

**Title: Comparing Functional Outcomes of Wraparound and Traditional Mental Health and Child Welfare Services**

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Acknowledgements: This research was partially funded through a Title IV-E research and training funding. The evaluation for the children and youth in the Las Vegas sites was partially funded through a grant from SAMHSA for Building Systems of Care through Neighborhood Care Centers.

Introduction

The use of “wraparound” as a service process has steadily increased over the past fifteen years and recent estimates are that as many as 400,000 children and youth may have received “wraparound” (VanDenBerg, 2003). Multiple demonstration projects have reported successful reductions in the number of days and level of restrictiveness of residential placements using a “wraparound” approach. These and other demonstrations have shown improved school, social, emotional, and behavioral functioning for children and youth and improved quality of life and empowerment to meet the needs of their own children for parents using a “wraparound” approach (VanDenBerg, 1993, Rast, 1999, Burns 2002). Although these demonstrations have included thousands of children, they have not met the criteria of “evidence-based” because they have been demonstration projects and not controlled research. This paper reports on the pilot phases of a research process in Nevada to evaluate the impact of the wraparound process for several hundred children in the child welfare system.

This pilot project is part of legislation that is changing the child welfare system in Nevada and would not have occurred without this legislative mandate. The context and history of this legislation may serve as a guide to others who want to evaluate promising practices to establish evidence-based results of these practices effectiveness. In 1998 Nevada was the only state in the country that still had a bifurcated child welfare system in which the counties did investigations and child support while the state did foster care and adoption. It was decided that this was causing bad outcomes for children and families and created duplication and fragmentation of

public services. A legislative committee was formed to decide how to make a change. Some of the steps taken that may have influenced the final legislation were:

1. Mental Health staff and advocates became active participants in this planning process (devoting thousands of hours of time and resources) to ensure that the new system met the behavioral health needs of the children and youth.
2. Families and staff told multiple stories of how unmet mental health needs had led to bad outcomes for children and youth in the child welfare system and stories of how effective mental health supports (through SAMHSA System of Care project) had led to good outcomes.
3. Division of Child and Family Services (DCFS) staff evaluators in Las Vegas completed an assessment of the number of children in the foster care system who had mental health needs and how many of these children were not receiving appropriate levels of services.
4. National experts were brought in to testify on the impacts of implementing Systems of Care and to work with the legislative committee on designing how this could occur in Nevada within the context of the proposed changes in the child welfare system.
5. DCFS staff and evaluators presented data on the positive impact of System of Care and Wraparound implementation for children within the Neighborhood Care Center Project.

The final result was child welfare legislation that established collaborative Mental Health Consortia in each jurisdiction of the state whose role is to annually assess the current need for children's behavioral health services, to assess how well this need is met, to develop a plan for how this need can best be met, and to communicate this to a newly formed standing committee of the legislature. In addition, the legislation created funding and flexibility to provide comprehensive wraparound services for 327 children in the child welfare system and mandated an evaluation of the impact of this service process with quarterly reports to the Legislative Committee on Children and Youth. The mandate of the services and evaluation for these children kept this project ongoing through tough economic times.

### Method

The subjects for the pilot phase of this research project were 65 children and youth in the child welfare system who met the criteria for severe emotional disorders (SED). 33 of the children were assigned to the "experimental" group and 32 were assigned to the "control" group. Through a statewide assessment process over 400 children were identified who met the basic criteria for the initial services. It was decided to do the initial pilot work in four areas of the state (Reno, Carson City, and North and West Las Vegas). Eight children were selected from this list of 400 children in each of these regions and a ninth from North Las Vegas was selected to receive the wraparound process. In each of these areas eight children were selected to serve as controls. These children were matched on age, sex, race, current residential placement, severity of mental health problems as measured by the CAFAS and the GAF. See Table One for the comparison of these two groups.

	Control	Experimental
Age	11.7 years	11.9 years
% Caucasian	51.9%	54.2%
CAFAS	103	102
GAF	48	46
Residential Level	3.4	3.2
Moves Last 6 Months	1.9	2.4
Days in Custody	1318	851

**Table One** shows a comparison of the 65 subjects (33 experimental and 32 control) at time of intake. The average age is shown in years. The race shows the percent of each group who were Caucasian. The CAFAS scores are the average using the 8 scale scoring system. The GAF (global assessment of functioning) scores were done at time of entry into the study. The residential level is based on the ROLES (Restrictiveness of Living Environment Scale) levels adapted for Nevada in which higher levels are more restrictive. The moves are the number of changes in primary residence in the 6 months prior to initiation of the study and the days in custody is the number of days the child had been in the custody of the state at the date of study initiation.

