A review of Children’s Advocacy Centers’ (CACs) response to cases of child maltreatment in the United States

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Abstract

Child maltreatment is a serious and prevalent problem in the United States. Children’s Advocacy Centers (CACs) were established in 1985 to better respond to cases of child maltreatment and address problems associated with an uncoordinated community-wide response to child maltreatment. CACs are community-based, multidisciplinary organizations that seek to improve the response and prosecution of child maltreatment in the United States. The primary purpose of this manuscript is to present a review of the literature on CACs, including the CAC model (e.g., practices, services, and programs) and CACs’ response to cases of child maltreatment. This review suggests that there is preliminary evidence supporting the efficacy of CACs in reducing the stress and trauma imposed on child victims during the criminal justice investigation process into the maltreatment. However, this review also identified important CAC policies, practices, and components that need further evaluation and improvement. In addition, due to the methodological limitations and gaps in the existing literature, research is needed on CACs that employ longitudinal designs and larger samples sizes and that evaluate a larger array of center-specific outcomes. Finally, this review suggests that CACs might benefit from incorporating ongoing research into the CAC model and accreditation standards and by recognizing the importance of integrating services for child and adult victims of interpersonal violence.

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http://dx.doi.org/10.1016/j.avb.2015.07.002
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Please cite this article as: Elmquist, J., et al., A review of Children’s Advocacy Centers’ (CACs) response to cases of child maltreatment in the United States, Aggression and Violent Behavior (2015), http://dx.doi.org/10.1016/j.avb.2015.07.002
1. Introduction

Child maltreatment is a serious and prevalent problem affecting a significant number of children in the United States. Child maltreatment is defined as “any act or series of acts of commission (i.e., child abuse) or omission (i.e., child neglect) by a parent or other caregiver that results in harm, potential for harm, or threat of harm to a child” (Leeb et al., 2008, p. 19). Acts of commission include physical, sexual, or emotional abuse, while acts of omission or child neglect include a failure to satisfy a child’s basic needs or to provide supervision (Leeb et al., 2008). Numerous studies reveal that approximately 1 in 5 children in the United States experience some form of child maltreatment (e.g., Finkelhor, Ormrod, Turner, & Hamby, 2005; Finkelhor, Turner, Ormond, & Hamby, 2009, 2009; Leeb et al., 2008; Theodore et al., 2005). Further, state and local child protective services receive an estimated 3 million reports of abuse and/or neglect annually (Finkelhor, Ormrod, Turner, & Hamby, 2005; Theodore et al., 2005). These statistics are particularly troubling due to the significant physical (e.g., traumatic brain injury, broken bones, death), mental health (e.g., anxiety, posttraumatic stress disorder, increased risk for suicide), and behavioral (e.g., increased risk for deviant behaviors) consequences associated with child maltreatment (e.g., Leeb et al., 2008).

1.1. Uncoordinated response to child maltreatment

Prior to the 1980s, the standards for responding to and investigating allegations of child maltreatment were underdeveloped and not well organized, which often led to multiple investigations by separate agencies (e.g., Child Protective Services [CPS] and police agencies; Cross et al., 2008). The lack of unity among agencies responding to cases of child maltreatment led to many problems, which negatively impacted the victims of child maltreatment and the investigative process (Cross et al., 2008); the most significant of these was a lack of communication among agencies investigating cases (Cross, Jones, Walsh, Simone, & Kolko, 2007; Cross et al., 2008; Jones, Cross, Walsh, & Simone, 2007; Smith, Witte, & Fricker-Elhai, 2006; Wolfteich & Loggins, 2007). In a large quasi-experimental study examining the effectiveness of CACs, Cross and colleagues (2007) concluded that the failure of agencies to communicate and coordinate their response resulted in a large number of cases being overlooked and delayed in both investigation and resolution. It has been hypothesized that delays in case resolution often resulted in victims recanting their allegation, particularly in cases where the perpetrator lived in the home of the victim (Wolfteich & Loggins, 2007).

A second probable problem associated with the lack of communication and coordination among investigative agencies was an increased likelihood that child victims would be exposed to multiple and redundant interviews about the abuse (Jones et al., 2007). Exposing child victims to multiple interviews is problematic because it increases the likelihood that he or she will become distressed, re-traumatized, frustrated, or upset (Cross et al., 2007; Jones et al., 2007).

1.2. Children’s Advocacy Centers

To better respond to cases of child maltreatment and address the problems associated with the uncoordinated response to child maltreatment, the first Children’s Advocacy Center (CAC) was established in 1985 in Huntsville, Alabama (Cross et al., 2008; Jackson, 2004; Walsh, Jones, & Cross, 2003). CACs are community-based, multidisciplinary organizations that seek to improve the response, investigation, and prosecution of child maltreatment in the United States; to reduce the stress experienced by child victims and non-offending members during the investigative process; and to guarantee that services are provided to all child victims. Central to all CACs is the belief that an effective response to child maltreatment requires a coordinated effort by multiple agencies (Cross et al., 2008) in a safe child-friendly environment designed to minimize the potential for secondary psychological traumatization. Since the establishment of the first CAC in 1985, the number of programs across the United States has dramatically increased. Moreover, CACs have expanded their focus to specifically include child victims of physical assault, child witnesses of domestic violence, and child victims of neglect and other forms of abuse (Jackson, 2004; Walsh et al., 2003). According to data from the National Children’s Alliance (2011) as well as Tavkar and Hansen (2011), there are approximately 800 CACs in the United States, with at least one in each state. Due to the significant short- and long-term consequences associated with child maltreatment and the continued support for and increase in CACs, the effectiveness of these programs in responding to child maltreatment needs to be investigated.

