



**Ontario Association of
Residences Treating Youth**

Centre of Excellence for Residential Care in Ontario

Treating Ontario's Most Vulnerable Children

An Overview of Residential Care & Treatment for 3,400 Children



Research Committee

Larry Sanders, Ph.D., Research Chair, Chairman/CEO, Bayfield
Carol Stuart, Ph.D., Director and Associate Professor, Ryerson University
Maria Gurevich, Ph.D., Assistant Professor, Ryerson University
Farley Hadley, Mutual Support

Richard Solomon, Executive Director, OARTY

Robert Fulton, M.S.W
Consultant to the Committee

Partners in Care IV is published by:

Ontario Association of Residences Treating Youth
550 Alden Rd, Ste 210, Markham ON L3R 6A8
Ph: 905-475- KIDS (5437); Fax: 905-475-5430
info@oarty.net; www. oarty.net

February 2010



Treating Ontario's Most Vulnerable Children

An Overview of Residential Care & Treatment for 3,400 Children

EXECUTIVE SUMMARY

Sample

OARTY funds and collects information for the Partners in Care survey for the purpose of establishing the clinical profile of the clients in residential care; to establish referral patterns; and to establish the types and costs of programs within our organization. In Partners in Care IV (PIC-IV), we had a 75% response rate from our members. We drew a sample of 1,092 clients out of the approximately 3,400 clients cared for by OARTY members. The sample, which is 32% of the clients served, has sufficient power for the generalization of results and conclusions across the OARTY population.

OARTY collected data on the program characteristics for 100% of member agencies and on staffing costs for 58% of member agencies.

Outline of the Report:

1. Introduction:
2. The Voice of Our Clients:
 - a. Client feedback on quality of care
 - b. Parental Bonding Instrument
3. Clinical profile of the children in residential care:
 - a. Degree of Adversity
 - b. Children's Global Assessment Scale (CGAS)
 - c. Intelligence
 - d. DSM Diagnoses
 - e. Client Typology
4. Referral Patterns by Demographic Variables
5. Profile of the Aboriginal Clients
6. Profile of Clients with Complex Needs
7. The Cost of Care, Staffing Costs and Staffing Levels
8. Summary

Voice of Our Youth

A high proportion of clients were willing to complete a satisfaction survey (80%) and a measure of attachment (73%). Two instruments were used:

- (1) Clients assessed their care using a reliable and valid instrument developed by the Joint Commission on Quality of Care in Mental Health, US government, NIMH; the instrument is called the *Perception of Care*.
- (2) Clients measured the degree to which they felt cared about and treated fairly using an internationally normed instrument, the *Parental Bonding Instrument* (PBI)

The clients who consented to express their voice on the quality of care included clients with complex developmental needs as well as those with psychiatric disorders of normal intellectual capacity. For example, 69% of clients with intellectual disabilities and serious behaviour problems wanted to be heard and were able to answer the questions on the test; some of these young people required a staff member or foster parent to read the test to them.

The *Perception of Care* instrument measured the client using a four point scale from “never” to “always” on the following issues. The average scores for each question expressed as a percentage of the maximum is reported.

- Explaining things in a way that the client can understand (83%)
- Involving the client in decisions about his/her care and treatment (76%)
- Listening to the client (80%)
- Working as team (86%)
- Spending enough time with the client (82%)
- Treating the client with respect and dignity (88%)
- Giving the client reassurance and support (87%)
- Being helpful (79%)

The average response for all eight areas was 82% of the maximum possible. In addition, clients were asked to rate their perception of care on a ten point scale that produced an average score of 7.8. Finally clients were asked if they would recommend the treatment resource to other children with mental health needs. Nine percent of clients answered “No” to this question; 38% were “not sure” and 53% answered “yes”.

Some clients reported low scores on quality of care. The vast majority of clients have said that they feel listened to, respected and helped by the program.

In addition, the clients answered a questionnaire measuring the degree that they had someone in their life who cared about them and treated them fairly. In 30% of the cases, the person identified as the one who cared most about the youth was their child and youth worker in the residential facility. Since this test is norm referenced, the scores can be compared to a world-wide sample of young people living in their own families.

Young people from every type of resource, including treatment foster care, group homes and residential treatment centres, scored in the average range compared to teenagers across the English speaking world. This result means that the young people in residential care and treatment are securely attached to their caregivers.

Clinical Profile

The population of clients served by OARTY member agencies are vulnerable, traumatized individuals. The specific details are as follows:

- (1) Sixty three percent of our clients have a diagnosed intellectual deficit and 92% of clients with intellectual disability have other serious medical, behavioural and/or psychiatric disorders, which are the primary targets of their treatment
- (2) Fifty-eight percent of clients have a confirmed psychiatric diagnosis and 2/3rds of clients with a psychiatric disorder have two or more separate disorders at the same time
- (3) Eighteen percent of our clients have a family member who has an intellectual deficit. The prevalence of adults with intellectual deficits is 0.6% according to an Ontario government survey¹ This means that the OARTY clientele are 30 times more likely to have parents with intellectual deficits than other children in Ontario.

Children whose parents have diagnosable intellectual deficits are at great risk of having an intellectual deficit themselves. Children with this background are also at increased risk of experiencing trauma during their childhood as well as emotional and behavioural problems.

- (4) Four percent of OARTY clients have a member of their immediate family who have committed suicide, usually mother or father. The age standardized suicide rates for young adults in the 25-44 year old age group is less than 5 in 1,000. This means that the clients of OARTY member agencies have suicide in their family history that is eight times higher.

Children with a close family history of completed suicided are eight times more likely to commit suicide and have a greater risk of depressive illness.

- (5) Seventy four percent of OARTY clients have been frustrated in school and have been failing to perform adequately since primary grades. Additional data on this subgroup indicates that these children are now on average 5 years behind their peers based on *Individualized Educational Program* (IEP) reports and testing with standardized instruments, such as the *Wechsler Individual Achievement Test* (WIAT).

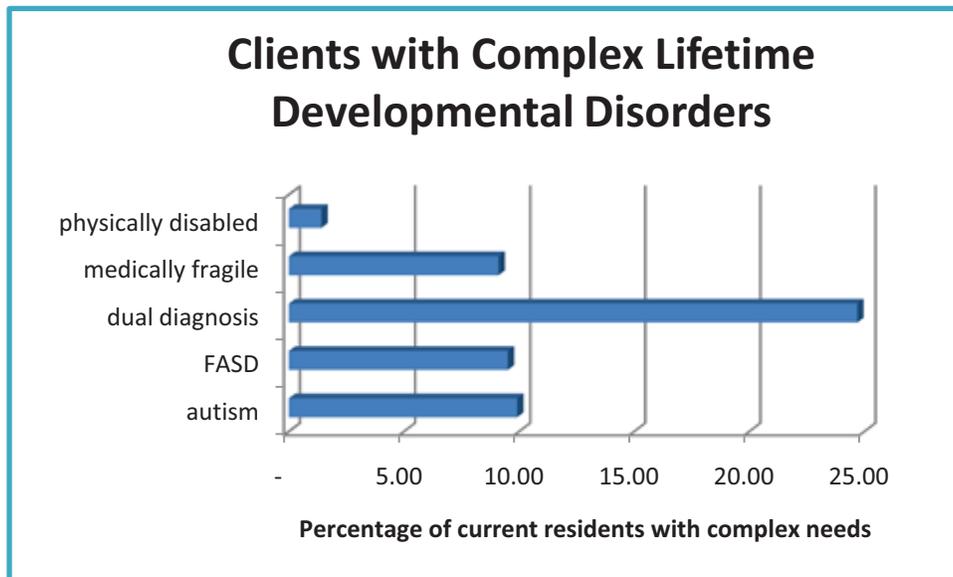
School failure and frustration in classrooms extending back several years places the child at great risk of dropping out of school before graduation and experiencing all of the subsequent adverse outcomes, including a lifetime of poverty, substance abuse and serious physical health problems.

- (6) Before their placement in an OARTY resource, the clients experienced multiple traumas, such as physical abuse (47%), sexual abuse (25%), years as a young child in poverty (44%)

¹ "The Prevalence of Ontarians Labelled as having a Developmental Disability" (1999), Developmental Services Branch, Ministry of Community and Social Services, Queens Park

and close family member addicted to drugs (47%). Children referred over the last four years have averaged more than four different adversities.

- (7) The children recently placed have an average of 4.14 different major stressors in their life. In longitudinal studies, 70% of children with this degree of adversity are not able to function independently as a young adult without intervention.
- (8) The ability of the child to function in social roles and perform the tasks of daily living with reasonable independence was very low on average; functioning also varies significant by client type.
- (9) The clients score on the Conner's Global Index (t-score = 77) is higher than 99.6% of society.
- (10) Children of average IQ are between 1.6 and 2.2 years behind their peers in school; children with intellectual deficits are much further behind.
- (11) Fifty-five percent of all clients served by OARTY member agencies have complex lifetime developmental needs and disorders. These disorders occur rarely in children with prevalence rates that are less than 5 in 1,000.



Many of these clients were able to speak for themselves in this report.

Despite their difficulties, the clients have a voice and they want to be heard. Fifty-seven percent of the clients (n = 157) with complex needs completed the NIMH client satisfaction survey. The fact that this group of clients were prepared to be engaged in rating their care is an important issue in itself. Analysis of variance shows that clients with complex needs are more satisfied with their care than other clients, such as those who are emotionally and/or psychiatrically ill.

A large random sample of clients with complex needs (n = 166) completed the *Parental Bonding Instrument* (PBI). The data below is the gender standardized score for the caring scale

of the PBI. The data indicates that there is no difference in the feeling of being cared about, as measured in complex clients and compared to other clients with different needs.

	N	Mean Caring T-Score	SD	Min	Max
<i>Emotionally Disturbed, normal children, undiagnosed children</i>	197	49.31	9.93	4	63
<i>Complex Neuro Developmental Needs</i>	166	49.83	10.31	7	63
Total	363	49.55	10.10	4	63

Fifty-eight percent of clients with average intelligence or higher have experienced school failure starting in primary grades. A long term history of school failure is very difficult to turn around; yet 15% of children with long term school failure are functioning at the appropriate grade level of their age related peers.

There was a trend away from placement in staff operated group homes during the years between 2006 and 2009. The move away from staff operated group care has resulted in a substantial increase in the use of parent led group homes and treatment foster care.

The number of new referrals is quite unstable from one year to the next, which makes it difficult to project ahead. During 2007, 455 children were referred for care and treatment; during 2009, there was a 53% decline to 215 referrals.

Aboriginal Clients

Twelve percent of clients placed in treatment foster and group care in privately operated treatment agencies in Ontario identify with the aboriginal people of Canada. This percentage has remained stable for four years across two separate random samples of the client population. Compared to youth from the mainstream culture in our survey, Native youth have very high levels of family dysfunction and trauma. Native youth show significantly higher adversity in:

- 1) parental substance abuse (82% compared to 42%)
- 2) history of physical abuse (70% compared to 50%)
- 3) parents in jail (44% compared to 27%)
- 4) poverty (65% compared to 49%)
- 5) youth have abused drugs (24% compared to 12%)
- 6) current domestic violence (24% compared to 16%)
- 7) family member raped (21% compared to 14%)

Summing the total number of adverse conditions checked positive shows that Native clients have five different types of serious stressors in their family background and early history compared to four different types of serious stressors among mainstream youth.

The clinical data suggests that the number one health issue affecting Native youth in residential care is substance abuse. Eighty two percent of Native youth have a close family relative with substance abuse disorder and 24% of Native youth have a history of abusing drugs and alcohol. Moreover, 16% of all Native youth in residential care have diagnosed FASD, compared to 7% of youth from mainstream cultures.

The mean attachment score for Native clients ($\bar{x} = 46.48$) is much higher than the mean for children who have very insecure attachment patterns. Children whose *caring-scale* is below 40 feel profoundly unloved, which is indicative of children with poor attachment. This means that Native youth have significant resilience that is strengthened by the network of service operated by OARTY member agencies.

When assessing the standards of care, Native youth responded favourably and there is no difference between mainstream youth and Native youth on standards of care.

Native clients have 5.39 prior placements compared to an average of 2.70 for mainstream clients and 69% of Native clients have a history of placements in CAS operated regular foster care compared to 54% of mainstream clients. Moreover, 16% of Native clients have been placed in custody, compared to 10% of mainstream youth.

The data on days of care and treatment shows that Native clients receive less service than mainstream clients, despite the fact that they have as much or more need for treatment. On average, clients with Native identity receive 520 fewer days of treatment than their mainstream counterparts. This means that Native clients have a significantly lower share of the dollar investment per client (\$180,000) across their time in residential care and treatment compared to mainstream clients (\$274,000).

Clients with Complex Needs

Sixty-three percent of clients in residential care and treatment have been diagnosed with an intellectual deficit and the vast majority of these clients have serious co-morbid lifelong developmental disorders.

Clients with complex needs are more likely to exhibit serious self abusive behaviour requiring medical attention (29%), compared with clients who do not have complex needs (19%). The relationship with aggression is even stronger as 55% of children with complex needs exhibit aggression requiring medical intervention, compared with other clients (35%). Sixty-five percent of aggression is exhibited by clients with complex needs.

The two best measures of *need* are: (1) the degree the individual is able to function in home, school and neighbourhood, as measured by the *Children's Global Assessment Scale* (CGAS), and (2) the amount of adult support required to attend to basic tasks of living, such as getting dressed and eating, as measured by the *Level of Adult Support in Daily Living Tasks* (LAS). On both of these dimensions, clients with complex needs are distinct from the children with (a) emotional and behaviour problems, and/or (b) learning difficulties or (c) children who have normal developmental needs.

The CGAS scores vary significantly by the type of placement resource (F-ratio = 15.1, sig = .000, df = 252); the LAS scores also vary with the type of placement resource (F-ratio = 14.8, sig = .000, df = 252). Children who are placed in more intensive settings have significantly more needs in terms of the CGAS and LAS than clients placed in settings with less direct caregiver support. This suggests that children are appropriately placed. In a related finding, the cost of care is correlated with the CGAS ($r = .420$) and the LAS ($r = .394$).

The Cost of Care, Staffing Costs and Staff Turnover

The average per diem cost for all clients is \$186.70 per day. The average per diem cost varies significantly by the broad diagnostic groups.

The average base wage rate for full time *Child and Youth Workers* is \$13.68 (SD = \$1.65); the average highest wage paid to CYWs is \$16.48 (SD = \$2.09). The turnover rate² for full time CYWs is 41% per year. The range is from \$10.00 to \$20.00.

The average base wage rate for part time *Child and Youth Workers* is \$12.84 (SD = \$1.92); the average highest wage paid to CYWs is 14.62 (SD = \$2.52). The turnover rate for part time CYWs is 60% per year.

In contrast, the turnover rate for treatment foster care parents is 6% (SD = 7%). The average base rate for TFC parents is \$55.30 per day (SD = \$14.73) and the average highest rate paid is \$65.38 per day (SD = \$17.28). The range is from \$30.00 to \$109.26 per day. The wide range is affected by different expectations of what the payment to the foster parents includes.

It is worth noting that the children living in fully staff operated group homes have the same standard score on attachment as children living in treatment foster care. Attachment is not impacted by staff operated versus family modelled care. While there may be other reasons to choose a family-based program versus a staff operated program, attachment does not appear to be one of those reasons.

Secondly, 30% of children identified their child and youth worker as the “closest person in their life”; 31% identified someone in their family of origin and 39% identified a foster parent as the person they felt closest to. The annual turnover rate of 41% among full time CYWs results in significant loss and sadness to some children. We should do as much as possible to minimize the annual turnover rate.

² The turnover rate was computed as the number of staff who left divided the total number of positions allocated within the budget times 100

Table of Contents

EXECUTIVE SUMMARY

<i>Sample</i>	1
<i>Outline of the Report:</i>	1
<i>Voice of Our Youth</i>	2
<i>Clinical Profile</i>	3
<i>Aboriginal Clients</i>	5
<i>Clients with Complex Needs</i>	6
<i>The Cost of Care, Staffing Costs and Staff Turnover</i>	7

FULL REPORT

Chapter One: Introduction

Research Design	1
<i>Sample</i>	1
<i>Measures</i>	1
<i>Business Data</i>	2
<i>Data Analysis</i>	2

Chapter Two: the Voice of Our Clients

Quality of Care	3
<i>Client Satisfaction</i>	3
Finding 2.1 Perceived Quality of Care is Independent of Needs and Background	4
Finding 2.2 Perceived Quality of Care Does Vary.....	5
Finding 2.3 High Level of Satisfaction with Care and Treatment	6
<i>Attachment</i>	7
Finding 2.4 Most Client Groups Were Able and Willing to Complete the PBI.....	7
Finding 2.5 Wide Range of Clients Tested on PBI.....	8
Finding 2.6 Clients Feel Closest to their CYW Staff and Foster Parents	8
Finding 2.7 Security with Foster Parents, CYWs and Parent in the Family of Origin.....	8
Caring Scale of the PBI.....	9
Finding 2.8 No Difference in Attachment Level by Staffing Model	9
Finding 2.9 No Difference in Attachment Level by DSM Diagnosis	9
Finding 2.10 No Difference in Attachment Level by IQ Level	9
Finding 2.11 Client Satisfaction and Attachment are closely related	9

Chapter Three: Clinical Profile

Types of Clients Receiving Care and Treatment	11
<i>Clinical Profile of Clients Needing Long Term Care</i>	11
Finding 3.1 8% of clients have been in the same program for more than 10 years	12
<i>Clinical Profile of Clients in the same program for 5 to 9 years</i>	13
Finding 3.2 31% of Clients Are Placed between 2000 and 2005.....	13
<i>Clinical Profile of Children Recently Placed</i>	14
Finding 3.3 61% of Clients Are Placed in the Last 3 to 4 Years.....	14
<i>Profile of Clients Referred Since 2006</i>	15
Finding 3.4 5% of Recent Referrals are Children with Primarily DH Needs.....	15
Finding 3.5 8% of Recent Referrals are Children with Autism Spectrum Disorder	16
Finding 3.6 8% of Recent Referrals are Children with Fetal Alcohol Spectrum Disorder	17
Finding 3.7 21% are Children with Intellectual Deficit Plus Serious Behaviour	18
Finding 3.8 4% are Medically Fragile/Physically Disabled Children	19
Finding 3.9 39% of Recent Referrals are Emotionally and Psychiatrically Ill Children	20
Finding 3.10 10% of Recent Referrals are Normal Children with Family Problems	21
<i>Intellectual Deficits</i>	22
Finding 3.11 63% of Clients have an Intellectual Deficit.....	22
<i>Psychiatric Disorders</i>	22
Finding 3.12 11% are Diagnosed as Conduct Disorder	23
Finding 3.13 15% are Diagnosed with Major Depression and Mood Disorder	23
Finding 3.14 15% are Diagnosed with Anxiety.....	24
Finding 3.15 11% are Diagnosed with Post Traumatic Stress Disorder (PTSD).....	25
Finding 3.16 4% are Diagnosed with Substance Abuse Disorder	25
<i>Adversity and Trauma</i>	26
Finding 3.17 Clients have more than 4 Discrete Stressors in their Background.....	26
Finding 3.18 Different Types of Adversity Show the Vulnerability of Clients	27
Finding 3.19 18% of Clients have a Family Member who has ID.....	28
Finding 3.20 4% of Clients have a Family Member who Committed Suicide	28
Finding 3.21 74% of Clients have been Frustrated at School Since Primary Grades	28
Finding 3.22 Children in Regular Foster Care have less Abuse in their History	29
<i>Functioning</i>	29
Finding 3.23 Average Children’s Global Assessment Scale (CGAS) Score = 51.....	29
Finding 3.24 Level of Adult Support in Daily Living Varies by Client Type	30

<i>Hyperactivity, Attention Deficit and Impulsivity</i>	31
Finding 3.25 Conners' Global Index (CGI) Varies Significantly by Diagnostic Type.....	31
<i>Academic Accomplishments</i>	32
Finding 3.26 Children of Average or Higher IQ are 1.9 grades behind their peers.....	32
Finding 3.27 8.5% of Clients with a Normal IQ are Succeeding in School.....	33
Finding 3.28 15% of Clients With Long History of School Failure Are Succeeding	33
Finding 3.29 Some Clinical Variables and Grade Levels are Related	33

Chapter Four: Pattern of Referrals by Demographic Variables

Finding 4.1- Children are being Placed at an Older Age with Each Succeeding Year	35
Finding 4.2 Referrals by Gender are Stable: 64% Male, 36% Female	35
Finding 4.3 16% of Referrals Are Native Canadians.....	36
Finding 4.4 83% of Referrals Have a History of Prior Placements.....	36
Finding 4.5 60% of Referrals Have a Prior History in CAS Foster Care.....	36
Finding 4.6 14% of Referrals Have a Prior History in CYJA Custody Placement.....	37
Finding 4.7 16% of Referrals Have a History in Psychiatric Crisis Units.....	37
Finding 4.8 A Trend Away from Placement in Staff Operated Homes.....	38
Finding 4.9 Rate of Referrals Has Declined Recently	38
Finding 4.10 History of Prior Placement Has No Effect the Type of Current Placement ...	39
Finding 4.11 Medically Fragile Are Least to Have a History of Prior Placement	39

Chapter Five: Profile of Aboriginal Clients

Aboriginal Youth in Residential Care and Treatment.....	40
Finding 5.1 Literature Review Shows the Added Risk Carried by Native Children	40
<i>Clinical Profile of Native Clients.....</i>	<i>41</i>
Finding 5.2 Native Children have a Higher Prevalence in All Diagnostic Groups.....	41
Finding 5.3 Natives Have Higher Percentages of Family Dysfunction and Trauma	42
Finding 5.4 Number One Health Issue is Substance Abuse.....	43
Finding 5.5 High Percentage of Parents Who Have Been Incarcerated	43
Finding 5.6 FASD in Natives More Impaired/Severe Than in the Mainstream	44
<i>Attachment and Client Satisfaction</i>	<i>44</i>
Finding 5.7 Native Children Are Securely Attached to Their Caregivers	45
Limitations to the Research:	45
Good Outcomes for Native Youth.....	45
Finding 5.8 Native Clients are Satisfied with the Quality of Care	45
Finding 5.9 Natives Hesitant to Recommend the Program to Others	46

Finding 5.10 Client Satisfaction Lower with Fewer Days of Service	46
Finding 5.11 Natives Receive Fewer Days of Care and Treatment	47
<i>History of Prior Placements</i>	47
Finding 5.12 Natives Are as Likely to Have a Prior History of Placements	47
Finding 5.13 Natives Experience More Changes in Placement	47
Finding 5.14 More Likely to have a History of CAS Foster Placements.....	48
Finding 5.15 More Likely to have a History of Custody Placements	48
Finding 5.16 Similar History of Psychiatric Crisis Placement	48
Interpretation of results	48
<i>The Cost of Care</i>	49
Finding 5.17 Fewer Days of Care and Treatment for Native Clients.....	49
Finding 5.18 Slightly Higher Average Per Diems for Native Clients	49
Finding 5.19 Native Clients Received a Lower Share of the Investment per Client	50
<i>Conclusion on the Needs of Native Youth and the Services Received</i>	50

Chapter Six: Profile of Clients with Complex Needs

Profile of Clients with Complex Needs	51
Finding 6.1 97% of Clients with Complex Needs Do Not Have Average or Higher IQ ...	52
Finding 6.2 47% of Clients With Complex Needs Have Moderate/Severe Intellectual Deficits	52
Finding 6.3 30% of Clients with Complex Needs Have Mild Intellectual Deficits	52
Finding 6.4 18% of Clients with Complex Needs Have Borderline Intellectual Deficits ..	53
Finding 6.5 Clients with Complex Needs have Very Low Academic Performance	53
Finding 6.6 Lower Functioning Level and Higher Needs for Adult Support	54
Finding 6.7 Level of Care is Matched to the Clients Functioning Level.....	54
Finding 6.8 Complex Needs Leads to Higher Rates of Self Abuse and Aggression	56
<i>History of Prior Placements</i>	56
Finding 6.9 Clients with Complex Needs Are Less Likely to have Prior Placements	56
Finding 6.10 History of CAS Foster Care Less Likely for Clients with Complex Needs	57
<i>Attachment and Client Satisfaction</i>	57
Finding 6.11 Clients with Complex Needs are Very Satisfied with the Standards of Care	57
Finding 6.12 Clients with Complex Needs Are Securely Attached to Their Caregivers	57

Chapter Seven: the Cost of Care, Staffing Costs and Staff Turnover

Business of Service	58
Finding 7.1 Per Diem Cost Varies Significantly by Diagnostic Group	58

<i>Staff Wages and Turnover Rates</i>	59
Finding 7.2 Night Staff are Paid an Average Base Rate of \$12.33	59
Finding 7.3 Full Time CYWs are Paid an Average Base Rate of \$13.68.....	59
Finding 7.4 Part time CYW staff are Paid an Average Base Rate of \$12.84	59
Finding 7.5 Relief staff wage rates have an Average Base Rate of \$13.27	59
Finding 7.6 Average Management/Social Work Rates Range from \$18.19 to \$25.29	60
Finding 7.7 TFP in OARTY Agencies Paid Less than CAS TFP parents	60

Chapter Eight: Summary and New Knowledge

New Knowledge	61
<i>Listening to our Clients</i>	61
<i>Evidence Based Practice</i>	61
<i>Academic Performance</i>	62
<i>Native Children in Care and Treatment</i>	62
<i>Matching Needs to Level of Care and Cost</i>	63

Appendix: copies of tests

Chapter One Introduction

Chapter One - Introduction

Research Design

Sample

OARTY funds and collects information for the Partners in Care survey for the purpose of establishing the clinical profile of the clients in residential care; to establish referral patterns; and to establish the types and costs of programs within our organization. In PIC-IV we had a 75% response rate from our members. We drew a sample of 1,092 clients for the current survey out of the approximately 3,400 clients cared for by OARTY members. The sample, which is 32% of the clients served, has sufficient power for the generalization of results and conclusions across the OARTY population.

