FIRST INDEPENDENT MILLER METHOD™ OUTCOME STUDY

We are pleased to report the first, independent outcome study to document the effect of the Miller Method™ on children having pervasive developmental disorders or severe receptive and expressive communication disorders and an identified hearing loss.

The study was conducted by Genese Warr-Leeper, Ph.D., University of Western Ontario; Susan Henry, M.Cl. Sc., Robarts School for the Deaf; Tracy Versteegh, B.A. (Hons.), University of Western Ontario.

**Purpose.** The study sought to determine the effects of Miller Method™ intervention on children with these disorders as measured by standardized linguistic and behavioral tests as well as by data from checklists, scales and teacher and parent questionnaires.

**Subjects.** The five subjects participating in the study were enrolled at the Robarts School for the Deaf in London, Ontario and had previously received a diagnosis of pervasive developmental disorder or severe receptive and expressive communication disorder related to neurological issues or syndromes. In addition, all had an identified hearing loss. There were 2 males and 3 females with ages ranging (at time of pre-test) from 4-11 months to 7-5 months. Based on the Miller Umwelt Assessment, four subjects had Closed System, Type B disorders and one had a System-Forming, Type B disorder.

**Design.** Two 45-minute individual Miller Method™ therapy sessions were scheduled per week. Therapy was provided by Sue Henry, an LCDC-trained speech-language therapist, over an eight month period. Since therapy was interrupted by a 5-week labor strike, illnesses and school holidays, students received only 26-33 sessions during this period.

Four of the five parents participated in each session and carried over the procedures to the home. During the last two months of the study, a classroom using Miller Method materials and principles was established at the school making it possible for the therapist to help carry over procedures and goals from her individual sessions to the classroom.

**Results.** All 5 children made progress in their communication, cognition and social-emotional development. An index known as the Proportional Change Index (PCI) was used to compare the predicted change at the end of 8-months based on the rate at which the child had been developing, to the actual change which occurred after 8-months of Miller Method™ intervention. In other words, changes which were significantly beyond what was projected from a child’s pre-study rate of development, were interpreted as a function of Miller Method™ intervention. The number of developmental domains (social/emotional, cognition, receptive language, expressive language) having accelerated rates of development in each of the five subjects ranged from 1 to 4 with a mean of 2.4 domains. The subjects average PCI ranged from 0.7 to 7.64 with a mean of 2.68 indicating a substantial overall treatment effect.

Trends noted across subjects included increased ability to attend and follow instructions in the classroom; increased desire to interact and communicate with others in either signed or spoken language; improved eye contact with more positive affect when communicating. Also noted was a decrease in undesirable and socially inappropriate behaviors and their replacement by more social and positive behaviors...There was great consistency and congruence between parent and teacher reports for all subjects.

**Parents’ Comments.** Subject 1’s mother reported that her daughter had become more persistent;
her need to communicate had increased and she had developed more vocabulary.

Subject 2’s mother reported that her son had improved in his ability to tell his mother what was wrong and to understand and use more sign language. She also reported that he now interacted more with his younger sister, could share and initiate games with her and tolerate touching and hugging more.

Subject 3’s mother reported that she was able to put more words together following intervention and learned more words and their appropriate uses.

Subject 4’s mother reported that her son had developed more signs and vocabulary following intervention.

Subject 5’s mother reported on her daughter’s improved communication and ability to understand phrases such as “on the train.”

**Summary.** In general, the children demonstrated more purposefully social and appropriate behavior at home and in school following Miller Method™ intervention. The authors concluded that “achievements of this nature could be considered to have a meaningful impact on the quality of life for these children and their significant others.”

**More Information.** Readers can contact the two co-investigators as follows.

Requests about research issues including accessing a more technical summary of this research (available April 24, 1997) or the citation for the complete research paper (available May 6, 1997) should be directed to:

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Requests about clinical issues related to this project should be directed to:

Susan L. Henry, M.C., Sc., Speech-Language Pathologist, Robarts School for the Deaf, Box 7300, 1090 Highbury Avenue, London, ON, Canada N57 4V9.