The primary purpose of this manuscript is to present a review of the literature on CACs, the CAC model (e.g., practices, services, and programs), and CACs’ response to cases of child maltreatment. We first present a brief summary of the historical development of CACs and the CAC movement. Second, we present research on the effectiveness of these programs in responding to child maltreatment. Third, we present literature on the limitations in the existing research, programs, and practices within the CAC that need improvement. Finally, we discuss implications for CACs, limitations of the current research, and recommendations for future research. It should be noted that there is variation across studies in the operationalization of the “effectiveness” of CACs. Specifically, some studies examine the specific components of CACs (e.g., MDT approach, forensic evaluation) in order to draw conclusions regarding CAC effectiveness. Other studies focus on examining the program as a whole in accomplishing certain outcomes (e.g., arrest and prosecution rates, mental health referrals) to determine the “effectiveness” of CACs and areas for needed improvement. In the current review, studies evaluating the CAC components and fidelity to these components as well as studies evaluating the program as a whole will be considered when drawing conclusions regarding the effectiveness of CACs, areas of needed improvement, implications for CACs, limitations of the current review, and directions for future research.

In an effort to thoroughly review the literature on CACs, we performed independent searches using Psychinfo, PubMed, Web of Science, and Google Scholar. Moreover, to identify articles not published in academic journals, we consulted organizations affiliated with the response and prevention of child maltreatment (e.g., National Child Alliance, the Centers for Disease Control, National Children’s Advocacy Center, and Crimes Against Children Research Center). Ultimately, only articles published in English that examined the historical development and core principles of CACs, the effectiveness and benefits of CACs in responding to child maltreatment, and the limitations and barriers faced by CACs were included in this review. We excluded dissertation manuscripts and articles that did not focus on CACs, the CAC model, or the aims of the current review. As a result, a total of 39 articles were included in the current review of the literature. It should be noted that the goals of the current review in combination with the lack of empirically rigorous studies examining CACs and its components precluded a meta-analysis and true systematic review as per systematic guidelines. See Table 1 for studies investigating the effectiveness of CACs and the areas for needed improvement.
Table 1

Studies examining the effectiveness of CACs and/or areas for needed improvement.

<table>
<thead>
<tr>
<th>Study</th>
<th>Study design</th>
<th>Sample</th>
<th>Measures</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appel and Holden (1998)</td>
<td>Review</td>
<td>31 studies</td>
<td>N/A</td>
<td>The co-occurrence between partner violence and physical child abuse was 40% in clinical samples compared to 6% in the general population</td>
</tr>
<tr>
<td>Bonach et al. (2010)</td>
<td>Case evaluation</td>
<td>108 non-offending</td>
<td>Study questionnaire assessing satisfaction with CACs and MDT services (designed for study)</td>
<td>Overall satisfaction with CAC services</td>
</tr>
<tr>
<td></td>
<td>research report</td>
<td>caregivers</td>
<td>(1) Brief screener to assess for children's internalizing and externalizing behaviors (designed for study); (2) parental reports on children's functioning</td>
<td></td>
</tr>
<tr>
<td>Conners-Burrow et al. (2012)</td>
<td>12-month longitudinal</td>
<td>1685 families</td>
<td>N/A</td>
<td>Severity of children's externalizing and internalizing significantly predicted initiation and use of mental health services</td>
</tr>
<tr>
<td>Cross et al. (2012)</td>
<td>Research review and</td>
<td>Not specified</td>
<td>Case data (i.e., demographic), interview data (e.g., parental satisfaction), site-level data (e.g., CAC protocols)</td>
<td>No role conflict for therapist working within CACs</td>
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<tr>
<td></td>
<td>commentary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross et al. (2008)</td>
<td>Case review</td>
<td>1,452 cases</td>
<td>Case data (i.e., demographic), interview data (e.g., parental satisfaction), site-level data (e.g., CAC protocols)</td>
<td>CACs are potentially important in reducing the stress associated with investigations of child abuse</td>
</tr>
<tr>
<td>Cross et al. (2007)</td>
<td>Quasi-experimental</td>
<td>1,452 cases</td>
<td>Case data (i.e., demographic), interview data (e.g., parental satisfaction), site-level data (e.g., CAC protocols)</td>
<td>CACs have increased coordination when investigating cases of child abuse compared to non-CAC facilities</td>
</tr>
<tr>
<td>Edinburgh et al. (2008)</td>
<td>Matched case</td>
<td>128 pairs (CACs vs.</td>
<td>Demographic questionnaire, health care outcomes (e.g., counseling referrals), legal outcomes (e.g., prosecution rates)</td>
<td>Children were more likely to receive physical and psychological examinations (e.g., evaluations of suicidal ideation) at CACs compared to the community centers. CAC cases were also more likely than community centers to include medical testing, treatment for sexually transmitted infections (STI), and pregnancy screenings. Significant variation in reactions of non-offending caregivers to their children following allegations of sexual abuse. Majority of non-offending caregivers are protective and supportive; however, support is often inconsistent and ambivalent Effectiveness of CACs in increasing successful prosecution of sexual abuse offenders and promoting a more child-sensitive environment is equivocal. However, research indicates the potential promise of CACs. Witnessing partner violence was significantly associated with child maltreatment and other forms of family violence</td>
</tr>
<tr>
<td></td>
<td>comparison</td>
<td>non-CACs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elliot and Carnes (2001)</td>
<td>Research review</td>
<td>Not specified</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Faller and Palusci (2007)</td>
<td>Research review</td>
<td>Not specified</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Hamby et al. (2010)</td>
<td>12-month longitudinal</td>
<td>4,549 youth from</td>
<td>Juvenile Victimization Questionnaire (Finkelhor et al., 2005; Finkelhor et al., 2009; Hamby et al., 2005).</td>
<td></td>
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<tr>
<td></td>
<td>phone interview</td>
<td>nationally representative sample</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jackson (2004)</td>
<td>Experimental</td>
<td>117</td>
<td>Semi-structured interview assessing CAC components (designed for study)</td>
<td>CAC affiliated and non-affiliated centers have adopted key components of CACs with some variability across centers</td>
</tr>
<tr>
<td></td>
<td>investigation utilizing stratified random sampling</td>
<td></td>
<td></td>
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<tr>
<td>Jensen et al. (1996)</td>
<td>3-month longitudinal</td>
<td>294</td>
<td>(1) Abuse incident measure (designed for study); (2) child perception of experience at CAC; (3) multidisciplinary team's satisfaction with CAC services; (4) parental satisfaction with CAC services; (5) legal outcomes and treatment referrals</td>
<td>Parental and child satisfaction with CAC services maintained at 3-month follow-up</td>
</tr>
<tr>
<td>Jones et al. (2010)</td>
<td>Experimental multi-site evaluation using quantitative and qualitative assessments</td>
<td>203</td>
<td>(1) Quantitative measures: (a) 14-item Investigation Satisfaction Scale (ISIS; designed for study) assessed non-offending caregivers' satisfaction with CACs; (b) child satisfaction with investigation (6 items designed for study)</td>
<td>Identified areas of improvement for CACs communication about case status and more commitment to prosecute cases. Identified areas of strength included duration of investigation, communication, medical exams, and provided services.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2) Qualitative measures: two open-ended questions: (a) “What aspect of the investigation was worst than you expected,” and (b) What aspect of the investigation as better than you expected</td>
<td></td>
</tr>
<tr>
<td>Jones et al. (2007)</td>
<td>Quasi-experimental</td>
<td>284 sexual abuse cases</td>
<td>(1) Parental satisfaction with CAC investigation (ISIS); (2) two open-ended questions regarding the effect of the investigation on the child; (3) children's satisfaction with CAC investigation (6 questions designed for the study); (4) demographics; (5) Child Behavioral Checklist (CBCL; Achenbach, 1991; Achenbach &amp; Rescoria, 2001); (6) Trauma Symptom Checklist for Young Children (TSCYC); (7) checklist assessing receipt of mental health services</td>
<td>Non-offending caregivers' satisfaction was higher for CAC cases compared to comparison site cases. Child satisfaction did not differ between sites.</td>
</tr>
<tr>
<td></td>
<td>multi-site evaluation of CACs</td>
<td>(229 CAC cases and 55 comparison cases)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jones et al. (2005)</td>
<td>Research review</td>
<td>Not specified</td>
<td>N/A</td>
<td>Preliminary support for the effectiveness of CAC services; however, there is a death of empirical research Children whose parents engage in partner violence are an elevated risk for physical abuse CACs are limited the role conflict experienced by mental health professionals working in and with CACs</td>
</tr>
<tr>
<td>Jouriles et al. (2008)</td>
<td>Research review</td>
<td>Not specified</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Melton and Kimbrough-Melton (2006)</td>
<td>Research review and commentary</td>
<td>Not specified</td>
<td>N/A</td>
<td></td>
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</tbody>
</table>

