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Seeing the Forest in Family Violence Research: Moving to a Family-Centered Approach

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Abstract

Victims of family violence are sorted into fragmented systems that fail to address the family as an integrated unit. Each system provides specialized care to each type of victim (child; older adult; adult; animal) and centers on the expertise of the medical and service providers involved. Similarly, researchers commonly study abuse from the frame of the victim, rather than looking at a broader frame - the family. We propose the following five steps to create a research paradigm to holistically address the response, recognition, and prevention of family violence.

Keywords

Family violence; child abuse; intimate partner violence; elder abuse; animal abuse

1. Establish common definitions and data elements for family violence. Definitions and data elements should be useable across medical, social, and legal systems of care. Outcomes should be relevant to patients, family members, and providers.
2. Measure the efficacy and cost of the current medical-social-legal system that addresses violence.
3. Develop actionable screening recommendations for at-risk household contacts when violence is initially identified.

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4. Develop and test family-centered interventions, especially those that target modifiable risk factors such as substance use or mental illness.

5. Target support and prevention strategies for families at highest risk.

Case 1: Police were called by neighbors to a home where they found an 80-year-old woman bleeding from her mouth. The woman told them that her daughter had punched her in the face when she complained that her daughter was handling her grandbaby roughly. They found a three-month old infant, inconsolable and with bruising around the ears. The baby's mother had fled the scene. Emergency medical services (EMS) transported the 80-year old woman to the local hospital and took the baby to the children's hospital. Police reported the incident to Child Protective Services (CPS) and Adult Protective Services (APS) and sent their reports to different district attorneys overseeing child and elder abuse.

Case 2: After three visits for sentinel injuries, a two-month-old girl presented to the ED with altered mental status and was found to have severe abusive head trauma. The child's mother revealed that her boyfriend may have "smacked" the baby's head into a door and that he often picked her up and swung her by her legs. The mother also revealed that she suffered from severe intimate partner violence (IPV) and that her boyfriend had repeatedly strangled, punched, and kicked her. She had called the police several times prior to this event but had declined evaluation each time – she reported the baby was fine and the police did not independently evaluate the baby. The boyfriend was arrested and incarcerated and the baby was removed from mother's care and transferred to a rehabilitation facility in CPS custody.

Case 3: A 10-year-old boy told his friend's parents that his dog was starving to death. Animal control was contacted and discovered a severely emaciated dog, lying in a pool of urine. When family members were questioned about the neglect, the boy's mother reported that her husband had been physically abusive towards her for years. He had threatened that if she left him, she could not take her sons or her dog, and he would not feed the dog. When she eventually left, he followed through on his threat. The dog was confiscated and improved after receiving emergent veterinary care. The mother returned to the home out of concern for her sons. She declined services and shelter assistance. A report was made to CPS by the pediatrician after learning about the IPV; since there was no evidence of injury to the children, it was screened out.

Introduction:

In each of these vignettes, victims of family violence were sorted into disparate and fragmented systems, none of which addressed the family as an integrated unit. While these disparate systems are designed to provide specialized care targeted to each type of *victim* (child, older adult, adult, animal), each has been designed around existing subspecialized *fields* (e.g. pediatrics, geriatrics) and is centered around the practices and expertise of professional *providers* (e.g. physicians, veterinarians, social workers, etc.) rather than the families they serve. This has occurred despite evidence revealing significant overlap in violence among family members: child physical abuse is reported to occur in 18-67% of homes with IPV,[1-6] animal abuse in 26-56% of homes with IPV and in up to 88% of families with child abuse,[7-10] and elder abuse in 4-26% of homes with past-year child abuse.[11]

Fragmentation likely stems from the history of each field's independent development. Social pressures and historical factors led health care, law enforcement, and social services professionals to focus on different family members and to pursue different goals, including but not limited to: punishing and rehabilitating offenders; acutely protecting victims; establishing a medical diagnosis; and ensuring the rights and development of victims.[12] When C. Henry Kempe first recognized the problem of 'The Battered Child', he did so as a pediatrician working in a system built with children's physical health in mind.[13] While organizations such as the American Academy of Pediatrics promote family-centered care and recommend screening for parental mental health, pediatricians overwhelmingly treat disorders *of* a child, usually by intervening *on* a child. It is no surprise that Kempe and others built a system with the child at its center. In other medical and veterinary fields, clinicians responded to issues they identified in their own patients, using their particular data and outcomes to develop abuse-related sub-specialties specific to those patients. Physicians of all specialties work separately from protective services professionals and law enforcement, which were also built with a focus on specific victims, rather than the family unit.

