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Considerations for Occupational Therapists in Developing Community-Level Interventions for Youth with High Adverse Childhood Experiences (ACEs)

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Abstract

Drug misuse likely contributes to the over 30,000 children in foster care and to the 24.2% of children who have experienced two or more adverse childhood experiences (ACEs). Twenty-five percent of children are living in poverty, with nearly half of those living in single-parent households. Among the national guidelines to preventing ACEs are connecting youth with positive activities and providing family relationship enhancement opportunities. We believe the profession of occupational therapy can help contribute to the mental and behavioral health care workforce in a greater capacity than is currently used. Many children are not afforded the opportunity to engage in novel leisure pursuits that are essential for positive mental health function and well-being. Occupational therapists can assist in creating a culture of health and equity for youth by harnessing the power of play and leisure to promote self-healing communities.

Comments

The authors declare that they have no competing financial, professional, or personal interest that might have influenced the performance or presentation of the work described in this manuscript.

Keywords

adverse childhood experiences, leisure, play

Credentials Display

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In the United States, 1 in 6 individuals report having experienced four or more adverse childhood experiences (ACEs), which puts them at risk for negative health outcomes (Centers for Disease Control and Intervention [CDC], 2019). The prevalence of ACEs is even higher among historically minoritized communities and low-income communities, which contributes to community disparities in health outcomes (Wade et al., 2016). It is pertinent for health care professionals to develop equitable interventions to support the development of resilience in youths affected by ACEs. Occupational therapists may provide intervention to increase youth resilience through engagement in play and leisure, which has been shown to improve both physical and behavioral health outcomes (Fayyad et al., 2017; Lee et al., 2018; Merryman et al., 2012). The purpose of this paper is to highlight the role of occupational therapy in developing and supporting community-based solutions to disparities in ACEs through play and leisure. For occupational therapists to be a part of community solutions, they first need an understanding of ACEs, which communities are most at risk, and how ACEs contribute to both physical and behavioral health disparities. Key considerations for occupational therapists developing community-level interventions should include identifying community risk factors for ACEs, creating equitable access to play and leisure opportunities, and fostering resilience through the five C's framework.

ACEs: Prevalence and Consequences

ACEs include child maltreatment; witnessing domestic violence; or living with someone with a substance use disorder, a mental illness, or a history of incarceration (Felitti et al., 1998). Chronic maltreatment or repeated trauma inhibits neurobiological feedback, meaning that the ability to integrate sensory, emotional, and cognitive information is impaired (Van der Kolk, 2017). Children react to trauma according to their developmental level and what task they are trying to complete (Tedeschi & Calhoun, 2006). These reactions vary depending on age and developmental stages as children understand and internalize experiences based on their cognitive and emotional capacity (Tedeschi & Calhoun, 2006). Youth who experience four or more ACEs prior to 18 years of age are more likely to smoke cigarettes, be at risk for substance misuse, and attempt suicide (Felitti et al., 1998). The seminal ACE study published by Felitti and colleagues (1998) has been replicated and expanded on for over 2 decades, creating a large body of knowledge regarding this topic (Wade et al., 2016). A notable limitation of this hallmark study was an unrepresentative study population sample resulting in a definition of childhood adversity that misrepresented the social distribution of youths impacted by adverse experiences (McEwen & Gregerson, 2019). More recently, Slopen et al. (2016) examined racial and ethnic differences in nine adversities among children (ages birth to 17 years) from the National Survey of Health (2011–2012) and included more than 84,000 persons. Across all groups, Black and Latinx children were exposed to more adversities compared with White children; however, it should be noted that income disparities in exposure were larger than racial and ethnic disparities. The authors of this study concluded that simultaneous consideration of multiple social statuses offer new frameworks for thinking about health and disease and the interventions to reduce preventable health disparities.

