Evidence In-Sight request summary:
Dual diagnosis best practices for children

Date: January 2012
The following Evidence In-Sight report involved a non-systematic search and summary of the research and grey literature. These findings are intended to inform the requesting organization, in a timely fashion, rather than providing an exhaustive search or systematic review. This report reflects the literature and evidence available at the time of writing. As new evidence emerges, knowledge on evidence-informed practices can evolve. It may be useful to re-examine and update the evidence over time and/or as new findings emerge.

Evidence In-Sight primarily presents research findings, along with consultations with experts where feasible and constructive. Since scientific research represents only one type of evidence, we encourage you to combine these findings with the expertise of practitioners and the experiences of children, youth and families to develop the best evidence-informed practices for your setting.

While this report may describe best practices or models of evidence-informed programs, Evidence In-Sight does not include direct recommendations or endorsement of a particular practice or program.

This report was researched and written to address the question(s):

- What are best practices in pediatric dual diagnosis assessment and intervention?
- Are there evidence-informed services, practices, and/or programs for pediatric dual-diagnosis services?

We prepared the report given the contextual information provided in our first communications (see Overview of inquiry). We are available at any time to discuss potential next steps.

We appreciate your responding to a brief satisfaction survey that the Centre will e-mail to you within two weeks. We would also like to schedule a brief phone call to assess your satisfaction with the information provided in the report. Please let us know when you would be available to schedule a 15-minute phone conversation.

Thank you for contacting Evidence In-Sight. Please do not hesitate to follow up or contact us at evidenceinsight@cheo.on.ca or by phone at 613-737-2297.
1. Overview of inquiry

This question was submitted jointly by two large, multi-service organizations that provide a tiered range of mental health services for children, youth and families. The question originated with programs within these organizations that work in the area of pediatric dual diagnosis (co-occurring mental illness with a developmental disability). They are interested in developing networks between treatment providers in this specific area to discuss best practices. While they are aware of such networks for dual diagnosis in the adult population, networks specific to children and youth are lacking. They will work with the Centre to explore options for creating these networks, and they have also requested a literature search exploring best practices in the assessment and treatment of pediatric dual diagnosis.

Evidence In-Sight will research the questions: What are best practices in pediatric dual diagnosis assessment and intervention? Are there evidence-informed services, practices, and/or programs for pediatric dual-diagnosis services?

2. Summary of findings

- There is relatively little research specific to assessment and intervention in pediatric dual diagnosis. Most of the available research pertains to adults with a dual diagnosis.
- The mental health domain and development disability domain have traditionally been stand-alone fields. This creates problems with accurate diagnosis, accessibility of services, and developing effective treatment plans for individuals with dual diagnosis.
- Based on the existing research, best practices involve:
  - Multi-disciplinary teams that work together in assessment, diagnosis and development of individualized treatment plans. Treatment is highly individualized, including medications and behavioral plans;
  - A high degree of cooperation and communication between agencies providing care.
  - Assessment of patients should involve input from multiple sources such as parents, caregivers and teachers;
  - Treatment approaches for mental illness in persons with developmental disabilities should be similar to those without a developmental disability, but will likely need to be modified on a case-by-case basis depending on individual patient’s needs, life circumstances, developmental level, and communication skills;
  - Service components and treatment outcomes should be monitored and evaluated;
  - Given the high frequency of physical ailments that manifest similarly to mental illness or developmental disability diagnosis, clients should have a complete physical workup to rule out physical causes.

3. Answer search strategy

- Where we looked for information: EBSCO Host (Medline, PsycInfo, Psychology and Behavioral Science Collection, Biomedical Reference Collection), Google Scholar,
- Search terms used in databases: developmental disabilities, mental illness, dual diagnosis, psychopathology, treatment, youth, adolescent, pediatric
4. Findings

Mental disorders are more common in people who have developmental (intellectual) disabilities compared to the general population (National Coalition on Dual Diagnosis). In children and youth, it has been estimated that 30-50% of those with a developmental disability also have a mental disorder, compared to 8 – 18% of those without a developmental disability (Einfeld et al., 2011). Because of these trends, there has been a call for more research involving to children and youth with a dual diagnosis (Einfeld et al., 2011). The lack of research related to assessment and intervention in dual diagnosis limits the availability of best-practice recommendations.

