



Fidelity and Monitoring of Multidimensional Treatment Foster Care using a Multi-Media Internet-based System

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Entering the virtual world

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- Online community based on Ursula K. Le Guin's [*Always Coming Home*](#) (1986)
- Type I DM (1994) & Diabetes Network (1997)
- Parent-Net (2001)



Antisocial Children Are At More Serious Risk for

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- Peer rejection
- Delinquency
- Poor employment
- Poor academics
- Substance abuse
- Disrupted marriages



Prevalence

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- 2% to 6% of school population
- 1.3 to 3.8 million cases
- 50% maintain disorder to adulthood
- 6-8% of children in schools account for over 50% of discipline referrals
- 6-8% of youth (ages 10-17) are arrested at least once



Cumulative Number of Arrests for Antisocial and At-Risk Groups

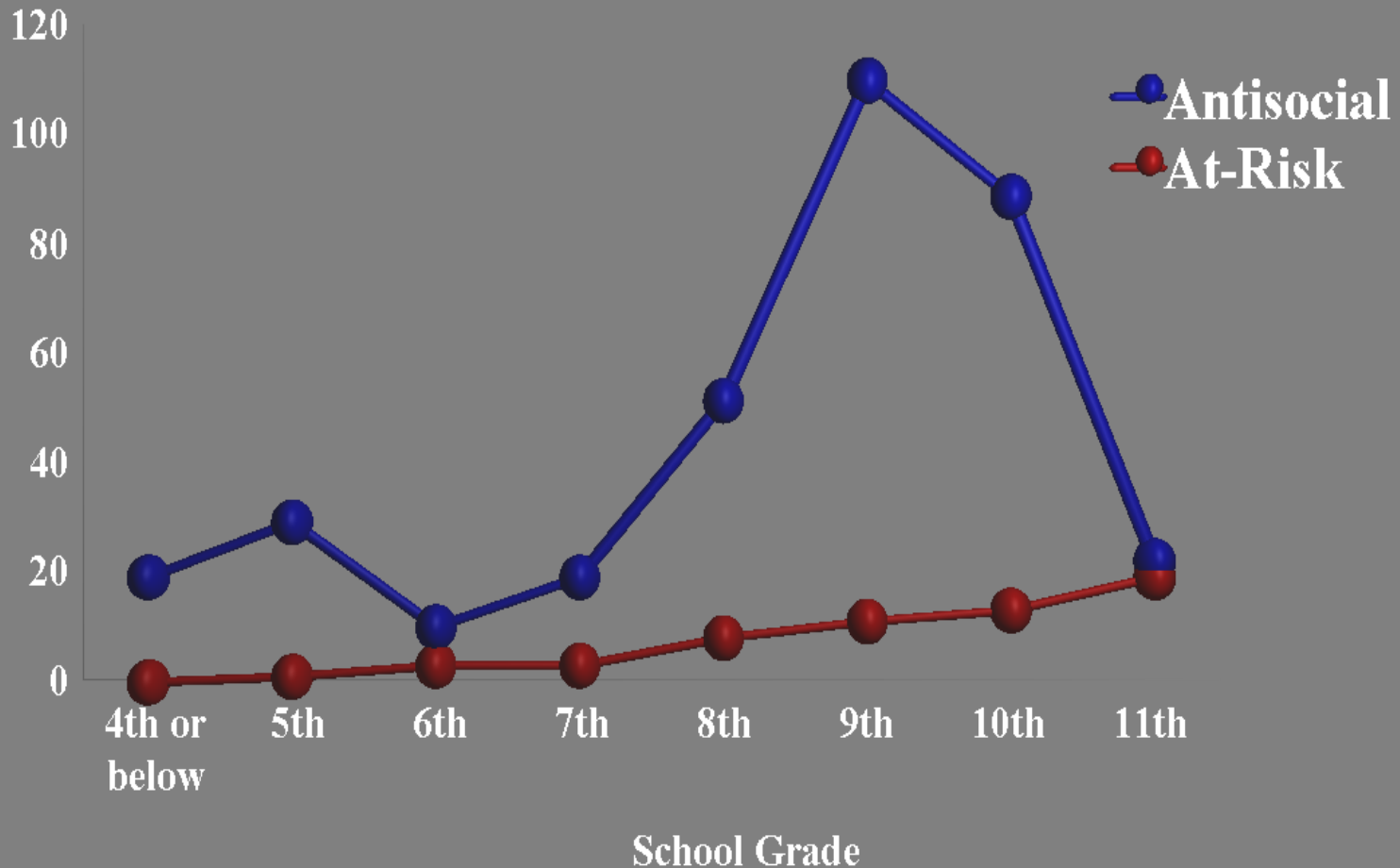
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Research into Theory

