treatment. MST was constructed around a set of principles that were put into practice and then expanded upon in a manual (Henggeler et al., 1998). Elaborate training, supervision, and monitoring for treatment adherence make this an exemplary approach. Furthermore, publication of an MST manual and the high level of clinical training in MST distinguish this model from other types of family preservation services.

The efficacy of MST has been established in three randomized clinical trials for delinquents within the juvenile justice system. The first of these studies took place in Memphis, Tennessee, and revealed that MST was more effective than usual community services in decreasing adolescent behavioral problems and in improving family relations (Henggeler et al., 1986). The second was conducted in Simpsonville, South Carolina, and compared outcomes for 84 juvenile offenders randomly assigned to either MST or usual services. At 59 weeks after referral, youth who had received MST had fewer arrests and self-reported offenses and had spent an average of 10 fewer weeks incarcerated than did the youth in usual services. In addition, families served by MST reported increased family cohesion and decreased youth aggression in peer relations (Henggeler et al., 1992). In the third study, MST was compared with individual therapy in Columbia, Missouri, and was found to be more effective in ameliorating adjustment problems in individual family members. A 4-year followup of rearrest data indicated that MST was more effective than individual therapy in preventing future criminal behavior, including violent offenses (Borduin et al., 1995). Studies found improved behavior, fewer arrests, and lower costs. These findings encouraged the investigators to test the effectiveness of MST in other organizational settings (e.g., child welfare and mental health), allowing them to target other clinical populations, including youthful sex offenders (Borduin et al., 1990), abused and neglected youth (Brunk et al., 1987), and child psychiatric inpatients (see Inpatient Treatment section). Initial results are promising for youth receiving MST instead of psychiatric hospitalizations (Henggeler et al., 1998). As expected, some adjustments to MST are required to handle

children who are dangerous to themselves and who do not respond as quickly to treatment as the delinquent youth in previous studies. The efficacy of MST was demonstrated in real-world settings but only by one group of investigators; thus, the results need to be reproduced by others and future effectiveness research needs to determine whether the same benefits can be demonstrated with less support from experts.

Therapeutic Foster Care

Therapeutic foster care is considered the least restrictive form of out-of-home therapeutic placement for children with severe emotional disorders. Care is delivered in private homes with specially trained foster parents. The combination of family-based care with specialized treatment interventions creates "a therapeutic environment in the context of a nurturant family home" (Stroul & Friedman, 1988). These programs, which are often funded jointly by child welfare and mental health agencies, are responsible for arranging for foster parent training and oversight. Although the research base is modest compared with other widely used interventions, some studies have reported positive outcomes, mostly related to behavioral improvements and movement to even less restrictive living environments, such as traditional foster care or in-home placement.

While therapeutic foster care programs vary considerably, they have some features in common. Children are placed with foster parents who are trained to work with children with special needs. Usually, each foster home takes one child at a time, and caseloads of supervisors in agencies overseeing the program remain small. In addition, therapeutic foster parents are given a higher stipend than that given to traditional foster parents, and they receive extensive preservice training and in-service supervision and support. Frequent contact between case managers or care coordinators and the treatment family is expected, and additional resources and traditional mental health services may be provided as needed.

Therapeutic foster care programs are inexpensive to start (few requirements for facilities or salaried staff) and have lower costs than more restrictive programs. In

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Ontario, a study found that therapeutic foster care cost half that of residential treatment center placement for the same period of time (Rubenstein et al., 1978).

There have been four efficacy studies, each with randomized, controlled designs. In the first study, 20 youths who had been previously hospitalized were assigned to either therapeutic foster care or other out-of-hospital settings, such as residential treatment centers or homes of relatives. The youths in therapeutic foster care showed more improvements in behavior and lower rates of reinstitutionalization, and the costs were lower than those in other settings (Chamberlain & Reid, 1991). In another study, which concentrated on youths with histories of chronic delinquency, those in therapeutic foster care were incarcerated less frequently and for fewer days per episode than youths in other residential placements. Thus, at 2-year followup, 44 percent fewer children in therapeutic foster care were incarcerated (Chamberlain & Weinrott, 1990). In a third study, outcomes for children in therapeutic foster care were compared with those of children in standard foster care. Children in therapeutic foster care were less likely during a 2-year study to run away or to be incarcerated and showed greater emotional and behavioral adjustment (Clark et al., 1994). In the most recent study, therapeutic foster care was compared with group care: children receiving the former showed significantly fewer criminal referrals, returned to live with relatives more often, ran away less often, and were confined to detention or training schools less often (Chamberlain & Reid, 1998).

All four studies of treatment effectiveness showed that youths in therapeutic foster care made significant improvements in adjustment, self-esteem, sense of identity, and aggressive behavior. In addition, gains were sustained for some time after leaving the therapeutic foster home (Bogart, 1988; Hawkins et al., 1989; Chamberlain & Reid, 1991).

There are also promising indications from uncontrolled studies. Looking at 18 reports from 12 therapeutic foster care programs across the country, Kutash and Rivera (1996) concluded that between about 60 and 90 percent of youth treated in therapeutic foster homes are discharged to less restrictive settings.

Three programs also reported followup data, indicating that about 70 percent of youth treated in therapeutic foster homes remained in less restrictive settings for a substantial amount of time after treatment.

It is clear from these studies that therapeutic foster care produces better outcomes at lower costs than more restrictive types of placement. Furthermore, with the fairly recent development of standards for therapeutic foster care, as well as a standards review instrument (Foster Family-Based Treatment Association, 1995), services can be monitored for quality and fidelity to the therapeutic approach, making it easier to ascertain if the approach taken produces the favorable outcomes.

Therapeutic Group Homes

For adolescents with serious emotional disturbances the therapeutic group home provides an environment conducive to learning social and psychological skills. This intervention is provided by specially trained staff in homes located in the community, where local schools can be attended. Each home typically serves 5 to 10 clients and provides an array of therapeutic interventions. Although the types and combinations of treatment vary, individual psychotherapy, group therapy, and behavior modification are usually included.

There are two major models of therapeutic group homes. The first is the teaching family model, developed at the University of Kansas, then moved to Boys Town in Omaha, Nebraska (Phillips et al., 1974). The second is the Charley model, developed at the Menninger Clinic. Both models use their staff as the key agents for change in the disturbed youth; selection and training of the staff are emphasized. Both models employ couples who live at the homes 24 hours a day. The teaching family model emphasizes structured behavioral interventions through teaching new skills and positively reinforcing improved behavior. Other group homes use individual psychotherapy and group interaction.

There is a dearth of research on the effectiveness of therapeutic group home programs targeted toward emotionally disturbed adolescents. These homes have been developed primarily for children under the care of

juvenile justice or social welfare. A dissertation (Roose, 1987) studied the outcomes of 20 adolescents treated in a group home. Adolescents with severe character pathology or major psychiatric disorders were not admitted. Twenty group home adolescents were compared with 20 untreated adolescents. At an 18-month followup, 90 percent of the treated group had fair or good functioning, defined by improved relationships with parents, peers, and fellow workers. Only 45 percent of the untreated group achieved similar functioning. The treated group experienced a significant decrease in psychopathology, while the untreated group did not.