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**SOME MILLER METHOD STRATEGIES FOR PARENTS AND PROFESSIONALS**

**Developing Social Interaction From a Ritual.** On one of my quarterly consultations with Department of Defense schools in Puerto Rico, I observed a rather severely disordered 4-year old boy with autism performing a ritual in which he would take a small bowling ball, roll it toward and knock down some bowling pins and then immediately run to right the pins so that he might again repeat the process.

After consulting with his teacher we asked a typical child to sit in back of the bowling pins while the teacher sat in back of the child with autism. Then, immediately after the child rolled the bowling ball – but before he could pounce on the pins to right them – the teacher restrained him and asked the typical child to quickly pick up the pins and roll the ball back to the autistic boy who was struggling to get at the pins. This was done. Within a few rolls, the child with autism began to wait for the typical child to roll the ball back to him. As this occurred the child’s solitary ritual was transformed into a reciprocal interaction which the autistic boy could soon perform with other children in the class.

**Developing Tool Use.** We regularly develop tool use (pulling a string attached to a wagon or using a rake to retrieve an object) by first developing a minisystem and then expanding it into an integrative system. For example, once the child needs to insert each washer he/she receives in a slit on top of a glass jar (demonstrating that a washer-in-jar system has formed), the therapist or teacher begins the expansion process.

This begins by the therapist offering the washer a foot or two away from the jar so that the child has to reach for it. Once the child does this, the worker places the washer on top of a small wagon with the string within easy reach of the child. If the child does not immediately pull the string to bring the wagon with its washer cargo closer, the worker demonstrates how to pull the string.

After the child has established wagon-pulling-to-get-washer as an expansion of the original system (evident as the child immediately pulls the string to bring the wagon with washer closer), the worker may place the washer on a surface and then place the arm of a rake in back of it. The child may require one or two pulls of the rake before understanding how pulling the rake brings the washer closer so that the washer-in-bottle system may be continued...

Further expansions to force scanning and discrimination require placing two wagons or two rakes side by side but with he washer in only one wagon or in the arm of only one rake. Then, the task for the child is to discriminate which string or rake to pull in order to claim the washer and continue the system.
NEW MILLER METHOD™ PROGRAMS

It is gratifying to find new Miller Method™ Programs springing up. Sue Henry, co-investigator of the outcome study reported on Page 1, sent in the following report of her new program. As readers send me reports of new programs, I will list them in this space (Ed.).

A Report from Susan Henry
Miller Therapist-In-Training.

Labour day weekend heralded the opening of Bridges Communication and Development Centre! Bridges is a private practice in London, Ontario, Canada, offering speech-language pathology services including Umwelt Assessments and Miller Method™ therapy to young children with pervasive developmental disorders or other severe communication disorders.

This past December, I embarked on a twelve month certification process, leading to designation as a certified Miller Method therapist. My work with three families is being tracked as a part of my training. (Full requirements for certification are listed in the Miller Method Newsletter, Summer Quarter 1996, Vol 1, Issue No. 3-Ed). Several families are currently enrolled in weekly therapy at the Centre, and parents or professionals wanting to see the Miller Method™ in action should call to arrange a visit to the Center.

After several years of endeavouring to implement Miller Method™ therapy on my own, based on workshops and reading From Ritual to Repertoire and after having to find my own way by trial and error, it is wonderful to have weekly telephone contact (supplemented by videotapes of my work) with Dr. Miller! We talk about how the children and families are progressing and decide what the next steps and strategies will be. My clinical skills are definitely improving through this supervision!

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Other New Miller Method™ Programs

that have formed since the last newsletter include one started by Barbara Burse, Vanessa Georges, Lisa Hauben, Sandy Noble, and Mike Schmidt at Small Wonder Preschool in Glendale (Queens) which serves 12 children in the 3 to 5 year range with autism or PDD; Brenda McGuiness, Speech-Language Pathologist in Dr. Ross Tilley Public School, Bowmanville, Ontario. Brenda reports that this program with its Elevated Square has been serving 5 children with autism and PDD in the 3 to 6 age range since September, 1996. All are moving strongly... Another new program is that introduced by Wayne Leever, special education teacher, at Robins Air Force Base School in Georgia. This program – serving 3 children with autism and pervasive developmental disorder – was established in January 1997. Wayne reports his delight at moving from a “jury-rigged” Elevated Square made from piled-up desks to the real thing built by carpenters at the base. Parents are excited by their children’s progress.