OARTY collected data on the program characteristics for 100% of member agencies and on staffing costs for 58% of member agencies.

Measures

Clients were assessed on nine measures:

1. *Conners' Global Index:*
 - Measuring psychological distress and ADHD
2. *Children's Global Assessment Scale:*
 - Measuring the functioning of an individual in major roles of life
3. *Sociodemographic Checklist:*
 - A checklist of 15 serious stressors or conditions of adversity
4. *Parental Bonding Instrument:*
 - Most frequently utilized measure of attachment after infancy
 - Respondent first identifies "who he/she feels closest to: parents of origin, child and youth worker or treatment foster parent"
 - Measures how much he/she feels this person cares about the respondent
 - Measures how much this person is over-controlling, under-controlling or treating the respondent in a fair way
5. *Educational Performance Level:*
 - Collects data from IEP, general report or standardized tests (WIAT, WRAT)
 - Reports on actual grade levels in math, reading, writing and oral learning
6. *Diagnostic Checklist:*
 - File data on intelligence levels: low average +, borderline, mild, moderate-
 - File data on presence of complex developmental conditions: autism, FASD, medically fragile, physically handicapped and dually diagnosed
 - File data on DSM diagnoses that may exist on its own or as co-morbid conditions: conduct disorder, ADHD, anxiety, depression, etc.

- Names of diagnostician, dates of report and specific diagnosis
7. *Nursing Care Checklist:*
- File data on 23 medical/nursing care needs, such as requires chest physio, tube feeding, orthotics, scoliosis, etc.
8. *Level of Adult Support in Daily Living Tasks:*
- Degree of adult support required to enable the individual to perform tasks of 22 different aspects of daily living: i.e., eating, grooming, getting dressed, crossing the street, starting a conversation, coping with negatives, managing own behaviour without instruction from others
 - Levels of care range from fully independent, daily oversight, verbal prompting, hand-over-hand prompting and total dependence
9. *Perception of Care:*
- Client satisfaction with the quality of care for residential services developed by the National Institute of Health
 - Measures 13 specific standards of care, i.e., “how much were you listened to by the staff or foster parents”
 - Rating of the care received
 - Self appraisal of “how much did the program help you?”
 - Asks specifically, “would you recommend the program to someone with mental health difficulties?”

Business Data

The clinical profile is linked to data on the following elements of the program. The program data is 100% complete for all members of OARTY.

1. Per diem cost
2. Staffing modality (treatment foster care, parent operated group care, fully staff operated group care)
3. Number of beds at full capacity
4. Number of clients actually served during the past year
5. Total days care provided
6. Number of adult clients vs. child clients
7. Number of staff and/or foster parents
8. Ministry regional office for accountability purposes

Staff turnover and base rates and highest rate paid for remuneration was collected for 12 positions, including front line CYWs, treatment foster parents and social workers.

Data Analysis

The data was analysed using SPSS 15.

Chapter Two Voice of Our Clients

Chapter Two Voice of Our Clients

Quality of Care

The quality of care provided was measured in two ways:

- (1) Asking the clients to assess their care using a reliable and valid instrument developed by the Joint Commission on Quality of Care in Mental Health, US government, NIMH; the instrument is called the *Perception of Care*.
- (2) Measuring the degree the client felt cared about and treated fairly using an evidence based instrument, the *Parental Bonding Instrument* (PBI), which is internationally normed.

Both instruments require direct input from clients. All clients who participated provided informed consent and were assured of complete confidentiality. No identifying information was collected. Eighty percent of clients consented to express their viewpoint on the quality of care.

Client Satisfaction

The clients who consented to express their voice on the quality of care included clients with complex developmental needs as well as those with psychiatric disorders of normal intellectual capacity. For example, 69% of clients with intellectual deficits and serious behaviour problems wanted to be heard and were able to answer the questions on the test; some of these young people required staff to read the test to them.

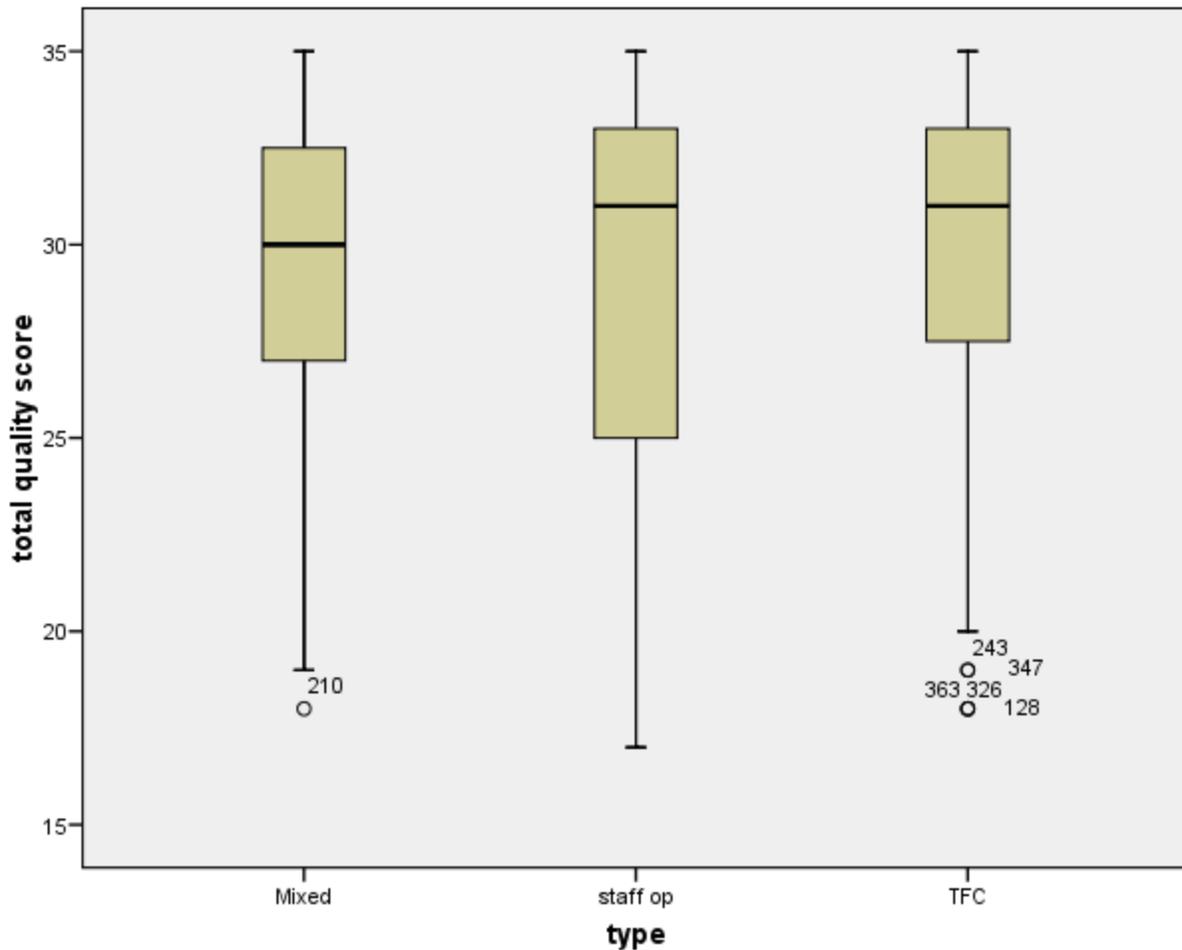
The Perception of Care instrument measured the client using a four point scale from “never” to “always” on the following parameters. The average scores for each question expressed as a percentage of the maximum is reported.

- Explaining things in a way that the client can understand (83%)
- Involving the client in decisions about his/her care and treatment (76%)
- Listening to the client (80%)
- Working as team (86%)
- Spending enough time with the client (82%)
- Treating the client with respect and dignity (88%)
- Giving the client reassurance and support (87%)
- Being helpful (79%)

The average response was 82% for all eight areas. In addition, clients were asked to rate the care on a ten point scale that produced an average score of 7.8. Finally clients were asked if they would recommend the treatment resource to other children with mental health needs. Nine percent of clients answered “No” to this question; 38% were “Not sure” and 53% answered “Yes”.

The data shows that some clients were prepared to judge the quality of care unfavourably. The vast majority of clients have said that they feel listened to, respected and helped by the program.

The data was analysed to examine if there are differences in the perceived quality of care by the type of program: treatment foster care (TFC), parent-operated group homes (Mixed) and fully staff operated group care and treatment (Staff Operated). In the chart below, the mean values for total satisfaction of care by type of program is quite similar. A t-test of the difference between TFC and Staff Operated shows no significant difference in satisfaction of care; the average satisfaction score is 29.41 out of a maximum of 35.



Finding 2.1 Perceived Quality of Care is Independent of Needs and Background

The client’s perception of the quality of care is independent of clinical needs and social background. Analysis of variance showed there was no difference in the scores for total quality of care (\bar{x} = 29 out of a maximum of 36) or the global rating of their care (\bar{x} = 7.9 out of a maximum of 10) for the following comparisons:

- aboriginal compared to mainstream clients
- by different types of stressors, such as poverty, sexual abuse, parents addicted to drugs
- a prior history of placements compared to those directly placed in OARTY resource
- a prior history of placement in custody
- dual diagnosis versus all other client types
- a DSM diagnosis
- a diagnosis of conduct disorder
- males compared to females (using a t-test)
- three or more stressors compared to 3 or less stressors (using a t-test)
- serious problems of aggression versus no problem

Finding 2.2 Perceived Quality of Care Does Vary

The statistical analysis identified the source of variation in the perceived quality of care.

(1) Clients who indicated that they would recommend the program to another person in need assigned higher scores to the quality of care:

Recommended “yes”: n = 224, mean quality score = 30.5

Recommended “no”: n = 37, mean quality score = 25.3

F-ratio = 48.3, sig = .003

(2) By diagnosis of FASD versus all others:

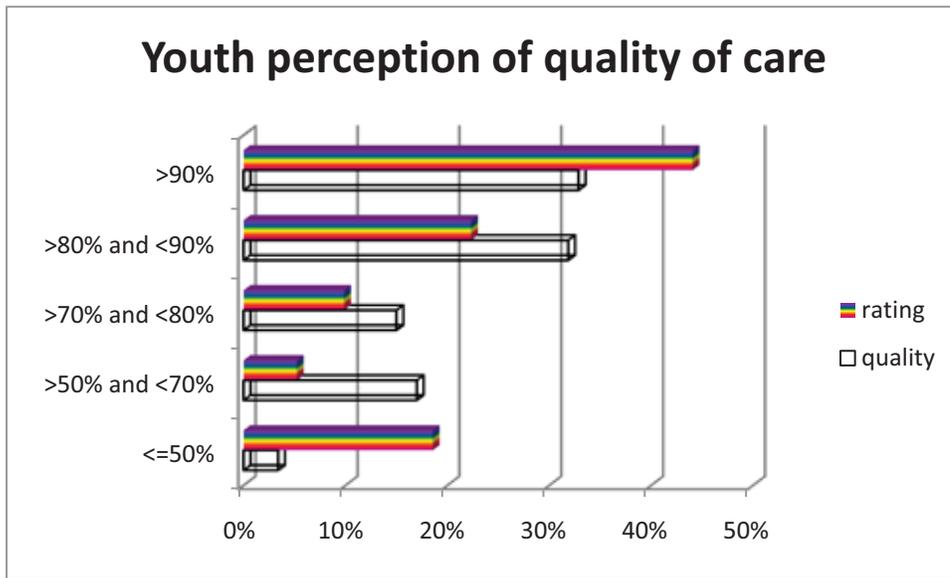
FASD n = 32, mean quality score = 31.6

Not FASD n = 227, mean quality score = 29.0

F-ratio = 9.0, sig = .003

Interpretation: children with FASD perceive the quality of care in more favourable terms; this may be because they come from the most deprived and harsh family circumstances compared to any other group. The client’s perception of the residential program is viewed as positive in comparison to the client’s home environment.

Finding 2.3 High Level of Satisfaction with Care and Treatment



The graph above shows the distribution of quality of care score and the overall rating of the program. The two different scores show a moderate relationship. The quality of care score is a composite of scores measuring specific standards of care; the rating is one score with the client responding to the overall quality on a ten-point scale. The graph indicates that 20% to 24% of clients rate either the composite quality score or the overall rating below 70%. This group reflects the clients who are not satisfied with the care they are receiving.

In contrast 44% of the clients rated their care as a ten out of ten and 33% of the clients rated their program at 90% or greater for questions on specific standards of care.

The presence of substantial variation in the scores attests to the willingness of the clients to provide negative feedback. This instrument or similar tool is a mandatory component of the “third party” accreditation process used by accredited OARTY members.

Attachment

Seventy-three percent of all clients surveyed completed the *Parental Bonding Instrument* (PBI), a measure of attachment. The results are as follows:

Age Today			
	PBI data	all clients	% with PBI
under 11 years	36	78	46%
between 11 and 12	56	70	80%
between 13 and 14	88	104	85%
between 15 and 16	112	126	89%
17 years old	33	40	83%
between 18 and 21	20	43	47%
over 21 years	13	30	43%
Missing age	1	3	33%
Total	359	494	73%

This indicates that OARTY has obtained a cross section of children from all age groups, including over 80% between the ages of 11 and 17 inclusive.

Finding 2.4 Most Client Groups Were Able and Willing to Complete the PBI

	% of clients	% with PBI
DH needs primarily	2.6%	62%
Autism Spectrum Disorder	9.9%	57%
Fetal Alcohol Spectrum Disorder	9.3%	91%
Medically Fragile	9.1%	4%
Physically and Developmentally disabled	2.0%	50%
DH with serious behaviour problems	25.1%	73%
Emotional and Behavioural Disorders	26.7%	95%
Normal Metrics	5.1%	68%
No Diagnostic Formulation	10.1%	82%
Total	494	100

Finding 2.5 Wide Range of Clients Tested on PBI

There was widespread coverage of different client groups who were tested using the PBI.

Client Groups	% with PBI
placed in mixed	96%
placed in staffed	63%
placed in TFC	77%
agencies participating in PIC4, with PBI data	90%
Native clients	63%
average IQ or higher	86%
borderline intellectual deficit	93%
mild intellectual deficit	74%
Moderate intellectual deficit	39%
DSM diagnosis	85%
conduct disorder	94%
depressive disorder	83%

This is the first research project in which the OARTY Research Committee used the PBI across a broad range of clients with special needs. It was clear the clients served by OARTY are able to respond to this instrument.

Finding 2.6 Clients Feel Closest to their CYW Staff and Foster Parents

The PBI measures the degree that our clients had someone in their life that cared and treated them fairly. The first question on the test reads:

“Think of the person who was or still is a caregiver, CYW, foster parent, mother or father that in your opinion cares for you more than anyone else in the world. ”

The respondent checks off whether this person is male or female, CYW, foster parent or someone in the family of origin. For 61% of the youth, the person they felt closest to was their direct caregiver in the residential facility.

Finding 2.7 Security with Foster Parents, CYWs and Parent in the Family of Origin

Since this psychometric test is norm referenced, the scores can be compared to a world-wide sample of young people living in their own families.

A t-score of 50 on the caring or control scales means that the youth is exactly average compared to a world-wide normative reference group. The PBI caring and controlling scales were analysed through an ANOVA procedure where the “subject” of the PBI was specified by the respondent.

Caring Scale of the PBI

		N	Mean	SD	SE	95% CI		Min	Max
	CYW	89	50.65	9.58	1.02	48.63	52.67	12	63
	Foster P	117	49.96	11.05	1.02	47.93	51.98	4	63
	Fam of origin	92	48.61	10.25	1.07	46.48	50.73	7	63
	Total	298	49.75	10.38	0.60	48.56	50.93	4	63

The analysis of variance found no difference in the client’s feelings about being cared for, whether he/she was rating a child and youth worker, a foster parent or his/her parent from the family of origin. This result means that the clients in residential and treatment are securely attached to their caregivers.

As indicated in the chart above the minimum and maximum standard scores, some clients felt profoundly unloved in all three groups and some clients felt the deepest bond with their caregivers.

- 16% of clients felt profoundly unloved as indicated by a T-score of 40 or less.
- 35% of clients felt a deep affection for their caregivers as indicated by a T-score of 55 or greater

Finding 2.8 No Difference in Attachment Level by Staffing Model

A t-test for independent samples found no difference in the attachment scores for caring or over-control scales comparing treatment foster care and staff operated group care. Clients feel equally attached in both settings.

Finding 2.9 No Difference in Attachment Level by DSM Diagnosis

Analysis of variance found no difference between the caring and over-control scale scores of clients who had or did not have a diagnosis from axis 1 of the DSM.

Finding 2.10 No Difference in Attachment Level by IQ Level

Analysis of variance found no difference between the caring and over-control scale scores of clients by intellectual ability.

Finding 2.11 Client Satisfaction and Attachment are closely related

Client satisfaction and attachment are significantly correlated ($r = .485$). A regression analysis found that for every three points increased on the caring scale, the quality of care composite score increased by 1. ($\beta = .337, t = 6.017, sig = .000$)

The F-ratio for this model was 36.208 (sig = .000), which is a very strong linear relationship. This finding suggests that the client feels more cared about when his/her caregivers focus on issues of quality of care such as:

- Explaining things in a way that the client can understand
- Involving the client in decisions about his/her care and treatment
- Listening to the client
- Working as team
- Spending enough time with the client
- Treating the client with respect and dignity
- Giving the client reassurance and support
- Being helpful

Our clients have made two clear statements about the services provided by the OARTY network of agencies:

1. On average, the quality of care scores are above 80% of the maximum score

The clients of OARTY members are satisfied with their care they receive.

2. The mean caring score of the PBI, a measure of attachment, is higher than the mean in worldwide studies (30.68 compared to 29.96)

The clients of OARTY members are securely attached.

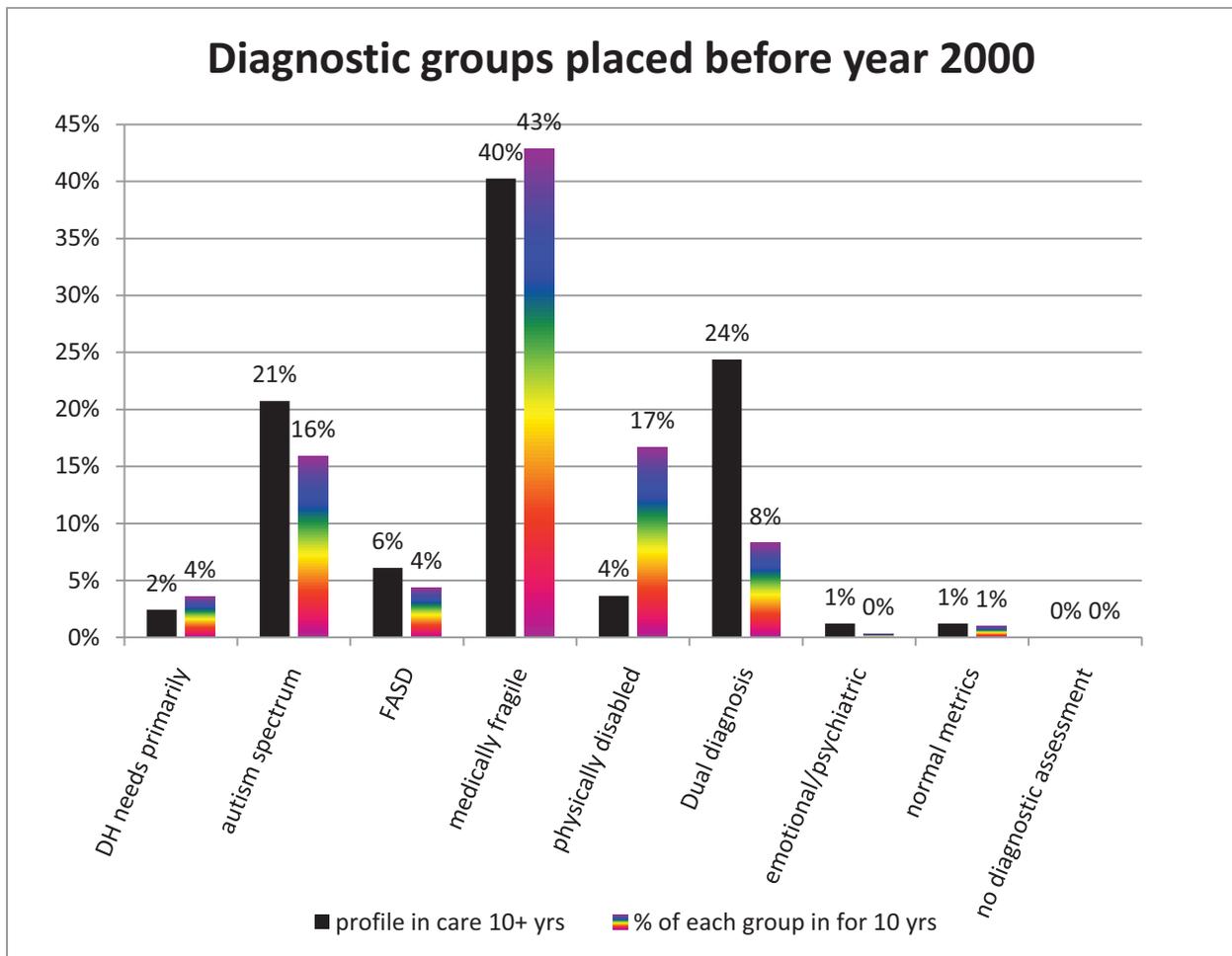
Chapter Three Clinical Profile

Types of Clients Receiving Care and Treatment

The length of stay varies significantly by the mix of client by typology in residential care and treatment. This is clearly evident from the following graphs.

