assigned at periodic intervals, such as hourly or upon completion of an activity. A certain number of points correspond with certain levels. The lowest levels are those at which the fewest privileges are available to children; when levels are raised, privileges are correspondingly increased. Often point and level systems are explicated in detailed policy and procedure manuals, and manuals are given to children and their parents upon admission to a unit.

The intent of such systems is to document children's progress through a therapeutic program. Youngsters achieve more independence and greater privileges as they demonstrate increased behavioral control and appropriate socialization. Ideally, children are to learn appropriate behavior through clearly defined behavioral expectations and rewards, liberties, and consequences linked to those expectations. Specific criteria are documented for advancement to the next level where children achieve more desirable privileges.

While not all point and level programming operates in the same way, in most instances, children are admitted on the lowest level, which has the fewest number of desirable contingencies and activities. If they are unable to meet the expectations of the system, they remain on the lowest level, sometimes indefinitely. Where children have advanced to the next level, staff members can "drop" their level or "freeze" them at a level in the event that they exhibit what staff consider to be inappropriate behavior. Descriptions of point and level systems can be found throughout the literature for at least the past 30 years (Jones, Downing, Latkowski, Ferre, & McMahon, 1992; Mastopieri, Jenne, & Scruggs, 1988; Pazaratz, 2003; Rosenstock & Levy, 1978).

Jimmy's Case

An illustration involving one of the author's charges provides an example of how a point and level system was implemented by the staff of an acute inpatient psychiatric unit and how non therapeutic, and counterproductive such a structure can become.

Twelve-year-old Jimmy was admitted to child unit of a psychiatric hospital for impulsive, violent, and assaultive behavior since the age of 6. He was diagnosed with attention-deficit/hyperactivity disorder (ADHD), mixed type, at age 7 and has been on a variety of medications, all of which "stopped working after awhile" according to his mother. He shows marked impairments reading, writing, and articulating his thoughts. The unit to which he is admitted houses 15 children ages ranging from 12 to 17. Upon admission, Jimmy was placed on a level I status. Level I status is considered a "safety" level, on which he will be checked every 15 minutes and receive no privileges, such as computer or television time. According to the unit handbook, there are three levels. Level II can be obtained by a child after being hospitalized 24 hours and displaying "good" behavior and showing active participation in therapeutic activities. A child must also fill out a series of questions and write a brief life story to obtain level II privileges. Level II allows the child to go off the unit for meals and recreational activities with staff. Level III is reserved for children who have been hospitalized over 72 hours and have showed marked "leadership" on the unit. This designation is determined by their peers and the staff on each shift, who evaluate and "sign off" on patient behavior. Level III is the highest level, allowing the child special phone privileges and a later bedtime.

According to the unit handbook, the child's behavior determines their level and unwanted changes in their behavior can result in their level being dropped. Furthermore, while it must be a treatment team decision to *increase* a child's level, any staff may drop the child's level for behaviors they think warrant a drop.

While he was a patient, Jimmy was the youngest child on the unit and was bullied by and rejected by his older peers. After a day of hospitalization, Jimmy participated in a group meeting and stated that his goal was to "become a level II." Because Jimmy was unable to write a coherent life story, which is required to move forward in the levels, he told it to the nurse verbally. He found it difficult to focus and became easily frustrated at his inability to communicate. The nurse decided that Jimmy was not showing "adequate motivation and behavior" and could not move forward to level II. In frustration, Jimmy threw a tantrum and punched two holes in the unit wall. Unable to process his frustration verbally, he cursed at the nurse who informed him: "Now you will not get your level for at least a week." Jimmy had an uneventful 3 days and moved up a level, as he managed to successfully tell his life story to another nurse. Jimmy attended daily group on the fourth day, normally a 30-minute affair. On this day it ran overtime, and while he was able to maintain control for 30 minutes, he began to fidget and was unable to remain seated. When reprimanded, he stomped off angrily. His inability to stay in group resulted in his forfeiting his Level II. Jimmy remained hospitalized for six days, receiving his level II again and quickly losing it for similar episodes of frustration.

Jimmy's case is by no means unique and it happens with regularity in psychiatric facilities that employ this kind of programming. Although no empirical study has been conducted to

substantiate this claim, the authors have many decades of clinical experience attesting to children's frustration with point and level systems. Jimmy suffered frustration and seemed to be punished for the very symptoms which brought him to a treatment facility. In the following sections, we discuss some of the drawbacks of structuring a children's or adolescent milieu in this fashion.

The Unclear History of Point and Level Systems

It is not altogether clear when or how point and levels kind of programming became the "sine qua non" of children's programming and milieu structure. In examining the literature it seems historically to have its origins in the token economy. Introduced into mental health settings over four decades ago, the token economy was a programming concept based on the operant conditioning principles developed by B. F. Skinner (1953). It was designed to remediate the problems of seriously mentally ill patients who were residing in large numbers in state and Department of Veterans Affairs institutions. As conceived, the full range of patients' self-care, social, and work behaviors could be modified by systematic, preplanned use of antecedents and reinforcers. How such programming found its way into today's child inpatient and residential treatment units and transmuted into the present point and level systems in these facilities is unclear. It may have been appropriated from school settings, where point and level systems—often referred to as token economy systems—are often the basis of special education programs.

Although there are many early reports of the successful implementation of token economy programs in various settings, some scholars suggest that these reports do not constitute a sufficient empirical basis upon which to base milieu programming for groups of individuals (McMonagle & Sultana, 2000). Despite their roots in experimental psychology, token economies have not been demonstrated to be of proven lasting benefit when examined critically. McMonagle and Sultana (2000) undertook a meta-analysis to review the effects of token economies with a serious and persistent mentally ill population. Searching a number of large databases (PsycLit, Biological Abstracts, CINAHL, EMBASE among others), they sought to review the efficacy of token economy programming as compared to standard care by reviewing randomized (Type I) studies. They found only three studies that met the criteria of a Type I study. They found no usable data on target or nontarget behavior, but found one study supporting the token economy for "change in mental status" improvement on patient negative symptoms at three months. They concluded that despite token economy having its genesis in experimental psychology, there was insufficient evidence to support effectiveness or generalizability, and in their implications for practice section recommended the programming to be employed only when there was no alternative, or within the context of a randomized clinical trial. While this meta analysis was not specifically focused on the kinds of child populations we see in inpatient, educational, and residential treatment settings, its value was in illustrating the lack of Type I studies in this area.

