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Research article

A child abuse research network: Now what?

Daniel M. Lindberg^{a,*}, Philip V. Scribano^b

^a *The Kempe Center for the Prevention & Treatment of Child Abuse & Neglect, University of Colorado School of Medicine, 12401 E. 17th Ave. Mailstop B-215, Aurora, CO 80045, United States*

^b *Safe Place: Center for Child Protection and Health, The Children's Hospital of Philadelphia, Perelman School of Medicine at the University of Pennsylvania, United States*

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ABSTRACT

As foundational work in preparation for a sustainable, multi-center network devoted to child abuse medical research, we recently used a combination of survey and modified Delphi methodologies to determine research priorities for future multi-center studies. Avoiding missed diagnoses, and improving selected/indicated prevention were the topics rated most highly in terms of research priority. Several constructive commentaries in this issue identify the key challenges which must be overcome to ensure a successful network. Indeed, as with the clinical work of child abuse pediatrics, a scientific network will also require constant collaboration within and outside the community of child abuse pediatricians, the wider medical community, and even non-medical professions.

1. Discussion

Recently, we published a list of research priorities for a multicenter research network (CAPNET) dedicated to child maltreatment medical research (Lindberg et al., 2017). The announcement of such a network is an ambitious statement, and only a first step – we will not achieve multicenter child maltreatment research simply by announcing that it is a good idea. As detailed further in this issue, CAPNET needs to develop both tangible and intellectual infrastructure before it begins to address even the simplest research questions [cite the 3 commentaries].

Dr. Maguire identifies the priority need for a unified research definition which enables the accurate identification of child maltreatment cases and relevant outcomes to be measured globally across institutions [cite Maguire commentary]. This is certainly an essential initial step. One must also consider how other outcomes, especially social and legal outcomes, will need to be defined, and will need to account for diverse jurisdictions, especially if the goal is to create an international network. How does one combine outcome data from countries with different mandatory reporting requirements, legal systems, or child protection strategies?

Inclusion and exclusion criteria will also need to be defined. If the goal of the research network is to address issues faced by child abuse specialists, CAPNET will need to define child abuse specialists in a way that accounts for systems with alternatives to official subspecialty board-certification, or where no certification process exists. Beyond this, it will need to define which interactions count as consultations. What about consultations that are only conducted over the phone? Should research include all children with sentinel injuries or only those in whom there is a concern for abuse? And how is that concern for abuse defined?

We are cognizant that others have paved paths in establishing international research networks, and would glean from the wisdom and experience of efforts like PreVAiL (Preventing Violence Across the Lifespan; <http://prevailresearch.ca/>), an international research collaborative, hosted by Canada and funded by the Canadian Institutes of Health Research, and includes, the US, the UK,

* Corresponding author.

E-mail addresses: Daniel.lindberg@ucdenver.edu (D.M. Lindberg), scribanop@email.chop.edu (P.V. Scribano).

Asia, Europe and Australia. Of particular relevance to CAPNET, one of PreVAiL's objectives is "to develop interventions to prevent or reduce child maltreatment, IPV and related mental health problems." This common objective would seem to be a good starting point for CAPNET to align its formative efforts. If CAPNET is to achieve its goals of developing solutions for maltreated children – rather than simply counting and lamenting the toll of maltreatment – it is also well-served to emulate PreVAiL's strategies of including data on other forms of family violence (including elder abuse, intimate partner violence and animal abuse) and data which addresses resilience as well as impairment or risk factors.

Beyond consensus definitions, CAPNET will also need to determine the common data elements that are essential, optional, or merely distracting. Until there are dedicated resources to support a sustained research infrastructure, data entry will continue to depend on uncompensated efforts from child abuse pediatricians, and this effort should be treated as a scarce resource. There is a real risk of mission creep if many investigators each add "just a few" variables. Multi-center research can address almost *any* research question, but it cannot simultaneously address *every* research question. Beginning efforts must establish the credibility of CAPNET in producing high quality data which can begin to estimate the burden of child maltreatment from this unique, healthcare perspective.

Achieving consensus and cooperation within the child abuse pediatrics community is only the beginning of the challenge. Providing care for abused children is nothing if not an exercise in collaboration between multiple medical specialties. Even before child abuse pediatrics was recognized as its own sub-specialty, critical research came from the fields of general pediatrics, radiology, emergency medicine, surgical specialties, and critical care. Drs. Stanley and Nigrovic describe some key challenges and opportunities for collaboration with established research networks in emergency medicine and critical care. [cite Stanley editorial]

Beyond the medical field, success in child maltreatment research, as in the clinical setting, depends on collaboration with the professionals who care for children after they have left the hospital. CAPNET will need the support and partnership of prevention, social services, and law enforcement researchers to inform our methodology and apply our results. If we can extend the work of these networks and focus on factors which identify maltreated children unique as a special health care population within the larger pediatric population, we will succeed. If we duplicate efforts and divide scarce resources, we will fail.

As described by Dr. Maholmes, the funding landscape for medical research dedicated to child maltreatment is rapidly changing, not least because of the focus from her own branch within the US National Institute of Child Health and Human Development. [cite Maholmes commentary] While child maltreatment is likely to remain under-funded relative to its impact on pediatric morbidity and mortality, (Bourgeois, Olson, Ioannidis, & Mandl, 2013) there have recently been some signs of growth in the funding available for maltreatment-focused research. The recent CAPSTONE centers for child maltreatment research are a major step forward, and are likely to catalyze a new generation of mentors and junior investigators. However, to create a sustainable network, these opportunities need to be supplemented by resources from states, foundations, professional societies and hospitals. Utilizing the lessons learned from other pediatric research networks, the early stages of our network will likely focus on relatively small, achievable questions, in order to demonstrate the ability to robustly gather large-scale data. (Slora, Harris, Bocian, & Wasserman, 2010)

As illustrated by Dr. Maguire, none of these challenges suffers from lack of possible solutions. Rather, the key hurdle for collaboration often arises from different teams selecting different "right answers". The success of CAPNET will depend on its ability to generate consensus whenever possible, and to be flexible when diversity is inevitable. These are certainly daunting challenges, but child maltreatment is too important, too diverse and too tied to its social context for research to continue as largely a single-center enterprise. Time to get to work.

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