INSERM Clinical and Public Health Network

Coordinators: Bruno FALISSARD and Jean-Michel THURIN

PRACTICE-BASED RESEARCH NETWORK IN PSYCHOTHERAPY

PROGRESS REPORT at 4 years

AUTISM Section – March 2013

Practice-based research network in psychotherapy

Coordinators: Jean-Michel Thurin and Bruno Falissard
Institutions: INSERM Unit U669 and the French Federation of Psychiatry
Financial support: INSERM, Direction Générale de la Santé and Fondation de France
Steering committee: Dr Jean-Michel Thurin, Pr Bruno Falissard, Mme Monique Thurin, Pr Bernard Golse, Pr David Cohen, Pr Catherine Barthélémy, Dr Geneviève Haag, Dr Marie-Christine Cabié, Dr Olivier Lehembre, Pr Philippe Robert, M Denis Mellier

Methodology and data analysis: Bruno Falissard, Jean-Michel Thurin, Monique Thurin, Tiba Baroukh, Fadia Dib (U669)

http://www.techniques-psychotherapiquesorg/Reseau/

CONCLUSIONS

1. Several general aspects

- In this study of psychotherapy by professional therapists under natural conditions, 24 of 25 children (96%) aged 3 to 6 showed a significant reduction (≥ 16%, $p < 0.001$) in autistic symptoms and behaviors at the end of the yearlong study period.

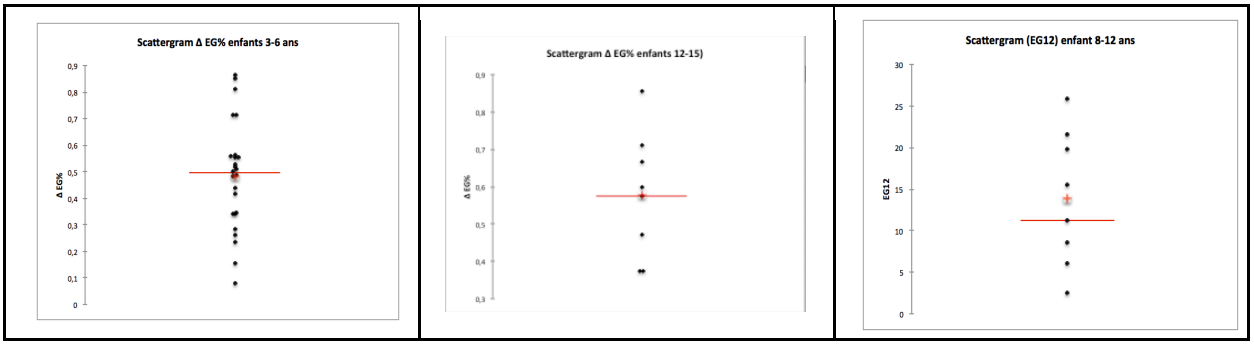
For 19 (76%), this reduction in symptoms was accompanied by an appreciable gain (≥3) [3 to 9] in essential skills (relationships, eye contact, exchange, cleanliness, self-image, language, drawing, stereotyped (repetitive) behaviors and play, and timelines).

- The 17 children (7%) aged 7 to 11 showed a significant reduction (≥ 12.5%, $p < 0.001$) in autistic symptoms and behaviors at the end of the year-long study period.

For 12 of the 17 (70%), this reduction in symptoms was accompanied by an appreciable gain (≥3)[1 to 7] of essential skills (relationships, sparkling eye contact, joint attention, cleanliness, mirror stage, language, appearance of No, improvement of prosody, closed circles, timeline and tolerance for separation).

- The 8 children aged 12 to 15 also continued their development. Their progress cannot be presented in exactly the same way as for the younger children, because 3 of them reached very low autistic behavior scores and the maximum number of skills measurable with the instruments we used.

A summary of the distribution of the changes in the autistic behavior scores is presented in the following scattergrams:



These initial results must be interpreted with caution, because numerous variables are likely to be involved, and the sample size remains low. Nonetheless, the general improvement observed with the

numerous variables taken into account tends to indicate that the psychotherapy is the principal explanatory factor.

On the one hand, it appears that there is a rhythm of acquisition from year to year in relation to psychotherapy (some children of the same age have been in psychotherapy for 1, 2, or even 3 years, and it is clear that they have different starting levels). On the other hand, it is notable that the older children who did not begin psychotherapy early had only a small number of skills when they started at 8, 11, and 13 years of age.

Several children can go faster, others more slowly, or even be blocked. These differences were examined by age group and case by case.

Today, we observe a pattern in which the progress of the children with psychotherapy differentiates them from those who have not had this treatment. A clear trend shows the effectiveness of psychotherapy. The statistical work remains to be honed, and that is what we are working on today.

2. Why and how were these results obtained?

We distinguished 2 main categories of factors of change, those concerning the internal *process of psychotherapy*, that is, the mediators that play a role in the development of autistic symptoms and behaviors, of the child's psychological functioning and development, and those concerning the *context of the psychotherapy*, the moderators, that predate and accompany it.

