

Planning Successful Transitions From School to Adult Roles for Youth With Disabilities

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This article provides a conceptual model and review of the effectiveness of approaches for providing transition education and planning services for youth with disabilities. The model incorporates four approaches: skills training, prevocational/vocational guidance, a client-centered approach, and an ecological/experiential approach. The model links these approaches to commonly used transition strategies, which reflect the personal, person–environment, and environmental levels of intervention. The model specifies the short-term goals addressed by the approaches and strategies and links these to the long-term outcome of multifaceted role engagement. Evidence for the effectiveness and utility of the identified approaches is reviewed. Recommendations are made for best practices in the delivery of transition education and planning services, for research, and for clinical practice.

Like all young people, youth with disabilities face a number of stage of life transitions at the time they leave school and enter into the adult world (Brollier, Shephard, & Markley, 1994). They face the fundamental task of constructing a satisfactory life (Anderson & Clarke, 1982; King, Cathers, Miller Polgar, MacKinnon, & Havens, 2000).

Educational systems in the United States and Canada are mandated to provide guidelines, tools, and a process to facilitate transition planning for youth with disabilities. In the United States, school boards are required to develop transition plans in accordance with the Individuals with Disabilities Education Act (1990),

which emphasizes the use of self-determination practices in the development of transition services. In the United Kingdom, the Valuing People (2001) legislation addresses the need for equality of opportunity in education, training, and employment as young people with learning disabilities move into adulthood. To plan successful transitions for youth, information is needed about what approaches and strategies are most effective.

Transitions may occur with respect to several life domains, such as family, friends, school, work, and community (Roth & Brooks-Gunn, 2000). Another way of conceptualizing the transitions that occur between high school and higher education or work is in terms of changes in roles. Roles are socially expected behavior patterns or clusters of meaningful activities that are expected of, and assumed by, individuals in various contexts of their lives (Warda, 1992). Roles therefore reflect the World Health Organization's (2001) conceptualization of disability as encompassing problems people may experience in engaging in life situations.

Roles confer a sense of identity, outlook, and a way of behaving (Kielhofner, 2002) and are associated with both privileges and responsibilities (Crowe, VanLeit, Berghmans, & Mann, 1997). Having multiple roles and identities in adulthood is related to overall life satisfaction and less social isolation, and it has an enhancing or protective effect on physical and emotional health (Crowe et al., 1997; Vandewater, Ostrove, & Stewart, 1997). Role acquisition is also thought to be fundamental to the development of a positive sense of the self (Marks & MacDermid, 1996).

Conceptualizing school to adult-world transition as a process involving roles is a useful approach to understanding the complexities of transition, which may involve alterations of identity, relationships, day-to-day activities, and lifestyle (Kielhofner, 2002). Socialization, in fact, has been viewed as the process of communicating role expectations to the individual (Brim & Wheeler, 1966). Roles deal with the expected behaviors and activities of the individual within a social or environmental context and therefore reflect the interface between the person and the environment, as reflected in the concepts of person-situation interaction (Endler & Magnusson, 1976), person-environment fit (Law et al., 1997), and environmental niches (Wachs, 2000).

Adolescents experience role transitions (Anderson & Clarke, 1982; Elder, 1968; Jackson, 1989) in which they choose to adopt new roles or face new expectations about how to enact existing roles (Brotherson, Berdine, & Sartini, 1993). These role transitions involve changes in how adolescents are viewed by others and in how they make sense of themselves and their world, including their personal values and beliefs (Roth & Brooks-Gunn, 2000). Adolescents negotiate changes in three major types of life roles, which reflect basic human needs for work, recreation, and socialization (Miezio, 1983): (a) social roles (friendships and sexual relationships), (b) productivity or occupational roles (employment, further education, and volunteerism), and (c) leisure/recreation roles.

Youth need to find the roles and settings that fit their needs and strengths. When adopting new roles, they may experience discrepancies between the demands or expectations of the roles and their knowledge, skills, or resources. Some degree of incongruence between the self and the environment is required for personal change to occur because this facilitates the adoption of new roles, but an incongruence that is too great may result in failure (Elder, 1968). Youth with disabilities may face seemingly insurmountable barriers and may require supports and interventions to assist with their transitions into adult roles. The smoothness of the transition process depends on youths' development, level of readiness, and the complexity of their needs; the capacities and resources of the youth and family; and the existence of environmental supports and the availability of choices.

The aims of this article are to provide (a) a framework or model describing existing transition approaches and strategies, (b) information about the effectiveness of these approaches, and (c) recommendations for planners of services for youth with disabilities. These planners include teachers in the school system and therapists in agencies providing services for youth with disabilities. The model and research evidence reviewed here will assist transition planners to check whether they are on the right track in terms of the approaches and strategies they take.

We first consider the types of difficulties that can arise during transitions and define the nature of a successful transition process. We then present an integrated model of approaches and strategies to address role transitions, along with evidence for the effectiveness of the approaches. Areas requiring further research are identified. We also consider best practices in transition planning and provide recommendations for planning transition services for youth who have average intellectual ability. An individual's intellectual capacity leads to various complexities, which have implications for the nature of their role engagement, the breadth of their role repertoire, and the types of supports they require (Elder, 1968). We then discuss how the model can be used to guide future research and discuss implications for clinical practice—specifically, how the model can be used in transition planning.

WHAT DIFFICULTIES CAN ARISE AT TRANSITIONS?