Please cite this article as: Elmquist, J., et al., A review of Children’s Advocacy Centers’ (CACs) response to cases of child maltreatment in the United States, Aggression and Violent Behavior (2015), [http://dx.doi.org/10.1016/j.avb.2015.07.002](http://dx.doi.org/10.1016/j.avb.2015.07.002)
TABLE 1 (continued)

<table>
<thead>
<tr>
<th>Study</th>
<th>Study design</th>
<th>Sample</th>
<th>Measures</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miller and Rubin (2009)</td>
<td>Ecological/archival</td>
<td>Not specified</td>
<td>Rates of felony prosecution and conviction for child sexual abuse cases</td>
<td>Increased use of CACs was associated with increased felony prosecution rates.</td>
</tr>
<tr>
<td>Newman et al. (2005)</td>
<td>Experimental interview</td>
<td>290 CAC and law enforcement investigators</td>
<td>11-item telephone survey (designed for study)</td>
<td>(Identified reasons and benefits for using CACs included child appropriate environment, expertise of staff, referrals, and access to medical exams. Areas for needed improvement were also discussed.</td>
</tr>
<tr>
<td>Smith et al. (2006)</td>
<td>4-month longitudinal, case comparison</td>
<td>76 cases (55 CPS cases and 21 CAC cases)</td>
<td>Structured interview (designed for study) assessing demographics; case characteristics (e.g., type of abuse); status of case</td>
<td>Overall across sites, the total case processing time was over 2 years. This is longer than recommendations made by the American Bar Association for cases of child sexual abuse.</td>
</tr>
<tr>
<td>Walsh et al. (2008)</td>
<td>Longitudinal, archival</td>
<td>160 cases</td>
<td>(1) Child demographics; (2) type of charge; (3) manner of case resolution (e.g., trial, plea); and (4) study site</td>
<td>Increased felony prosecution rates for child sexual abuse cases.</td>
</tr>
<tr>
<td>Walsh et al. (2007)</td>
<td>Quasi-experimental</td>
<td>1, 120 cases</td>
<td>Archival medical record data (e.g., whether a forensic examination was conducted, date of forensic examination); (2) parental satisfaction with investigation (interview designed for study); (3) archival record review (e.g., court and prosecution records)</td>
<td>Increased use of CACs was associated with increased felony prosecution rates.</td>
</tr>
<tr>
<td>Wolfteich and Loggins (2007)</td>
<td>Experimental case comparison</td>
<td>184 child abuse cases</td>
<td>(1) Investigation outcomes (e.g., number of interviews with children); (2) legal outcomes (e.g., arrest and prosecution rates); (3) demographics; (4) family information; (5) mental health referral data; (6) information about the abuse</td>
<td>Increased use of CACs was associated with increased felony prosecution rates.</td>
</tr>
</tbody>
</table>

2. History of Children’s Advocacy Centers

The National Children’s Advocacy Center was established in 1985 under the guidance of former congressman Robert E. Cramer of Alabama in response to a growing concern that traditional investigation agencies were ineffective in their response to child maltreatment (Cross et al., 2008; Walsh et al., 2003). The National Children’s Advocacy Center focused solely on cases of child sexual abuse and its primary goals were to increase the successful prosecution of child sexual abuse cases, and to ensure that the investigative process was mindful of and considerate to the needs of victimized children (Cross et al., 2008; Faller & Patusci, 2007). Following the establishment of this first CAC, numerous centers emerged in communities across the United States (Wolf, 2000). In order to respond to the rapid growth of CACs and the demand for a standardized protocol and training, the National Children’s Alliance was formed (NCA; Wolf, 2000; Chandler, 2000).