To try to describe the principal mediators that comprise these factors, we used a dual approach: 1) that of *preconstructed mediators* likely to contribute toward the child's progress, based on general work on psychotherapy and more specific work concerning psychodevelopmental treatments of ASD; 2) that of *emerging mediators,* that is, emerging from the factor analysis of measures of the process, from the CPQ scores that describe the characteristics of the psychotherapy course of each child in our sample and the characteristics of the subgroups, in relating the approach implemented and the functional and interactional profiles of the therapist and the child.

The first comparisons of similar cases underlined the potential impact of each of the agents of the psychotherapy, especially family support. The therapist's involvement and her accommodation of her approach to the child's needs and possibilities at each stage of development, the child's engagement and participation, but also his new skills that modify his relations with the world and to others, all play a role in the transactional process of psychotherapy.

- ***Contribution of single case studies***

These case studies in natural conditions make it possible to observe the ingredients really used in psychotherapy rather than testing the influence of a presumed ingredients without taking into account other variables that remain latent and may play a role in the causality of the results (Kazdin, 1982, 2007).

Case studies seek to draw on all the aspects of a case, as an object in itself. They can be used to analyze the complex interaction of factors in a single case (McLeod, 2011). One of the objectives of the analysis of case studies in the network is to attempt to follow as precisely as possible the process of a course of psychotherapy in a child with ASD, at the internal level (that is, what is happening in the psychotherapy), but also taking into account the child's situation (external to the therapy) in the broad sense of the term, and its changes during the therapy.

In this research network, the case study allows the child to be represented as precisely as possible, first from the clinician's point of view, and then enhanced by those of her peers, who have access to the clinical case data. As we saw with Merlin's case, this first point is approached by an introductory clinical vignette that synthesizes the global observation of the child, including elements of his history and of the modalities of his psychotherapeutic management. Completed later with material from the first 3 interviews, the clinical, developmental, and psychosocial (environmental) situations are described and organized according to the first 3 themes of the case formulation. More specific than the global assessment of the clinical vignette, the case formulation describes the child's history, current problems, how they may be maintained by his living situation, and the symptoms and behaviors associated with his ASD. It looks for the stable, non-process-related elements that may have influenced (and may still influence) the child's situation. It also seeks to describe at this beginning of the assessment the elements like to illuminate the dynamics of the child's functioning. The fourth and fifth themes of the case formulation concern the design of a first treatment plan, with short-, medium- and long-term objectives, and of an initial strategy to reach these objectives.

This first qualitative aspect introduces a representation of the child, from the point of view of the clinician and her peers. It is a baseline that will allow them to assess the course (process) of a year of psychotherapy in relation to these initial data. These data also serve to establish the severity index, based on 10 moderators that distinguish not only the child's vulnerabilities, but also his strengths, which the therapist can use.

The scores of each instrument at the different times planned in the protocol make it possible to follow the child's specific development in different dimensions of behavior, development, and functioning. They also allow the therapist and her peers to follow the child in his relation to the psychotherapy: with the therapist, in his interactions with her, the themes he approaches, his activities (play, drawings,...) and, from the therapist's side, with the treatment actions implemented. Examining the relations between the data observed in each case, from the diverse instruments but also from qualitative observations of the child, illuminates the less visible but nonetheless very significant aspects that would be lost in a group analysis. For example, a developmental curve with troughs at a given moment can signal some internal blockage, but also a particular event that incited it. The therapist does not use the same procedure to approach the problem, and we cannot interpret it in the same way. The return to qualitative data is essential to assess exactly what is happening for a given child.

The case study is particularly useful for modifying or refining a theoretical model (which takes into account especially the reproduction and generalizations of cases) in bringing out an aspect or dimension that was not previously considered. It can also have a practical impact, for it brings out the therapist's accommodation or adjustment (or lack thereof) of her technique for this given patient.

- ***Contribution of aggregation of cases studies***

Analysis of the pooled cases is naturally less focused on the details of each case. On the other hand, it brings out elements that are not visible in individual cases, especially the differences and similarities within the group. Analysis of the 50 cases taught us that the situations are both diverse and complex.

Let us review the principal elements we found from the pooled cases.

Contrary to the analysis of individual cases, these reports initially do not include clinical vignettes.

The moderators provide very substantial information on the management of these children. They showed us that 30 of the 50 children were identified before the age of 3 years and that 29 had started psychotherapy at age 3 or 4. Good psychosocial support was available for 46 children, 44 were attending school, and all received a good level of other services.

The principal disorders common to the group of children and identified by the therapists in their *initial case formulations* (after the first 3 interviews) are principally of 3 types: language development disorders, interaction disorders, and strong reactivity to some situations. Some disorders are linked to delay, others to expression. The therapists most often tended to describe the interaction disorders.

The objectives envisioned covered 4 major domains: 1. *communication/interaction,* according to the following aspects: specific to the child (for example, language development), but also social (to reduce the child's isolation from the family and incite him to initiate overtures towards others), and finally, work with the parents, 2. *intolerance of frustration,* 3. *integrative psychomotor work* and 4. *acquisition of skills.*

The strategies envisioned by the therapists involve work with the parents and partners (school, educators, etc.). Few expressed opinions about any particular type of psychotherapy (7).