Violence research, which evolved in parallel and connected to with these care-providing systems, is therefore fragmented both within, and between medical, social, and legal communities. Child abuse pediatricians work separately from internists or geriatricians who research IPV and elder abuse. And researchers most commonly conduct their research within their silos, using the frame of a victim, rather than a family system. Little communication exists between the various groups of professionals researching violence and funding mechanisms further reinforce these silos.

We believe that now is a time of recalibration and that family violence is best understood as a problem that occurs *within* a family, and which is best addressed by interventions targeted *for and with* the family. The US Census Bureau defines a family as a "group of two people or more related by birth, marriage, or adoption and residing together." We would promote a more inclusive definition including other traditional and non-traditional relationships and family configurations defined by relationships with an expectation of trust. While many of these fragmented systems work together periodically, no large-scale research collaborations have been undertaken which include all of these systems. Data needed for groundbreaking research, which can meaningfully address recognition, evaluation, treatment, and prevention of family violence, has not been gathered or shared among existing systems. Creating a unified, integrated system to conduct family violence research will require overcoming ethical, logistical, and scientific challenges and will, in tandem, require the development of new systems to deliver care in a family-centered way.

Translational research, that demonstrates improvements in public health especially relevant in the field of family violence, requires teams from diverse backgrounds.[14,15] The US National Institutes of Health National Center for Advancing Translational Sciences recently established a strategic goal to advance translational team science by fostering innovative partnerships and diverse collaborations with the belief that cross-disciplinary research teams improve the research process.[16] Though working in teams can be more expensive, labor-intensive and may lead to conflicts that arise from different goals and assumptions, the work

produced by multidisciplinary research teams is cited more often and has greater scientific impact than the work of individual researchers.[17-20] Forming such multidisciplinary teams, starting within the medical field and extending to community and legal partners, is critical to family violence research. The authors, including pediatric, emergency medicine and internal medicine physicians and a state CPS social worker with varying research and clinical expertise in child abuse, animal abuse, elder abuse and IPV, collaboratively discussed these issues extensively and reached consensus to propose the following 5 steps to create such a research paradigm capable of holistically addressing the problem of family violence.

Step 1 - Establish Uniform Definitions/Priorities:

Developing common definitions and common data elements is an essential first step to create an integrated research system. Even defining the field of family violence requires understanding and articulating common phenomena underlying violence regardless of age or relationship. Such common factors include dependency and power, trust, and the particular trauma that arises from victimization by a family or household member. The process for defining these common data elements, especially key risk factors and outcome measures, must include a wide range of stakeholders, including patients and families, and the professionals who care for them. Definitions and common data elements should be useable across medical, social, and legal systems of care.[21]

Working independently, our disparate fields have defined outcome variables highly relevant to our own practice, but which may have little impact for children and families such as CPS substantiation or identification of an occult injury. While the worst outcomes (recurrent injury, escalating abuse, or death) have clear definitions, we have yet to define, or even identify, other important family-centered outcomes. Efforts to identify these family-centered outcomes should build on other efforts to codify common data elements, but must reach beyond a specific injury type or patient population. We suggest using participatory research to identify the most important outcomes for families and stakeholders, including housing and financial stability, family unity, quality of life, and safety.[22,23] Community advisory boards (CAB) are a key step in ensuring the feasibility, community acceptance, and cultural competence of family violence research.[24] Research teams should include professionals who directly provide family violence interventions and the organizations that support them. Service providers may be more willing to collaborate and share data if the research informs the quality and efficiency of their services and is able to provide the information they need.[12]

Step 2 - Measure the efficacy, unintended consequences, and costs of the current system.