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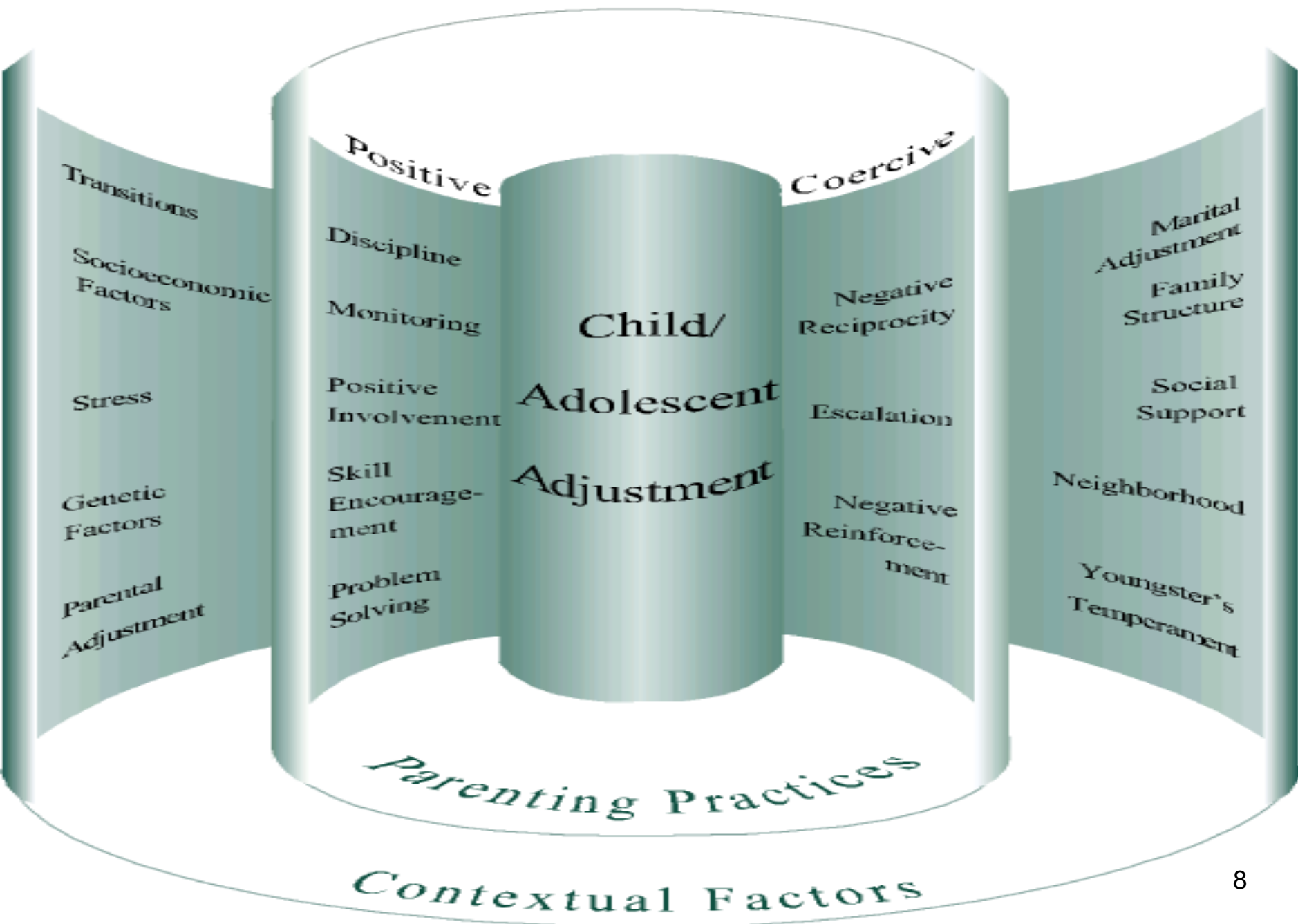
Data collection and observation led to focus on the
“coercion cycle”