Therapeutic group homes were compared with therapeutic foster care in two studies. The first study found equivalent gains for youth in the two interventions, but group home placement was twice as costly as therapeutic foster care (Rubenstein et al., 1978). A second study, a randomized clinical trial, compared the outcomes for 79 males with histories of juvenile delinquency placed in either group homes or therapeutic foster homes (Chamberlain & Reid, 1998). The boys treated in therapeutic foster homes had significantly fewer criminal referrals and returned more often to live with relatives, suggesting this to be a more effective intervention. The implication of these studies is that if therapeutic foster care is available, and if the foster parents are willing to take youth with serious behavioral problems, therapeutic foster care may be a better treatment choice for youth who previously would have been placed in group homes.

Existing research suggests that therapeutic group home programs produce positive gains in adolescents while they are in the home, but the limited research available reveals that these changes are seldom maintained after discharge (Kirigin et al., 1982). The conclusion may be similar to that for residential treatment center placement: long-term outcomes appear to be related to the extent of services and support after discharge. Adolescents who have been placed in therapeutic group homes because of mental disorders frequently have histories of multiple prior placements (particularly in foster homes), a situation that is associated with a poor prognosis. Thus, future programs would benefit from assessing alternative strategies for treatment after discharge from group homes.

Crisis Services

Crisis services are used in emergency situations either to furnish immediate and sufficient care or to serve as a transition to longer term care within the mental health system. These services are extremely important because many youth enter the mental health service system at a point of crisis. Crisis services include three basic components: (1) evaluation and assessment, (2) crisis intervention and stabilization, and (3) followup planning. The goals of crisis services include intervening immediately, providing brief and intensive treatment, involving families in treatment, linking clients and families with other community support services, and averting visits to the emergency department or hospitalization by stabilizing the crisis situation in the most normal setting for the adolescent. Crisis services include telephone hotlines, crisis group homes, walk-in crisis intervention services, runaway shelters, mobile crisis teams, and therapeutic foster homes when used for short-term crisis placements.

Crisis programs are small in order to facilitate close relationships among the staff, child, and family. Crisis staff are required to have skills and experience in the areas of assessment, emergency treatment, and family support. Short-term services are provided, with the staff meeting more frequently with the client at the outset of the crisis. A typical treatment plan consists of 10 sessions over a period of 4 to 6 weeks. Crisis services usually are available 24 hours a day, 7 days a week (Goldman, 1988).

Research on crisis services consists exclusively of uncontrolled studies. Kutash and Rivera (1996) reviewed 12 studies with pre-post[16] designs. Positive behavioral and adjustment outcomes for youth presenting to crisis programs and emergency departments across the country were reported in all of

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[16] Pre-post design: a research design in which a measure is compared on the same individual research subjects before and after an intervention.

the studies. Most programs also demonstrated the capacity to prevent institutionalization.

The most recent studies examine three different models: a mobile crisis team, short-term residential services, and intensive in-home service. The first study examined the Youth Emergency Services (YES) program in New York. This program included a mobile crisis team that sent clinicians directly to the scene of the crisis. The data showed that YES prevented emergency department visits and out-of-home placements (Shulman & Athey, 1993).

A second crisis program, in Suffolk County, New York, involved short-term residential services. In a study of 100 children served by the program over a 2-year period, more than 80 percent were discharged in less than 15 days. Most were diverted from inpatient hospitalization, and inpatient admissions to the state children's psychiatric center for Suffolk County were reduced by 20 percent after the program was established (Schweitzer & Dubey, 1994).

In the third study, records were analyzed from a large sample of youth (nearly 700) presenting to the Home Based Crisis Intervention (HBCI) program in New York over a 4-year period. Youth received short-term, intensive, in-home emergency services. After an average service episode of 36 days, 95 percent of the youth were referred to, or enrolled in, other services (Boothroyd et al., 1995). The HBCI program was established at eight locations across the State of New York. Overall, programs with more access to community resources reported shorter average lengths of services.

Although crisis and emergency services represent a promising intervention, the research done so far only includes uncontrolled studies, limiting the conclusions that can be drawn. Kutash and Rivera (1996) recommend additional effectiveness research using controlled study designs and comparing differences between the various types of crisis services. Finally, there remains a need for investigation of cost-effectiveness as well as an exploration of the integration of crisis services into systems of care.

Service Delivery

The focus of this section is on service systems—their origins, nature, and financing and also their effectiveness, delivery, and utilization—rather than on individual interventions and treatments, which were covered in previous sections of this chapter.

About 20 years ago it became clear that children and families were failing to receive adequate care from the public sector, whose services were fragmented, inadequate, and overreliant on institutional care. As a result, the emphasis of service delivery has shifted to systems of care that are designed to provide culturally competent, coordinated services; community-based services; new financing arrangements in the private and public sectors; family participation in decisionmaking about care for their children; and individualized care drawing on treatment and social supports called wraparound services, described above. Thus, there has been progress in transforming the nature of service delivery and its financing, but the central question of the effectiveness of systems of care has not yet been resolved.

At the outset, it is important to note that while systems of care are designed to provide the appropriate level of services for all children, it is children with serious emotional disturbances, particularly children who are involved in multiple service sectors, who are likely to benefit the most. There are approximately 6 million to 9 million children and adolescents in the United States with serious emotional disturbances (Friedman et al., 1996a; Lavigne et al., 1996), accounting for 9 to 13 percent of all children (Friedman et al., 1996a; Friedman et al., 1998).

The system for delivering mental health services to children and their families is complex, sometimes to the point of inscrutability—a patchwork of providers, interventions, and payers. Much of the complexity stems from the multiple pathways into treatment and the multiple funding streams for services. However, once care has begun, the interventions and settings themselves are generally the same as those covered in previous sections of this chapter.

Service Utilization

This section presents research findings about the utilization of mental health services by children and adolescents. The foremost finding is that most children in need of mental health services do not get them. Another finding refutes the common perception that children who do not need specialty mental health services are more likely to receive such services than those who really do need them. This section also discusses children's high dropout rates from treatment and the significance of this problem for children of different cultural backgrounds.

Utilization in Relation to Need

The conclusion that a high proportion of young people with a diagnosable mental disorder do not receive any mental health services at all (Burns et al., 1995; Leaf et al., 1996) reinforces an earlier report by the U.S. Office of Technology Assessment (1986), which indicated that approximately 70 percent of children and adolescents in need of treatment do not receive mental health services. Only one in five children with a serious emotional disturbance used mental health specialty services, although twice as many such children received some form of mental health intervention (Burns et al., 1995). Thus, about 75 to 80 percent fail to receive specialty services, and the majority of these children fail to receive any services at all, as reported by their families. The most likely reasons for underutilization relate to the perceptions that treatments are not relevant or are too demanding or that stigma is associated with mental health services; the reluctance of parents and children to seek treatment; dissatisfaction with services; and the cost of treatment (Pavuluri et al., 1996; Kazdin et al., 1997).

