Residential Treatment: Responding to Adverse Childhood Experiences (ACE)

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Youth crime continues to be a major concern throughout the United States for social workers, policymakers, and the general public (Heide 2003). According to the Office of Juvenile Justice and Delinquency Prevention (OJJDP), approximately 2.11 million arrests of juveniles were made in 2008 (*see*JUVENILE DELINQUENCY). Research suggests an association between ACEs and delinquent behaviors that often lead to adolescents' involvement in the juvenile justice system (Dolny 2003; Duke et al., 2010). Residential treatment centers (RTC) are common referrals for many of these young people, providing comprehensive treatment for severely emotionally and behaviorally disordered youth with an aim to prevent future criminal justice involvement (Lebuffe, et al. 2010; Shabat, Lyons, & Martinovich 2008).

The American Association of Children's Residential Centers (AACRC), defines RTCs as an "organization whose primary purpose is the provision of individually planned programs of mental health treatment, other than acute inpatient care, in conjunction with residential care for seriously emotionally disturbed children and youth, ages 17 and younger" (AACRC 1999). The youth referred to RTCs typically present with severe and co-occurring behavioral, emotional, academic, or substance use problems (Baker, Fulmore, & Collins 2008; Baker, Ashare, & Charvat 2009). Juvenile offenders are often mandated to separate institutions that are more reminiscent of correctional facilities. These centers provide a variety of treatment programs including behavioral management, medication management, special education, and 24-hour supervision in a highly structured environment (Office of Juvenile Justice and Delinquency Prevention (OJJDP 2011; Penn 2003). In 2007, the Government Accountability Office noted the difficulty of developing an "overall picture" of RTCs because of the lack of standardized RTC definitions (OJJDP 2011). Even with more than 900 RTC facilities, holding approximately 50,000 children in the United States, concrete definitions of this treatment have not been thoroughly clarified (OJJDP 2011; Penn 2003). Furthermore, little is known about either their rehabilitation rate or cost-effectiveness, and there has been little research on the role of ACEsin patterns of recidivism for either male or female juvenile offenders who received treatment at these RTCs. Factors influencing adolescents to repeat offenses include their own backgrounds of sexual/physical abuse, growing up in a single-parent home, having a parental figure using illegal substances, or having a poor relationship with a parent or guardian (Cottle, Lee, & Heilbrun 2001; Benda, & Tolett 1999).

The "Adverse Childhood Experiences" (ACE) Study, a large epidemiological analysis carried out through a partnership between Kaiser Permanente and the Centers for Disease Control (CDC), has been integrated with social science research to demonstrate how ACEs correlate with costly later life health risk behaviors and social problems (see Clark, Clark, & Adamec 2000 for a review; Larkin, Felitti, & Anda in press). The ACE Study collected two waves of data, resulting in a total sample of 17,337 adults who reported their past experiences with any of the following ten specific categories of abuse, neglect, and household dysfunction prior to the age of eighteen: living with substance abusing, mentally ill, or suicidal household members, physical or emotional abuse or neglect by a parent, loss of a parent, the incarceration of a family member, or sexual abuse by anyone. An ACE Score, ranging from 0-10, was created by adding the number of "yes" responses to each of the categories. The research found that ACEs are prevalent, inter-related, and strongly associated with later life mental health and physical health risks, including substance abuse, and subsequent serious health problems (Anda. et al. 2004; Dong, et al. 2004; Dube, et al. 2001; Felitti et al. 1998).

In fact, the medical ACE researchers carrying out this large, epidemiologically sound study describe a "dose-response" relationship between ACEs and later life health risks. As ACE Score increases, the likelihood of later life substance abuse, including alcoholism and smoking, depression and suicide attempts, sexually transmitted disease, severe obesity, physical inactivity, and poor self-rated health also increases (Anda, et al. 1999; Anda,et al. 2002; Dube, et al. 2001; Felitti, et al. 1998; Clark, et al. 2000). ACE Scores are also strongly associated with lung disease, liver disease, broken bones, heart disease, and multiple types of cancers (Dong, et al. 2004; Feliitti, et al. 1998). The psychosocial and health concerns associated with ACEs play a role in explaining the connection between ACEs and premature death (Brown, et al. 2009). ACEs and their consequences are also associated with criminal justice involvement (Larkin & Records 2007; Messina & Grella 2006; Clark, et al. 2000) and homelessness (Burt 2001; Herman, et al. 1997; Larkin & Park 2009). Social science research bolsters ACE Study findings, demonstrating higher rates of mental health, substance abuse, and other health risk behaviors among disadvantaged population groups experiencing multiple problems (Larkin, Felitti, & Anda in press). This includes people involved with the criminal justice system and youth in RTCs (Duke, et al. 2010; Cottle, et al. 2001; Benda & Tollett, 1999). Recently, it has been suggested that adolescent ACE Scores provide a framework for assessing the cumulative neurodevelopmental impact of various forms of childhood traumatic experiences. Specifically, ACEs in childhood hinder neurodevelopment, which contributes to engagement in high-risk behavior including substance use, school failure or dropout, and criminal activity (Grevstad, et al. in preparation).