Coercion Theory

- Children display range of behaviors to get needs met
- Parents socialize the child by encouraging positive behaviors and setting limits on negative behavior
- Parents of children with disruptive behavior often respond with a stronger negative reaction
- Child learns to use negatives in order to get his/her way

- Child behavior escalates
 - Obtain something (peer attention, adult attention, item, tangible, etc.)
 - Escape something (attention, demand/request, difficult task)
- Parent behavior escalates
 - Get compliance
 - Terminate the misbehavior
- If child gets what they want the behavior is likely to increase
- Conflicts increase in duration and intensity over time; difficult for both parent and child to disengage

A Social Interactional Learning Model





Purpose

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- Empirically-validated treatments are important for community services.
- Translating research supported treatments from an academic setting to the community has resulted in unequal effects
- Develop a system to maintain high fidelity using internet based tools “MAP”



Multidimensional Treatment Foster Care

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- Objective
 - Change the negative trajectory of negative behavior by improving social adjustment across settings
- How is this achieved?
 - Simultaneous & well-coordinated treatments in multiple settings
 - Home
 - School
 - Community
 - Peer group



The MTFC Model

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- Treatment is provided in a family setting
- New skills are practiced & reinforced in-vivo
- Treatment is facilitated by core program components for:
 - Youth
 - Families
 - MTFC Parents



Which Program Components Drive the Positive Results?

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- Effects mediated by:
 - Supervision
 - Relationship with a mentoring adult
 - Consistent non-harsh discipline
 - Less association with delinquent peers
 - Homework completion

(Eddy, Whaley, & Chamberlain, 2004; Leve & Chamberlain 2005; Leve & Chamberlain, 2007)



MTFC Certification

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- Benchmarks
- Summative
- Labor intensive
- Difficult to reach certification
 - To date, 22 programs certified
 - 76 programs continue to receive consultation



Initial “MAP” Components

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- MAP = **MTFC Assistance Program**
- Enrollment
- Parent Daily Report
- Video capture of clinical /foster parent meetings
 - Supervision/consultation
 - 3rd party ratings
- Reports
- Surveys
 - Demographics
 - Evidence-Based Practice Attitude Scale
 - Satisfaction
- Parenting Resources



Video taped session

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MTFC-Net

MTFC-Net



OSLC Community Programs

Translating science to practice




Welcome, Peter [[Logout](#)]

November 24, 2008 ::

- ▶ Home
- ▶ Enrollment
- ▶ PDR
- ▶ Reports
- ▶ Observations
- Demographic & Technology Questionnaire
- Evidence-Based Practice Attitude Scale
- ▶ Satisfaction Survey
- ▶ Parenting Resources

User: **peters**

Session	Display Name
00	09/19/2008, 3:31:17 pm
00	10/24/2008, 2:06:40 pm
00	11/14/2008, 2:44:22 pm
00	11/17/2008, 12:25:55 am
00	11/20/2008, 04:31:30 am
00	11/20/2008, 09:42:49 am
00	11/20/2008, 10:02:29 am
00	11/20/2008, 1:12:27 pm



00:41/02:05

Done

research.ori.org



Parent Daily Report

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MTFC-Net
 https://research.ori.org/mtfc/pdr.php?type=3

Oregon Research Institute
 Advancing science. Enhancing lives.