Expanded ACEs, identified as stressful adverse experiences occurring outside of the home or in the community, such as experiences of discrimination and racism, have a serious negative impact on physical, emotional, and social health and well-being that can last across the lifespan (Ginsburg, American Academy of Pediatrics Committee on Communications, & American Academy of Pediatrics Committee on Psychosocial Aspects of Child and Family Health, 2007). ACEs are cumulative experiences impacted by community environments. Neighborhoods that experience high unemployment

and violence, or that have poor educational opportunities, will have youth who experience more cumulative effects of clusters of ACEs resulting in a high risk of lifelong health effects (Jamieson, 2018). Therefore, there is an existing movement to shift the paradigm toward recognizing and acknowledging the real implications of racism on health and well-being in defining racism as a public health crisis (Krieger, 2020). Recognizing the innerworkings of racism as a public health crisis may assist occupational therapists in fully understanding expanded ACEs, its interrelations in community health design and access, and its promotion of occupational justice (Lavalley & Johnson, 2020). The effects of ACEs can be prevented by understanding behavioral coping strategies to reduce the emotional impact of the experiences (Felitti et al., 1998). Comprehensive strategies, such as preventing ACEs from occurring and preventing adoption of health risk behaviors as children and adults, are needed to identify and intervene with families that are at risk for ACEs (Felitti et al., 1998). Occupational therapists, with their knowledge of childhood development and the impact of trauma, can play a role in identifying youth populations at increased risk for multiple ACEs and provide them with resiliency building opportunities.

Defining Resilience: An Interactive Concept

Despite the alarming statistics provided, many youths, especially Black and Latinx, with ACEs will grow up to achieve health and well-being as adults because of what is termed resilience. Fayyad et al. (2017) described resilience as "the active process resulting in positive adaptation in the face of major adversity" (p. 191). Rutter (2006) described resilience as an interactive concept of relative resistance to environmental risk experiences, or the overcoming of adversity. Dynamic processes underlying resilience have been described as those that operate after adversity to restore good functioning (Rutter, 2012). The effects of ACEs can be countered or alleviated in youth and later in life through positive adult experiences (Rutter, 2012).

Research states that resiliency is fostered through the five C's of positive youth development: connections, confidence, character, competence, and contributions (Geldhof et al., 2015). These characteristics are psychological, behavioral, and social in nature and define positive youth development by what youth are doing versus not doing (Lerner & Lerner, 2013). The five C's are used to promote successful adult-youth relationships, build life skills, and use these newly developed life skills in their community (Lerner & Lerner, 2013). To foster resilience, communities need opportunities for youths to build safe social connections, a sense of confidence and self-worth through mastery, character through taking responsibility and developing individuality, competence in completing work and academics, and contribution through active participation and making a difference (Geldhof et al., 2015). Higher levels of positive youth development have been linked with higher levels of intentional self-regulation, which in turn has been associated with reduced problem behaviors, such as substance abuse, bullying, and internalizing depression (Lerner & Lerner, 2013). Occupational therapists can facilitate the active process of resilience building through occupational engagement incorporating the five C's framework, specifically in the areas of play, leisure, and social participation.

Play is important for healthy emotional-social and problem-solving skills in early childhood and has an important restorative role for older youth and parents. The benefit of playfulness is seen in facilitating stress coping, and leisure has been identified as a coping strategy (Qian & Yarnal, 2011). In the journal *Leisure Studies*, Louise Mansfield et al. (2020) reported on a vast field of research on the topic of leisure and well-being. The author cited that leisure has been linked to positive and negative affect, satisfaction with life, quality of life, happiness, personal growth, self-acceptance, positive

relationships, and autonomy. This makes play and leisure participation using the five C's framework of youth development a powerful tool for occupational therapists developing community programming for youths at risk for multiple ACEs.

