Child Abuse & Neglect xxx (xxxx) xxx–xxx

Contents lists available at ScienceDirect

Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg

Full length article

A national survey of characteristics of child advocacy centers in the United States: Do the flagship models match those in broader practice?

James Leslie Herbert[a,*], Wendy Walsh[b], Leah Bromfield[a]

[a] Australian Centre for Child Protection, University of South Australia, Australia
[b] Crimes Against Children Research Center, University of New Hampshire, United States

ARTICLE INFO

Keywords:
Children's advocacy centers
Child sexual abuse

ABSTRACT

Child Advocacy Centers (CAC) emphasize developing effective cross-agency collaborations between workers involved in serious abuse investigations to foster improvements in agency outcomes, and to minimize distress, confusion and uncertainty for children and families. This study examined the characteristics of CACs, whether models in practice match the predominant model presented in the research literature. Directors of CACs in the United States that were members of the National Children's Alliance (NCA) mailing list (n = 361) completed an online survey in 2016. While some core characteristics were ubiquitous across CACs, the data suggests that different types of CACs exist defined by characteristics that are not prescribed under NCA principles, but which are arguably relevant to the quality of the response. From the results of a cluster analysis, the researchers propose a typology of CACs that reflects the development and integration of centers: (a) core CAC services (i.e. interviewing & cross-agency case review); (b) an aggregator of external services, and (c) a more centralized full-service CAC. Further research is needed to understand how these variations may impact practice and outcomes; this is particularly important considering many CACs do not match the full-service models most commonly examined in the research literature, which limits the degree to which these findings apply to CACs generally. This article proposes further research framed by the need to better understand how different parts of the response impact on outcomes for children and families affected by abuse.

1. A national survey of characteristics of child advocacy centers in the United States

An allegation of child sexual abuse requires a response from multiple disciplines and agencies, including statutory agencies such as police and child protection. In order to foster cohesive responses to child abuse, many jurisdictions have developed Multi-Disciplinary Teams (MDT); groups of workers from diverse agencies and backgrounds, with structures that provide a framework to encourage case collaboration and information sharing (e.g. case review meetings). The most prominent type of MDT, particularly in the United States, is the Child Advocacy Center (CAC). This approach emphasizes community based collaboration between workers across agencies, child friendly practices, along with child and family advocacy to enhance the investigation, treatment, management, and prosecution of child sexual abuse. Since the first CAC was established in 1985, there are now 795 centers that are members of the National Children's Alliance (NCA), the national association and accreditation body for CACs (National Children's Alliance, 2016a). This approach to collaboration has also been adapted for use in Europe (Rasmusson, 2011), Canada (Department of Justice Canada,

* Corresponding author at: Australian Centre for Child Protection, GPO Box 2471, Adelaide, South Australia 5001, Australia.
E-mail address: james.herbert@unisa.edu.au (J.L. Herbert).

http://dx.doi.org/10.1016/j.chiabu.2017.09.030
Received 14 February 2017; Received in revised form 3 July 2017; Accepted 26 September 2017

2013), and Australia (Herbert & Bromfield, 2017b).

CACs aim to improve outcomes for children and families, particularly in terms of trauma and wellbeing across domains (e.g. Hubel et al., 2014), but also to improve the quality of interviewing, investigation and prosecution of child sexual abuse (Cross, Jones, Walsh, Simone, & Kolko, 2007; Walsh, Cross, Jones, Simone, & Kolko, 2007; Walsh, Lippert, Cross, Maurice, & Davison, 2008). Synthesis of existing research (Elmquist et al., 2015; Bromfield, 2016, 2017a; Bromfield, 2016, 2017a) has identified reasonable evidence of improvements in criminal justice outcomes compared to practice as usual, but found gaps in the evidence for improvements in child and family outcomes.

While CACs are accredited against a set of standards (National Children's Alliance, 2017), there are variations not specifically prescribed by these standards that may affect the effectiveness of CACs. The rapid development and expansion of CACs, along with the philosophy of the CAC movement that the model be adaptable to communities (Walsh, Jones, & Cross, 2003) has meant that the characteristics of CACs vary significantly (e.g. Jackson, 2004).

2. Previous research on CAC characteristics

Previous research has identified the extent to which CACs vary across national (United States) samples. The most comprehensive national surveys were completed some time ago by Jackson (2004) and Kolbo and Strong (1997). While researchers have since investigated more specific questions about knowledge of evidence based practices (Wherry, Huey, & Medford, 2015) or perceptions of the advantages and difficulties of cross-agency practice (Newman & Dannenfelser, 2005; Newman, Dannenfelser, & Pendleton, 2005), there is a lack of recent research on the effect of the presence or absence of variations in CACs in producing improvements to outcomes.

In some early research on the topic Kolbo and Strong (1997) surveyed representatives from 50 US states about the characteristics of the multi-disciplinary team approach in use in that state's investigation and resolution of child abuse and neglect. They reported that states used multi-disciplinary teams with a diversity of characteristics, purpose and mandate. This included variations in the disciplines represented at MDTs, whether the MDT was convened for investigative, treatment planning, or consultation planning purposes, and if the MDT had a legislative mandate.

Jackson (2004) completed to date what is the most comprehensive national survey of CACs. While almost all CACs had several core characteristics (e.g. representatives from law enforcement, child protection and prosecution on the MDT), this study concluded that there was significant variability in characteristics within the accreditation guidelines. For example, around 48% of member CACs had victim advocates located at the CAC, and 51% of member CACs had on-site mental health services; while neither are standards for the NCA, these variations may result in varying accessibility of these important services.

Newman and Dannenfelser (2005), and Newman et al. (2005) drew from the findings of a national survey of child protective services and law enforcement staff who use CACs in their child abuse investigations. The primarily qualitative results showed that participants thought CACs facilitated collaboration through coordination and frequent communication across agencies, MDT meetings, training, and staff supporting each other (Newman et al., 2005). The participants identified cross-training, co-location, availability of trained interviewers, and communication, relationships and teamwork across agencies as key enablers of collaboration (Newman & Dannenfelser, 2005).

Most recently, Wherry, Huey, and Medford (2015) conducted a national survey of CAC practices on referral to treatment, knowledge of evidence based practices, and priorities in terms of training needs. A key finding of this study was the low proportion of CACs (30%) that had in-house mental health services with practitioners that were CAC staff members; meaning a high reliance on off-site services and external service providers. This finding was framed in terms of concerns about the capacity of communities to respond to child trauma with evidence based assessment and treatment. Similarly, Thackeray, Scribano, and Rhoda (2010) found that only 29% of CACs in a national sample undertook universal domestic violence assessments for caregivers. This highlights that differences between models of CACs seem to exist that may well impact on degree and quality of service delivery they can offer in a community.

In sum, previous research has examined the characteristics of CACs broadly (Jackson, 2004), examined the perceived advantages, difficulties, and areas for improvement for CACs across the United States (Newman & Dannenfelser, 2005; Newman et al., 2005), and sought to examine current knowledge and practices in relation to mental health services in CACs (Wherry et al., 2015). There is a need to provide an update to Jackson's (2004) broad range of information of characteristics about CACs reflecting the massive expansion of CACs (National Children's Alliance, 2016a). There is also a need to develop the literature on which variations are advantageous to the implementation or operation of CACs (Jackson, 2012).