Studies do, however, demonstrate a clear and strong relationship between use of services and presence of a diagnosis and/or presence of impaired functioning. In the study by Leaf and colleagues (1996), young people with both a diagnosis and impaired functioning were 6.8 times more likely to see a specialist than were those with no diagnosis and a higher level of functioning.

The study by Burns and colleagues also showed where children were receiving treatment. Of those who received services and had both a diagnosis and impaired functioning, about 40 percent received services in the specialty mental health sector, about 70 percent received services from the schools, about 11 percent from the health sector, about 16 percent from the child welfare sector, and about 4 percent from the juvenile justice sector. For nearly half the children with serious emotional disturbances who received services, the public school system was the sole provider (Burns et al., 1995). After reviewing these findings and the findings from other studies, Hoagwood and Erwin (1997) also concluded that schools were the primary providers of mental health services for children.

Early Termination of Treatment

Among children and adolescents who begin treatment, the dropout rate is high, although estimates vary considerably. According to Kazdin and colleagues (1997), 40 to 60 percent of families who begin treatment terminate it prematurely. Armbruster and Fallon (1994) found that the great majority of children who enter outpatient treatment attend for only one or two sessions. One of the explanations for the high dropout rate and for failure to keep the first appointment is that referrals are often made not by children and adolescents or their families, but by schools, courts, or other agencies. Most of the research on dropping out has focused exclusively on examining demographic or diagnostic correlates of dropping out, and few researchers have directly asked the children or their parents about their reasons for discontinuing treatment.

There are a number of effective interventions to reduce dropout from treatment and to increase enrollment and retention (Szapocznik et al., 1988; McKay et al., 1996; Santisteban et al., 1996). Offering services in the schools improves treatment access (Catron & Weiss, 1994). A variety of case management approaches can also improve engagement of low-income families in the treatment of their children (Burns et al., 1996; Koroloff et al., 1996a; Lambert & Guthrie, 1996).

Poverty and Utilization

Poverty status has been associated with both dropping out of services and shorter lengths of treatment (Hoberman, 1992). This relationship between underutilization of mental health services and poverty is especially significant for minority children and families. Youths receiving community mental health services supported by public agencies tend to be male, poor, and referred by social agencies (Canino et al., 1986; Costello & Janiszewski, 1990). Furthermore, investigators have found this pattern particularly true for African Americans as compared with Caucasians. Hoberman (1992) has found that 90 percent of African American youths entering the mental health system live in poverty.

Culture and Utilization

Although it is clear that an insufficient number of children receive mental health services, it is not clear whether utilization of services varies by race or ethnicity. The majority of studies have found that African Americans tend to use some mental health services, particularly inpatient care, more than would be expected from their proportion in the population. However, research findings are conflicting, probably due to divergent methodological approaches (Attkisson et al., 1995; McCabe et al., 1998; Quinn & Epstein, 1998). Furthermore, as Attkisson and colleagues (1995) point out, consistent with the study by McCabe and colleagues (1998), it is difficult to interpret these findings in the absence of epidemiologic data on the prevalence of a mental disorder in different racial and ethnic groups. Recent reviews of epidemiological findings concluded that present data are inadequate to determine the relationship between race or ethnicity and prevalence of a mental disorder (Friedman et al., 1996b; Roberts et al., 1998).

The task of understanding treatment patterns is made even more difficult because there are racial and ethnic differences in family preferences and family-initiated patterns of help-seeking (see also Culturally Appropriate Social Support Services). For example, parents from various cultural backgrounds have been found to differ in the degree to which they identify child behavioral and emotional problems as disturbed (Weisz & Weiss, 1991). Differences also have been found across cultural groups in their beliefs about whether these child problems are likely to improve in the absence of professional support. Weisz and Weiss (1991) have also identified cultural differences in the power of various children's behavioral and emotional problems to motivate a parent's search for professional help.

Differences also arise indirectly from the multiplicity of service systems with authority and responsibility for protecting the well-being of children. These systems have different criteria for initiating treatment and different patterns of utilization. African American children and youth are considerably more likely than those of other ethnic groups to enter the child welfare system (National Research Council, 1993). Their greater chances of having parents compelled to surrender them or of suffering abuse or neglect lead them in greater numbers to be referred to child welfare authorities, to be placed out-of-home, and to be involved with the child welfare system longer. Studies in one California county have found that African American youths are overrepresented in arrests, detention, and incarceration in the juvenile justice system, and in the schools they are overrepresented in educational classes for the severely emotionally disturbed. Hispanic/Latino children and youths are no more likely than whites to come under supervision of the child welfare system but, once involved, remain longer. They are also more likely than whites to be detained in juvenile justice facilities (McCabe et al., 1998).

As a group, Hispanic/Latino and African American children more often leave mental health services prematurely than do Caucasian children (Sue et al., 1991; Bui & Takeuchi, 1992; Takeuchi et al., 1993; Viale-Val et al., 1984). Many factors contribute to premature termination, such as insensitivity of mental health providers to the culture of children and families (Woodward et al., 1992). In general, even after demonstrated success with middle-class Caucasians, mental health treatments should not be applied without

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culturally appropriate modification to people from other cultures and races (Rosado & Elias, 1993).

Specialized programs and supports linked with the culture of the community being served have been found to be successful in promoting favorable patterns of service utilization for all ages (Snowden & Hu, 1997). It is becoming clear that the children and families served by mental health programs designed to be linked to community cultures are less likely to drop out of treatment compared with similar families in mainstream programs (Takeuchi et al., 1995). For example, Asian American children at an Asian community- or culture-focused program were found to use more services, drop out less often, and improve more than did Asian American children at mainstream programs (Yeh et al., 1994).

In summarizing the relationship between race and ethnicity, need for service, and use of service, Isaacs-Shockley and colleagues (1996) raised the concern that minority children are less likely to receive the care they need than nonminority children—a concern that should energize advocacy for the development of systems of care tailored to the needs of distinct cultures (Cross et al., 1989; Hernandez & Isaacs, 1998).

Service Systems and Financing

In the past, mental health services paid for by the private sector were viewed as separate entities from those funded by the public sector, particularly since the public sector only paid for services that it itself delivered. As this section explains below, the distinction between public and private sectors has been blurred by the advent of publicly supported payment systems such as Medicaid and grants of public funds to private organizations and providers. Now in the public sector, services are paid for with governmental resources but delivered either by public or private organizations in institutional or community-based settings.

Private Sector

The private sector uses a health insurance model that reimburses for acute medical problems. Under this traditional model, mental health coverage usually entails outpatient counseling, medication treatments, and short-term inpatient hospitalization. Under more generous insurance plans, including some managed care plans, intermediate services, such as crisis respite and day hospitalization (also called partial hospitalization or day treatment), are becoming more popular although more traditional insurance plans continue to restrict their use. The drive to reduce the cost of inpatient care is sparking an expansion in the range of services supported by the private sector.

When children and adolescents have complex and long-term mental health problems, required services are not usually covered by private sector insurance plans. Families must either pay for the services themselves or obtain the services through the public sector. In many states, parents are forced to give up custody of their children to the state child welfare system in order to obtain needed residential services (Cohen et al., 1991). This unfortunate choice results from a limited supply of public sector services and special requirements for gaining access to them.

