

More Than Words™

The Hanen Program® for Parents of Children with Autism Spectrum Disorder

Program Summary

More Than Words – The Hanen Program® for Parents of Children with Autism Spectrum Disorder (ASD) is a family-focused, social-pragmatic intervention program for young children with ASD. *More Than Words* was adapted from *It Takes Two to Talk*™ – The Hanen Program® for Parents in order to meet the needs of children on the autism spectrum and their parents. The goal of *More Than Words*, like that of *It Takes Two to Talk*, is to empower parents to become the primary facilitator of their child's communication and language development, thereby maximizing the child's opportunities to develop communication skills in everyday situations. *More Than Words* addresses the needs of both non-verbal and verbal children with ASD under the age of five.

Program Features

The *More Than Words* Program has the following features:

- It is led by a Hanen Certified speech-language pathologist (SLP) who has received specialized training at a Hanen certification workshop
- It is offered to groups of parents (up to eight families per program)
- It has three major components:
 - ◆ a pre-program assessment and baseline videotaping of parent-child interaction
 - ◆ a minimum of 17.5 hours (seven sessions) of group training for parents; and
 - ◆ three individual video feedback sessions for each parent attending

the program (parent-child interaction is videotaped by and reviewed with the SLP)

- It is supported by user-friendly resources for both parents and SLP, including: parent guidebook, a DVD, detailed Leader's Guide and power point slides with video examples for use by the SLP group leader

Program Objectives

More Than Words has three objectives:

- i) Parent education
- ii) Early communication intervention; and
- iii) Social support for parents

Parent education – parents learn about their child's unique learning style and sensory preferences so they understand his strengths and challenges. They also learn basic concepts about communication and language – e.g., the significance of joint attention and its impact on communication development; the need to manipulate the environment to motivate the child to communicate; the importance of the child's active participation in frequent, extended turn-taking episodes. Parents become familiar with the child's stage of communication, enabling them to set realistic communication goals and be more responsive to his communicative attempts.

Early communication intervention – parents learn to apply responsive interaction strategies to everyday interactions with their child. Strategies highlighted by the SLP for each parent are tied to the child's communication goals, which are developed collaboratively with the parents and



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modified over the course of the program. Effective intervention depends upon the parent learning to apply the strategies flexibly across contexts so intervention becomes a natural part of parent-child interactions. Video feedback sessions play a major role in helping parents modify their interactive behaviour and apply strategies consistently, thereby maximizing the child's opportunities to develop more effective communication skills.

Video feedback sessions include the following components:

- The parent tries out newly learned strategies in an everyday activity with his or her child;
- The SLP coaches the parent “on-line”, as needed, to help him/her apply strategies successfully; and
- Parent and SLP view the videotaped interaction together — the SLP provides feedback to the parent, guiding the discussion in order to increase the parent's awareness of his/her interactive behaviour and its impact on the child, as well as increasing awareness of the child's communication. The SLP also helps the parent identify metacognitive techniques that will facilitate consistent strategy use.

Social support for parents – In comparison with parents of children with other types of disabilities, parents of children with autism appear to be at greater risk for depression, anxiety, social isolation, fatigue and frustration particularly with respect to obtaining accurate diagnoses and services. This increases their need for social support, which has been shown to have a positive impact on the well-being of the child and the family when the child has a disability

(Crnic & Stormshak, 1997). However, there is some evidence that, for parents of children with autism, this support is most helpful when it comes from those who have a knowledge and understanding of the child's unique challenges (Gray, 1992).

In *More Than Words*, parents gain both formal and informal social support. The SLP, whose multi-faceted role includes that of group leader, interventionist, coach and counselor provides more formal support. The parent group itself provides informal support through the sharing of experiences with individuals in similar situations who can genuinely empathize.