Behavioral Procedures and Pitfalls

Point and levels systems may appear to be sound contingency management treatment systems for children and adolescents, based on their early links to sound applied behavior analysis and the

application of learning procedures to treatment (Pazaratz, 2003). However, even sound principles can be omitted or unintentionally misapplied in treatment settings. As Donat and McKeegan (1990) have concluded from their study of direct care staff, knowledge of behavioral principles, especially that of nurses was poor as measured by an inventory of behavioral knowledge, and Donat (1998) concluded from his more recent study of behavioral procedures that in clinical treatment settings such procedures are not utilized therapeutically in clinical treatment settings, citing obstacles such as lack of knowledge or education in learning or behavior principles as impediments to implementation of effective behavioral interventions. Others' observational studies have confirmed this to be true of mental health settings (Burdett & Milne, 1985; Nimeier, 1983), as well as residential treatment settings (Tompkins-Rosenblatt & VanderVen, 2005; VanderVen, 2000, 1995). In the subsections that follow, we discuss some reasons why point and level systems may be counterproductive, non therapeutic, and may result in unintended consequences.

Reinforcing when, how and for what? In point and level systems, children earn points for appropriately adaptive or prosocial behaviors, and this may be a good thing. But children may also earn points by unspecified behaviors of omission when they *do not* engage in inappropriate behaviors. Reinforcing someone for *not* displaying some unwanted behavior (e.g., aggression to one's peers) during some interval of time, may mean that the child is being unintentionally reinforced for other inappropriate behavior, such as mumbling aggressive utterances beneath his or her breath, or for some other more subtle behavior (Greenspoon & Olson, 1986).

Group programming may not target individual deficits and excesses of behavior and teach each child the host of adaptive skills needed to deal effectively with problems and their associated environments in everyday life. In group programming, any specification of "desired behaviors" may be vague and passive in nature. That is, children are rewarded for behaviors conforming to the group norm and overall compliance, regardless of whether compliance is appropriate to a context in which a noncompliant response would be a healthier response. An example of this might be to accept passively accept a staff member's taunting or provocation because to protest such behavior would mean a loss in privileges.

Another disadvantages of point and levels systems is that because reinforcers should be presented immediately after a desired response for maximum effectiveness (Martin & Pear, 2006), such systems actually delay reinforcement. Because of the way much programming is structured, points are awarded on the hour or even longer, *after* many specified or unspecified behaviors may have taken place.

Finally, there is the issue of consistency. Treatment facilities are staffed by individuals who work on a rotating shift basis possibly resulting in inconsistency and lapses in communication about children. Worse yet are the situations in which settings employ temporary technicians or nurses from a pool on the basis of their census; as census goes down staff is "called off" and when census goes up, they are called in to work. This creates a situation where, not only is there inconsistency of staff, there are multiple individuals—with multiple values, frustration tolerance, varied backgrounds and educations—who may not know their charges and

their unique problems. This may result in uneven and uninformed treatment and implementation of the program.

Focus on the negative. Treatment foci in residential or inpatient units are so heavily concentrated on behavior problems as targets of attention, that staff may not learn to specify and observe what the child is doing that is appropriate, or desired. Clinicians determine the presenting symptom(s) or “what is wrong”, and focus on eliminating the problem. These symptoms are not manifestations of the same ontogenic or environmental risk factors across the child population. Focusing on negative behavior keeps children and clinician attention on negative behaviors, rather than teaching and demonstrating the value of positive behaviors and working to strengthen them. Thus, the complexity of the child’s dynamics is lost in the struggle to control behaviors or trying to teach the child to “behave.”

Point and level systems as *group treatment* too often fail to identify and specify individual child’s positive behaviors that are desired, within what contexts such behavior should happen, and in what ways these behaviors should be strengthened (Greenspoon, 1976). Several problems emerge when framing treatment on “no,” “don’t,” “stop,” and “not” in rules, or demands, or behavior contracts. When caregivers focus on behaviors that they “don’t like” or “don’t want a child to do,” they can unwittingly expand the range of environments in which avoidance responses may occur (Greenspoon, 1976). Consequently, undesired behaviors can “go underground.” Going underground with behaviors can lead to some interesting but counterproductive effects. For example, points may be awarded when undesired behaviors occur but are not noticed by staff members, such as when a bullying child pinches a frightened peer behind staff members’ backs, instead of tackling and pummeling him. The child may earn his points for that half hour because they did not act out, where in reality the pinching was reinforced, thereby teaching the child deviousness.

Even in settings where attempts are made to individualize and specify positive individual behaviors (Pazaratz, 2003), chaotic group setting, overwhelmed staff, and entrenched punitive cultures may miss opportunities to reinforce positive behaviors when they occur, thereby effectively extinguishing them.

Punitive. Point and level systems, for all their appearance of “fairness” and objectivity, are punitive. A punisher is a consequence of behavior that decreases the likelihood that the behavior will recur (Estes, 1944). Spiegler and Guevremont (2003) categorize punitive consequences to include extinction, “time-out” from positive reinforcement, “response cost,” and physically aversive consequences. Response cost refers to the removal of a reinforcer or some specified amount of reinforcer following undesired behavior; level systems are designed around this type of punitive consequence. For example, if children are discovered engaging in overt undesired behavior, they are quickly “fined” points, “frozen” and possibly demoted to a lower level. These staff actions may be seen as unfair and provocative by children and result in unwanted “acting-out behaviors.”

Someone has to “fine,” “freeze,” or “demote” the child. This is an example of a conditioned punisher. Examples of conditioned punishers are threats, fines, failing grades, and removal of privileges (Sundel & Sundel, 2005). These may be accompanied by frowns, reprimands, or scolding that may have some association with punitive events in the past (Azrin & Holz, 1966). Conditioned punishers probably receive the least attention in discussions of

punitive consequences and the phenomenon may not even be considered by the designers of point-level systems. Ideally, when a response cost takes place, staff members should have been instructed to do so in as neutral a manner as possible, saying as few words as possible about the undesired behavior. They should specify what behavior should have been exhibited. Such neutrality is not the norm in staff-child interactions in which a response cost is often followed by a litany about the unwanted behavior. Thus, staff members who should serve as sources of reinforcement as facilitators, and as confidants to children, may inadvertently take on aversive qualities.

