Interfacing Law, Neuroscience, & Genetics to Support Child Sex Abuse Victims in the 21st Century

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SASH
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Paroline v. U.S.
Lessons Learned

• 15 million child sex abuse images online
• Market valued at US$3-20 billion annually
• One of the fastest growing markets on the Internet
• Canada and the U.S. are leaders in both sending and receiving child sex abuse images
• Majority of sex abuse images (outside of the UK) are hosted on servers in North America (primarily U.S. and Canada)
Victims’ Voices

• “My life and my feelings are worse now because the crime has never really stopped and will never really stop.”
• “Every day I have to convince myself that I am safe.”
• “I don’t want children of my own.”
• “I live with such shame and fear every day.”
• “I live in fear everyday because I am still being mistreated and abused by having my photos out there forever. I have gotten buckets of letters to prove it.”
The Evolving Brain

• Advanced thinking develops last
  • Frontal lobe changes more during adolescence than at any other point in life
  • Prefrontal cortex (brain’s CEO) finishes developing in early adulthood
    • Prioritizing thoughts
    • Anticipating consequences
    • Controlling Impulses
    • Planning
    • Imagining
    • Thinking abstractly
    • Emotional regulation
    • Risk Assessment
    • Recognizing Deception
    • Moral judgment
International Legal Framework

- U.N. Convention on the Rights of the Child
  - “….take all appropriate measures to promote physical and psychological recovery and social reintegration of a child victim of: any form of neglect, exploitation, or abuse; torture or any other form of cruel, inhuman or degrading treatment or punishment; or armed conflicts. Such recovery and reintegration shall take place in an environment which fosters the health, self-respect and dignity of the child. ” (Art. 39)

  - “States Parties shall take all feasible measures with the aim of ensuring all appropriate assistance to victims of such offences, including their full social reintegration and their full physical and psychological recovery.” (Art. 9)
  - Art. 9(4) requires all states parties ensure victims of child pornography have access to adequate procedures to seek damages from those legally responsible
International Legal Framework (con’t)

• International Labor Organization (“ILO”) Convention Concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour, Convention No. 182:
  • Imposes on States Parties the obligation to provide victims of child sex abuse with “the necessary and appropriate direct assistance for … their rehabilitation and social integration.” (Art. 4)
  • Unlike Optional Protocol, ILO Convention No. 182, appears to apply to all victims of child sex abuse since article 3 expressly includes “the use … of a child for illicit activities” in the treaty’s definition of the “worst forms of child labour.”
International Legal Framework (Regional)

- Council of Europe Convention on the Protection of Children Against Sexual Exploitation and Sexual Abuse ("Lanzarote Convention")
  - Requires States Parties to take all necessary measures to assist victims with their physical and psycho-social restoration and adopt a protective approach towards victims.

- European Union Directives
  - Recognize the rights of child sex abuse victims to assistance, support, and protection.
  - Most recent directive (2015) includes:
    - emotional and psychological support to facilitate victim recovery,
    - rights to adequate compensation from offenders, and
    - protection from continuing victimization.

- Africa also has provided regional legal protections not only to prevent children from sexual abuse, but to provide treatment and support for victims when abuse occurs.
Global Survey of Country’s Efforts

• Only a few countries report unique compensation systems tailored specifically to OP offenses
  • Emerging research shows mental harm to victims
  • Difficult for victims to prove causation and damages under historical standards

• Several emerging trends:
  • Appointment of legal advocates to assist victims
  • Creation of state-sponsored compensation systems (e.g., victims’ funds)
  • Integration of victim compensation with criminal process
    • Avoids re-traumatizing victim through civil process
    • Overcomes evidentiary issues (e.g., CP victims not publicly identified in court record, CP victims do not have access or control of images)
Beyond Paroline

• Ninth Circuit: *U.S. v. Galan*
  • Requires disaggregation of “hands off” harm from “hands on” harm
• Replace Mandatory Restitution Act (*Paroline v. U.S.*) with Amy & Vicky Act
  • Restitution is mandatory
  • Future losses are included
  • Minimum restitution
    • $25K for possession
    • $150K for distribution
    • $250K for production
• Civil claim for child pornography production, possession, and distribution
  ($150K minimum statutory damages per violation)
Research

- Primarily focused on offenders (addiction research, etc.)
- Continued objectification of victims
- Victims in developing countries exhibited similar symptoms to victims in developed countries
- Professional care providers are at a loss as to how to help victims recover
Research on Therapeutic Support

• 2010 Von Weiler survey among German victim assistance professionals found:
  • Difficult for victims to find effective therapeutic support
  • Therapeutic professionals are ill equipped to deal with the type of psychological damage suffered by child pornography victims
    • “[W]orking with victims of [child pornographic exploitation] is more complex than working with child sexual abuse victims”
  • Permanent presence of the abuse material on the Internet
  • Higher susceptibility to post-traumatic stress disorder, depression, and psychoses
  • Two-thirds of professionals working with child pornography victims reported that they themselves felt “deep feelings of helplessness” because the victim’s sexual abuse images on the Internet are permanent
  • One-third of the professionals treating child pornography victims experienced thoughts such as, “in this situation healing becomes impossible”
General Research on CSA