Community-Based Intervention

Research shows ACEs disproportionately affect historically minoritized and low-income communities; therefore, the authors recommend a community-level approach to building resilience in at-risk youth incorporating the five C's framework of youth development. Community-based programs for youth who have experienced ACEs are limited but do exist, and they can be used as models for future program development. In a growing number of communities, the Eluna network of camps were developed to serve youth of parents with substance use disorder. The Camp Mariposa model began in 2000 and has served over 1,500 campers in over 68 camp sessions with 13 locations (Eluna, n.d.). Camp Mariposa is a nationally recognized prevention and mentoring camp for youth impacted by substance use in their families (Eluna, n.d.). The camp follows evidence-based practices to lessen the harmful effects of parental substance use with a focus on mentoring, mindfulness, and suicide prevention (Eluna, n.d.). Occupational therapy faculty and students have recently received grant funding to partner with the Eluna organization to create a unique day camp program for children with known ACEs to provide resilience building leisure, play, and social experiences. A timeline and brief description of this new program development can be seen in Table 1. This project frequently used Fazio's approach to developing occupation-based programs in communities as a guide (2017).

Table 1

Timeline of Occupational Therapy's Role in Development of a Novel Community Program

Year 1 (2020)	Occupational therapist partnered with the Eluna network, local scouting groups, and leaders in the addiction recovery community to develop program concept and implementation, apply for grant funding, and recruit and hire staff, including a registered occupational therapist.
Year 2 (2021)	Staff, community partners, and occupational therapy doctoral capstone students are partnering to recruit and provide training to occupational therapy student volunteers and community volunteers, including education surrounding the impacts of ACE, the disease of substance use disorder, best practices in trauma sensitive communities, and effective mentoring. This group is working collaboratively to finalize all camp activities, and a pilot of the day camp will take place in the last quarter of 2021 with occupational therapy faculty providing process evaluation and suggesting adjustments.
Year 3 (2022)	Occupational therapy students and community volunteers will provide a therapeutic camp experience once per month to youths for 6 months and to caregivers and youth once per month for 6 months with oversight from registered occupational therapists and trained mental health providers partnering with a local scouting group for camp facilities. University partnership will allow program efficacy to be evaluated and results to be disseminated.

By collaborating with local organizations and mental and behavioral health providers, occupational therapists can provide resiliency building play and leisure activities using the five C's framework. In addition, occupational therapists may choose to incorporate play and leisure interventions in traditional settings, including early intervention, schools, and outpatient pediatrics to foster resilience in individual youths or as part of community-based programs in consultative or full-time roles depending on the needs of the community program. The following sections provide a description of how occupational therapists can incorporate the five C's framework into community-based programs.

Connections: Safe Social Connections

Occupational therapists can build therapeutic relationships with individual youths, support families, and foster mentorship opportunities in the community. Occupational therapists are well qualified to support social participation and foster meaningful social interactions (Cole & Donohue, 2011). Programs should consider including family centered activities aimed to facilitate social connectedness and present mindful engagement (Gatsou et al., 2017). Occupational therapists can participate in connecting youths with sustained mentors. Non-parental adult mentoring has been shown to have moderate positive effects on youth drug use, academic performance, and overall positive development and promotion of protective factors (Raposa et al., 2019). Mentorship connections can be fostered through partnering with teachers, coaches, older youths, or university students. The *Elements of Effective Practice for Mentoring* framework and standards can be used to ensure best practices are followed in developing mentoring relationships (Garringer et al., 2015). Mentors provide long-term connections to foster sustained engagement in leisure and play activities initiated during occupation-based community programs that can further promote resilience to ACEs.

Confidence: A Sense of Self-Worth Through Mastery

Occupational therapists can foster confidence through providing youth with a "just-right challenge" in which they develop skills and are successful during play and leisure activities. There is moderate evidence supporting the use of outdoor camps and group leisure activities, such as canoeing, swimming, backpacking, and rock climbing as routine interventions for appropriate clients by occupational therapists (Cahill & Beisbier, 2020). Through these activities, participants are provided with challenges graded for individual success allowing for confidence building, increased self-esteem, and decreased anxiety and depression (Cahill & Beisbier, 2020).