The NCA has developed as a membership organization that promotes accreditation standards and sought to help communities improve their response to child maltreatment by aiding in the establishment and maintenance of CACs (Wolf, 2000). Central to the NCA’s mission is the recognition that CACs are community-based organizations that need to respond to the unique needs and resources of the community in which they are located and operating, acknowledging that there are significant differences between CACs. As an example, the communities (e.g., rural v. urban) and populations (e.g., size and demographics of the population) served by a CAC are likely to vary from one CAC to the next depending on the characteristics of the region (Walsh et al., 2003). CACs also differ in their organizational base, with some organizations being located within other agencies (e.g., Child Protective Services [CPS], hospitals, law enforcement offices), others located in independent, non-profit centers (Walsh et al., 2003), and mobile CACs used to reach children, especially in rural areas, who lack transportation or the resources to travel long distances. This difference in organizational structure is important because it has implications for the types of services provided and the center’s referral source (Walsh et al., 2003); in particular, the source of referrals ultimately determines the diversity and variety of cases handled by each center (Walsh et al., 2003). Case referrals vary and may come from a single organization or multiple agencies (e.g., CPS or law enforcement; Walsh et al., 2003) and, thus, may differ in terms of developmental stage, interagency involvement, interagency relationships, and agency objectives (Walsh et al., 2003).

Despite this variation, the NCA has established a set of ten standards that all CACs must incorporate and follow to be recognized as an accredited member of the national organization and, ultimately, to receive federal funding (e.g., Chandler, 2000). For instance, all CACs must include a multidisciplinary team (MDT) consisting of representatives from CPS, law enforcement, mental health, medical communities, and victim advocacy groups. The MDT is charged with ensuring a coordinated response to situations involving child maltreatment (Chandler, 2000; Cross et al., 2008; Walsh et al., 2003). Additionally, the NCA mandates that all CACs include the following components: (1) a child-friendly facility; (2) an organizational infrastructure that oversees the legal, fiscal, and administrative operations of the center; (3) cultural and diversity awareness; (4) forensic interviews; (5) medical examination and treatment; (6) mental health resources and intervention; (7) victim advocacy services; (8) case reviews; and (9) case tracking (Chandler, 2000; Cross et al., 2008). These ten standards form the “CAC model” and have been the focus of empirical studies investigating the effectiveness and/or limitations of CACs in responding to child maltreatment.

To help support and facilitate the development and management of locally-based CACs, the US Congress passed the Victims of Child Maltreatment Act, which established four Regional CACs: the Northeast Regional CAC, Southern Regional CAC, Midwest CAC, and Western Regional CAC (National Children’s Alliance, 2011). The objective of these regional centers is to oversee the development and maintenance of all community-based centers within each specified geographic area (National Children’s Alliance, 2011). The regional centers also provide technical assistance and training programs that foster collaboration and effective implementation of services (National Children’s Alliance, 2011). While regional centers also provide opportunities for customized trainings that focus on the specific needs of each particular region, they all provide the same core courses in medical training, CAC management, new director orientation, advanced CAC leadership, team facilitator training, multidisciplinary team development, accreditation “boot camp,” and court preparation for the medical and legal profession (National Children’s Alliance, 2011).

3. The effectiveness of CACs in responding to child maltreatment

A number of studies have investigated the effectiveness of CACs in responding to child maltreatment and in upholding the standards of...
the CAC model (Conners-Burrow et al., 2012; Cross et al., 2007; Jackson, 2004; Jensen, Jacobson, Unrau, & Robinson, 1996; Smith et al., 2006). To date, studies examining the effectiveness of CACs have focused on the following domains: (1) the benefits and efficacy of the multidisciplinary process, (2) victims and families’ satisfaction with the CAC and investigation, (3) CAC response to child maltreatment cases compared to traditional CPS and community agencies, and (4) arrest and prosecution rates of offenders.

3.1. Benefits and efficacy of the multidisciplinary process

Numerous studies have shown the benefits of MDT approaches, which are a central component of CACs, in the investigation of child sexual and physical abuse (Newman, Dannenfelser, & Pendleton, 2005; Smith et al., 2006). Benefits of MDTs include reducing the stress on both child victims (by limiting the number of forensic interviews and interviewers) and non-offending caregivers (by providing one centralized point-of-contact that they can consult throughout the investigation) (Cross et al., 2012; Jensen et al., 1996). Unfortunately, there is a dearth of research examining the extent to which CACs incorporate specific agencies and services into their investigation and the effectiveness of these services. Several studies have evaluated some specific aspects of CACs’ multidisciplinary process in responding to allegations of child maltreatment (e.g., Conners-Burrow et al., 2012; Cross et al., 2007; Jackson, 2004; Jensen et al., 1996; Smith et al., 2006); however, not all services have been studied. For instance, a few studies have examined the mental health services in the CAC model and the extent to which CACs incorporate mental health representatives into their multidisciplinary teams (Conners-Burrow et al., 2012; Cross et al., 2012; Jackson, 2004; Newman et al., 2005; Smith et al., 2006).

Given that child maltreatment is associated with significant long-term consequences and that many victims of child maltreatment often do not receive mental health services (Wolfe & Loggins, 2007), the incorporation of mental health providers and services into child maltreatment investigations is vital (Conners-Burrow et al., 2012). CACs recognize the importance of mental health in the investigative process and can provide either on-site mental health services (e.g., crisis intervention, specialized individual and group therapy, and psychological evaluations) or referrals to community services (Conners-Burrow et al., 2012). The presence of mental health counselors also helps throughout the investigation and prosecution of child maltreatment cases because counselors can provide child victims and non-offending caregivers with support during these very intense and stressful phases of the legal process (Cross et al., 2012). Mental health counselors can also provide law enforcement officials (e.g., prosecutors, police officers) with guidance and information about the emotional state of the child victim, which could help reduce stress during the prosecution phase of any criminal proceedings (Cross et al., 2012). Additionally, the incorporation of mental health services in the CAC model would likely increase the number of abuse victims who receive needed mental health services because the on-site services are more affordable and reduce the burden associated with finding mental health resources in the community (Cross et al., 2012).