Clinical Profile of Clients Needing Long Term Care

An exceptional group of children, as defined by their diagnosis, remain in care for long periods having been placed before the year 2000. This group of clients represent 8% of the placements provided by OARTY members.



The solid black data series refers to the clinical profile of children, expressed as a percentage *across* all diagnostic groups, who have been in the same resource for 10 years or more. The rainbow coloured data series refers to the percentage *within* each diagnostic group that have been in the same placement for more than ten years. This is illustrated by children

with dual diagnosis. The black series shows that children with dual diagnosis represent 24% of the clients in the long service group. The rainbow coloured series shows that only 8% of the children with a dual diagnosis remain in the same program for more than ten years.

Finding 3.1 8% of clients have been in the same program for more than 10 years

The average age of the long service group is 25.5 years (range 10.3 to 46.2; standard deviation = 8.1). They have remained in their existing placement for an average of 14.1 years (range 8.6 .. 28.7 years; SD = 1.9).

The average CGAS score today shows a functioning level of 14.1 (range 1 to 85; SD = 22.4). The average degree of support in daily living for the long service group is 82% of the maximum adult support that could be provided (i.e.) *total care is required*.

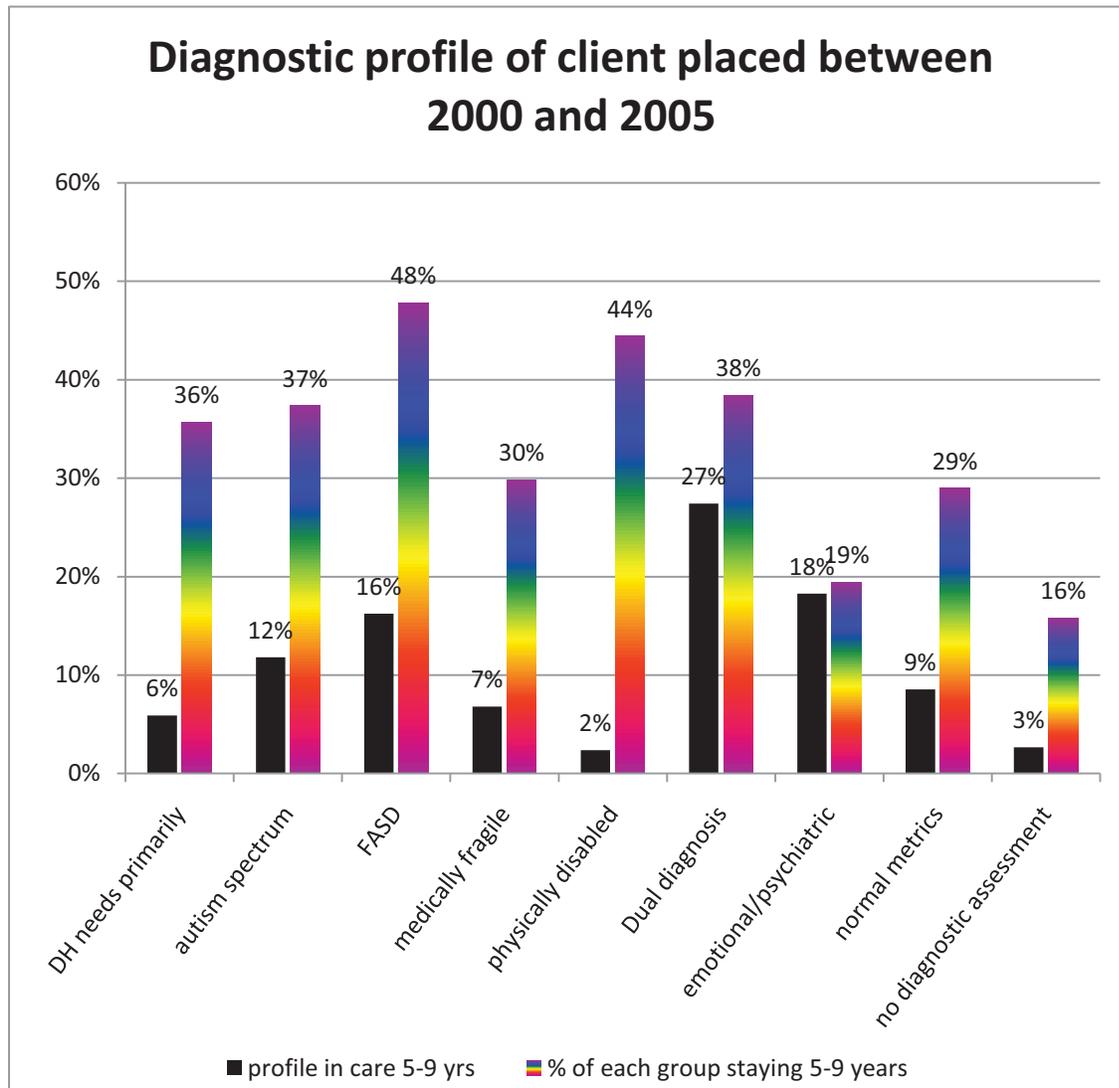
Two percent of the children placed in OARTY treatment foster care resources remain for more than ten years. The foster home is their permanent home. The children living for more than ten years in treatment foster represent all clinical sub groups.

Twelve percent of children placed in OARTY staff operated group homes remain for more than ten years. The group home is their permanent home. The largest groups of children in group care for more than ten years are the medically fragile (42%), dual diagnosis (27%) and autistic individuals (20%). There are no children who were admitted as psychiatrically ill or as emotionally disturbed children who have remained in group care for more than ten years.

In summary, the long term clients of OARTY group homes, most of whom were adults on the day of the survey, have complex, life-long clinical needs. These individuals will require group care and treatment for the rest of their lives.

Clinical Profile of Clients in the same program for 5 to 9 years

Finding 3.2 31% of Clients Are Placed between 2000 and 2005



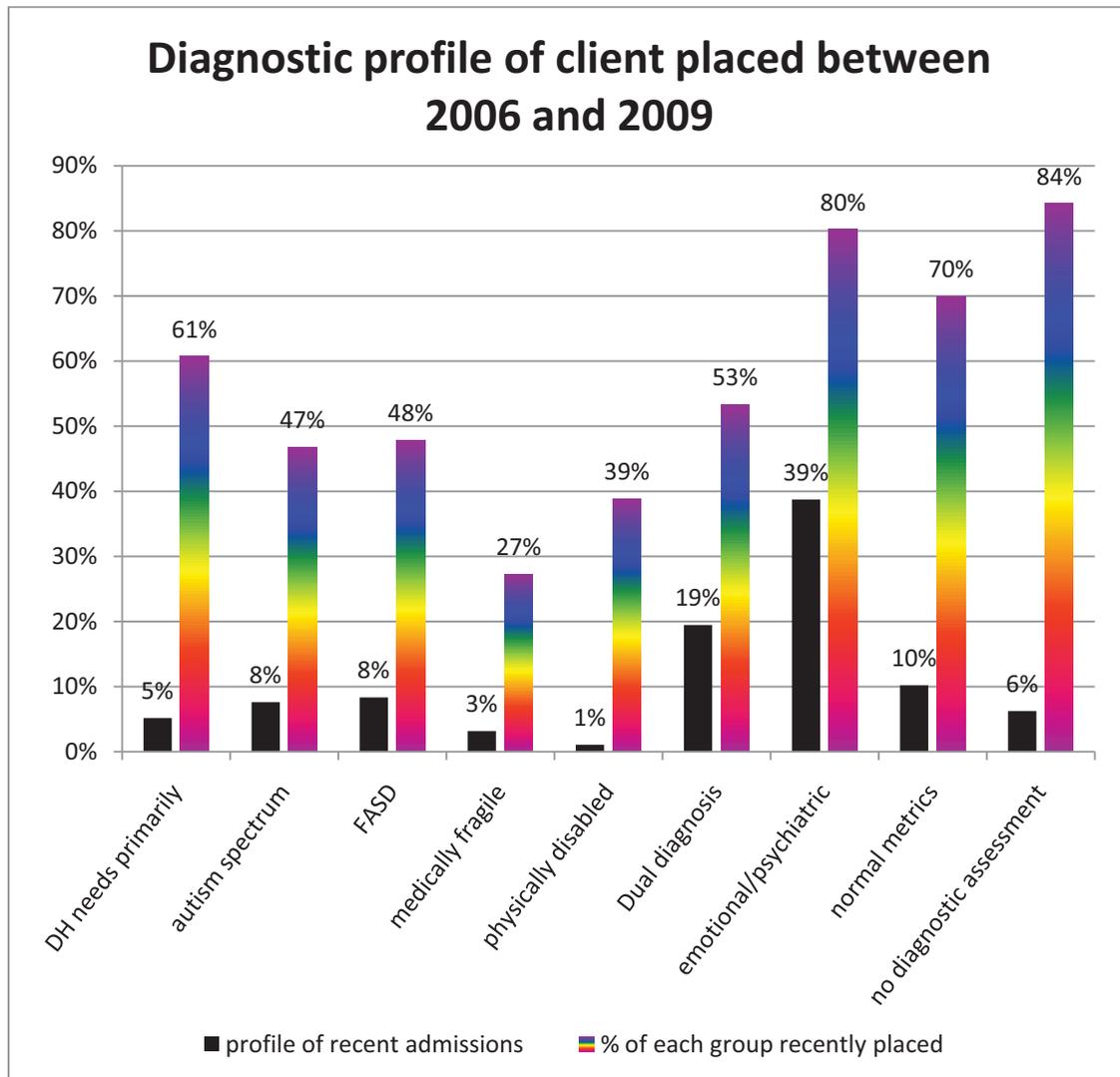
Thirty one percent of clients being served today have been in the same program for between 5 and 9 years (mean = 5.1 years, SD = 1.6). Their average age today is 15.8 years (range: 4.6 .. 26.1; SD = 3.5). The average score on the CGAS, a measure of functioning is 46, which is much higher and more functional than the long service group (mean = 14). In a related statistic, the adult support for daily living for this group is 37% (SD = 27%) of *total care*, compared to a mean of 82% for the long service group.

The children with dual diagnosis (intellectual deficit plus serious behaviour problems) represents 27% of the children who have been care more than 5 years and less than 10 years. This is followed by the emotionally disturbed and psychiatrically ill (18%), children with fetal alcohol spectrum disorder (16%) and autism (12%).

Clinical Profile of Children Recently Placed

Finding 3.3 61% of Clients Are Placed in the Last 3 to 4 Years

The largest group of clients representing 61% of the sample were placed in the years 2006 to 2009. This sample is large enough to estimate the total number of referrals year by year in this subgroup. The graph below reflects the clinical profile of the children placed recently, who are currently still receiving service.



The black series profiles the children placed recently across all groups. The largest group of children who were placed recently are emotionally disturbed or psychiatrically ill (39%). The majority (80%) of the children who are emotionally/psychiatrically ill were placed after January 1, 2006. The next largest group are children with dual diagnosis (19%). Of all the dually diagnosed children served by OARTY, 53% were placed between January 1, 2006 and September 1, 2009.

A small number of children, who represent 6% of those recently placed, have presenting problems and psychiatric symptoms, and require a diagnostic assessment.

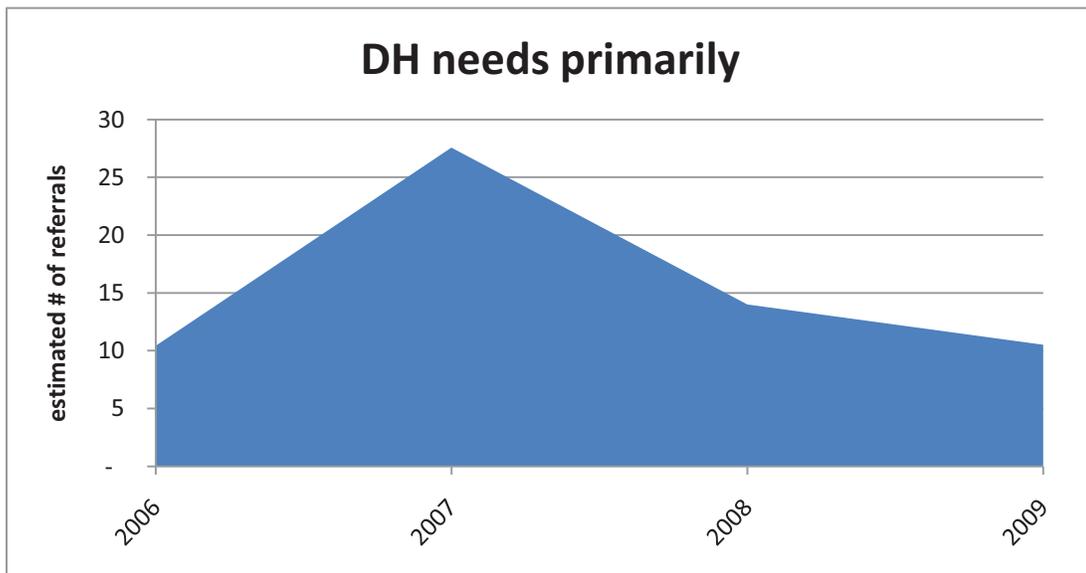
Although the medically fragile children dominate the profile of clients in care for over ten years, they represent only 3% of recent referrals. Twenty seven percent of the medically fragile children were placed between January 1, 2006 and September 1, 2009.

Profile of Clients Referred Since 2006

Finding 3.4 5% of Recent Referrals are Children with Primarily DH Needs

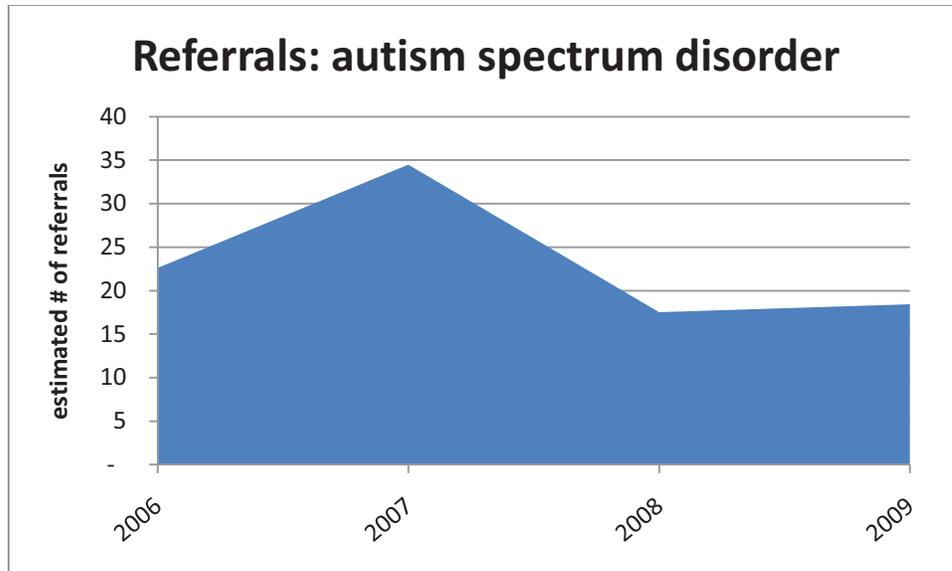
This group of children have intellectual deficits, some medical care needs, with no serious behavioural or psychiatric problems. Their needs were described by the placing agencies as primarily a *learning problem*. This was also confirmed by other metrics gathered on the children. The children who have needs primarily related to their developmental handicap represent 5% of recent referrals. The following statistics describe this client group:

- average age when placed 11.75 years (SD = 4.04)
- history of prior placements
 - 91%
 - Average of 2.5 prior placements (range 1 to 6)
 - 73% were in CAS foster care
- adversity in their family background = 3.29, SD = 2.14, range 0 to 9
- current functioning: CGAS = 51.72. SD = 14.71, range 10 to 75
- needs for adult support in daily living: = 33% of total care (SD = 18%, 9% to 78%)
- proportion with normal intellectual ability = 0%; borderline = 47%, mild = 38%
- proportion with frustration/failure in school since primary grades = 63%



Finding 3.5 8% of Recent Referrals are Children with Autism Spectrum Disorder

These children have been diagnosed with one of the conditions on the autism spectrum of disorders. Children in this diagnostic group represent 8% of recent referrals.

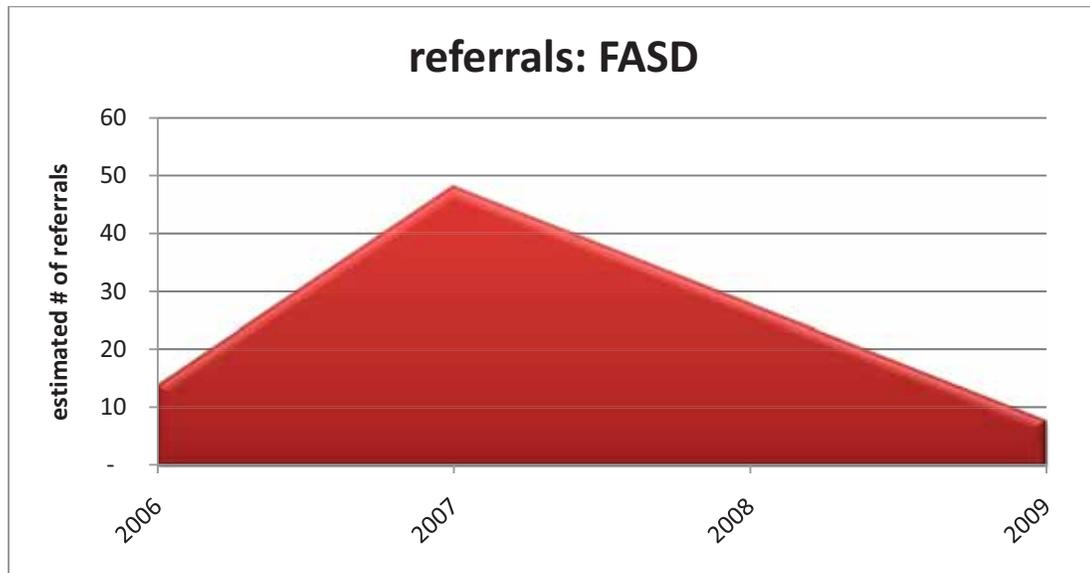


Children with a diagnosis on the autism spectrum have very high needs and are least likely to have a history of placements in CAS foster care.

- average age when placed 12.49 years (SD = 3.75)
- history of prior placements
 - 80%
 - Average of 3.3 prior placements (range 1 to 24)
 - 38% were in CAS foster care
- adversity in their family background = 3.24, SD = 1.89, range 0 to 9
- current functioning: CGAS = 32.66. SD = 20.85, range 1 to 70
- needs for adult support in daily living: = 50% of total care (SD = 21%, 10% to 100%)
- proportion with normal intellectual ability = 7%; borderline = 19%, mild = 26%
- proportion with frustration/failure in school since primary grades = 81%

Finding 3.6 8% of Recent Referrals are Children with Fetal Alcohol Spectrum Disorder

After a significant increase between 2006 and 2007, the referrals of children diagnosed with FASD appear to be on a downward trend. On average, 8% of referrals have FASD.



Children with a diagnosis of FASD have very high needs but ironically, this group is subject to many attempts at prior placement, especially in CAS foster care. Children with FASD have the highest number of serious stressors in their family background. The following statistics distinguish the needs of children with FASD from other groups:

- average age when placed 12.30 years (SD = 3.52)
- history of prior placements
 - 84%
 - Average of 5.4 prior placements (range 1 to 40)
 - 64% were in CAS foster care
- adversity in their family background = 5.0, SD = 2.28, range 1 to 11
- current functioning: CGAS = 49.21. SD = 13.49, range 10 to 80
- needs for adult support in daily living: = 35% of total care (SD = 15%, 0% to 69%)
- proportion with normal intellectual ability = 2%; borderline = 49%, mild = 26%
- proportion with frustration/failure in school since primary grades = 83%

More than one fifth (21%) of children placed during 2009 do not have a clinical formulation, despite significant symptoms and evidence of dysfunction. As the graph above suggests, there has been a significant drop in the placements of children with FASD in 2009. The undiagnosed group and the FASD group may overlap significantly because the children with FASD are often unrecognized due to lack of information about prenatal history.³

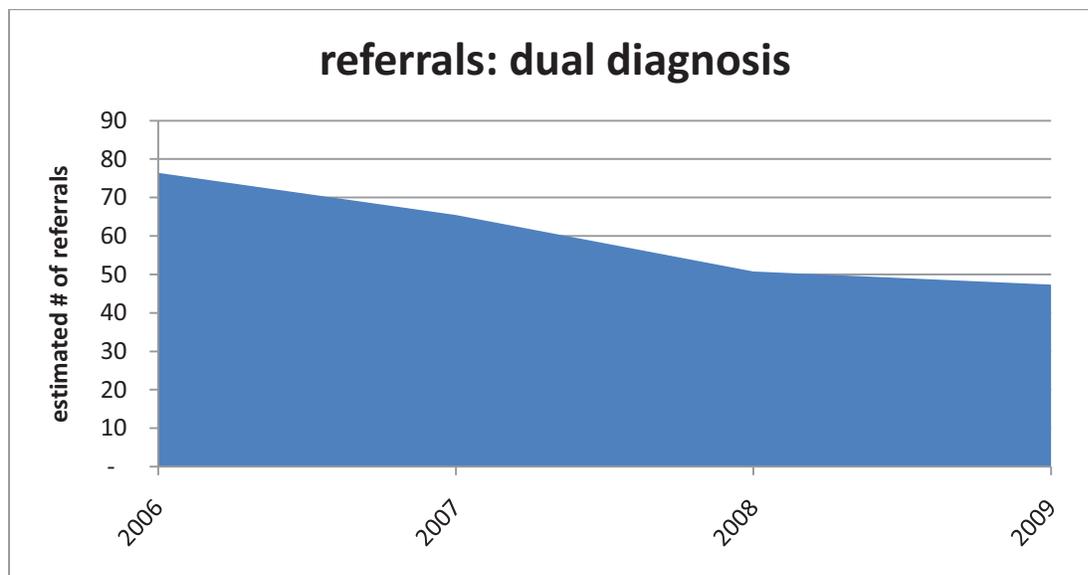
³ Premji, Shahirose; Serrett, Karen; Benzies, Karen & Hayden, K Alix (2004), *The State of The Evidence Review: Interventions for Children and Youth with a Fetal Alcohol Spectrum Disorder (FASD)*, Alberta Centre for Child and Family Research: Calgary, page 9

Finding 3.7 21% are Children with Intellectual Deficit Plus Serious Behaviour

The referrals of children with dual diagnosis, i.e., intellectual deficit plus serious behaviour problems, represent 21% of all referrals to group care and TFC recently.