According to the means observed in the 50 cases, the BSE-R scores fell notably (mean: 19.8 ; sd: 8.2), as did the APEC pathology scores (mean: 7.4 ; sd: 7.5), while the skill development scores rose significantly(mean: 13.5 ; sd: 10.3). Generally, the children had fewer autistic symptoms and more developmental skills.

Of the skills assessed by the APEC, those that were most difficult to acquire were the disappearance of stereotyped (repetitive) behaviors, the appearance of symbolic play, and the concept of linear time and tolerance for separation. The search for real exchanges, toilet training, language, and graphic skills are those that improved most in our group of patients.

Based on 3 CPQ indicators, we observed a weak development of insight (this score remained negative in most of the children), a gain of nearly 5 points in the assessment of emotional condition and its expression, a reduction in negative affects and defenses (AAD) and an increase of 8 points in relations with the world and with others (RWO).

For the CPQ, the analysis of the preconstructed mediators shows the great diversity of these cases. Nonetheless, we observed similarities in the positive scores for the child's transference relationships and the therapist's engagement and accommodation.

This diversity in the cases led us to look for profiles of these children's courses of psychotherapy. The classes that emerged were very relevant for distinguishing the general approaches and actions of the therapists, either CBT or PDP, but also for observing profiles that included both approaches. They also enabled us to strengthen the assessment of the 3 positive mediators mentioned above: patient transference and therapist engagement and accommodation.

To search for similarities and/or dissimilarities between the courses of psychotherapy of the different patients based on groups of items, we performed a factor analysis from the mean scores for the year on each CPQ item for each of the 50 patients. The mediators from this analysis were called *emerging mediators*. Four emerging factors were extracted. The first factor, which explains 40% of the variability, includes five mediators: psychotherapeutic setting, adjustment of the therapist, psychotherapeutic work on affects and emotion modulation, and on communication and language, and the child. The second

factor, which relates to a group of 19 children and explains 9% of the variability, brings together the therapist's general technique and the child's attitude, which can be either favorable or unfavorable to the psychotherapeutic work. The third factor, which relates to a group of 10 children and explains 4.3% of the variability, describes a child who is curious, clear, imaginative, and who can express conflictual or ambivalent feelings to his therapist (or the reverse). The therapist has a more or less cognitive-behavioral or psychodynamic approach, depending on the sign of the scores for this factor. The fourth factor, which relates to a group of 10 children and explains 3% of the variability, essentially describes a child very close to his therapist, interacting positively with her, who explores interior thoughts and feelings and experiences emotions (or the reverse). The therapist's actions are not specific to any particular general approach.

The emerging factors have a dual specificity compared with the standard models. First, they relate the therapist's psychotherapeutic technique directly to the child's psychological condition and his capacities to participate and build relationships. Then they bring out example situations for different subgroups of children. The analysis of these situations is far from complete, but we can already say that knowledge of them can attract the therapist's attention to some possible causes of difficulties and to specific behavior that may be adopted. A third aspect that we can underline is that of a common factor, which in reality defines the conditions of a favorable approach to the management of children with ASD from 3 dimensions: the therapist's framework and accommodation to the child's developmental *and psychological* situation; the psychotherapeutic work of modulation and verbalization of the child's affects; the child's attunement, which depends largely on the 2 preceding dimensions.

In summary,

> *A pooled group analysis is very appropriate for bringing out the regularities and similarities of cases. These similarities were observed at every level of the assessment, as we have seen: for the moderators, the case formulation, the psychotherapeutic process from the point of view of the therapist's actions, but also for the child's experience and relation to his therapy and therapist.*
>
> *There are different trajectories, which of course everyone knows but which is proved objectively here. Next we analyze the diversity, but comparing the cases, at the third level of analysis.*

- ***Contribution of comparison of similar cases***

Inter-case comparison allows access to the understanding of the factors underlying the differences in trajectory of similar cases. A notable difference in the path of a case with respect to the mean curve of evolution of a "similar" group introduces on a query "the" reason underlying this difference. Identifying the cause of a deadlock paves the way of taking into account treatment of an unknown latent factor. Particularly good results can also be used to research the various contributing factors. The advantage of this approach should never lose sight of that clinical judgment makes decisive qualitative information in assessing changes. The quantitative dimension relates to associated indicators that are not intended to cover all aspects of evolution. Moreover, the evolution of a child is not linear. The perspective is clinical, cognitive and pragmatic.

The research conducted in the network allowed an approach to the patients' trajectories through the pooled cases, for subgroups with specific characteristics (age, number of years of previous psychotherapy, severity of autistic behaviors, initial development, particularity of symptoms, etc.) and for individually compared cases, based on differences in these subgroups. This makes it possible to consider the potential impact of complementary variables, especially contextual.

The comparisons of the subgroups start with age and then systematically introduce as complementary variables the number of years of psychotherapy as well as the initial scores for autistic behavior and for development (that is, the skills acquired).

The compared cases show the mean developmental trajectory in each age group and from the study of those with the least and greatest progress in 1 year.