The current study examines variations in CAC characteristics across a United States national sample. The researchers elected to focus on a sub-set of CAC characteristics that were thought to be the most relevant to quality practice in the context of cross-agency service delivery. Selection of characteristics of interest were informed by the CAC literature below and the ideological and theoretical underpinnings of CACs being not just improved justice outcomes, but a holistic response which includes more child and family centered service provision and greater attention to the mental health needs of child victims. Broadly these were related to the characteristics of the cross-agency team; case review; governance; and systems for case tracking/review of practice.

2.1. The importance of structural variations to cross-agency collaboration in CACs

This study set out to examine the prevalence of a number of key characteristics of CACs that theoretically or empirically relate to the quality of cross-agency collaboration in CACs (Table 1). While researchers have explored the types of factors that seem to be

Table 1
Variations in the Characteristics of Child Advocacy Centres.

Characteristic	Contribution to Cross-Agency Collaboration	Existing Research
Involvement of Workers/Agencies in Multi-Disciplinary Team Case Review Meeting: Law enforcement; child protection statutory authorities; prosecution; medical; mental health; victim advocacy; and CAC staff; and Additional workers/agencies: juvenile court; rape crisis counsellors; domestic violence counsellors; other.	Involvement in case review is the core process in place to facilitate communication and collaboration across workers and agencies. Case review provides a forum to share information and plan the approach to the case.	Newman and Dannenfelser (2005); Newman et al. (2005)
Co-Location of Workers/Agencies at the Child Advocacy Centre: Law enforcement; child protection statutory authorities; prosecution; medical; mental health; victim advocacy; and CAC staff; and Additional workers/agencies: juvenile court; rape crisis counsellors; domestic violence counsellors; other.	Co-location potentially builds connection between team members, and simplifies the process of collaborating on cases.	Green et al. (2008), Newman and Dannenfelser (2005), Tye and Precey (1999).
Services Provided On-Site at the Child Advocacy Centre: (a) Forensic Interviewing; (b) Victim Advocacy; (c) Mental Health Services; (d) Medical Services/Medical Examinations; (e) Rape Crisis Services; (f) Domestic Violence Services; (f) Other Services.	Providing more services on-site potentially improves the connection between the statutory and service response to cases, and simplifies the process of referral and follow-up on cases.	Edinburgh et al. (2008), Humphreys (1995), Newman and Dannenfelser (2005).
Non-Statutory Workers Employed by the Child Advocacy Centre: (a) Forensic Interviewer; (b) Victim Advocate; (c) Mental Health Services; (d) Medical Services/Medical Examinations; (e) Rape Crisis Services; (f) Domestic Violence Services; (g) Other.	Having more non-statutory workers employed by the Child Advocacy Centre may allow for easier follow-up on whether services are provided, and more control over the quality of services.	Powell and Wright (2012).
Joint Training and Professional Development for Multi-Agency Work	Increases knowledge and understanding of processes, and helps to build rapport and trust between workers across agencies.	Bertram (2008), Darlington and Feeney (2008), Haas et al. (2011), Lalayants (2013), Newman et al. (2005), Stanley et al. (2011); Szilassy et al. (2013)
Frequency of Case Review	More frequent case review provides increased opportunities to discuss and collaborate on cases, and to build trust and rapport within the team.	Jackson (2012)
Protocol or Interagency Agreement	A written and agreed protocol of practice helps to provide clarity around roles and responsibilities and reduce conflict between agencies.	Bertram (2008), Darlington and Feeney (2008), Ells (2000), Newman et al. (2005)
State Legislation Supporting CAC Collaboration & Information Exchange	State legislation may legitimise collaboration between workers, and enable information sharing between statutory and non-statutory agencies.	Ruggieri, 2011.
Cross-Agency Steering Group with Senior Representatives from Partner Agencies	Provides legitimacy for cross-agency work in partner agencies, and a forum for addressing any conflict or problems with the agreed process.	Barton and Welbourne (2005), Lalayants (2013).
Frequency of Forums to Address Inter-Agency Conflict	More frequent forums to address conflict enable any difficulties to be resolved more quickly.	Ells (2000).
Cross-Agency Case Tracking Systems	A shared data system may allow for quicker and more convenient information sharing about cases, and allow for better cross-agency oversight of cases.	Bertram (2008), Gragg et al. (2006), Howell et al. (2004)
Joint Performance Measurement (e.g. OMS) and Evaluation of Practice	Identifies the purpose of the collaboration, and measures effectiveness across agencies in order to focus the team on cross-agency goals.	Bertram (2008), Ells (2000), Fargason et al. (1994)
Regular Informal Contact/Personal Relationships between Workers	May help to build rapport and trust between workers across agencies.	Smith (2011)
MDT Coordinator Role (A worker who brings together and coordinates meetings and interviews involving the other agencies)	May improve the quality of collaboration by reducing the administrative burden on workers associated with collaboration.	Lalayants (2008)

associated with improved collaboration between agencies (e.g. Newman & Dannenfelser, 2005), there is a lack of research that demonstrates the contribution of particular factors to the effectiveness of CACs (e.g. improvements in child protection outcomes). The prevalence of these factors across the field of CACs have been included due to their plausible connection to improved effectiveness in CACs.

As a type of MDT, CACs involve bringing together workers from different disciplines and agencies to discuss, plan, and carry out a response to cases of child abuse acknowledging the multi-dimensional impact of abuse and the needs of children and families affected

by abuse. NCA standards identify the core members of a MDT at a CAC as including: law enforcement; child protection statutory authorities; prosecution; medical; mental health; victim advocacy; and CAC staff (National Children's Alliance, 2017). Workers from other agencies such as domestic violence and drug/alcohol services, and other medical specialties are also commonly involved in CACs (Whitcomb & Cross, 2017). Bringing together the disciplines and agencies involved in the response to abuse to participate in case review, joint-interviewing, or other types of information sharing are inherent to MDT models (Newman & Dannenfelser, 2005; Newman et al., 2005).

For most MDT models collaboration between workers across agencies extends beyond involvement in case review meetings, the co-location of workers is assumed to build connection and professional relationships between team members, while also making it easier to undertake case consultation/review and other formal parts of the program (Green, Rockhill, & Burrus, 2008; Newman & Dannenfelser, 2005). Beyond the collaboration of workers from different agencies, co-location may help to integrate different parts of the response resulting in a true team based approach associated with higher levels of collaboration (Tye & Precey, 1999). Providing more services on-site potentially supports effective collaborative teams through simplifying the referral process to needed services and functions (Edinburgh, Saewyc, & Levitt, 2008; Humphreys, 1995), and may facilitate more contact between workers involved in a particular case (Newman & Dannenfelser, 2005). The agency that non-statutory workers belong to may also affect the quality of collaborative relationships; larger and more well-resourced CACs may be more likely to have their own staff providing non-statutory services, whereas some CACs may rely more on contractors or services from partner agencies (e.g. state health agencies for medical examinations at a children's hospital). Where more staff members are employed by the CAC itself, it seems likely that they will more frequently deal with other team members, and have additional opportunities to build the trust and rapport required for an effective team (e.g. Powell & Wright, 2012). Providing services within the organizational structure of the CAC may also allow for easier monitoring of cases, and oversight of practice quality (Wherry et al., 2015), which may be difficult and be a source of conflict with external service providers. Efforts to develop the cross-agency team may take the form of joint training and professional development (Darlington & Feeney, 2008; Haas, Bauer-Leffler, & Turley, 2011; Lalayants, 2013; Stanley et al., 2011; Szilassy, Carpenter, Patsios, & Hackett, 2013), or through informal opportunities for workers to develop personal/professional relationships (Smith, 2011).