Welcome, Benjamin [Logout] April 1, 2008 ::

- Home
- Enrollment
- PDR
- Reports
- Observations
- Demographic & Technology Questionnaire
- Evidence-Based Practice Attitude Scale
- Satisfaction Survey
- Parenting Resources

OSLC Community Programs Parent Daily Report

Ages 12 to 18

Day of
 April / 1 / 2008

Client

Respondent

Time outs
 0

OFFICE USE ONLY - For PDR Caller, who is the Reporter?

Med(s) given

Med notes

Reference for Behaviors

- 0 - Did not occur
- 1 - Occurred - Not Stressful
- 2 - Occurred - Stressful

Behaviors Tuesday

Animal Cruelty	0
Arguing	0
Backtalking	0
Bed-wetting	0
Competitiveness	0
Complaining	0
Daydreaming	0
Defiance	0
Depression	0
Destructiveness	0
Drug Alcohol Use	0
Encopresis	0
Fearfulness	0
Fighting	0
Interrupting	0



Phase I Feasibility Study

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- User-interface Programming
 - Video capture
 - SSL
 - Hierarchically assigned permissions
- Participants
 - *20 foster parent PDR users, 9 program supervisors and 4 consultants*



Phase I Participants

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- **9 program supervisors and 4 consultants**
 - Average 36.3 years old and median income \$50K-\$60K
 - 89% had completed a post-graduate degree.
 - 78% Caucasian (10% Hispanic/Latino)
 - High levels of computer use (67% 20+ hrs/week)
- **20 foster parent PDR users**
 - Average of 33.2 years old and median income \$40K-\$45K
 - 70% high school and 30% attended college.
 - 74% working outside of the home
 - 100% Caucasian (5% Hispanic/Latino)
 - 90% home computer at home and high levels of computer use (80% 10+ hrs/week)



Results – Foster Parents

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- Foster parents were asked to enter web PDR for 1 week. Several went beyond week
 - *12 parents >14 PDRs,*
 - *6 families >=21.*
 - *A total of 667 PDRs*



Results -- Supervisors

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- *Supervisors asked to review PDR data and observations.*
 - *All program supervisors reported using PDR system to view weekly behavior summaries*
 - *33% reported using web-based viewing of meeting observations*
 - *67% reported using the web-based enrollment and administrative features.*



Results - Observations

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- Rating of video quality by consultants
 - On 5-point scale (1=impossible, 3=possible, 5=easy to code) average=4.75
- Rating of audio quality by consultants
 - On 5-point scale, average 4.42.
- 100% of videos codeable? (Yes/No)



Satisfaction

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Item	Very Easy or Much Easier	Easy or Easier	Fairly Easy or Fairly Easier	Neutral	Fairly difficult/ Fairly Harder	Difficult/ Harder	Very difficult/ Much harder
Overall ease of use	89% of supervisors	0% of supervisors	11% of supervisors				
	70% of parents	20% of parents	10% of parents				
Web-based PDR system	50% of super	37% of super	12% of super				
	67% of parents	22% of parents	11% of parents				
Compared to old method	78% of super	11% of super	11% of super				
	50% of parents	30% of parents					



Phase II study

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- Further Refinements and Enhancements
 - School data and point card data
 - On-demand reports and tracking of certification components
 - MTFC training materials downloadable
- Randomized Trial with 20 sites over 2 cohorts
- Relationships between fidelity, technology and youth/program outcomes



What this could include...

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- Administrative features:
 - Web-site 'shells' that could be offered to the sites with close monitoring of security
 - Joining the current tracking elements
 - Site consultant notes
 - PDR information (with additions – graphs/ automated)
 - Client contact counts (to progress notes)
 - Site reviews / Certification
 - Training materials (manuals/Power Point)



...and add clinical features:

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- Bulletin boards to make notes for the site, consultant, and for later review
- Tracking of the foster parent recruitment, training, and certification process
 - Access to potential ads as media ready images
 - Potential FP access to the site as a link
- Point sheet generator and tracking
- Data driven warnings – PDR thresholds, etc.