Over the past decade, managed care has become a major payer for private health care. Managed care provision of mental health services emerged partially in response to the overutilization of costly inpatient hospitalization by adolescents in the 1980s (Lourie et al., 1996). The purpose of managed care has been to control spiraling mental health service costs, mostly by limiting hospital stays and rigorously managing outpatient service usage (Stroul et al., 1998). Managed care can offer advantages in terms of cost-effective services to meet the needs of children with flexible benefits. It may also lead to denial of needed treatment. While its potential negative effect on the efficacy of mental health care delivered under its aegis is a hotly debated issue, for the most part managed care furnishes the same traditional services available under fee-for-service insurance. The drive for efficiency, however, has led to the introduction of intermediate services designed to divert children from hospitalization. Managed care has shortened hospital stays and increased the use of short-term therapy models (Eisen et al., 1995; Merrick, 1998). Managed care also has lowered reimbursements for services provided by both

individual professionals and institutions. This has been accompanied by the construction of provider networks, under which professionals and institutions agree to accept lower than customary fees as a tradeoff for access to patients in the network.

Public Sector

Mental health services provided by the public sector are more wide-ranging than those supported by the private sector, and the types of payers are more diverse. Some public agencies, such as Medicaid and state and local departments of mental health, are mandated to support mental health services. Others provide mental health services to satisfy mandates in special education, juvenile justice, and child welfare, among others.

Medicaid is a major source of funding for mental health and related support services. For the most part, Medicaid has supported the traditional mix of outpatient and inpatient services. However, unlike private sector insurance, Medicaid also funds long-term services for those children who need more intensive or restrictive services, often through hospitalizations and residential treatments. Some states cover in-home services, school-based services, and case management through a variety of Medicaid options. Medicaid also supports the Early Periodic Screening, Diagnosis, and Treatment (EPSDT) program.

Trapped between the private and public sectors is a group of uninsured individuals and families who do not qualify for the public sector programs, cannot afford to pay for services themselves, and have no access to private health insurance. The American Academy of Pediatrics estimates that in 1999 there will be 11 million uninsured children, about 3 million of whom do not qualify for existing public programs (American Academy of Pediatrics website www.aap.org). State and local mental health authorities fund some mental health services for these children, often offered through the same community mental health centers that are funded by Medicaid. Mental health departments in some jurisdictions also fund a broader array of mental health services than the traditional acute service package. These "intermediate" services include intensive case management with and without individualized wraparound provisions, early intervention programs, crisis stabilization, in-home therapy, and day programs. Since there has never been a mandate to states to provide mental health services to children and adolescents, the state or local support for such services has been variable. Thus, one might find a well-supported, innovative array of mental health services for children in one state or community, and almost no services in the next. The new State Child Health Insurance Program (CHIP) is an attempt by Congress to address the health care needs of low-income, uninsured children. States have great flexibility in their approach to coverage, and it remains to be seen how they will deal with mental health services.

States and communities have sweeping mandates to serve children and adolescents in schools and under child welfare and juvenile service auspices. Many of these state and community programs, however, lack the expertise to recognize, refer, or treat mental health problems that trigger mandated services. When they do recognize problems, some of the needed mental health services are paid for by Medicaid, by the federal Maternal and Child Block Grant, or by a state or local mental health authority; often, however, they are not. Under these circumstances, the school, welfare, or juvenile justice agency ends up paying the bill for the mental health services.

Under the Federal special education law, the Individuals with Disabilities Education Act[17] (IDEA; see also New Roles for Families in Systems of Care), school systems are mandated to provide special education services to children and adolescents whose disabilities interfere with their education. When these disabilities take the form of serious emotional or behavioral disturbances, school systems are required to respond through assessment, counseling, behavior management, and special classes or schools. When school systems lack sufficient capacity to meet such needs directly, school funds are used to send children and youths to specialized private day schools or to long-term residential schools, even if such schools are out of the child's state or community. In this way,

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[17] Public Law 94-142; Public Law 101-476; Public Law 105-17.

school systems support an extensive array of mental health services in the public and private sectors.

Preschool children with developmental and emotional disabilities are covered by some state and local legislation. Services for them also are mandated under IDEA. Whereas some states coordinate this education-based mandate through school systems, others administer the preschool programs through mental health or developmental disability agencies, an interagency coordinating body, or other state agency.

Child welfare agencies in states and communities also have powerful mandates to protect children and to ensure that they receive the services they need, including mental health services. Child welfare agencies primarily serve poor children who are separated from their parents because they are orphaned, abandoned, abused, or neglected. Although many mental health services are provided either under Medicaid or through state and locally supported community mental health centers, many are not and are paid for directly by child welfare agencies. This happens most often when children and adolescents have severe, complicated conditions. As with education agencies, when funding is not available through Medicaid or other mental health funds, child welfare agencies directly pay for group home care, therapeutic foster care, or residential treatment.

The same is true for juvenile justice agencies, which have strong mandates to protect children and the public. Many children and adolescents in the juvenile justice system have serious mental health problems. Beyond the more traditional "training schools" and "detention centers," run by state and local juvenile authorities, respectively, these agencies also purchase care from the same group home, therapeutic foster care, and residential providers as do child welfare agencies.

Children Served by the Public Sector

Children needing services are identified under the auspices of five distinct types of service sectors: schools, juvenile justice, child welfare, general health, and mental health agencies. These agencies are mostly publicly supported, each with different mandates to serve various groups and to provide somewhat varied levels of services. Many of these agencies arose historically for another purpose, only to recognize later that mental disorders cause, contribute to, or are effects of the problem being addressed. In the past, these sectors operated somewhat autonomously, with little ongoing interaction. Catalyzed by the NMHA's Invisible Children's Project (NMHA, 1987, 1993), the combined impetus of Federal policies and managed care more recently has begun to forge their integration.

Two recent review articles examined the characteristics of children served in public systems. Based on an appraisal of six prior studies, it was concluded that, in addition to emotional and behavioral functioning, these young people have problems in life domains such as intellectual and educational performance and social and adaptive behavior (Friedman et al., 1996b). Frequently, such children and their families have contact not only with the mental health system, but also with special education, child welfare, and juvenile justice (Landrum et al., 1995; Duchnowski et al., 1998; Greenbaum et al., 1998; Quinn & Epstein, 1998).

It is estimated that in a 1-year period more than 700,000 children nationwide are in out-of-home placements, mostly under the supervision of either the child welfare or to some extent the juvenile justice system (Glisson, 1996). Also, during the 1996–1997 school year more than 400,000 emotionally disturbed children and youths between the ages of 6 and 21 were served in the public schools nationwide (U.S. Department of Education, 1997). This is just under 1 percent of the school enrollment for ages 6 to 17, and 8.5 percent of all children with disabilities receiving any kind of special education service (Oswald & Coutinho, 1995; U.S. Department of Education, 1997). These figures and percentages have remained relatively constant since national data were first collected about 20 years ago, although there are great variations between states. For example, in 1992–1993, 0.4 percent of school-enrolled children in Mississippi were identified as having a serious emotional disturbance compared with 2.08 percent in Connecticut (Coker et al., 1998).