Case reviews are a key structure for collaboration within CACs, with key decisions on what kind of response is needed, and planning to better coordinate the response occurring at these meetings (Jones, Cross, Walsh, & Simone, 2005). More frequent case review meetings present additional opportunities to build trust and rapport between workers (Jackson, 2012), along with discussing and reviewing actions on cases; how frequently these occur may affect the degree of inter-agency collaboration that is possible. The use of MDT coordinators to help manage the review meetings and minimize the administrative burden on participating workers may also enhance collaboration (Lalayants, 2008).

The governance of the model may affect the quality of collaborative relationships where the process or roles are unclear and where there is a lack of agency leadership or proper representation in the oversight of the model (Lalayants, 2013). A protocol or formal inter-agency agreement is an important foundation for a CAC to clarify the process and outline roles and responsibilities (Ells, 2000; Newman et al., 2005). Some jurisdictions even have processes for CACs written into state legislation, particularly addressing issues related to information exchange (Ruggieri, 2011). Continuous discussion and review of the arrangements by a cross-agency steering group provides an opportunity to examine how the collaboration is functioning from each organization's perspective, and make any necessary changes to arrangements to improve collaboration (Barton & Welbourne, 2005; Lalayants, 2013). The existence of processes in order to address any inter-organizational conflicts, and the regularity of forums to address conflicts also potentially improve collaboration through acknowledging and resolving problems (Ells, 2000). Arrangements to undertake collaborative approaches to abuse such as CACs require forums for agencies to discuss and review arrangements and resolve any difficulties with the process.

Case tracking systems potentially enhance collaboration through the ability to exchange information about a case through a centralized database, and in order to be able to keep track of the response to the case across the different agencies involved (Gragg, Cronin, & Schultz, 2006; Howell, Kelly, Palmer, & Mangum, 2004). Case tracking, as well as being a NCA standard (National Children's Alliance, 2017), simplifies the process for workers to track the progress and actions taken by fellow MDT members. Related to this is the use of joint performance measurement, or evaluative data system to provide objective information about the performance of the center, which may also enhance collaborative efforts through identifying, measuring and providing feedback on desired outcomes across agencies (Lalayants, 2013). Engaging in joint performance measurement and evaluation, frames the performance of CACs across agencies rather than individually attributing performance (Bertram, 2008; Ells, 2000; Fargason, Barnes, Schneider, & Galloway, 1994).

2.2. Current study

No studies that we are aware of have explored the extent to which key characteristics of CACs, such as co-location, whether services are provided by staff or partner agencies, and whether CACs use case tracking, vary by the structure or type of CAC. The purpose of the current study was not only to provide a snapshot of the characteristics of CACs in the US but also to identify potential types of CACs based on the extent of integration of services. Understanding variations in the types of service delivery across CACs allows for a more informed reading of the existing CAC evidence base, particularly the evidence for the parts of the response that contribute to effectiveness.

3. Method

3.1. Participants

All accredited CACs, developing CACs, and non-member CACs in the United States (N = 796) received an email invitation to participate in the online survey, and 361 CAC directors completed the survey.

Participating CAC directors reported working in the child abuse field for an average of 15 years (SD = 9), and had worked at their CAC for an average of 8 years (SD = 6). The highest proportion of participants had a background in social work (36%), with many others having a background in not-for profit management (18%), mental health (15%), law enforcement (5%), legal/public defender/public prosecutor (5%), and medicine (4%). Some directors indicated they were from other disciplinary backgrounds (17%) including education, journalism, community health, and financial services.

Most of the CACs in the sample had been operating more than ten years, with an average of 14 years (SD = 7). This matches the timing of massive expansion in CACs during the 1990s (Chandler, 2006). Most CACs had been operating for between 11 and 19 years (37%), or more than 20 years (27%). The respondents were well distributed across the United States with the highest proportions of CACs in the South (30%) and Mid-West (28%) regions of the United States. Many CACs in the sample were from a rural area (45%). Most CACs were an independent 501(c)3 (52%), meaning the CAC was an independent not-for-profit entity. A proportion of CACs existed as a program within a 501(c)3 (24%). Relatively fewer CACs were government run (14%) or were hospital based (9%).

Directors reported on both the number of children seen at the CAC per year, and the number of full-time equivalent staff members working at the center. On average centers saw 487 children per year (SD = 560), however more than half of the CACs dealt with relatively small numbers of children from their community (i.e. less than 300 per year; 52%). CACs had on average 9 full-time equivalent staff members (SD = 13). Like the number of children seen, a large proportion of CACs had relatively low numbers of staff (i.e. less than 4; 51%), while a smaller group of CACs had very high numbers of staff (i.e. more than 12; 18%).

The directors indicated that their CACs were generally funded by a variety of sources. Most commonly CACs were financially supported by a combination of ongoing funding from State/County (76%), fundraising/events (74%), philanthropy/donations (69%), and federal funding administered by a state agency (60%). Fewer centers indicated that they received Victims of Crime Act federal funding through the Department of Justice (30%), that the CAC was funded as part of a municipal/government department (17%), or that they received seed funding to start a CAC (8%). Some CACs identified other sources of funds (21%), which included fee for service, revenue from training and technical assistance.

3.2. CAC director survey

The researchers developed a survey of CAC model variations focusing on differences in characteristics related to collaboration between workers across agencies.[1] These characteristics were identified by an ongoing literature review into the characteristics of effective multi-disciplinary teams; some additional characteristics were identified through the process of piloting the survey with directors and the executive director of the NCA.

Items relating to the characteristics of the multi-disciplinary team at CACs were initially drawn from Jackson (2004), and Kolbo and Strong (1997). These included questions about which workers were part of case review meetings, how frequent case review meetings were, which workers were co-located at the CAC, whether the CAC had a shared case tracking system, if a protocol or inter-agency agreement existed, the frequency of forums to review processes and to resolve conflicts, if state legislation existed, and whether there was joint training and professional development across the agencies involved in the team.

Feedback from the directors who piloted the survey suggested that it would be important to identify whether services were provided on or off-site, and to identify whether non-statutory roles were undertaken by CAC staff, by contractors, or by staff from a partner agency. The difference between co-location and on-site service delivery may be an important distinction; some workers may only come to the CAC to participate in an MDT and deliver their services to clients, as opposed to workers that are full-time based in the center and part of the integrated team. Other suggestions included asking about the types of forums used by CACs to resolve conflicts (e.g. CAC board, steering group), how often various forums were used to resolve conflicts, if workers had regular informal contact outside of scheduled meetings, and if CACs had processes for joint evaluation and performance measurement, primarily the Outcomes Measurement Survey managed by the NCA.

3.3. Procedure

Between January 26th, 2016 and 22nd March 2016, three letters of invitation containing a link to the online survey were distributed to 796 directors of CACs across the United States by the Executive Director of the NCA. This membership list included accredited CACs, developing (a status for CACs still in the process of putting in place the NCA accreditation guidelines) and non-member CACs. The invitation also contained an information sheet describing the study, and highlighting the voluntary and anonymous nature of the research. The survey was hosted on the Qualtrics survey platform. The survey took on average 21 min to complete.

A total of 375 responses were received (response rate of 47%), however data cleaning resulted in a number of duplicate records

[1] A copy of the survey is available on request from the lead author.

Table 2
MDT Workers & their Co-Location (N = 361).