The thirty-three children and youth in the experimental group were assigned to one of four wraparound facilitators who were trained in the wraparound process. Each of these wraparound facilitators also received hands-on coaching as they learned and began to implement the process. The quality of the wraparound process was measured using the wraparound fidelity index (WFI)<sup>1</sup>. Children and youth in the control group received the standard child welfare and mental health services available in the system<sup>2</sup>.

The evaluation for this study has three primary parts: a child and family-outcome study, process assessment, and services and costs. This paper discusses some of the initial findings for the child and family-outcome study. Data is being collected in the following areas: child symptoms and intensity and substance abuse (CAFAS); child behavior (CBCL), social functioning; substance use; school attendance and performance; delinquency; juvenile justice involvement (Nevada Child Status Report); and stability of the child’s living arrangements (modified ROLES). This evaluation component gathered information on children for the six months prior to study implementation for an additional eighteen months.

## Results

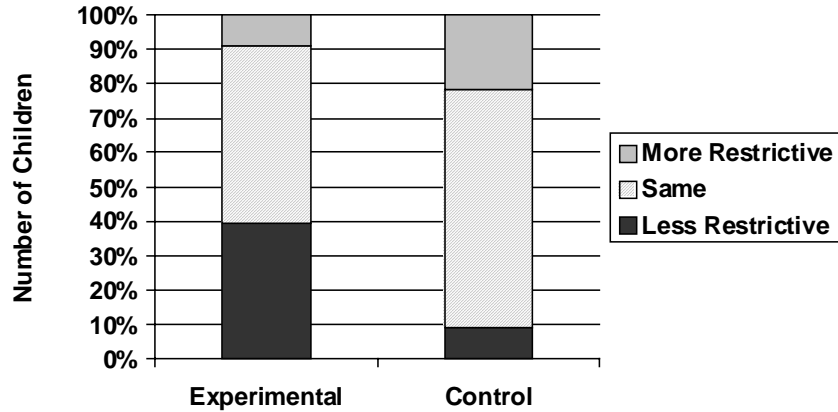
The initial results show some large improvements in many of the primary outcome measures for the children and youth receiving wraparound. Figure One shows the changes in residential placement for the two groups of children after six months. 13 of the 33 children who received wraparound moved to less restrictive environments compared to only 3 of the 32 controls. In

<sup>1</sup> Implementation and the results of the process measures using the WFI are described in a separate paper in this symposium by Rast, Peterson, Earnest, and Mears (2003) entitled, Service Process as a Determinant of Treatment Effect – the Importance of Fidelity.

<sup>2</sup> The differences in what children received is being documented and analyzed through a services and costs study not reported in this symposium.

addition 7 of the 32 controls moved to more restrictive placements compared to only 3 of those who received wraparound. In fact, through the process of the strengths, needs and culture discovery family members were found for seven children in the experimental group who had previously had permanency goals of long term foster care.

Figure Two shows three of the primary school outcomes for the two groups. 30 of the children



**Figure One** shows a comparison of residential placement level of the two groups (experimental N=33 children and controls N=32 children). The data compares the level of restrictiveness at the time of study initiation with the level of restrictiveness after six months. The levels are based on the ROLES modified to the specifics of the Nevada continuum of residential placements. The difference between the two groups is significant at the 0.1 level of significance.

in each of the two groups were enrolled in school. For these children the left panel of the figure shows school attendance and disciplinary actions. In each case the children receiving wraparound had a 29% decrease in absences and a 26% decrease in disciplinary actions compared to the controls who had a 26% increase in absences and a 18% increase in disciplinary actions. The right panel of Figure Two shows the changes in grade point average. 43% of the children in wraparound had an improved GPA compared to only 17% of the controls. On the other hand 23% of the children in wraparound had lower grades compared to only 10% of the controls.