Sites

Name	PK	Agency	Active
Springfield Elementary	1	SYS	Yes

Clicking on “**Sites**” shows all groups in an agency.

Here, the agency “**The Simpsons**” has only one site: “**Springfield Elementary.**”

Navigation Panel

- **Home:** Overview of Agency
- **Sites:** Groups within Agency
- **Staff:** Easy access to all people on staff

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[Cases and Staff](#)
[Foster Homes](#)
[Video Review](#)
[Clinical Meetings](#)
[Foster Parent Meetings](#)
[Certification Snapshot](#)
[Call Guide](#)

Clients

Add

Name	PIN
Bart Simpson	198374
Fake Child 1	202851
Fake Child 11	656655
Fake Child 17	95613
Fake Child 24	782345
Fake Child 10	866275
Fake Child 12	975966
Fake Child 13	663888
Fake Child 14	891645
Fake Child 15	79641
Fake Child 16	455828
Fake Child 18	732222

Staff

Name
Edna Krabappel
Principal Skinner
Superintendent Chalmers

Cases and Staff Subtab:

- Lists all Clients (children) in program
- Lists all Staff in program



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Cases and Staff Foster Homes Video Review Clinical Meetings Foster Parent Meetings Certification Snapshot Call Guide

Clients

Add

Name	PIN
Bart Simpson	198374
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Fake Child 15	79641
Fake Child 16	455828
Fake Child 18	732222

Staff

Name
Edna Krabappel
Principal Skinner
Superintendent Chalmers

Each client has a PIN number automatically assigned by MAP when the client is entered into MAP. This PIN number is part of the login that a parent can use to either call in by phone to an automated system or log in online to do PDR for that client.

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BART SIMPSON

Edit Client

PDR Overview

PDR Responses

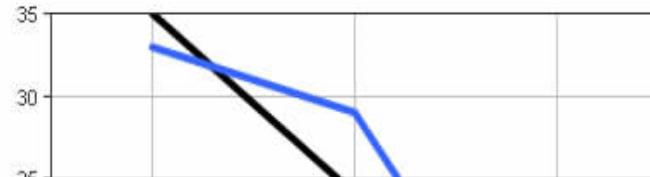
Add

Behavior Date	Score	Daily Grade
07/03/2011	10	B
07/02/2011	29	B
07/01/2011	33	B

Graph

Display Data from the Past 6 Months

- Reported Stress
- Reported Number of Behaviors
- Linear Best Fit



Behavior Date: 07/03/2011

Edit PDR

Behaviors	Did Not Occur	Occurred, Not Stressful	Occurred, Stressful
Animal Cruelty		✓	