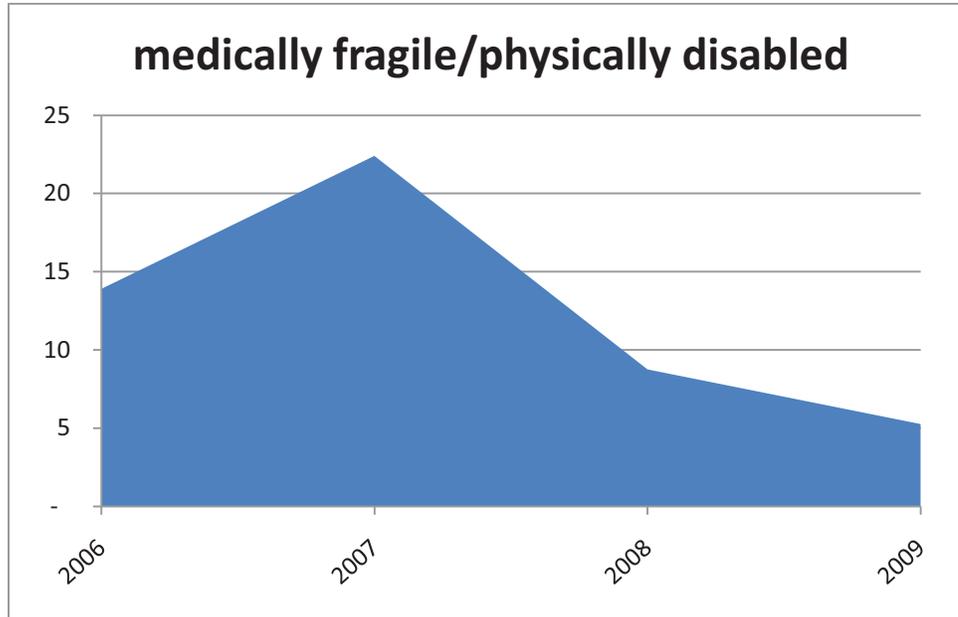
Children with a *dual diagnosis* have very high needs and are quite similar to the children with FASD, except for the percentage with moderate intellectual disability. Children with dual diagnosis have the same amount of adversity in their background as children with FASD. The following statistics distinguish the needs of children with dual diagnosis from other groups:

- average age when placed 12.29 years (SD = 3.30)
- history of prior placements
 - 91%
 - Average of 4.2 prior placements (1 to 52)
 - 67% were in CAS foster care
 - 16% were in CYJA custody
 - 21% were in a psychiatric crisis unit on form 1 certificates
- adversity in their family background = 4.87, SD = 2.28, range 1 to 12
- current functioning: CGAS = 43.95. SD = 16.09, range 1 to 85
- need for adult support in daily living: = 43% of total care (SD = 20%, 7% to 100%)
- proportion with normal intellectual ability = 0%
- borderline ID= 37%, mild ID = 38%, moderate ID = 25%
- proportion with frustration/failure in school since primary grades = 96%



Finding 3.8 4% are Medically Fragile/Physically Disabled Children

Currently 4% of annual referrals are children who are medically fragile and/or physically disabled. These children remain in their placement for decades and represent 44% of all clients placed before the year 2000 who still remain in care.



Children who are medically fragile or have physical disabilities are dependent on adult support for daily living for the rest of their lives, which usually lasts well into adulthood. OARTY is a primary service provider for this group. The majority of these clients (71%) have one placement in their lives within the OARTY network. The following statistics distinguish the needs of children with medical and/or physical disabilities from other groups:

- average age when placed 8.87 years (SD = 5.94)
- history of prior placements
 - 29%
 - Average of 1.9 prior placements (range 1 to 5)
 - 15% were in CAS foster care
- adversity in their family background = 2.44, SD = 1.33, range 1 to 8
- current functioning: CGAS = 10.36. SD = 20.52, range 1 to 85
- need for adult support in daily living: = 91% of total care (SD = 20%, 8% to 100%)
- proportion with normal intellectual ability = 0%; borderline = 6%, mild = 8%, severe 84%

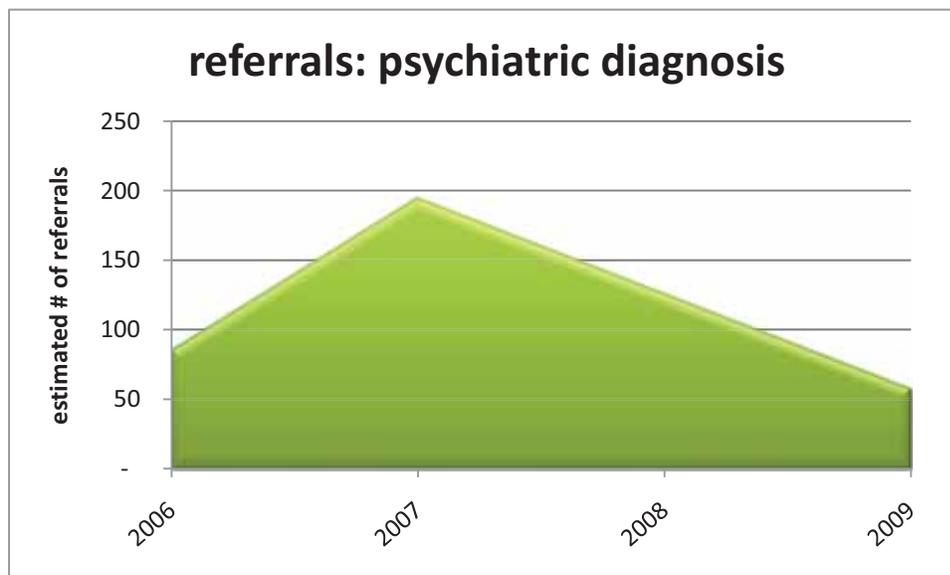
Children who are medically fragile or physically disabled are provided with individualized educational programs. Within their individualized educational program, many of these children are making remarkable progress compared to their condition on admission.

Finding 3.9 39% of Recent Referrals are Emotionally and Psychiatrically Ill Children

Children who could be described as emotionally and psychiatrically ill have a DSM diagnosis and do not have an intellectual deficit. Sixty-two percent of these children have been failing in school since primary grades, which in the context of OARTY clients represents a low percentage. More than one quarter of the children with emotional/psychiatric disorders have been suicidal, requiring hospitalization.

The following statistics significantly distinguish the needs of children with emotional and psychiatric problems from other groups:

- average age when placed 12.78 years (SD = 2.98)
- history of prior placements
 - 87%
 - Average of 3.8 prior placements (range 1 to 29)
 - 64% were in CAS foster care
 - 20% were in CYJA custody
 - 26% were in psychiatric crisis unit on form 1 certificates
- adversity in their family background = 4.37, SD = 2.25, range 0 to 12
- current functioning: CGAS = 54.05, SD = 13.78, range 5 to 87
- needs for adult support in daily living: = 26% of total care (SD = 13%, 1% to 66%)
- proportion with normal intellectual ability = 100%
- proportion with frustration/failure in school since primary grades = 62%



Thirty-nine percent of recent placements have a psychiatric diagnosis. In 2009, this population appears to be trending down.

Finding 3.10 10% of Recent Referrals are Normal Children with Family Problems

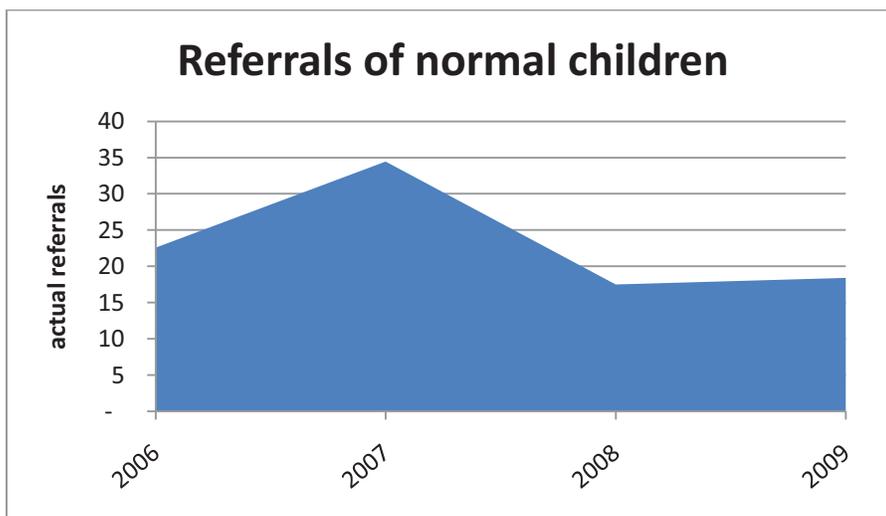
OARTY agencies provide residential services to a subgroup of children, including babies, preschoolers, school age children and teenagers, who are being admitted to CAS care due to intense family problems and child protection issues. However, this subgroup has no apparent symptoms or special developmental needs.

These children, who appear normal on psychometric tests, have the following profile:

- 26% identify with aboriginal community
- 47% are female
- average age when placed 11.87 years (SD = 4.6)
- history of prior placements
 - 70%
 - Average of 3.2 prior placements (range 1 to 13)
 - 47% were in CAS foster care
 - 13% were in CYJA custody
 - 1% were in psychiatric crisis unit on form 1 certificate
- adversity in their family background = 3.49, SD = 2.10, range 0 to 7
- current functioning: CGAS = 74.8, SD = 9.4, range 67 to 95
- needs for adult support in daily living: = 19% of total care (SD = 11%, 0% to 42%)
- proportion with normal intellectual ability = 95%, 5% borderline
- proportion with frustration/failure in school since primary grades = 33%

The children who score in the normal range on psychometric tests and have no diagnosis are unique in many ways. For example, 47% are female and in every other group, the females are about 33% of the population. Also 26% of the “normal” children are aboriginal and only the FASD group has a higher percentage of aboriginal clients.

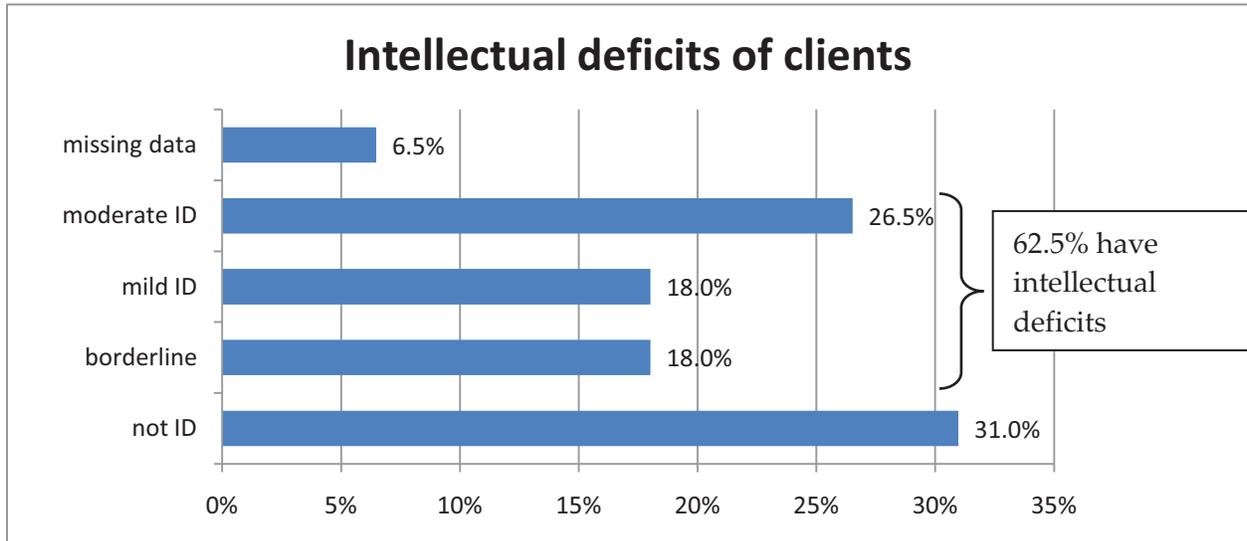
Even though this group appears normal on psychometric tests, they are at great risk of developing a mental health problem in the future because of the number of placements before they were referred to the OARTY resource and the high level adversity in their background.



Intellectual Deficits

Finding 3.11 63% of Clients have an Intellectual Deficit

The data on intellectual deficits indicates that a disproportionate share of children in residential treatment have intellectual deficits (63%). This compares to about 9% of the general population with borderline intelligence or lower.



Ninety-two percent of clients with intellectual disability have other serious medical, behavioural and/or psychiatric disorders, which are the primary targets of their treatment.

The prevalence rates of psychiatric disorder in populations of children and adolescents with intellectual deficits (ID) are between three and four times higher than in those without intellectual deficits; the point prevalence ranging from 40% to 60% (Hepper⁴ & Garralda, 2001).

Psychiatric Disorders

The Partners in Care IV Survey (PIC 4) asked specifically if a psychologist or physician had given the clients an Axis 1 DSM diagnosis and if so, the name of the diagnostician, date of diagnosis and the diagnosis. Fifty-eight percent of clients have a confirmed psychiatric diagnosis; an additional 2% of clients have a psychiatric diagnosis but the respondent did not provide the name of the diagnostician. Co-morbidity or the presence of two or more diagnoses is very high:

- Sixty-six percent of clients with a psychiatric disorder have two or more separate disorders at the same time

The clients who had no psychiatric disorder had other special needs, such as:

- An diagnosis related to a physical medical condition (18%)

⁴ Hepper, F. & Garralda, M. E. (2001), "Psychiatric adjustment to leaving school in adolescents with intellectual disability: a pilot study", *Journal of Intellectual Disability Research*, 45 (6), 521-525

- Were mild or moderately intellectually impaired with serious behaviour problems but with no discernible axis 1 classification (9%)
- No disability but high levels of adversity and family problems (5%)
- Were not yet assessed (11%)

Finding 3.12 11% are Diagnosed as Conduct Disorder

Eleven percent of clients are diagnosed as conduct disorders. Clients with conduct disorder have an average of 4.5 co-morbid disorders. Some of the other disorders co-existing with conduct disorder are:

- 38% dually diagnosed (Intellectual deficit plus serious behaviour problems)
- 44% depression or mood disorder
- 62% learning disability
- 68% ADHD
- 16% PTSD

An analysis of variance showed that clients diagnosed as conduct disorder, excluding clients who have intellectual disability, show the following differences with clients who have other DSM disorders:

- (1) Much more severe dysfunction on the CGAS (mean = 53.1 compared to 63.4)
- (2) Much older when placed with OARTY (13.4 years, compared to 11.0 years)
- (3) Much higher average per diem (\$215.09) compared to
 - a. \$175.11, the average per diem for clients who are not conduct disorders and who do not have complex needs

Clients diagnosed with conduct disorder had much in common with other psychiatrically ill children. Specifically, clients diagnosed as conduct disorder have the same:

- (1) Number of discrete stressors in their background (4.2)
- (2) Number of prior placements (2.8)
- (3) Satisfaction with the standards of service (84% of the maximum possible)
- (4) Overall rating of care on a 10 point scale (7.5)
- (5) Degree of attachment, (i.e.) they believe that someone, usually in the treatment resource, cares about them, keeps them safe and treats them fairly
- (6) Number of years behind their peers in school (2.5 years behind on four key subjects)

Finding 3.13 15% are Diagnosed with Major Depression and Mood Disorder

Fifteen percent of clients have major depression or mood disorders and nearly half (46%) of depressed clients have complex needs. Clients with autism have a major risk for serious depression (Brereton et al 2006)⁵, which often goes undiagnosed. In the OARTY dataset, 24% of clients with autism have been diagnosed with major depression as well.

⁵ Brereton, Avril V.; Tonge, Bruce J. & Einfeld, Stewart L. (2006), "Psychopathology in Children and Adolescents with Autism Compared to Young People with Intellectual Disability", *Journal of Autism and Developmental Disorder*, 36:863–870

The second group of clients with complex needs who have high levels of depression are clients with dual diagnosis. 14% of clients with dual diagnosis have major depression; this large group of clients represents 26% of the all clients with depression.

There is also a great deal of co-morbidity with other DSM diagnoses. Depressed clients are also diagnosed:

- 65% learning disability
- 55% ADHD
- 34% conduct disorder
- 34% anxiety
- 17% PTSD

As noted by Kessler⁶, the presence of two or three co-morbid conditions is the greatest factor in predicting severity and intensity of need. Clients with depression have an average of 4.4 co-morbid disorders. Clients with depression differ from other clients with DSM diagnosis on the following variables. Clients with depression have:

- (1) Lower scores on the CGAS, 53.7, similar to conduct disorder
- (2) Much older when placed in OARTY, 13.9 years similar to conduct disorders
- (3) Much higher levels of adversity as indicated by discrete stressors (4.9) which is similar to clients with PTSD
- (4) More placements prior to OARTY, 3.74 compared to 2.8 among disturbed youth
- (5) Higher per diem, \$210.05, which is similar to that for conduct disorders.

Finding 3.14 15% are Diagnosed with Anxiety

Anxiety disorders are more prevalent than any other disorder. Anxiety is also very disabling especially in the areas of social competence and self protection from re-victimization.

Fifteen percent of clients within OARTY member agencies suffer from anxiety. Clients with anxiety have an average of 4.5 co-morbid disorders. Clients with anxiety also have:

- 78% learning disability
- 61% ADHD
- 43% dual diagnosis
- 33% depression
- 21% autism

Unlike depression and conduct disorder, clients with anxiety are not significantly different from other DSM disorders on a number of dimensions, for example:

- a) Number of discrete stressors and adversity: 4.2
- b) CGAS: 61.75
- c) Age when placed with OARTY: 11.35 years
- d) Number of prior placements: 2.8
- e) Per diem: \$181.73

⁶ Kessler, R., McGonagle, K., Zhao, S., Nelson, C., Hughes, M., Eshleman, S., Wittchen, H., & Kendler, K. (1994), "Lifetime and 12 month Prevalence of DSM-III-R Psychiatric Disorders in the United States", *Archives of General Psychiatry*, 51, 8-19

Finding 3.15 11% are Diagnosed with Post Traumatic Stress Disorder (PTSD)

Eleven percent of clients of OARTY have been diagnosed with PTSD. It is difficult to meet the DSM criteria for PTDS and many clients without a PTSD diagnosis have symptoms of trauma. This is an under counted issue for children with emotional and psychiatric problems.

Fifty-three percent of the clients with PTSD have complex neurological needs. For example, 20% of children with PTSD also have FASD. Clients with PTSD have on average 4.3 co-morbid disorders, including:

- 68% learning disability
- 60% ADHD
- 36% dual diagnosis
- 25% anxiety
- 21% depression

Clients with PTSD are distinct from other DSM categories in one respect; they have more trauma and adversity in their background, specifically, an average of 5.2 discrete stressors. Other indicators, such as the average per diem (\$181.73), is the same as DSM disorders in general. Children with PTSD are much more likely to have a history of physical or sexual abuse.

$\chi^2 = 15.708, sig = .000$				
% by row				
		PTSD		n
		No	Yes	
not SA		92%	8%	316
sexually abused		78%	22%	123
All clients		88%	12%	439

$\chi^2 = 21.107, sig = .000$				
% by row				
		PTSD		n
		No	Yes	
not PA		95%	5%	221
physical abused		81%	19%	218
all clients		88%	12%	439

Finding 3.16 4% are Diagnosed with Substance Abuse Disorder

A formal diagnosis as substance abuse disorder represents 3.8% of clients but 9.3% have a history of abusing drugs and alcohol. Eighteen percent of these clients have complex neurological needs. Clients with substance abuse disorder have an average of 3.8 co-morbid disorders. Clients with substance abuse disorder are diagnosed with the following:

- 53% have ADHD
- 47% have major depression and mood disorders
- 35% have conduct disorders
- 35% have PTSD

Substance abuse disorders differ from other DSM disorders on almost every indicator:

- (1) Number of discrete stressors = 5.4 (the highest for all DSM diagnostic groups)
- (2) Functioning level on the CGAS = 51.7 (the worst score for all DSM diagnosed children)
- (3) Age when placed = 14.1 years compared to an average of 11.2 years overall
- (4) Days served = 514 (which is more than one year less than the average)
- (5) Number of prior placements = 3.8 (the highest for all DSM diagnosed children)
- (6) The lowest rating for the quality of care (6.5 out of 10)
- (7) The lowest composite score on the standards of care (26.40)

A relatively small proportion of clients have substance disorder, but these clients have the highest level of service needs in the entire group.

Adversity and Trauma

Agencies conducted a file review to complete a checklist of 15 consistently toxic conditions of adversity and traumatic events⁷. The checklist was produced after a literature review of all risk factors for psychiatric illness. Data on the individual conditions of adversity is discussed below. The first finding concerns the number of different types of adverse conditions that the child was exposed to prior to his/her placement.

Finding 3.17 Clients have more than 4 Discrete Stressors in their Background

Year Placed	N	Mean	SD	Minimum	Maximum
2006	90	4.61	2.40	0	12.00
2007	162	4.05	2.24	0	11.00
2008	147	4.17	2.28	0	12.00
2009	82	3.72	1.95	0	10.00
Total	481	4.14	2.25	0	12.00

The discrete number of different types of family adversity varies over the years but not to a degree that is statistically significant. The bottom line is that the clients recently placed have an average of 4.14 different major stressors during their lifetime. In longitudinal studies, 70% of children with this degree of adversity are not able to function independently as a young adult without intervention⁸.

⁷ Fulton, R. & Factor, D. (1996), instrument for risk screening, copy in appendix

⁸ Werner, E. (1989), "High Risk Children in Young Adulthood: A longitudinal study from birth to 32 years", *American Journal of Orthopsychiatry*, 59(1), 72-81

Werner, Emmy, E & Smith, Ruth, S. (1992), *Overcoming the Odds: high risk children from birth to adulthood*, Ithica, N.Y., Cornell University Press, 280 pages

The specific types of adversity and trauma that the child was exposed to has changed significantly even in the short term. Specifically, the percentage of children who have been physically abused has fallen steadily from 61% in 2006 to 42% in 2009 ($\chi^2 = 7.207$, sig = .066). Children with a history of sexual abuse has fallen from 38% in 2006 to 17% in 2009 ($\chi^2 = 9.552$, sig = .023). The percentage of children with a history of school failure extending back to primary grades has fallen from 81% in 2006 to 68% in 2009 ($\chi^2 = 8.059$, sig = .045). The percentage of family violence, parental substance abuse and other indicators of parental dysfunction has not changed.

Finding 3.18 Different Types of Adversity Show the Vulnerability of Clients

The chart below provides data about the different types of adversity and trauma experienced in three different groups:

- (1) All clients and all ages in OARTY resources
- (2) Clients in the age group 10 to 15 years receiving care and treatment in the year 2006, regardless of when they were placed
- (3) A comparison group of clients in the ONLAC database in the age group ages 10 to 15 years, who are residing in all types of resources under CAS guardianship. The ONLAC Group includes a small number of the same children in the OARTY group.

	all ages	age 10-15 in 2006	
	OARTY n = 873	OARTY n = 640	ONLAC n = 2498
years of poverty	44%	45%	26%
history of sexual abuse	25%	28%	16%
history of physical abuse	47%	48%	31%
close family member committed suicide	4%	3%	
close family member incarcerated	26%	27%	32%
close family in psychiatric hospital	16%	16%	
close family member has intellectual deficit	18%	17%	
close family member addicted to drugs	46%	46%	
close family member raped	13%	14%	
current domestic violence in family	15%	14%	44%
sexually assaultive person in family	4%	4%	
Child has abused drugs/alcohol	12%	11%	
child brain damaged	27%	24%	
child is a long term school failure	74%	77%	
child's mother started as teen Mom	18%	17%	

This table indicates that the population of clients served by OARTY member agencies are profoundly vulnerable, traumatized individuals. The specific details are as follows:

Finding 3.19 18% of Clients have a Family Member who has ID

Eighteen percent of our clients have a family member who has an intellectual deficit. The prevalence of adults with intellectual deficits is 0.6% according to an Ontario government survey⁹ This means that the OARTY clientele are 30 times more likely to have parents with intellectual deficits than other children in Ontario.

Children whose parents have diagnosable intellectual deficits are at great risk of having an intellectual deficit themselves. Children with this background are also at increased risk of experiencing trauma during their childhood as well as emotional and behavioural problems.

Finding 3.20 4% of Clients have a Family Member who Committed Suicide

Four percent of OARTY clients have a member of their immediate family who have committed suicide, usually mother or father. The age standardized suicide rates for young adults in the 25-44 year old age group is less than 5 in 1,000. This means that the clients of OARTY member agencies have a rate of suicide in their family history that is eight times higher than expected. A family history of suicide increases the suicide risk for the individual.¹⁰

Children with a close family history of completed suicide are eight times more likely to commit suicide (Davidson, 1991) and have a greater risk of depressive illness.