Jackson (2004) interviewed 117 CAC directors (i.e., 71 NCA member directors and 46 non-NCA directors) to assess the extent to which mental health services were provided to child victims. Non-member CACs have not received accreditation from the NCA; however, these centers do self-identify as CACs. Results indicated that 87% of NCA-accredited CACs included a mental health representative on the multidisciplinary team compared to 80% of non-NCA CACs. In addition, 51% of participating CACs provided on-site mental health services compared to 27% of non-NCA CACs, and 49% of CACs and 79% of non-NCA CACs provided referrals to the community. Findings also revealed that 93% of CACs and 92% of non-member centers provided mental health services to non-offending caregivers either on-site or in the community (Jackson, 2004). In a second study, Smith et al. (2006) compared mental health referral rates from a newly established CAC and a traditional CPS agency and found that 100% of substantiated cases (i.e., cases in which abuse was ruled to have occurred) served by the CAC received mental health referrals, while 71.4% of substantiated CPS cases received mental health referrals. Findings from this study indicate that CACs are upholding an important component of the CAC model, namely, the incorporation of mental health representatives and services into their multidisciplinary teams. However, given the study’s limitations (e.g., non-experimental design), these findings should be interpreted cautiously.

Research evaluating the multidisciplinary approach utilized by CACs has also focused on the forensic interviews provided by CACs, the level of the child’s self-disclosure, and the extent to which CACs provide a child-friendly environment. Cross et al. (2008) found no significant difference in levels of victims’ self-disclosure between those served at CACs versus other community agencies. This finding suggests that other circumstances, such as the child’s age and abilities, may influence self-disclosure more than the CAC environment. Jensen et al. (1996) conducted a 3-month longitudinal study with 294 children who received services from three CACs in Utah. Information about the characteristics of the abuse incident, children’s feelings about the forensic interview, children’s emotions and behaviors, and parental satisfaction were measured immediately following the forensic interviews. At a 3-month follow-up assessment, parental assessments of their children’s emotions and behaviors and parental satisfaction with the CAC and investigation were assessed. Results indicated that more children reported feeling “very good” about the forensic interview (42%) and CAC environment (64%) than feeling “very bad” about the forensic interview (12%) and CAC environment (8%). Additionally, three months following the initial forensic interview, parents reported that their children exhibited less emotional and behavioral difficulties, including reduced difficulty falling asleep and interacting with friends. While it cannot be determined whether these reductions were directly related to CAC services, as no control group was employed, these findings suggest that a large number of children did not experience increased emotional and behavioral difficulties after the CAC investigation.

3.2. Victim and families’ satisfaction with the CAC investigation

It has been suggested that parental satisfaction with child maltreatment investigations is an important correlate of child adjustment, (e.g., Bonach, Mabry, & Potts-Henry, 2010; Cross et al., 2008; Elliot & Carnes, 2001; Jones et al., 2010). In an attempt to further the relationship between parental satisfaction with maltreatment investigations and child adjustment, research evaluating CACs has focused on caregivers and victims’ satisfaction with CAC services. For example, Jensen et al. (1996) found that non-offending caregivers reported high levels of satisfaction with the CAC investigation and that they trusted and felt helped and supported by the CAC staff. Additionally, Jones et al. (2007) conducted a quasi-experimental comparative study that evaluated caregivers and children’s satisfaction with the response and services provided by four CACs and comparison CPS agencies. Caregivers from the CAC reported higher satisfaction with the investigation experience and response than caregivers from comparison sites. Satisfaction ratings were significantly influenced by perceived comfort and safety felt throughout the investigation and the supportive nature of the staff. The number of interviews and outcome of the case did not significantly influence caregivers’ satisfaction ratings. Findings also revealed that children whose cases were investigated by CACs were less fearful during the investigation process than children from comparison sites.

Jones et al. (2010) further examined caregivers and children’s satisfaction with CAC services and response. Qualitative responses in conjunction with quantitative ratings of satisfaction indicated that caregivers were most satisfied with the emotional support provided by investigators. The investigators’ interviewing skills and commitment to cases were better than expected. Similarly, child victims reported that the ability of investigators to make them feel comfortable and heard during the forensic interview, helpfulness with the case and outcome, and skill in explaining the investigation and case process were

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better than expected. However, both caregivers and children reported
areas in which the CAC staff could improve. For example, the most com-
mon complaints reported by caregivers involved disappointment with
the thoroughness of evidence collection, perceived failure of the CAC to
pursue prosecution, and the level of communication provided by the
staff on the status of the case. Children also identified areas in which the
CACs could improve with the most common complaint involving the
investigators’ interviewing skills and the interviewing process. Despite
these complaints, both caregivers and children reported overall satisfac-
tion with the CAC services and the efforts of the investigators.

3.3. CAC response to child maltreatment compared to traditional CPS and
community agencies

In an effort to examine the effectiveness of CACs, numerous
studies have evaluated and compared the services provided by
CACs with traditional community agencies, such as CPS. For example,
Smith et al. (2006) found that local law enforcement was involved in
71.4% of the CAC cases compared to 32.7% of the CPS cases, a medical
examination was included in 57.1% of the CAC cases compared to 12.7% of
the CPS cases, and 50% of CAC cases received a forensic interview com-
pared to 13% of CPS cases. Additionally, 47.6% of the CAC cases were sub-
stantiated compared to only 12.7% of the CPS cases. Of the substantiated
cases, 80% of the CAC cases were referred for prosecution compared to
42.8% of the CPS cases. In sum, these findings suggest that CACs were
more likely to uphold the multidisciplinary process and more likely to
refer cases for prosecution compared to CPS agencies.

Walsh, Cross, Jones, Simone, and Kolko (2007) conducted a quasi-
experimental study to further compare CACs and CPS agencies’ use of
forensic medical exams in investigations of reported child sexual
abuse. Results indicated that sexual abuse cases served by CACs were
two times more likely to include a forensic medical examination than
cases served by community CPS agencies, and non-penetration cases
at CACs were four times more likely to include a medical examination
than at CPS agencies. In addition, children who were female, younger,
physically hurt or injured, or who had a supportive parent/guardian
were more likely to receive a medical examination at both CACs and
CPS agencies.

Edinburgh, Saewyc, and Levitt (2008) conducted a retrospective-
matched comparison study of childhood sexual assault handled by
hospital-based CACs with cases handled by non-CAC, community cen-
ters. Both CAC and non-CAC cases were referred for prosecution and
matched by sex of victim, age, sex of perpetrator, and type of assault.
Findings revealed that children were more likely to receive physical
and psychological examinations (e.g., evaluations of suicidal ideation,
depression symptomatology, prior psychiatric hospitalizations, and
self-mutilation) at CACs compared to the community centers. CAC
cases were also more likely than community centers to include medical
testing, treatment for sexually transmitted infections (STI), and preg-
nancy screenings.