	Are Co-Located[a,b] %	Routinely Attend MDT Case Review Meetings[c] %
Forensic Interviewer	71	95
Victim/Witness/Advocate Assistant	70	95
Mental Health Professional	50	90
Medical Professional/Medical Examiner	34	79
Police	18	96
Child Protective Services	18	98
Prosecutors/District Attorney	14	94
Rape Crisis Counsellor/Advocate	12	30
Domestic Violence Counsellor/Advocate	12	25
Other Agencies	8	26
Juvenile Court	1	35

[a] Note: 7% of participants indicated no agencies were co-located at their CAC.
[b] No response from 12 participants.
[c] No response from 15 participants.

being identified, primarily where a survey was partially completed and then fully completed on another attempt. These were screened for a final sample of 361, and a valid response rate of 45%. Of these valid responses, 50 surveys were not fully complete, a dropout rate of 14%. As much of the dropout occurred late in the survey, these responses were retained in the analysis. This was an equivalent response rate to similar web surveys conducted by Wherry, Huey, and Medford (2015; 36%) and Whitcomb and Cross (2017).[2] Other similar surveys obtained a higher response rate through soliciting CAC directors by phone (Thackeray et al., 2010; 86%), or by conducting interviews by phone with a stratified sample of CACs (Jackson, 2004; 82%).

The researchers sought to obtain census data on the population characteristics of CACs in the United States. The sample was found to be consistent with information from the 2016 National Children's Alliance Census of CACS (National Children's Alliance, 2016c) on accreditation status,[3] CAC structure.[4] The sample differed from the census population figures on urbanicity,[5] region,[6] with the sample containing an underrepresentation of southern and rural CACs.

Respondents were provided the opportunity to opt in to enter a lottery to win one of five $50 Amazon.com gift certificates by providing their email address separate to their responses to maintain anonymity. The research was approved by both the [name of university] Human Research Ethics Committee, and the [name of university] Institute Review Board.

3.4. Analysis

The survey results were imported into SPSS 23.0 for analysis; primarily this involved reporting descriptive statistics on the characteristics of CACs directors were surveyed on. Observations of differences across the categories led the researchers to undertake a cluster analysis to identify distinct types of CAC. The survey data were transformed into five interval variables: number of agencies regularly attending MDT (0–11; see Table 2 for all 11 agency/worker types), number of agencies co-located at the CAC (0–11), number of services provided on-site (0–7; see Table 3 for all service types), number of services by CAC staff members (0–7), and number of government features (0–3; i.e. data tracking system, steering group, performance measurement). Standardized scores for these variables were used in a k-means cluster analysis conducted in SPSS 23.0 (Trivedi, Dey, Kumar, & Panda, 2017). As there is a lack of clear guidelines for conducting cluster analysis, the process of the cluster analysis was presented in accordance with the guidelines identified as typical in health psychology research by Clatworthy, Buick, Hankins, Weinman, and Horne (2005).

An ANOVA with Tukey's HSD was conducted to examine differences between the clusters on the variables included in the cluster analysis. Analysis of differences between the clusters on variables not included in the cluster analysis were undertaken using Kruskall-Wallis tests (with post-hoc comparisons using Mann-Whitney U) as all of the variables were non-normal on the Shapiro-Wilk test of normality. All other comparisons were made using a Chi-square test of independence (with post-hoc comparisons using Mann-Whitney U) (Tabachnick & Fidell, 2013).

4. Results

The results of the survey are presented in two sections: MDT and CAC characteristics; and a cluster analysis of types of CACs.

[2] Note: Whitcomb and Cross (2017) had a sample of 200 directors at a time when there were 777 CACs (according to the 2014 NCA annual report) for an effective response rate of 39%.
[3] X^2 (1) = 0.74, p = 0.390.
[4] X^2 (2) = 0.61, p = 0.736.
[5] X^2 (2) = 6.70, p < 0.05.
[6] X^2 (3) = 24.47, p < 0.001.

Table 3
Service Agency and Availability of Services (N = 349).

	Service Provided Only On-Site (%)	Service Provided Only Off-Site (%)	Service Provided On & Off-Site (%)	Not A Service Provided as Part of the CAC (%)	CAC Staff Member (%)	Contractor (%)	Partner Agency (%)	Not a Service Part of the CAC (%)
Forensic Interviewing	90	1	9	< 1	80	6	36	< 1
Victim/Witness/Advocate/ Assistant	76	7	16	1	78	2	38	1
Mental Health Services	45	36	13	5	38	18	56	5
Rape Crisis Services	17	35	5	43	13	2	45	42
Domestic Violence Services	11	37	4	48	9	2	46	45
Medical Services/Examinations	43	43	9	5	20	22	60	5
Other (e.g. prevention, education, outreach)	26	10	5	59	28	3	11	62

4.1. MDT characteristics

4.1.1. Co-location at the CAC and types of workers that regularly attend MDT

Participants were asked which multi-disciplinary team members were co-located at the CAC. Surprisingly, very few CACs had police (18%), child protective services (18%), or prosecutors (14%) co-located at the CAC, despite these groups being part of almost all CAC's MDT case reviews. Most CACs indicated that they had a forensic interviewer and victim advocate co-located at the CAC (see Table 2). A lower proportion of mental health professionals were co-located at the CAC (50%), and even fewer medical professionals/examiners were co-located (34%). The largest proportion of CACs reported having: 2–3 agencies co-located (43%), with the next most frequent having 4–5 agencies co-located (20%), just one agency co-located (16%), or more than six agencies co-located (14%). Seven percent of CACs had no partner agencies co-located with them.

Unsurprisingly, the main types of professionals associated with the CAC model (police, child protective services, forensic interviewer, victim advocate, prosecutors, & medical professionals) regularly attended most MDTs (see Table 2). Notable proportions of CACs included representatives of juvenile court (35%), rape crisis counsellors (31%), and domestic violence counsellors (25%). Directors also listed other types of workers that routinely attend their MDT (26%) including tribal liaison, substance abuse providers, school representatives, probation services, representative of a children's shelter, the Federal Bureau of Investigation, Guardian ad-litem, foster care services, public health, and Court Appointed Special Advisors (CASA).

Most CACs hold case review meetings monthly (64%), with smaller proportions holding meetings every other week (22%), or weekly (12%). A small proportion indicated they held case review meetings less than monthly or just as needed (3%).

4.1.2. Agency of MDT workers and service site

Separate from the issue of whether agencies were co-located, participants were asked about what services were provided on-site (see Table 3). What this means in practice is that in some cases services are provided on site, but the agency/workers are not co-located at the CAC. Across the CACs in the sample, most provided the key services of CACs on-site (i.e. forensic interview, and advocacy support). Almost all CACs provided on-site forensic interviews (90%), or provided both on and off-site interviewing (9%). Similarly, most CACs provided advocacy services on-site (76%), or on and off site (16%), although 7% only provided the service off-site and 1% did not provide victim advocacy. The site of delivery of mental health services was much more mixed: on-site only (45%); on and off site (13%); or only off-site (36%). Similarly, for medical services about half of CACs delivered services on-site (43%) or on and off site (9%), with 43% providing services only off-site.

The directors were asked about the proportion of services provided through their center that involved staff of the CAC (see Table 3). In terms of forensic interviewing, most CACs used their own staff to conduct interviews with children (80%), although some also used representatives of partner agencies (36%). A high number of CACs indicated that they had victim advocates as CAC staff (78%), but most medical services and examinations were conducted by partner agencies (60%). Contractor services were most common for mental health services (18%) and medical services (22%). Similarly, most rape crisis, domestic violence services, and most other services provided at CACs were delivered by partner agency staff.