Theoretical Basis

Philosophical Foundation

More Than Words reflects a family-centered model of intervention, recognizing the child as part of a dynamic social system and the family as the most important element in a child's life. This philosophical orientation recognizes the interrelatedness of the family system in that any action or event affecting one member of the family unit affects them all (Brown, Thurman, & Pearl, 1993; Donahue-Kilburg, 1992). The *family* is considered to be the client in a *More Than Words* Program since it is widely recognized that successful treatment depends on family involvement and intensive intervention (National Research Council, 2001). Empowering parents to participate in their child's early intervention involves supporting and strengthening their capacity to access knowledge and gain practical skills, which in turn, bolsters their sense of self-efficacy in relation to fostering their child's development (Dempsey & Dunst, 2004).

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Theoretical Foundation

More Than Words is based on a social-pragmatic theory of language acquisition, which views the development of communication as occurring in the context of interaction between the child and his or her social environment (i.e., the important adults in his life). This theoretical approach is also known as social-interactionist intervention (Girolametto, Sussman & Weitzman, 2007). Within social-pragmatic theory, adult-child interactions may encourage or inhibit the child's communication development, depending on many factors, including the child's ability to provide clear behavioural cues and the responsiveness of the parent to the child's cues (Barnard, 1997; Bohannon & Bonvillian, 1997; Bruner, 1974; Stock, 2002).

Strategies taught in the *More Than Words* program focus on enhancing the child's social communication skills through everyday, naturally-occurring interactions with his caregivers. Within this social-pragmatic intervention program, parents and other caregivers are viewed as the primary facilitators of the child's communication and language development. They facilitate the child's social communication and language skills by applying responsive interaction strategies and using environmental manipulation (Prizant & Wetherby, 1998).

In *More Than Words*, parents learn to become more responsive to their child's communication attempts and to provide prompt, positive and sensitive contingent input (Stock, 2002). They also learn

to structure the child's environment to increase his motivation to communicate and to promote extended joint interactions. However, *More Than Words*, does not adhere strictly to a "follow the child's lead" approach, since parents are also encouraged to take the lead, especially with a child who is difficult to engage in interaction. Therefore, parents learn to use prompts to cue the child to interact and/or communicate at his level of competence. Parents are encouraged to take advantage of the many opportunities for communication that naturally take place during the child's day. In this way, *More Than Words* enables them to make intervention a continual and evolving process (Rossetti, 2001).

The following three clusters of responsive strategies are taught in a *More Than Words* Program:

1. **Child-oriented strategies** — observe, wait and listen; follow the child's lead by including his interests – comment or join in; be face to face.
2. **Interaction-promoting strategies** — encourage turn-taking within routines; cue or prompt your child to take a turn; intrude to get an interaction going and then follow your child's lead.
3. **Language-modelling strategies** — interpret your child's actions; say less (simplify, shorten sentences), stress (highlight important words), go slow and show (use visual aids); repeat; expand (Sussman, 1999).

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Empirical Evidence for the Efficacy of Social-Interactionist Intervention for children with ASD

There is considerable research supporting positive outcomes from social-interactionist intervention for children with ASD (Chapman, Leonard & Mervis, 1986; Duchan, 1989, Mirenda & Donnellan, 1986; Peck, 1985). There is also now a growing body of evidence from descriptive studies (Mahoney & Perales, 2003) and group designs (Aldred, Green & Adams, 2004), that this kind of interactive intervention can be implemented successfully by *parents*.

Summary of Efficacy Studies of Social-Interactionist Intervention for children with ASD

Mahoney and Perales (2003): Using relationship-focused intervention to enhance the social-emotional functioning of children with autism spectrum disorder

- Pretest-posttest design used to investigate the outcomes of 20 mothers and their preschool children with ASD
- Families participated in a yearlong study in which mothers received one-hour intervention sessions on a weekly basis
- Mothers were trained to use strategies associated with five different components of responsive interactive behaviour: reciprocity, contingency, shared control, affect and match
- Results:
 - ◆ 80% of the mothers were reported to have increased their level of responsiveness following intervention
 - ◆ Changes in the mothers were associated with improvements in ratings of children's attention, persistence, initiation, and joint attention.
 - ◆ The data suggest that children who made the greatest improvement had mothers who made the most changes in their responsiveness.

