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Coming Together During COVID-19: A Mixed Methods Exploratory Study on Collective Efficacy in a State Developmental Disabilities Network

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Plain Language Summary

A group that believes they can reach a common goal by working together is more likely to achieve that goal. This is called collective efficacy (CE). CE is connected to many positive outcomes. For example, teachers with CE can help student grades. Communities with high CE have people who are less stressed. The pandemic has made new problems for people with disabilities. Many groups that serve those with disabilities need to work together in new ways. Groups with high CE might respond better to these crises.

Disability-serving agencies in Arizona worked together in new ways. This study looked at what made this group a success. This study also looked at what helped the group have high CE. We talked one-on-one with people from this group. We also sent a survey to this group. We asked questions on their CE before and during the pandemic. We also asked what they thought would happen in the future.

We found that trust, group ability, and leadership are all important pieces of CE. We also found that the CE did change in this group because of the pandemic. The group thought they were more successful now than before when they had low CE.

Every person, organization, and agency has been impacted by the COVID-19 pandemic, and disability-serving agencies and organizations are no different. This pandemic has challenged the status quo of how agency and organizational systems partner and provide services, requiring them to adapt to continuously evolving circumstances. The purpose of this study was to explore how a statewide disability network of organizations has evolved in response to COVID-19. Literature examining community responses to traumatic events, such as natural disasters, describes the role of collective efficacy (CE) in empowering the community to form a coordinated response (Benight, 2004; Boon et al., 2012; Norris et al., 2008). CE is defined as a group's shared belief and resulting coordinated actions that can result in a stronger system for collective voice and action (Bandura, 1993, 1995, 2000). Furthermore, researchers have identified that common exposure to an external event of magnitude can prompt CE (Watson et al., 2001). Therefore, the

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hypothesis of this study was that COVID-19 had an impact on the CE of the statewide disability network. Specifically, this study was designed to address the research question, “How did COVID-19 impact the shared group perception of collective efficacy among the Arizona Developmental Disabilities Network (ADDN)?”

Urgency of Disability Organizations to Adapt in Response to COVID-19

The COVID-19 pandemic has exacerbated pre-existing inequities that minority groups, like those with disabilities, face in their daily lives (Horner-Johnson, 2020). Individuals with intellectual and developmental disabilities (IDD) are at greater risk for COVID-19 for many reasons including their physical health, mental health conditions, and social circumstances (Grier et al., 2020). For example, once lockdown orders were made from state officials, many day habilitation and other support service programs were unable to provide services, causing a temporary disruption in physical and mental health supports for individuals with IDD (Villani et al., 2020). The COVID-19 pandemic has also negatively impacted families and caregivers financially, mentally, and emotionally (Arc, 2020; Willner et al., 2020). Nonmedical supports and services have also been impacted by COVID-19. Many students with disabilities are participating in remote schooling without the necessary accommodations, support personnel, and supportive environmental conditions they need in order to learn (Arc, 2020; Hughes & Anderson, 2020; Sutton, 2020). In addition to the state’s developmental disability network, there are many state and local organizations that provide supports to help individuals with disabilities and their families. This paper aims to examine how the Arizona disability network adapted and organized itself to identify the needs and advocate on behalf of individuals with IDD as a collaborative network in the wake of COVID-19.

Impact of COVID-19 on Organizational Factors

COVID-19 has forced organizations to quickly adapt to changes brought forth by the pandemic including assessing and adjusting their communication and service delivery systems, as well as their processes for monitoring the services they provide. Resources and recommendations that were identified by the Centers for Disease Control and Prevention for the general population to convey information about the pandemic were not initially designed to consider individuals with IDD (e.g., access to information and plain-language materials and explanations). Therefore, communications about the pandemic were frequently left to personnel from organizations that serve individuals with disabilities (Sabatello et al., 2020). Since COVID-19, researchers have cited that collaborations such as expanding community partnerships are of the utmost importance (Campbell, 2020; Dooley, 2020). Resiliency at multiple organizational levels (individual, team, and organizations) is also needed to respond to turbulence caused by natural disasters and public health crises (McCann et al., 2009). Collaboration and organizational resilience are key components that contribute to our understanding of how organizations respond or adapt to change.

Collaboration, or the process of working with others to produce or create something (e.g.,

networks and associations), is often cited as being beneficial especially during crises (Kapucu et al., 2010; Waugh & Streib, 2006). Collaboration among organizational systems includes sharing financial resources, transferring knowledge, sharing responsibilities, and producing synergistic solutions (Guo & Acar, 2005; Hardy et al., 2003; Shaw, 2003; Snavely & Tracy, 2000). Collaborations often take a considerable amount of effort and time to facilitate; however, when a crisis situation occurs, it can impact the speed at which these collaborations are formed, as well as how often the organizations collaborate. Additionally, research has outlined some characteristics of successful collaboration partnerships, which include trust, flexibility, balance of power, shared mission, communication, and commitment (Bergquist et al., 1995; Shaw, 2003). These traits can be considered when leadership discusses what a collaboration among organizations looks like.

