

Clinical Data–Mining and Child Protection Practice: A Workshop for Self–Reflective Practitioners and Practice–Oriented Researchers

Presented by:

Marina Lalayants, PhD

Irwin Epstein, PhD

Hunter College School of Social Work
The City University of New York



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What Is Clinical Data-Mining (CDM)?

CDM is a practice-based research strategy by which practitioner-researchers systematically retrieve, codify, analyze and interpret available qualitative and/or quantitative information from their own records and reflect on the practice and policy implications of their findings

Purposes of CDM?

- ▶ To Refine & Enhance Practice Wisdom
- ▶ To Describe & Evaluate Social Work Practice
- ▶ To Promote “Evidence-Informed” Practice
- ▶ To Identify Best Practices
- ▶ To Promote Worker “Reflectiveness”

Basic Elements of CDM?

- ▶ Inductive (begins with practice needs & driven by practice wisdom)
- ▶ Quantitative , Qualitative or Mixed-Method
- ▶ Retrospective (but can become prospective)
- ▶ Descriptive or Quasi-Experimental
- ▶ Primarily Formative (but can approach Summative)

Why Mine Clinical Information?

- ▶ Current Availability of Rich Clinical Information
- ▶ Future Availability of Electronic Records
- ▶ Unintrusive
- ▶ Non-Reactive
- ▶ Relatively Inexpensive
- ▶ Efficient Sampling

Why Not?

- ▶ Dirty
- ▶ Labor Intensive
- ▶ Missing Data & Other Ambiguities
- ▶ Validity and Reliability Issues
- ▶ Key Variables May Not Be Available
- ▶ Surfaces Existing Information Systems Problems

Steps In The CDM Process?

- ▶ Prospect All Data Sources (e.g., case records, medical records, computerized information, etc.)
- ▶ Assess Core Samples for Available Variables
- ▶ Identify Key Practice Questions That are Answerable
- ▶ Consult Research Literature for Prior Studies
- ▶ Create Qualitative and/or Quantitative Retrieval Tools
- ▶ Make Sampling & Design Decisions
- ▶ Promote Reliability & Validity
- ▶ Collect & Plan the Analysis
- ▶ Analyze Data
- ▶ Interpret & Utilize Findings
- ▶ Disseminate Findings

Assess Core Samples

- ▶ Range, richness & relevance of information
- ▶ Credibility
- ▶ Completeness
- ▶ Conceptual Consistency
- ▶ Legibility

Consult Previous Research Literature

- ▶ Theoretical Perspectives
- ▶ Key Variables & Processes
- ▶ Comparative Populations
- ▶ Findings & Implications

Create Information Retrieval Forms

- ▶ Background Factors
- ▶ Interventions
- ▶ Contextual Factors
- ▶ Outcomes

Reliability & Validity Issues

- ▶ Who Does Data Extraction?
- ▶ Promoting Reliability
- ▶ Establishing Reliability

Key Types of CDM Study Variables

- ▶ Client Characteristics—demographics, needs, strengths, etc.
- ▶ Interventions—types, fidelity, dosage, etc.
- ▶ Outcomes—satisfaction, knowledge, attitudes, behaviors, etc.
- ▶ Contextual factors—family, organization, community, etc.

Types of CDM Data Analysis

- ▶ Descriptive
- ▶ Cross-sectional
- ▶ Longitudinal
- ▶ Bi-Variate
- ▶ Multivariate
- ▶ Experimental Analog (Quantitative)
- ▶ Integrated Systems Analysis (Qualitative)
- ▶ Mixed-method

Potential Uses of CDM Findings

- ▶ Within One's Own Practice
- ▶ With Other Team Social Workers (Intra-Professional)
- ▶ With Other Social Workers in the Agency
- ▶ With Social Workers & Other Professions Outside the Agency

Exemplar CDM Child Welfare studies

- ▶ M. Lalayants (2010) Multidisciplinary Clinical Consultation in Child Protection: Contextual Influences and Stakeholder Perceptions of Best Practices
- ▶ D. Hanssen (2003) Intensive Family Preservation Services
- ▶ A. Cordero (2002) When Family Reunification Works
- ▶ R. Kabillo (2005) Family Functioning & Adolescent Psychopathology
- ▶ V. Kochkine (2006) Depressive Symptoms & Academic Achievement in Culturally Diverse Adolescents
- ▶ D. Mirabito (2000) Adolescent Mental Health Tx Termination

Multi-faceted nature of child abuse cases

Domestic violence and child abuse:
55% of the physical and emotional abuse cases involved domestic violence
(English, Edleson, & Herrick, 2005).