Despite these positive findings, the lack of a control group did not permit the authors to attribute the observed gains to the intervention. Nonetheless, this study suggests that increased responsive interaction may play an important role in facilitating social interactive behaviour in children with ASD (Girolametto et al., 2007).

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Aldred, Green & Adams (2004): Social communication intervention for children with autism

- Conducted a randomised controlled trial, in which a parent-administered social-interactionist intervention model was used
- Subjects were 28 children with ASD and their parents, randomly assigned to experimental and control groups
- 12-month program, included parents attending an initial series of workshops to learn facilitation strategies (children did not attend), then received monthly treatment sessions (parent and child together) for six months with a further six months of monthly maintenance sessions
- Parents were trained to respond sensitively and to interpret the child's actions as having meaning.
- Once joint attention and reciprocity were achieved, parents learned to use action routines, repeated scripts, and pauses to elicit interaction and communication from the child
- Following intervention, the following results were reported:
 - ◆ Mothers in the experimental group displayed significantly more responsiveness relative to the control group
 - ◆ The children in the experimental group demonstrated increases in reciprocal social interaction, social engagement, social responses, and spontaneous initiation of social interaction as measured by the ADOS.
 - ◆ The children in the experimental group demonstrated significant increases in expressive vocabulary as measured by the CDI (Fenson, Dale, Reznick, Thal, Bates, Hartung, et al., 2003), more synchronous parent-child interaction, and more child communication acts during a videotaped play sample.

This study confirmed that a social interactionist model of intervention implemented by parents can influence gains in joint interaction and communication skills in children with ASD.

Siller and Sigman (2002): Longitudinal follow up study examining the behaviours of parents of children with autism and their relationship to the development of their children's communication.

- Conducted a longitudinal follow up study on a group of 25 children with ASD (mean age 50.3 months).
- Study tested the following hypothesis: "caregivers of children with autism who spend a higher proportion of the play engagement targeting objects that are already the focus of the child's attention, trying to maintain the child's ongoing activity, will have children with superior communication skills at later ages" (Siller & Sigman, 2002, p. 79). This is referred to as caregiver synchronization.
- The children were assessed initially using the Early Social Communication Scale (Seibert, Hogan & Mundy, 1982), the Reynell Developmental Language Scales (Reynell, 1977) and by videotaping an episode of caregiver-child interaction. They were also assessed at three points in time after the initial assessment (one year after the initial assessment, 10 years after the initial assessment and 16 years after the initial assessment).
- Results:
 - ◆ caregivers of children with autism who demonstrated higher levels of synchronization during early play interactions had children with superior communication and language skills over a period of one, 10 and 16 years when compared with children of caregivers who demonstrated lower levels of synchronization
 - ◆ the strongest predictor of the child's future gain in language skills was caregiver utterances that were both synchronized with the child's focus of attention as well as being undemanding (i.e., the caregiver maintained the child's ongoing activity by offering reinforcement or making a comment, making no demands on the child to change the activity)
- The authors suggest that the importance of caregivers' behaviours matching the child's focus of attention and ongoing activity may have three causal links to the child's development of future language skills. First, allowing a child to pursue his focus may reduce the impact of any attentional deficits. In addition, a shared intentional state might help the child develop an understanding of others' internal states, a basic prerequisite for the development of joint attention and language. Finally, a sensitive interaction partner might provide the child with motivating and confirming interactive experiences, which support the development of functional communication, thereby increasing the child's motivation to communicate.

Empirical Evidence of Efficacy of *More Than Words* – The Hanen Program® for Parents of Children with ASD

To date, there are two published studies examining the efficacy of *More Than Words*.