Like collaboration, organizational resilience is an important factor for predicting how well organizations handle crises such as pandemics. Organizational resilience is the dynamic process that mediates a close relationship within a system and between the system and its environment (Witmer & Mellinger, 2016). Resilience is the psychological capacity and capability of adapting to stressful, potentially long-term conditions (Maher et al., 2020; Masten, 2001). Key aspects to increasing organizational resilience in response to crises include the use of multidisciplinary teams and the expansion of job descriptions to allow more flexibility (Peterson & Mannix, 2003; Witmer & Mellinger, 2016). In times of crises, when teams must work quickly to respond to immediate needs, multidisciplinary teams are often beneficial as they are associated with greater team collaboration and achievement of goals (Jankouskas et al., 2007; Quinlan et al., 2016). Solutions developed through multidisciplinary teams are often more comprehensive, addressing a variety of aspects of problems based on the individual disciplines of the team members (Uitdewilligen & Waller, 2018). Broadening job descriptions may also help organizations have employees take on a variety of tasks when needed. This is particularly helpful during crises when job descriptions may expand due to shifts in organizational priorities.

Because of the overlap between collaboration and resiliency, attempts at creating theoretical frameworks that include these constructs have been developed in workplace contexts (Rees et al., 2017), though this has not been applied to intra-organizational research. Given the many factors in organizational settings, collaboration and resilience within a network are subject to change given the complex systems guiding these interactions (e.g., personal relations, economics, politics; Bertalanffy, 1969). Social and organizational psychologists have long investigated environmental change in organizations (Lengnick-Hall & Beck, 2005), yet less is known on how collaborations are formed, triggers for collaboration, and adaptation of collaboration during crises situations (Parker et al., 2020). Little is also known about how organizational resilience might alleviate the negative impacts of COVID-19 in organizations. This study contributes to research on how state organizations can collaborate as multidisciplinary teams and work together during times of crises to better serve the disability community. We developed a questionnaire to assess CE attributes experienced by the ADDN by respectively examining CE prior to COVID-19, currently, and predicted likelihood of CE attributes continuing in the future.

Collective Efficacy

This study aimed to understand the ADDN partners shared perception of CE and the change in CE over time. CE is a group's shared belief that through their united efforts they can overcome challenges to achieve common goals (Bandura, 1993, 1995). This construct is grounded in the social cognitive theory (SCT) of behavior change that asserts a person's behavior is connected to their own efficacy or belief that they can act. Elements of SCT and efficacy have been supported by research demonstrating individual efficacy beliefs to be strong predictors of individual behavior (Anderson et al., 2007; Multon et al., 1991; Osborn et al., 2010; Sundborg, 2019).

While self-efficacy has been well-defined and the components well-researched, CE is less distinct, and the identified components tend to vary based on the discipline. For example, within the educational literature, CE in teachers has been defined and measured through the use of group competence and task analysis (Adams & Forsyth, 2006; Goddard, 2002). However, within the sociological and social psychology literature, CE tends to be measured using social cohesion (trust) and social control (Arad et al., 2020; Heid et al., 2017). Some educational literature has expanded to include social competence and various enabling structures (e.g., leadership), in addition to group competence (Gray & Summers, 2016; Hoy, 2002).

Despite these differences in definitional components, researchers generally argue the need to retire the idea that self-efficacy and CE can be measured and defined using the same components because focusing just on the elements of self-efficacy can ignore important contexts that contribute to CE (Adams & Forsyth, 2006). Additionally, an examination of literature across disciplines points to some consistency in measuring components of CE. In measuring CE, many studies have included the following components: perception of group competence (Adams & Forsyth, 2006; Goddard, 2002), social cohesion (trust; Gray & Summers, 2016; Heid et al., 2017; Hoy, 2002), and other enabling structures, such as supportive leadership (Gray & Summers, 2016; Hoy, 2002). For the purposes of the current study, the authors took a multidisciplinary approach in defining CE, choosing to specifically examine the most impactful components and created a questionnaire reflecting CE elements. In the following section, we define the CE elements and explain how these elements align with responding to emergency crises.

Group competence has been used as a measure for CE (Goddard, 2002) because it has been found to predict successful outcomes in groups with high CE under conditions of stress (Goddard et al., 2000). Social cohesion that reflects the trust and connections among members of groups has also been found to moderate relationships between adversity or stress and negative outcomes and promote actions from members for the benefit of the group (Heid et al., 2017; Wang & Fowler, 2019). Trust between group members may facilitate a willingness to participate in actions that mutually benefit the group and its goals (Sampson et al., 1997). Enabling structures help to create organizational environments that allow personnel and staff to be professionally autonomous, collaborate with others, and engage in problem solving (Adams & Forsyth, 2006; Gray & Summers, 2016; Hoy, 2002). These activities establish working relationships and trust with peers that has the potential to foster greater levels of efficacy (Adams

& Forsyth, 2006; Hoy, 2002).