The mean changes by age group are summarized in the following table:

	Age	Number	PDI	NYPP	Δ GS	% GS	Δ Dev	TE Dev	Δ Skill
Mean	3-4	9	3.3	0.3	19	0.49	16	1.6	4.1
sd			2,3	0.7	11,2	0.2	18.5	1.8	3.2
Mean	5-6	16	3.1	1.1	18	0.8	16.4	1.6	4.7
sd			1.4	0.9	10.2	0.2	10.8	1.0	2.6
Mean	7-11	17	2.8	3.8	15,8	0.49	10,8	1.0	3.6
sd			1.5	2.5	4,8	0.2	8 .7	0.8	2.7
Mean	12-15	8	2.8	5.8	17.1	0.58	7.5	0.7	3.8
sd			1.3	3.8	6.3	0.2	7.5	0.7	2.8

Table 1: Mean changes for autistic behaviors and development in the age ranges 3-4, 5-6, 7-11 and 12-15 years. IG: Potential difficulty Index for psychotherapy related to moderators; Napa: Number of Years of Previous Psychotherapy; Δ GS: change in BSE-R global score; % GS:% change in BSE-R global score; Dev Δ: change in APEC Developmental score, SE dev: Development Size Effect; Δ Skill: variation in the number of skills.

Mean changes in this table show interesting characteristics.

- The potential difficulty index is similar for each group, from 2.8 for the oldest to 3.3 for the youngest children. The number of previous years of psychotherapy increases of course, from 0.3 for the youngest children to 5.8 for the oldest. The change in the reduction of symptoms and behaviors remains similar from the oldest (17) and the youngest (19) children. We note that the lowest score was found among the children aged 7 to 11, with a mean score of 15.8. This observation is interesting in that it shows that, even among children who have been in psychotherapy for a longer time (the oldest have a YPP of 5.8, and the youngest of 0.3), their symptoms continue to dwindle.

- The same observation cannot be made for development, as we observed that the highest change involved the younger children (around 16), that it dropped in the 7- to 11-year-olds to 10.8, and still further for the 12- to 15-year-olds, to 7.5. This appears to illuminate more objectively the point that development, even though it slows, is only partially correlated to a reduction in the severity of symptoms.

- The last point we note from the table is that the change in skills acquired varies by age group from 4.1 for the youngest children to 3.8 for the oldest; it is 4.7 for the 5- to 6-year-olds and 3.6 for those aged 7 to 11. This point should be examined in more depth in a larger group, but it already seems to show that the capacity for acquiring new skills is particularly strong among children aged 3 to 6 years.

We have distinguished the weakest and strongest outcomes by age group. We review below, in summary, the variables inferred from these differences: type of psychotherapy, preconstructed mediators, emerging mediators, and moderators.

The weakest outcomes concern 5 children in each of 2 groups, those aged 3 to 6 and 7 to 11, and none in the oldest group.

- *Of the children aged 3 to 6* with the weakest results, 2 were in psychodynamic psychotherapy, 2 in exchange and development therapy, and 1 in play therapy. The preconstructed mediators indicate that, for these two children, substantial engagement by the therapists does not make up for the weakness of the children's engagement and participation, and that the activity of specific factors is reduced. The emerging mediators confirm that the deficit of engagement and participation reduced the technical potential of the therapy. The moderators indicated that these children were fundamentally insecure.

- *Of the children from 7 to 11 years old* with the weakest results, 4 were in psychodynamic psychotherapy and 1 in psychomotor therapy. The preconstructed mediators show a reduction in engagement for 3 children and negative or no participation for the 5 children with the worst scores. Similarly, interaction on themes was negative for 4 children. The CVL and PDP scores fell for all members of this subgroup. The emerging mediators confirm that the technical factors were reduced to a minimum in the unattuned or inattentive children who did not participate in play. The moderators indicated that parents were supportive and that the management of these children was mixed. Nonetheless, diverse difficulties (continuity, violence by the child, discontinuity in follow-up, failure of therapy, severe disorders) intervene negatively.

The best outcomes were found in 14 of the 3- to 6-year-olds, 6 of the 7- to 11-year-olds, and all of the oldest group.

- *Of the children aged 3 to 6* with the best results, 11 were in psychodynamic psychotherapy, 1 in exchange and development therapy, and 2 in psychomotor therapy. The preconstructed mediators showed positive (4) or very positive (10) engagement by the child, positive participation for half of them, and a very strong transference relationship. The therapist's engagement was very high, her accommodation to the child very positive, and the technical mediators were active. The common factor F1 was highly active, and the specific mediators F2 and F3 showed implementation of psychotherapeutic techniques among children with good participation. The moderators indicated the establishment of confidence by the child and his family: the child's confidence in his school situation and his psychotherapy and the parents' confidence in the child's progress and a better understanding of the child's world.

- *All 6 of the children 7 to 11 years old* with the best scores were in psychodynamic psychotherapies. The preconstructed mediators indicate that the scores were higher than those for the entire 3- to 11-year-old group and than the group with a low Δ Skill for patient participation, patient transference, interaction on themes, and communication and verbalization. For the emerging mediators, the common factor F1 was very active; F2 was positively active in 5 children and F3 in 3 children, for results similar to those for the youngest group. As for the youngest group, the moderators indicated a basic level of confidence: very close family, possibility of assistance from the social environment or positive convergence of both.