Moreover, inappropriate behaviors elicit attention for the child, but the teaching component gets lost in the absence of an accompanying statement about how the child should behave or cope in the presence of a triggering stimulus for the unwanted behavior. When the caregiver’s verbal or nonverbal behaviors express disapproval, they decrease the potency of the staff members serving as a source of reinforcement. They are put in the position of being those who “catch” the child being inappropriate, issue the response cost (taking away points or decreasing their level) and may become, by association, a conditioned punisher (Baum, 1973).

Complicating this punitive picture further is the ambiguity surrounding children’s behaviors that are being punished. Too often children are punished for their symptoms or for normal human expressions or reactions. Point and level milieus do not account for the fact that some behaviors in children, such as those who are institutionalized because of problems with impulsivity, affect regulation, and behavioral dyscontrol often reflect expressions of frustration, efforts to demonstrate autonomy, a desire for engagement, or some other meaningful interpersonal transaction. Moreover, a child’s resistance may actually be a desirable behavior if it results from what a child perceives as an assault on their competence or self worth. In other words, the meaning of behavior is lost because its presence and underlying motivation is not evaluated.

Furthermore, the capacities of children to exhibit certain behaviors is not taken into account. Severe trauma or neglect during childhood can have a devastating effect on the development of the brain and its functions—emotional, cognitive, behavioral, and physiological. The sequelae of childhood trauma and neglect may present with a variety of different signs and symptoms, including violence, dissociative phenomena, irritability, and emotional lability among others (Perry, 1994). They vary as a result of a host of variables, both ontological and ecological. Thus, for example, if a child is admitted to a facility at the ground level, on a Level 0, and even the expectations of this level., or progressing to the next, exceed the emotional or cognitive capacity of that child, he or she may remain at this level for weeks or even months. Any expression of frustration or disgust, a sullen aside or profanity in response to this state of affairs, are grounds for punishment or grounds for remaining at Level 0 and not moving forward in the program. We illustrated this situation in our case study of Jimmy.

Unnecessarily provocative. Inpatient, residential, and juvenile justice facilities house a large percentage of children with disruptive behavior disorders. These children may often be as rigid in their impulsivity and low frustration tolerance as an uncompromising level system. An unbending adherence to the assigning, or, taking away of points can result in conflict between children and staff. This is particularly disturbing when such staff actions reflect an inability to recognize that children’s lack the capacity to

perform certain behaviors, introducing yet another layer of frustration for these children. The corollary of this situation is when “rules” are not applied consistently, but rather capriciously across different staff and on different shifts. This leads to conflicts over “fairness.” Given sufficient time, the milieu may become coercive rather than therapeutic, with staff and their charges engaging in an ever-increasing aggression-coercion cycle (Goren, Singh, & Best, 1993). The end result is that children are often on the receiving end of more coercive punishment, such as seclusion or restraint resulting from unproductive arguments over the assignment of points.

Inconsistent with individualized treatment. Children who are patients in hospitals or residents of residential treatment facilities are not a homogeneous group. They have different behavioral deficits or excesses, capacities, and histories. Programming that is designed for a group is bound to fail because it does not take into account differences among the group members. Such programs fly in the face of individual treatment. Individual treatment should address any patients’ or residents’, or clients’ unique needs and challenges, and should be dynamic and responsive to status changes over time.

It is axiomatic that development proceeds at varying rates from child to child, as well as unevenly within different areas of each child’s functioning. Individual variation has at least two dimensions: the variability around the normative course of development, and the uniqueness of each person as an individual. Harmful early experiences can have both cumulative and delaying effects on individual children’s development. Likewise, mental illnesses can delay children in certain domains of functioning. Recognition of these individual variations requires that treatment and clinician’s interactions with those children in their care be as individualized as possible.

Developmentally appropriate practice encourages the use of varied individual strategies to meet the unique needs of children, and that children not be considered as part of a chronological age group who are expected to perform to a predetermined norm. Point and level systems do not allow for adaptation to individual cognitive or developmental variation (Tompkins-Rosenblatt & VanderVen, 2005; VanderVen, 1995, 2000). Points are assigned for specific behaviors that may be beyond the capacity of all members of a heterogeneous population.

The thorny problem of generalization. Point and level systems are artificial constructions and, because they are applied to a group of individuals, the criteria for advancement to higher levels are the same for everyone, and the privileges associated with each level are the same. Thus, points used as reinforcers, as well as many of the backup reinforcers, are vastly different from those in the natural environment, and the contexts in which the reinforcers are delivered are different. Consequently, level systems have no relation to the environment to which the child will return, raising the issue of generalization, or transfer of training, otherwise known as ecological validity. If compliance is achieved or behaviors changed, these tend to be temporary (Kazdin, 2001; Martin & Pear, 2006; Spiegler & Guevremont, 2003).

The problem of generalization is due not only to the artificiality of the inpatient or residential setting. In addition, problems associated with generalization may also be a function of pro forma treatment planning. Individual treatment plans are dynamic documents which should specify not only the contingencies in the inpatient setting, but just as important, they need to focus increas-

ingly on the future, the “postinpatient” treatment plan. Evans (1993) has suggested that “assets,” or external sources of support be assessed. This would include the extent to which family, friends, and so forth provide support and consistency, as well as the contexts in which the support may be provided. Although follow-up should be an integral part of treatment, the reality is that there is little incentive for facilities to maintain ongoing monitoring of children once they are discharged. Indeed, literature on long-term outcomes of institutionalization is sorely lacking. What little literature is available points to outcomes being dependent on the quality of community follow-up (Lundy & Pumariega, 1993; Pumariega, 2007).