Mental health and child abuse:
59% of parents who had abused and 69% who had neglected children had a psychiatric diagnosis (Egami, Ford, Greenfield, & Crum, 1996).

Substance abuse and child abuse:
Parental substance abuse contributes to at least 50% of all child welfare services cases; in some parts of US to 90% (National Center on Addiction & Substance Abuse, 1999).

Study Site: ACS Clinical Consultation Program (CCP)

Increase CPS workers' skills and knowledge of how multiple disciplines impact child welfare cases

Improve workers' diagnostic abilities to deal with diverse situations occurring in child abuse cases

Program goals:
Provide clinical, technical, and service system knowledge to:

Help workers use alternative approaches when cases are not progressing

Provide guidance concerning services/referral sources

Study Purpose

- Examine the multidisciplinary consultation approach in child protection
- Identify perceptions of best practices

by investigating

collaborative process between CPS workers and consultants and within teams

contextual differences: organizational cultures, structural and organizational supports

impact of collaboration on staff, decision-making, etc.

challenges in collaboration and suggestions for addressing them

perceptions of best practices: effective strategies; conditions under which they flourish

Methodology

Case study

Mixed-method study: Qualitative and Quantitative

Qualitative: in-depth face-to-face interviews

- CPS workers (N=30)
- CPS supervisors (N=30)
- Consultants and team coordinators (N=30)

Quantitative: data-mining

- Consultation evaluation forms (N=455)
- Office-based training evaluation forms (N=500)
- Consultation request/response forms (N=500)

Staff involvement

- ▶ Close collaboration among the **research consultants team** and **CCP Evaluation Advisory Group** (program director, program administrators, borough managers, and CPS workers, supervisors, and consultants).
- ▶ These professionals were involved in designing the study, collecting data, and making analysis decisions.
- ▶ The goal of the collaboration was to:
 - educate and guide the child welfare professionals and
 - provide the tools enabling them to examine their own practice through research efforts, thus ultimately embedding them into their routine operations.

CCP Services

“Classic”
consultations
(single, one-on-one)
85.1%

- Domestic violence (34.5%)
- Substance abuse (33.7%)
- Mental health (16.9%)

“Cross-
consultations”
(multidisciplinary)
14.9%

- Domestic violence & substance abuse (37.9%)
- Domestic violence & mental health (28.8%)
- Substance abuse & mental health (16.7%)
- Domestic violence, substance abuse & mental health (16.6%)

Office-based
trainings

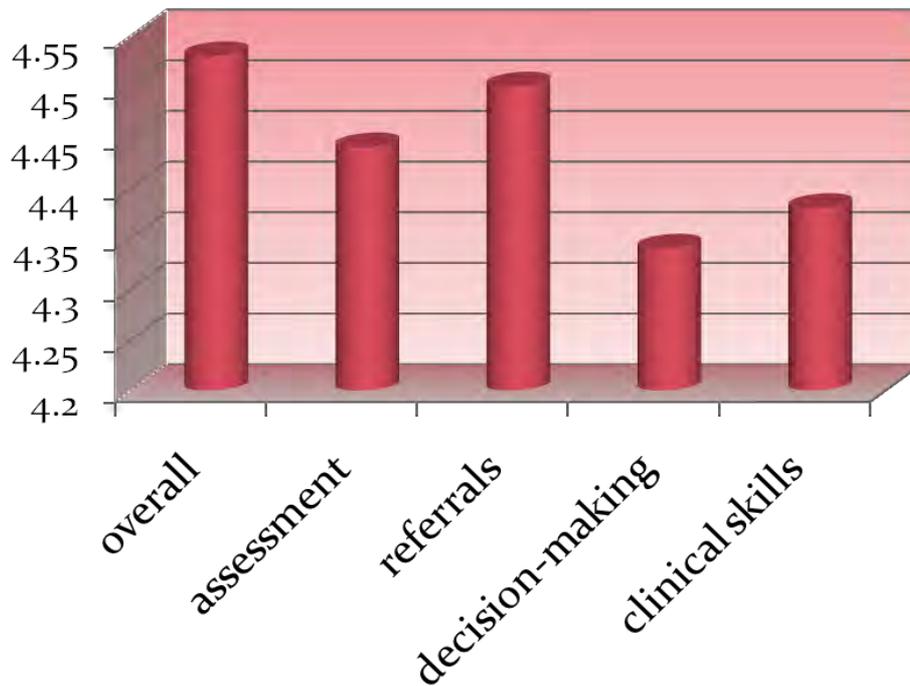
- Domestic violence (43.0%)
- Substance abuse (30.3%)
- Mental health (26.7%)