Research has shown that high levels of group CE are connected to a variety of organizational benefits, including improvements in professional growth and decreases in stress. In addition, and in alignment with the current study, some research has demonstrated high levels of CE is associated with improvements in the overall collaborative impact of groups responding to ongoing challenges as well as unforeseen circumstances (i.e., teachers, first responders, and community responses to natural disasters; Benight, 2004; Carroll et al., 2005; Donohoo, 2016; Prati et al., 2011). Of particular interest to this study has been the recent work showing CE and overall collective responses to be useful in sustaining changes made in response to a disaster (Smith & Gibson, 2020). However, to date, no current literature examines how a pandemic or natural disaster has specifically brought together a group of organizations to better serve the disability community.

Arizona Developmental Disability Network

Developmental Disability Networks exist in all states and territories, comprised of three major partners as authorized under the Developmental Disabilities Assistance and Bill of Rights Act of 2000. These partners include University Centers for Excellence in Developmental Disabilities (UCEDD), State Developmental Disability Councils, and State Protection and Advocacy Systems. Given the many systems involved, it is unsurprising that there is individual yet complementary roles to these sets of agencies in addressing state-level challenges to the disability community (Rudolph, 2009). Arizona is home to two UCEDDs: The Northern Arizona University Institute for Human Development and the University of Arizona Sonoran Center for Excellence in Disabilities.

The Arizona Developmental Disability Network (ADDN) is a group of organizations that work in partnership to serve the Arizona disability community (Sonoran Center for Excellence in Disabilities, n.d.). The core members of the ADDN consist of the Arizona Developmental Disabilities Planning Council (ADDPC), the Arizona Center for Disability Law (ACDL), the Institute for Human Development (IHD), and the Sonoran Center (UCEDD). The ADDN began to organize as a collective network around 2007 (ADDN, 2007). The purpose of the network, as outlined in their Memorandum of Understanding, is to work collaboratively and strategically to identify and address common goals through the identification of best practices and mutually shared goals (ADDN, 2017).

In mid-March 2020, as a national emergency was declared in the U.S. in response to the COVID-19 pandemic, the ADDN leadership team identified a need to respond to the disability community believing they would be more severely impacted by COVID-19 than other populations (White House, 2020). In responding to this perceived need, the ADDN partners met to determine how they could better identify and respond to gaps occurring as a result of the pandemic, while developing a coordinated effort to help the Arizona disability community. As the ADDN partners worked to respond to the ever-growing need in the community, they expanded to capitalize on the expertise of other partnering agencies including the Arc of Arizona, the Native American

Disability Law Center, and Raising Special Kids. For example, the ADDN and its partnering agencies worked together to coordinate virtual town hall meetings to understand community needs, develop weekly state-wide informational webinars open to the public, and advocate for the community at state-level agencies. For more details on the activities of the ADDN and partnering agencies, please see the Appendix.

Agencies within state DD Networks are nested within two systems—the individual state DD Network (e.g., IHD within the ADDN) and their national-level organization (e.g., IHD within the Association of University Centers on Disability [AUCD]). This multilevel system presents unique challenges and opportunities in how DD Networks communicate and share information among states. This exploratory study on the collective response of one state’s DD Network, the ADDN, provides a chance to examine the critical components of that successful response, providing opportunities for other DD Networks to learn from these experiences. While in some instances DD Networks are already sharing information in pursuit of learning from each other, such as through the AUCD national conference and national weekly conference calls with the DD Planning Councils, this study provides another such opportunity to examine best practices of DD Networks. This exploratory study was conducted to answer the following question: *How did COVID-19 impact the ADDN's shared group perception of collective efficacy?*

Methods

Methodological Design

The methodological framework of this study follows a concurrent design with quantitative study results embedded within qualitative themes. This mixed-method approach helps researchers identify similar themes in quantitative and qualitative results in order to draw conclusions (Creswell & Creswell, 2017). A mixed method approach was utilized to help researchers triangulate data using multiple methods, which is particularly useful during exploratory phases of research. Questionnaire and interview items were developed with consideration to CE subdomains and early conversations with ADDN members about their work. ADDN members then pretested the questionnaire and interview items to ensure validity (Bowden et al., 2002). The Institutional Review Board at Northern Arizona University approved all research components prior to recruitment and data collection.

Quantitative Questionnaire Development and Design

The following section covers the development of the questionnaire items, as well as information on the reliability and validity of the questionnaire and the recruitment of participants.