In sum, these studies provide support that CACs, compared to tradi-
tional community agencies, are more likely to uphold the multidisci-
plinary approach to case investigation and more likely to provide vital
services, such as forensic medical examinations, psychological evalua-
tions, pregnancy and STI screenings, and STI treatment.

3.4. Arrest and prosecution rates of offenders

Arrest and prosecution rates of offenders have been established as
important outcomes for studies evaluating the effectiveness of CACs
(Faller & Palusci, 2007; Wolfeitch & Loggins, 2007). However, there is
dearth of methodologically rigorous research that evaluates and com-
pares arrest and prosecution rates from CAC and CPS cases. Additionally,
the few studies that have examined arrest and prosecution rates have
yielded limited and mixed results (e.g., Cross et al., 2008; Jones, Cross,
Walsh, & Simone, 2005). In one study, Miller and Rubin (2009)
conducted an ecological analysis of child sexual abuse cases from dis-
trict attorneys’ offices, CPS, and CACs in two community districts. In
communities where the number of CACs tripled, prosecution rates dou-
bled, and in communities where the number of CACs remained con-
stant, prosecution rates did not significantly increase. Given the study
design, causality could not be inferred; thus, caution should be taken
when making interpretations. However, the strong association between
number of CACs and prosecution rates suggests a potentially important
influence of CACs on prosecution rates.

In a second comparative evaluation, Walsh et al. (2008) explored the
length of time of charging decisions, case resolution, and total case pro-
cessing time for child sexual abuse cases in three Dallas communities.
One of the Dallas communities had a CAC while the two comparison com-
A recent study by Smith et al. (2006) found that when communities and
non-CAC communities did not have a CAC. Findings revealed that 67% of CAC cases
reached indictment within 60 days compared to 45% of cases from the first
comparison community and 34% of cases from the other. Interestingly,
total case processing time and case resolution time were faster at one of
the non-CAC sites compared to the CAC. Regardless of the presence of
a CAC, case resolution was longer than recommended by the American
Bar Association (Walsh et al., 2008).

In sum, the two studies suggest that CACs may influence important as-
psects of the criminal prosecution process. However, the limitations and
mixed results of these studies indicate that more research is needed to
further examine the influence of CACs on criminal prosecution outcomes.

3.5. Summary of findings

Although there is a paucity of methodologically rigorous studies
evaluating the effectiveness of CACs, the current review of existing re-
search indicates that CACs are effective in achieving positive outcomes
associated in response to cases of child maltreatment. For example,
from this review, it is evident that the multidisciplinary approach uti-
lized by CACs aids in reducing the trauma experienced by victims of
child maltreatment (Jensen et al., 1996; Newman et al., 2005; Smith
et al., 2006). The on-site mental health services, referral to other pro-
viders, and forensic interviews provided by CACs, coupled with the
child-friendly atmosphere of CAC programming, has aided in reducing
the stress experienced by child victims and their non-offending family
members during the investigation phase (e.g., Conners-Burrow et al.,
2012; Cross et al., 2012; Jackson, 2004; Newman et al., 2005; Smith
et al., 2006). The effectiveness of CACs in reducing the stress associated
with investigations of child maltreatment was further supported by
existing research that found high levels of child and parent satisfaction
with CAC services (e.g., Jensen et al., 1996; Jones et al., 2007, 2010),
that CACs help influence important aspects of the criminal prosecution
process (e.g., Jones et al., 2005; Miller & Rubin, 2009; Walsh et al.,
2008), and that CACs, in comparison to traditional community agencies
(e.g., CPS), are more likely to uphold the multidisciplinary approach to
case investigation and provide vital services.

4. Areas for improvement

To date, few studies have examined the effectiveness of CACs com-
pared to traditional community agencies. The studies that have been
conducted, while promising, have also highlighted challenges affecting
CACs. In addition, existing research has highlighted programs, policies,
and components of CACs that need improvement. In the following
section, we will review and discuss the challenges affecting CACs and
the areas needing improvement.

4.1. Limitations of research on CACs

To date, the few studies that have examined CACs are limited and
have yielded varied and inconsistent findings. Limitations in the extant
research are largely a product of issues with generalizability. One of the
central tenants of the CAC model is that CACs are community-based

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organizations that serve the needs of the distinct population in which they operate. As a result, there are significant variations among CACs on many different domains, including the source of referrals, the type of services provided, the centers’ organizational base, the interagency communication, and the agency objectives (Conners-Burrow et al., 2012). For example in a review of the extant literature, Faller and Palusci (2007) reported that there were significant variations across CACs in the characteristics of medical assessments, location of medical assessments, and proportion of children referred for forensic medical assessments. This significant variation, while an important part of the CAC model, limits the ability to generalize research findings from one CAC to another and to comparison agencies (e.g., CPS; Faller & Palusci, 2007). Generalizability is further limited by the small sample sizes of studies available in the extant literature. Studies examining the effectiveness and limitations of CACs have typically relied on a small number of large and long-standing CACs, thus findings from these studies likely cannot be generalized to smaller and recently developed centers (Conners-Burrow et al., 2012; Faller & Palusci, 2007). Given that there are approximately 800 CACs in the United States, more research evaluating a variety and range of CACs is needed in order to increase the generalizability of research findings.

4.2. CAC services and components

Newman et al. (2005) identified aspects of CACs that need improvement. These investigators surveyed local law enforcement and CPS investigators who used a CAC in their investigation of child maltreatment to examine CAC practices and policies that needed improvement. Investigators reported that staff availability and collaboration and communication within the CAC were two areas that needed improvement. For example, many respondents reported that there were not enough staff members to allow for longer operating hours and to provide necessary services (e.g., forensic interviews). Increased communication and collaboration among professionals working in the CAC was also identified as an important area for improvement. Specifically, many respondents reported that there were often significant delays between the initial report of abuse and the scheduling of medical exams and forensic interviews, which are essential not only in decisions about prosecution and substantiation but also in ensuring the physical and mental health of victims. Thus, scheduling delays are extremely problematic, undermine the objectives and goals of the CAC model, and may ultimately impact the treatment of victims and the prosecution of offenders. Respondents also reported the need for improved coordination and communication with all agencies involved in investigations, including increased face-to-face or phone communication on the status and progress of cases and increased follow-up with victims and families following the initial visit and conclusion of the investigation. While these findings are not conclusive or representative of all CACs, they do have serious implications, especially given that one of the central goals of the CAC model is to increase collaboration and communication among agencies investigating child maltreatment. Additional research that examines whether these identified limitations are specific to one group of CACs or is common across centers is needed.