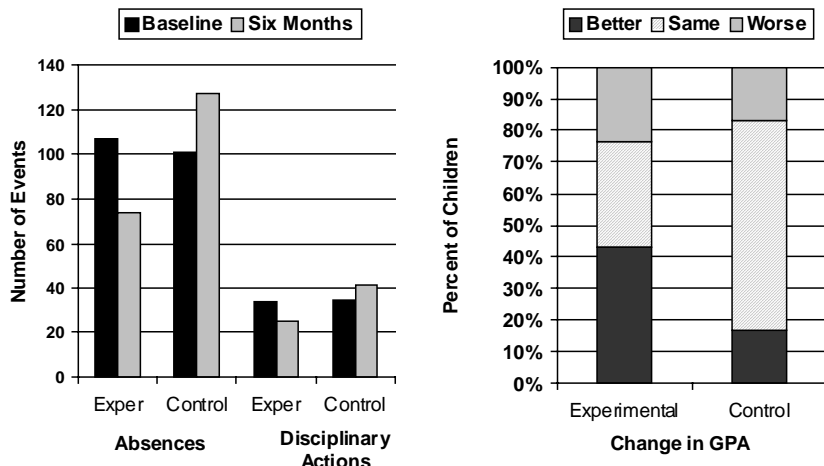


Figure Two shows the data for three school outcomes for the children in the experimental group (30) and control group (30). Absences refers to the total absences of all students in each group adjusted for the number of days of scheduled school. Disciplinary actions shows the number of detentions and suspensions for the students in each group during the same time period. Change in GPA compares the grade point average for the six months prior to study initiation with the first six months of the study. Better reflects grade point averages that increased by more than 0.1 on a 4-point scale and worse reflected GPAs that decreased by more than 0.1.

Table Two shows the results for seven of the primary outcome measures. In only four of the seven areas did the controls show an improvement while the children in wraparound showed improvement in all seven areas and more improvement in the four areas the controls showed improvement. These are only the pilot data for the first group of children in this study but the initial results are very promising.

Measure	Control		Experimental	
	Baseline	6 Months	Baseline	6 Months
Residential Level	2.9	2.8	2.9	2.2**
Abuse Reports	0.5	0.2	0.3	0.03*
Law Enforcement Contacts	0.6	0.4	0.4	0.1*
GPA	2.5	2.5	2.4	2.4
Absences	3.3	4.2	3.5	2.5**
Disciplinary Actions	0.9	1.3	1.1	1.1*

Table Two shows the summary results of some of the primary outcome measures for the study. Residential level is measured from the six levels of the ROLES adapted for Nevada. Level 1 is the level for living with family or independent living and Level 6 is psychiatric hospitalization. Abuse reports refers to the average number of abuse reports filed in the six months prior to study initiation and the number filed in the first six months of the study. The law enforcement contacts refers to the average number of contacts in the same time periods. GPA refers to the average grade point average for children in the six months prior to study initiation and the first six months after initiation. Absences is the average number of school absences and disciplinary actions is the average number of school disciplinary for these time periods. The \*\* items are significant at the .01 level and the \* items are significant at the .05 level.

## Discussion

The development of Systems of Care and implementation of the wraparound process has been widespread through North America in the past fifteen years. Although there have been several single subject design studies and multiple demonstration projects that have reported positive outcomes from these processes, there is a need for controlled research. Wraparound is a real world process that must be individualized for every child and family. This need for individualization makes it more difficult to complete the needed research to define the impacts of wraparound and the differential impacts of the steps in the process. Through engaging and building on an ongoing systems change effort in DCFS, it has been possible to establish the conditions for doing this type of research. The initial results seem to show that wraparound can result in positive gains for children and youth in residential placements, primary school outcomes, and mental health symptoms.

## References

Burns, B.K. (2002). Reasons for hope for children and families: A perspective and overview. In Burns, B. and Hoagwood, K. (Eds.), Community Treatment for Youth: Evidence-Based Treatment for Severe Emotional and Behavioral Disorders. Oxford: Oxford University Press.

Rast, J. (1999) Promising Practices in Children's Mental Health, Systems of Care 1999 Series, Volume VII. NRN (Eds.) in Integrated Evaluation and the Development of Systems of Care. Washington, D.C.: Center for Effective Collaboration and Practice, American Institutes for Research.

VanDenBerg, J. (1990). The Alaska Youth Initiative: A Demonstration of Individualized Treatment and Education. In R. Friedman and A. Duchnowski, Conference Proceedings, Second Annual Conference on "A System of Care for Children's Mental Health: Building a Research Base", University of Southern Florida.

VanDenBerg, J. (2003). The History of Wraparound. Vroon VanDenBerg Website: VroonVDB.com.