Development of CE Questionnaire

The quantitative questionnaire was developed using established guidelines pertaining to questionnaire development (Krosnick & Presser, 2009). The questionnaire focused on

measurement of CE as a group-level assessment rather than aggregated assessments of individual efficacy within a group (Bandura, 2000). This measurement decision allowed for the examination of group functioning and group members' reliance on each other to achieve outcomes, rather than the examination of how individuals functioned within the group.

Questionnaire items were developed and adapted from previous literature (Bandura, 1995; Goddard, 2002; Wang & Fowler, 2019) regarding CE in education-based contexts. Questionnaire concepts and items were first piloted with three ADDN members to provide the opportunity for feedback and to ensure questions were appropriate and aligned with their perspectives of activities and outcomes associated with the ADDN. Questionnaire response options included descriptive, frequency, and Likert-scale (strongly disagree to strongly agree) items. These questions focused on subdomains of CE including: (1) social cohesion and trust, (2) group competence, and (3) enabling structures. The subdomain of "social cohesion and trust" included the following three items referencing components shown to contribute to trust within groups.

- Members of the ADDN and partnering agencies have shown they can be trusted to complete tasks that contribute to the group's goals in a timely fashion.
- As an organization in the ADDN or partnering agencies, we have reached out to other members of the ADDN and partnering agencies to help with challenges experienced by Arizona citizens with disabilities.
- As an organization in the ADDN or partnering agencies, we have sought input from other organizations in this network of agencies.

The group competence subdomain included the following four items addressing different aspects of expertise within the group.

- I am confident that the leaders of the ADDN and partnering agencies could effectively coordinate collective action.
- I am convinced the ADDN and partnering agencies have the organizational and agency capacity to improve quality of life in the community, even if resources are limited.
- I am familiar with the strengths of partners across this network of agencies.
- The ADDN and partnering agencies have shown they are effective at leveraging the resources of outside organizations as part of a network coordinated response or activity.

Finally, the enabling structures subdomain included the following two items referencing components shown to provide support to CE, such as sharing resources and supportive leadership structures.

- My supervisor has supported me in learning new skills so I could help support the ADDN and partnering agencies.
- Members of the ADDN and partnering agencies have shared resources across agencies to serve the disability community.

The questionnaire was estimated to take approximately 20 minutes. All questionnaire items were asked considering three time points (past, present, and a prediction of future collaboration): (1) prior to COVID-19, (2) at time of survey completion (late September/early October 2020), and (3) after the pandemic has ended. These dates were determined considering our original research question that considered how COVID-19 impacted the ADDN's group perception of CE. Because COVID-19 was unplanned, data collection could not be collected before the pandemic providing us with limited measurement options. However, there is evidence that retrospective questionnaire designs can provide valuable information, especially when no other options for study are available (Euser et al., 2009).

Reliability and Validity

As mentioned above, there were no validated questionnaires on CE that were appropriate for the purposes of this study. Therefore, the research team designed a CE questionnaire to assess the ADDN's response to COVID-19. Reliability estimates were calculated using Cronbach's alpha for two time points. Prior to COVID-19 estimates were .81 and currently (late September/early October 2020) were at .539. The unstable and low alphas were expected as small sample sizes, such as the one used in this study, tend to result in unstable estimates of reliability (Tavakol & Dennick, 2011). Throughout the qualitative results section of the paper, we do provide evidence of the alignment between the two types of data, contributing to measures of construct validity. Face validity was assessed through feedback provided by ADDN members (considered experts in the field) on the appropriateness of the CE constructs and questionnaire items.

Recruitment and Sample

ADDN members and their partnering agencies were sent a Qualtrics questionnaire link via email from an ADDN member known by the research team. The questionnaire was sent to 19 individuals and completed by 13 participants. This reflected an overall participation rate of 68%. All ADDN member and partner agencies were represented in the 13 participants who completed the questionnaire. Participants represented a variety of organizational roles, including executive directors of agencies/organizations, project coordinators, and other staff positions. Length of time in these roles also varied from less than a year to 19 years. On average, participants were at their current positions for about 5 years. After data were screened and no outliers found, all items on the CE scale were scored by taking the average, following recommended Likert-type scale practices (Sullivan & Artino, 2013).

Qualitative Interview Development

The following sections cover the development of the qualitative interview questions, as well as information on the recruitment of participants and details on the qualitative analysis methods used.

Question Development

Semistructured interviews were chosen as the interview approach. This allowed researchers to start with a list of structured questions but allowed interviewers to ask additional questions when a response introduced novel concepts that might be important to CE. Participants were asked about ADDN activities, roles, and perceptions, thus, adding a valuable dimension to our understanding of CE in the network. Interview questions were developed to align with questionnaire items that were aligned with the subdomains of CE including: (1) social cohesion and trust, (2) group competence, and (3) enabling structures. Questions in the social cohesion and trust subdomain probed how group composition and the quality of relationships in the group had changed over time, and the impact on group outcomes.