Professionals and researchers have also criticized CACs for creating role conflict for members of the multidisciplinary team (Connell, 2009; Cross et al., 2012; Melton & Kimbrough-Melton, 2006). Of particular concern is the role conflict experienced by mental health professionals working in and with CACs. Melton and Kimbrough-Melton (2006) argue that many mental health workers are charged with the responsibility of conducting forensic interviews as well as providing therapy to child victims, which leads to significant problems, role conflict, and possible spillover. For instance, mental health workers who play an active role in collecting evidence vital to the prosecution of child maltreatment cases might continue to pursue this goal during therapy with victims. This dual role has the potential to compromise the individual’s effectiveness in both domains. In addition, mental health workers’ involvement with an organization that is affiliated with prosecutors leads to significant role conflict. During the prosecution of offenders, the credibility of mental health workers might be questioned because of their therapeutic relationship with the victims (Connell, 2009; Melton & Kimbrough-Melton, 2006). If this role conflict is truly experienced by mental health workers in CACs, then standards that limit this role conflict and the likelihood of spillover must be established. While CACs technically have a system of standards in place to reduce the likelihood of role conflict and spillover (e.g., mental health workers are not involved in the investigation team; Cross et al., 2012), additional research is clearly needed on this issue.

Finally, based on our review of extant literature, CACs do not provide specialized care or services for non-offending family members that are victims of intimate partner violence (IPV), nor do CACs collaborate with agencies involved with other forms of interpersonal violence. While CACs do provide mental health services (e.g., counseling) for non-offending family members, they do not provide specialized programs that specifically focus on IPV. The co-occurrence of IPV and child maltreatment is prevalent and well documented in the literature (Appel & Holden, 1998; Hamby, Finkelhor, Turner, & Ormrod, 2010; Jouriles, McDonald, Slep, Heyman, & Garrido, 2008). For instance, Hamby et al. (2010) examined the co-occurrence of child maltreatment and witnessing partner violence in a nationally representative sample of youth. Findings indicated that witnessing partner violence was significantly associated with exposure to child maltreatment. More specifically, 55.7% of children who were physically abused, 50.6% of children who were psychologically abused, and 70.9% of children who were sexually abused also witnessed partner violence. The high co-occurrence of these behaviors suggests that services targeting all forms of interpersonal violence are needed in order to ensure the most effective response to allegations of child maltreatment.

5. Implications and directions for future research

The extant literature on CACs suggests that there are some important CAC practices and policies that need further research attention. Of particular importance are the methodological limitations of extant literature on CACs. To date, most evaluative and comparative studies have included small sample sizes, have used ecological design, and/or included aggregate data, thus limiting the generalizability of research findings (e.g., Conners-Burrow et al., 2012; Faller & Palusci, 2007; Walsh, Lippert, Cross, Maurice, & Davison, 2008). Given the lack of methodologically rigorous studies, future research with larger sample sizes and control groups would provide a more reliable assessment of the effectiveness of CACs. For example, smaller, methodologically rigorous studies that examine the outcomes and services of centers currently overlooked in the existing research would provide a better understanding of the limitations and effectiveness of a wider array of centers. Additionally, reliable and methodologically rigorous comparison studies are needed to further examine case outcomes for investigations involving CACs and traditional community agencies (e.g., CPS).

Future research should also address the significant gaps in the extant literature. Numerous programs and services currently provided and supported by CACs have not been empirically evaluated. For example, cultural and diversity awareness, on-site mental health services and treatments, and victim advocacy services have not been empirically evaluated even though they have been identified as core components for accreditation. Future research will not only help determine the extent to which these components are incorporated into CACs and the effectiveness of these components but also further reinforce the importance of integrating ongoing research into the CAC program. Studies evaluating the on-site mental health services provided by CACs will be particularly informative, because findings could help elucidate whether CACs reduce the stress associated with investigations of child maltreatment and whether CAC services are associated with greater positive.
outcomes (e.g., reduced stress, fewer emotional and behavioral problems, and greater well-being).

In addition, only a few studies have included longitudinal assessments of outcome measures (Conners-Burrow et al., 2012; Jensen et al., 1996; Smith et al., 2006). Longitudinal research examining important outcome measures, such as client satisfaction, emotional and behavioral adjustment of child victims, revictimization, and service referral and receipt, is needed and likely will help validate the CAC model. For instance, longitudinal assessments of children’s behavioral and emotional functioning before services are implemented, after services are implemented, and at multiple long-term follow-ups may help clarify if there is a causal effect of CAC investigations on emotional and behavioral outcomes.

An additional area of improvement is the refinement and expansion of the outcome measures used to assess the effectiveness of CACs. Given the significant variation across CACs, a single, benchmark outcome that assesses all CACs is not feasible (Cross et al., 2008; Snell, 2003). The Crimes against Children Research Center (CACRC) at the University of New Hampshire has started a multisite study in order to evaluate the overall effectiveness of the CAC model as well as specific programs and services provided by CACs (Snell, 2003). In one evaluation, the CACRC asked 69 professionals working in and with a CAC to rate which outcomes they found to be the most important indicators of CAC success (Snell, 2003). Results indicated that respondents agreed that child and family investigative outcomes (e.g., more effective investigations, more thorough investigations, increased emotional support for child, prompt delivery of service, and increased availability of service); child and family post-investigation outcomes (e.g., child less likely to experience repeat abuse, decreased stress in the child); agency investigative outcomes (e.g., accurate decisions, increase in shared case information, increased interagency coordination, and better evidence); community investigative outcomes (e.g., more resources for investigation, greater adherence to best practice standard, better coordination of investigations, and better interagency relationships); and community post investigative outcomes (e.g., growth in community resources for child maltreatment and growth in public awareness of child maltreatment) were the best predictors of CAC success (Snell, 2003). Thus, the standards used to measure CAC success need to be redefined and expanded to include the individual outcomes that have been identified as important by professionals working in and with CACs. Additionally, research needs are needed to examine these individual outcomes.