The transition process can have multiple and complex impacts on youth with disabilities and their families. Issues can arise concerning social, occupational, and leisure roles, which may affect youths' self-esteem, self-concept, and sense of hope. They may experience difficulty in establishing fulfilling relationships and may have lost long-term relationships established in high school. They may experience difficulties in finding meaningful involvement in leisure roles and occupational roles, such as volunteerism, employment, or college or university attendance.

Underlying these role changes are challenges such as formulating life goals, setting up living arrangements, dealing with barriers to the physical accessibility of

workplace buildings and classrooms, modifying educational curricula, and learning new life skills and personal care routines. In addition, role transitions often involve a new matrix of relationships, which can bring about new expectations and opportunities that may require a substantial reassessment of the self (Elder, 1968).

Compared to youth without disabilities, youth with disabilities are one third less likely to be employed and one half less likely to participate in postsecondary education (Peraino, 1992). The National Longitudinal Transition Study, conducted by the U.S. Department of Education (Wagner, Blackorby, Cameto, Hebbeler, & Newman, 1993), found that youth with disabilities were at risk for social difficulties after high school. Their rate of participation in extracurricular activities, although showing an increase from 1987 to 2001, was below that of the general population (Wagner, Cameto, & Newman, 2003). Other studies have shown that adolescents and young adults with disabilities take part in fewer organized social activities; have fewer contacts with peers outside of school; and are more likely to engage in passive, solitary activities such as watching television or listening to music (Blum, Resnick, Nelson, & St. Germaine, 1991; Pollock & Stewart, 1990; Stevenson, Pharoah, & Stevenson, 1997). They also may face issues with respect to housing and independent living, and they tend to live with their parents more frequently than do youth without disabilities (Peraino, 1992).

Transitions affect both youth and their families. Parents can feel the stress of this launching stage for their children (Hallum, 1995) and may experience difficult emotional times when the future fails to live up to their expectations for their child. When there are health care transitions, parents must balance supporting their child's autonomy with health and safety (Reiss & Gibson, 2002). They face an enforced change when moving from pediatric to adult services, which may entail a sense of loss with respect to lifelong relations with service providers (Reiss & Gibson, 2002), and they must become acquainted with a multitude of new support workers, professionals, and adult service systems.

Factors that can complicate transitions include caregiver isolation, burnout, and stress; family and youth resources (e.g., financial resources and social support) and capacity (i.e., knowledge, know-how, and materials); the complexity of the youth's health status; service funding factors; and a lack of continuity in services and supports for youth (e.g., Schidlow & Fiel, 1990).

WHAT IS A SUCCESSFUL TRANSITION PROCESS?

Transition is a process of gradual adoption of new roles and modification of existing roles. Successful negotiation of transitions is thought to lead to better outcomes for youth, including enhanced self-determination (Wehmeyer & Schwartz, 1997), higher success in postsecondary education, higher rates of employment,

less poverty, greater happiness (King et al., 2000), and greater participation in life situations (i.e., recreation and leisure, volunteerism).

The transition process is successful to the degree that youth are engaged in or able to adopt their desired adult roles (e.g., Carr et al., 1999). These are roles that are aligned with their strengths and needs and that fit their goals. Shorter term outcomes that are precursors or building blocks to successful engagement in desired roles include (a) enhanced knowledge of the self and a future vision of the self, (b) enhanced skills, (c) enhanced perceptions of support, (d) enhanced knowledge of the community, and (e) more supportive environments.

Enhanced knowledge of the self and a future vision of the self are based on self-awareness (awareness of personal strengths and values), knowledge of disability and associated accommodations, and a personalized vision of post-school success (Steere, Rose, & Gregory, 1996). Enhanced skills include physical independence, self-determination (including skills in communication, planning, decision making, problem solving, self-awareness, self-efficacy, and self-advocacy; e.g., Lehman, Clark, Bullis, Rinkin, & Castellanos, 2002), social and interpersonal skills (e.g., Hostler, Gressard, Hassler, & Linden, 1989), employment skills (e.g., resumé building), work skills (i.e., specific behaviors required to perform a job adequately), and skills in the use of leisure time (Hoge, Dattilo, & Williams, 1999). Enhanced perceptions of support result from friendships, the availability of mentors and role models, and the availability of practical assistance in accessing mandated services and supports (e.g., disability pensions, income and employment support, and education bursaries). Enhanced knowledge of the community encompasses knowledge of community resources and services (Steere et al., 1996). Supportive environments refer to systems, settings, and people that are welcoming, accommodating, and flexible.

AN INTEGRATED MODEL OF APPROACHES AND STRATEGIES TO ADDRESS ROLE TRANSITIONS

Transition education/planning services refer to the programs, supports, and linkages put in place to assist youth and families with the transition process. We reviewed various literatures to determine the main types of approaches and strategies used for youth receiving special education, youth with emotional or behavioral disorders, youth with learning disabilities, and youth with chronic health conditions and impairments (including youth with physical or developmental disabilities).