- How has the makeup of the group changed since COVID? Why did it change? What has been the impact? How do you know?
- How has the quality or strength of relationships between partners within the group changed as group activities increased in response to the COVID-19 pandemic?
- What did those relationships look like before? What do they look like now?

Questions in the enabling structures subdomain examine the impact of external factors that helped or hindered the group's progress, and focused specifically on leadership and roles within the ADDN.

- What is your role in this group? How long have you known about the group? How has your role as a member of the group changed from before the COVID-19 pandemic to now?
- Are there particular group leaders or members who were the main drivers in facilitating the group's activities?
- What was the role within the group of the individuals who were most likely to follow through on the work of the ADDN group? How were these leaders identified?
- Were there factors or anything else that hindered the group's ability to respond to the COVID-19 pandemic?

Finally, questions in the group competence subdomain allowed researchers to probe for more in-depth information on the accomplishments of the group and how the competencies of

its members impacted those accomplishments.

- What were some of the actions taken by the group during the COVID-19 pandemic that you believe were effective? Why were they effective?
- In what ways has the group's role in identifying and responding to the Arizona disability community needs changed since COVID-19?
- How has your perspective on the importance and relevance of the group changed since before the COVID-19 pandemic to now?
- What do you think the impact of this group has been on the communities the group aims to serve? What do you think are next steps for this group?

Recruitment and Sample

After participating in the questionnaire, a subset of eight participants who completed the questionnaire were emailed by the research team and asked to participate in a virtual individual interview. Out of the eight participants who were contacted, five participated in an interview. Interviews occurred within 4 to 8 weeks of completing the questionnaire. In order to incorporate a breadth of participant experiences, interview participants were selected based on their representation of a diverse sample of organizational affiliations and roles. Interview participants represented most organizations involved in the ADDN as well as partnering agencies, including the Arizona Developmental Disabilities Planning Council, the Institute for Human Development, the Arc of Arizona, and the Native American Disability Law Center, and a variety of roles from organizational directors to dissemination experts. Interview participants also ranged in terms of length of time in their current role from 15 years to less than a year. More specific information about interview participants cannot be provided because of the small sample size.

Qualitative Interview Analysis

The 31- to 70-minute interviews were conducted in a one-on-one virtual Zoom meeting with one researcher conducting all the interviews. All interviews were recorded using Zoom and transcribed using the built-in automatic transcription service. Transcripts were then reviewed and edited by the research team to clean up mistakes in automatic transcription. Finally, the research team analyzed transcripts by hand using the commenting feature in Word. The research team used a deductive method of analyzing the interview data, taking the overarching theoretical framework previously identified and developing a coding tree based on those concepts (Kyngäs & Kaakinen, 2020; Teufel-Shone et al., 2006). A primary researcher coded all transcripts, with an additional researcher confirming all codes and identifying gaps or additional codes. If new codes were identified, researchers would come together to reconfirm those codes. While approaching the qualitative interview data with predetermined codes, the researchers still allowed new concepts to emerge from the data if important ideas were not fully encompassed within the structured and preidentified codes. For example, while a portion of the predetermined codes

included enabling structures, the interviews added further depth to those codes through the identification of the importance of shared leadership.

Results

From March 2020 (the start of the pandemic) to November 2020, increases in time collaborating, partnering on activities, and sharing resources to better serve the disability community were noted. A paired t test was conducted to examine the response to the questionnaire data. On average, ADDN and their partnering agencies perceived lower CE of the group before the COVID-19 pandemic ($M = 3.93$, $SD = 0.52$) compared to currently ($M = 4.51$, $SD = .45$). This difference was statistically significant $t(11) = -3.56$, $p = .002$. When asked to make future predictions related to CE and the COVID-19 pandemic ending, most participants (92%) believed that after the pandemic the group would be trusted to complete tasks that contribute to the group's goals in a timely fashion. All participants (100%) were confident in the ADDN and partnering agencies in coordinated effective collective action.

The quantitative results alone are not sufficient in this study to draw robust conclusions but can be used to add strength and support to the main qualitative study. Thus, where applicable, additional descriptive statistics comparing retrospective questionnaire responses from prior to COVID-19 to current questionnaire responses are embedded in the qualitative themes that were confirmed through or emerged from the data and are described below. Three of the themes described align with the CE subdomains: social cohesion and trust, group competence, and enabling structures. The two additional themes described emerged from the data and include group functioning prior to COVID-19 and network outcomes. The themes below are ordered in a timeline that seemed to reflect the most natural flow of the themes. These themes begin with group functioning prior to COVID-19 and end with the outcomes of the group.