In addition to children with a serious emotional disturbance served by the special education system, children served by child welfare and juvenile justice systems also have need for mental health services (Friedman & Kutash, 1986; Cohen et al., 1990; Greenbaum et al., 1991,1998; Otto et al., 1992; Glisson, 1996; Claussen et al., 1998), because they are much more likely to have emotional and behavioral disorders than is the general population (Duchnowski et al., 1998; Quinn & Epstein, 1998). Thus, the emphasis on interagency community-based systems of care is warranted and essential (see Integrated System Model).

Managed Care in the Public Sector

Since 1992, managed care has begun to penetrate the public sector (Essock & Goldman, 1995). The prime impetus for this has been an attempt to control the costs of Medicaid, in both the general health and mental health arenas. Since Medicaid appears, on the surface, to be similar to a private health insurance plan, administrators of state Medicaid programs have recently implemented managed care approaches and structures to reduce health care costs. However, Medicaid populations tend to have a higher prevalence of children with serious emotional disturbance than that seen in privately insured populations. Those children generally need longer-term care (Friedman et al., 1996b; Broskowski & Harshbarger, 1998). Managed care strategies, which developed in the private sector, are geared toward a relatively low utilization of mental health services by a population whose mental health needs tend to be short term and acute in nature. As a result, the kinds of cost-cutting measures used by managed care organizations, such as reduction of hospital days and encouragement of short-term outpatient therapies, have not worked as well in the public sector with seriously emotionally disturbed children as they have in the private sector (Stroul et al., 1998).

Advocates express concern that the restrictions of public managed care on mental health services shift costs of diagnosis and treatment to other agencies, a process known as cost-shifting. Under public managed care, hospitalization for mental disorders is being substantially cut, with youths being discharged from the hospital before adequate personal and/or community safety plans can be instituted. Child welfare and juvenile justice agencies have been compelled to create and pay for services to support those children who are no longer kept in hospitals. Thus, while Medicaid's mental health costs may be decreasing in such cases, there may be a substantial cost increase to the other agencies involved, resulting in little if any overall cost saving (Stroul et al., 1998).

Similarly, management of only the Medicaid portion of a complex funding system that includes Medicaid, mental health, special education, child welfare, and juvenile justice funds not only creates the cost-shifting described above, but also underestimates the need to manage the funds spent by all agencies. Demonstration programs of managed care strategies for children and adolescents with severe emotional disturbances have included the creation of an interagency funding pool, shared by all affected agencies, to meet the full range of needs of this population. Under the demonstration program, the funds in such a pool are capitated[18] to ensure that the most appropriate services are purchased, regardless of which agency's mandate they come under. In this way, long-term, complex care can be offered in an efficient way that reduces costs for all of the involved child and youth agencies.

An excellent example of an approach in a managed care setting is "Wraparound Milwaukee," one of the Center for Mental Health Services' Comprehensive Community Mental Health Services for Children and Their Families Programs (Stroul et al., 1998; Goldman & Faw, 1998). Wraparound Milwaukee, a coordinated system of community-based care and resources for families of children with severe emotional, behavioral, and mental health problems, is operated by the Children and Adolescent Services Branch of the Milwaukee County Mental Health Division. The features of this care management model are a provider network that furnishes an array of mental health and child welfare services; an individualized plan of care; a care

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[18] Capitation: a fixed sum per individual per month.

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coordinator management system to ensure that services are coordinated, monitored, and evaluated; a Mobile Urgent Treatment Team to provide crisis intervention services; a managed care approach including preauthorization of services and service monitoring; and a reinvestment strategy in which dollars saved from decreased use of inpatient or residential care are invested in increased service capacity.

Since its inception in 1994, one of the goals of the program has been to blend funding streams. Wraparound Milwaukee operates as a behavioral health care "carve-out"[19] that blends funds from a monthly capitation rate from Medicaid, a case rate from county child welfare and juvenile justice funds, and a Center for Mental Health Services child mental health services grant. The Wraparound Milwaukee capitated rate of approximately $4,300 covers all mental health and substance abuse services, including inpatient hospitalization. Additional funds from child welfare and/or juvenile justice are used for children with serious emotional disturbances in the child welfare and juvenile justice systems in Milwaukee County to cover residential treatment, foster care, group home and shelter care costs, and nontraditional mental health community services (e.g., mentors, job coaches, after-school programs). Wraparound Milwaukee is at "full risk" for all services costs, meaning it is responsible for charges in excess of the capitated rate. The average monthly costs, including administrative costs, are $3,400 per child. Medicaid-eligible children constituted 80 percent of the population served by the program in 1998.

Culturally Appropriate Social Support Services

One of the fundamental requirements of culturally appropriate services is for mental health providers to identify and then to work in concert with natural support systems within the diverse communities they serve (Greenbaum, 1998). (Background information on cultural diversity and culturally competent services is provided in Chapter 2.) If they are culturally appropriate, services can transcend mental health's focus on the "identified client" to embrace the community, cultural, and family context of a client (Szapocznik & Kurtines, 1993; Hernandez et al., 1998). According to Greenbaum (1998), considering a client's context is important because people who live close to each other frequently have developed ways of coping with similar personal problems. Becoming aware of these natural systems and adapting formal services to be congruent with them are ways to make services more accessible and useful to diverse populations.

Community- and neighborhood-based social networks act as important resources for easing emotional stress and for facilitating the process of seeking professional help (Saunders, 1996). Often natural social supports ameliorate emotional distress and have been found to reduce the need for formal mental health treatment (Linn & McGranahan, 1980; Birkel & Reppucci, 1983; Cohen & Wills, 1985). According to Saunders (1996), obtaining social support is not a single event but rather an ongoing process. In general, people use their neighborhood and familial supports many times before they decide they have a problem and determine what type of help they will seek (Rew et al., 1997). A key to the success of mental health programs is how well they use and are connected with established, accepted, credible community supports. The more this is the case, the less likely families view such help as threatening and as carrying stigma; this is particularly true for families who are members of racial and ethnic minority groups (Bentelspacher et al., 1994).

Minority parents are more likely than nonminority parents to seek input regarding their children from family and community contacts (Briones et al., 1990; Hoberman, 1992). In a study by McMiller and Weisz (1996), two-thirds of the parents of minority children did not seek help from professionals and agencies as their first choice. For example, in Hispanic/Latino families, important decisions related to health and mental health are often made by the entire family network rather than by individuals (Council of Scientific Affairs, 1991). According to Ruiz (1993), health care settings that are not modified to work with

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[19] Carve-out: separation of funding for mental health services and their management from those of general health.

Hispanic/Latino family networks find that their clients do not comply with medical advice; as a result, their health status can be compromised.

In sum, mental health programs attempting to serve diverse populations must incorporate an understanding of culture, traditions, beliefs, and culture-specific family interactions into their design (Dasen et al., 1988) and form working partnerships with communities in order to become successful (Kretzman & McKnight, 1993). Ultimately, the solution offered by professionals and the process of problem resolution or treatment should be consistent with, or at least tolerable to, the natural supportive environments that reflect clients' values and help-seeking behaviors (Lee, 1996).