- 95% suffer indefinite psychological damage & may never fully recover
- Increased likelihood for:
  - PTSD
  - Suicidal thoughts
  - Low self-esteem
  - Depression
  - Physical health problems (chronic pain, GT problems, obesity, & cardiopulmonary symptoms)
General Research on CSA (con’t)

• Impacts later parent-child & family relationships
  • Decrease in parental self-efficacy and parenting competence and an increase in parenting stress and ineffective parenting practices (DiLillo and Damashek, 2003)
  • Hyper-vigilance about their child’s safety interfering with their psychological development (DeOliveria et al., 2004, Duncan, 2005)
  • Early cessation of breast feeding (Sorbo et al., 2015)
  • The psychological sequelae of and unresolved issues related to CSA may contribute to the use of harsh parenting practices including physical violence (Mapp, 2006)
  • Increased exposure to intimate parental violence (Daigneault et al., 2009)
  • Family environments more negative, conflictual, and chaotic (Nash et al., 1993)
Neuroscience

• Relatively large and growing body of data on impact of child abuse on brain health
• Even more research related to childhood trauma generally
• Very little focused on child sex abuse but emerging data shows an impact on the amygdala, hippocampus, and prefrontal function – areas involved in emotion, arousal, and cognitive control
• No brain studies of “hands off” sex abuse victims
• Study design to date is problematic:
  • Recollections of adult survivors
  • Single assessments
  • Lack of longitudinal data on children & adolescents
  • Almost no longitudinal brain studies of sex abuse population
Genetics

- Even more rare than brain studies
- Small but increasing number related to childhood trauma generally
- Far fewer related to child sex abuse
  - Findings have been limited to studies of small number of genes
  - Some studies have suggested interaction between CSA and genotype on mental health, but inconsistent
- Only epigenetic studies on general childhood trauma
- No genetic studies related to “hands off” sex abuse
A few studies of gene by environment interactions have provided data on childhood sexual abuse rather than childhood maltreatment in general.

Illustrative example: Gutierrez and colleagues explored interactions between variants within the serotonin transporter (SERT) and Brain Derived Neurotrophic Factor (BDNF) genes and childhood maltreatment in a large sample of ~2700 Spanish adults.

The strongest risk for depression in this sample was in adults who had both the SERT and BDNF “risk” variants and a history of childhood sexual abuse.
Epigenetics

DNA Methylation

- 5 position of cytosine
- Regulation of gene expression
- Environment effect
- Heritable mark

Interfacing Law, Neuroscience, & Genetics
Epigenetic Effects of CSA in Adults with History of Childhood Sexual Abuse

• Study of methylation of glucocorticoid receptor gene \((NR3C1)\), involved in stress response

• Adults with different mental health disorders

• Childhood sexual abuse and its severity positively correlated with \(NR3C1\) methylation in peripheral blood

• These findings suggest that childhood sexual abuse may permanently impact the HPA axis through epigenetic modifications of \(NR3C1\), a mechanism that may ultimately lead to adulthood psychopathology (Perroud et al., 2011)
Kennedy Study

• Multi-Disciplinary Longitudinal Study of Sex Abuse Victims
  • Core research team from University of Calgary includes faculty from Mathison, Hotchkiss, Psychiatry, Cumming, Pediatrics, Social Work
  • Clients from Sheldon Kennedy Child Advocacy Center would be given opportunity to participate until overall cohort size of 1,000 is reached
  • Clinical evaluation shortly after intake including brain imaging, neuropsychological, genetic, and epigenetic components at baseline
  • Re-evaluations conducted at regular intervals thereafter for up to 15 years
Kennedy Study (con’t)

Initial Research Questions:

• What impact does “hands on” child sex abuse have on pediatric brain development?

• Does “hands off” sex abuse (such as instances of child pornography possession and distribution) further impact brain development in victims? And, if so, how?

• Are there therapeutic treatments (EMDR, neurofeedback, etc.) that will allow child sex abuse victims to cope with indefinite and widespread trade in their sex abuse images?

• Are there biomarkers (e.g., derived from imaging, genetics, epigenetics, or physiological measures of stress) that can predict which individuals are at greater risk or more resilient to the impact of child sex abuse on brain development and clinical outcomes?
Kennedy Study (con’t)

• Wealth of information would provide myriad opportunities for both treatment solutions on an individualized basis at all stages of sex abuse recovery cycle

• Could be most comprehensive study of sex abuse victims ever conducted with significant global relevance in the Digital Age
International Survivors’ Survey

- Survey of adult child pornography survivors
- Spearheaded by Canadian Centre for Child Protection
- Translated into 4 different languages (Eng., Dutch, French, & Ger.)
- 150+ responses from at least five countries (as of Oct. 2017)
- International team of experts helped to develop survey and interpret the response during a summit in Ottawa in Fall 2016
- Survey is still open, but results are publicly available
- Responses were predominantly female, ages 18 to 50+
Responses to International Survivors’ Survey