Based on this review, we developed a comprehensive, integrated model of approaches and strategies that have been used to address the planning of role transitions for youth with disabilities (see Figure 1). This transition model is based on three levels of intervention, which reflects Bronfenbrenner's (1979) systems framework. These personal, person-environment, and environmental levels of in-

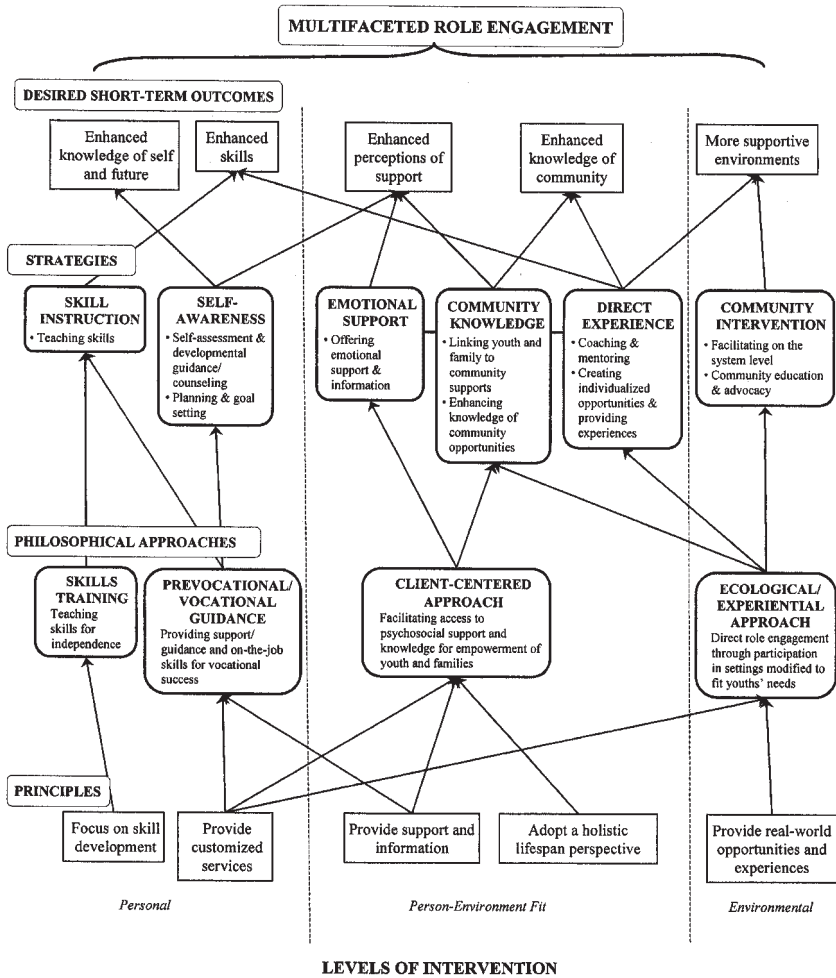


FIGURE 1 An integrated model of approaches and strategies to address role transitions for youth with disabilities.

tervention provide the foundation for five principles underlying four main philosophical approaches to transition. The approaches are connected to six groups of commonly used strategies that, in turn, are linked to five short-term outcomes and to the long-term goal of multifaceted role engagement within communities of the individual's choice. The model shows how different approaches reflect different interests with respect to intervening on the environmental level, with the individual in the context of his or her environment, or with the individual alone.

The various transition approaches have not been incorporated previously into one overall model. We consider the model to be integrated because it shows how the approaches and strategies relate to one another and how different strategies can be selected to target specific short-term outcomes. Multifaceted role engagement is the ultimate, longer term goal that will be achieved using the approaches and strategies in combination (to the extent they are effective).

The model is based on Bronfenbrenner's (1979) systems framework and is meant to portray the idea that different transition approaches all have a role to play because each approach addresses an important level of intervention. Similarly, the most effective health promotion programs are considered to use multifaceted interventions and span multiple settings and levels of analysis (Stokols, 1992). Because role transitions are multifaceted and involve a wide set of attitudes, behaviors, and players, interventions to encourage successful youth transitions should target the personal, person–environment fit, and environmental or community levels.

Approaches

We defined an approach as a philosophical or conceptual framework based on fundamental principles about the nature of human functioning and how to bring about change (Goldfried, 1980). As shown in Figure 1, our review of the literature indicated that four main types of approaches have been used to address transition education/planning: (a) a skills training approach (e.g., Brolin, 1993), (b) a prevocational/vocational guidance approach (e.g., Gaylord-Ross, 1989), (c) a client-centered approach (e.g., Brollier et al., 1994; Holburn & Vietze, 2002; Rosenbaum, King, Law, King, & Evans, 1998), and (d) an ecological/experiential approach (e.g., Lehman et al., 2002; VanDenberg & Graeish, 1996).

These approaches reflect different levels of intervention and are based on different beliefs and assumptions about how to most effectively ensure successful transitions to adult roles. The skills training approach, falling in the personal level of intervention, is based on the premise that the key to successful transition is to teach individuals the skills that they require for independence. The skills training approach is most often curriculum based and thus precludes provision of customized services.

Also falling within the personal level of intervention is the prevocational/vocational guidance approach, which is based on the premise that customized services are required for benefits to be shown. This approach emphasizes the importance of providing support, guidance, and on-the-job skills for vocational success. The client-centered approach deals with the fit between the individual (and family) and the environment, and it adopts a holistic perspective. This approach focuses on the provision of emotional support and information to assist the youth or family in adapting to various environmental settings.

The ecological/experiential approach, falling in the environmental level of intervention, is based on the principle that it is important to provide real-world opportunities and experiences (Bandura, 1986). The approach emphasizes intervention that changes the environment (e.g., physical changes to classroom settings, creating welcoming environments, or providing varied instructional methods) and views successful transitions as occurring through direct participation or role engagement, with appropriate supports. Advocacy on a systems level also is part of the ecological/experiential approach, which aims to bring about broader change than on the level of the individual.