Group Functioning Prior to COVID-19

Through the process of the interviews, participants often spoke of the way the group functioned prior to creating a system for responding to the COVID-19 pandemic. Prior to the pandemic, agencies and organizations in the ADDN worked as independent organizations rather than as a collective whole. While they might work across organizations on a single grant-funded project, much of their work was conducted independently.

One participant spoke of how their perception of coordinated actions changed as a result of their recent work with the ADDN,

At the very beginning when [another ADDN group member] came [to Arizona], she was saying we need to do things more coordinated. We need to do more coordinated activities and I was confused because I was like why, we already do things that are coordinated, you know, we work together on grants.

Other participants also spoke of the lack of collective action prior to the activities in

response to the pandemic.

In a great many discussions and a great many projects that sort of touched on these issues in the past, but it was always kind of a one off. It was always working individually with one agency, one DD network partner or member or another. It was never kind of a collective effort.

The changes to the perception of the group's capacity to act as a collective network was reflected in the questionnaire results with most questionnaire participants reporting that they were more confident at the time of the questionnaire that the ADDN could effectively leverage resources as part of a coordinated action than prior to COVID-19, increasing from 67% to 100%.

Social Cohesion and Trust

Social cohesion was confirmed as a theme for the individuals interviewed. Participants talked about how the increase in the amount of time spent working together and resulting relationships and trust between members of the ADDN created a positive effect and aided the success of their work. This discussion about the importance of social cohesion reflects previous literature on CE in groups (Wang & Fowler, 2019). Trust and confidence in fellow group members aids the effectiveness and efficiency of completing the work. Participants described how social cohesion and trust contributed to their understanding of the group's capacity to effectively accomplish goals and how the pandemic has contributed to setting the tone of this group's response.

It has taught me a lot more about what the organizations are capable of and it's taught me much more about what they do routinely, things that I didn't know before. What I've learned is that they really are capable of responding very rapidly and responding in ways that make a difference for people in ways that make an immediate difference. So I guess I feel like they're even more important now and will continue to be because it seems like a different tone has been set, and it doesn't seem like.... It doesn't seem to me that that tone is going to disappear, that your organizations will revert back to some former look.

Participants also described how the cohesiveness of the group and their common goals lead to greater outcomes.

I think it dawned on me a little bit how you can get a lot more done with a collective group like that. You know, coming together with a similar mission and purpose or at least you can reach more people whether or not you get anything more accomplished remains to be seen. But there's just power in that. Common goals and objectives with a larger group, I think better inform people and get the point across, and get things accomplished maybe.

Questionnaire results reflected increases in social cohesion from prior to COVID-19 to the time of questionnaire. ADDN members and their partnering agencies shared that they were more

likely to seek input a few times per month or more frequently from other ADDN members after COVID-19 began, increasing from 33% to 67%. They were also more likely to request assistance from their fellow partner agencies when encountering challenges, with participants reporting an increase from 25% to 75% in requests that occurred at least a few times.

Group Competence

Another theme that was confirmed from the interviews that also aligned with literature in this area was group competence—or the perception that the group has the capacity to serve the disability community. Participants who were interviewed by ADDN pointed to the capacity of the group to recognize and fill gaps, creating a space for the disability community to come together and voice their concerns.

Participants discussed the idea that different organizations came together to fill different gaps, leading to a more comprehensive and responsive system, which contributed to the overall sense of group competence.

There's a lot of diversity of expertise within the group, having a [Protection and Advocacy agency] with its legal expertise. You know there's just an amazing amount of knowledge held by the individuals who've been involved in this process.

While only one participant described how their organization fulfilled a role that many other organizations could not, this idea reflects the unique and complementary roles of the DD network agencies.

Unlike those agencies which are prohibited from lobbying because of their funding for the most part anyway prohibited to lobbying we do quite a lot of lobbying. We do a lot of work at the legislature that sometimes would cross a line for those organizations.

Perceptions of group competence were also displayed through confidence that group members could advocate successfully on behalf of disability community members.

I think that we're creating more of a permanent space for people to be able to have their issues heard. So, I think that's changed... I believe that the community knows now who to go to if they have issues. They can go to any of our organizations and let us know when there's issues or email us or something. So, it's almost building trust with the community to come to us if there's issues that we can help advocate the state.

Enabling Structures

Enabling structures or resources, supportive leadership, and prior knowledge, was confirmed as the final theme aligned with the framework used to approach this study. These

structures created an environment in which the ADDN could successfully complete their work, providing opportunities for staff members and agency leaders to collaboratively execute plans to alternatively gather and distribute information to the disability community. These structures contributing to the success of the group included intentional diversity in the roles of the ADDN members, a shared leadership model, and leadership skills.