Integral theory (Wilber 2000) has helped to explain how ACEs can derail foundational developmental milestones as well as how resources that mobilize resilience can help restore healthy development. An Integral perspective recognizes the potential developmental impact of ACEs and integrates research of developmental scientists within a context of culture and systems (Larkin & Records 2007). Developmental research reveals that children navigate stages of growth in a number of important areas including cognitive development (Piaget 1972), personality development (Loevinger 1976),moral development (Gilligan 1982; Kohlberg 1981), psychosocial development (Erikson 1959), socio-emotional development (Goleman 1995), and multiple intelligences (Gardner 1983). Thus, development is fluid and takes place across multiple developmental lines. In each of these areas, it is important to recognize that resolution of the challenges associated with a developmental stage provides the platform from which the next stage emerges (Larkin & Records 2007; Wilber 2000). Social supports and services, for example,

could prevent adversity or mitigate consequences by helping a young person to process their subjective experience as well as supporting healthy coping strategies (Larkin, Beckos, & Shields in press; Larkin, Felitti, & Anda, in press; Larkin & Records 2007). The ACE Study researchers suggest that health risk behaviors like substance abuse, overeating, and other forms of risk-taking are often personal solutions to handle overwhelming feelings, which then become public health problems. By taking into account the adversity behind risk behaviors, opportunities arise to increase effectiveness of interventions (Felitti, et al. 1998; Larkin, Felitti, & Anda in press).

RTCs recognize that the backgrounds of high-risk youth are characterized by adversity, and they seek to decrease the impact of this past adversity by providing a consistent, nurturing environment with predictable expectations that are designed to help shape desirable behavior and emotional responses (Penn 2003; Curtis, Alexander, & Lunghofer 2001; Henggeler & Schoenwale 2011; Stroul & Friedman 1998; Hair 2005). RTCs are faced with the challenge of integrating a variety of interventions and services to comprehensively and effectively help youth with ACE backgrounds who are experiencing multiple current problems. RTCs vary widely in terms of populations served, treatment approaches, and length of service provision (Curtis et al. 2001). Being mandated to treatment at an RTC has been found to increase resilience by encouraging youth to participate in healthy life experiences (Hair 2005). In general, highly engaged youth with less severe dysfunction, greater capacity for interpersonal relationships, and acute rather than chronic onset of problems tend to have better outcomes (Englebrecht, et al. 2008; James 2011). Predictors of recidivism include involvement in substance use, a history of sexual or physical abuse, and an early onset of conduct problems (Holley & Ensley 2002; James 2011).

While existing evaluations show that RTC programs have varying degrees of success in stopping delinquent behavior, it is even more challenging to demonstrate reduction of recidivism. This may be because the juvenile justice system was not developed with an understanding of how ACEs affect the health and behavior of adolescents who are experiencing yet another ACE because of their presence in the criminal justice system (Grevstad, et al. in preparation). Research shows that various forms of childhood traumatic experiences, abuse, and poor family relationships have been positively correlated to involvement in the criminal justice system and future recidivism (Zhang et al. 2011; Hoeve et al. 2009; Dolny 2003). Youth coming from traumatic family life situations are four times more likely to engage in delinquent behavior, and those with a family member convicted of a felony are twice as likely to engage in delinquent behavior (Dolny 2003; Zhang, et al. 2011).