We have kept the approaches distinct to highlight their unique features. In practice, however, intervention programs are often guided by more than one philosophical approach and utilize multiple strategies reflecting different approaches. In Figure 1, for example, the prevocational/vocational guidance approach is portrayed as emphasizing the strategy groupings of skill instruction and self-awareness. In practice, this approach sometimes includes skill development through direct job-related experience (Gaylord-Ross, 1989). Leisure education programs, which emphasize skill instruction, also can incorporate self-awareness and direct experience strategies, such as leisure coaching (Dattilo & St. Peter, 1991). In reality, then, interventions are often multifaceted and based on combinations of the four philosophical approaches, which can at times be problematic. Interventions that are not conceptually grounded may not be effective because the strategies and techniques used do not fit the treatment rationale articulated to clients. For clients to buy in to interventions, there must be a well-conceived mode of therapeutic action, and procedures should be consistent with the rationale for intervention (Wampold, 2001).

Principles

Figure 1 outlines five principles or fundamental beliefs that underlie the transition approaches. Three principles reflect essential elements of a client-centered service approach: (a) provide customized services, (b) provide support and information, and (c) adopt a holistic lifespan perspective (Halpern, 1994; Rosenbaum et al., 1998; Szymanski, 1994). Family-centered service models (e.g., Rosenbaum et al., 1998), models of pediatric rehabilitation service delivery (e.g., King, Tucker, et al., 2002), and person-centered planning approaches for adults with disabilities (Holburn & Vietze, 2002) all stress the importance of customizing intervention efforts to respond to the needs of youth and family. Providing customized services means that assessments, developmental guidance, goal setting, coaching, and supports should be uniquely designed to meet each individual's needs (King, 2003). Providing support and information means that services should be supportive and responsive, provide information to support client/family options and decision making, and be respectful of the youth's readiness for self-determination. Accord-

ing to a holistic lifespan perspective, self-development is a lifelong process (Levinson, 1986), and so services should be comprehensive and continuous over time (Rosenbaum et al., 1998).

The other two principles reflect the essence of particular approaches. The principle of skill development underlies the skills training approach and reflects the belief that services should assist youth in acquiring needed skills. The principle of providing real-world opportunities and experiences underlies the ecological/experiential approach and means that clients should be oriented toward naturally occurring events and situations, and they should be supported to choose opportunities of interest and to request the supports they need. The assumption is that participation in real-world environments will have multiple effects, including the development of skills, relationships, and a sense of belonging and making a contribution. Furthermore, it is presumed that environments will become more welcoming as people in the community come to know individuals with disabilities. Contact is believed to break down barriers and myths and to create more positive attitudes.

The model in Figure 1 therefore indicates the importance of service delivery features that go beyond client-centered strategies used to encourage person–environment fit and empowerment, which reflect the interpersonal or relational aspect of service delivery (King, King, & Rosenbaum, 1996). The additional features are aligned with the principles of skill development and providing real-world opportunities and experiences, and they include the strategy groupings of skill instruction, self-awareness, direct experience (i.e., skill enhancement through coaching, and actual participation in life situations and real-world settings), and community intervention (i.e., facilitating on the system level, and community education and advocacy).

Strategies

Figure 1 presents six groups of transition strategies, which have been used to enhance youths' knowledge, skills, support, and direct involvement in social, productivity, and leisure roles (the short-term and longer term outcomes specified in Figure 1). The model shows how these strategy groupings are linked to different short-term outcomes.

The six groups of strategies are (a) skill instruction, (b) self-awareness, (c) emotional support, (d) community knowledge, (e) direct experience, and (f) community intervention. The three groups of strategies on the person–environment level are shown as interconnected because they correspond to three types of social support repeatedly referred to in the literature: emotional, informational, and instrumental support (e.g., Jacobson, 1986; Lehman et al., 2002).

The strategies are composed of different practices and are often customized to meet the needs of the individual. It is interesting to note that there are more strategies associated with the ecological/experiential approach because it encompasses

a wider array of needs, including those of the youth and family, as well as the community's needs with respect to education/awareness.

In the following section, we examine the evidence for the effectiveness of the approaches in facilitating successful youth transitions to adult roles.

WHAT IS KNOWN ABOUT THE EFFECTIVENESS OF TRANSITION EDUCATION/PLANNING APPROACHES?

Transition systems should be designed around a solid framework of values and proven strategies (Clark & Foster-Johnson, 1996). Unfortunately, the literature on youth transitions from school to the adult world provides little information on what approaches and strategies are effective (Forbes et al., 2001; Peraino, 1992).

We reviewed articles on transition issues and services for youth receiving special education, youth with emotional or behavioral disorders, youth with learning disabilities, and youth with chronic health conditions and impairments (including youth with physical conditions or cognitive impairments). The literature includes descriptive studies of youths' needs, case studies, qualitative studies, and articles describing intervention programs or recommending generic practices to plan and support transitions. Recommendations are most often based on clinical practice and observation.

Few studies have examined the effectiveness of transition-related approaches or strategies. As well, there are few long-term, follow-up studies of youths' successful adoption of adult roles. The exception is the National Longitudinal Transition Studies (Wagner et al., 1993; Wagner et al., 2003) of youth receiving special education. These surveys did not look, however, at the effectiveness of particular transition approaches or strategies.

Articles that describe a transition approach or program often do not explicitly describe the strategies used. Due to this lack of information and a general lack of research on transitions, we could not conduct a systematic, critical review to determine the strategies of transition programs that appear to be most effective. Consequently, we took a more general approach and synthesized available information about strategy effectiveness from other literatures (e.g., early intervention, resilience, psychotherapy outcomes, and leisure and recreation) as well as research studies on transition.

