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

- D. Hanssen (2003) Intensive Family Preservation Services
- V. Kochkine (2006) Depressive Symptoms & Academic Achievement in Culturally Diverse Adolescents
- D. Mirabito (2000) Adolescent Mental Health Tx Termination
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)**

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

- Increase CPS workers’ skills and knowledge of how multiple disciplines impact child welfare cases
- Help workers use alternative approaches when cases are not progressing

- Improve workers’ diagnostic abilities to deal with diverse situations occurring in child abuse cases
- Provide guidance concerning services/referral sources
- 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
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

<table>
<thead>
<tr>
<th>Category</th>
<th>Assessment</th>
<th>Further exploration</th>
<th>Referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic violence</td>
<td>39.6%</td>
<td>22.6%</td>
<td>20.2%</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>36.6%</td>
<td>14.0%</td>
<td>18.4%</td>
</tr>
<tr>
<td>Mental health</td>
<td>34.8%</td>
<td>16.8%</td>
<td>21.2%</td>
</tr>
</tbody>
</table>

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

Satisfaction levels:
- “5” – most helpful
- “1” – least helpful
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

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

*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

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Child-centered assessments/interventions</strong></td>
<td>29%***</td>
<td>44%***</td>
<td>77%***</td>
<td>54%***</td>
</tr>
<tr>
<td><strong>Family-focused assessments/interventions</strong></td>
<td>39%**</td>
<td>38%**</td>
<td>52%**</td>
<td>59%**</td>
</tr>
<tr>
<td><strong>Strength-based assessments/interventions</strong></td>
<td>16%</td>
<td>11%</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Culturally-sensitive assessments/interventions</strong></td>
<td>15%*</td>
<td>2%*</td>
<td>8%*</td>
<td>11%*</td>
</tr>
<tr>
<td><strong>External collaborative approach</strong></td>
<td>9%***</td>
<td>10%***</td>
<td>38%***</td>
<td>14%***</td>
</tr>
<tr>
<td><strong>Internal collaborative approach</strong></td>
<td>7%**</td>
<td>2%**</td>
<td>12%**</td>
<td>3%**</td>
</tr>
<tr>
<td><strong>Internal and external collaborative approach</strong></td>
<td>3%*</td>
<td>2%*</td>
<td>10%*</td>
<td>3%*</td>
</tr>
</tbody>
</table>

*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