Participants discussed how the diversity in agency leaders, as well as their combined supportive leadership styles contributed to the success of this group.

Every one of the directors for each one of the Network have a way of looking at this in an overarching universal way. And they're all paying attention. They all have different personalities about how to communicate and I could probably talk about how each one of them contributed very well to the situation. And when you have that blend. And when you have that diversity. I think, not many things don't get left on the table at that point to think about and to approach.

Participants also mentioned the necessity of the shared leadership model in response to the COVID-19 pandemic.

There was some natural roles that just came about, especially on the leadership side. With something this, for a lack of a better word, monumental there had to be many leaders. And then the leaders that were identified or the directors had to be able to give sort of a little bit, give a little bit up on the control side of things. And what happened was, we had a very active team.

Another component of enabling structures included supporting other organizations outside the ADDN. In one specific example, a leader was conversing with a newer member of the group who worked on the Navajo Nation. This new member brought up how their specific organization fit into the webinar conversations given that the Navajo Nation operates different than the state agencies. The ADDN leader responded,

I told [the new member] like that you don't understand, we also serve the entire state. So we care about the Navajo Nation and [the new member] was like, Well, what I have learned is that, you know, the things that you guys are looking at I have taken those same questions to our Navajo Nation DDD.

An increase in supporting partner agencies from prior to COVID-19 to currently through resource sharing was also demonstrated through the questionnaire results, with questionnaire participants reporting that they were more likely to share resources with fellow network members at least a few times per month, seeing an increase from 42% to 83%.

Network Outcomes

The final theme that emerged from the interviews was an understanding of the network's success or outcomes because of their collective action. Network outcomes identified by interview

participants included the more responsive nature of their activities, through which ADDN group members felt they were more able to meet the needs of the disability community.

The silver lining from this pandemic is [it] clearly increased our responsiveness to collective discussion and action. We believe that there has been a renewed reunification among the DD Network stakeholders to the work of serving the IDD population and their families.

The responsive nature of the ADDN was only improved by the creation of forums (webinars) in which the disability community could make their needs understood and known. While the COVID-19 activities were initially created out of a desire to understand and respond to the communities the ADDN supports, these activities might serve a longer-lasting purpose.

I think that we're creating more of a permanent space for people to be able to have their issues heard.

There's been a lot more interaction with community members and a lot more idea generation from those community members. They've made their needs known, they've made their concerns known, they've made it clear what is affecting them and how they would like the DD network members to address those issues.

While the collective action of the group was viewed as its own outcome, that action brought an entirely new set of outcomes including an increase in trust and prestige from the perspective of state agencies.

So now we've actually re-positioned ourselves as a group, as being more prestigious, I guess, and having more, you know, power.... And so they have listened now, there's some things that we're still fighting them on, but they have responded to many of our requests for changes to be made.

However, participants still acknowledged that they had more work to do in advocating for their community, but they were confident that they were exactly the right mix of group members to achieve their goal.

There are just a lot of lessons to be learned from this and we as partners should be pointing out what those lessons are and recommending ways to be better prepared in the future. I honestly believe that is—That is one of the most important things this group can do and there probably is not a better composed, better comprised group in the state to do just that.

Discussion

Results from this study suggest that CE within the ADDN has increased due to the collaborative actions consciously taken in response to the COVID-19 pandemic. While ADDN

agencies have historically worked together, COVID-19 required the ADDN to act in more cohesive and synergistic ways across all agencies to advocate for the Arizona disability population more effectively. Interview data and questionnaire responses support this conclusion. Participants reported CE components were present to a lesser extent prior to the start of the pandemic and increased after the initial shutdowns in March 2020. In examining how COVID-19 impacted the shared group perception of CE among the ADDN, interview and questionnaire data from this study provide support for the importance of the stated CE components (i.e., social cohesion/trust, group competence, and enabling structures) and how changes in these CE components impacted the group perception of CE among ADDN members. This study fills a gap in research by addressing how strengthening CE components within a group might improve the collective response to crises, such as the pandemic. By examining the results of this study and how the components of CE were employed within the ADDN, we might build upon the results to cultivate CE in other DD networks.

In many ways, the results of this study were not unexpected, and our study results align with previous literature on CE. Evidence of collaboration and organizational resiliency was found as many organizations tend to rely on other organizations during crises (Kapucu et al., 2010; McCann et al., 2009; Waugh & Streib, 2006). Also aligned with previous literature, characteristics of successful collaborative partnerships were found within the ADDN, with interviews and questionnaire data noting elements of trust, flexibility, balance of power, shared mission, communication, and commitment (Bergquist et al., 1995; Shaw, 2003). Group competence through the varied skill sets of a multidisciplinary team (Jankouskas et al., 2007; Quinlan et al., 2016) was also found within this study. Overall, the benefits of CE in the ADDN were expected, as they are often noted during crises situations (Gray & Summers, 2016; Heid et al., 2017). The benefits of this study are not only in its support of previous literature on CE, but in how other DD networks may use and apply this information in other contexts.