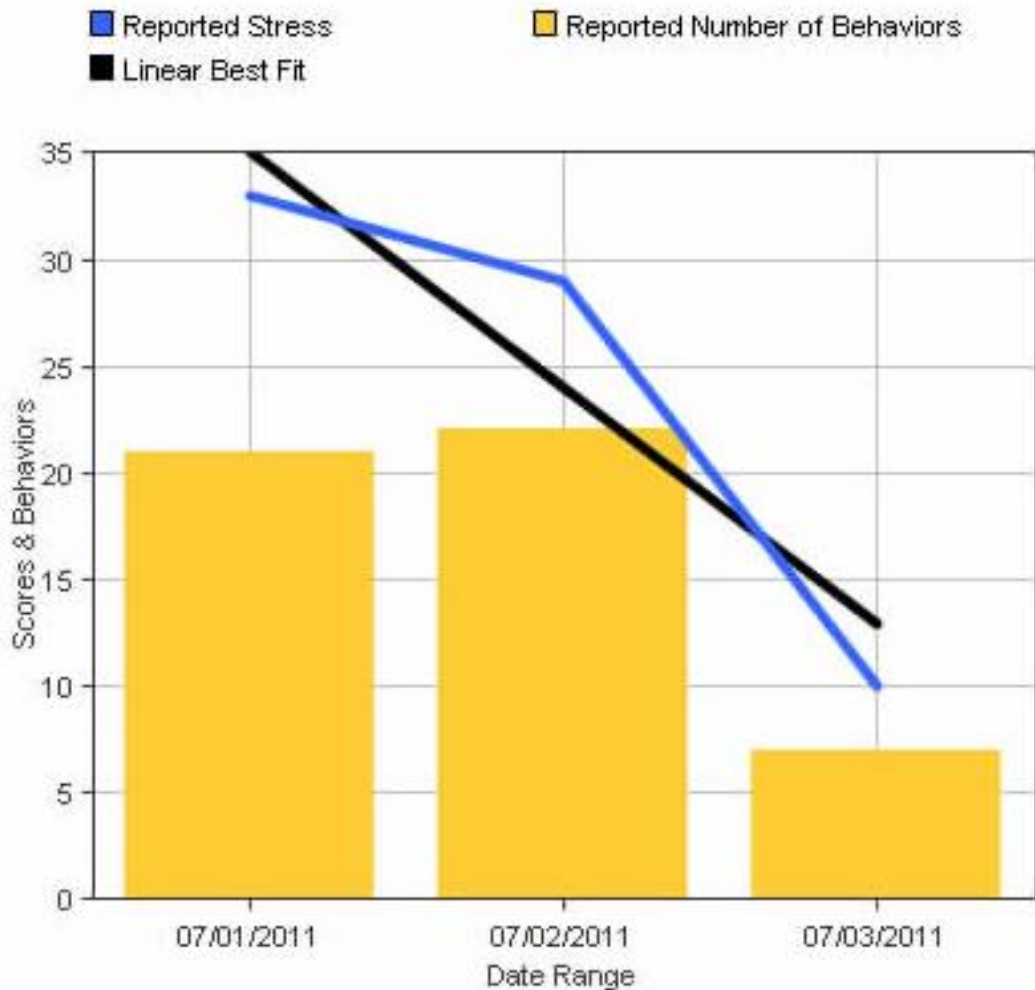
Selecting a child reveals two submenus for that child: **PDR** and **Overview**. In PDR, past PDRs are shown, as well as a graph for those PDRs. Individual PDRs can be selected to see what behaviors occurred.

Behaviors	Did Not Occur	Occurred, Not Stressful	Occurred, Stressful
Animal Cruelty		√	
Arguing			√
Backtalking	√		
Bedwetting	√		
Complaining	√		
Daydreaming	√		
Defiance	√		
Depression/Sadness	√		
Destructiveness	√		
Encopresis	√		
Fearfulness	√		
Fighting	√		
Interrupting	√		
Irritability	√		
Jealousy	√		
Lying	√		
Nervous/Jittery	√		
Not minding	√		
Pant wetting	√		
Pouting	√		
School problems	√		
Sexual behavior	√		
Short attention span	√		
Sleep problems		√	
Sluggishness	√		
Stealing	√		
Swearing		√	
Teasing	√		
Worried	√		
Competitiveness	√		
Truancy		√	
Irresponsibility			√
Drug & alcohol use	√		
Runaway	√		
Mean talk	√		
Skipping meals			√
Staying out	√		

MAP gives the user the ability to see all past PDRs to better see trends in behaviors. This means the clinical team members easily have a way to stay up-to-date on child behavior, which will help them determine different approaches.

Graph

Display Data from the



MAP also generates graphs of PDR behaviors for different time frames (7 days, 14 days, 30 days, 60 days, 90 days, 6 months). This easily gives the clinical team a visual for them to see how a child is improving, where problem days are, and to have a good pulse on how the foster parents are feeling.