4.1.3. Forums to address inter-agency conflict

CAC directors indicated that most often informal processes were used to address conflicts namely the use of informal discussion between workers (67%). Case review meetings were also often used to resolve conflicts, either as an item at a regular case review meeting (54%), and as a separate case review meeting for discussing any difficulties (51%). CACs also used steering committees/advisory boards (40%), and CAC boards (21%) to address any difficulties. Some directors indicated that they used other (19%) forums to address issues, such as professional advisory committees, MDT department heads meetings, annual surveys, full-time partner relations staff, process improvement meetings, protocol committees, and policy and oversight committees. Most directors reported that forums to resolve inter-agency conflict were relatively infrequent, occurring less than monthly, or only as needed (70%).

4.1.4. Structural characteristics supporting collaboration

CACs may have a number of different characteristics in place to support inter-agency collaboration. Only 35% of directors indicated that their CAC had a shared case tracking/data system to help them monitor the progress of cases across agencies. However, most CACs had a cross-agency steering group (60%), had state legislation in place to support cross-agency work (64%), and had joint performance measurement or evaluation of practice in place (70%). Most CACs indicated that they had a written protocol or interagency agreement on processes and practices (97%), an MDT Coordinator or a person that fits this description (91%), had regular informal contact and personal relationships amongst MDT members (93%), and engaged in joint training and professional development for multi-agency work (91%).

4.2. Cluster analysis of CACs

The researchers undertook a cluster analysis to identify homogenous subgroups within the sample. Standardized data from the 342 respondents that responded to all questions for the variables included were entered into a k-means cluster analysis in SPSS. A three-cluster solution was chosen based on an inspection of the agglomeration schedule and dendrogram from an initial hierarchical cluster analysis conducted using Ward's method and squared Euclidian distance. As the K-means cluster analysis is sensitive to outliers; a boxplot of case distances from the classification cluster center was used to identify 6 cases that were screened out of the final analysis.

Table 4
Comparison of CAC Typology.

	F	Tukey's HSD (p = 0.01)	Cluster 1 (*n* = 152) Basic CAC	Cluster 2 (*n* = 104) Aggregator	Cluster 3 (*n* = 80) Full-Service
Number of Agencies Regularly Attending MDT (0–11)	15.89**	1 < 3 2 < 3	*Z* = −0.065 *M = 7.22* *SD = 1.55*	*Z* = −0.262 *M = 6.92* *SD = 1.19*	*Z* = 0.492 *M = 8.05* *SD = 1.27*
Number of Agencies Co-Located (0–11)	76.09**	1 < 2 1 < 3	*Z* = −0.624 *M = 1.76* *SD = 1.18*	*Z* = 0.436 *M = 3.70* *SD = 1.53*	*Z* = 0.469 *M = 3.76* *SD = 1.77*
Number of Services On-Site (0–7)	189.80**	1 < 2 2 < 3 1 < 3	*Z* = −0.701 *M = 2.74* *SD = 0.924*	*Z* = 0.218 *M = 3.98* *SD = 0.812*	*Z* = 1.0674 *M = 5.13* *SD = 0.973*
Number of Services by CAC Staff (0–7)	201.63**	1 < 2 2 < 3 1 < 3	*Z* = −0.672 *M = 1.72* *SD = 0.88*	*Z* = 0.137 *M = 2.84* *SD = 0.84*	*Z* = 1.156 *M = 4.24* *SD = 1.04*
Number of Governance Features (0–3)	54.76**	1 < 2 3 < 2	*Z* = −0.382 *M = 1.30* *SD = 0.62*	*Z* = 0.727 *M = 2.30* *SD = 0.62*	*Z* = −0.231 *M = 1.44* *SD = 0.86*

** p ≤ 0.01.

Cluster one (*n* = 152, 44%), Basic CAC, was characterized by low scores on all variables, and was significantly different from both other clusters on number of agencies co-located, number of services on-site, and number of services by CAC staff members, and different from cluster three on number of agencies regularly attending MDT, and from cluster two on number of governance features. Cluster two (*n* = 104, 30%), Aggregator CAC, was characterized by moderate scores on most variables relative to the other clusters, except for a lower score on number of agencies regularly attending MDT, and a higher score on governance features. Cluster three (*n* = 80, 23%), Full-Service CAC, had high scores on most variables, and was significantly different from both other clusters on number of agencies regularly attending MDT, number of services on-site, number of services by CAC staff members, and from cluster one on number of agencies co-located, and from cluster two on number of governance features.

An ANOVA of each of the variables included in the analysis indicated significant differences across the three clusters for: the number of agencies regularly attending MDT $F(2,333) = 15.89$, p .01 < 0.01, number of agencies co-located $F(2,333) = 76.09$, $p = < 0.01$, number of services on-site $F(2,333) = 189.80$, $p = < 0.01$, number of service by CAC staff members $F(2,333) = 201.63$, $p = < 0.01$, and number of governance features $F(2,333) = 54.76$, $p = < 0.01$. Post-hoc analysis (Tukey HSD) were used to compare clusters on the variables included in the cluster analysis (see Table 4).

4.3. Variations by clusters

The clusters were compared on several variables not included in the cluster analysis: number of years open, number of children seen per year, number of staff, and area type (see Table 5). The clusters were found to significantly differ on a Kruskal-Wallis Test on the number of years open $X^2(2) = 13.57$, $p < 0.01$, with a post-hoc analysis with Mann-Whitney U identifying significant differences between cluster one and two ($U = 5893.500$, $p < 0.01$), but no difference between clusters two and three ($U = 3883.000$, $p = 0.439$), or one and three ($U = 4895.500$, $p = 0.015$). The clusters significantly differed in terms of the number of children seen per year $X^2(2) = 23.23$, $p < 0.01$, with significant difference identified between clusters one and two ($U = 4685.00$, $p < 0.01$) and clusters one and three ($U = 4517.00$, $p < 0.01$), but no difference between clusters two and three ($U = 3393.00$, $p = 0.192$). Comparing the clusters on the number of full-time equivalent staff members, the clusters significantly differed ($X^2(2) = 42.94$, $p < 0.01$), with clusters one and two ($U = 4051.500$, $p < 0.01$), and one and three ($U = 3744$, $p < 0.01$) differing significantly, but with no difference between clusters two and three ($U = 3501.000$, $p = 0.286$). The clusters did not significantly vary across area type ($X^2(2) = 11.30$, $p = 0.23$).

While included in the cluster analysis as part of the interval variables (e.g. number of agencies co-located), the clusters were compared on whether mental health, medical, forensic interview, and advocacy services were co-located, on-site, and provided by a CAC staff member (see Table 5). All comparisons found significant differences between the clusters except on forensic interviewing occurring on-site, which was almost universal across clusters. On all other comparisons, cluster one had significantly lower proportions to cluster two, and on most comparisons significantly differed from cluster three. Cluster three only differed from cluster two on the rate of medical services provided by a CAC staff member, although the comparison approached significance for rates of medical services provided on-site, and medical workers co-located at the CAC.

5. Discussion

CACs vary in ways that could have significant import on their capacity to influence outcomes for children and families. While the effect of the absence or presence of these differences on the effectiveness of CACs is not yet known, this study identifies the extent to which CACs more broadly differ from the flagship CACs that are most commonly included in the evidence base supporting this

Table 5
Comparison of CAC Typology on Features (N = 336).