Restricting Therapeutics

Inpatient units and residential treatment facilities that are structured by level systems purport to assist children in acquiring adaptive coping skills and more effective ways for them to deal with their problems in a secure physical setting. In addition to the various psychotherapies, such settings provide activities that allow children to practice these coping skills, such as going on outings, engaging in school, occupational, aesthetic, and recreational activities. Wolfensberger (1972) refers to the provision of such activities as normalization, an approach that replicates the wider culture. These activities provide contexts for learning and testing more adaptive ways of functioning in a social setting. Children can practice skills and receive feedback from staff members. However, such activities are viewed as “privileges” within many level systems, and these activities are restricted when levels are dropped, or when a child fails to achieve a higher level. This robs children of valuable opportunities to develop adaptive coping, correct maladaptive behavior, and acquire interpersonal management skills in a milieu. In addition, because of the serious underfunding of such facilities in today’s managed care environment, such activities are often meager and in short supply (Pumariega, 2007).

Self-Governance and Locus of Control

A therapeutic milieu is a planned treatment environment that should be flexible and normalizing, as well as geared toward helping children develop self-responsibility and healthy interdependence with others. The milieu should be planned to support and guide children toward greater responsibility and more robust locus of control within their individual capacities. Such objectives are inconsistent with a life space wherein staff members are the arbiters of awarding points and determining levels, no matter how much they might insist that the individual child is responsible for his or her level.

Staffing Realities

Despite the simplistic way in which behavioral procedures are often presented and transmitted to staff members, (e.g., reinforcers are for “good” behavior and unacceptable behavior should receive negative consequences) the application of principles of learning to human problems is very complex. Most behavior analysts would concede that a few hours, or days, of training in behavior techniques are insufficient to adequately prepare caregivers to manage, or monitor such a program. Learning what is a “natural conse-

quence” for behavior is neither simple, nor straightforward. The distinction between a natural consequence (a natural extension of behavior) and an imposed consequence (punishment) is important because natural consequences, which are valued by a child, can be powerful motivators (Pellitteri, Stern, Shelton, & Muller-Ackerman, 2006). Yet staff members with very limited exposure to principles of learning are asked to manage point and levels systems.

There is a dearth of information about how the staff should react to children in their care, especially when they display undesired behaviors. Most caregivers are poorly versed in the application of the principles of learning to behavior problems. Milne (1985) asserted that mental health nurses’ education had little ecological validation, a situation that is as true today as it was over 20 years ago (Mohr, 2008). Many decades of research has suggested that staff members inadequately reinforce positive behavior and intermittently reinforce unwanted behavior (Donat & McKeegan, 1990; Gelfand, Gelfand, & Dobson, 1967; Niemeier, 1983). Moreover, today’s managed care environment facilities may employ poorly educated and trained frontline staff with troubled backgrounds to work with these youth, without adequate screening, leading to serious adverse consequences (Pumariega, 2006). Niemeier (1983) studied a psychiatric inpatient unit and concluded that patients themselves, rather than nurses, were often the best behavioral technicians with respect to their fellow patients, and Donat (1998) reported that staff are inconsistent with their approaches to behavioral interventions, while Boudewyns, Fry, and Nightingale (1986) observed that unit environments actually resulted in increased behavioral problems. These observations underscore the need for thorough training, continued training, and feedback as to caregiver effectiveness (i.e., reinforcement for thoughtful and desirable staff behavior).

Cultural Validity of Point and Level Systems

The increasingly diverse population of children and youth in the United States (especially from non-European backgrounds) requires what is now commonly termed culturally competent treatment (Pumariega, Rogers, & Rothe, 2005). This presumes that the value systems, beliefs, and behavioral norms of diverse populations are taken into account when designing treatment plans and applying various therapeutic modalities to diverse children and youth. In culturally competent treatment, equal treatment is not necessarily equivalent treatment. Even treatment approaches that are evidence-based with mainstream European-origin populations cannot be presumed to be effective with populations of different backgrounds. Therapies and treatments should be at least adapted to the unique needs of diverse children and youth and not assumed to be generalizable to individuals who are not from the dominant culture. However, given that there is little empirical research that generic level systems are efficacious at all, these cannot be assumed to be effective for diverse youth. Although there are mainstream interventions now demonstrated to be effective with diverse youth (Pumariega et al., 2005), some researchers have also found that some treatments and their adaptations may actually be harmful to minority group members (Chambless & Williams, 1995; Gibbs & Huang, 1997; Telles et al., 1995). Studies conducted with Native American and Hispanic youth demonstrated that interventions which address the multiple cultural and social contexts of the

ethnic youth and families involved in treatment can have a positive impact on important therapy outcomes, such as reduced drug use. Whereas those which do not, fail to engage such youth in a culturally informed manner, leads to poor outcomes, treatment failure, and cynicism (e.g., LaFromboise & Bigfoot, 1988; Malgady, Rogler, & Costantino, 1990).

There is also good reason to consider that behavioral interventions need to be conceptualized from totally different perspectives with diverse youth. Skinner himself (1953) indicated that cultural values and customs are developed under unique sets of contingencies determined by the environmental context within which a society or culture develops. In addition, Tooby and Cosmides (1992), using the theory of evolutionary psychology, hypothesized that culture is the product of evolved psychological mechanisms situated and hard-wired into the brain of individuals living in social groups. They pointed out that human cultures and social behaviors are highly variable because they are generated by an intricate contingent set of functional programs that process information from the world around them, including intentional and unintentional information from other human beings within their groups/communities. Additionally, evolutionary psychology suggests that adaptive behaviors elicited by ecologically specific contingencies in diverse cultural settings become somewhat hard-wired over the centuries, and lead individuals to behave within fairly consistent patterns. However, when they are exposed to different contingencies within different cultural contexts, such behaviors could then be maladaptive, and possibly elicit negative reinforcement and become quite difficult to extinguish. As a result, because level systems are designed within the context of particular cultural milieus, they may be ineffective for people from cultural origins different from the ones where the level system originated, and may fail to extinguish incongruent behaviors or even inadvertently reinforce them.

Moreover, other investigators hypothesize that acculturation changes the health behaviors of ethnic minority individuals through operant behavioral mechanisms (Landrine & Klonoff, 2004). Because diverse children and youth are often in the midst of the process of acculturation (Pumariega et al., 2005), this process of adaptation adds an even greater layer of complexity to the task of behavioral analysis and management. Therefore, individualized behavioral interventions based on culturally competent behavioral analysis that takes into account different contingencies, reinforcers, and culturally based patterns and meanings of behavioral response is essential for culturally diverse youth.