DD networks interested in facilitating CE to generate significant change in their communities should focus on strong leadership and diversity in experience and skill set, two crucial components found in this study. Strong leadership acts as an enabling structure providing clear direction and setting a work agenda for the group. It also provides needed permission for other members of the group to act on ideas and flex time spent on projects to provide support when needed to other group members in other agencies. While an initial strong leadership component is often needed to have a cohesive start to the conversation among network members, this study also found that flexibility within leadership models over time was necessary. As the responsive work of the ADDN grew, leadership responsibilities often shifted to trusted staff members. This evolving shared leadership model can help facilitate more effective and efficient activities. In this instance, when called to action over a clear goal, many staff members rose to the occasion and took on the leadership roles with the support of agency directors.

Diversity in knowledge, experience, and skills were crucial to the ADDN's ability to collaborate and achieve outcomes. With more diverse leaders and perspectives contributing to a network, they are better able to address the diverse needs of the state's disability community. Diversity of community connections within a single network can help the network connect to

different communities across a state and identify and address common concerns the larger disability population is facing. Additionally, diversity of roles and skill sets within a DD network allow for better diffusion of skills across the network, with network members teaching and learning from each other. In helping other DD network members learn new skills, the capacity and cohesion and trust of the DD network is continually expanding. This need for diversity can also be reflected in diversity of expertise within the disability community (e.g., disability and legal policy, advocacy, etc.), contributing to overall group competence, which was found to be critical in the effectiveness of ADDN activities. DD networks should find creative ways to leverage the skill sets and expertise of their members, as they work together to strengthen their DD network.

Finally, the cohesive and responsive actions of a DD network might be aided by regular and consistent communication with the disability community. The ADDN achieved this by creating a virtual space through webinars and virtual town halls to discuss topics that were impacting them. This allowed the group to leverage the diversity of their network by bringing in additional partners and guests to discuss perspectives, experiences, and resources for the community. These opportunities were especially important as they created spaces for the Arizona disability community to voice their opinions and concerns during a time when they were otherwise isolated. Potentially, the most important piece of this is the way the network responded to the voices of this community by specifically planning their activities around these concerns. It is not enough to listen if the DD network is not also reacting and responding.

By leveraging the resources of all the agencies and organizations within their DD network and listening to the needs of the community, the ADDN has been able to provide recommendations and successfully advocate for the needs of their disability community. They have provided various recommendations to state agencies and have seen policy change occur as a result of their work. Their work as a collective network has shown that power is in numbers. By working together on a cohesive message and goal, they had more influence to advocate for and serve the disability community compared to working as separate independent organizations, illustrating the power of CE.

Limitations

Limitations for this study included a small sample size in the quantitative analysis; therefore, careful interpretation of these results is recommended. It should also be acknowledged that our questionnaire was made for this specific study, although the questions were drawn from an extensive review of CE and it was piloted with some ADDN members. Additional consideration of CE components and a thorough psychometric assessment in a large sample are needed for this scale to be adapted for additional contexts. An additional limitation lies in the retrospective questionnaire design, which can introduce bias into questionnaire results (Nimon et al., 2011), though some research recognizes the value for retrospective design during unprecedented circumstances such as a crises situation (Euser et al., 2009). The unique and unexpected nature of events that this questionnaire sought to study warranted using a retrospective design.

Finally, both the COVID-19 pandemic and the actions taken by the ADDN provided the unique context in which this study took place. This is another potential limitation, as it is unknown whether similar organizations and agencies and the resulting collaboration would have happened in another context. This study, however, presents one step toward understanding what makes these DD network collaborations exceptional and effective.

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Appendix

To date (September 2020), the ADDN has facilitated a total of 16 webinars. Topics for these webinars were selected by the ADDN and partnering agencies based on virtual conversations and town hall meetings held with community members. Webinar topics included the impact of COVID-19 on the disability community, managing benefits and finances during COVID-19, maintaining mental health during a pandemic, and living as a person of color with IDD during COVID-19. Generally, guest speakers were invited by the ADDN and their partnering agencies. These guest speakers were invited based on their expertise or experiences on the topic. Members of the ADDN moderated the sessions—this included monitoring video and chat functions to make sure that the speakers could address comments and questions being asked. The ADDN worked together to send email invitations to individuals with IDD, family members, and providers to those with disabilities to the webinars. Participants could join the webinar by computer or phone. As October 2020, there were 1,218 individuals who attended one of the 16 events held with—many individuals participating in multiple webinars. There were additional network activities that occurred within the ADDN such as collaborating on several letters advocating for the rights of those with disabilities. However, these activities are not as well documented.