- *All 8 of the children 12 to 15 years old* were in psychodynamic psychotherapy. The preconstructed mediators show the presence of strong patient transference and psychodynamic techniques, that

the mediator communication and verbalization was fairly high for the 7 children, as was the therapist's engagement. For the emerging mediators, the common factor F1 was active for all the children (3+++, 3++, 2+). F2 was not especially active in 5 children and non-existent in 3. F3 was barely active in 6 children and negative for 2. The moderators signaled the child's particular involvement, either in specific activities, such as writing, music, sports, or in school.

The preceding data are presented in the tables below.

Age	No.	Low Δ Sk	%	High Δ Sk	%	Total Apt ≥12	%
3-4	9	2	0.22	4	0.44	3	0.33
5-6	16	3	0.18	6	0.38	6	0.38
7-11	17	5	0.29	3	0.18	7	0.41
12-15	8	-	-	2	0.25	5	0.63

Table 1: Number and percentage of cases with high and low increases in skills, by age group[26]. Of the 9 children 3-4 years, 2 of them have not acquired any ability or 1, while 4 of them have acquired between 6 and 9 and 3 of them have at the end of year 13 or 14 (the maximum) skills acquired.

Age	No.	Type psychotherapy	Preconstructed mediators	Emerging mediators	Moderators
3-6	5	2 PDP, 2 EDT, 1 PT	The preconstructed mediators indicate that substantial engagement by the therapists does not make up for the weakness of the children's engagement and participation, and that the activity of specific factors is reduced.	The emerging mediators confirm that the deficit of engagement and participation reduce the technical potential of the therapy.	Basic insecurity described by moderators and case formulations
7-11	5	4 PDP, 1 Pmot	Reduction in engagement for 3 children and negative or null participation for the 5 children, interaction on themes negative for 4 children. Reduced CVL and PDP scores / entire group scores	The technical factors were reduced to a minimum for the unattuned or inattentive children who did not participate in play.	Supportive parents, multiple types of management. But diverse difficulties (continuity, violence by the child, discontinuity in follow-up, failure of therapy, severe disorders) intervene negatively
12-15	0	all PDP			

Table 3: Inferred variables in poor results, by age group

Age	No.	Type psychotherapy	Preconstructed mediators	Emerging mediators	Moderators
3-6	14	11 PDP, 1 EDT, 2 Pmot,	Child's engagement positive (4) or very positive (10), participation positive 7/14, transference relation ++ (41). Therapist engagement +++, accommodation +, technical mediators active	The common factor F1 is highly active, and the specific mediators F2 and F3 show implementation of psychotherapeutic techniques with children who participated.	Confidence of the child and family. Confidence of the child in schooling and psychotherapy. Confidence of parents in their child's progress, better understanding of the child's world.

[26] Gain skills during the year ≥ 6 or ≥ 12 at the end of the year of study

7-11	6	6 PDP	Scores higher for patient participation, patient transference, interaction on themes, communication, verbalization, psychodynamic approach than the entire 3-11 age group and than the group with low Δ Skills	The common factor F1 was very active; F2 was positively active in 5 children and F3 in 3 children, for results similar to those for the youngest group	As for 3-6 age group, existence of basic confidence. Very close family, possibility of assistance from the social environment or positive convergence of both
12-15	8	8 PDP	Patient transference and PDP ++, communication, verbalization, language 7/8 ++, Engagement therapist 7/8 ++.	The common factor F1 is active in all the children. (3+++, 3++, 2+). F2 was not especially active in 5 children and non-existent in 3. F3 was barely active in 6 children and negative for 2	Particular involvement of children, either in specific activities, such as writing, music, sports, or in school.

Table 3: Inferred process variables and moderators in good results, by age group

3. General results

- ***Influence of underlying theoretical and practical approaches***

Of the 50 cases studied, 41 psychotherapies were performed by psychotherapists with a psychoanalytic approach, 5 by therapists with a cognitive-behavioral orientation, 3 by therapists with a psychomotor approach, and 1 by a play therapist. The statistical analyses show that the cognitive-behavioral therapies can be clearly distinguished from the psychoanalytic and psychomotor approaches; this finding is also confirmed by the matching indices for prototype therapy sessions.

The study shows, however, that this distinction must not be considered a rigid border. That is, there are variations within subgroups in terms of therapeutic approaches and borrowings from other therapies that vary according to both the child's functioning and the point in therapy at which the scoring occurred. Accordingly, for example, the psychodynamic score was higher in the EDT therapy for the T12 scores. This study demonstrates as well that the application of a technique is contingent on the child's condition and development.

- ***Participation of physicians in the study and its effect on their practices***

To these results from the intensive studies of cases, we should add those from a survey conducted among the practitioners who participated directly in these studies, published in *Counselling and Psychotherapy Research*[27]. They stressed 4 particular points about their participation: the theoretical questions that it introduced; its impact on their practice; the ease and interest of working in peer groups; and the feeling that this research seemed important for defending the practice of psychotherapy.

[27] Thurin JM, Thurin M & Midgley N. Does participation in research lead to changes in attitudes among clinicians? Report on a survey of those involved in a French practice research network. *Counselling and Psychotherapy Research* 2012 ; 12(3): 187-193.