Such partnerships sometimes fail, however, because they concentrate on neighborhood and community problems. According to Kretzman and McKnight (1993), this approach often reinforces the negative stereotypes of violent, drug- and gang-ridden, and poverty-stricken communities. A more effective alternative approach to working with communities is to focus on community strengths (Kretzman & McKnight, 1993). This approach works best when community residents themselves are interested in participating in the partnership. Mental health providers who approach minority communities in a paternalistic manner fail to engage residents and fail to recognize whether the community wants their assistance (Gutierrez-Mayka & Contreras-Neira, 1998). Service providers who attend to the wishes of community residents are more likely to be respectful in their delivery of services, a respect that is a prerequisite to cultural responsiveness and competence in service planning and delivery to diverse communities (Gutierrez-Mayka & Contreras-Neira, 1998).

Support and Assistance for Families

Any parent or guardian of a child with an emotional or behavioral disorder can testify to the challenging, sometimes overwhelming, task of caring for and raising such a child. In the past, support from public agencies has been inadequate and disjointed. Compounding the problem was the view that parents were partly, if not completely, to blame for their child's condition

(Friesen & Stephens, 1998). In 1982, a particularly incisive description of the problems faced by families raising children with emotional or behavioral disorders was published. It concluded that parents received little assistance in finding services for their children and were either ignored or coerced by public agencies; respite and support services to relieve the stress on parents were unavailable; parents with children needing residential care were compelled to give up custody to get them placed; and few advocacy efforts were aimed at relieving their problems (Knitzer, 1982).

Over the past two decades, however, recognition and response to the plight of families have become increasingly widespread. The role of families has been redefined as that of a partner in care. Furthermore, there was growing awareness of the difficulties families faced because services are provided by so many different public sources. In addition to problems with coordination, parents and caregivers encountered conflicting requirements, different atmospheres and expectations, and contradictory messages from system to system, office to office, and provider to provider (Knitzer, 1982). Although some agencies began to provide families with training, information, education, and financial assistance, there was often a gap between what families needed and what agencies provided. Also, service agencies themselves began to recognize that putting children into institutions may not have served the child, the family, or the state and that keeping a child with his or her family could reduce the ever-growing costs of institutionalization (Stroul, 1993a, 1993b). Emerging awareness of these foregoing problems galvanized advocacy for a better way to care for children with emotional and behavioral disorders. Reforms were instituted in many Federal programs, as discussed later in this section.

According to Knitzer and colleagues (1993), family participation promotes four changes in the way children are served: increased focus on families; provision of services in natural settings; greater cultural sensitivity; and a community-based system of care. Research is accumulating that family participation improves the process of delivering services and their outcomes. For example, Koren and coworkers (1997) found that, for

children with serious mental health problems, the more the family participates in planning services, the better family members feel their children's needs are being met; participation in service planning also helps service coordination. Curtis and Singh (1996) and Thompson and colleagues (1997) also found that family involvement in services was a determinant of the level of parental empowerment, that is, how much control parents felt they had over their children's treatment.

New Roles for Families in Systems of Care

Over the past two decades, the Federal government established a series of initiatives to support families. Parents were given progressively greater roles as decisionmakers with the passage of the Education of the Handicapped Act in 1975 and its successor legislation, the Individuals with Disabilities Education Acts of 1991 and 1997. For simplicity, these pieces of legislation are collectively referred to hereinafter as the IDEA Act. This act requires parent involvement in decisions about educating children with disabilities. It guarantees that all children with disabilities receive free and appropriate public education. It also provides funding assistance to states for implementation.

A novel approach taken by some community-level systems of care to encouraging involvement of families is to train and hire family members into a wide range of well-paying, career-ladder jobs as outreach workers, service coordinators (sometimes called case managers), and direct support services providers. These positions are critical to achieving major program goals because they make it possible for children and families to remain together and to participate in the more clinical components of their service plan. Family members are also employed as supervisors of services, involved in hiring staff, providing them with orientation and on-the-job training (e.g., of case managers), overseeing their work, and evaluating their performance. They also participate in research.

Beginning in 1989, the Child and Adolescent Service System Program, a component of the Center for Mental Health Services, began providing some support for statewide family organizations through a series of funding and technical assistance mechanisms (Koroloff

et al., 1991; Briggs et al., 1994; also see Integrated System Model). Such organizations were funded to develop statewide networks of information and support for families, to coordinate with other organizations that shared common goals, and to promote needed changes. Currently, Federal funding for 22 statewide family organizations is provided through the Child and Family Branch, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. Support and technical assistance to community-level family organizations are also provided by the Federation of Families for Children's Mental Health, the National Alliance for the Mentally Ill, and other family-run consumer organizations.

Family Support

Family support is defined here as the assistance given to families to cope with the extra stresses that accompany caring for a child with emotional disabilities. In addition to the stress of raising a child with an emotional disability, families often face other difficulties such as poverty, joblessness, substance abuse, and victimization. Family support often helps keep families together by assisting them with the practicalities of living and by attending to the needs of all family members (Will, 1998). The main goal of family support services is to strengthen adults in their roles as parents, nurturers, and providers (Weissbourd & Kagan, 1989). Too often, family support services are not available within local communities.

Natural support systems are often diminished for families of children with serious emotional, behavioral, or physical disorders or handicaps because of the stigma of, or embarrassment about, their child's problems, or because caregivers have insufficient energy to reach out to others. Not surprisingly, most parents report that limited social support decreases their quality of life (Crowley & Kazdin, 1998) and that they feel less competent, more depressed, worried, and tired and have more problems with spouses and other family relationships than other parents (Farmer et al., 1997), although a few families do feel enriched by caring for these children (Yatchmenoff et al., 1998).

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In a national survey of parents of children with an emotional or behavioral disorder, 72 percent of respondents indicated that emotional support (irrespective of its form) was the most helpful aspect of family support services (Friesen, 1990). Benefits included increased access to information, improved problem-solving skills, and more positive views about parenting and their children's behavior (Friesen & Koroloff, 1990).

Family support services occur in several forms: assistance with daily tasks and psychosocial support and counseling; informal or professional provision of services; and practical support such as housing assistance, food stamps, income support, or respite care (i.e., temporary relief for family members caring for individuals with disabilities).

Efforts to stop blaming parents for children's problems have resulted in parents becoming viewed less as patients than as partners, actively involved in every phase of the treatment process (e.g., home-based care, case management) and as a resource for their children, as discussed above. For the self-help and professionally led family support services described subsequently, parents may function either as partners or as providers. As "partners," parents act as a resource, active contributor, or decisionmaker; as "providers," they are viewed as contributing to the welfare and growth of other members of the family.

Results of research on the effectiveness of family services are only beginning to appear, in the form of some controlled studies and evaluations of support services for families of children with emotional and behavioral disorders (although there is a larger literature on families whose children have other types of disability and illness). Although this database on family support programs is still limited, many positive effects have been reported. The following paragraphs cover family support groups as well as concrete services. For the latter, only two types of interventions, respite care and the family associate, are included. Family therapy is covered in this chapter under Outpatient Treatment. Furthermore, several forms of parent training were found to be effective for individual

diagnoses, such as conduct disorder (see section on Selected Mental Disorders in Children).