	X^2	Post-Hoc Comparison (Mann-Whitney U)	Cluster 1 (n = 152) Basic CAC	Cluster 2 (n = 104) Aggregator	Cluster 3 (n = 80) Full-Service
Number of Years Open	$X^2(2) = 13.57$, $p < 0.01$**	1 < 2	Median = 12 Range = 1–31	Median = 16 Range = 1–30	Median = 15 Range 1–35
Number of Children Seen per Year	$X^2(2) = 23.23$, $p < 0.01$**	1 < 2 1 < 3	Median = 250 Range = 21–1800	Median = 376 Range = 0-3000	Median = 325 Range = 30–3000
Number of Full-Time Equivalent Staff	$X^2(2) = 42.94$, $p < 0.01$**	1 < 2 1 < 3	Median = 3 Range = 0-70	Median = 6 Range 0–94	Median = 5 Range = 1–83
Area Type	$X^2(2) = 11.30$, $p = 0.23$		Urban = 21% Suburban = 26% Rural = 53%	Urban = 36% Suburban = 30% Rural = 34%	Urban = 25% Suburban = 27% Rural = 46%
Mental Health Services:					
On-site	$X^2(2) = 99.01$, $p < 0.01$**	1 < 2, 1 < 3	29%	85%	80%
Co-Located	$X^2(2) = 84.90$, $p < 0.01$**	1 < 2, 1 < 3	23%	79%	64%
Provided by CAC Staff Member	$X^2(2) = 82.78$, $p < 0.01$**	1 < 2, 1 < 3	12%	60%	61%
Medical Services:					
On-site	$X^2(2) = 46.14$, $p < 0.01$**	1 < 2, 1 < 3	33%	61%	76%
Co-Located	$X^2(2) = 39.52$, $p < 0.01$**	1 < 2	17%	41%	56%
Provided by CAC Staff Member	$X^2(2) = 31.01$, $p < 0.01$**	1 < 3, 2 < 3	10%	18%	41%
Forensic Interviewing:					
On-site	$X^2(2) = 1.03$, $p = 0.59$	1 < 2, 1 < 3	99%	99%	100%
Co-Located	$X^2(2) = 25.55$, $p < 0.01$**	1 < 2	59%	88%	74%
Provided by CAC Staff Member	$X^2(2) = 13.56$, $p < 0.01$**		72%	89%	86%
Advocacy:					
On-site	$X^2(2) = 13.18$, $p < 0.01$**	1 < 2, 1 < 3	87%	97%	98%
Co-Located	$X^2(2) = 50.96$, $p < 0.01$**	1 < 2, 1 < 3	50%	88%	84%
Provided by CAC Staff Member	$X^2(2) = 35.91$, $p < 0.01$**	1 < 2, 1 < 3	64%	90%	91%

** $p \leq 0.01$.

approach (e.g. Dallas CAC & National CAC in Huntsville, Alabama). This raises some important questions about variations within the CAC approach, and whether types of models can be expected to have the same impact on outcomes as the full-service CACs in the research literature.

The results seem to reflect at least three theorized types of CACs. Firstly, basic CACs that provide the core services of interviewing and advocacy, and a framework and site for core agencies (i.e. law enforcement, child protection, prosecutors) to meet and collaborate on cases. Secondly, aggregator CACs that mostly have many of the expected services integrated into their response, but have fewer partner agencies, services on-site, and services by CAC staff compared to the full-service model. These CACs are more likely to rely on referral to other service providers. Finally, centralized full-service CACs, which serve as 'one-stop shops' for children and families affected by abuse. These CACs have many partner agencies, services on-site, mostly provided by their own staff members. Interestingly, aggregator CACs were more likely to have more governance features in place (i.e. case tracking, steering group, joint performance measurement). We note that these CACs did not differ much from full service CACs on variables not included in the cluster analysis, except in terms of the integration of medical services in centers. We note that there was no difference between the aggregator and full-service CAC types on the number of years open, size, and area type; suggesting that the full-service type is not exclusively large, urban centers that have been open many years. Further research is needed to better understand both the importance of these variation types to effectiveness, and to better understand why CACs in practice develop in different ways.

The results suggest that while there are differences across CACs, the core services of CACs (interviewing & victim advocacy) and some features aimed at supporting and fostering cross-agency work are almost universal. There were clear differences across CACs in terms of whether services were provided on-site at the CAC, the number of agencies co-located at the CAC, and whether services were provided by CAC staff members. While not directly comparable, Jackson (2004) found that 48% of member CACs had a victim advocate at the CAC as opposed to that worker being affiliated with some other agency. The proportion found in this survey (78%) suggests an increase in the provision of advocacy by CAC staff over the time period since Jackson (2004) which may indicate an increased valuing of independent advocacy for victims. Similarly, this study found slightly higher proportions of CACs provided on-

site mental health (58%) and medical services (52%), compared to 51% of accredited CAC members (27% of non-member CACs), and 53% of member CACs (29% of non-member CACs) respectively (Jackson, 2004).

Almost all CACs had a number of the supporting features including joint training and professional development, informal contact/personal relationships, an MDT coordinator, and a protocol or inter-agency agreement. The presence of shared data/tracking systems, cross-agency steering groups, and joint performance measurement and evaluation were much more variable. The lack of these governance features suggest that some CACs have limited capacity to undertake effective practice review, and may limit opportunities to discuss and action changes across agencies. Surprisingly, the rates of shared data/case tracking systems were low (35%). Considering Jackson (2004) found that 67% of member CACs had computerized case tracking, the difference may be attributable to the wording of 'shared' with many CACs most likely having data collected separately in their partner agency systems rather than shared systems. Most CACs indicated that supportive state legislation existed.

CACs may develop differently depending on several factors. CACs need to work with statutory agencies that have diverse mandates, scales of demand for service, levels of resourcing and commitment to the approach, and motivations for engaging in a CAC. The reasons for the foundation of a CAC seem particularly critical, if jurisdictions are focused on CACs as a means to improve forensic interviewing and investigation practices, or as a means of improving the support provided to children and families interacting with the criminal justice and child protection systems. Depending on the aims, CACs may develop differently to better serve that end. The potential for tension between the involvement of mental health professionals in consulting on the forensic interview, providing support alongside the criminal justice process, and providing therapeutic services has been a point of discussion in the literature (Cross, Fine, Jones, & Walsh, 2012; Goldstein, 2012). The present findings seem to suggest that CACs are first and foremost used to improve forensic interviews and investigations, being that the core components of the response across almost all CACs are related to the forensic interview and investigation process.

This survey has some limitations to note. First, the survey relied on the participants to provide information about their center, which may not be accurate and could not be verified by the researchers. Secondly, the survey did not provide any specific direction to participants who may have been responsible for multiple CACs; some of the duplicate responses screened out may have been participants responding for additional centers they were responsible for. Thirdly, the study did not use a sampling strategy that may have resulted in a more representative sample. Compared to data on the population of CACs from the National Children's Alliance (2016b), the sample was significantly different on region and urbancity, with southern and rural CACs underrepresented in the sample. Previous studies have not undertaken this type of comparison between the sample and known characteristics of the population of CACs. Finally, the degree to which the information provided reflects the reality of the CACs sampled is reliant on the perspective and knowledge of the directors included. More accurate information may have been obtained by including other types of practice level workers in responding.