Moving Away From a Point and Level System: An Illustration

Despite their many limitations and questionable record of success with children, point and level systems are widely implemented programs. If not already in existence, they can work their way into the daily operations of inpatient and residential treatment settings. Once they “take root” and become part of a unit’s explicit operating procedures and covert working culture, they can be very hard to replace with other models of care. What point and level system programming may lack by way of efficacy they often make up by way of providing staff a solid set of rules by which to manage a unit. Point and level programs also provide staff with the language and interventions that help shape the unit culture. Indi-

Table 1
Implementation of a New Model of Care: Anticipating and Addressing Recurring Themes

Recurring theme	Brief description	Case study highlights
1. Leadership	A conscious decision on the part of both administrative and clinical leaders that it is a worthy goal for which the organization is willing to commit its resources	<ul style="list-style-type: none"> -Held town hall meetings of all unit staff to identify limitations to status quo standard of care. -Approached institutional leadership to support buy-in of programmatic change, as well as to alert about possible dissension. -Unit leadership held weekly meetings to identify and address challenges of implementation. -Financial resources identified through philanthropic engagement.
2. Orientation and training	Training and new employee orientation should introduce staff to the agency's treatment philosophy, organizational culture, program structure, and relevant policies and procedures	<ul style="list-style-type: none"> -Identification and hiring of outside consultants with expertise in implementation of Collaborative Problem Solving (CPS). -Videoconferencing (VC) equipment installed to permit on-site training of an "outside" model of care. -Schedules managed in order to allow staff to attend training on a consistent basis. -Initial 3-hour didactic session repeated so as to include all shifts. -VC-based training, 1.5 hours long each, held twice weekly during six month implementation phase. -Followed up by occasional "booster sessions" and by regular group- and peer-supervision based on the new model of care.
3. Staffing	Staffing ensures that adequate numbers of qualified employees are available to implement the organization's mission	<ul style="list-style-type: none"> -Education and support of staff during transition. -Hiring of new staff and attrition of select few members unable to adjust to new model of care. -Supervision during and after formal training period permitting more organic espousing of the new model. -Staff as "carriers of the culture" the most potent vehicle for change—or for stagnation. -Provided a safe and regular forum in which to address difficulties and challenges in model implementation (notably concerns over patient and staff safety).
4. Environmental factors	Actual physical factors, such as square footage, ventilation, temperature, lighting, noise, and odors, as well as the way that staff and patients experience the environment.	<ul style="list-style-type: none"> -Point and level overt reminders (such as star charts) eliminated from open, shared areas. -Expansion of outside play area as part of a capital campaign to improve facilities. -Elimination of rugs, change to brighter paints and materials; engagement of volunteer artists to decorate space. -Elimination of all but the most critical restraint and seclusion equipment, and their "camouflage" under "child friendly" covers. -Elimination of outdated and unsafe equipment (such as sinks in individual rooms).

(table continues)

Table 1 (continued)

Recurring theme	Brief description	Case study highlights
5. Programmatic structure	The purposeful set of activities carried out within a specified context in order to achieve desired outcomes. Programs consist of routines, rituals, and rules which in a behavioral health setting focus on creating a supportive and therapeutic milieu.	<ul style="list-style-type: none"> -Less emphasis on unit-wide, behaviorally-contingent activities, with a move toward more individually tailored plans informed by children's relative strengths and weaknesses. -Five pathways (social, executive, cognitive, language and affective) provide a template to better understand children's individual needs. -Emphasis on identification of trigger events precipitating maladaptive behaviors, especially violence and aggression. -The same programmatic approach informs all activities in the unit, not only the explicitly "clinical" ones (p. ex. School work). -Programmatic enrichment through recreational and occupational activities, both through core dedicated staff, as well as through volunteer services (pet therapy, clown care unit, music, yoga, etc).
6. Timely and responsive treatment planning	Treatment planning is individualized, involves the patient and relevant stakeholders, and is responsive to changes in behavior and to progress in treatment.	<ul style="list-style-type: none"> -The new program of care informs and guides daily unit rounds and norm-compliant paperwork, rather than becoming an "add-on." -Pathways and triggers are iteratively refined during daily multidisciplinary rounds. -Outside stakeholders invited to attend and contribute to treatment planning exchanges. -Additional meetings scheduled in response to specific challenges.
7. Processing after the event (debriefing)	Helps the patient reconnect with staff, peers, and the milieu; provides an opportunity to reflect on the behaviors that lead to the intervention, and helps identify coping strategies and behaviors that can be used in the future.	<ul style="list-style-type: none"> -Efforts are made to process events such as seclusion or restraint use after the acute incident has resolved. -Processing can be just as helpful to the child to reconnect with the milieu, as well as for staff to learn from the event and try new strategies in the future. -Processing in the immediate aftermath of an event (e.g. within a few hours) remains an elusive goal given the high acuity and many demands that typically surround such events.
8. Communication and consumer involvement	Emphasizes the need for greater inclusion of consumers and their families in the treatment process, with specific emphasis on self-determination	<ul style="list-style-type: none"> -The involvement of family and relevant stakeholders is a core aspect of treatment. -Involvement of families can be especially challenging for those living at a distance, or for children under state custody or for those undergoing transition in placement. -Involvement of patient and family "alumni" has helped identify needs (e.g. playground or school) and develop long term strategies to address them.
9. Systems evaluation and quality improvement	Data are analyzed and used to evaluate the effectiveness of system-wide efforts to achieve the organization's goals regarding the reduction and use of restrictive interventions.	<ul style="list-style-type: none"> -Data on seclusion and restraint use, and on injuries to children and staff are collected as part of routine care, and analyzed on a regular basis. -Five-year trend data (described in Martin et al, in press) have served as a launching point to refine, expand and replicate the model to other similar units.