Until the mid-1990's, it was believed that there were no effective programs or policies capable of reducing recidivism among juvenile offenders (Holly & Ensley 2002; Henggeler & Schoenwald 2011). While some interventions have been established, most have not been proven significantly effective (Henggeler & Schoenwald 2011). Interventions currently used with delinquent adolescents focus heavily on the mitigation of behaviors that brought about the placement or incarceration of these youth. Effective programs focus on rebuilding the adolescents' social ecology by improving familyfunctioning, disengagement from deviant peer circles, and aiding in educational improvement (Henggeler & Schoenwald 2011). Furthermore, programs that focus on specific skills issues such as behavior management, interpersonal skills training, or individual counseling have also demonstrated positive effects (Greenwood 2008).

There is a need for more comprehensive research on RTCs that takes into account the ACE characteristics of youth served. According to past research, RTCs for delinquent youth are the second most costly forms of rehabilitation aside from inpatient psychiatric institutions. In

1993 it was reported that for every child, group homes charge approximately $60 - $250 per day and the cost for one child to spend 172 days in an RTC ranged from $10,000 to $43,000 (Penn, 2003). Programs found to be more cost-effective include community-outpatient centers and Therapeutic Foster Care (TFC). TFC's are approximately two to three times less costly than institutional care (Barth 2002; Rubenstein, et al. 1978), and were shown in one study to be equally effective in treatment outcome when compared to RTCs. Furthermore, evidence has shown that TFCs are also able to significantly reduce the recidivism rate of violent crimes among young people with a history of chronic delinquency (Barth 2002; U.S. Surgeon General 1999). Yet, existing research does not take into account the ACE Scores of youth in RTC and TFC settings or the various other costs associated with high ACE Score backgrounds that can arise over time. Although RTCs are expensive, these high costs could be balanced against the accumulating costs of multiple ACE consequences that play a role in criminal justice involvement. These additional expenses include the arrest, prosecution, incarceration, and treatment of offenders; and in the past have added up to billions of dollars a year. More importantly, recent analyses have shown that investments in appropriate delinquency-prevention and treatment programs can save taxpayers seven to ten thousand dollars per every dollar invested. Cost-effectiveness and cost-benefit studies specifically focusing on RTCs, and taking ACE Scores into account, are needed so that the efficiency of these centers can be accurately compared to other treatment methods. With this comparison of costs, policymakers will be able to achieve the largest possible crime-prevention and intervention effect for a specific budgeted level of funding (Greenwood 2008). Future research should include cost analyses of treatments used with ACE youth juvenile offenders to determine if residential treatment costs offset future expenses attributed to recidivism and further involvement in the criminal justice system.

As ACE research raises awareness of the consequences and high costs of abuse, neglect, and household dysfunction, social science research informing response strategies that interrupt the ACE trajectory become increasingly valuable (Larkin, Felitti, & Anda in press). "Restorative Integral Support" (RIS) is a model that integrates prevention and intervention activities to address ACE consequences through a comprehensive, whole person approach that can be applied and evaluated in a variety of settings. Developed and implemented at the Committee on the Shelterless (COTS) in Petaluma, CA, RIS draws on current knowledge of ACEs and resiliency in order to design recovery-oriented programs for high ACE Score groups. RIS intentionally fosters healthy social networks as a resource that mobilizes resilience among disadvantaged groups with high ACE Scores. Leadership and policies play key roles in creating culture of recovery. Best practices are combined within this context to address multiple problems (Larkin, Beckos, & Shields, in press). RIS embraces "Service Outcomes Action Research" (SOAR) (Duffee, 2010) as an appropriate means of carrying out research on comprehensive, combined interventions to serve the whole person as RIS is employed in other social service and criminal justice settings (Larkin, Beckos, & Martin 2012). SOAR is a national leader in developing practitioner-generatedinformation for evidence-based practice with youth and their families, particularly in conjunction with RTCs. This research approach creates a continuous data-informed practice process with the purpose of revealing and reporting the direct impact of comprehensive service provision (Duffee 2010; Larkin, Beckos, & Martin 2012).

The SOAR Project is an inter-departmental partnership between a University and two RTCs seeking to generate research relevant to comprehensive service provision for high-risk youth. SOAR agencies provide a variety of services to their RTC clients that include education, group therapy, individual therapy focusing on personal strengths, substance abuse treatment, and