6. Implications

Practice/Policy Implications:

- While the CAC movement is inclusive of centers in a wide variety of contexts, and specializations (e.g. hospital based CACs), it may be advantageous to consider some of these differences in relation to the full-service model commonly seen in the research literature;
- Develop a clear purpose and rational for the implementation of particular CACs and other types of MDTs recognizing that the evidence base primarily reflects large scale flagship CACs that not all communities will be in a position to enter into;
- Monitor specified outcomes, and embed research into practice frameworks in order to ensure the activities of individual CACs align to its intended outcomes.

Research Implications:

- Research is urgently needed on the contribution of particular CAC features to outcomes, and on the relative effectiveness of different types of CACs. The profligacy of CACs in the United States presents an opportunity to understand the effect of the presence and absence of components;
- Research is also needed on why CACs develop in particular ways in order to better influence the adoption of effective components into practice;
- Some conceptual development is needed in order to begin to explore and understand how different factors/features in the CAC model result in improved outcomes relative to practice as usual. This is particularly important in encouraging the development and resourcing of CAC arrangements that are theoretically and empirically fit for the intended purpose of particular CACs (i.e. if they just provide interviewing and interview support, if they coordinate services, or if they directly provide in-house services).

The differences in the types of CACs discussed reflect a well understood distinction at the practice level for CACs and other types of multi-disciplinary teams, between the degree of integration, and the resourcing to enable joined up responses to abuse. While improving collaboration between workers across agencies and improving the quality of forensic interviewing practices seems to be core to the CAC response (Walsh et al., 2003), the degree to which CACs can provide the full service that can theoretically minimize some of the other difficulties confronting children and families affected by abuse will vary depending on their implementation. Indeed, the provision of comprehensive and independent victim advocacy, timely and affordable therapeutic services, and the

development of a fully integrated cross-agency team all under one roof will not be possible for all communities, particularly those responding to a small number of cases. While the CAC movement does emphasize the adaptability of the intervention to suit the circumstances of the community, we remain none the wiser about which parts of the model are important in improving outcomes.

It is problematic that much of the research literature includes large full-service CACs with partner agencies co-located, and specialist on-site staff and services, particularly in light of the small proportion of CACs that have co-located police, child protective services, and prosecutors. The use of trained CAC staff members as therapists, medical examiners and other professional roles, also separates full service CACs from other smaller CACs that rely more on connecting children and families to other external services. While CACs seem to develop towards a full-service CAC model (e.g. National CAC, Dallas CAC) or at least towards an aggregator type model, there is a lack of evidence as to which components are important for collaboration and for outcomes across domains. This is at least partially because the components of this full model were determined by a panel/commission based on experience, rather than from research evidence. As the literature is based largely on the full-service CACs, we do not know what are the minimum components of a CAC to achieve these outcomes − and whether these components are different for criminal justice versus mental health outcomes. For jurisdictions that are not in the position to implement a full-service type CAC, there are important questions around what effect a CAC with only some of the components might be expected to have.

While identifying the need for further research into some of the different types of CACs to examine their effectiveness in improving outcomes for children and families, this study has also identified an opportunity for researchers and evaluators. While the rapid expansion of CACs has limited the opportunities to identify a comparison sample from a non-multi-disciplinary response for studies of CACs (Wherry, 2015), researchers will be able to compare different types of CACs (e.g. core services vs aggregator vs full service) in terms of justice and service delivery outcomes. We hope that the typology of CACs identified in this paper can inform future comparative research.

Additionally, research into why CACs have developed in particular ways, why particular components have been adopted and not others will be important to ongoing efforts to foster effective processes and practices in MDTs. Within this is understanding whether the adoption of particular practices and processes reflect the beliefs of stakeholders about the effect of these features to enhance their work, and how other factors such as mandates, demand for services in a community, levels of resourcing and commitment to the approach, and motivations for engaging in a CAC may interact to result in particular types of CACs. Understanding variation in CAC development may help to foster elements of the response that are most effective in improving outcomes for children and their families.

Acknowledgements

Dr Herbert's Post-Doctoral Research Fellowship was funded by Parkerville Children and Youth Care Inc., a not-for-profit agency in Western Australia. The salary support for the position is provided under an agreement between the Australian Center for Child Protection and Parkerville Children and Youth Care Inc., including academic independence and external governance for the research agenda pursued as part of the position.

References

Barton, A., & Welbourne, P. (2005). Context and its significance identifying 'what works' in child protection. *Child Abuse Review, 14*(3), 177–194.

Bertram, R. M. (2008). Establishing a basis for multi-system collaboration: Systemic team development. *Journal of Sociology and Social Welfare, 35*(4), 9–27.

Chandler, N. (2006). Children's advocacy centers: Making a difference one child at a time. *Hamline Journal of Public Law & Policy, 28*(1), 315–339.

Clatworthy, J., Buick, D., Hankins, M., Weinman, J., & Horne, R. (2005). The use and reporting of cluster analysis in health psychology: A review. *British Journal of Health Psychology, 10*, 329–358.

Cross, T. P., Jones, L. M., Walsh, W. A., Simone, M., & Kolko, D. (2007). Child forensic interviewing in Children's Advocacy Centers: Empirical data on a practice model. *Child Abuse & Neglect, 31*(10), 1031–1052. http://dx.doi.org/10.1016/j.chiabu.2007.04.007.

Cross, T. P., Fine, J. E., Jones, L. M., & Walsh, W. A. (2012). Mental health professionals in children's advocacy centers: Is there role conflict? *Journal of Child Sexual Abuse: Research, Treatment, & Offenders, 21*(1), 91–108. http://dx.doi.org/10.1080/10538712.2012.642466.

Darlington, Y., & Feeney, J. A. (2008). Collaboration between mental health and child protection services: Professionals' perceptions of best practice. *Children and Youth Services Review, 30*(2), 187–198. http://dx.doi.org/10.1016/j.childyouth.2007.09.005.

Department of Justice Canada (2013). *Children's advocacy centres next steps meeting.* Retrieved from: http://cac-cae.ca/wp-content/uploads/fr_-DOJ_NSM-Research-Update_April-11+12_-S.McDonald-Eng-Version.pdf.

Edinburgh, L., Saewyc, E., & Levitt, C. (2008). Caring for young adolescent sexual abuse victims in a hospital-based childre's advocacy center. *Child Abuse & Neglect, 32*(12), 1119–1126.

Ells, M. (2000). *Forming a multidisciplinary team to investigate child abuse.* Retrieved from Rockville: http://www.ncjrs.org/html/ojjdp/portable_guides/forming/contents.html.

Elmquist, J. A., Shorey, R. C., Febres, J., Zapor, H., Klostermann, K., Schratter, A., et al. (2015). A review of Children's Advocacy Centers' (CACs) response to cases of child maltreatment in the United States. *Aggression and Violent Behavior*. http://dx.doi.org/10.1016/j.avb.2015.07.002.

Fargason, C. A., Jr., Barnes, D., Schneider, D., & Galloway, B. W. (1994). Enhancing multi-agency collaboration in the management of child sexual abuse. *Child Abuse & Neglect, 18*(10), 859.

Goldstein, S. L. (2012). Comment on Cross, Fine, Jones, and Walsh (2012): We are now on the same page. *Journal of Child Sexual Abuse: Research, Treatment, & Program Innovations for Victims, Survivors, & Offenders, 21*(2), 240–243. http://dx.doi.org/10.1080/10538712.2012.661696.

Gragg, F., Cronin, R., & Schultz, D. (2006). *Processing and outcomes of child abuse and neglect cases in three sites* [Retrieved from Washington D.C.].

Green, B. L., Rockhill, A., & Burrus, S. (2008). The role of interagency collaboration for substance-abusing families involved with child welfare. *Child Welfare, 87*(1), 29–61.