Study #1 *A Controlled Trial Comparing the Outcomes for Parents and Children resulting from Parents’ Participation in a More Than Words Program (McConachie , Randle, & Le Couteur, 2005)*

<p>Area of investigation</p>	<p>The study was conducted in order to determine whether:</p> <ol style="list-style-type: none"> 1. Parents who attend a <i>More Than Words</i> Program: <ul style="list-style-type: none"> ■ Use more facilitative interaction strategies; ■ Are less stressed <p>than parents who have not attended this program.</p> 2. Children whose parents attend a <i>More Than Words</i> Program: <ul style="list-style-type: none"> ■ Have better language and communication skills ■ Have fewer behaviour problems <p>than those whose parents have not attended this program.</p>
<p>Research design and Subjects</p>	<p>This quasi-experimental study compared the outcomes of preschool-aged children with ASD or suspected ASD and their parents (49 mothers and two fathers), who attended a <i>More Than Words</i> Program under two conditions:</p> <ol style="list-style-type: none"> i) Shortly after recruitment (immediate intervention) ii) When a program became available after the child’s difficulties had been identified (delayed control) <p>The design made use of a naturally occurring control group.</p> <p>Subjects: 51 preschool-aged children (24 – 48 mos) with ASD or suspected ASD.</p> <p>Intervention group: 26 children, 17 diagnosed with autism (ASD), 9 not core autism (NCA - did not meet all criteria for diagnosis of core autism)</p> <p>Control group: 25 children, 12 diagnosed with autism, 13 not core autism</p> <p>Outcome measures were administered at recruitment (time 1) and approximately 7 months later (time 2), which was 4 months post-program.</p>
<p>Intervention</p>	<p>Parents attended the <i>More Than Words</i> Program, with each family receiving:</p> <ul style="list-style-type: none"> ■ 20 hours of instruction in groups of eight families ■ three home visits (for parent and child) to monitor their progress and provide individualized coaching using videotaping and feedback

Results

Increase in parent responsiveness

Parents in the intervention group scored significantly higher on the Joy and Fun Assessment than parents in the control group, when their children had a positive diagnosis of autism. The Joy and Fun Assessment is an observational checklist, which assessed parental use of nine interaction strategies learned in *More Than Words*. These included use of fun words (such as “whee!”), simplified language, expansions, fun physical contact, pretend games, turn-taking routines, imitations and expansions. Parents of children without a confirmed diagnosis of autism (NCA – not core autism) did not change significantly relative to the control group, raising the possibility that the impact of *More Than Words* is “. . . greater for parents of children with core autism, where the strategies introduced are particularly empowering, after they have struggled to capture the attention of their child, have found their child’s self-directed behaviour hard to interpret as communication and so may have felt unable to interact or play with their child” (McConachie et al., p. 339).

Increase in child vocabulary

A significant difference was found between the experimental and control groups in terms of children’s vocabulary size, as measured by parental report on the MacArthur-Bates Communicative Development Inventory (Fenson, Dale, Reznick, Thal, Bates, Hartung, et al., 1993).