Note. Adapted from David Colton (2005).

vidually appropriate and therapeutic interventions may be in direct conflict with those deemed appropriate by the direct child care staff. Moreover, as VanderVen (1995, 2000) opines these systems serve as a concrete way for staff to believe that they are controlling their charges and thereby maintaining a semblance of order and comfort. To complicate this further, organizations are usually under a variety of pressures deriving from economic, performance, and safety concerns, some of which spring directly from social and political forces that exist in the larger environment, such as the cost of educating the staff and other changes that may be financially unattractive to administrators of such programs (Bloom, 2005).

Units may become what Morgan (1986) referred to as “psychic prisons,” of their own making with deviation or change seen as a threat to the status quo. Attempts at change may result in disagreeable backlash that may be inevitable, but can be seen as part of the change process itself.

In an effort to describe the practical challenges and hurdles to overcome in moving away from a point and level system, we examine an example of the experience of a 15-bed, school-aged inpatient psychiatric unit as it implemented new model of child-centered clinical care based on the Collaborative Problem Solving (CPS; Greene, 2001; Greene & Ablon, 2006). The CPS model has been implemented with successful and promising outcomes in a limited number of clinical settings Greene et al., 2003; Greene et al., 2006; Martin, 2006; Regan et al., 2006).

The clinical setting was a 15-bed psychiatric inpatient unit for school-aged children. The unit is part of the Yale Child Study Center, a facility that treats mentally ill children and their families. The Yale Child Study Center is a psychiatric inpatient facility for school-aged children that is part of the Yale-New Haven Children’s Hospital in New Haven, Connecticut. The inpatient service has a bed capacity of 15 children; during the 5-year interval of the study, the unit had an average of 198 admissions per year, 65% of whom were boys; a bed occupancy of 92%, and a length of stay of 29 days, demographic characteristics that did not substantially change during the implementation of the new model of care. The unit takes a multidisciplinary approach to intervention and treatment, and is staffed by physicians, nurses, social workers, psychologists, and mental health technicians. Children’s diagnoses included adjustment disorders, anxiety disorders, bipolar disorders, depressive disorders, hyperactivity, psychosis, and other mental health disorders. The decision to eliminate the existing point and level system programming came out of a concern for what was seen as staff-patient conflict concerning matters not germane to therapeutics, and the numbers of seclusion and restraint procedures that resulted from some of these conflicts. The CPS model had been successfully implemented at the Cambridge Hospital (Regan et al., 2006) and it was thought that replacing the level and point system with a more child-centered model might reduce the number of conflicts and be more therapeutic.

A comprehensive description of the CPS model and how it is implemented in clinical settings is beyond the scope of this article. In short, the CPS model is posited on the idea that children’s capacities for complying with caregivers directives or expectations are unique to each child and if caregivers demands exceed these capacities, children responses deviate from the responses expected by those caregivers. These deviations may increase frustration levels for both parties, and may result in response biases on the part of both (Greene et al., 2003). The CPS model assumes that

children “do well if they can.” It aims at helping challenging children and their adult caretakers learn to resolve conflicts, disputes, and disagreements in a collaborative, mutually satisfactory way. As described by Greene and colleagues (Greene & Ablon, 2006; Greene et al., 2006), the approach consists of three steps. The first is to identify and understand a child’s concern about a given issue and to reassure the child that the issue will not be resolved through coercion. The second is identifying the adult caregiver’s perspective on the same issue or problem. The third is to invite the child to brainstorm possible solutions with the goal being to mutually agree upon a realistic course of action.

Greene originally conceptualized his approach to treatment in 1998 in his book entitled *The Explosive Child*. He proposed that behaviors that were seen as challenging resulted from deficits in certain domains of functioning, specifically the cognitive skills to solve problems and the ability to be flexible and to tolerate frustration. The behaviors manifested as inflexibility by children in response to everyday situations. He recommended that such inflexible children should be understood and approached in the same way as that one might plan and intervene with other kinds of learning disabilities.

Whereas traditional approaches to residential treatment when point and level systems are employed represent a reactive post hoc style of intervention, Greene’s model is proactive. In contrast to a one size fits all approach of point and level systems, the CPS approach is geared to intervene at an individual level taking into account each child’s unique needs and capacity to learn. Instead of creating an adversarial atmosphere between staff and patient by awarding or taking away of points or dropping levels, the individual problem solving approach is collaborative and promotes therapeutic alliances. Most importantly, it teaches patients valuable problem solving skills that they can employ outside of the institutional setting.

Although the change in the model of care in this case was not primarily aimed at eliminating restrictive interventions, substantial reductions (37.6%) in the frequency and duration of restraint and seclusion ensued as a welcome byproduct (Martin et al., in press). The report based on this naturalistic experience was not able to disentangle the extent to which the introduction of CPS versus the elimination of the preexisting point and level system contributed most to these reductions.

We used the *Checklist for Assessing Your Organization’s Readiness for Reducing Seclusion and Restraint* (Colton, 2005) as a conceptual framework for implementing the CPS Model. The *Checklist* is based on nine recurring themes identified in the literature and provided a systematic approach for identifying factors that influenced the reduction of seclusion and restraint and for assessing the level of progress as the inpatient unit moved toward a level-free environment and a new model of care. In keeping with the themes the *Checklist* was developed to address, it provided a template to examine change and to support the evolution of the unit’s values, mission, and practices. The CPS model was successfully implemented even though the process was lengthy, staff were at time resistive to change, and staff attrition occurred in part due to the change process. The Checklist also provides a visual outline of the implementation and activities that took place during the move from a level system to a collaborative model.

As can be seen from Table 1, the transformation required ongoing, strong leadership and modifications to programming, and

physical plant, education; indeed it involved a complete change of culture. Data collection is ongoing at the Yale Child Study Center, but at the two year mark, the number of restraint and seclusion episodes remains low (similar to the rate reported above). In addition, injury rates associated with restraint use remains low and staff turnover is at an all-time low for the Center. Patients and staff voice satisfaction with the changes implemented on the unit. At this writing, various facilities, in Connecticut and out of state, have become intrigued with our sustained positive outcomes and are seeking to emulate our program.