In the following sections, we describe the four main transition approaches, outline the strategies commonly associated with these approaches, and summarize the evidence for the effectiveness of the approaches. Space precludes a detailed discussion of the effectiveness of each of the strategies (this information is available, on request, from the first author). We begin with approaches that represent the personal level of intervention so the reader can see how the approaches build on one

another and become broader as the environmental context is increasingly incorporated into the various approaches.

The Skills Training Approach

This approach aims to teach skills for independence. The focus is on teaching youth the skills needed to be successful in chosen adult roles (e.g., Brolin, 1993) rather than on modifying the environment. The main method used is a curriculum, often involving role playing and rehearsal in segregated group or classroom settings (e.g., Hostler et al., 1989; King et al., 1997).

Many researchers have discussed the skills and competencies needed for success in life (e.g., Brinckerhoff, 1996; Brotherson et al., 1993; Davis, Anderson, Linkowski, Berger, & Feinstein, 1985). Many different types of skills have been addressed in a curriculum-based approach, including social skills, leisure skills, life skills, and the skills underlying self-determination. The life-centered career education curriculum, for example, addresses daily living skills, social skills, and occupational preparation (Brolin, 1993).

The skills training approach is based on a social learning model of change (Bandura, 1977) in which skills training is thought to encourage self-efficacy beliefs (see, e.g., Bedini, Bullock, & Driscoll, 1993). According to the social learning model, it is important to maintain newly learned behaviors through reinforcement and the development of support networks. The evidence for the utility of a curriculum-based skills training approach (or strategy) is not strong. The main drawback is lack of generalizability to real-world situations (Odom & Strain, 1984). Few skills training programs have shown changes that persist over time and across settings.

The Prevocational/Vocational Guidance Approach

This approach aims to provide support and guidance for vocational success. The major strategies involved are self-awareness strategies, namely self-assessment and developmental guidance/counseling, and planning and goal setting (Gaylord-Ross, 1989), which are sometimes combined with skill instruction. The approach may involve vocational assessment, career awareness and exploration (where youth meet employment recruiters and network with contacts), and career counseling to youth and family (Gaylord-Ross, 1989). The approach also may involve the development of job-seeking skills, such as writing resumés and follow-up letters (Ryder & Kawalec, 1995).

In practice, this approach often incorporates supported experiential interventions. For example, job coaching and on-the-job teaching of skills in community settings may be included (Gaylord-Ross, 1989). There may be supported employment, in which short- or long-term training and support are provided to youth

(Smith & Philippen, 1999; Test & Wood, 1997). As well, linkages may be developed between school and adult vocational services.

The prevocational/vocational guidance approach emphasizes the role of individual development and adopts a user-led approach to assessment and planning with respect to productivity/occupational roles. Social roles and leisure/education roles are not targeted in this approach. Victor, McCarthy, and Palmer (1986) suggested that the approach could be improved by greater emphasis on the social environment and the adoption of a lifespan perspective, in which career development (in its broadest sense, including paid and unpaid work) is considered to be a life-long process.

The majority of the research studies on youth transitions have examined the effectiveness of programs adopting a prevocational/vocational guidance approach. Earlier studies did not report this approach to be successful in enhancing youths' occupational achievement, and participants themselves did not see the approach as being very useful (Anderson & Clarke, 1982; McCarthy, 1986; Victor et al., 1986). More recent studies, however, have indicated the importance of teaching skills to youth with emotional and behavioral difficulties in the context of activities that are functional and relevant to them (Clark & Foster-Johnson, 1996). The combination of job-related social skill instruction and simulated training or real work experience has been found to be more effective than either training component alone (Clement-Heist, Siegel, & Gaylord-Ross, 1992). The National Longitudinal Transition Study (Wagner et al., 1993) reported that students with disabilities who took occupationally oriented, vocational education in high school had a higher probability of finding competitive jobs and earning higher salaries, and they were significantly less likely to drop out of school than students who did not take this vocational education.

Studies also point to the utility of the self-awareness strategies, including the importance of youths' involvement in decision making about transition-related goals (Sands, Spencer, Gliner, & Swaim, 1999). Self-assessment can lead to awareness of one's strengths and to a greater sense of self-efficacy. Furthermore, a supportive process of self-assessment can assist in the development of options and choices for further exploration of community-based roles that are aligned with the youth's strengths, interests, and goals.

The Client-Centered Approach

We use the term *client-centered* to refer to an approach that is consumer or person directed, or family centered. This approach is holistic and empowerment and strengths based, and it views transitions as processes rather than discrete events. According to this approach, youth and families are empowered by emotional and informational support and by knowledge of their community, which is promoted

by linking youth and family to community supports and by enhancing their knowledge of community opportunities.

This approach is a synthesis of empowerment- and strengths-based models that have emerged since the 1980s in pediatric rehabilitation (family-centered service; Rosenbaum et al., 1998), adult rehabilitation (person-centered planning; Holburn & Vietze, 2002), gerontology (the personal advocacy model; Hyduk & Moxley, 1997), adult mental health (the independent living approach; Hutchison, Pedlar, Dunn, Lord, & Arai, 2000), and children's mental health (the system of care approach; Stroul & Friedman, 1986).