The current fractured system to address violence comes at a significant financial cost to the public and families. However, neither the system's cost nor efficacy is well-known. While the impact and economic efficacy of programs like Nurse Family Partnerships [25,26] and orders of protection[27] have been evaluated, the impact and costs of many widely-used, resource-intensive interventions such as foster care,[28] safety planning, and perpetrator incarceration, have not been evaluated. Neither has the economic impact to families of lost

wages, caregiver support, increased health care utilization for physical and mental health problems, or loss of education and learning opportunities been robustly measured. Performing effective cost-analyses will require up-front attention to determining which and how many victims of family violence are counted, what costs are included including indirect costs such as diminished productivity.[12]

The dearth of effective cost-analyses is a critical gap because, without this information, we are unable to determine the comparative utility of family-centered interventions. We propose qualitative and epidemiologic research to identify and quantify the costs of the current system. Data from programs already in place should be used to quantify economic costs and outcomes. Moving forward, new research assessing interventions should include cost-effectiveness evaluations.

Step 3 - Develop actionable screening recommendations.

In child abuse pediatrics, the concept of the sentinel injury has been useful to identify children whose risk of physical abuse is high enough to warrant testing for other abusive injuries (e.g., with a skeletal survey).[29,30] We believe that family violence should be considered such a sentinel event for other household members. While substantial research has demonstrated that different types of violence are likely to co-occur within a home, these data have not yet led to actionable screening recommendations. Data from intersecting surveillance systems (legal, social services, healthcare, animal control, schools, etc.) should measure the risk of violence to other family members, and the types of maltreatment (e.g. physical, sexual, emotional, financial, neglect) that may be identified by interviews, diagnostic testing, or other social investigations. Actionable recommendations should specify: 1) the type of index abuse, 2) the potential contact victims, and 3) the type and timing of screening to be completed. Coordinated information systems across different settings (e.g., community, health care, legal) will be critical to improving data collection, storing, and tracking. Forging links between existing and new systems will need research resources, navigating legal regulations, coordination and common definitions.

One example of such research identified a high rate of occult fractures in asymptomatic children who share a home with a physically abused child.[31] Based on these data, current guidelines recommend skeletal survey for all such children <2 years old, and interviews for older children.[32] Similar work is needed for adults, older adults, and animals, and for children and other household members when other types of family violence are identified. As mentioned in step one, this research will require increased collaboration and partnerships between researchers and service providers and a frequent assessment and addressing of the dynamics in those partnerships.

One actionable step that may lead to a better understanding of occult injury in family members may include providing training, resources, and real-time support for police and emergency medical service personnel to evaluate for IPV, animal abuse, child physical abuse, and elder abuse each time they respond to a call for violence within a home.[33,34] This type of research may include both traditional research and program improvement or quality improvement initiatives.

Step 4 - Develop & test family-centered interventions.

Implementation and evaluation of novel interventions to reduce family violence and improve family health and well-being will require integration and coordination of the healthcare, social service, and criminal justice systems, bearing in mind both intended (e.g., safety or recurrent violence) and unintended (e.g., change in help-seeking behavior due to fear of losing a child or caregiver) outcomes. High-priority interventions for study include coordinated community responses; in-home visitation; family reconciliation; restorative justice; and treatment programs for victims, offenders, and families as well as currently available, high-cost interventions like incarceration and prosecution.