Conclusion

The present discussion has focused on revealing the inadequacy, if not the actual counterproductive and sometimes destructive effects, of the point and level system of structuring psychiatric milieus. These destructive effects can include its punitive nature, which may inadvertently duplicate the same experiences that were so toxic to many of the children in inpatient and residential facilities and a host of other unintended sequelae described in this article. It also illustrated an alternative model that has been implemented successfully. This model respects the integrity of both staff members and the children in their care.

Some may argue that from a practical standpoint the CPS model cannot be implemented widely, in that many settings do not have the financial resources that may be available to a Harvard or Yale affiliated setting. This is a straw man argument, especially when considering recent literature. In looking at the cost of coercive interventions, such as seclusion and restraint alone, mental health settings spend thousands of dollars associated with staff time, turnover, sick time and other costs related to these measures. Lebel and Goldstein (2006) showed that restraint reduction programming in Massachusetts resulted in a significant reduction in cost to the state (92% over one year). If, as the emerging outcomes of implementing the CPS model alone result in a decrease in the number of restraint episodes, its implementation may be a cost-effective investment for institutions.

Morrison (1990) concluded that the prevailing (and preferred) ideology in inpatient psychiatry is constructed on an authority model of care, and that these settings are coercive, regimented, overstructured, inflexible, and focused more on ease of implementation and security than therapeutics. We referred to the research demonstrating that staff is not conversant with behavioral principles. Perhaps some of Morrison's research reflects such lack of content in the educational curricula, with the last refuge of the uninformed being coercion. These educational shortcomings must be recognized and remediated in the implementation of any model of care and treatment approach.

Treatment approaches in mental health, should be expected to meet the same minimum standards as those in other areas of health care (Lundy & Pumariega, 1993). One of those standards is demonstrated effectiveness. That is, the treatment should be shown to yield the result for which it was designed—and that result should be sustained over time. It should also be as free as possible from unintended consequences. This is what is now commonly referred to as evidence based treatment (for a historical review, see Bond, Salyers, Rollins, Rapp, & Zippel, 2004). A consideration of the point and level system of milieu programming, does not meet that standard, and the unintended consequences are many. In the pres-

ence of alternative approaches, such as the CPS model, and others such as Bloom's Sanctuary Model for children's residential treatment (2005) the time has come to replace outdated and counterproductive approaches to unit structure and programming, and replace them with more patient-centered care.

References

- Azrin, N. H., & Holz, W. C. (1966). Punishment. In W. K. Honig (Ed.), *Operant behavior: Areas of research and application*. New York: Appleton-Century-Crofts.
- Baum, W. M. (1973). The correlation-based law of effect. *Journal of the Experimental Analysis of Behavior*, 20, 137–153.
- Bloom, S. L. (2005). The Sanctuary Model of organizational change for children's residential treatment. *Therapeutic Community: The International Journal for Therapeutic and Supportive Organizations*, 26, 65–81.
- Bond, G. R., Salyers, M. P., Rollins, A. L., Rapp, C. A., & Zippel, A. M. (2004). How evidence-based practices contribute to community integration. *Community Mental Health Journal*, 40, 569–588.
- Boudewyns, P. A., Fry, T. J., & Nightingale, E. J. (1986). Token economy programs in VA Medical Centers. Where are they today? *The Behavior Therapist*, 6, 126–127.
- Burdett, C., & Milne, D. (1985). Setting events as determinants of staff behavior: An exploratory study. *Behavioral Psychotherapy*, 13, 300–308.
- Chambless, D., & Williams, K. E. (1995). A preliminary study of African Americans with agoraphobia: Symptom severity and outcome of treatment with in vivo exposure. *Behavior Therapy*, 26, 501–515.
- Colton, D. (2005). Checklist for assessing your organization's readiness for reducing seclusion and restraint. Retrieved February 4, 2007, from <http://rccp.cornell.edu/>
- Donat, D. C. (1998). Impact of a mandatory consultation on seclusion/restraint utilization in a psychiatric hospital. *Journal of Behavior Therapy & Experimental Psychiatry*, 29, 13–19.
- Donat, D. C., & McKeegan, G. F. (1990). Behavioral knowledge among direct care staff in an inpatient psychiatric setting. *Behavioral Residential Treatment*, 5, 95–103.
- Estes, W. K. (1944). An experimental study of punishment. *Psychological Monographs*, 57(3, Whole No. 263), 1–40.
- Evans, I. M. (1993). Constructional perspectives in clinical assessment. *Psychological Assessment*, 5, 264–272.
- Gelfand, D. M., Gelfand, S., & Dobson, W. R. (1967). Unprogrammed reinforcement of patients' behavior in a mental hospital. *Behavior Research & Therapy*, 5, 201–207.
- Gibbs, J. T., & Huang, L. N. (1997). *Children of color: Psychological interventions with culturally diverse youth*. San Francisco: Jossey-Bass.
- Goren, S., Singh, N. N., & Best, A. M. (1993). The aggression-coercion cycle: Use of seclusion and restraint in a child psychiatric hospital. *Journal of Child and Family Studies*, 2, 61–73.
- Greene, R. W. (2001). *The explosive child: A new approach for understanding and parenting easily frustrated, chronically inflexible children* (2nd ed.). New York: Harper Collins.
- Greene, R. W., & Ablon, J. (2006). *Treating explosive kids: The collaborative problem-solving approach*. New York: The Guilford Press.
- Greene, R. W., Ablon, J. S., & Goring, J. C. (2003). A transactional model of oppositional behavior: Underpinnings of the Collaborative Problem Solving approach. *Journal of Psychosomatic Research*, 55, 67–75.
- Greene, R. W., Ablon, J. S., Hassuk, B., Regan, K., & Martin, A. (2006). Use of collaborative problem solving to reduce seclusion and restraint in child and adolescent inpatient units. *Psychiatric Services*, 57, 610–612.
- Greenspoon, J. (1976). *The sources of behavior: Abnormal and normal*. Monterey, CA: Brookes-Cole.
- Greenspoon, J., & Olson, J. N. (1986, November). Private experience.