Although developed for different populations, these five models share two core values: A fundamental belief in people's strengths, and a concomitant belief in empowerment arising from self-determination and control. Family-centered service is based on the value of empowerment and views families as the experts with respect to decision making for their child and family (Rosenbaum et al., 1998). Person-centered planning is an approach to developing individualized supports and services for adults with developmental disabilities that is strengths-based and focuses on self-determination (Holburn, Jacobson, Vietze, Schwartz, & Sersen, 2000; O'Brien & O'Brien, 2002). The personal advocacy model is characterized as empowerment oriented, strengths based, and competency building (Hyduk & Moxley, 1997). The independent living approach is a consumer-driven approach that encourages inclusion and full participation by focusing on empowerment through self-direction and control and by providing options and choices (Hutchison et al., 2000). The system of care approach is based on the core value of child-centeredness, in which there is respect for youths' wishes, goals, and strengths, and maximum opportunity for their involvement and self-determination in the planning and delivery of services (Stroul & Friedman, 1986).

The client-centered approach emphasizes the importance of the following principles in promoting successful transitions: (a) customizing what is done to meet youth and family needs (Ashton-Shaeffer, Shelton, & Johnson, 1995); (b) providing support and information; and (c) taking a holistic lifespan view of social, productivity/occupational, and leisure/recreational needs that considers contextual factors, such as the family and community. The family-centered service model highlights the importance of addressing family needs to support youth (Rosenbaum et al., 1998), and the system of care approach emphasizes customization and a focus on family and child needs (Stroul & Friedman, 1986). Person-centered planning also stresses the importance of uniquely designing services and supports to meet clients' needs and desires, and it fosters self-determination by encouraging informed choices (Holburn et al., 2000). Person-centered planning activities facilitate the expression of clients' needs and desires, and they commonly involve the development of circles of support to assist in actualizing clients' choices (Miner & Bates, 1997).

In terms of the effectiveness of the client-centered approach, there is good evidence for the effectiveness of a family-centered service model. In pediatric reha-

bilitation, there is evidence that a family-centered approach results in greater parental satisfaction with services, better parental psychosocial well-being, and better psychological adjustment of children (King et al., 1996; King, King, Rosenbaum, & Goffin, 1999; King, Law, King, & Rosenbaum, 1998). A family-centered approach is considered to be a best practice both in pediatric rehabilitation (King, King, et al., 2002) and in the delivery of early intervention services (Bailey, Buysse, Edmondson, & Smith, 1992; Baird & Peterson, 1997).

In adult rehabilitation, a study by Beatty, Richmond, Tepper, and DeJong (1998) indicated that consumer-directed personal assistance services were associated with higher levels of satisfaction than services that were not consumer directed. Overall, then, the pediatric and adult rehabilitation literatures provide good evidence that both client and family satisfaction are higher when services are client centered.

Few studies have examined the effectiveness of a system of care approach or person-centered planning, although these approaches have been adopted widely. In particular, not enough research has been conducted to determine the effectiveness of the case management model that underlies a system of care approach (Stroul & Friedman, 1986). There have been no published empirical studies of outcomes due to person-centered planning (Holburn et al., 2000), which has been attributed to the fact that it is hard to assess the effects of this multifaceted intervention (Holburn & Vietze, 2002).

A key strategy associated with the client-centered approach is the provision of emotional support. There is good evidence for the effectiveness of social support in increasing self-esteem (Heal, Khoju, & Rusch, 1997) and in helping individuals to transcend life crises and climb over barriers (King, Brown, & Smith, 2003). Clients and families repeatedly identify both listening and responsiveness to their needs as key elements in making a service effective and satisfying. Another strategy encompassed in this approach is linking youth to community supports. Youth with disabilities have been found to experience better employment success when links between school and postschool services are in place (Sax & Thoma, 2002).

The Ecological/Experiential Approach

The ecological/experiential approach emphasizes the importance of supporting the participation of youth in real-life activities and experiences. According to an ecological approach, adaptation consists of a person's fit with multiple relations and contexts, including school and community (Bronfenbrenner, 1979), and a person's ability to reach their potential is dependent on the presence of opportunities in the settings in which they live (Bronfenbrenner & Ceci, 1994). Real-life situations have been conceptualized as ecological niches that provide either opportunities or barriers (Roth & Brooks-Gunn, 2000), and the ecological/experiential approach assumes that barriers can be overcome with appropriate supports (Ashton-Shaeffer et al., 1995). This approach therefore incorporates a functional per-

spective, which entails making modifications to environments and settings to accommodate the needs of youth with disabilities.

According to self-determination theory (Ryan & Deci, 2000), the capabilities needed to become self-determined are learned most effectively through real-world experience, which involves taking risks, making mistakes, reflecting on one's outcomes, and setting new goals (Bremer, Kachgal, & Schoeller, 2003). Active participation is thought to offer youth the chance to acquire an area of competence (Brooks, 1992), gain skills in decision making and problem solving, and develop meaningful relationships (King, Law, et al., 2003). Furthermore, teaching in natural environments is considered to be a key principle of intervention for effective transition services (Brollier et al., 1994). This principle is based on research demonstrating that experiential learning in real settings is highly important to effective learning (Bandura, 1986).

Experiential interventions focus on bolstering resources and interpersonal interactions in multiple ecological domains (Dillon, Liem, & Gore, 2003) to maximize the person–environment fit. The ecological/experiential approach also seeks to bring about change to the environment on a broad, community level. The major strategies related to this approach are (a) community knowledge strategies (i.e., linking youth and family to community supports, and enhancing knowledge of community opportunities), (b) direct experience (i.e., coaching and mentoring, and creating individualized opportunities and providing experiences), and (c) community intervention (i.e., facilitating on the system level, and community education and advocacy).