We suggest targeting modifiable risk factors for violence at the individual, family, and community level to prevent violence. Risk factors commonly identified in all forms of family violence include mental illness; substance abuse; economic instability; and social isolation. Tools and programs should be developed to identify and intervene with the most vulnerable families. Many existing programs targeting violence in one or more family members may need to be modified to include the whole family. Examples of effective primary prevention programs include Nurse Family Partnerships and Visiting Nurse Services – developed for children and older adults respectively, which may be integrated to provide care to an entire family;[35, 36] programs such as the family check-up that are designed to support parents during key transitions that are vulnerable to family disruption and child behavior problems but can also be a first step for families seeking therapy;[37] and programs that include intensive mental health case management.[38, 39] Programs targeting secondary prevention like Parents under Pressure,[40] Fathers for Change,[41] and the Mothers' Advocates In the Community (MOSAIC) model[42] provide intensive parenting assistance to substance misusing, IPV perpetrators or victims and may reduce future child abuse or IPV.[43]

Programs targeting secondary prevention for known abuse victims, such as kinship foster placement, should also be evaluated for their ability to prevent violence toward other family members, such as grandparents providing this care.[44] Evaluating family-centered interventions will require overcoming various methodological challenges, which include potential differences between control and treatment groups in experimental trials, small samples, unreliable and invalid process and outcome measures, short follow-up periods, subject attrition, and inconsistencies with program content and services.[12] This will also require breaking down of silos such as funders focused on isolated sectors, research dissemination infrastructure focused on specific fields and existing professional organizations and partnerships with government agencies focused on single types of violence.

Family Justice Centers: a Potential Model.

Systems that seek to prevent, identify, and/or intervene on family violence need to be re-organized to serve the entire family. Shifting the focus, once safety has been established, from an individual as client or patient to a family or household takes into account other potential victims, long-term sustainable goals, and unintended consequences of interventions. Family Justice Centers (FJCs), multi-agency and multi-disciplinary

collaboratives initially designed for victims of IPV and their children, may serve as models for this reorganization.[45,46] In many communities, FJCs provide coordinated, multi-disciplinary criminal justice and social services to survivors of family violence in a single location. The convenience of this approach overcomes the challenge of victims needing to travel to multiple locations to access disconnected services.[45, 46] FJCs have to date focused primarily on IPV survivors. Expanding them to include victims of child or elder abuse is a high priority. Preliminary research suggests that FJCs lead to improved outcomes,[45-48] and rigorous studies evaluating impact are ongoing and must continue to address the logistical and methodological barriers described above.[45]

Step 5 - Moving upstream: Family-centered prevention.

Just as genomics and proteomics provide a more comprehensive evaluation than single gene studies, we believe that a more comprehensive “sociomic” assessment of a family’s social risks and strengths is needed to improve family violence research. These efforts have already begun in several settings that seek to use a predictive analytics framework to identify predictors of physical abuse in children. Putnam-Hornstein and colleagues, in several settings, have shown that publicly available data, including prior reports to CPS and maternal age, can predict future outcomes from injury and abuse.[49-51] Allegheny County in Pittsburgh, PA is currently using predictive risk modeling to guide CPS decisions to open or screen out safety-related referrals. Publicly available data about the family unit, using transparent criteria, could aid in real-time analysis and integration of administrative records to more objectively identify families at highest risk.

Putnam-Hornstein’s group has taken several steps to ensure that their model does not inadvertently increase implicit biases within public data. Critical steps include: 1) ensuring transparency related to the data used by the model; 2) incorporating recommendations from independent reviews; 3) using predictive analytics in the early stages of risk estimation with multiple human safety checks prior to invasive interventions; and 4) engaging community stakeholders.[52] However, even ostensibly race-blind prediction algorithms can retain racial disparities hidden within other data and this is an area that requires particular attention.[53]

Because the associations between childhood violence exposure and later perpetration or victimization are so strong, the ultimate goal must be family-centered primary prevention.[54,55] First, we should determine the effectiveness of current prevention strategies (home, school, community based education programs, parenting programs, visiting nurses, etc.) for multiple family members. Next these services should be modified, expanded or replaced to serve families, especially those at highest risk of violence.