Haas, S. M., Bauer-Leffler, S., & Turley, E. (2011). Evaluation of cross-disciplinary training on the co-occurrence of domestic violence and child victimization: Overcoming barriers to collaboration. *Journal of Health and Human Services Administration, 34*(3), 352–386.

Herbert, J. L., & Bromfield, L. (2016). Evidence for the efficacy of the Child Advocacy Center model: A systematic review. *Trauma Violence & Abuse, 17*(3), 341–357. http://dx.doi.org/10.1177/1524838015585319.

Herbert, J. L., & Bromfield, L. (2017a). Better together? A review of evidence for multi-disciplinary teams responding to physical and sexual child abuse. *Trauma,*

Violence, & Abuse. http://dx.doi.org/10.1177/1524838017697268.
Herbert, J. L., & Bromfield, L. (2017b). *Multiagency investigation & support team pilot: Evaluation report*http://dx.doi.org/10.4226/78/5976de366dceb.
Howell, J. C., Kelly, M. R., Palmer, J., & Mangum, R. L. (2004). Integrating child welfare, juvenile justice, and other agencies in a continuum of services. *Child Welfare, 83*(2), 143–156.
Hubel, G. S., Campbell, C., West, T., Friedenberg, S., Schreier, A., Flood, M. F., et al. (2014). Child advocacy center based group treatment for child sexual abuse. *Journal of Child Sexual Abuse, 23*(3), 304–325.
Humphreys, C. (1995). Whatever happened on the way to counselling? Hurdles in the interagency environment. *Child Abuse & Neglect, 19*(7), 801.
Jackson, S. L. (2004). A USA national survey of program service provided by child advocacy centers. *Child Abuse & Neglect, 28*(4), 411–421.
Jackson, S. L. (2012). Results from the Virginia multidisciplinary team knowledge and functioning survey: The importance of differentiating by groups affiliated with a child advocacy center. *Children and Youth Services Review, 34*(7), 1243–1250. http://dx.doi.org/10.1016/j.childyouth.2012.02.015.
Jones, L. M., Cross, T. P., Walsh, W. A., & Simone, M. (2005). Criminal investigations of child abuse: The research behind best practices. *Trauma Violence & Abuse, 6*(3), 254–268.
Kolbo, J. R., & Strong, E. (1997). Multidisciplinary team approaches to the investigation and resolution of child abuse and neglect: A national survey. *Child Maltreatment, 2*(1), 61–72. http://dx.doi.org/10.1177/1077559597002001007.
Lalayants, M. (2008). Bridging disciplines in child protection: Guidelines for successful collaboration. *International Journal of Interdisciplinary Social Sciences, 2*(5), 147–155.
Lalayants, M. (2013). Multidisciplinary collaboration in child protective clinical consultations: Perceptions of best practices. *Journal of Public Child Welfare, 7*(3), 253.
National Children's Alliance (2016a). *Annual report 2015*. Retrieved from: http://www.nationalchildrensalliance.org/sites/default/files/downloads/2015-NCA-Annual-Report.pdf.
National Children's Alliance (2016b). *Healing, justice, & trust: A national report on outcomes for children's advocacy centers*. Retrieved from: http://www.nationalchildrensalliance.org/sites/default/files/downloads/OMS-National-Report-2016.pdf.
National Children's Alliance (2016c). *Snapshot 2017: advocacy, efficacy, and funding in CACs*. Retrieved from Washington, D.C.: http://www.nationalchildrensalliance.org/sites/default/files/downloads/Snapshot-2017-12p-Report.pdf.
National Children's Alliance (2017). *Standards for accredited members*. Retrieved from Washington D.C.: http://www.nationalchildrensalliance.org/sites/default/files/downloads/NCA-Standards-for-Accredited-Members-2017.pdf.
Newman, B. S., & Dannenfelser, P. L. (2005). Children's protective services and law enforcement: Fostering partnerships in investigations of child abuse. *Journal of Child Sexual Abuse, 14*(2), 97–111.
Newman, B. S., Dannenfelser, P. L., & Pendleton, D. (2005). Child abuse investigations: Reasons for using child advocacy centers and suggestions for improvement. *Child & Adolescent Social Work Journal, 22*(2), 165–181. http://dx.doi.org/10.1007/s10560-005-3416-9.
Powell, M. B., & Wright, R. (2012). Professional's perceptions of a new model of sexual assault investigation adopted by Victorian Police. *Current Issues in Criminal Justice, 23*(333–352).
Rasmusson, B. (2011). Children's advocacy centers (Barnahus) in Sweden. *Child Indicators Research, 4*(2), 301–321.
Ruggieri, C. L. (2011). *Child advocacy centers and child sexual abuse in Nevada. (1494058 M.A.)*. Las Vegas, Ann Arbor: University of Nevada [ProQuest Central; ProQuest Dissertations & Theses Global; ProQuest Social Sciences Premium Collection database].
Smith, T. M. (2011). *Case studies of multidisciplinary child abuse case review teams and their leaders in children's advocacy centers in Pennsylvania. (3453625 Ph.D.)*. Ann Arbor: Indiana University of Pennsylvania [ProQuest Dissertations & Theses Global database].
Stanley, N., Miller, P., Foster, H. R., & Thomson, G. (2011). Children's experiences of domestic violence: Developing an integrated response from police and child protection services. *Journal of Interpersonal Violence, 26*(12), 2372–2391. http://dx.doi.org/10.1177/0886260510383030.
Szilassy, E., Carpenter, J., Patsios, D., & Hackett, S. (2013). Outcomes of short course interprofessional training in domestic violence and child protection. *Violence Against Women, 19*(11), 1370.
Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Upper Saddle River: Pearson Education.
Thackeray, J. D., Scribano, P. V., & Rhoda, D. (2010). Domestic violence assessments in the child advocacy center. *Child Abuse & Neglect, 34*, 172–182.
Trivedi, S. K., Dey, S., Kumar, A., & Panda, T. K. (2017). *Handbook of research on advanced data mining techniques and applications for business intelligence*. IGI Global.
Tye, C., & Precey, G. (1999). Building bridges: The interface between adult mental health and child protection. *Child Abuse Review, 8*(3), 164–171.
Walsh, W. A., Jones, L., & Cross, T. P. (2003). Children's advocacy centers: One philosophy, many models. *American Professional Society on the Abuse of Children, 15*, 3–7.
Walsh, W. A., Cross, T. P., Jones, L., Simone, M., & Kolko, D. (2007). Which sexual abuse victims recieve a forensic medical examination? The impact of children's adovcacy centers. *Child Abuse & Neglect, 31*(10), 1053–1068.
Walsh, W. A., Lippert, T., Cross, T. P., Maurice, D. M., & Davison, K. (2008). How long to prosecute child sexual abuse for a community using a children's advocacy center and comparison communities? *Child Maltreatment, 13*(1), 3–13.
Wherry, J., Huey, C. C., & Medford, E. A. (2015). A national survey of Child Advocacy Center directors regarding knowledge of assessment, treatment referral, and training needs in physical and sexual abuse. *Journal of Child Sexual Abuse, 24*, 280–299.
Wherry, J. (2015). CAC Research: Improving care and proving outcomes in your CAC. *Paper presented at the national children's alliance leadership conference*.
Whitcomb, D., & Cross, T. P. (2017). *Current practice in Children's Advocacy Centers: Results of an online survey of CAC directors.* [Manuscript in preparation].