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BART SIMPSON

Edit Client

PDR **Overview**

GENERAL INFORMATION

DOB: 05/10/2001
Age: 10
Status: In Program
Placement: The Simpsons
 Homer Simpson
 Marge Simpson
 742 Evergreen Terrace

 Springfield, OR 97477
 5555555555

CLINICAL TEAM

Program Supervisor: Superintendent Chalmers
Individual Therapist: Edna Krabappel
Alt. Individual Therapist: Superintendent Chalmers
Family Therapist: Superintendent Chalmers
Skills Coach: Principal Skinner

The Overview sub-tab provides all the necessary information on a client in one location.

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Cases and Staff **Foster Homes** Video Review Clinical Meetings Foster Parent Meetings Certification Snapshot Call Guide

Foster Homes

Add

Common Name	FP1	FP2	Respite Provider	Backup Home	Active
1	Fake Parent 1		No	No	Yes
10	Fake Parent 10		No	No	Yes
11	Fake Parent 11		No	No	Yes
12	Fake Parent 12		No	No	Yes
13	Fake Parent 13		No	No	Yes
14	Fake Parent 14		No	No	Yes
15	Fake Parent 15		No	No	Yes
16	Fake Parent 16		No	No	Yes
17	Fake Parent 17		No	No	Yes
18	Fake Parent 18		No	No	Yes
19	Fake Parent 19		No	No	Yes
2	Fake Parent 2		No	No	Yes
20	Fake Parent 20		No	No	Yes

The Foster Homes sub-tab provides a list of all foster parents at a site, including respite and recently-recruited homes. Clicking on any home on the list leads to information about that home.

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Cases and Staff Foster Homes Video Review **Clinical Meetings** Foster Parent Meetings Certification Snapshot Call Guide

Clinical Meeting Videos

Meeting Date
07/05/2011

Foster Parent Meeting Videos

Meeting Date
07/05/2011

Under the **Clinical Meetings** sub-tab, videos from clinical meetings and foster parent meetings are uploaded. These videos were taking by webcam and uploaded to MAP after the meeting.

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Session Playback



When a video is being reviewed, the reviewer has the ability to add in comments that will play during the applicable segment. This feedback will play on the screen like closed captioning.

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Clinical Meetings

Meeting Date
08/19/2011
07/04/2011

In the **Clinical Meetings** sub-tab, all clinical team meetings are listed. More meetings can be added by pressing the “Add” button. Any meeting can be viewed by clicking on the meeting in the list.

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Clinical Meeting for 08/19/2011

[Edit Meeting](#)

Attendance

Person	Attended	Person	Attended
Edna Krabappel Principal Skinner	√	Superintendent Chalmers	√

Clinical Notes

Name
Bart Simpson Edu Child 1

Clinical Notes for Bart Simpson

[Edit Notes](#)

Superintendent Chalmers A note has not been entered, click "Edit Notes" to add a note.

Family Therapist

Services Provided:

Edna Krabappel A note has not been entered, click "Edit Notes" to add a note.

Individual Therapist

Services Provided:

Principal Skinner A note has not been entered, click "Edit Notes" to add a note.

Skills Coach

Services Provided:

School: A note has not been entered, click "Edit Notes" to add a note.

Attendance is easily recorded for each meeting.

Additionally, notes from clinical team members are individually recorded, leading to a very complete overview of the child for that week.

Notes from previous meetings are easily reviewable for week-to-week follow-through.

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Foster Parent Meetings

Meeting Date
07/05/2011
08/18/2011
07/06/2011

The **Foster Parent Meetings** sub-tab contains links to details on all past foster parent meetings, as well as the ability to add a new meeting.

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Foster Parent Meeting for 07/05/2011

[Edit Meeting](#)

Attendance

Person	Attended	Person	Attended
Homer Simpson	√	Mrs. Muntz	√

Foster Parent Notes

Name
Bart Simpson

Foster Parent Notes for Bart Simpson

[Edit Notes](#)

Homer Simpson: A note has not been entered, click "Edit Notes" to add a note.