The findings from the CACRC study also highlight the need for increased collaboration among all accredited and non-accredited CACs, particularly on matters relating to research. The NCA and four regional CACs have taken great strides to ensure collaboration and the implementation of best practices by organizing and developing conferences and training programs. For example, the NCA holds an annual leadership conference that provides training and forums on funding and fiscal management and innovative programs and approaches (National Children’s Alliance, 2011). The training programs and opportunities for collaboration provided by the NCA are an important first step; however, additional opportunities for collaboration need to be developed and implemented. For example, training programs focused on research and effective data/evidence collection may help increase the likelihood that individual CACs will conduct smaller studies examining center-specific outcomes and services, thus promoting ongoing research (Snell, 2003). The NCA can further promote the importance of ongoing research by including research and data collection as an accreditation standard. Ongoing research is vital in ensuring the continued progress and growth of CACs for ongoing evaluative research ensures an effective response to child maltreatment, and ultimately helps advance and promote the use of CACs.

5.1. Clinical and policy implications

In addition to the aforementioned research implications, this review has important clinical and policy implications for CACs. To strengthen the effectiveness of CACs, the NCA and regional CACs should implement a routine assessment process that examines the problems faced by individual CACs and identifies practices and policies that need improvement. These assessments should be based on reports from professionals working in and with the CACs and non-offending caregivers and child victims who receive services from the CAC. Given that a number of CAC policies and practices have been identified as needing improvement (i.e., staff availability and increased coordination and communication among staff), routine and evaluative assessments are vital to ensuring that problems within CACs are identified and resolved quickly and ultimately to guaranteeing CAC effectiveness.

Bolstering mental health services provided by CACs is a specific strategy to advance their use and improve their efficacy. Numerous studies have documented that a portion of children served by CACs do not receive mental health referrals and/or services (e.g., Conners-Burrow et al., 2012; Edinburgh et al., 2008). CACs that provide on-site mental health services, preventing clients from needing to travel to multiple agencies, are likely to increase families’ follow-through on receiving necessary services (Newman et al., 2005). One tactic that may ultimately bolster mental health services is additional ongoing research. In particular, areas of further study might include the number of children and non-offending family members that are provided with mental health referrals and services, case and child characteristics that influence when mental health referrals and services are provided, case processing time and the speed at which trauma intervention is delivered, family and child characteristics that influence whether treatment is sought, the types of mental health services provided by CACs, and, of course, the long-term clinical, developmental, and psychosocial outcomes of the participants. Additionally, the NCA and regional CACs should encourage CACs to strengthen their ties to community mental health agencies in order to ensure that a variety of mental health resources and referrals are available to victims and non-offending family members.

Promoting the importance of a collective response to all forms of interpersonal violence, including intimate partner violence, and child maltreatment may also lead to a more effective response to cases of child maltreatment (Hamby & Grych, 2013; Hamby et al., 2010). Given that different forms of interpersonal violence often co-occur, it is important that the separate agencies responding to different forms of interpersonal violence (e.g., CACs) collaborate and integrate services to adult and child victims in order to decrease the likelihood of revictimization and the continued perpetuation of interpersonal violence (Hamby et al., 2010). While the presence of CACs does not assure prosecution of offenders, the multiagency approach of CACs in which police and prosecutors play a strong role, can improve criminal justice outcomes (Cross et al., 2008).

CACs are often recognized in their communities as experts in child maltreatment due to their community outreach (e.g., training, education, awareness initiatives) aimed at the prevention of child maltreatment, although studies of the efficacy of these services are scarce (Cross et al., 2008). Often supported or facilitated by CACs, national and community-based campaigns aimed to increase behavioral awareness for offenders, intervention strategies for third parties (i.e., bystanders), and cognitive-behavioral therapy to reduce the effects of trauma show promising results (e.g., Finkelhor, 2009; Self-Brown, Rheingold, Campbell, & de Arellano, 2008). Because CACs’ coordinated response to interpersonal violence may increase the likelihood of children being temporarily or permanently placed outside the home (Cross et al., 2008), there is a critical need for both primary (i.e., public) and secondary (i.e., at-risk families) education aimed at reducing the likelihood of abuse occurring in the first place.

6. Limitations

The following limitations need to be considered when interpreting the conclusions from the current review. For example, the same set of

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researchers have authored many of the articles evaluating CACs and included in the current review. Furthermore, many of these authors work within the CAC program. Thus, it is possible that our understanding of CACs and the effectiveness is limited. In addition, it is possible that the current review was affected by publication bias. Given that researchers with ties to CACs have conducted an abundance of the research on CACs, it is possible that there is publication bias toward reporting the benefits and strengths of CACs rather than the limitations. Finally, given the lack of empirically rigorous studies, it was not possible to calculate effect sizes or conduct a meta-analysis. This would have enabled a more systematic and thorough review.

7. Conclusion

In summary, this review suggests that there is preliminary evidence supporting the efficacy of CACs in reducing the stress and trauma imposed on child victims during the investigation process. However, this review also identified important CAC policies, practices, and components that need further evaluation and improvement. In addition, due to the methodological limitations and gaps in the existing literature, future research is needed, particularly research that employs longitudinal designs, stronger comparison or control groups, larger sample sizes, and that evaluates a larger array of center-specific outcome measures. Finally, this review suggests that CACs might benefit from incorporating ongoing research into the CAC model and accreditation standards and by recognizing the importance of integrating services for child and adult victims of interpersonal violence. Given the high co-occurrence of different types of interpersonal violence, there needs to be increased collaboration among all agencies responding to interpersonal violence. If CACs were to take an active position in promoting the need for a more coordinated response to all forms of interpersonal violence, then these centers could ultimately play a vital role in increasing the response to all forms of interpersonal violence.

Acknowledgments

This work was supported, in part, by grant K24AA019707 from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) awarded to the last author. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIAAA or the National Institutes of Health.

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