Character: Taking Responsibility and Developing Individuality

Occupational therapists can provide opportunities for youths to make positive choices and explore personal interests that will foster personal identity development and character building. Merryman and colleagues (2012) demonstrated that a grant-funded day camp developed and implemented by occupational therapists and occupational therapy students could foster resilience in at-risk middle school youths. The occupation-based day camp provided an enriched environment and empowered campers with choice in activities, personal attitude, and behavior resulting in improvement in social skills and positive values (Merryman et al., 2012).

Occupational therapists can support development of individual identities by helping youths explore their unique interests. Occupational therapists should support participation in play and leisure activities that are meaningful to the youths involved and assist youths in identifying play and leisure activities that interest them. The Kid Play Profile (Henry, 2000) was developed by an occupational therapist and assists in identification of positive leisure pursuits. The Kid Play Profile lists 50 activities with illustrations. It asks youths about play and leisure participation, enjoyment level of activity participation, and who they do the play and leisure activities with (Henry, 2000). Similar assessments, including the Preteen Play Profile and Adolescent Leisure Interest Profile (Henry, 2000), are available for older populations. Youth interests should regularly be incorporated into community programming.

Competence: Completing Work and Academics

Occupational therapists can provide youths with the supports they need to be competent in academics, work tasks, and extracurricular activities. Occupational therapists are uniquely skilled in providing trauma-sensitive care because of training in therapeutic use of self, strength-based approaches,

and use of internal and external resources that can be used to promote attachment, self-regulation, and competency (Holland et al., 2018). For example, youths who have experienced ACEs are likely to demonstrate differences in sensory processing, including over responsivity, sensation seeking, tactile sensitivity, and auditory filtering (Howard et al., 2020). Occupational therapists can ensure the sensory environment of activities is appropriate for each youth, provide environmental supports as needed, and educate fellow staff members.

Contributions: Active Participation and Making a Difference

Programs should supply meaningful ways for youths to actively participate and make a difference in the local community. By locating programs in communities, youths at risk for multiple ACEs can actively contribute to the development of long-term leisure and play opportunities. Frequent active participation in enjoyable leisure and playtime activities have been associated with reduced prevalence of alcohol and substance use in youth (Lee et al., 2018). Communities of low socioeconomic status benefit from exposure to more equitable leisure programming (Lee et al., 2018). The benefits of leisure participation also promote an overall healthy lifestyle. Active participation in organized leisure activities, including sports, arts, music, clubs, and religious groups, has been associated with healthier daily eating habits (Voráčová, 2018). In youth who experienced war trauma, participation in leisure activity was associated with greater resilience displayed through fewer trauma-related symptoms (Fayyad et al., 2017). Youths can contribute through active participation in play and leisure programs and take leadership roles in supporting the activities through selecting activities and organizing, fundraising, volunteering, and coaching new participants.

Conclusion

ACEs have been repeatedly linked to negative behavioral and physical health outcomes in adulthood (Felitti et al., 1998). Disparities in the prevalence of ACEs between zip codes, racial groups, and socioeconomic groups indicate the need for community-level interventions to promote youth resilience. Community-based leisure programming can provide youth participants with increased exposure to positive play and leisure interests, improve quality of life, and improve the ability of youth to identify trusted adult mentors. Reaching these outcomes can contribute to resilience and improve the likelihood of long-term academic success and well-being, extending the reach of the outcomes beyond the leisure experience itself. Partnerships between occupational therapists and local organizations create a community empowerment approach aimed to increase investment of community leaders and enhance sustainability. While many community members are valuable assets to these types of projects, occupational therapists are trained in making play and leisure activities accessible to families of all abilities as well as individualizing activities to meet interests and create challenges youth can be successful at to build self-efficacy. Occupational therapists are trained in providing trauma-informed care, addressing sensory processing needs, and evaluating program outcomes. For these reasons, occupational therapists should move forward as leaders in developing play and leisure-based youth programs using the five C's framework of youth development in the community.

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