In terms of evidence for the effectiveness of this approach, the National Longitudinal Transition Study (Wagner et al., 1993) reported that community-based work experience was more useful than school-based programs and the skills training literature repeatedly indicates that training in real-life situations is required for the generalization of skills (e.g., Odom & Strain, 1984). There has been little research, however, on the utility of service delivery models that stress the environmental level of intervention, such as the wraparound approach, which emphasizes the importance of interagency collaboration (VanDenberg & Graeish, 1996). The wraparound approach is usually defined as a process to establish community-based support systems, which involves direct support and tailoring of services to the needs of individuals (VanDenberg & Graeish, 1996).

Although Harbin and Terry (1991) recommended that interagency service coordination can be facilitated by developing structures, mechanisms, and processes that facilitate coordination at multiple levels (e.g., policies and interagency agreements), little is known about the effectiveness of lobbying, community education, and advocacy strategies, such as establishing interagency agreements, in bringing about successful transitions for youth.

SUMMARY OF THE EFFECTIVENESS OF TRANSITION APPROACHES

The literature consists mostly of articles describing transition issues, approaches, and strategies. In this literature, there has been an evolution in thinking about transition from an outcome-based model focusing on employment (Will, 1984) to a model focusing on community adjustment (Halpern, 1985), and more recently thinking has evolved to embrace a development-oriented model stressing the importance of self-determination (Lehman et al., 2002). There has been a corresponding shift from viewing youth with disabilities as having problems to be fixed to an ecological orientation stressing the importance of real-world experiences and support (Lehman et al., 2002) and community accommodations.

Due to the absence of research studies, there is limited direct evidence for the effectiveness of the major transition approaches and strategies identified here. Most studies have examined vocational training or instruction in skill development. Overall, there appears to be limited utility in using these approaches in isolation.

There is, however, good evidence for the effectiveness of the self-awareness strategies (i.e., self-assessment and developmental guidance/counseling, and planning and goal setting) and for the general effectiveness of a client-centered approach, which incorporates emotional support and community knowledge strategies. This evidence primarily comes from research studies that have not been conducted on youth transitions per se.

Studies targeting youth with disabilities have indicated that the approaches and strategies can lead to satisfaction with services; an enhanced sense of autonomy, choice, and self-determination; enhanced skills; and lower school dropout rates and higher rates of employment. Ensuring skill generalization continues to be a concern, which is addressed by experiential strategies such as coaching and creating individualized opportunities that target the person–environment fit, but as yet there is little evidence for the effectiveness of these strategies. More research is required on the effectiveness of ecological strategies, such as the utility of ecological assessments, interagency agreements, and community education and intervention strategies aimed at changing community attitudes and institutional policies.

IMPLICATIONS FOR BEST PRACTICES IN TRANSITION EDUCATION/PLANNING

Despite limited evidence specifically related to transitions, the literature reveals approaches and strategies that can be considered to be the basis of good clinical practice. Each of the four major transition approaches has something to offer, which is why programs often employ a combination of the approaches and related strategies.

Based on our review and analysis of the literature, a number of recommendations can be made for service providers and school personnel with respect to planning and providing transition services. These recommendations are based on the best current knowledge and reflect values and strategies identified as underlying the best practices of transition programs (Clark & Foster-Johnson, 1996; Clark, Unger, & Stewart, 1993). They are geared to youth who have average intellectual ability. For youth with cognitive impairments, the best practices need to include the development and support of the group of people who speak with and on behalf of the youth, based on the youth's needs, interests, and desires.

The recommendations deal with philosophical approach, client level strategies, and strategies designed to make a difference on the ecological or service system level. As a whole, the recommendations reflect a humanistic perspective in which services support informed choices by youth about their futures (Austin, 1998). According to a humanistic perspective, individuals have the responsibility and the capacity for making self-directed and wise choices. This perspective incorporates notions of empowerment, holism, person-environment interaction, and self-development throughout life (Austin, 1998), as well as self-determination (Ryan & Deci, 2000).

On the philosophical level, the recommendations parallel the principles outlined in the transition model and indicate that transition services should (a) provide real-world opportunities for skill development; (b) encourage youths' engagement in social, productivity, and leisure roles (a holistic perspective) so that employment status is not the sole concern (Parmenter & Knox, 1991); (c) be designed to address each type of role, based on client need (Halpern, 1985; King, Tucker, et al., 2002); (d) take a lifespan approach (Steere et al., 1996); (e) start early (Anderson & Clarke, 1982; Brinckerhoff, 1996; Davis et al., 1985) and involve youth, family, and others in the youth's environment (Bedini et al., 1993; Clark & Foster-Johnson, 1996; Dattilo & St. Peter, 1991; Forbes et al., 2001; Peraino, 1992; Reiss & Gibson, 2002); and (f) be customized to meet youths' life goals, values, interests, and skills (i.e., flexible and responsive to changing needs and situations; Halpern, 1994).

On the client level, this means (a) individualizing assessments to help youth to identify and express their interests, values, and strengths (Halpern, 1994); (b) helping them formulate long-term goals (i.e., their vision of their future) and supporting them on this path (Reiss & Gibson, 2002); and (c) providing guidance and experiences that correspond to their goals, values, interests, and skills. Emotional and instrumental support (practical support and coaching) are required (Clark & Foster-Johnson, 1996) as well as information about services, opportunities, and other aspects of the local environment. It is also important to support the development of client and family self-knowledge, strengths, and support networks.