Finding 3.21 74% of Clients have been Frustrated at School Since Primary Grades

Seventy four percent of OARTY clients have been frustrated in school and failing to perform adequately since primary grades. Additional data on this subgroup indicates that these children are now on average 5 years behind their peers based on *Individualized Educational Program* (IEP) reports and testing with standardized instruments, such as the *Wechsler Individual Achievement Test* (WIAT).

School failure and frustration in classrooms extending back several years places the child at great risk of dropping out of school before graduation and experiencing all of the subsequent adverse outcomes, including a lifetime of poverty, substance abuse and serious physical health problems.

⁹ "The Prevalence of Ontarians Labelled as having a Developmental Disability" (1999), Developmental Services Branch, Ministry of Community and Social Services, Queens Park

¹⁰ Davidson, L. & Linnoila, M., eds, 1991, *Risk Factors for Youth Suicide*, Hemisphere Publishing Corp, New York

Finding 3.22 Children in Regular Foster Care have less Abuse in their History

The *Ontario Looking after Children* project (ONLAC) is a research database managed by the University of Ottawa in which demographic and test data is collected on children in CAS care. The latest data available is for the year 2006 and targets 2,498 children ages 10 to 15 years. The majority of the ONLAC children are in regular foster care. This selection of children in CAS care who were tested is not randomized so the conclusions have an unknown error factor.

Five risk factors of the OARTY Sociodemographic Checklist can be compared directly with the ONLAC data. The OARTY dataset was filtered to select children ages 10-15 years in July 2006, so that the OARTY sample most closely resembled the ONLAC sample. The details are as follows:

- (1) Children in CAS care (ONLAC) have less lifetime poverty in their background (26%) when compared with children in OARTY member agencies (45%).
- (2) ONLAC has less history of sexual abuse (16%) than the OARTY sample (28%)
- (3) ONLAC has less history of physical abuse (31%) than OARTY (48%)
- (4) ONLAC has a similar proportion of a close family member in jail (32%) compared to OARTY (27%)
- (5) ONLAC has a greater proportion of clients with ongoing domestic violence in the background (44%) compared to OARTY (14%).

Functioning

The measure of a client's functioning is how well the client is able to participate in and carry out the social and instrumental demands of daily living. The social demands include performing social roles and acting in a developmentally appropriate manner at home, school, neighbourhood and work. This aspect of functioning is measured by the *Children's Global Assessment Scale*¹¹ (CGAS).

The instrumental demands include performing the tasks necessary to get through each day with a developmentally appropriate level of independence. This aspect of functioning is measured by the *Level of Adult Support in Daily Living Scale*¹² (LAS).

Finding 3.23 Average Children's Global Assessment Scale (CGAS) Score = 51

The CGAS is used primarily by the member agencies of OARTY as an outcome indicator to measure the common program goal to improve the child's ability to fit into society and carry out his/her roles as family member, student and neighbour successfully.

¹¹ The CGAS is axis V of the DSM-IV, revised for children. Axis V for adults is known as the *Global Assessment of Functioning* (GAF). A copy is in the appendix.

¹² The content items of LAS map closely to the *Support Intensity Scale* (SIS) developed by the American Association of Intellectual and Developmental Disabilities. The LAS is specific to the needs of children, in contrast to SIS, which is an adult scale. The LAS was developed in 1999 by Fulton. A copy is in the appendix.

The overall average CGAS score for children referred recently is 50.85. Children whose score is in the range of 50-59 are defined as showing variable functioning.

Variable functioning with sporadic difficulties or symptoms in several but not all social areas; disturbances would be apparent to those who encounter the child in a dysfunctional setting or time but not to those who see the child in other settings

The CGAS is significantly different for each of clinical subgroups, reported in previous sections of this chapter.

The table below shows that the child’s functioning level at intake is becoming marginally higher with each passing year since 2006. The average CGAS score for clients is well within the clinical range.

Year Placed	N	Mean	Std. Dev	Std. Error	95% CI for Mean		Min	Max
					Lower Bound	Upper Bound		
2006	139	50.41	18.70	1.59	47.27	53.55	1	95
2007	252	48.33	20.54	1.29	45.78	50.87	1	95
2008	171	53.65	17.66	1.35	50.98	56.31	1	95
2009	72	53.90	19.70	2.32	49.27	58.53	1	92
Total	634	50.85	19.41	0.77	49.34	52.37	1	95
f-ratio =	3.26							
probability	0.021							

Finding 3.24 Level of Adult Support in Daily Living Varies by Client Type

The Level of Adult Support in Daily Living assesses the client’s ability to perform 22 tasks in relation to the amount of adult support that is required from “fully independent” to “adult must do everything”. The maximum score possible is 88, reflecting a client that is totally dependent on adult caregivers for all aspects of his/her life.

The chart below shows the level of adult support for the different client types starting with the most independent type of client.

ANOVA	total adult support required for daily living						
			N	Mean	SD	Minimum	Maximum
		Normally developing child	27	12.85	11.92	-	37.00
		Emotionally disturbed	131	20.93	12.16	-	54.00
F-ratio=	78.3	no formulation	51	21.25	14.41	-	62.00
Sig.=	.000	DH only	12	28.33	18.64	9.00	65.00
		FASD	45	32.07	16.47	-	79.00
		dual diagnosis	120	41.96	20.39	9.00	88.00
		autism	49	44.45	18.68	9.00	88.00
		Physically disabled	8	60.13	19.23	37.00	88.00
		Medically fragile	42	83.40	12.34	27.00	88.00
		Total	485	35.37	24.37	-	88.00

There is a high degree of variation in the amount of adult support required by different types of clients. Clients with complex lifelong neuro-developmental needs are significantly more dependent than either normal children or emotionally disturbed children. Clients with complex needs will be profiled in a separate chapter.

The total support score (LAS) is very highly correlated with the CGAS ($r = .825$), even though the two scales approach the measurement of functioning from two different dimensions.

Hyperactivity, Attention Deficit and Impulsivity

Rutter and Sandberg (1985)¹³ have shown that early replicas of serious behaviour problems in childhood do not predict the adult variant; in other words childhood temper tantrums do not predict adult violence. Rather hyperactivity, attention problems and impulsivity in childhood predicts serious behaviour problems in adulthood. Secondly, various problems in peer relationships, such as no friends or associating with antisocial peers, predict behaviour problems in adulthood.

The Conners' Global Index (CGI) is a measure of hyperactivity, attention problems and impulsivity. A t-score on the CGI that is above 72 means that the child is more hyperactive than one in 100 children in the normative sample. A score of 72 marks the point that hyperactivity is clinically significant.

Finding 3.25 Conners' Global Index (CGI) Varies Significantly by Diagnostic Type

<i>Measure of Hyperactivity Sorted from Lowest to Highest</i>					
CGI_t_score	N	Mean	SD	Minimum	Maximum
normal metrics	56	59.18	7.76	43	74
medically fragile	39	61.08	20.50	41	99
physically disabled	15	67.60	19.36	40	99
DH only	51	73.43	14.80	49	99
emotionally disturbed	178	77.01	14.03	41	99
dual diagnosis	123	83.81	13.07	49	99
FASD	74	85.28	11.90	54	99
autism	69	86.62	13.51	46	99
All clients	605	77.29	16.31	40	99

Clients with developmental handicaps and no serious problems are nevertheless in the clinical range on the CGI. Indeed, these children are not statistically different from others who are emotionally disturbed.

Three groups of children with complex neuro-developmental disorders, specifically, dual diagnosis, FASD and autism, are more hyperactive than one child in 1,000 in the normative

¹³ Rutter, Michael and Seija Sandberg (1985), "Epidemiology of Child psychiatric Disorder: methodological Issues and Some Substantive Findings", *Child Psychiatry and Human Development*, 15(4), 209-233

sample. The problems measured on the CGI have a negative impact on academic performance. Hyperactivity interferes with the child’s ability to focus on the educational material and to remember things in the past and apply them to future problems.

The same presenting problems hinder these children from learning to be more functional in daily living and to learn social skills. The clients of OARTY have a significant clinical barrier to success in school and in daily living.

Academic Accomplishments

OARTY collected data on the actual grade level scores in math, reading, writing and oral learning based on data from the IEP report card or the WIAT test results. Data is available for 372 clients or 74% of the clients surveyed in 2009.

The table shows the difference between the actual grade level and the age appropriate grade level for the clients.

	N	Mean	SD	Minimum	Maximum
Math Grade Level	385	- 4.90	4.03	-12	3
Reading Grade Level	384	- 4.76	4.12	-12	4
Writing Grade Level	345	- 4.89	4.19	-12	4
Oral Learning Grade Level	376	- 4.73	4.09	-12	4

The average client of OARTY member agencies is between 4.7 and 4.9 grades behind his/her peers in academic accomplishment. A number of clients are 12 years behind their peers in the core subjects; these clients are adults who are medically fragile, severely intellectually impaired and were not able to advance any grades despite being in special classes during their childhood.

There are some exceptions in the database; one individual, who is currently 13.5 years of age, an intellectually gifted child with Asperger syndrome, is 3 and 4 grades ahead of his peers in the core subjects based on the WIAT test results. There are about 6 clients in the sample who are up to 4 grades ahead of their peers based on the WIAT test results.

Finding 3.26 Children of Average or Higher IQ are 1.9 grades behind their peers

The research dataset was filtered to study just clients of average or high IQ.

At least 8.5% of children in residential care and treatment with average of higher IQ in are succeeding in school, in the sense that they are functioning at their grade level in most classes. The one exception appears to be math scores, in which a smaller percentage of clients appear to be functioning at the same level as their age related peers in Ontario.

The survey did not obtain actual grade levels on 11% of children with average or higher IQ; instead grade scores were reported. The General Ontario Report Card does not provide actual grade levels.

The table below are the academic outcomes for children with normal IQ.

	N	Mean	SD	Minimum	Maximum
Math Grade Level	123	- 2.08	1.75	-9	3
Reading Grade Level	121	- 1.82	1.93	-10	4
Writing Grade Level	104	- 1.82	1.64	-9	4
Oral Learning Grade Level	119	- 1.82	1.97	-10	4

Across all subjects, the clients with average or higher IQ are 1.88 grades behind their peers academically. There is a wide range of outcomes, with some youth functioning nine or ten years behind their peers and others actually outperforming their peers.

Finding 3.27 8.5% of Clients with a Normal IQ are Succeeding in School

The table below specifies the actual grade levels for 8.5% of clients with normal IQ who are succeeding in school

	N	Mean	SD	Minimum	Maximum
Math Grade Level	35	- 0.97	2.01	-6	3
Reading Grade Level	35	+ 0.34	0.91	-1	4
Writing Grade Level	29	- 0.07	1.07	-3	4
Oral Learning Grade Level	35	+ 0.09	0.92	-2	4

The mean difference between their age-appropriate grade level and actual grade level is positive for reading and oral learning and close to on grade for writing. These clients are still about 1 year behind in math.

Finding 3.28 15% of Clients With Long History of School Failure Are Succeeding

Fifty-eight percent of clients with average intelligence or higher have experienced school failure starting in primary grades. A long term history of school failure is very difficult to turn around; yet 15% of children with long term school failure are functioning at the appropriate grade level of their age related peers.

Finding 3.29 Some Clinical Variables and Grade Levels are Related

The purpose in examining the clients with average IQ or higher is that relationships between the clinical and academic variables may point to a strategy to improve academic outcomes. The following results were noted.

- (1) The number of years behind peers is moderately correlated with functioning level (CGAS)
 - a. Math relative to norms: $r = .301$, $sig = .000$, n for kids with normal IQ only = 117
 - b. Reading relative to norms: $r = .260$, $sig = .005$, n for normal IQ only = 115
 - c. Writing relative to norms: $r = .279$, $sig = .005$, n for normal IQ = 99
 - d. Oral learning relative to norms: $r = .204$, $sig = .029$, n for normal IQ = 114

- (2) The PBI caring and control scales were not correlated with academic accomplishment
 - a. There is no relationship between attachment and academics at one point in time.
 - b. In the Bayfield longitudinal study¹⁴, academic “progress”, especially higher math scores, were highly correlated with improvements in the security of attachment.
 - c. This correlation between improved attachment scores and improvement in grade levels especially mathematics occurred with children attending private school
 - d. In the time series study, the attachment scores improved first and then the age-adjusted academic standard scores improved

- (3) The child’s rating scale for the program and the standards of care composite scale were not correlated with the number of years behind peers for any subject area.

- (4) For clients with a DSM diagnosis, the math grade levels are 2.32 years behind their peers, compared to clients of average IQ with no DSM diagnosis. This is statistically significant (F-ratio = 5.814, sig = .017, df between groups = 98)
 - a. A similar result occurred for writing grade levels, but the significance was lower (sig = .07)

- (5) There was a significant difference between clients diagnosed with conduct disorder and others on years behind peers in math and writing
 - a. Years behind in math: conduct disorder = 3.08; other 1.88, F-ratio = 8.447, sig = .005, df between groups = 98)
 - b. Years behind in writing: conduct disorder = 2.50, other = 1.60, F-ratio = 4.244, sig = .043, df between = 79)
 - c. Other diagnostic groups, such as children with ADHD, anxiety and depression, were all equally behind their peers

- (6) There was a significant difference between clients with serious self abusive behaviour and others
 - a. Oral learning: 2.46 years behind; others 1.62, F-ratio = 4.080, sig .046, df = 117

- (7) There was no difference for clients who had no prior placements compared to those that did have prior placements
 - a. The number of placements is not correlated with number of years behind in grade level

- (8) There was no difference in academic levels between the different ratings clients gave on the question of whether the program “helped” them.

- (9) The clients grade levels made no difference on whether they would recommend the setting to other clients

This analysis demonstrates that competence in mathematics is the academic area that is most compromised by psychiatric problems. Secondly, children with conduct disorders are most adversely affected academically.

¹⁴ Sanders, Larry S. & Fulton, Robert J. (2007), “Educational Achievement and Attachment at Bayfield School in 2006-2007”, Bayfield: Consecon, ON

Chapter Four

Referral Patterns by Demographic Variables

Chapter Four

Referral Patterns by Demographic Variables

The pattern of referrals since 2006 was analysed on a variety of demographic variables. This information is intended to support agencies in resource planning and management.

Finding 4.1- Children are being Placed at an Older Age with Each Succeeding Year

Year Placed	N	Mean	Std. Dev	Std. Error	95% CI for Mean		Min	Max
					Lower Bound	Upper Bound		
2006	138	11.78	3.55	0.30	11.19	12.38	1.15	23.50
2007	264	12.15	3.68	0.23	11.71	12.60	0.16	17.99
2008	179	12.44	3.97	0.30	11.85	13.03	0.01	18.85
2009	84	13.16	3.44	0.38	12.42	13.91	0.58	18.24
Total	665	12.28	3.72	0.14	12.00	12.56	0.01	23.50

Analysis of variance found that there is a statistical difference in the age when the child was placed comparing year by year. Children are being placed in OARTY resources at an older age with every passing year (F-ratio = 2.622, sig = .050).

Finding 4.2 Referrals by Gender are Stable: 64% Male, 36% Female

The mix of males to females in referrals to treatment foster and group care has been quite consistent for the years: 64% male and 36% female. In one particular year, there are variations, but the pattern returns to the long term average. The chi-square statistic was not significant.

% by row		Female	Male
Year Placed	2006	29%	70%
	2007	34%	65%
	2008	42%	57%
	2009	38%	61%
Total		36%	64%

Finding 4.3 16% of Referrals Are Native Canadians

The pattern of referrals of children with Native identity has generally increased in the recent past with an overall average (16%) that is 5 times greater than the percentage of children with Native identity in the population.

% by row		Native		Sample Size of Clients with Native Identity
		No	Yes	
<i>Year Placed</i>	2006	89%	11%	15
	2007	86%	14%	38
	2008	79%	21%	37
	2009	82%	18%	15
<i>Total</i>		84%	16%	105

Finding 4.4 83% of Referrals Have a History of Prior Placements

% by row		Other Placements	
		No	Yes
<i>Year Placed</i>	2006	15%	85%
	2007	18%	82%
	2008	17%	83%
	2009	14%	86%
<i>Total</i>		17%	83%

More than 80% of all children referred to OARTY agencies recently have been placed in other settings before arriving at the present placement. The pattern has not changed over the past four years.

Finding 4.5 60% of Referrals Have a Prior History in CAS Foster Care

A history of placements in internal CAS foster homes is common for most children referred to OARTY agencies. However, the pattern is quite unstable over the past four years. The differences below are statistically significant ($\chi^2=9.109$, sig = .028).

% by row		CAS Foster		Sample Size with History of CAS Foster Placement
		No	Yes	
<i>year placed</i>	2006	35%	65%	49
	2007	47%	53%	122
	2008	34%	66%	61
	2009	43%	57%	36
<i>Total</i>		40%	60%	268

Finding 4.6 14% of Referrals Have a Prior History in CYJA Custody Placement

Fourteen percent of children referred to OARTY recently have been in custody. This percentage has been climbing since 2006 and reached a plateau at 20%. The differences below are statistically significant ($\chi^2=7.967$, sig = .047).

The increase in referrals of children with a history of placement in custody occurs in the context of a significant drop in the number of admissions to custody that has occurred as a result of changes to the CYJA and new Provincial initiatives to serve these children without using custody placements.

% by row		custody		Sample size with history of Custody placement
		FALSE	TRUE	
year placed	2006	91%	9%	13
	2007	87%	13%	33
	2008	80%	20%	35
	2009	83%	17%	14
Total		86%	14%	95

Finding 4.7 16% of Referrals Have a History in Psychiatric Crisis Units

Seventeen percent of children referred recently have been a resident of a psychiatric crisis unit. In order to be admitted to psychiatric crisis units, the individual must be a serious imminent danger to self or the public. In order for a child to be placed in custody, they must be a danger to the public.

A small group (6%) of all referrals in the past 3.8 years had a prior history in both psychiatric crisis units and youth custody. Overall, 25% of placements were placed in either or both of these high risk placements before being placed in a member agency of OARTY.

% by row		Psychiatric Crisis Units		Sample Size with History of Psychiatric Crisis Admission
		No	Yes	
Year Placed	2006	84%	16%	23
	2007	82%	18%	47
	2008	83%	17%	31
	2009	87%	13%	11
Total		83%	17%	112

Finding 4.8 A Trend Away from Placement in Staff Operated Homes

There was a trend away from placement in staff operated group homes in the years between 2006 and 2009. The move away from staff operated group care has resulted in a substantial increase in the use of parent led group homes and treatment foster care. The chi-square statistic is significant ($\chi^2=14.013$, sig = .029).

% by row					n
		Mixed	Staff Operated	TFC	
Year Placed	2006	10%	59%	31%	141
	2007	12%	56%	33%	264
	2008	13%	51%	36%	181
	2009	24%	39%	37%	84
Total		13%	53%	34%	670

The trend towards the use of parent led group homes and away from fully staffed group homes may be partially explained by the increase in referrals of children with higher functioning levels and less need for adult support in coping with the demands of daily living. The trend may also be occurring because of a mistaken belief that children placed in staff operated resources are less likely to make a secure attachment than children in family settings.

The most dramatic shift occurred between 2008 and 2009 and resulted in 12% fewer placements in fully staff operated group care and a corresponding increase in the use of parent-led group homes.

Finding 4.9 Rate of Referrals Has Declined Recently

Sixty-one percent of clients served by OARTY agencies were actually placed between 2006 and 2009. A substantial group of clients (39%) have been in the same placement for more than 3.8 years. There are three groups of OARTY agencies:

- *Least case flow:* 19% of OARTY agencies - on average, 10% of their residents were placed after 2005
- *Moderate case flow:* 60% of OARTY agencies – on average, 27% of their residents were placed after 2005
- *High case flow:* 21% of OARTY agencies – between 50% and 100% of their residents were placed after 2005

The high case flow agencies, which represent one fifth of agencies, are very dependent on new referrals.

The number of new referrals to the OARTY agencies is trending down. Based on prorating the data on placement by year, the estimated total number of referrals to OARTY recently is as follows:

- 2006 = 245 referrals
- 2007 = 455 referrals
- 2008 = 310 referrals
- 2009 = 215 referrals projected for all of 2009 based on prorating Sept data

The number of new referrals is unpredictable. In 2007, the number of referrals caused the system to grow in order to meet the demand for service; however, the number of new referrals has declined recently.

Finding 4.10 History of Prior Placement Has No Effect on the Type of Current Placement

Seventy-eight percent of children had been placed many times before their current placement, with an average of 3.76 prior placements.

		Other Placements		Sample with No Missing Values
		No	Yes	
type	Parent-led Group	21%	79%	111
	Treatment Foster Care	22%	78%	371
	Staff Operated Group	21%	79%	594
Total		21%	79%	1,076

The table above show that children who have had prior placements are just as likely to be placed in treatment foster care, parent-led group homes or fully staffed group homes.

Finding 4.11 Medically Fragile Are Least Likely to Have a History of Prior Placement

Do some types of children go directly to OARTY homes without passing through any residential service? The types of clients who are very likely to have prior placements are right indented with italics. The clients who are highly likely to go directly to OARTY resources first are left indented and in bold.

% by row	Other Placements		n
	No	Yes	
<i>DH needs primarily</i>	11%	89%	56
autism spectrum	36%	64%	107
<i>FASD</i>	13%	87%	115
medically fragile	73%	27%	77
physically disabled	67%	33%	18
Dual diagnosis	18%	82%	242
<i>emotional/psychiatric</i>	12%	88%	318
normal metrics	25%	75%	97
no diagnostic assessment	14%	86%	50
Total clients in sample	241	839	1,080

Children who are medically fragile or physically disabled are more likely to go directly to their OARTY placement from home or hospital (73% and 67% respectively). Conversely children with psychiatric disorders, FASD or primarily DH are more likely to have been placed elsewhere before going to OARTY (88%, 87% and 89% respectively).

Chapter Five

Profile of Clients with Aboriginal Identity

Chapter Five

Profile of Clients with Aboriginal Identity

Aboriginal Youth in Residential Care and Treatment

Twelve percent of clients placed in treatment foster and group care in privately operated treatment agencies in Ontario identify with the aboriginal people of Canada. This percentage has remained stable for four years across two separate random samples of the client population. The sample for the research is drawn from agencies representing 83% of the beds. This was a random sample in which 50% of children in residence on the survey day were selected.

The research shows that aboriginal clients are over represented in residential care. This finding is consistent with the observation that aboriginal clients are over represented in the correction population¹⁵ and on the child welfare caseloads. In theory, Native clients should not represent more than 3% of the clients in residential treatment.

Finding 5.1 Literature Review Shows the Added Risk Carried by Native Children

The family background and needs of the First Nations people are very diverse. It is not possible to generalize about Native Canadians. It is axiomatic that the suicide rate for Native Canadians is many times higher than the average suicide rate in mainstream Canada. However, on some reserves, the suicide rate is extremely low and on others even higher¹⁶. On reserves with a very high suicide rate, the burden of suffering is carried by only some of the families^{17, 18}. The same observation applies to substance abuse rates and children born with FASD¹⁹.