Foster Home: A note has not been entered, click "Edit Notes" to add a note.

Points/Incentives: A note has not been entered, click "Edit Notes" to add a note.

School: A note has not been entered, click "Edit Notes" to add a note.

The Foster Parent Meeting details include attendance and individual notes from:

- Foster parent
- Other homes
- Points/Incentives Updates
- School updates

Notes from previous foster parent are easily retrievable.

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Cases and Staff [Foster Homes](#) [Video Review](#) [Clinical Meetings](#) [Foster Parent Meetings](#) **[Certification Snapshot](#)** [Call Guide](#)

Certification Snapshot

The following snapshot is to be considered informational in nature and does not constitute actual certification. It is intended to give you a sense of how likely you are to pass certification if you were to apply for certification today.

Certification Domain	Criteria Met
1.1 A minimum of 7 graduates/year	No (Currently 0)
1.2 A minimum of 70% of the graduates were considered having successful outcomes	No (Currently 00%)
2.1 A minimum of 70% of enrolled clients recieved services	No (Currently 01%)
2.2 A minimum count of 8.5 service instances	No (Currently 02)
3.1 PDR recorded for three consecutive weeks	No (Currently 4 out of the required 672)
3.2 Points and Level (PAL) system being used	Subjective criteria and cannot be measured automatically
3.3 School Cards	Subjective criteria and cannot be measured automatically
4.1 A minimum of 8 Foster Parent meetings over the past 12 weeks	No (Currently 3)
4.2 Foster Parent meeting attendance must be greater or equal to 70% over the past 12 weeks	Yes (Currently 92%)
4.3 3 Consecutive Foster Parent meeting videos must have been submitted for review	Left to figure out
4.4 The above mentioned Foster Parent meeting videos must have been independantly rated with a final score of 70% or more	No (00%)
5.1 A minimum of 8 Clinical meetings over the past 12 weeks	No (Currently 2)
5.2 Clinical meeting attendance must be greater or equal to 70% over the past 12 weeks	No (Currently 50%)
5.3 3 Consecutive Clinical meeting videos must have been submitted for review	Left to figure out
5.4 The above mentioned Clinical meeting videos must have been independantly rated with a final score of 70% or more	No (00%)
6.1 Clinical Team Structure	Yes
7.1 All staff, except skills coaches, trained by TFC or TFC Partner	No

The **Certification Snapshot** sub-tab provides a basic overview to a site on how well they are meeting the fidelity criteria, giving them a chance to work on problem areas.

Close-up view of a sample snapshot of the fidelity criteria for certification

Certification Domain	Criteria Met
1.1 A minimum of 7 graduates/year	No (Currently 0)
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6.1 Clinical Team Structure	Yes
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Description of each fidelity criteria item.



Current status on meeting each fidelity criteria. If subjective, then this is indicated (and will be reviewed with a consultant).



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Cases and Staff Foster Homes Video Review Clinical Meetings Foster Parent Meetings Certification Snapshot

Call Guide

Call Guides

Add

Date Generated	Generated By	From	To
07/06/2011	Joseph Quimby	06/29/2011	07/06/2011
07/06/2011	Joseph Quimby	06/22/2011	07/06/2011

Call Guide Details

The **Call Guide** sub-tab provides a list of all generated call guides. Each weekly call guide is partially automatically generated by MAP, saving the program supervisors time, and giving them the chance to provide a more thorough call guide for their weekly discussions. The call guides look the same as the current call guides, and provide information on: the team, the number of clients, reviews on each client's progress, foster parent and clinical team meeting information, recruiting, referrals, outcomes, and questions for consultation.



Where we are now ...

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Sites

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- Currently in Phase II
- Completed pilot testing
- Randomized Controlled Trial
- Outcomes = Implementation Fidelity



...in the future we could add

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- Direct video downloads from the foster parent and clinical meetings
- Live supervision of meetings

Further information: edf@ori.org