- Paper presented at the Annual Meeting of the Southeastern Association for Behavior Analysis, Savannah, GA.
- Jones, R. N., Downing, R. H., Latkowski, M. E., Ferre, R. C., & McMahon, W. M. (1992). Levels systems as shaping and fading procedures: Use in a child inpatient psychiatry setting. *Child and Family Behavior Therapy, 14*, 15–37.
- Kazdin, A. E. (2001). *Behavior Modification in applied settings* (6th ed.). Belmont, CA: Wadsworth.
- LaFromboise, T. D., & Bigfoot, D. (1988). Cultural and cognitive considerations in the prevention of American Indian adolescent suicide. *Journal of Adolescence, 11*, 139–153.
- Landrine, H., & Klonoff, E. (2004). Culture change and ethnic minority health behavior: An operant theory of acculturation. *Journal of Behavioral Medicine, 27*, 527–555.
- Lebel, J., & Goldstein, R. (2006). The economic cost of using restraint and the value added by restraint reduction or elimination. *Psychiatric Services, 56*, 1109–1114.
- Lundy, M., & Pumariega, A. J. (1993). Psychiatric hospitalization of children and adolescents: Treatment in search of a rationale. *Journal of Child and Family Studies, 2*, 1–4.
- Malgady, R. G., Rogler, L. H., & Costantino, G. (1990). Culturally sensitive psychotherapy for Puerto Rican children and adolescents: A program of treatment outcome research. *Journal of Consulting and Clinical Psychology, 58*, 704–712.
- Martin, A., Krieg, H., Esposito, F., Stubbe, D., & Cardona, L. (in press). Restraint and seclusion reduction through Collaborative Problem Solving: A five-year prospective inpatient study. *Psychiatric Services*.
- Martin, G., & Pear, J. (2006). *Behavior modification: What it is and how to do it*. Upper Saddle River, NJ: Prentice Hall.
- Mastopieri, M. A., Jenne, T., & Scruggs, T. E. (1988). A levels system for managing problem behaviors in a high school resource program. *Behavioral Disorders, 13*, 202–208.
- McMonagle, T., & Sultana, A. (2000). Token economy for schizophrenia. *Cochrane Database of Systematic Reviews, 3*: CD001473.
- Milne, D. (1985). An observational evaluation of the effects of nurse training in behavior therapy on unstructured ward activities and interactions. *British Journal of Clinical Psychology, 24*, 149–158.
- Mohr, W. K. (2008). *Psychiatric-mental health nursing: Evidence-based concepts, skills and practices*. Philadelphia: Lippincott, Williams & Wilkins.
- Mohr, W. K., & Pumariega, A. J. (2004). Point and levels systems: Inpatient programming whose time has passed. *Journal of Child and Adolescent Psychiatric Nursing, 17*, 113–125.
- Morgan, G. (1986). *Images of organizations*. London, United Kingdom: Sage Publishing.
- Morrison, E. F. (1990). The tradition of toughness: A study of nonprofessional nursing care in psychiatric settings. *Image: Journal of Nursing Scholarship, 22*, 32–38.
- Niemeier, W. F. (1983). A behavioral analysis of staff-patient interactions in a psychiatric setting. *Western Journal of Nursing Research, 5*, 269–281.
- Pazaratz, D. (2003). The application of a reinforcement/level system in the residential treatment of adolescents. *Residential Treatment for Children and Youth, 21*, 17–32.
- Pellitteri, J., Stern, R., Shelton, C. M., & Muller-Ackerman, B. (2006). *Emotional intelligent school counseling*. New York: Routledge.
- Perry, B. D. (1994). Neurobiological sequelae of childhood trauma: Post traumatic stress disorders in children. In M. Murburg (Ed.), *Catecholamine function in post traumatic stress disorder: Emerging concepts* (pp. 253–276). Washington, DC: American Psychiatric Press.
- Pumariega, A. J. (2006). Residential treatment for youth: Introduction and cautionary tale. *American Journal of Orthopsychiatry, 76*, 281–284.
- Pumariega, A. J. (2007). Residential treatment for youth: Time for reconsideration and reform. *American Journal of Orthopsychiatry, 77*, 343–345.
- Pumariega, A. J., Rogers, K., & Rothe, E. (2005). Culturally competent systems of care for children's mental health: Advances and challenges. *Community Mental Health Journal, 41*, 539–556.
- Regan, K., Curtin, C., & Vorderer, L. (2006). Paradigm shifts in inpatient psychiatric care of children: Approaching child- and family-centered care. *Journal of Child and Adolescent Psychiatric Nursing, 19*, 29–40.
- Rosenstock, H. A., & Levy, H. J. (1978). On the clinical superiority of the Level System. *Journal of the National Association of Private Psychiatric Hospitals, 9*, 32–36.
- Skinner, B. F. (1953). Culture and control. In B. F. Skinner (Ed.), *Science and Human Behavior* (pp. 415–425). New York: The Free Press.
- Smith, S. W., & Farrell, D. T. (1993). Level system use in special education: Classroom intervention with prima facie appeal. *Behavioral Disorders, 18*, 251–264.
- Spiegler, M. D., & Guevremont, D. C. (2003). *Contemporary behavior therapy* (4th ed.). Belmont, CA: Wadsworth Publishing Co.
- Sundel, M., & Sundel, S. S. (2005). *Behavior change in the human services: Behavioral and cognitive principles and applications* (5th ed.). Thousand Oaks, CA: Sage Publishers.
- Telles, C., Karno, M., Mintz, J., Paz, G., Arias, M., Tucker, D., & Lopez, S. (1995). Immigrant families coping with schizophrenia. Behavioral family intervention v. case management with a low-income Spanish-speaking population. *British Journal of Psychiatry, 167*, 473–479.
- Tompkins-Rosenblatt, P., & VanderVen, K. (2005). Perspectives on point and level systems in residential care: A responsive dialogue. *Residential Treatment for Children & Youth, 22*, 1–18.
- Tooby, J., & Cosmides, L. (1992). The psychological foundations of culture. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 19–136). New York: Oxford Press.
- VanderVen, K. (1995). Point and level systems: Another way to fail children and youth. *Child & Youth Care Forum, 24*, 345–367.
- VanderVen, K. (2000). Cultural aspects of point and level systems. *Reclaiming Children and Youth, 9*, 53–59.
- Wolfensberger, W. (1972). *The principle of normalization in human services*. Toronto, Canada: National Institute of Mental Retardation.

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