Therefore, the research by OARTY does not reflect the social and psychological profile of the people living in Native communities. Rather, the OARTY research reflects the clinical profile of a small number of vulnerable Native youth and their high risk parents. Medical and

¹⁵ LaPrairie, C. (1992), *Dimension of Aboriginal Over-Representation in Correctional Institutions and Implications for Crime Prevention*, Solicitor General of Canada, Supply & Services cat # JS5-1/4-1992

¹⁶ McShane, D. (1988), "American Indian Youth", *Journal of Adolescence*, 11,117-137

¹⁷ Freedenthal, S. & Stiffman, A. R. (2004), "Suicidal Behavior in Urban American Indian Adolescents: A Comparison with Reservation Youth in a Southwestern State", *Suicide & Life - Threatening Behavior*, 34 (2), 160-172

¹⁸ May, Philip A.; Serna, Patricia; Hurt; Lance; DeBruyn & Lemyra M. (2005), "Outcome Evaluation of a Public Health Approach to Suicide Prevention in an American Indian Tribal Nation", *American Journal of Public Health*, 95 (7)

¹⁹ Berlin, Irving N. (1986), "Psychopathology and its antecedents among American Indian Adolescents", in Benjamin B. Lahey & Alan E. Kazdin (eds), *Advances in Clinical Child Psychology*, Plenum Press, New York, chapter 9, 125-152

sociological research^{20, 21} has found that there is a higher percentage of vulnerable families within the First Nations communities and among off-reserve Native groups, especially living within the inner core of large Metropolitan areas. This dynamic drives the higher rates of Native youth found in residential programs providing care and treatment.

Clinical Profile of Native Clients

The prevalence for most of the diagnostic groups served by OARTY member agencies is amplified by social and environmental factors. The statistical analysis reported in the table below is designed to examine whether the percentage of Native youth receiving care and treatment is representative of the base population of Native children and youth in Ontario; secondly, the column labelled, “Rel to Pop”, shows the proportion of Native clients under each diagnostic group relative to the percentage of Native children and youth in Ontario.

Finding 5.2 Native Children have a Higher Prevalence in All Diagnostic Groups

Diagnostic Groups	% by row		Rel to pop	% by column	
	mainstream	Native		mainstream	Native
DH needs primarily	88%	12%	4.0	5%	4%
Autism spectrum	96%	4%	1.4	9%	2%
FASD	69%	31%	10.6	7%	16%
Medically fragile/phys disabled	93%	7%	2.5	4%	2%
Dual diagnosis	91%	9%	2.9	21%	10%
Emotional/psychiatric	84%	16%	5.4	38%	38%
Normal metrics	74%	26%	8.8	9%	17%
No diagnostic assessment	76%	24%	7.9	6%	10%
Total	84%	16%	5.39	563	105

This table applies to children referred and placed between 2006 and 2009. If the percentage of Native children referred to OARTY agencies were based on the percentage of Native children, ages 0 to 14 years, living in Ontario, then we would expect the percent **by row** for each diagnostic group to be 2.91%²². The true ratio of mainstream clients to Native clients was computed and shown under the column, *rel to pop*. This column shows that Native clients are 5.39 times more likely to be in residential treatment in relation to the percentage of children who identify with the Native community in Ontario. Children with FASD are 10.6 more likely to be Native than should be if FASD was equally distributed in the residential population. Children with autism have a risk ratio of 1.4, which means that Native children with autism are slightly more likely to be referred for care and treatment since 2006.

²⁰ Scott, Kim A. (1992), “Substance Use Among Indigenous Canadians”, *Aboriginal Substance Use: Research Issues: Proceedings of a Joint Research Advisory Meeting*, <http://www.ccsa.ca/mckenzie.htm>

²¹ MacMillan, H., MacMillan, A., Offord, D. & Dingle, J. (1996), “Aboriginal Health”, *Canadian Medical Association Journal* 1996; 155: 1569-1578

²² Statistics Canada, 2006 Census of Population, Statistics Canada catalogue no. 97-558-XCB2006007.

The basic hypothesis is that the higher ratio of Native children and youth by diagnostic groups who were placed since 2006 is due to a number of economic, social and medical problems in the home communities of the children and youth on the reserves and in the off-reserve communities.

The data on FASD is a strong indicator that the basic hypothesis is true. Thirty-one percent of all clients with FASD are Native; this means that Native clients in residential care are 10.6 times more likely to be diagnosed as FASD than mainstream clients in residential care. FASD is clearly caused by an environmental factor, the presence of substantial amounts of alcohol in the blood stream of the mothers of these children at a critical stage of pregnancy.

Sixteen percent of all clients with emotional psychiatric needs are Native, compared to 2.91%, meaning that Native children are 5.4 times more likely to experience emotional or psychiatric problems. The Ontario Child Health Study²³ found that family dysfunction was the most potent risk factor in predicting mental illness in children and adolescence, explaining 14.7% of the variance. The over representation of emotionally disturbed Native children may reflect the research showing that the burden of suffering on and off reserve is carried only by some families.

Finding 5.3 Natives Have Higher Percentages of Family Dysfunction and Trauma

	Mainstream n = 659	Native n = 95	difference
years of poverty	49%	65%	+16%
history of sexual abuse	28%	32%	+4%
history of physical abuse	50%	70%	+20%
close family member committed suicide	4%	4%	ns
close family member incarcerated	27%	44%	+17%
close family in psychiatric hospital	19%	21%	ns
close family member has intellectual deficit	19%	7%	-12%
close family member addicted to drugs	48%	82%	+34%
close family member raped	14%	21%	+7%
current domestic violence in family	16%	24%	+8%
sexually assaultive person in family	5%	6%	ns
Child has abused drugs/alcohol	12%	24%	+12%
child brain damaged	21%	18%	-3%
child is a long term school failure	72%	66%	-6%
child's mother started as teen Mom	18%	22%	+4%

²³ Offord, D., Boyle, M. & Ravine, Y. (1989), *Ontario Child Health Study, Children at Risk*, Toronto, Queen's Printer for Ontario

Compared to youth from the mainstream, Native youth have very high levels of family dysfunction and trauma. Native youth show significantly higher adversity in:

- 1) parental substance abuse (82% compared to 42%)
- 2) history of physical abuse (70% compared to 50%)
- 3) parents in jail (44% compared to 27%)
- 4) poverty (65% compared to 49%)
- 5) youth have abused drugs (24% compared to 12%)
- 6) current domestic violence (24% compared to 16%)
- 7) family member raped (21% compared to 14%)

Summing the total number of adverse conditions checked positive shows that Native clients have more discrete types of serious stressors in their family background and early history compared to mainstream youth.

	Cultural identity	N	Mean	SD	SE
adversity	mainstream	659	4.02	2.28	0.09
	Native	95	5.06	2.16	0.22

Native clients have an average of five discrete stressors in their background compared to an average of four discrete stressors among mainstream clients. All OARTY clients are at high risk due to the amount of adversity in their background, and the current data illustrates that Native clients carry a much greater burden of suffering. The difference is statistically significant (T-score = 4.19, sig = .000, df = 752)

Finding 5.4 Number One Health Issue is Substance Abuse

The clinical data suggests that the number one health issue affecting Native youth in residential care is substance abuse. Eighty two percent of Native youth have a close family relative, usually a parent, with substance abuse disorder and 24% of Native youth have a history of abusing drugs and alcohol. Moreover, 16% of all Native youth in residential care have diagnosed FASD, compared to 7% of youth from the mainstream cultures.

Finding 5.5 High Percentage of Parents Who Have Been Incarcerated

The second most important clinical issue affecting Native youth is that 44% have a parent that has been incarcerated. This suggests that a high proportion of Native children in residential care have been exposed to antisocial attitudes and behaviour. This is further supported by the fact that 70% of Native youth have a history of physical abuse.

The data also indicates that the families of 24% of Native youth display domestic violence. These findings suggest that a substantial proportion of Native children in residential care do not come from a safe home environment.

Finding 5.6 FASD in Natives More Impaired/Severe Than in the Mainstream

f-ratio = 4.9, sig = .028								
CGAS for Children Diagnosed with FASD								
	N	Mean	Std. Dev	Std. Error	95% CI for Mean		Min	Max
Mainstream	84	48.7	15.1	1.6	45.4	51.9	5	85
Native	27	41.1	15.9	3.1	34.9	47.4	2	65
Total	111	46.8	15.5	1.5	43.9	49.8	2	85

The child’s functioning level was measured by the Children’s Global Assessment Scale (CGAS), an evidence based assessment tool for determining how well the child the child is adapting to the demands of social functioning in the roles of family member, student and neighbour. The CGAS is one of the best indicators of prognosis in mental health.

The average CGAS score for all clients is 46.5 (n = 1,039) and there is no difference in CGAS scores between Native and mainstream youth. Similarly, there is no difference in the CGAS score between Native and mainstream youth when the view is restricted to children who have emotional and psychiatric problems (CGAS = 55.4, n = 308).

However, as noted in Finding 5.6, there is an exception. Twenty four percent of children with FASD are Native; the Native youth diagnosed with FASD are much more impaired than mainstream youth diagnosed with FASD.

Attachment and Client Satisfaction

Attachment is an affectionate relationship that has been enhanced by two additional qualities:

- (1) the relationship is a *source of security and comfort* in times of distress or danger
- (2) when the security and comfort of this relationship is available, the child feels as though they have an anchor in their life that gives them the *personal confidence* to
 - a. get through hard times
 - b. learn new ways of thinking and behaving
 - c. attempt new experiences

Residential schools were associated with considerable hardship and trauma for the parents and grandparents of the children in residential care and treatment today. Therefore, agencies treating Native children and youth are particularly concerned about the security of attachment for these clients.

Finding 5.7 Native Children Are Securely Attached to Their Caregivers

The quality of attachment for mainstream and Native youth was tested using an evidence based tool, *the Parental Bonding Instrument* (PBI). The gender standardized²⁴ caring score was not significantly different for clients of Native identity than those of mainstream identity. This suggests that Natives feel cared about and safe in their placements to the same degree as children all over the world. This is powerful evidence of resilience in the population of Native youth in residential care.

The other dimension to attachment is the parental control; children who score high, or above 60, feel that their parents or caregivers are mean, unfair and over-controlling, which is indicative of children with poor attachment. There was no difference between Native and mainstream clients on this variable. Native youth have an average t-score of 52 in relation to world wide norms on this scale. Native youth do not feel as though they were treated unfairly by over-controlling and mean spirited parental figures.

Limitations to the Research:

The *Parental Bonding Instrument* is a youth self report and the youth is not tested unless he/she gives informed consent. More than one-third (37%) of Native youth refused to give consent to be tested. In comparison, only 26% of mainstream youth did not give informed consent. The results on attachment and satisfaction may have been different if there was no difference in participation rate.

Good Outcomes for Native Youth

Native youth have significant resilience that is being strengthened by the network of service operated by OARTY member agencies. Attachment scores on the PBI are sensitive to changes from positive outcomes²⁵ and, clinically, the amount of adversity in the background of youth should have suppressed their scores on attachment.

Finding 5.8 Native Clients are Satisfied with the Quality of Care

All clients, who provided informed consent, completed an evidence based tool to measure a child's perception of the care they are receiving. This tool was designed by the National Institute for Mental Health specifically for children in residential treatment. The children and youth rated their care on 16 specific questions related to standards of care and the quality of the therapeutic alliance. The composite score for this scale showed no difference between clients of Native identity and mainstream identity (sample mean = 29.41 out of a

²⁴ The PBI caring scale is significantly lower when the target (i.e.) parents, foster parents or child and youth worker is a male. Therefore a T-score was computed for the caring scale based on the gender of the target. The T-score standardizes the raw scores for males and females so that the sample mean = 50 and the sample standard deviation = 10.

²⁵ Sanders, Larry S. & Fulton, Robert J. (2007), "Educational Achievement and Attachment at Bayfield School in 2006-2007", Bayfield: Consecon, ON

maximum score of 36). The results suggest that Native youth view the standards of care quite favourably and there is no difference between mainstream youth and Native youth on this perception.

The clients were asked to rate their care on a 10-point scale “worst (1) ... best (10)”. The mean rating was 7.85. There was no difference between Native and mainstream clients on this variable. Both groups rate the care received on a ten point scale favourably.

Finding 5.9 Natives Hesitant to Recommend the Program to Others

% by row		Recommend this home			Total
		<i>no</i>	<i>not sure</i>	<i>yes</i>	
	mainstream	9%	36%	55%	442
	Native	11%	52%	36%	61
Total		9%	38%	53%	503

On the crucial final question, “would you recommend this home to someone else who needs treatment”. Native youth are more hesitant with a significantly higher percentage of Native youth reporting they are “unsure” compared to mainstream youth.

However, there is evidence that the hesitant response to this question by Native youth may be related to difference in the length of stay between Native and mainstream youth.

Finding 5.10 Client Satisfaction Lower with Fewer Days of Service

Recommend?	Days of Care and Treatment				
	N	Mean	Std. Dev	Min	Max
<i>no</i>	45	802	691	108	2,634
<i>not sure</i>	51	836	753	122	3,043
<i>yes</i>	265	1,244	1,129	13	8,313
Total	361	1,131	1,052	13	8,313

This table shows that the answer to the question on *whether to recommend the resource to others* is significantly related to the number of days of care and treatment received. (F-ratio 5.9, sig = .003). Children who said “yes they would recommend the resource” received 1,244 days of care and treatment. Children who said “no” or were “not sure” received 802 and 836 days of service respectively.

Finding 5.11 Natives Receive Fewer Days of Care and Treatment

Days of Care and Treatment

	N	Mean	Std. Dev	Min	Max
Mainstream	440	1,488	1,530	13	9,242
Aboriginal	60	810	800	104	4,139
Total	500	1,406	1,477	13	9,242

The data for the table above was derived from the recent survey of client satisfaction. Native youth received fewer days of care and treatment compared to mainstream youth. This difference is materially and statistically significant (F-ratio 11.3, sig = .001). The shorter length of staff may influence their answer to the question about recommending the program to others. The shorter length of stay may also have an impact on clinical outcomes as well as the total cost of care.

History of Prior Placements

Finding 5.12 Natives Are as Likely to Have a Prior History of Placements

% by row		Prior Placements		N
		No	Yes	
<i>Cultural Identity</i>	<i>Mainstream</i>	22%	78%	938
	<i>Native</i>	18%	82%	138
<i>All Clients</i>		21%	79%	1,076

Although, a higher percentage of Native clients had prior placements, it is not statistically significant, based on a chi square analysis. Please note: *prior placements* includes children’s mental health, OARTY members and non-members of OARTY, CAS group homes, CAS foster homes, custody placements and psychiatric crisis units.

Finding 5.13 Natives Experience More Changes in Placement

Even though the percentage of youth with a history of prior placements is similar for mainstream and Native youth, the number of placements before being admitted to the OARTY program is much higher for Natives.

	N	Mean	Std. Dev	Min	Max
<i>Mainstream</i>	423	2.70	4.00	0	52
<i>Native</i>	56	5.39	11.79	0	63
<i>All Clients</i>	479	3.02	5.55	0	63

Native clients have 5.39 prior placements compared to an average of 2.70 for mainstream clients. This difference is statistically significant (F-ratio = 11.9, sig = .000).

Finding 5.14 More Likely to have a History of CAS Foster Placements

% by row		CAS foster home		Sample with Yes
		No	Yes	
Cultural Identity	Mainstream	46%	54%	502
	Native	31%	69%	95
All Clients		45%	55%	

This table shows that Native clients are much more likely to have been placed in CAS foster care before being placed in an OARTY resource. The chi-square statistic is 11.435, with a significance of 0.001.

Finding 5.15 More Likely to have a History of Custody Placements

% by row		Custody		Sample with Yes
		No	Yes	
Cultural Identity	Mainstream	90%	10%	93
	Native	84%	16%	22
All Clients		89%	11%	

This table shows that Native clients are more likely to have been placed in custody before being placed in an OARTY resource. The chi-square statistic is 4.947, with a significance of 0.033.

Finding 5.16 Similar History of Psychiatric Crisis Placement

% by row		Psychiatric Crisis		Sample with Yes
		No	Yes	
Cultural Identity	Mainstream	86%	14%	130
	Native	87%	13%	18
All Clients		86%	14%	

Native clients are just as likely as clients from the mainstream to be placed in psychiatric crisis units.

Interpretation of results

In many ways, Native youth in residential care are not different when compared with the vulnerable youth from other cultures. However, there are exceptions that appear to be linked to differences in the background of adversity. Specifically, Native youth have many more placements in CAS foster care.

Finally, Native youth have more placements in custody under the Youth Criminal Justice Act. This has been statistically predicted since Native youth have much higher rates of abusing alcohol and drugs and they also have a much higher percentage of parents who have been incarcerated.

The Cost of Care

The cost of care is a function of the per diem times the days of care and treatment.

Finding 5.17 Fewer Days of Care and Treatment for Native Clients

F-ratio = 16.3, sig = .000					
Days Served	N	Mean	SD	Minimum	Maximum
Mainstream	949	1,331	1,482	2	10,464
Native	140	811	931	13	6,125
All Clients	1,089	1,264	1,434	2	10,464

The data for this table is derived from the total OARTY research dataset. The data on days of care and treatment shows that Native clients receive less service than mainstream clients, despite the fact that they have as many or more special needs. Clients with Native identity receive 520 fewer days on average than their mainstream counterparts. This is very significant statistically (F-ratio = 16.3, sig: .000).

Since this data is derived from the total research dataset, it includes youth who were placed many years ago. The research dataset also includes the day of discharge, where applicable. Finding 5.17, indicates that Natives have been receiving fewer days of care and treatment extending back many years.

Finding 5.18 Slightly Higher Average Per Diems for Native Clients

	N	Mean	Std. Dev	Std. Error	Min	Max
mainstream	436	\$ 184.47	\$ 53.08	\$ 2.54	\$ 90.00	\$ 343.51
Native	56	\$ 204.10	\$ 65.62	\$ 8.77	\$ 105.05	\$ 343.51
all clients	492	\$ 186.70	\$ 54.93	\$ 2.48	\$ 90.00	\$ 343.51

The average per diem paid for Native clients since 2006 is significantly higher compared with mainstream clients. The difference is significant (F ratio = 6.413, sig = .012).

Finding 5.19 Native Clients Received a Lower Share of the Investment per Client

The formula for this table was the actual per diem paid for each client times the total number of days of care and treatment provided up to the day of the survey.

Per diem times days served

	N	Mean	Std. Dev	Std. Error	Min	Max
mainstream	434	\$ 274,082	\$ 316,487	\$ 15,192	\$ 3,133	\$ 1,963,235
Native	55	\$ 180,451	\$ 189,763	\$ 25,588	\$ 20,790	\$ 937,235
all clients	489	\$ 263,550	\$ 306,164	\$ 13,845	\$ 3,133	\$ 1,963,235

The table above shows that Native clients have a significantly lower share of the dollar investment per client. The difference is significant (F ratio = 4.599, sig = .032)

Conclusion on the Needs of Native Youth and the Services Received

The family background of Native youth shows evidence of significantly greater adversity (Berlin²⁶, 1986; MacMillan²⁷, et al 1996; McShane²⁸, 1988; Ng²⁹, 1996). Specifically, there is a significant problem with substance abuse in the background of Native youth that affects these children in two ways: much higher rates of FASD and more children who abuse drugs and alcohol. Secondly, there is a much higher rate of antisocial behaviour by the parents of Native youth, making their family of origin less safe than those of mainstream youth in residential care.

Despite the suffering and danger in the lives of Native children, there is solid evidence of resilience and positive outcomes in residential care. Native youth feel loved and cared about by at least one person; they do not feel that they are being treated unfairly or that they are over-controlled in a mean spirited way. In other words, Native youth are securely attached to their caregivers.

Native youth have a positive assessment of the quality of care they are receiving and in this regard, they are similar to their mainstream peers. The one exception is that Native youth appear to be “unsure” of recommending the resource in which they are placed.

Despite the aforementioned indicators of greater risk and positive responses to treatment, Native clients receive 68.5% of the total dollar investment in residential care per client.

²⁶ Berlin, Irving N. (1986), “Psychopathology and its antecedents among American Indian Adolescents”, in Benjamin B. Lahey & Alan E. Kazdin (eds), *Advances in Clinical Child Psychology*, Plenum Press, New York, chapter 9, 125-152

²⁷ MacMillan, H., MacMillan, A., Offord, D. & Dingle, J. (1996), *AAboriginal Health@*, Canadian Medical Association Journal 1996; 155: 1569-1578

²⁸ McShane, D. (1988), “American Indian Youth”, *Journal of Adolescence*, 11,117-137

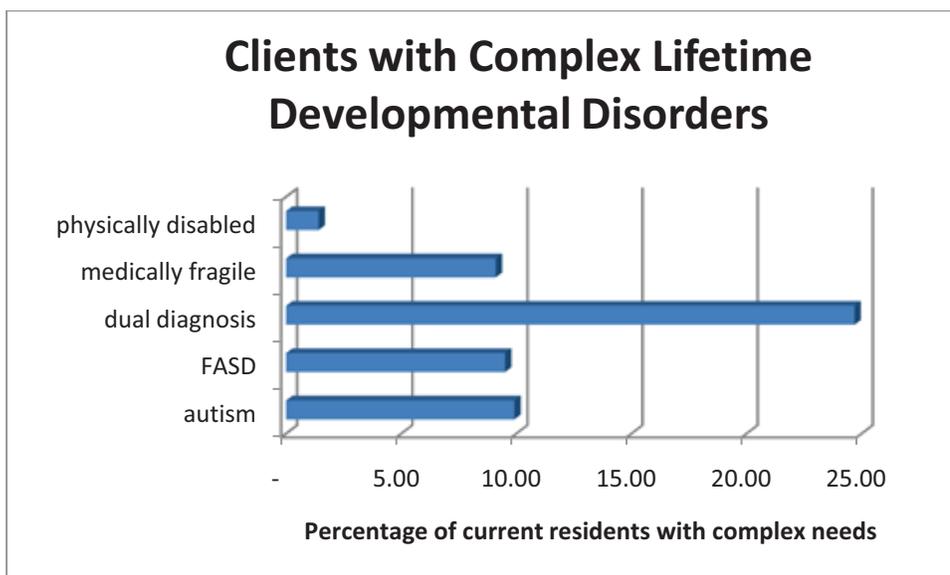
²⁹ Ng, Edward (1996), “Disability among Canada’s Aboriginal Peoples in 1991”, *Health Reports*, Statistics Canada, Summer, 8 (1), 25-30

Chapter Six:
Clients with Complex Lifelong
Neuro-Developmental Needs

Chapter Six: Clients with Complex Lifelong Neuro-Developmental Needs

Profile of Clients with Complex Needs

Fifty-five percent of clients served by OARTY member agencies have complex lifetime developmental needs and disorders.



In order of prevalence, the medical conditions most associated with complex life-long neuro-developmental disorders are listed below. The detailed references are at the back of this chapter.

- (1) Genetic environmental interaction, which has a prevalence rate of 20 per 1,000 (Abuelo, 1991; Roeleveld et al, 1997)
- (2) Recessive Gene Disorders (e.g. Tay-Sachs disease): prevalence = 10/1,000 (Abuelo, 1991)
- (3) Autism Spectrum Disorder (ASD): prevalence = 3.4/1,000 (Yeargin-Allsopp et al, 2003)
- (4) TORCH infections³⁰: prevalence= 1 or 2/1,000 (Scola, 1991)
- (5) Fetal Alcohol Spectrum Disorder (FASD): prevalence = 2/1,000 (Abel, 1995)
- (6) Down's Syndrome: prevalence = 1/1,000 (Pueschel, 1991)
- (7) Fragile X: prevalence = 1/1,000 (Abuelo, 1991)
- (8) Post natal poisoning (e.g.) lead, mercury and glue sniffing
- (9) Acquired brain injury from accidents or abuse

³⁰TORCH refers to agents which cause Toxoplasmosis, rubella, cytomegalic intrusion disease, herpes infection and syphilis.

In other words, between 3% and 4% of babies suffer from these conditions (Abuelo, 1991). During childhood, additional injuries to the brain may occur through poisoning from a variety of agents, i.e., lead, mercury and gasoline sniffing. Finally, a few children are injured through accidents or assaults. Ten percent of the children in OARTY programs who are medically fragile acquired their disability through child abuse, such as shaken baby syndrome (*Partners in Care 3*, 2007).