Family Support Groups

The primary focus of family support groups is to provide information and emotional support to members who share a common problem or concern (e.g., disability, substance abuse, bereavement). Support groups for families of children with emotional or behavioral disorders are expanding. Although there is a wide variation in membership, format, and duration of these groups, most share some characteristics. Usually, from 4 to 20 parents meet regularly to discuss the problems and issues associated with parenting a child with emotional and behavioral disorders and to provide mutual encouragement and suggestions for dealing with problematic situations. Support services may be informal, organized, and parent led and are often associated with organizations such as the National Mental Health Association, Children and Adults with Attention Deficit Disorders, the National Alliance for the Mentally Ill, or the Federation of Families for Children's Mental Health. Mental health professionals may also participate in support groups (Koroloff & Friesen, 1991).

It was found that support groups for parents of children hospitalized with mental illness make parents feel more positive about themselves and increase their understanding of and communication with their children (Dreier & Lewis, 1991). Participation in a six-session education and support group for parents of adolescents with schizophrenia led to increased relaxation and concentration, less worry, changed attitudes toward discipline, and greater ease in discussing feelings. The support from parents in similar situations was highly valued (Sheridan & Moore, 1991).

Another approach to support for parents of children receiving mental health services is education: knowledge of the services; skills needed to interact with the system; and the caregivers' confidence in their ability to collaborate with service providers (self-efficacy). A training curriculum for parents was tested in a randomized controlled trial involving more than

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200 parents who either did or did not receive the training curriculum. Three-month and 1-year followup results demonstrated significant improvement in parents' knowledge and self-efficacy with the training curriculum, whereas there was no effect on the mental health status of their children, service use, or caregiver involvement in treatment (Heflinger & Bickman, 1996; Bickman et al., 1998).

Practical Support
Respite care is a type of concrete support that provides temporary relief to family caregivers. An investigation of the benefit of respite care is under way in New York in families with children at risk of hospital placement. When respite care was available, families preferred in-home to out-of-home care. The younger the children, the greater the child's functional impairment, and the fewer the social supports (Boothroyd et al., 1998), the more respite care was used. Outcomes have not yet been reported.

Another form of concrete support is exemplified by the Family Associate Intervention, which was developed in Oregon. It appears to be an inexpensive way to assist children in actually obtaining care after they have been identified as needing care. The goal is to use paraprofessionals (known as family associates), rather than professionals, to facilitate entry into an often intimidating service system. In a controlled study, family associates were found to be effective in helping families initiate mental health service use. Families receiving this support service were more likely to make and keep a first appointment at the mental health clinic. The effectiveness of the intervention was moderate but sufficient to encourage further development of such a low-cost intervention (Koroloff et al., 1996b; Elliot et al., 1998).

Integrated System Model
Within the public mental health system, the 1980s and 1990s have seen an increased emphasis on developing interagency community-based systems of care (Stroul & Friedman, 1986). This focus is driven by awareness that a large number of children are served in systems other than mental health, as well as by children's

complex and interrelated needs, as indicated earlier (Friedman et al., 1996a, 1996b; Quinn & Epstein, 1998). In 1984, the Child and Adolescent Service System Program (CASSP) was launched to respond to the fragmentation of public services (Stroul & Friedman, 1986). It was funded by the services component of the National Institute of Mental Health, which later became the Center for Mental Health Services under the Alcohol and Drug Abuse and Mental Health Administration Reorganization Act of 1992 (Public Law 102-321).

CASSP recognized the need for public sector programs to become more integrated in their attempts to meet more fully and efficiently the needs of children and adolescents with a serious emotional disturbance and their families. This Federal program pioneered the concept of a "system of care" for this population, as delineated by Stroul and Friedman (1986, 1996). A system of care, described further below, is a comprehensive approach to coordinating and delivering a far-reaching array of services from multiple agencies. All 50 states and numerous communities have received CASSP grants to improve the organization of their response to the mental health needs of the most severely affected children and adolescents. Although CASSP principles have become a standard for program design, many communities do not offer comprehensive services according to the CASSP model.

CASSP provided the conceptual framework for the Robert Wood Johnson Foundation's Mental Health Services Program for Youth and the Annie E. Casey Foundation's Urban Mental Health Initiative. These foundation programs were devoted to the development of local interagency models (Cole, 1990). They were followed in 1992 by the authorization for what was to become the largest Federal program for child mental health, the Comprehensive Community Mental Health Services for Children and Their Families Program (also known as the Children's Services Program), sponsored by the Center for Mental Health Services (Public Law 102-321).

The Children's Services Program provides grants to states, communities, territories, and Indian tribes and tribal organizations to improve and expand systems of

care to meet the needs of approximately 6.3 million children and adolescents with serious emotional disturbance and their families. The program now supports 45 sites across the country.

Built on the principles of CASSP, the Children's Services Program promotes the development of service delivery systems through a "system of care" approach. The system of care approach embraced by this initiative is defined as a comprehensive spectrum of mental health and other services and supports organized into a coordinated network to meet the diverse and changing needs of children and adolescents with serious emotional disturbance and their families (Stroul & Friedman, 1996). The system of care model is based on three main elements: (1) the mental health service system must be driven by the needs and the preferences of the child and family; (2) the locus and management of services must be within a multiagency collaborative environment, grounded in a strong community base; and (3) the services offered, the agencies participating, and the programs generated must be responsive to children's different cultural backgrounds. The Children's Services Program requires a national cross-site evaluation, which has been continuously implemented since the spring of 1994. Preliminary evidence from the uncontrolled evaluation indicates some improvements in outcomes, such as fewer law enforcement contacts and better school grades, living arrangements, and mental health status. As part of the evaluation, comparisons are being made between system of care sites and comparable communities without systems of care (Holden et al., 1999).

Effectiveness of Systems of Care

The previous sections have highlighted the transformations that have taken place since the early 1980s to create comprehensive, interagency, community-based systems of care. This section reviews the findings of research into the effectiveness of such systems of care as compared with more traditional systems.

Several studies on the effectiveness of systems of care have been conducted in recent years (Stroul, 1993a, 1993b; Bruns et al., 1995; Rosenblatt, 1998).

Although findings are encouraging, their effectiveness has not yet been demonstrated conclusively, largely because evaluation studies have not had a control group. Most evaluations indicate that systems of care reduce rates of reinstitutionalization after discharge from residential settings, reduce out-of-state placements of children, and improve other individual outcomes such as number of behavior problems and satisfaction with services. After reviewing findings from the demonstration project of the Robert Wood Johnson Foundation, their own work in Vermont, research in California and Alaska, and early findings from the Fort Bragg evaluation, Bruns, Burchard, and Yoe (1995) conclude that "initial findings are encouraging, especially with the history of disappointing results of outcome studies for child and adolescent services" (p. 325). Details are available in the individual studies (Attkisson et al., 1997; Illback et al., 1998; Santarcangelo et al., 1998).