Social Communication Skills,

Child Behaviour and Parental Stress

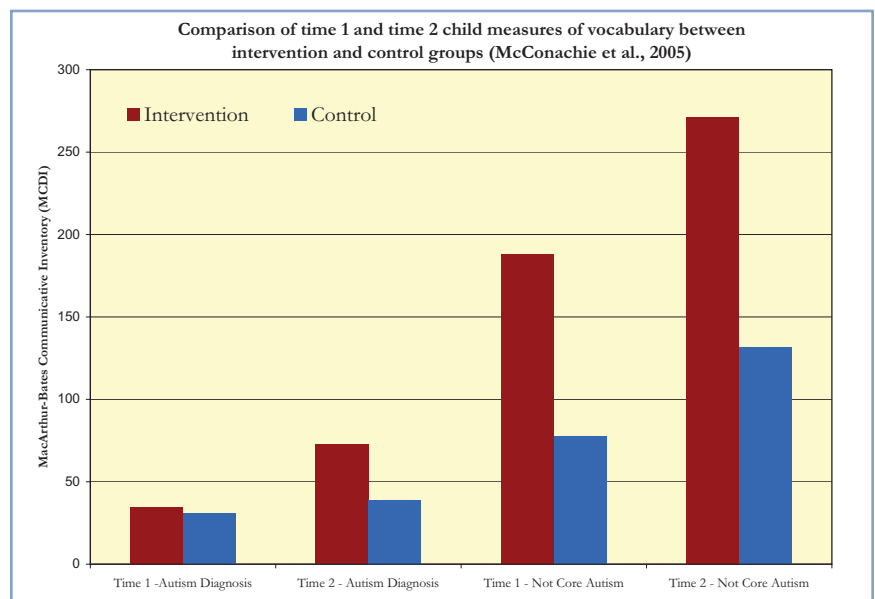
Social communication skills as measured by the Autism Diagnostic Observation Schedule (ADOS) (Lord, Rutter, DiLavore, & Risi, 1999) did not differentiate between the two groups of children at post-test. However, it is feasible that the study did not use sufficiently sensitive measures of dyadic interaction to examine outcomes in children’s joint engagement (Girolametto et al., 2007). There were no significant differences for child behaviour or parental stress between the two groups.

Summary

This study had two key findings:

- Parents are able to learn and apply the interaction strategies that are likely to facilitate their child’s communication development, especially when the child has a confirmed diagnosis of autism
- The children whose parents attended *More Than Words* had larger reported vocabularies, regardless of whether they had confirmed or non-confirmed autism

These results provide preliminary evidence that *More Than Words* may positively impact parent-child interactions and early language skills in children with ASD.



Study #2 Investigation of the effects of interactive intervention for children with ASD using case study methods (Girolametto, Sussman, & Weitzman, 2007)

Area of investigation	<p>The study examined the outcomes of three children in relation to their social interaction skills following their mothers' participation in <i>More Than Words</i>.</p> <p>The study had three aims:</p> <ol style="list-style-type: none"> 1) To confirm that parents used responsive interaction strategies following participation in the <i>More Than Words</i> program 2) To replicate the previous findings of increased vocabulary development for children with ASD following the parent intervention; and 3) To examine the children's social interaction skills following the intervention.
Research design and Subjects	<p>A multiple case study methodology was used to determine whether enhanced responsiveness, which is the underpinning of the social-interactionist model, is associated with hypothesized changes in social interaction skills (Girolametto et al., 2007).</p> <p>This study attempted to improve on the procedures used in the McConachie et al. (2005) study by using microanalytic techniques to code videotapes of mother-child interaction. Using a multiple case study design, it was hypothesized that there would be a positive relationship between parental responsiveness and social interaction skills for children with ASD.</p> <p>Three families of children with a confirmed diagnosis of ASD participated in the study. The children ranged in age from 2.8 – 3.2 yrs..</p>
Intervention	<p>Parents attended the <i>More Than Words</i> Program, consisting of eight group sessions and three individual videotaping and feedback sessions.</p>

Results

Parents' showed increased use of responsive interaction strategies

Microanalytic techniques were used to investigate mothers' responsive comments in two contexts – when the child communicated versus when the child was unengaged. All three mothers increased their rate of responsive comments during a play interaction and their gains exceeded those in Aldred et al.'s study (2004), which utilized a similar coding system. The mothers also showed increases on the Joy and Fun Assessment (JAFA) rating scale from pre to posttest, which equalled or exceeded the pre-established criterion established by McConachie et al. (2005), using this scale.

Children demonstrated increases in vocabulary development

Children's vocabulary was measured by parent report on the CDI (Fenson et al., 2003) and by using videotaped interaction. All three children made vocabulary gains as measured by the CDI. Their vocabulary gains exceeded those made by the intervention group in the McConachie et al. study (2005). The children's posttest interaction showed that they were using an increased number of different words, which confirmed parent report on the CDI. Mothers reported subjective perceptions of increased vocabulary development on home visit surveys. Thus all three case studies replicated the posttest increases in vocabulary observed in prior studies using this approach to intervention (Aldred et al., 2004; McConachie et al., 2005).