Finding 6.1 97% of Clients with Complex Needs Do Not Have Average or Higher IQ

% by row	Average IQ or Higher		Total
	No	Yes	
ID Only or Psychiatrically Ill	35%	65%	100%
Complex Needs	97%	3%	100%
All Types of Clients	69%	31%	n = 494

Three percent of clients with complex needs have average or higher intellectual ability.

Finding 6.2 47% of Clients With Complex Needs Have Moderate/Severe Intellectual Deficits

% by row	Moderate->Severe ID		Total
	No	Yes	
ID Only or Psychiatrically Ill	98%	2%	100%
Complex Needs	53%	47%	100%
All Types of Clients	73%	27%	494

The situation is exactly reversed for clients diagnosed with moderate to severe intellectually deficits. Only 2% of children with moderate intellectual deficits do not have complex developmental needs. The exceptions are clients referred because they had medical needs and experienced significant difficulty learning; the medical and learning needs are the reasons they are receiving care and treatment. Forty-seven percent of clients with complex developmental needs have moderate to severe intellectual deficits. Only 5 in 1,000 individuals have this degree of impairment (Roeleveld et al, 1997).³¹

Finding 6.3 30% of Clients with Complex Needs Have Mild Intellectual Deficits

% by row	Mild ID		Total
	No	Yes	
ID Only or Psychiatrically Ill	96%	4%	100%
Complex Needs	70%	30%	100%
All Types of Clients	82%	18%	494

³¹ Roeleveld, Nel, Zielhuis, Gerhard & Gabreëls, Fons (1997), "The Prevalence of Mental Retardation: a critical review of recent literature", *Developmental Medicine and Child Neurology*, 39, 125-132

Thirty percent of children with complex developmental needs are diagnosed with mild intellectual deficit. As noted in chapter two, these clients want to be heard. They are involved in their care and treatment. On average, clients with complex needs are satisfied with the standards and securely attached to their care givers.

Finding 6.4 18% of Clients with Complex Needs Have Borderline Intellectual Deficits

% by row	Borderline ID		Total
	No	Yes	
ID Only or Psychiatrically Ill	82%	18%	100%
Complex Needs	82%	18%	100%
All Types of Clients	82%	18%	494

Eighteen percent of children with complex needs have borderline intellectual deficits. Many of the clients with mild ID and all of the clients with borderline ID do not appear to be handicapped to the casual observer. This helps to protect these clients from stigma and also facilitates greater integration into the institutions of society.

The disadvantage of their apparent normalcy is that teachers and police officers treat these clients as if they are intellectually normal and impose unrealistic expectations on them to fit into society and to control their behaviour.

The intellectual impairment of children with complex needs profoundly affects their academic performance.

Finding 6.5 Clients with Complex Needs have Very Low Academic Performance

	N	Mean	Std. Dev	Min	Max
Math/Peers	217	- 6.75	4.08	-12	3
Read/Peers	218	- 6.61	4.16	-12	3
Write/Peers	201	- 6.85	4.15	-12	1
Oral/Peers	213	- 6.58	4.12	-12	4

This table shows actual grade levels of the clients with complex needs minus the age-appropriate grade levels of their peers. On average, clients with complex needs are 6.58 grades behind their peers. Two children with complex needs show advanced performance in relation to their peers; they both have above average IQ but are quite impaired otherwise. Almost one half of the children with complex needs are cognitively unable to advance beyond grade one and as they get older they simply get further behind.

The grade level performance is significantly related to the level of care. Clients in staff operated group care are on average 8.5 years behind their peers; whereas clients in treatment foster care and parent led group homes are 4.0 years behind their peers in the core subjects. The grade level performance of the clients with complex needs is highly correlated with their functioning level as measured by the CGAS (range: $r = .467$ to $r = .500$).

The statistics cited above present a grim view of children of with complex needs. However, this view is a distortion. Children with complex needs are learning, interacting with others, reflecting on their situation and adapting to life. However, the progress of clients with complex needs cannot be measured by grade levels within the standard academic framework.

Finding 6.6 Lower Functioning Level and Higher Needs for Adult Support

Two dimensions measured are: (1) the degree that the individual is able to function in home, school and neighbourhood, as measured by the CGAS, and (2) the level of adult support required to attend to basic tasks of living, such as getting dressed and eating, as measured by the LAS. On both of these dimensions, clients with complex needs are profoundly distinct from the children with (a) emotional and behaviour problems, and/or (b) learning difficulties or (c) children who experience normal developmental needs.

		n	Ave score	F-ratio	Sig
CGAS	ID Only or Psychiatrically Ill	204	60.76		
	Complex Needs	252	33.53	200.33	.000000
	All Types of Clients	456	45.71		

LAS Total score		n	Ave score	F-ratio	Sig
	ID Only or Psychiatrically Ill	215	20.37		
	Complex Needs	261	48.15	221.68	.000000
	All Types of Clients	476	35.60		

This table demonstrates that clients with complex needs are much more dependent on adult caregivers than clients who are psychiatrically ill, ID only, normal or undiagnosed and waiting assessment.

Finding 6.7 Level of Care is Matched to the Clients Functioning Level

	N	Mean	Std. Dev	Min	Max
F-ratio = 15.1, sig = .000					
Parent-led Group	22	47.41	11.89	18	73
Treatment Foster Care	81	41.73	21.31	1	85
Staff Operated Group	150	27.41	24.19	1	85
Total	253	33.74	23.72	1	85

The level of care varies according to three broad types of programs. The amount of time that caregivers have available to assist clients to function in daily life varies directly by these broad categories:

- Parent-led Group Homes, which have 5 or 6 clients living with house parents and CYW staff on shift (average of .86 FTE per child)
- Treatment Foster Care, which have 2 or 4 clients living with foster parents and CYW staff working in the home (average of .75 FTE per child)

- Staff operated Group Homes, which have 6 to 8 clients living with 8 to 10 child and youth workers on shift (average of 1.43 FTE per child)

The table above demonstrates that the functioning level of the client varies by each level of care. The most dysfunctional clients, on average, are living in fully staff operated group homes, with much ratios of FTE to child than the alternatives. Clients in staff operated group care have very low scores on the CGAS (mean = 27.4). A score of 27.4 fits within the following exemplar:

Unable to function in almost all areas, eg. stays at home, in ward or in bed all day without taking part in social activities or severe impairment in reality testing or serious impairment in communication (eg. sometimes incoherent or inappropriate)

In contrast, clients with complex needs in treatment foster care have a mean CGAS score of 41.7 that fits within the following exemplar:

Moderate degree of interference in functioning in most social areas or severe impairment in functioning in one area, such as might result from, for example suicidal preoccupations and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, poor or inappropriate social skills, frequent episodes of aggressive or other antisocial behaviour with some preservation of meaningful social relationships

Clients with complex needs depend on adult assistance in coping with the demands of daily living for a mean of 62% of the maximum support possible. This compares with a mean of 47% in treatment foster care.

Moreover, 28% of clients with complex needs in staff operated care are dependent on adults for 90% of their daily living needs, meaning that many of them cannot even feed and dress themselves with assistance. In comparison, 10% of clients in treatment foster are in the extremely high need group who are dependent on adults for over 90% of their daily living activities.

The lifetime cost of care in the OARTY resource also varies significantly by the level of care in direct proportion to the amount of caregiver time required in order to meet the client's clinical needs.

	n	mean	SD	min	max
F-ratio = 21.8, sig = .000					
Parent-led Group	22	\$185,863	\$174,764	\$13,158	\$612,375
Treatment Foster Care	86	\$192,205	\$137,679	\$8,669	\$669,863
Staff Operated Group	154	\$475,205	\$429,925	\$3,133	\$1,963,235
Total	262	\$358,016	\$369,652	\$3,133	\$1,963,235

The lifetime cost of care is highly correlated with the CGAS score ($r = -.420$).

In conclusion, there is a strong direct relationship between the clinical needs of the clients and the decisions about the amount and type of resources required to meet their needs.

Finding 6.8 Complex Needs Leads to Higher Rates of Self Abuse and Aggression

Clients with complex needs are more likely to display serious self abusive behaviour requiring medical attention (29%), compared with clients without complex needs (19%). The relationship with aggression is even stronger, as 55% of children with complex needs exhibit aggression requiring medical intervention, compared with clients having other types of needs (35%). Using the same data with percentages by column, 65% of aggression is committed by clients with complex needs.

chi square = 6.843, sig = .011		<i>Serious Self Abuse</i>		Total
		No	Yes	
ID Only or Psychiatrically Ill		81%	19%	100%
Complex Needs		71%	29%	100%
All Types of Clients		76%	24%	494

chi square = 19.543 sig= .000		<i>Aggression</i>		Total
		No	Yes	
ID Only or Psychiatrically Ill		65%	35%	100%
Complex Needs		45%	55%	100%
All Types of Clients		54%	46%	494

History of Prior Placements

Finding 6.9 Clients with Complex Needs Are Less Likely to have Prior Placements

chi square = 14.568		<i>Prior Placements</i>		Total
		No	Yes	
ID Only or Psychiatrically Ill		14%	86%	100%
Complex Needs		28%	72%	100%
All Types of Clients		21%	79%	485

Clients with complex needs are less likely to have prior placements (72%) compared to clients who do not have complex needs (86%). The average age of placement in OARTY member agencies is 11 years and this is no different for children with complex needs.

Finding 6.10 History of CAS Foster Care Less Likely for Clients with Complex Needs

	chi square = 13.946		Total
	<i>History in CAS Foster Home</i>		
	No	Yes	
ID Only or Psychiatrically Ill	36%	64%	100%
Complex Needs	53%	47%	100%
All Types of Clients	45%	55%	494

Clients with complex developmental needs are less likely to have been placed in CAS foster care compared with clients who are psychiatrically ill, normal, ID only or are undiagnosed.

Attachment and Client Satisfaction

Finding 6.11 Clients with Complex Needs are Very Satisfied with the Standards of Care

	N	Mean	SD	Min	Max	F-ratio	Sig.
ID Only or Psychiatrically Ill	192	7.39	2.20	1	10	13.234	0.000
Complex Needs	157	8.43	3.14	2	40		
All Types of Clients	349	7.85	2.71	1	40		

Fifty seven percent of the clients with complex needs completed the NIMH client satisfaction survey. The fact that such clients were prepared to be engaged in rating their care is an important issue in itself. A substantial proportion of clients with complex needs have a voice. Clients were asked to rate their satisfaction with the care they have received on a ten-point scale. Analysis of variance shows that clients with complex needs are more satisfied with their care than other clients, such as those who are emotionally and psychiatrically ill.

Finding 6.12 Clients with Complex Needs Are Securely Attached to Their Caregivers

A large random sample of clients with complex needs (166) completed the *Parental Bonding Instrument*. The data below is the gender standardized score for the caring scale. The data indicates there is no difference in the feeling of being cared about for complex clients compared to other clients with different needs.

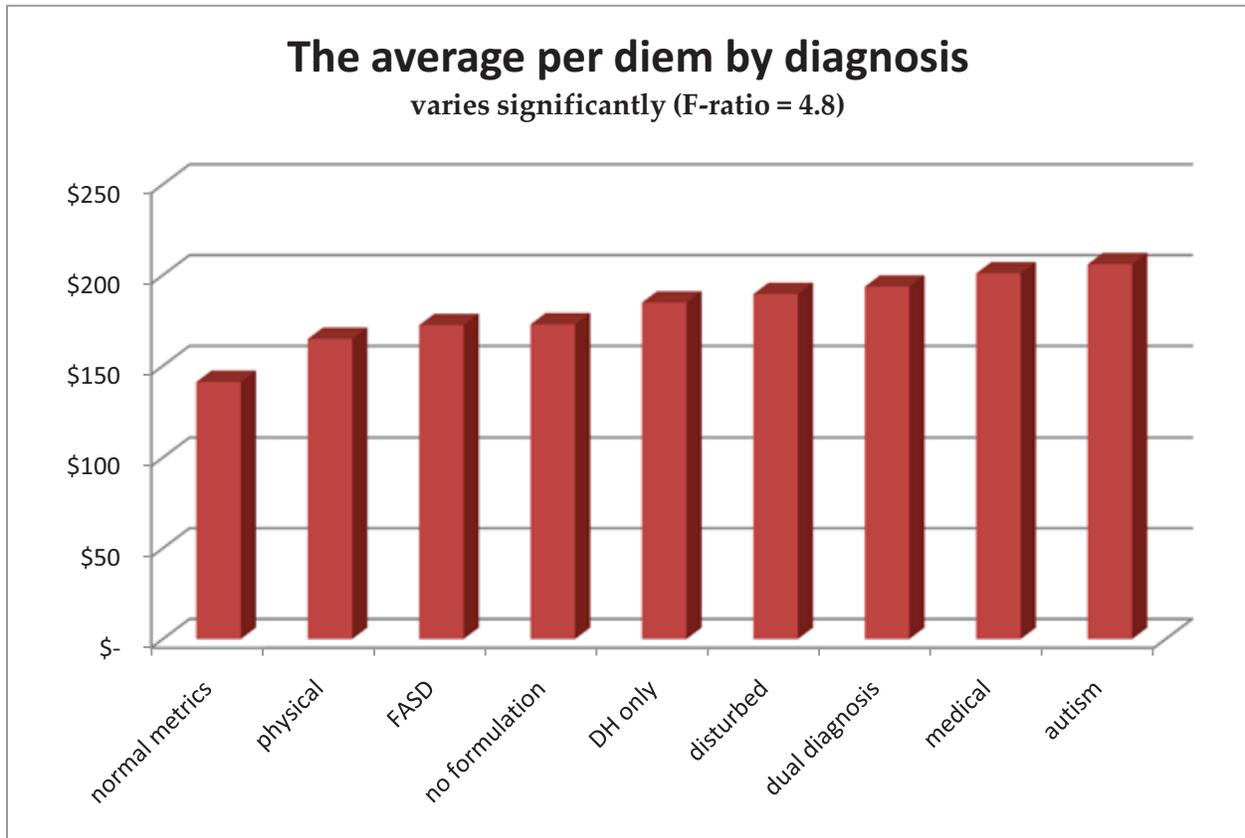
	N	Mean	SD	Min	Max
ID Only or Psychiatrically Ill	197	49.31	9.93	4	63
Complex Needs	166	49.83	10.31	7	63
All Types of Clients	363	49.55	10.10	4	63

Chapter Seven: The Cost of Care Staffing Costs and Staff Turnover

Chapter Seven: The Cost of Care Staffing Costs and Staff Turnover

Business of Service

Finding 7.1 Per Diem Cost Varies Significantly by Diagnostic Group



The average per diem cost for all clients is \$186.70 per day. The average per diem cost varies significantly by the broad diagnostic groups in the graph above.

The entire group of disturbed children cost on average \$189.55 per day. However, there is a significant variation in the cost for different diagnostic groups. The average cost for children with three specific DSM diagnoses is above \$200 per day.

- Conduct disorders = \$215.09
- Anxiety disorders = \$184.53
- Depression and mood = \$212.65
- PTSD = \$187.52
- Substance abuse disorder = \$205.09

Staff Wages and Turnover Rates³²

Finding 7.2 Night Staff are Paid an Average Base Rate of \$12.33

The metric, turnover rate, was calculated as the number of staff who left/total number of people on staff times 100.

	N	Mean	Std. Dev	Minimum	Maximum
Night Base Rate	30	12.33	2.56	3.75	15.20
Night Highest Rate Paid	30	13.94	3.02	6.00	18.50
Night Staff Turnover Rate	14	24%	25%	-	83%

Some agencies pay the night staff a flat rate for the night ranging from \$30.00 to \$50.00. In order to standardize this rate, the flat rates were divided by eight to compute an effective hourly rate; the very low rates of \$3.75 and \$6.00 are paid when staff are asleep but on duty in case a child wakes up at night.

Finding 7.3 Full Time CYWs are Paid an Average Base Rate of \$13.68

On average, the ratio of full time child and youth positions to all front line positions, including night and part time, is 1:2.

	N	Mean	Std. Dev	Minimum	Maximum
CYC Base Rate	35	13.68	1.65	10.00	17.01
CYC Highest Rate Paid	35	16.48	2.09	10.50	20.00
FT- CYC Turnover Rate	14	41%	47%	-	160%

Finding 7.4 Part time CYW staff are Paid an Average Base Rate of \$12.84

	N	Mean	Std. Dev	Minimum	Maximum
Part-time Base Rate	28	12.84	1.92	8.00	18.15
Part-time Highest Rate Paid	28	14.62	2.52	10.50	21.17
PT - CYC Turnover Rate	17	60%	97%	-	417%

Finding 7.5 Relief staff wage rates have an Average Base Rate of \$13.27

	N	Mean	Std. Dev	Minimum	Maximum
Relief Staff Base	17	13.27	2.36	10.70	19.23
Relief Staff High	17	14.60	2.54	11.25	20.00

In general, the turnover rate for full time CYW staff (41%) is better than the rate for part time CYW staff (60%). Both rates are very high, especially in light of the secure attachment that children feel for their primary CYW staff.

³² OARTY has information on the staff wages, salaries and turnover rates for 37 agencies.

Finding 7.6 Average Management/Social Work Rates Range from \$18.19 to \$25.29

All management and social work salaries were converted into a wage base by dividing the annual salary by 2,080 hours per year or 40 hours per week. This formula was designed to make these wages comparable with front line CYW rates.

	N	Mean	Std. Dev	Minimum	Maximum
Supervisor Base Rate	28	18.19	2.24	14.00	24.04
Supervisor Highest Paid	28	20.59	2.02	16.83	24.04
Manager Base Rate	27	21.97	4.08	11.00	32.65
Manager Highest Paid	27	25.02	4.43	15.00	39.53
Social Base Rate	14	22.86	8.56	14.00	45.00
Social Highest Paid	14	25.29	8.18	15.50	45.00

These rates apply to management and social workers on staff. Some agencies pay for social workers on a consultation basis at rates as high as \$85.00 per hour.

Finding 7.7 TFP in OARTY Agencies Paid Less than CAS TFP parents

Treatment foster parents and house parents in parent led group homes are paid on a per diem basis as reflected in the table below. The average board rate for treatment foster parents working within the CAS agencies is \$72.43.

	N	Mean	Std. Dev	Minimum	Maximum
TFP Base Rate	14	55.30	14.73	30.00	85.00
TFP Highest Rate Paid	14	65.38	17.28	48.00	109.26
TFP Turnover Rate	8	6%	7%	-	15%

Relief Parents Base	6	70.83	43.41	30.00	150.00
Relief Parents High	6	86.67	45.35	50.00	175.00
House Parent Base	4	46.50	26.56	21.00	80.00
House Parent High	4	53.50	23.39	23.00	80.00

The turnover rate in treatment foster care is significantly lower than it is for CYWs. It is very difficult to convert the per diems paid to treatment home parents to an hourly wage rate in order to compare the remuneration to CYWs on shift.

The CYWs generally work a 40 hour per week shift. The treatment home parents are on duty 24 hours a day 7 days a week, although this clearly does not imply that they are providing treatment with the children on a continual basis. Finally, treatment home parents are responsible to pay for shelter costs, food costs and many other personal needs of the children placed out of their daily rate.

Chapter Eight: Summary and New Knowledge

Chapter Eight: Summary of New Knowledge

New Knowledge

The new knowledge gained from the OARTY research is summarized below in several sections.

Listening to our Clients

The latest research from OARTY is showing that the clients served, including clients with complex needs and those as young as 10 years of age, respond to a chance to evaluate the quality of care and the quality of their relationships in terms of being cared for and treated fairly. The clients provided thoughtful and varied responses to questions from two internationally respected instruments.

On the whole, the majority of our clients gave the OARTY programs a very high rating on the standards of care. Secondly, OARTY clients are securely attached according to a norm referenced test of attachment. Clients are securely attached across all types of programs from parent led group homes, treatment foster care and staff operated group homes. Clients with psychiatric diagnoses as well as clients with complex neuro developmental needs are securely attached equally. One third of the clients are securely attached to their child and youth worker; one third to the foster parent and one third to parents in the family of origin.

Whether their opinions are positive or negative, they should be listened to by the program staff and the service delivery system.

Evidence Based Practice

The clients served have a wide variety of clinical needs, supported by specific diagnoses, and considerable information about the details of their needs. As a result, OARTY and its members know the clinical profile of the clients served across the system and in the different types of programs.

Awareness of the risk factors and the burden of adversity and trauma should empower service providers to implement specific interventions that have been proven effective for the groups identified by this research. Data from a Ryerson University research project^{33,34} has found that OARTY front line CYW staff employ all of the 100 plus evidence based treatment interventions to the same degree as CYW staff in children's mental health. Moreover, the organizational context of OARTY members has the same uptake of evidence based practice.

³³ Stuart, Carol & Sanders, Larry (2008), *Child and Youth Care Practitioners' Contributions to Evidence Based Practice in Group Care*, School of Child and Youth Care, Ryerson University: Toronto

³⁴ Stuart, C. & Sanders, L. (2008), "The Role of Child and Youth Practitioners in Evidence Based Practice in Group Care", *Ontario Association of Children's Aid Societies Journal*, Volume 52, Number 4.

This provides a foundation to build a case decision tree across the system linking specific needs of clients with specific standards of care, front line interventions and evidence based treatments.

Academic Performance

The most common challenge and clinical issue facing the clients is academic failure extending back to the primary grades. Fifty-eight percent of clients with average intelligence or higher have experienced school failure starting in primary grades. The research shows that only 8.5% of children in residential care and treatment with average or higher IQ are succeeding in school, in the sense that they are functioning at their age-appropriate grade level in most classes. The one exception appears to be math scores, in which a smaller percentage of clients appear to be functioning at the same level as their age-related peers in Ontario.

Across all subjects, the clients with average or higher IQ are 1.88 years behind their peers academically. There is a wide range of outcomes, with some youth functioning nine or ten years behind their peers and others actually outperforming their peers.

There is some evidence of positive educational outcomes for children with average or higher IQ who had a pre-existing history of school failure starting in elementary grades. Despite the obvious challenge in treating this issue, 15% of children with long term school failure are functioning at the appropriate grade level of their age related peers.

Native Children in Care and Treatment

Native children and youth are over represented in the OARTY network of agencies. They are also over represented in every diagnostic group except for autism. This may be a consequence of problems in the family of origin. Compared to youth from the mainstream, Native youth have higher levels of family dysfunction and trauma. Native youth show significantly higher adversity in:

- 1) parental substance abuse (82% compared to 42%)
- 2) history of physical abuse (70% compared to 50%)
- 3) parents in jail (44% compared to 27%)
- 4) poverty (65% compared to 49%)
- 5) youth have abused drugs (24% compared to 12%)
- 6) current domestic violence (24% compared to 16%)
- 7) family member raped (21% compared to 14%)

Despite the high level of family dysfunction, adversity and trauma, Native youth spend 520 fewer days in treatment than the mainstream youth.

Native clients placed within OARTY resources are securely attached to their caregivers and they view the quality of care as favourably as the mainstream youth. The resiliency of Native youth provides a foundation to help these children break the inter-generational cycle of dysfunction, by helping them to attach to a significant other.

Matching Needs to Level of Care and Cost

Our research data indicates that children who are placed in higher levels of care with more staff at greater expense have significantly greater needs by an order of magnitude, not just statistical significance. For example, the most dysfunctional clients with complex needs are living in fully staff operated group homes. Clients in staff operated group care have very low scores on the CGAS (mean = 27.4). A score of 27.4 fits within the following exemplar:

Unable to function in almost all areas, eg. stays at home, in ward or in bed all day without taking part in social activities or severe impairment in reality testing or serious impairment in communication (eg. sometimes incoherent or inappropriate)

In contrast clients with complex needs in treatment foster care have a mean CGAS score of 41.7 that fits within the following exemplar:

Moderate degree of interference in functioning in most social areas or severe impairment in functioning in one area, such as might result from, for example suicidal preoccupations and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, poor or inappropriate social skills, frequent episodes of aggressive or other antisocial behaviour with some preservation of meaningful social relationships

Clients with complex needs depend on adult assistance in coping with the demands of daily living for a mean of 62% of the maximum support possible. This compares with a mean of 47% in treatment foster care. Moreover, 28% of clients with complex needs in staff operated care are dependent on adults for 90% of their daily living needs, meaning that many of them cannot even feed and dress themselves with assistance. In comparison, 10% of clients in treatment foster are in the extremely high need group who are dependent on adults for over 90% of their daily living activities.