behavior modification (Cunningham, et al. 2009). Hoping to avoid recidivism, the agencies engaged in SOAR are actively involved in "return-to-community" discharge planning and, if necessary, receive small amounts of post-discharge support (Cunningham, et al. 2009). In order to generate evidence relevant to practice, SOAR fosters a culture of inquiry among agency providers who care about their clients and seek positive outcomes. This is accomplished through the combination of action research with a developmental evidence-based practice style that engages a process beginning with practitioners and involving organizational development (Cunningham & Duffee 2009; Duffee 2010). Action research proposes that those experiencing a phenomenon firsthand are in the best position to reveal and consider relevant data, which also serves to engage agency participants (Duffee 2010; DePoy, Hartman, & Haslett 1999). This approach is carried out by a team that includes the professional researcher along with stakeholders, such as agency and community members interested in improving services (Greenwood & Levin 2007). Furthermore, the viewpoints of those providing and receiving services are highly valued. Both quantitative and qualitative methodologies are employed within an ongoing inquiry process that includes the identification of research questions, assessment, planning, intervention, determination of results, and the development of new questions (Cassell & Johnson 2006; DePoy, et al. 1999; Duffee 2010).

SOAR's first task is to aid RTCs in clearly articulating their theory of change and explaining how service processes and delivery are connected to desired outcomes. RTCs consider effective service delivery to involve the integration of a number of clinical interventions (such as cognitive-behavioral treatment), along with case management, in the context of a therapeutic milieu, and a service system involving inter-agency collaboration (Duffee 2010; Larkin, Beckos, & Martin 2012). Thus, the agency theory of change reflects a comprehensive approach that simultaneously works with the individual and collective. RIS usefully articulates this kind of integrative endeavor (Larkin, Beckos, & Shields, in press). Following the development of program logic models, researchers work closely with practitioners to identify and determine how to implement measures of treatment process and client outcomes at multiple points in time, including the influence of staff. Qualitative methodologies, such as staff interviews, focus groups, and participant observation, shed additional light on staff perspectives, agency processes, practices, and data collection. Implementation of the data-informed practice process involves creating a system for ongoing data collection within the agency that can inform practice, program development, and policy advocacy decisions. Practitioners and researchers work together to consider the implications of findings, with agency members making the choices about practice and program development (Duffee 2010; Larkin, Beckos, & Martin 2012)

SOAR's approach is consistent with an integrative view of evidence-based behavioral practice as a process. A Council for Training in Evidence-based Behavioral Practice (EBBP) within the National Institutes of Health (NIH) calls for practice decision-making that takes into account client characteristics and needsalong with practitioner skills and the best available research evidence in local contexts (NIH 2008). SOAR works to develop a system that supports this process in which practitioners consider the implications of continuously generated data from the local context for practice and program development that employs and enhances practitioner skills to improve services based on client characteristics. The RTCs provide an example of how this process is employed to improve services to high-risk youth, many of whom are already involved with the criminal justice system (Duffee 2010; Larkin, Beckos, & Martin 2012). Employing and expanding SOAR is expected to help both RTCs and criminal justice settings in their ability to evaluate the impact of services in an ongoing manner while also building

knowledge that further develops comprehensive, whole person responses to high risk population groups who often report high ACE Scores (Larkin, Beckos, & Shields in press; Larkin, Beckos, & Martin 2012).

In this way, SOAR helps to build knowledge of how services are effectively combined to comprehensively serve high ACE Score groups and reduce costly ACE consequences. Economists have demonstrated that this kind of human capital development is profitable to society, with earlier interventions providing notable returns on investments over time (Karoly, Kilburn, & Cannon 2005). Effective RTC and other services for high ACE Score youth may decrease the high future expenses of criminal justice and other programs designed to intervene with later life ACE consequences, making them a worthwhile investment. In addition to saving costs, restoring healthy developmental processes can benefit society as a whole by helping individuals to become fully functioning members of society. Responding to client needs and restoring healthy development can reduce health risk behaviors and related social problems, like criminal justice involvement. Thus, effective comprehensive interventions for high ACE Score youth in residential treatment, as well as criminally-involved adults, are likely to benefit society-as-a-whole by saving the expense of programs to address later life consequences while promoting more productive social interactions (Larkin & Records 2007).

Cross References:

Further readings:
www.posttraumawellness.net
www.aceresponse.org

Minibiography:
Dr. Heather Larkin extends research on"adverse childhood experiences" (ACE), integrates social science knowledge, and develops partnerships to employ "Restorative Integral Support" (RIS) for ACE Response. Heather's practice background includes psychosocial assessment, emergency services, individual, family, and group counseling, clinical supervision, and service integration. Heather leads ACE Think Tank and Action Team meetings in the Capital Region of New York and provides consultation to the Center for Post-Trauma Wellness.

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