Reviews (Stroul, 1993a, 1993b; Rosenblatt, 1998) of uncontrolled studies of community-based systems of care showed that young people with serious emotional disturbances who were served under community-based systems of care consistently showed improvement across a range of outcomes. However, most of these studies used a so-called pre-post evaluation design that does not answer the question of whether the changes occurring over time (pre to post) are a consequence of the intervention or of the passage of time itself. Indeed, when comparison groups are studied, such as in the Fort Bragg demonstration project, results tend to be less favorable (see below).

The Fort Bragg Study

The Fort Bragg study, conducted by Bickman and his colleagues (Bickman et al., 1995; Bickman, 1996a; Hamner et al., 1997), merits detailed discussion because of the basic issues it raises and the controversy it engendered. The Fort Bragg study is an evaluation of a large-scale system change project initiated by the State of North Carolina and the Department of Defense in the early 1990s; it was designed to determine what systemic, clinical, and functional outcomes could be

achieved if a wide range of individualized and family-centered services were provided without any barriers to their availability. The project involved replacing the traditional CHAMPUS benefit for children who were military dependents in the Fort Bragg area with a continuum of care that included a broad range of services, a single point of entry, comprehensive assessments, and no copayment or benefit limit. The provider agency at Fort Bragg was reimbursed for costs. The impact of this change on children was assessed by comparing outcomes at Fort Bragg with those at two other military installations in the Southeast where the traditional CHAMPUS benefit package remained in effect. The comparison sites restricted services to outpatient treatment, placement in a residential treatment center, or treatment in an inpatient hospital setting; regular copayment and benefit limits were in effect at the comparison sites.

Over a 3-year period, the evaluators collected service use, cost, satisfaction, clinical, and functional data for 984 young people served either at Fort Bragg (574) or the comparison sites (410). Overall, there were a number of favorable findings for the demonstration site at Fort Bragg: access for children was increased; children referred for services were indeed in need of help; parents and adolescents were more satisfied with the services they received than were parents and adolescents at the comparison sites; children received services sooner; care was provided in less restrictive environments; there was heavy use of intermediate-level services; fewer clients received only one session of outpatient treatment; overall, children stayed in treatment longer (although the length of stay in hospitals and residential treatment centers was shorter); and there were fewer disruptions in services (Bickman, 1996a). Thus, the major findings were that the expanded continuum of care resulted in greater access, higher satisfaction with services by patients, and less use of inpatient hospitalization and residential treatment. Bickman also concluded, however, that despite the fact that the intervention was well implemented at Fort Bragg, there were no differences between sites in clinical outcomes (emotional-

behavioral functioning), and the cost was considerably greater at Fort Bragg.

The interpretation of the results by the project's principal investigator has generated much discussion and controversy in the children's mental health field, both in support of and questioning the study's conclusions (Friedman & Burns, 1996; Behar, 1997; Feldman, 1997; Hoagwood, 1997; Lourie, 1997; Pires, 1997; Saxe & Cross, 1997; Sechrest & Walsh, 1997; Weisz et al., 1997). Most of the controversy surrounds study interpretation, implementation, methodology, and the interpretation of the cost data (Behar, 1997; Feldman, 1997; Heflinger & Northrup, 1997; Langmeyer, 1997). Furthermore, it has been pointed out that Fort Bragg was not a multiagency community-based system of care (Friedman & Burns, 1996), a point that has been acknowledged by the principal investigator of the study (Bickman, 1996b). Overall, despite the controversy surrounding it, the Fort Bragg evaluation has challenged the notion that changes at the system level have consequences at the practice level and, ultimately, improve outcomes for children and families. The results have stimulated an increased focus on practice-level issues.

The Stark County Study

The shift in focus to the practice level is being reinforced by results from another study by Bickman and colleagues (1997, 1999) of children with emotional disturbances who were served in Stark County, Ohio. In this study, participating children were served within the public mental health system by a multiagency system of care; this was in contrast to the Fort Bragg sample of military dependents seen in a mental health-funded and -operated continuum of care. Children and families who consented to participate in the study were randomly assigned to one of two groups. The first group was immediately eligible to receive services within the existing community-based system of care in Stark County. Families in the second group were required to seek services on their own rather than to receive them within the system of care. The major differences in services provided were that significantly

more children and families in the system of care group received case management and home visits than those in the comparison group. Findings indicate no differences in clinical or functional status 12 months after intake. These results are similar to those of the Fort Bragg study and suggest that attention should be paid to the effectiveness of services delivered *within* systems of care rather than only to the organization of these systems.

Summary: Effectiveness of Systems of Care

Collectively, the results of the evaluations of systems of care suggest that they are effective in achieving important system improvements, such as reducing use of residential placements, and out-of-state placements, and in achieving improvements in functional behavior. There also are indications that parents are more satisfied in systems of care than in more traditional service delivery systems. The effect of systems of care on cost is not yet clear, however. Nor has it yet been demonstrated that services delivered within a system of care will result in better clinical outcomes than services delivered within more traditional systems. There is clearly a need for more attention to be paid to the relationship between changes at the system level and changes at the practice level.

Conclusions

1. Childhood is characterized by periods of transition and reorganization, making it critical to assess the mental health of children and adolescents in the context of familial, social, and cultural expectations about age-appropriate thoughts, emotions, and behavior.

2. The range of what is considered "normal" is wide; still, children and adolescents can and do develop mental disorders that are more severe than the "ups and downs" in the usual course of development.

3. Approximately one in five children and adolescents experiences the signs and symptoms of a DSM-IV disorder during the course of a year, but only about 5 percent of all children experience what professionals term "extreme functional impairment."

4. Mental disorders and mental health problems appear in families of all social classes and of all backgrounds. No one is immune. Yet there are children who are at greatest risk by virtue of a broad array of factors. These include physical problems; intellectual disabilities (retardation); low birth weight; family history of mental and addictive disorders; multigenerational poverty; and caregiver separation or abuse and neglect.

5. Preventive interventions have been shown to be effective in reducing the impact of risk factors for mental disorders and improving social and emotional development by providing, for example, educational programs for young children, parent-education programs, and nurse home visits.

6. A range of efficacious psychosocial and pharmacologic treatments exists for many mental disorders in children, including attention-deficit/hyperactivity disorder, depression, and the disruptive disorders.

7. Research is under way to demonstrate the effectiveness of most treatments for children in actual practice settings (as opposed to evidence of "efficacy" in controlled research settings), and significant barriers exist to receipt of treatment.

8. Primary care and the schools are major settings for the potential recognition of mental disorders in children and adolescents, yet trained staff are limited, as are options for referral to specialty care.

9. The multiple problems associated with "serious emotional disturbance" in children and adolescents are best addressed with a "systems" approach in which multiple service sectors work in an organized, collaborative way. Research on the effectiveness of systems of care shows positive results for system outcomes and functional outcomes for children; however, the relationship between changes at the system level and clinical outcomes is still unclear.

10. Families have become essential partners in the delivery of mental health services for children and adolescents.

11. Cultural differences exacerbate the general problems of access to appropriate mental health

services. Culturally appropriate services have been designed but are not widely available.

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