Consultation Purposes

	Assessment	Further exploration	Referral
Domestic violence	39.6%	22.6%	20.2%
Substance abuse	36.6%	14.0%	18.4%
Mental health	34.8%	16.8%	21.2%

The categories are not mutually exclusive

Consultation Service Satisfaction



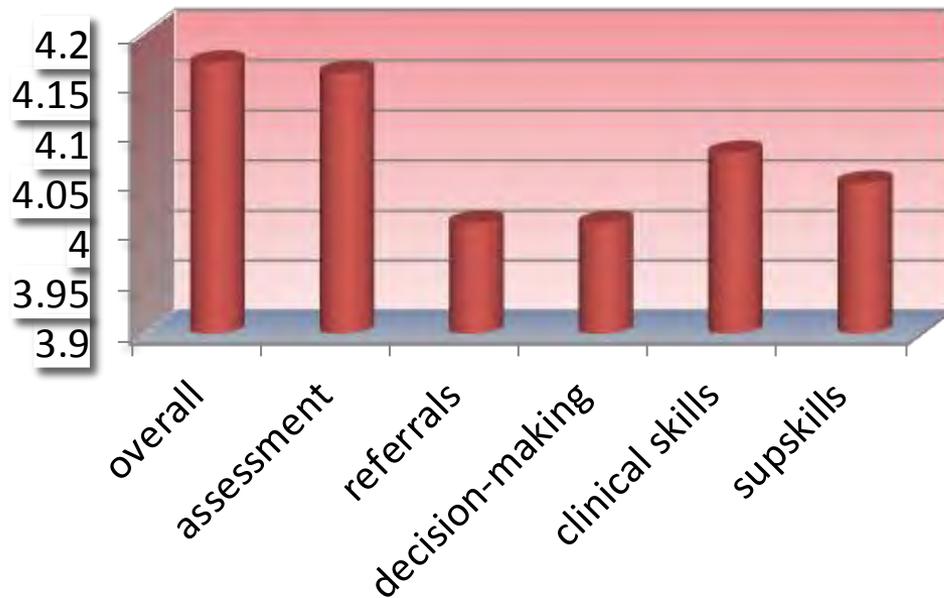
Consultation recipients:

- Caseworkers (87.8%)
- Supervisors (9.2%)
- Other (3%)

Satisfaction levels:

- “5” – most helpful
- “1” – least helpful

Training Satisfaction



Training recipients:

- Caseworkers (69.9%)
- Supervisors II (13.8%)
- Supervisors I (6.6%)
- Other (6.3%)

Satisfaction levels:

- “5” – most helpful
- “1” – least helpful

Office-Based Training Satisfaction Feedback

It taught me to step back and not judge when you tell a DV victim that she should go to a shelter, and she doesn't.

I learned to identify the different behaviors caused by substance abuse and mental illness. Before, I could have mistaken drug-related hyperactivity for anxiety.

The 'role play' was very useful in seeing and understanding how to engage a client.