Articles already (Amenta and Messeca)[28] and to be (Molinié, Gausset, de Oliveira)[29] published in *Pour la recherche* detail and confirm the data presented in *Counselling and Psychotherapy Research*. We present here their results, discussion, and conclusions:

4. General conclusions, results, and perspectives

The start of the 21st century saw considerable debate about the most appropriate methods for evaluating psychotherapy in the context of the increasing emphasis on "evidence-based practice."

New directions and recommendations were proposed by many researchers (e.g., Kazdin 2007), professional associations (e.g., APA Presidential Task Force on Evidence-Based Practice 2006[30]) and research institutes (e.g., Rush 1998[31]). Some shared ideas have emerged from these debates. Alongside the idea that randomized controlled trials (RCTs) should not be the only method in counselling and psychotherapy research, 3 objectives have been highlighted: a) the need to develop studies in natural conditions (Thurin & Briffault 2006[32]); b) extension of the evaluation of results to include the investigation of the psychotherapeutic process itself in order to better understand the conditions, causes, and mechanisms of change; and c) reduction of the gap between clinicians and researchers (see Goldfried & Wolfe 1996[33]; Thurin &Thurin 2007[34]). International conferences have placed these perspectives in the title of their programs. Two articles recently published in *Autism* (Mesibov 2011[35]) and *Clinical Neurosciences* (Lerner *et al.* 2012[36]) propose changes in this direction and underline the usefulness of studying mechanisms of change at the level of practices and of a possible linkage with basic research.

These orientations are very energizing, but their implementation is complex. Specifically, they require not only the development of rigorous methodologies of observation and analysis of processes of change, but also the aggregation of cases. They also require a high level of involvement of clinicians in research and thus raise the possibility of a true collaboration between clinicians and researchers.

This report shows that these needs can be combined and that they lead to very interesting initial results, in terms of both knowledge and practices.

---

[28] Amenta M et Messeca S. Le groupe de recherche italien. *Pour la recherche* 2012 ; 73-74 (2-3) : 5-6.

[29] Molinié M, Gausset M-F et de Oliveira DA. Les cliniciens et la recherche sur les psychothérapies : retour sur une expérience. à paraître 2013.

[30] APA Presidential Task Force on Evidence-Based Practice. Evidence-Based Practice in Psychology. *American Psychologist* 2006 ; 61(4) : 271-285.

[31] Rush, AJ. Bridging science and service. The National Advisory Mental Health Council's Clinical Treatment and Services Research Workgroup report. 1998, National Institute of Mental Health.
http://www.techniques-psychotherapiques.org/Documentation/ArticlesAccesLibre/nimh_bridgingscienceandpractice.pdf

[32] Thurin, J. M. and X. Briffault. [Distinction, limits and complementarity between efficacy and effectiveness studies: new perspectives for psychotherapy research]. Encephale 2006 ; 32(4 Pt 1): 402-412.

[33] Goldfried, M. R. and Wolfe B. E. Psychotherapy Practice and Research. Repairing a Strained Alliance. *American Psychologist* 1996 ; 1007-1016.

[34] Thurin, J. M. and Thurin M. *Évaluer les psychothérapies. Méthodes et pratiques*. Paris: Dunod; 2007.

[35] Mesibov, G. B. and Shea V. 2011. "Evidence-based practices and autism. *Autism* 2011 ; 15(1): 114-133.

[36] Lerner, M. D., et al. (2012). Mechanisms of change in psychosocial interventions for autism spectrum disorders. *Dialogues in Clinical Neuroscience* 2012; 14 : 307-318.

- ***Developing studies in natural conditions***

This objective seemed very difficult to reach because of the initial reservations and even opposition of therapists to present to others what happens *in situ* in their practice. The general framework of psychotherapy is that of a unique bond, and its description has often been presented as an intrusion likely to disrupt, even fetter, the process itself. Presenting a work that is very difficult and often very frustrating can also induce a fear of exposing their clinical practice in front of their peers and feeling judged.

The network methodology made it possible to overcome these obstacles progressively, for it was not based on any model of ideal therapy but rather of therapy practiced in natural, real-world conditions by therapists who do the best they can on the basis of what they have learned and of their experience, and for whom participation in a research network might have professional value and contribute to enlarging their knowledge base. Within several months, the practical experience of assessment and meetings with peer groups that accompanied one another in analyzing the data collected during sessions moved these therapists and their colleagues past this starting point. They were able to determine that assessment of their case not only did not hinder the process of care, but strengthened it.

Another aspect was the near total lack of training clinicians have in research. This was resolved by training in both large and small groups as well as individually by Internet, by meetings of operational feedback during which scoring problems were raised and clear, specific responses were provided, and by personalized support for the peer groups.

We also note that inter-theory and inter-approach conflicts were avoided by each therapist's attention to remaining at the level of the case study and by the shared concern to provide the best possible service to the patient.

The methodology, which was designed to provide information to help answer current clinical and research questions ("*Why, how and in what conditions does it work*?") not only constituted a very solid and respected framework, but was also well received, and rapidly, thus leading to new requests for inclusion.