There are now two Miller Method programs in Puerto Rico complete with their own Elevated Square Systems. One, conducted by special education teacher Sylvia Cannabal, is at Antilles Elementary School (Fort Buchanan): the other, conducted by special education teacher Debra Perez, is at Roosevelt Roads Elementary School (Roosevelt Roads Naval Base), Puerto Rico.

VIDEO CONFERENCING ADDED TO LCDC’S OVERSIGHT PROGRAM

For the past several years, senior staff at LCDC has been conducting Oversight Programs for parents and agencies working with disordered children far from the Center. The Oversight Program provides weekly consultation and supervision via telephone which guides work with the children. Supplementing these hour-long, weekly contacts are monthly videotapes of the children sent to LCDC for review and recommendations. While this approach has been and is effective, it has lacked the immediacy provided by direct visual contact with the work being done with a particular child while that work is being done.

Recently (February 15, 1997), LCDC acquired the technology for video conferencing and has been
SERVICES FOR PARENTS

The Miller Umwelt Assessment
This assessment provides information as to the relative emphasis the child places on things as opposed to people. It also assesses the extent to which the child is able to communicate with others about things. Parents are directly involved in the assessment and often contribute information which allow the examiners (usually the Millers) to access unsuspected capacities in the child. At the end of the 2-hour session, the parents receive an oral summary of findings — including prognosis for response to the Miller Method™ — and a videotaped copy of the assessment which provides baseline data on the child. A detailed report with recommendations is sent within 2-3 weeks. Usually, 6-8 weeks advance scheduling is necessary.

Fee: $1000.

Parent-Child Training (10 hours over 5-days)
The first day begins with a 2-hour Umwelt Assessment. The hypotheses formed during this first session are tested on the second, third and fourth days by introducing interventions which may include the Sign and Spoken Language Program, the Elevated Square, contagious activity, the Symbol Accentuation Reading Program, and so forth. The final two hours on the fifth day is devoted (while the child is cared for by a child-care worker) providing direct consultation and on-line video supervision to a family with a child having pervasive developmental disorder.

The parents, John and Sherry Hoty, live in a town near Cleveland, Ohio and are involved in weekly sessions with Dr. Miller and Kristina Chrétien as they work with their son, Adam, on the Elevated Square they have had constructed in their spacious basement. The advantages of LCDC staff being able to see and guide the work done with Adam adds substantially to the positive impact of the Oversight Program. Families and schools interested in exploring video conferencing as a means of guiding work with their child or providing consultation/supervision for their staffs, may contact Sherry Hoty at (216) 967-3291 or Arnold Miller at LCDC (800) 218-5232.
to planning with parents a home and/or school program.

Parents take home a copy of the videotape of the sessions and receive, within 3-weeks, a report outlining the findings and the recommendations for the home/school program.

*Offered:* Throughout year (6-8 weeks advance notice required)

*Fee:* $1975.

*Status:* Openings available in June and July, 1987

**Oversight Program**
The Oversight Program is designed for families distant from the Center or one of its satellite programs. It is most effective when it follows the Umwelt Assessment and a week of Parent-Child Training as described above... Basically, the Oversight Program is a means of providing ongoing support and guidance for parents and/or professionals trying to live and work with a challenging child with autism or PDD. Once parents and Center work out a renewable contractual relationship for 6, or 12-months, a case manager trained in the Miller Method is assigned to the family. Then, at a mutually convenient time each week there is a one-hour audio or video conference call which allows consultation between the case manager and parent and/or the professional working with the child.

On the basis of the weekly phone or video consultations – the case manager recommends needed changes in the child’s program. This procedure continues throughout the contractual period.

*Offered:* Throughout the year

*Fee:* $1000. per month for four, hour-long consultations scheduled weekly with one person per month. An additional fee of $500. per month is levied if regular weekly contact is also required with a second teacher, OT, speech-language or other professional.

**Six Week Summer Program**
*(July 7 through August 15, 1997)*

Children in the 3 to 9 age range are accepted into LCDC’s six week summer program when there is an appropriate class setting for them or when a special class for summer children is set up. Children may be placed at the Boston, Lynnfield or Cape Cod sites, depending on an appropriate class.