Conceptual models can aid in identifying behavioral and organizational leverage points and may guide research in family violence by providing visual representation of theoretical constructs and variables of interest. Examples include the social ecological model,[56] a theory-based framework for understanding the interactive effects of factors related to the individual, his/her relationships, communities, organization, and policy/environment that determine behaviors and family-based models such as the family life cycle theory that may help frame problems within the course of the family as a system moving through time.[57]

Ethical Considerations Related to Protection of Human Research Subjects:

Creating integrated systems of research will require balancing the potentially contradictory interests of several family members, all of whom may be considered vulnerable subjects due to age (children), physiologic factors (such as disability), social factors (exposure to trauma), or legal factors (mandated participation in court-ordered services, or the suspicion of having committed a crime). Traditional methods of informed consent depend on an evaluation of risks and benefits by an autonomous participant or their reasonable surrogate, but in cases of family violence, neither may be available. For young children who are abused by their parents, or for older adults with cognitive impairment abused by a family caregiver, normal surrogates are not reasonable sources of informed consent. For example, when parental or guardian permission has not been deemed reasonable to protect subjects as would be the case with abused children, the institutional review board (IRB) may waive traditional consent requirements as long there is an alternate mechanism in place for protecting the children who are participating as research subjects. The alternate mechanism would depend on the nature of the research activities, the risk and anticipated benefits to subjects and their age, maturity, status and condition. Assent of a child must be also be sought after considering the maturity, age and psychological state of the child. Robust trials of interventions in cases of family violence will need to identify reasonable sources of informed consent for such vulnerable participants, perhaps using neutral advocates such as legal guardians, ethics consultants, health care power of attorneys, guardians *ad litem*, victims' advocates, or foster parents. Research on these vulnerable populations must also strive to show the outcomes have potential benefit to the given subject and must be agreed upon by the appointed surrogate. Finally, as violence in the family might be placing all possible research participants (children and caregivers) under additional risk, a full IRB board would need to make decisions on waivers of parental permission, taking into consideration multiple factors.

The identification of maltreatment may have competing effects for family members – perhaps increasing safety for the maltreated victim, but exposing other family members to legal jeopardy, or the loss of contact with or income from the perpetrator of the violence. During the study of family-focused interventions, a family member such as a child may inadvertently disclose maltreatment, which may lead the researcher to make a mandatory report to CPS placing a parent at risk for losing custody of her child. Families reported to social service agencies due to maltreatment disclosed or discovered during research activities may lack trust in researchers, provide incomplete or untruthful information, and may withdraw from a study, which may lead to systematic differences among participants in longitudinal projects.[58] If this research is implemented carelessly, it could lead to the perverse outcome of victim exploitation or victim reluctance to participate in research due to concerns for the impact on other family members.

To address these ethical concerns and optimize confidentiality and privacy for all possible subjects in the context of family violence research, strategies to protect all potential victims must be incorporated early in the research process. Through study of IPV-exposed child participants in research, Rizo and colleagues described 4 key lessons learned in navigating ethical dilemmas around mandated reporting in the context of research which may be

applicable to the overlapping study of multiple victims of family violence: 1) exposure to trauma increases the difficulty of anticipating how research participants will react to survey or interview questions; 2) researchers much be trained on how to respond to children's disclosures of maltreatment; 3) researchers need to ensure caregivers understand the potential of child disclosures and the need to report to CPS before consenting to research participation and; 4) given the sensitive nature and legal ramifications of child maltreatment reporting, family violence researchers need strong relationships with community partners, IRB leadership, and the local CPS agency.[59] Common ethical standards for obtaining informed consent and maintaining data confidentiality must be shared among legal, social and medical disciplines.

Conclusion:

Rather than addressing different diseases of child, older adult, animal, and intimate partner violence, we believe that different professionals are all treating a single disease - family violence - using the different lenses, perspectives, and frames of their own experience. By developing a unified, integrated research paradigm, and by using that research paradigm to support unified, integrated systems of care delivery, we propose to re-frame these research communities, and re-focus our efforts to improve the lives of families affected by violence.

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What's new: By developing an integrated research model to address family violence, and by using that model to support integrated systems of care, we propose a fundamental paradigm-shift to improve the lives of families suffering from violence.