The names of INSERM and the Fondation de France, as well as their funding of course, have played an important role, as did the support from the Directorate-General of Health, confirmed by individual letters from its director, Didier Houssin, to Bruno Falissard and Jean-Michel Thurin.

- ***An innovative methodology opening up the study of causes and mechanisms of multidimensional changes***

The network applies an innovative methodology based on intensive studies of individual cases that has enabled:

- ✓ the chronology of multidimensional changes to be followed in 4 different realms: a) autistic behaviors, b) development and the acquisition of new skills, c) acquisition of new functions in understanding, emotional management, and relations with the world and others, and d) the psychotherapeutic process itself, involving the patient, the therapist and her technique, and their interaction.
- ✓ To extract the common characteristics of the internal processes of 50 courses of psychotherapy conducted in natural conditions. These common characteristics have been completed by studies of the courses of psychotherapy conducted with children who 1) were particularly interactive or on

the contrary particularly out of touch or unattuned in their social interactions; 2) presented an especially substantial deficit in emotional modulation. Moreover, the different components of the therapeutic alliance and of the pivotal factors likely to play a role in the process of change were analyzed.

The process of psychotherapy can thus be described and analyzed, and this is one of the most innovative aspects of the network. Among the numerous results shown by this analysis, one in particular appears to us to require highlighting: the general attunement of the child to psychotherapeutic situation conditions the application of the technique, regardless of which it is. This attunement is itself contingent on the quality of the approach specific to experienced clinicians *and the external contextual factors, favorable or unfavorable, which can change*. Considering them as part of the case formulation is essential, and modeling it is part of the future plans of the network.

- ✓ To describe specifically the contextual factors (moderators) possibly involved in the results.

In addition to the results presented above, these studies enabled

- ✓ The constitution of a database simultaneously structured and open, which can include individual cases, present them and query them according to variables from the instruments or directly; this allows analyses of groups and subgroups with a constant return to the individual cases. Each individual case provided information that also concerned the entire set of cases, and vice versa; it may also be one of the similar cases, whose similarities and differences in terms of characteristics, results, and trajectory can be described and analyzed;
- ✓ To bring together clinicians and researchers who invested in this project, all with different approaches; the sharing of tools and methods enlarged the research hypotheses, had a pedagogical value, and repercussions on practices, as the participants underlined.

▪ *Reduce the gap between clinicians and researchers*

Relations between clinicians and researchers have developed both within the network itself and internationally.

In France, this favorable process can be attributed to the personal involvement of leaders who are simultaneously respected and very involved in clinical practice, research, or both, to the choice of instruments that are, to use L. Castonguay's expression, "clinically syntonic", and finally, to the pressures on practice. At the same time, at the point that the clinicians became interested in this work, they were demanding towards the researchers. They did not simply apply the methodology but sought to understand its foundations. The researchers played their role in explaining it. This has led to a very positive dynamic of individual and collective exchanges for this complex work, which will continue.

In the international framework, therapeutic action in its different components, the processes and factors of change in psychotherapy, the methods for understanding them, the rapprochement between clinicians and researchers, and the bridges between research in psychotherapy and basic research are at the heart of publications and conferences, especially those of the *Society for Psychotherapy Research*, which brings together researchers in this field from the different continents. The analysis of evidence-based practice is already close to complete and has led to numerous articles and books. The new

recommendations of the *American Psychological Association*[37] in this realm mark a radical turning point that is expressed in the role given to clinical expertise, to the complementarity of research methods and to their respective domains, and to their accommodation to the specificities of patients. This development has allowed a renewal of relations between the different approaches. It will not prevent work by different approaches, but research is a setting in which differences, even divergences, can be expressed. Researchers have become aware of the harm done to them by their isolation in a world more concerned by formal questions than by the resolution of those with clinical bases; they seek means of bridging the gap between themselves and clinicians.

In this context, the network is contributing to the approach to central questions in linking it to the pragmatic dimension of its implementation. Links created since the constitution of the network, which have been enhanced by the translation and use of common tools, are creating a community with requests to follow the network's work, requests for presentations, and proposals for publications.

- ***Positioning of this research in the context of evidence-based practices***

We noted above developments in the U.S. and elsewhere of methodologies leading to evidence in psychology and recommendations for practice (evidence-based practices) attached to them. The methodology of the network is included in this development.

In France, within the framework of Plan Autism 2008-2010 developed by the Ministry of Health, HAS (High Authority for Health) has published several texts and recommendations of good practice about the professional practice of diagnosis of autism (1/06/2005), the state of knowledge about autism (24/3/2010), and educational and therapeutic interventions coordinated for children and adolescents (8/03/2012).

The research protocol of the Network applied to autism was developed prior this program.. It was submitted to Inserm following the publication of expertise 2004, according to new international proposals as well as several on-going researches[38] [39] [40] [41] [42] and implementation of a pilot study on these bases[43].

The report clearly shows that the variety of situations and practices highlighted in the framework of the recommendations HAS are truly those that correspond to the variety of therapeutic situations and specific practices encountered in ASD. Their variety implies the need for methodological research to which the network contributes as a pioneer.