• 73% worry about being recognized because of the images
• 60% reported single/primary abuser was parent or caregiver
• 56% indicated abuse began between 0 and 4 years of age
• Of those, 60% indicated abuse continued into adulthood
• 56% were abused by more than one person
• 52% of responses reported organized abuse by multiple people
Responses to International Survivors’ Survey (con’t)

- The majority of those who disclosed (53%) did so as adults
- Only 37% disclosed as children
- 67% were threatened with physical harm
- Of those, 43% said they were told they would die or be killed
- 25% were told that a family member would be harmed
- Of those, 55% were told a family member would die or be killed
- 88% believe their education/academics were negatively impacted
- 91% believe the abuse impacts employment
- 93% believe the abuse impacts friendships
Responses to International Survivors’ Survey (con’t)

- 70% of survivors indicated imagery was not discovered at the same time as hands on abuse
- 52% of survivors indicated imagery has either not been discovered or s/he does not know if the imagery was ever uncovered
- 64% currently in therapy
- 82% of survivors anticipate ongoing or future therapy or treatment
- 89% have seen more than one therapist
- Only 51% discuss impact of CP in therapy
- 47% have changed therapists because the therapist could not help
Quotes from International Survivors’ Survey

“As a victim of this most horrific form of child sexual exploitation, I have felt alone, misunderstood and helpless. It is time for the world to understand child pornography and the unimaginable impacts it has on us, the victims. We need to find our voice to help those who wish to better understand and help us.”

--Survivor
Quotes from International Survivors’ Survey

“My child sexual abuse imagery is out there for anyone to see, I will forever be taken advantage of. It’s not something that will ever go away. Being the adult I am now, my photos are still out there, as long as the internet exists my photos will always be out there. Sites will be taken down but new ones are somehow being put back up. As far as I know there is just no way of permanently deleting those photos. There is no way I can finally be done with this abuse. I have to live my life guarded and can never fully trust anyone. My own father did this to me. A man placed in my life to protect me, not hurt me, abused me. And now thousands of other people continue to do the same.”

– Survivor, in response to the question “Please describe how the existence or distribution of child sexual abuse imagery impacts you differently from the hands-on abuse.”
Quotes from International Survivors’ Survey

“The scariest enemy is the one you cannot see, but know is there. That type of threat causes much more anxiety and paranoia because it’s unpredictable. It is exhausting.”

--Survivor
CCCP Survey Conclusions

- Impacts of hands-off abuse are long-lasting and often lifelong
- Survivors have difficulty finding and financing effective supports
- Therapeutic needs vary across their lifespan
- Short-term and generic trauma counseling is inadequate for this population
- “Unique needs of survivors of child sexual abuse imagery are not being adequately addressed.”-CCCP
Recommendations: International Survivors’ Survey

“Survivors would benefit from having ongoing and affordable access to knowledgeable therapists as well as access to an advocate to work with/for them over time, ensuring that they are connected to the services that they need.”

—Canadian Centre for Child Protection
CCCP Survey of Survivor’s Families

• Coming soon….
Front-line Service Providers and CSAIO

- **Core question:** What is the knowledge, confidence and capacity of frontline service providers in recognizing and responding to child sexual abuse images online (CSAIO)?

- **Who:** Multi-disciplinary group of scholars: Gina Dimitropoulos (Social Work), Paul Arnold (Psychiatry), Warren Binford (Law), Scott Patterson (Psychiatry); Frank MacMaster (Knowledge Translation); Jenny Ofrim, (Program Evaluation, SKAC); Olivia Cullen and Emily Gunn (Research Assistants, Social Work)

- **Front line service** providers refers to individuals working in law enforcement, elementary and secondary schools, specialized mental health programs, and child intervention
Research Plan

1. Conduct an online survey of frontline service providers in Southern Alberta to examine their knowledge, capacity and confidence in responding to CSAIO
2. Engage frontline service providers in focus groups in order to gather qualitative data regarding their knowledge, capacity and confidence in responding to CSAIO
3. During the focus groups, engage frontline service providers in developing recommendations and/or tools for implementation in the response to CSAIO
4. Stakeholder roundtable to disseminate recommendations and findings
Anticipated Impact

• The little research in this area has focused on counselors/therapists specializing in CSA, not the front-line service providers who identify most of the victims of CSAIO

• Appears to be first mixed-method study focused on this subject ever conducted in Canada

• Will bring frontline service providers together to discuss the training needs and most effective ways of disseminating and integrating findings

• Has the potential to guide future research and policymaking decisions on CSAIO

Source of Funding: PolicyWise and Palix Foundation
Summary

• *Paroline* Amicus Brief
• *Beyond Paroline* Law Review article
• Global Survey of Countries’ Efforts
• CCCP International Survey of CP Survivors (released, but ongoing)
• Kennedy Study (pilot stage)
• Kennedy Study Article (to be released 2018)
• CCCP International Survey of Families of CP Survivors (upcoming)
• Frontline Service Providers and CP (2018)
Disclosure

• I have nothing to disclose
Questions, Discussion, and Advice