To insure appropriate placement and programming, all candidates for the summer program must receive an Umwelt Assessment. The children attend the school from 8:30 AM to 2:30 PM from Monday through Thursday. On Friday they attend from 8:30 AM to 11:30 AM. The program is described in depth in the Millers’ book *From Ritual to Repertoire* (Chapters 9 and 12), Wiley, 1989, and includes – during the summer – periodic opportunity for swimming and other summer-related activities.

In addition to the language-based classroom, the children receive individual speech-language therapy and cognitive-developmental therapy.

Parents meet regularly with staff social workers and the Millers. At the end of the 6-week program parents receive a report with recommendations as to how best to follow-through with gains developed during the summer... Parents may inquire to determine if an Oversight Program can be developed to provide guidance beyond the summer program.

*Offered:* Summers

*Tuition:* $4828. plus $1000. for Umwelt Assessment. Total: $5828.

*Status:* Openings for summer 1997.

**Variable Duration Programs within the School Year**

Depending on the availability of an appropriate classroom setting at either the Boston, Lynnfield or Cape Cod satellites, parents have the option of contracting for as little as 2-months and as many as 12-months for placement in an LCDC program.

*Offered:* Throughout the year

*Tuition:* $2500. per month plus a one-time cost of $1000. for the Umwelt Assessment

*Status:* Several openings anticipated
LETTER TO THE EDITOR

ABOUT CERTIFICATION
Karen Mackenzie-Stepner, a registered speech and language pathologist practicing in Brampton and Georgetown, Ontario, attended the March 12 - 16, 1997 5-day workshop on the Miller Method at the Language and Cognitive Development Center, Boston. Subsequently, she had questions about pursuing certification as a Miller Method Therapist. Her edited letter follows:

Dear Dr. Miller,
I would like to thank you and all of your staff for a wonderful week in Boston. Everyone was most helpful and eager to share their knowledge as well as experiences. The workshop ... allowed me to consolidate my thoughts/practices regarding working with PDD children and also gave a theoretical framework by which I can explain it to parents... The other purpose of this letter is to inquire about continuing with training in the Miller Method.

1. The fee of $1000. U.S. per month for 12 months. Is it flexible? What happens if the time frame extends longer than 12 months? Can you design your own time frame, or do the months need to be consecutive?

The fee of US$1000 per month for an average of four, one-hour supervisory sessions per month is fixed. Under certain circumstances the time frame may extend to 18 months. You cannot design your own time frame. The requirement is that supervision cover three children (2 non-verbal and one limited verbal) over the course of the year (50 supervisory sessions). At times, treatment of two children seen for six consecutive months may substitute for one child seen for 12 months.

2. The potential of “piggybacking” with someone (a parent) paying for the oversight program. Would it be my responsibility to find this person? Is there any Centre involvement in the agreement set between this person and me? What happens if the family decides to stop treatment prior to 12 months?

“Piggybacking” is an excellent way of covering the cost of the supervision. Your task is to find 3 families who wish to have their children treated by you while you are supervised by senior staff at LCDC/Boston. This means that each family will commit themselves to paying $333.33 per month (1/3 of the oversight fee of $1000.) to cover the monthly cost of your supervision. The agreement would be between the families and LCDC and include you — as Miller Method Therapist-in-Training — to provide the treatment (one-hour per week) per child. If a family stops treatment prior to 12 months but you have at least 6 months of consecutive treatment that child counts toward certification as long as you find another child to make up the 12 months.

3. The six week summer program. What is the cost for internship? Would I be responsible to find lodging for these weeks? What components of the training program would be covered by this program?

The cost of the six week summer internship is $2975. You are responsible for your lodging. Specific components included is training in conducting an Umwelt Assessment and then, interpreting results and writing reports based on findings. Other components include systematic intervention with the Elevated Square as well as training in the Sign and Spoken Language and Symbol Accentuation Reading Programs. You get credit for 6 supervisory hours.

I will ... be trying to use the knowledge obtained through the workshop with several of my private clients in order to get more “hands-on” experience.

In closing, let me thank you again for a wonderful week. I look forward to seeing you again in May at the Geneva Centre (Toronto).

Sincerely,
Karen MacKenzie-Stepner