On the ecological or service system level, it is important to (a) provide opportunities for youth in real-life settings to ensure the development or transferability of

skills; (b) provide a variety of opportunities with varying levels of support available (Clark & Foster-Johnson, 1996); (c) identify and support linkages between community organizations offering services or playing a role in youths' transitions so that youth and families receive the information they need to assist planning (Brotherson et al., 1993; Clark & Foster-Johnson, 1996); and (d) strengthen the community's ability to support and encourage youths' participation. A collaborative approach to developing community strengths is particularly important (Peraino, 1992), as seen in the development of formal interagency agreements and collaborative partnerships between adult service agencies and pediatric rehabilitation agencies (Reiss & Gibson, 2002). A final recommendation is to support youth, families, and other community members in engaging in class advocacy (i.e., advocacy on the part of a group) to create community awareness, dispel myths, and foster opportunities.

IMPLICATIONS FOR RESEARCH

The review of evidence for the strategies outlined in the model indicates a need for research on the effectiveness of transition-related strategies, particularly the more ecological or environmental interventions, which have received little attention. These strategies may have received little attention because it is difficult to evaluate the impact of community-level interventions and also because it may be unclear how to conceptualize these types of strategies and the nature of their benefits. There have been few system-level evaluations of rehabilitation or health services, such as evaluations of the utility of service coordination or integration, and these tend not to be published. The integrated transition model presented here provides a way of thinking about transition approaches, strategies, and short-term outcomes that may be useful in designing evaluations and research studies. The model could be used, for example, to guide studies of the relative effectiveness of the approaches because it specifies the strategies that delineate one approach from another. In addition, it would be useful to conduct longitudinal studies to identify strategies that best equip youth for their chosen life roles.

We believe that future research on transitions will be most useful if it focuses on the commonly used strategies outlined in the model rather than on specific techniques used to implement the strategies. Over 50 years of research on the effectiveness of psychotherapy has indicated that the most important variables leading to better client outcomes are strategies related to aspects of the therapeutic context rather than specific techniques (Wampold, 2001). Consequently, we suggest that research should focus on furthering understanding of the effectiveness of the common transition strategies rather than on approaches (which are, in practice, generally multifaceted) or techniques.

It is noteworthy, but not surprising, that the important aspects of therapeutic context outlined by Wampold (2001) are very similar to the transition strategies reflecting the person–environment level of intervention. The strategies outlined by Wampold include providing services that are negotiated with the client and are in accordance with the client’s beliefs, values, and world views. In the context of transition services, these are the transition strategies that reflect the principle of customization (e.g., self-assessment, planning and goal setting, and designing individualized opportunities and experiences). The psychotherapy outcome literature also points to the crucial importance of a helping relationship. In our transition model, the helping relationship is reflected in strategies reflecting the principle of providing support and information (i.e., the self-awareness and emotional support strategy groupings).

Because transition education/planning services are largely psychosocial in nature, it may be the case that the most effective means to bring about desired change are through the use of strategies reflecting a contextual model (Wampold, 2001)—one that stresses the person–environment level of intervention and the notions of self-efficacy, empowerment, and self-determination. Future research therefore might profitably explore the common factors in a contextual model that lead to better short-term outcomes for youth and, ultimately, multifaceted engagement in adult roles.

IMPLICATIONS FOR PRACTICE

The model can be used by pediatric service planners and those in adult health, social, and educational systems to plan new transition education/planning programs. The model also can be used to refine existing programs with respect to their scope or in terms of congruence between principles, approaches, strategies, and desired outcomes. It also can be used with individual clients to ensure that a comprehensive approach is taken in assisting them to plan for their future.

The model can assist in developing linkages between pediatric and adult services by providing a framework for discussion and collaboration. These partnerships can assist in bridging gaps between pediatric and adult services, resources, and support systems that are related to differences in language and terminology, environments, expectations, and ways of doing business. The model therefore can be used as a tool to promote sharing of information that will increase the likelihood of developing successful linkages.

With respect to program development, the model provides a visual map that can be used to ensure the congruence between philosophical approaches and the strategies selected to bring these approaches to life. It is important to develop and implement transition programs in which intervention strategies are aligned with philosophical approaches toward transition. The model provides a starting point that encompasses the range of approaches and strategies that could be implemented

across the personal, person–environment, and environmental levels of intervention. The model therefore provides the whole picture of conceivable types of approaches and services, which can enable program planners to make informed decisions about how much to focus on maximizing youths' skills and how much to emphasize environmental accommodations. These decisions should be based on philosophical approach, evidence of effectiveness of strategies, and the available resources of the program implementers.

The vertical axis of the model links the main approaches to underlying principles, strategies, and outcomes and can be used to ensure congruence in planning programs. As well, the strengths and gaps of an existing program can be determined by mapping its features onto the model. For example, through this process, program managers might identify a need to place more resources on the provision of real-world opportunities.

The model can be used to review the adequacy of services for specific individuals. By considering what elements of transition planning might be missing for a given individual, the model can be used to identify additional strategies and activities (e.g., co-op placements). The model, therefore, provides a starting point for decisions that should be made several years before youth leave school, including the nature of the roles, settings or environments, and supports they desire.

In summary, existing evidence and current thinking about best practices indicate that effective transition education/planning services are humanistic in perspective. They are based on the values of strength and self-determination. They are responsive and supportive functional in focus, holistic or comprehensive with respect to the needs of the client and family, and systemic and ecological in their acknowledgment and consideration of the family and larger community in the planning of transition services.

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