Children demonstrated increases in social interaction

The most important aim of the study was to examine the children's social interactions skills following their parents' participation in *More Than Words*. The data analysis focused on their rate of communicative acts, participation in social turn-taking episodes and initiation of social interaction. All three children made gains in the rate of communication acts, surpassing the gains made by the experimental group in Aldred et al., (2004). The children also increased their participation in social turn-taking episodes. Two of the three children showed increases in social initiations.

This study extends the findings of McConachie et al.'s (2005) study which did not report any gains in children's social interaction and initiation skills. It also replicates the findings of studies by Aldred et al. (2004) and Mahoney & Perales (2003), which examined similar interactive behaviours using rating scales (Girolametto et al., 2007).

Conclusion

There is no one approach that can be universally applied to all children with ASD, but there are some universal elements that are considered fundamental to intervention, regardless of its theoretical approach (National Research Council, 2001; Bryson, Rogers, & Fombonne, 2003):

- Intervention should take place early in the child's life and should be intensive
- Parents should be involved as participating partners and agents in their child's intervention
- Intervention should target communication and play
- Intervention should be based on the child's individual profile with clear goals and a systematic approach to achieving these

More Than Words is designed to incorporate all of these key elements of intervention. It empowers parents to become agents of change for their own child and provides them with a practical framework for engaging their child in frequent, pleasurable interactions, within which social and communication skills can be enhanced.

Summary

The findings of this study have important implications. Social-interactionist theory suggests that the more children are engaged in social interactions, providing them with opportunities to practice their social and linguistic skills, the more responsive input they receive from which they can deduce the rules of social interaction, discourse, and language. This suggests that, due to the synergistic nature of caregiver-child interaction, the changes observed in the children's interactive behaviour in this study has potential to facilitate further development gains in their communication development (Girolametto et al., 2007).

The limitations to this study include the absence of control groups or multiple data collection points. The lack of a control group prevents any conclusions from being drawn about the efficacy of this intervention approach. However, the outcomes highlight the potential of sensitive measures for detecting important changes in the social skills of this group of children.

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About the Author

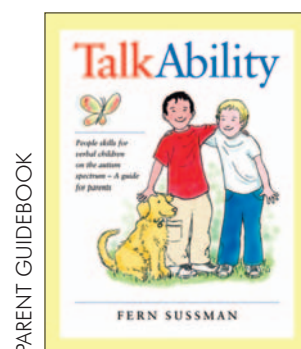
Fern Sussman is a speech-language pathologist and program manager of More Than Words™ — The Hanen Program® for Parents of Children with Autism Spectrum Disorder at The Hanen Centre. Combining her extensive expertise in the field of autism and parent training, Ms. Sussman has developed two innovative Hanen programs to support parents of children on the autism spectrum. She is the author of More Than Words™: Helping Parents Promote Communication and Social Skills in Children with Autism Spectrum Disorder and her latest book, TalkAbility™: People Skills for Verbal Children on the Autism Spectrum – A Guide for Parents. Ms. Sussman lectures widely on ASD and naturalistic approaches to intervention, and provides training worldwide to speech language pathologists on *More Than Words* and *TalkAbility*.

Available *More Than Words* Resources

For more information, contact The Hanen Centre or visit us online at www.hanen.org



Related Resources



TalkAbility provides a much-needed resource to parents of verbal children on the autism spectrum, as well as to the professionals who support them. This invaluable resource contains a wealth of practical strategies that can be built into everyday conversations and activities to help high functioning children on the autism spectrum develop the people skills they need to connect well with others.

Helping Children Communicate

The Hanen Centre is a non-profit charitable organization founded in Canada in 1975. Our mission is to give the important people in a young child's life the knowledge and training they need to help the child develop the best possible language, social and literacy skills.

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