Problems Identified

	<i>Domestic violence</i>	<i>Substance abuse</i>	<i>Mental health</i>	<i>Cross-consult</i>
Intimate partner violence	82 ⁰ ***	4 ⁰ ***	6 ⁰ ***	63 ⁰ ***
Parental substance abuse	14 ⁰ ***	6 ⁰ ***	78 ⁰ ***	58 ⁰ ***
Child psych problems	6 ⁰ ***	60 ⁰ ***	6 ⁰ ***	26 ⁰ ***
Parental psych problems	6 ⁰ ***	27 ⁰ ***	5 ⁰ ***	37 ⁰ ***
Parental violence towards children	21 ⁰ ***	12 ⁰ ***	5 ⁰ ***	27 ⁰ ***
Parenting problems	5 ⁰	15 ⁰	10 ⁰	12 ⁰
Educational neglect	2 ⁰ **	17 ⁰ **	6 ⁰ **	10 ⁰ **

p*<.05; *p*<.01; ****p*<.001

Other problems:

- ▶ Child alcohol/substance abuse
- ▶ Child violence toward parent(s)
- ▶ Other family member violence
- ▶ School performance
- ▶ Parenting problems
- ▶ Parental physical and medical neglect
- ▶ Housing
- ▶ Legal problems

Compliance with ACS Program Objectives

	<i>Domestic violence</i>	<i>Substance abuse</i>	<i>Mental health</i>	<i>Cross-consult</i>
Child-centered assessments/interventions	29 ⁰ % ^{***}	44 ⁰ % ^{***}	77 ⁰ % ^{***}	54 ⁰ % ^{***}
Family-focused assessments/interventions	39 ⁰ % ^{**}	38 ⁰ % ^{**}	52 ⁰ % ^{**}	59 ⁰ % ^{**}
Strength-based assessments/interventions	16%	11%	13%	15%
Culturally-sensitive assessments/ interventions	15 ⁰ % [*]	2 ⁰ % [*]	8 ⁰ % [*]	11 ⁰ % [*]
External collaborative approach	9 ⁰ % ^{***}	10 ⁰ % ^{***}	38 ⁰ % ^{***}	14 ⁰ % ^{***}
Internal collaborative approach	7 ⁰ % ^{**}	2 ⁰ % ^{**}	12 ⁰ % ^{**}	3 ⁰ % ^{**}
Internal and external collaborative approach	3 ⁰ % [*]	2 ⁰ % [*]	10 ⁰ % [*]	3 ⁰ % [*]

p*<.05; *p*<.01; ****p*<.001

Primary Benefits of CDM Studies

- ▶ More Comprehensive Assessment of Needs
- ▶ More Systematic Information About Clinical and Program Fidelity
- ▶ Qualitative & Quantitative Information Concerning Outcomes
- ▶ Information About Linkages Between Interventions & Outcomes
- ▶ Information About Important Contextual Influences

Secondary Benefits of CDM Studies

- ▶ Worker Mindfulness, Cultural Sensitivity & Self-Reflection
- ▶ Disciplinary & Inter-Disciplinary Team-Building
- ▶ Empowered Feeling Regarding Research Capacity
- ▶ Pride In Professionalism
- ▶ Intellectual & Emotional Replenishment

CDM Fosters Reflective Practice By Helping Practitioners to:

- ▶ Own what they know
- ▶ Acknowledge what they don't know
- ▶ Pursue what they need to know
- ▶ That is the true “gold standard” of professional practice

The End



Thank you!

Marina Lalayants, PhD
Hunter College
School of Social Work
2180 Third Avenue
New York, NY 10035
Tel: 212 396 7550
mlalayan@hunter.cuny.edu

Irwin Epstein, PhD
Hunter College
School of Social Work
2180 Third Avenue
New York, NY 10035
Tel: 212 396 7560
iepstein@hunter.cuny.edu

References

Lalayants, M., Epstein, I., & Adamy, D. (2011). Multidisciplinary consultation in child protection: A clinical data-mining evaluation. *International Journal of Social Welfare*, 20(2), 156-166.

Epstein, I. (2010). *Clinical data-mining: Integrating practice and research*. New York, NY: Oxford University Press.

Lalayants, M. (2008). Bridging disciplines in child protection: Guidelines for successful collaboration. *International Journal of Interdisciplinary Social Sciences*, 2(5), 147-155.

Peake, K., Epstein, I. & Medeiros, D. (Eds.) (2005). *Clinical and research uses of an adolescent intake questionnaire: What kids need to talk about?* Binghamton, N.Y.: Haworth Press.

Epstein, I., & Blumenfield, S. (Eds.) (2001). *Clinical data-mining in practice-based research: Social work in hospital settings*. New York: Routledge.