Within the category of disturbed children, there is a significant variation in the cost for different diagnostic groups:

- Conduct disorders = \$215.09
- Anxiety disorders = \$184.53
- Depression and mood = \$212.65
- PTSD = \$187.52
- Substance abuse disorder = \$205.09

The child welfare system performs the functions of

- identifying children in need of care and treatment,
- matching the child to best available resource and
- placing him/her.

The evidence suggests that various instruments, the level of care and the cost of care are related in the expected direction and magnitude. This suggests that children are matched to the level of care based on their needs.

There is a trend to place children in kinship care that would otherwise have required fully staffed operated group care. There is a match between clinical needs and level of care established over several years, which indicates that the recent change in placement policy is not in the best interests of children.³⁵

At the turn of the 21st century, Australia embarked on deep funding cuts to group care facilities. In New South Wales, 50% of previously existing group homes have been closed leaving 94% of 27,795 children in CAS care to live in regular foster care or kinship care and 20% of these do not experience a stable placement; there are 1,037 young people (4%) in residential group care. A number of children and young people in the Child Welfare stream have been moved across to the correctional stream. A history of placement in child welfare increases the risk of being arrested and placed in a juvenile justice facility by 15 fold.

Another 1,800 children under 15 years are living in *youth homeless shelters*, while another 17,400 residents of the youth homeless shelters are between 15 years and 19 years of age. The result for child welfare authorities is that a small number of CAS wards are placed in highly staffed, totally unregulated “apartment-like” units for \$1,000 per day. (Ainsworth & Hanson, 2005). Ainsworth & Hanson conclude:

“The dream of no more residential care has gone disastrously wrong. One consequence of the attempt to do without residential care programmes rather than transform into residential education and treatment facilities is that there is a crisis in foster care in NSW ... This crisis has to a large extent been created because many foster carers are exhausted and disillusioned by the placement, or more accurately, misplacement of children and youth who by virtue of unmanageable behaviour should not have been placed in a regular home environment.”
(Ainsworth & Hanson, 2005, pg. 197)

OARTY Research Committee

January 2010

³⁵ Ainsworth, F. & Hansen, P. (2005), “A dream come true – no more residential care. A corrective note”, *International Journal of Social Welfare*, 14, 195-199

Appendix: Copies of Instruments Used in the OARTY Research

Children's Global Assessment Scale

author: David Shaffer, Madelyn Gould, James Brasic, Paul Ambrosinin, Prudence Fisher, Hector Bird, Satwant Aluwahlia, Columbia University,

Rate the subject's most impaired level of general functioning for the specified time period by selecting the *lowest* level which describes his/her functioning on a hypothetical continuum of health-illness. Use intermediary levels (eg. 35,58,62). Rate actual functioning regardless of treatment or prognosis. The examples of behaviour provided are only illustrative and are not required for a particular rating.

Child's name _____ Specified Time Period: **1 month** date: ___/___/___ (D/M/Y)

RANGE	DEFINITION
100-91	<i>Superior functioning</i> in all areas: at home, at school, and with peers; involved in a wide range of activities and has many interests (e.g.) has hobbies or participates in extracurricular activities or belongs to an organized group such as Scouts, etc.; likeable, confident; "everyday" worries never get out of hand; doing well in school; no symptoms
90-81	<i>Good functioning</i> in all areas; secure in family, school and with peers; there may be transient difficulties and everyday worries that occasionally get out of hand (e.g.) mild anxiety associated with an important exam, occasionally blowups with siblings, parents or peers
80-71	<i>No more than slight impairment in functioning</i> at home, at school or with peers; some disturbance of behaviour or emotional distress may be present in response to life stresses (e.g.) parental separations, deaths, birth of a sib, but these are brief and interference with functioning is transient; such children are only minimally disturbing to others and are not considered deviant by those who know them
70-61	<i>Some difficulty in a single area, but generally functioning pretty well</i> (e.g.) sporadic or isolated antisocial acts, such as occasional playing hooky or petty theft; consistent minor difficulties with school work; mood changes of brief duration; fears and anxieties which do not lead to gross avoidance behaviour; self doubts; has some meaningful interpersonal relationships; most people who do not know the child well would not consider him or her deviant but those who do know him/her might well express concerns
60-51	<i>Variable functioning with sporadic difficulties or symptoms in several but not all social areas</i> ; disturbances would be apparent to those who encounter the child in a dysfunctional setting or time but not to those who see the child in other settings
50-41	<i>Moderate degree of interference in functioning in most social areas or severe impairment in functioning in one area</i> , such as might result from, for example suicidal preoccupations and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, poor or inappropriate social skills, frequent episodes of aggressive or other antisocial behaviour with some preservation of meaningful social relationships
40-31	<i>Major impairment in functioning in several areas or unable to function in one of these areas</i> , i.e., disturbed at home, at school, with peers, or in society at large, (e.g.) persistent aggression without clear instigation; markedly withdrawn and isolated behaviour due to either mood or thought disturbance, suicidal attempts with clear lethal intent; such children are likely to require special schooling and/or hospitalization or withdrawal from school (but this is not a sufficient criterion for inclusion in this category
30-21	<i>Unable to function in almost all areas</i> , (e.g.) stays at home, in ward or in bed all day without taking part in social activities or severe impairment in reality testing or serious impairment in communication (i.e.) sometimes incoherent or inappropriate
20-11	<i>Needs considerable supervision</i> to prevent hurting others or self (e.g.) frequently violent, repeated suicide attempts) or to maintain personal hygiene or gross impairment in all forms of communication (i.e.) severe abnormalities in verbal and gestural communication, marked social aloofness, stupor, etc.
10-1	<i>Needs constant supervision</i> (24 hour care) due to severely aggressive or self destructive behaviour or gross impairment in reality testing, communication, cognition, affect or personal hygiene

Sociodemographic Checklist

Child's name: _____ Date: ___/___/___ (D/M/Y)

Check the box if the child has a history of any of the following:

- Years of hardship and deprivation including poverty (e.g. family dependent on welfare or FBA all their childhood ... do not check off if family's dependence on welfare is episodic or recent)
- Sexual abuse.....specify age when started _____
- Physical abuse.....specify age when started _____
- Suicide of a family member *specify Mom Dad other _____
- Incarceration of a family member *specify Mom Dad other _____
- Hospitalisation of a family member *
for psychiatric reasons.....specify Mom Dad other _____
- Family member * has cognitive deficits (MR).....specify Mom Dad other _____
- Abuse of drugs or alcohol by a family member *specify Mom Dad other _____
- Rape or sexual assault of family member *specify Mom Dad other _____
- The child has a history of **abusing** (not including experimenting with) drugs or alcohol.
- The child has someone living with him(her) or living in his family home *currently* who is violent toward other family members.
- The child has someone living with him(her) or living in his family home *currently* who sexually assaults others in family
- The child has been diagnosed as brain damaged including specific brain related medical conditions such as epilepsy.
- The child displays learning problems or frustrations in school achievement dating from elementary school.
- The child's mother was in her teens when the child was born.

Total number of check marks: _____

* "family member" means someone who has *actually lived with* the child in the past or currently

Parental Bonding Instrument

This questionnaire lists various attitudes and behaviours of parents. Think of the person who *was or still is* a caregiver, CYW, foster parent, mother or father that in your opinion cares for you more than anyone else in the world.

Person in mind: female <input type="checkbox"/> or male <input type="checkbox"/> Is this person? Foster parent <input type="checkbox"/> , child & youth worker <input type="checkbox"/> or family member <input type="checkbox"/>		Really True	Moderately True	Moderately Untrue	Very Untrue
1.	Spoke to me with a warm and friendly voice				
2.	Did not help me as much as I needed				
3.	Let me do those things I liked doing				
4.	Seemed emotionally cold to me				
5.	Appeared to understand my problems and worries				
6.	Was affectionate to me				
7.	Liked me to make my own decisions				
8.	Did not want me to grow up				
9.	Tried to control everything I did				
10.	Invaded my privacy				
11.	Enjoyed talking things over with me				
12.	Frequently smiled at me				
13.	Tended to baby me				
14.	Did not seem to understand what I needed or wanted				
15.	Let me decide things for myself				
16.	Made me feel I wasn't wanted				
17.	Could make me feel better when I was upset				
18.	Did not talk with me very much				
19.	Tried to make me dependent on her/him				
20.	Felt I could not look after myself unless she/he was around				
21.	Gave me as much freedom as I wanted				
22.	Let me go out as often as I wanted				
23.	Was overprotective of me				
24.	Did not praise me				
25.	Let me dress in any way I pleased				

Education Performance Level of the Child or Teen

Provide information on the young person's current academic functioning level and indicate the source of your information. Use grade level = 0, if the child cannot function academically (e.g. medically fragile)

Current Math grade level = _____

Current Reading grade level = _____

Current Writing grade level = _____

Current Oral learning grade level = _____

Source of grade levels: (please check off the primary source)

- Individualized Educational Plan (IEP) report card
- General Ontario school report card
- Wechsler Individual Achievement Test (WIAT)
- Wide Range Achievement Test (WRAT)
- Other

o Please specify what "other" means: _____

Diagnostic Checklist

As many as applies	Best fit	Description of impairment or condition
	Yes <input type="checkbox"/>	Client is not impaired intellectually: IQ is equal to above 85
	Yes <input type="checkbox"/>	Intellectual deficits – borderline: IQ between 71 and 84
	Yes <input type="checkbox"/>	Intellectual deficits – mild: IQ between 50 and 70
	Yes <input type="checkbox"/>	Intellectual deficits – moderate to severe: IQ is below 50
		Developmental handicaps and medical needs
Yes <input type="checkbox"/>	Primary <input type="checkbox"/> autism spectrum disorder – inc Asbergers, PDD-NOS
Yes <input type="checkbox"/>	Primary <input type="checkbox"/> fetal alcohol spectrum disorder
Yes <input type="checkbox"/>	Primary <input type="checkbox"/> developmental plus behavioural (dual diagnosis)
Yes <input type="checkbox"/>	Primary <input type="checkbox"/>	Specific Learning Disability
Yes <input type="checkbox"/>	Primary <input type="checkbox"/>	Deaf or at least significant hearing loss
Yes <input type="checkbox"/>	Primary <input type="checkbox"/>	Legally blind
Yes <input type="checkbox"/>	Primary <input type="checkbox"/>	Unable to speak
Yes <input type="checkbox"/>	Primary <input type="checkbox"/>	Has some special medical or nursing care needs
Yes <input type="checkbox"/>	Primary <input type="checkbox"/>	Physical disability (cannot walk or dress himself)
Yes <input type="checkbox"/>	Primary <input type="checkbox"/>	Medically fragile (needs constant nursing care)
		Psychiatric Diagnosis also known as DSM-IV diagnoses
	Yes <input type="checkbox"/>	Client has been given a psychiatric diagnosis
<i>If yes, check below for as many as apply to the client ..</i>		
Yes <input type="checkbox"/>		Opposition defiant disorder (ODD)
Yes <input type="checkbox"/>		Hyperactive Disorder/Attention Deficit (ADHD)
Yes <input type="checkbox"/>		Conduct disorder (CD)
Yes <input type="checkbox"/>		Anxiety disorder (panic, phobia)
Yes <input type="checkbox"/>		Depressive disorder (major depressive episode, bipolar, suicidal)
Yes <input type="checkbox"/>		Post Traumatic Reaction including full PTSD
Yes <input type="checkbox"/>		Substance abuse (alcohol, solvents, illegal drugs, prescription abuse)
Yes <input type="checkbox"/>		Some other disorder ... please write details below

If any item is checked off as “yes”, please specify the psychologist or physician who assessed the client and verified the condition. Use the back of the form if needed.

- (1) Diagnosis _____
- a. Name of doctor: _____
- b. Date of report: _____

- (2) Diagnosis _____
- a. Name of doctor: _____
- b. Date of report: _____

Nursing Care Checklist

AREA OF SPECIAL NEEDS	SPECIFIC CONDITION	YES OR NO
Injuries due to	Self Abuse	
	Aggression towards others	
Neurological	Seizures	
	Cerebral Palsy	
	Acquired Brain Injury	
	Microencephaly	
	Hydroencephaly	
	Other, please write in:	
Musculoskeletal	Contractures	
	Scoliosis	
	Abnormal tone	
	Requires orthotic devices	
	Other, please write in:	
Skin	Risk for skin breakdown, dressings required	
	Other, please write in:	
Gastrointestinal	Risk for vomiting	
	Risk for aspiration	
	Tube fed	
	Other, please write in:	
Sensory Deficits	Deaf	
	Blind	
	Other, please write in:	
Respiratory	Requires inhaled medications	
	History of pneumonia/lung disease	
	Requires chest assessment	
	Requires oxygen	
	Requires chest physio	
	Requires suctioning	
Other, please write in:		

Level of Adult Support in Daily Living Skills (LAS)

Measure the degree of staff support needed by the child to function socially. Rate an area as zero (0) if it is non-applicable, for example, because the child is too young to do the specified skill or there is no opportunity to use the specific skill.

SOCIAL FUNCTIONING	SPECIFIC SKILLS OR ACTIONS	SCORE
Initiates	joins an ongoing interaction or starts a new one	
self regulates	Manages own behaviour without instruction from others	
follow rules	Follows rules, guidelines and routines of activities	
provides positive feedback	Provides positive feedback & reinforcement to others	
provides negative feedback	Provides negative feedback or consequences to others	
obtain cues	Obtains and responds to relevant situational cues	
provides information/offers assistance	To others	
requests/accepts assistance	From others	
indicates preference	Makes choices from available alternatives	
cope with negatives	Exhibits alternative strategies to cope with negative events	
terminates	Terminates or withdraws from an interaction &/or activity	
Self Care and home living	Eating	
	Grooming and dressing	
	Washing hands	
	Toileting	
	Taking a bath or shower	
	Cleaning up after an activity	
	Identifying physical needs, such as elimination or hunger	
General community functioning	Going from place to place in the community	
	Crossing street safely	
	Attending Community School	
	Using Community Recreation Facilities	
Total support score for social functioning skills = sum of individual scores		

Apply the following scale to measure the degree of staff support necessary:

LEVEL OF CARE	SPECIFICATION	SCORE
independent	no special needs compared to children of their age	0
daily oversight	Child requires daily supervision	1
verbal prompt	Child requires verbal prompting	2
physical prompt	Child requires hand over hand guidance	3
total care	Staff must do everything	4

Perception of Care

Instructions to staff or foster parent: Use this survey to interview the client about his or her care. Ensure the client of confidentiality. Do not add the client's name to the form.

(1) Did the staff or foster parent give you information about the rules and policies of the program	Yes No																				
(2) Did the staff or foster parent give you information about your rights	Yes No																				
(3) Did the staff or foster parent tell you about the benefits and risks of the medication(s) you were taking?	Yes No <div style="border: 1px solid black; padding: 2px; display: inline-block;">Not taking medication</div>																				
(4) Did the staff or foster parent explain in a way you could understand	Never sometimes usually always																				
(5) Were you involved as much as you wanted in decisions about your care and treatment?	Never sometimes usually always																				
(6) How much did the staff or foster parent involve your family in your care and treatment?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">More than I wanted</td> <td style="width: 25%;">Less than I wanted</td> <td style="width: 25%;">About the right amount</td> <td style="width: 25%;">No, which is what I wanted</td> </tr> </table>	More than I wanted	Less than I wanted	About the right amount	No, which is what I wanted																
More than I wanted	Less than I wanted	About the right amount	No, which is what I wanted																		
(7) Did the staff or foster parent listen carefully to you?	Never sometimes usually always																				
(8) Did the staff and foster parent who treated you work well together as a team?	Never sometimes usually always																				
(9) Did the staff or foster parent spend enough time with you?	Never sometimes usually always																				
(10) Did the staff or foster parent treat you with respect and dignity?	Never sometimes usually always																				
(11) Did the staff or foster parent give you reassurance and support?	Never sometimes usually always																				
(12) Did the staff or foster parent review with you the plans for your continued treatment after you leave the program?	Yes unsure No																				
(13) Were you told whom to contact if you have a problem or crisis after you leave the program?	Yes unsure No																				
(14) How much were you helped by the care you received?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Not at all</td> <td style="width: 25%;">somewhat</td> <td style="width: 25%;">Quite a bit</td> <td style="width: 25%;">A great deal</td> </tr> </table>	Not at all	somewhat	Quite a bit	A great deal																
Not at all	somewhat	Quite a bit	A great deal																		
(15) Using any number from 1 to 10, what is your overall rating of the care you received in the program?	<table style="width: 100%; text-align: center;"> <tr> <td>①</td><td>②</td><td>③</td><td>④</td><td>⑤</td><td>⑥</td><td>⑦</td><td>⑧</td><td>⑨</td><td>⑩</td> </tr> <tr> <td colspan="5">Worst</td> <td colspan="5">Best</td> </tr> </table>	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	Worst					Best				
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩												
Worst					Best																
(16) Would you recommend this home to someone else who needs treatment for emotional or behavioural problems?	Yes unsure No																				

References

- Abel, E.L. (1995), "An update on incidence of FAS: FAS is not an equal opportunity birth defect", *Neurotoxic Teratol*, 17 (4): 437-443.
- Abuelo, Dianne N. (1991), "Genetic Disorders", in *Handbook of Mental Retardation*, Johnny L. Matson & James Mulick (eds), Pergamon Press Inc., New York, 97-114. Chapter 6.
- Berlin, Irving N. (1986), "Psychopathology and its antecedents among American Indian Adolescents", in Benjamin B. Lahey & Alan E. Kazdin (eds), *Advances in Clinical Child Psychology*, Plenum Press, New York, chapter 9, 125-152.
- Brereton, Avril V.; Tonge, Bruce J. & Einfeld, Stewart L. (2006), "Psychopathology in Children and Adolescents with Autism Compared to Young People with Intellectual Disability", *Journal of Autism and Developmental Disorder*, 36:863–870.
- Freedenthal, S. & Stiffman, A. R. (2004), "Suicidal Behavior in Urban American Indian Adolescents: A Comparison with Reservation Youth in a Southwestern State", *Suicide & Life - Threatening Behavior*, 34 (2), 160-172.
- Fulton, R. & Factor, D. (1996), Sociodemographic Checklist, sociometric instrument measuring adversity.
- Fulton, R. (1999), Level of Adult Support in Daily Living Scale³⁶, sociometric instrument measuring independence.
- Hepper, F. & Garralda, M. E. (2001), "Psychiatric adjustment to leaving school in adolescents with intellectual disability: a pilot study", *Journal of Intellectual Disability Research*, 45 (6), 521-525.
- Kessler, R., McGonagle, K., Zhao, S., Nelson, C., Hughes, M., Eshleman, S., Wittchen, H., & Kendler, K. (1994), "Lifetime and 12 month Prevalence of DSM-III-R Psychiatric Disorders in the United States", *Archives of General Psychiatry*, 51, 8-19.
- LaPrairie, C. (1992), *Dimension of Aboriginal Over-Representation in Correctional Institutions and Implications for Crime Prevention*, Solicitor General of Canada, Supply & Services cat # JS5-1/4-1992.
- MacMillan, H., MacMillan, A., Offord, D. & Dingle, J. (1996), Aboriginal Health@, *Canadian Medical Association Journal* 1996; 155: 1569-1578.
-

May, Philip A.; Serna, Patricia; Hurt; Lance; DeBruyn & Lemyra M. (2005), "Outcome Evaluation of a Public Health Approach to Suicide Prevention in an American Indian Tribal Nation", *American Journal of Public Health*, 95 (7).

McShane, D. (1988), "American Indian Youth", *Journal of Adolescence*, 11,117-137.

Ng, Edward (1996), "Disability among Canada's Aboriginal Peoples in 1991", *Health Reports, Statistics Canada*, Summer, 8 (1), 25-30

Offord, D., Boyle, M. & Ravine, Y. (1989), *Ontario Child Health Study, Children at Risk*, Toronto, Queen's Printer for Ontario.

Premji, Shahirose; Serrett, Karen; Benzies, Karen & Hayden, K Alix (2004), *The State of The Evidence Review: Interventions for Children and Youth with a Fetal Alcohol Spectrum Disorder (FASD)*, Alberta Centre for Child and Family Research: Calgary, page 9.

Pueschel, Seigfried M. & Thuline, Horace C. (1991), "Chromosome Disorders" in *Handbook of Mental Retardation*, Johnny L. Matson & James Mulick (eds), Pergamon Press Inc., New York, 97-114.

Roeleveld, Nel, Zielhuis, Gerhard & Gabreëls, Fons (1997), "The Prevalence of Mental Retardation: a critical review of recent literature", *Developmental Medicine and Child Neurology*, 39, 125-132.

Rutter, Michael and Seija Sandberg (1985), "Epidemiology of Child psychiatric Disorder: methodological Issues and Some Substantive Findings", *Child Psychiatry and Human Development*, 15(4), 209-233.

Sanders, L. (2003) "Attachment of Adolescent Males in a Residential Treatment Setting," UMI Publication, Ann Arbor, Michigan.

Sanders, L. & Fulton, R. (2007), "Educational Achievement and Attachment at Bayfield School in 2006-2007", Bayfield Treatment Centres: Consecon, ON

Scola, Patricia S. (1991), "Infections", in *Handbook Handbook of Mental Retardation*, Johnny L. Matson & James Mulick (eds), Pergamon Press Inc., New York, chapter 9, 151-157

Scott, Kim A. (1992), "Substance Use Among Indigenous Canadians", *Aboriginal Substance Use: Research Issues: Proceedings of a Joint Research Advisory Meeting*, <http://www.ccsa.ca/mckenzie.htm>

Stanovich, Paula J. & Stanovich, Keith E. (2003), "Using Research and Reason in Education", *Partnership for Reading*: Washington, download from www.nifl.gov/partnershipforreading

Statistics Canada, 2006 Census of Population, Statistics Canada catalogue no. 97-558-XCB2006007.

Stuart, C. & Sanders, L. (2008), *Child and Youth Care Practitioners' Contributions to Evidence Based Practice in Group Care*, School of Child and Youth Care, Ryerson University: Toronto.

Stuart, C. & Sanders, L. (2008), "The Role of Child and Youth Practitioners in Evidence Based Practice in Group Care", *Ontario Association of Children's Aid Societies Journal*, Volume 52, Number 4.

"The Prevalence of Ontarians Labelled as having a Developmental Disability"(1999), Developmental Services Branch, Ministry of Community and Social Services, Queens Park.

Werner, E. (1989), "High Risk Children in Young Adulthood: A longitudinal study from birth to 32 years", *American Journal of Orthopsychiatry*, 59(1), 72-81.

Werner, Emmy, E & Smith, Ruth, S. (1992), *Overcoming the Odds: high risk children from birth to adulthood*, Ithica, N.Y., Cornell University Press.

Yeargin-Allsopp, M.; Rice, C.; Karapurkar, P.; Doernberg, N.; Boyle, C. & Murphy, C. (2003), "Prevalence of Autism in a US Metropolitan Area", *Journal of the American Medical Association*, 389 (1), 49-55.

Please address all inquiries to the
Ontario Association of Residences Treating Youth

550 Alden Road, Suite 210
Markham, ON L3R 6A8

Tel.: 905-475-KIDS (5437)

Fax: 905-475-5430

info@oarty.net

www.oarty.net