One factor that may contribute to this lack of research is the traditionally separate nature of the mental health care and developmental disability sectors. As Hackerman and colleagues (2006) discuss, these fields have separate education and training systems in place and are not conventionally required to work together. This can potentially create difficulties in accurately diagnosing individuals who have these co-occurring conditions, as expertise in both domains is required. For example, the term ‘diagnostic overshadowing’ is used to describe the situation in which an individual’s symptoms are viewed solely as part of either mental illness or developmental disability but the co-occurring nature of the condition is neglected. In addition, the most effective treatment of these symptoms may require a collection of techniques used in both domains. Therefore, professionals specializing in mental health and developmental disabilities in the dual diagnosis field should work towards developing a high degree of communication and cooperation between agencies to improve assessment and treatment outcomes, as well as working toward advancing the literature base.

4.1 Assessment and treatment

The limited available research specific to pediatric dual diagnosis (DD) suggests that assessment and treatment of mental health considerations in persons with DD are the same as persons without DD, but modifications may be necessary depending on each individual’s developmental level and communicative ability (AACAP official action).

Assessment

Information from multiple sources should be gathered during the initial assessment (Davis et al., 2008; Wallander, Dekker & Koot, 2003). For example, parents, caregivers and teachers can all provide valuable information related to the presentation of symptoms (i.e., behaviour setting, change over time). Self-report capabilities and introspection in persons with DD may not always be reliable (AACAP official action) and the information provided can be verified through the use of multiple sources (Wallander et al., 2003).

It is important to consider that undiagnosed medical conditions can lead to behaviours that might be mistaken for symptoms of a mental illness (e.g., hyperthyroidism) (AACAP official action). For this reason, a thorough medical examination and history is considered “the cornerstone” of assessment of individuals with dual diagnosis (AACAP official action, pg. 16, 1999).

Treatment

The fact that prevalence of mental illness in those with a dual diagnosis is underestimated is emphasized in the literature, and this can lead to under treatment as professionals tend to focus on just the developmental disorder and may overlook mental health problems. Further, the challenges in treating this population can lead to over dependence on psychopharmacology.
Recommendations for treatment of mental illness in individuals with dual diagnosis are similar to treatment in those without a co-occurring DD, but modifications should match the client’s level of functioning (AACAP). The most successful treatment programs involve multiple setting options, such as inpatient, day treatment and outpatient, and multiple modalities, such as psychosocial interventions (group or individual), behavioural therapy, pharmacotherapy, and family therapy (Davis et al., 2008). The complexity of these programs illustrates the need for communication and collaboration between service providers to ensure that this type of well-rounded treatment is possible (AACAP official action). It has been suggested that best practices in the treatment of dual diagnosis involve a high degree of cooperation between treatment providers and improvements in access to a variety of treatment programs (Hackerman et al., 2006). Some research suggests that because psychiatrists have expertise in medical and psychological treatment, their role should involve synthesizing the information gathered in the assessment and coordinating with various treatment providers in delivery of the program.

Currently, there are no treatment programs for children and youth with dual diagnosis that have accumulated enough evidence to be considered evidence-based, but examples of treatment programs that have been implemented, evaluated and have published their findings do exist. Several programs are summarized below.

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<th>Program Name and/or Location:</th>
<th>The Galloway Program</th>
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<td>Description:</td>
<td>Program consisted of open-ended group sessions occurring twice per week for youth aged 12 – 18 with dual diagnosis. Program goal to improve social skills in group settings and on an individual level, and to examine the positive influence empowerment can have on rehabilitation.</td>
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<td>Evaluation and Results:</td>
<td>Social skills of the youth were evaluated at the beginning of the program and again every six months the youth were involved. Social skills were evaluated using adapted questionnaires by the youth themselves, parents, teachers and program staff. The youth and parents both reported a significant improvement in social skills at 6 months.</td>
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<td>Measures used:</td>
<td>Adapted from Maston Evaluation of Social Skills with Youngsters: Teacher rating form and Strohmer-Prout Behaviour Rating Scale</td>
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<th>Program Name and/or Location:</th>
<th>CHEO Dual Diagnosis Team 2008</th>
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<td>Description:</td>
<td>Program treated youth up to the age of 18 with dual diagnosis. Began with a comprehensive assessment (5 hours) and then a complete treatment plan was prepared. Treatment team consisted of a psychiatrist, psychologist, nurse, social worker, two occupational therapists, and a speech/language pathologist. Consultation</td>
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and collaboration with other service providers was common during development of an individual's treatment program.