---

[37] APA Presidential Task Force on Evidence-Based Practice. (2006). Evidence-Based Practice in Psychology. *American Psychologist*, 61(4), 271-285.

[38] Kazdin AE, Kendall PC. Current progress and future plans for developping effective tratments: comments and perspectives. J Clin Psychol 1998;27(2):217—26.

[39] Fishman DB. Transcending the efficacy versus effectiveness research debate: proposal for a new, electronic ‘‘J, Pragm Case Stud’’. Prevention and treatment 2000; 3. http://journals.apa.org/prevention/volume3/toc-may03-00.html.

[40] Gabbard GO, Gunderson JG, Fonagy P. The place of psychoanalytic treatments within psychiatry. Arch Gen Psychiatry 2002;59:505—10.

[41] Lutz W. Patient-focused psychotherapy research and individual treatment progress as scientific groundwork for an empirically based clinical practice. Psychother Res 2002;12(3): 251—72.

[42] Howard KI, Orlinsky DE, Lueger RJ. Clinically relevant outcome research in individual psychotherapy. New models guide the researcher and clinician. Br J Psychiatry 1994;165:4—8.

[43] Briffault, X., et al. (2007). "[New directions for psychotherapy research: an evaluation of a research protocol and a methodological and technical framework proposal]." Encephale 33(6): 911-923.

We also note that the first results presented in this report provide answers to many questions in these texts and proposes a method to advance both in the sense of improving practice and knowledge development.

At the international level, the methodology of the studies conducted in the network corresponds to the most recent guidelines in the domain of ASD, which underline the importance of the protocols of single-case designs and qualitative research ((Mesibov et Shea 2011[44]). The guidelines recommend also that researches "begin to focus on identifying predictors of individual differences in response (that is, the moderators) to these treatments" and to "carefully specify the processes by which each component of intervention produces specific changes in social-communicative outcomes." This definition is a stage in understanding the mechanisms of change and their possible linkage to other levels of their objectification than the clinical (Lerner 2012).

The most distinctive feature of the network is its concrete implementation of these guidelines and the initiation of a practice-based research process in natural conditions.

5. Communications and Publications

Since 2010, at least 27 communications related to the network's ASD section have taken place, including 6 in English at international conferences.

The French publications have concerned general developments in methodology at the international level, the presentation of the network methodology in several peer-reviewed journals, the publication of the network's results as it develops and is available, and the publication of the translation of the CPQ, after that of the PQS.

Three articles in French and on chapter of book are forthcoming. One medical thesis was made.

Five posters from work at the ASD section have been presented and discussed in English at international conferences;

One article has been published in English, and 2 others are being prepared for submission.

6. Perspectives

The new issues in assessment and clinical research in psychotherapy in the domain of ASD are illustrated by the establishment of this network of *practice-based research*, its functioning, and its results. This Psychotherapy Practice-Based Research Network has enabled the development of a cohort of cases treated in natural conditions, a cohort for which the protocol has been completed for the first 50 cases and whose analysis and initial results are presented here. This cohort currently has 25 other cases underway, and ancillary studies are starting on children with ASD who are also deaf or epileptic and adults with ASD.

This report shows the extent to which the constitution, dynamics, and effectiveness of a network based on practices depends on work performed with clinicians at every level, and especially the work of communication, leadership, training, support, permanent exchanges associated with studies, operational feedback, and experience.

[44] Mesibov G B and Shea V. Evidence-based practices and autism. *Autism* 2011; 15(1): 114-133.

Meanwhile, the analysis of data requires much work to best use in the double register of practices and knowledge the amount of information collected.

The selection by INSERM in 2008 of this research project in the framework of clinical research and population health networks launched a dynamic process. It must be sustained to continue, deepen, and reinforce the studies currently underway.

Five principal perspectives appear for the research in the strict sense of the term:

1. Continue inclusions and enrich the database

- The network continues to receive individual and institutional requests. They result from a major communication effort in different places and the training and follow-up sessions that supported it.

> The network must be prolonged so as to strengthen the number of cases in general and to be able to balance the participation of the different approaches already present: psychodynamic, exchange and development (and other forms of CBT), and psychomotor therapies.
>
> The database must be able to be extended to new cases to allow more complex statistical analyses.

- Requests about ASD in children, but also in adults and children with other associated disabilities (e.g., deafness, epilepsy).

> It appears important to enlarge the inclusion criteria to children with ASD and other disabilities and to adults. Two peer groups are going to participate in a pilot study.

- Requests for other approaches (mediation by art therapy).

> A peer groups is going to participate in a pilot study.

2. Systematize the modeling of factors that play a role in the changes at the individual and group levels

3. Pursue and reinforce international relations

4. Establish collaborations with basic research

> Studies based on knowledge of the physiological effects of stress and their repercussions on cognitive and psychosocial functions appears to be an accessible bridge for bringing together different levels of approaches, ranging from clinical to biology.

5. Determine the number of children with ASD in psychotherapy, globally and in each approach

> The characteristics, style, process, and results of psychotherapy as well as the conditions in which these results were obtained have been described and analyzed in detail in the study population. The results appear significant. It appears important to obtain a better understanding of the actual place of psychotherapeutic practices in the French system of care.