**Evaluation and Results:**
During the initial assessment of the program, parents, teachers and clinicians completed standard questionnaires measuring variables related to each participant's level of functioning and problematic behaviour. The same variables were evaluated after six months. Results showed a decrease in hospital visits and a significant improvement in clinical evaluations.

**Measures used:**
- Connors Parent Rating Scale – Revised: Long
- Development Behaviour Checklist: Primary Carer Version
- Connor's Teacher Rating Scale – Revised: Long
- Development Behaviour Checklist – Teacher Version
- Childhood and Adolescent Functional Assessment Scale

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<th>Program Name and/or Location:</th>
<th>Community Treatment of Dually Diagnosed Adolescents</th>
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<td>Description:</td>
<td>This treatment program was provided to youth aged 4 – 17 through three settings: residential centre, a foster care home and a community based wraparound service. Youth first entered the program in the residential centre, the most restrictive setting, and then would be transferred to the foster care setting and finally to the community depending on their progress. Treatment programs in all settings were managed by the same team.</td>
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<tr>
<td>Evaluation and Results:</td>
<td>This study measured the number of days spent by each youth in inpatient care three years before and three years after the study. All youth showed a decrease in time in inpatient care after participation in the program, compared to pre-study.</td>
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### 4.2 Evaluation of treatment programs
Evaluation of dual diagnosis programs should examine service components as well as treatment outcomes. This is necessary to develop an understanding of what is working and what is not working in dual diagnosis programming and can help other professionals in the field develop and adapt treatment programs to make them more effective (Davis et al., 2008). There are a number of reliable and valid standardized measurement instruments, including:

- Aberrant Behaviour Checklist (ABC)
- Parent and teacher versions of the Development Behaviour Checklist (DBC-T and DBC-P)
- Nisonger Child Behaviour Rating Form (NCBRF)
- Reiss Screen for Children’s Dual Diagnosis (RSC-DD).

These instruments are used to measure symptoms and problematic behaviour before, during and after a treatment has been applied, and to provide information about the possible effects of the treatment. More details on these measures
are available in Wallander, Dekker & Koot (2003). Also refer to the Centre’s measures database to search for potentially useful measures: http://www.excellenceforchildandyouth.ca/resource-hub/measures-database

5. Next steps and other resources

There are a number of dual diagnosis programs currently providing services in Ontario. A starting point for information is the Ontario chapter of the National Association for the Dually Diagnosed (NADD) at www.nadontario.net

Knowing what works and receiving training on an evidence-informed practice or program is not sufficient to actually achieve the outcomes that previous evaluations indicate are possible. A program that has been shown to improve mental health outcomes for children and youth but that is poorly implemented will not achieve successful outcomes (Fixsen et al, 2005). In order for a program to be evidence-informed, it needs to be applied with fidelity to the design and it needs to be implemented using supportive “drivers” related to staff competency, organizational leadership and organizational capacity. These drivers include assessing and monitoring the outcomes of your practice using evaluation or performance measurement frameworks, which are particularly important when there is insufficient evidence in the literature to guide clinical decisions. Choosing a practice is an initial step toward implementation, but the implementation drivers are essential to ensure that the program reaches appropriate clients, that outcomes are successful and that clinical staff members are successful in their work.

The Ontario Centre of Excellence for Child and Youth Mental Health has a number of resources and services available to support agencies with implementation, evaluation, knowledge mobilization, youth engagement and family engagement. For more information, visit:

http://www.excellenceforchildandyouth.ca/what-we-do or check out the Centre’s resource hub at http://www.excellenceforchildandyouth.ca/resource-hub.

For general mental health information, including links to resources for families:

http://www.ementalhealth.ca
References


CHEO Dual Diagnosis Program. (2008, June). CHEO Dual Diagnosis Program Evaluation, Ottawa, ON, Flintoff et al.


National Coalition on Dual Diagnosis, (2011, October). Moving Forward: National action on dual diagnosis in Canada, Toronto, ON.