



# New tools for studying psychotherapies

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**The Psychotherapy Practice Based  
Research' Network**

**Background**

**Aim - Purpose**

**Material : Data and Tools**

**Method : The DAP**

**Results**

**Discussion**

**process-outcome intensive case studies,  
mixed methods,  
quantitative and qualitative approaches**

**X003's most characteristic items on the interaction dimension (item[k] in (3 4) or (-3 -4) )**

<b>itemnum</b>	<b>X003</b>	<b>CPQformulation</b>	<b>action</b>
<b>23</b>	<b>4</b>	<b>The therapy session has an objective or a specific theme</b>	<b>I</b>
<b>88</b>	<b>4</b>	<b>The session material is significant and appropriate to the child's conflicts</b>	<b>I</b>

**X005's meaningful items (stayed at the -2 or 2 values all year long)**

<b>itemnum</b>	<b>X005</b>	<b>CPQformulation</b>
<b>26</b>	<b>-2</b>	<b>The child is socially unbalanced</b>

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X005's most changing item ((-4 -3 -2) → (2 3 4) or (2 3 4) → (-4 -3 -2))

itemnum	X005	CPQformulation
14	3	Symptoms or physical health are discussed

Y001's neutral items ((abs(nsmean[k]) < 1 & nssd[k] < 1))

Y001	nsmean	nssd	CPQformulation
14	-0.33	0.58	Symptoms or physical health are discussed
43	0	0	The therapist suggests others'behaviour signification
74	0.67	0.58	Humor is used
82	-0.33	0.58	The therapist helps the child control his feelings

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**the Descriptive Analysis Plan (DAP)**

**a functions library**

**21 steps and 3 levels of analysis**

**-an intensive case study level**

**-group and subgroups levels ---> cluster, FactoMineR, lme4**

**-a case by case comparison level**

**a psychotherapy data base**

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**3 talks at baseline**

**2 talks**

**+ mixed\* evaluation of changes with the **BSE** and the **APEC****

**+ mixed\* psychotherapy process study with the **CPQ****

**at 2, 6 and 12 months**

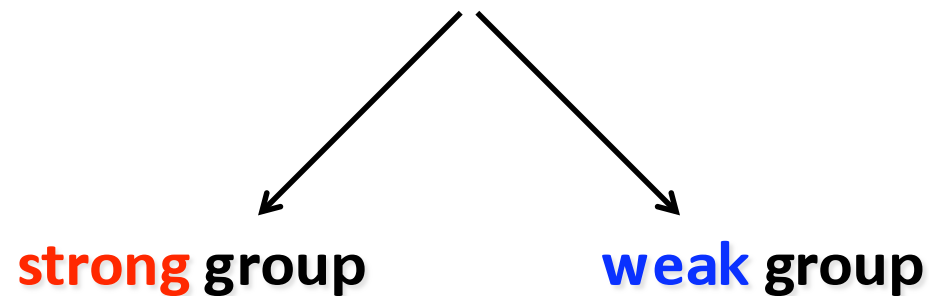
**\* qualitative and quantitative**

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an intensive case study level  
the child at baseline with the moderators  
the results at 2, 6 and 12 months  
the psychotherapy process with the mediators

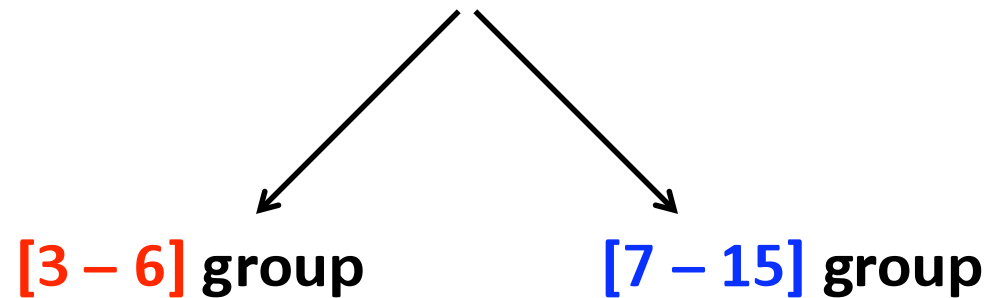
group and subgroups levels  
PCA and cluster analysis at 2, 6 and 12 months  
patients' typology n°1 (by abilities gain after one year)



**Background**  
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**group and subgroups levels**  
**patients' typology n°2 (by age at baseline)**







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clusters	at 2 months	at 6 months	at 12 months
1st groups	X003 Y001 Y003 Y009 Y011 Y012 Y015 Y021 Y022 Y034 Yi05* Yi06 Yi11 Yi14 Yi19 Yi22 Yi28 <b>PP + EP</b>	X003 X005* X007 Xi03 Xi32 Y010 Y011 Y015 Y017 Y022 Y036 Yi05 Yi14 Yi16 Yi19 Yi24 Yi28 <b>IPDT + EP</b>	X003* X005 X007 Y001 Y009 Y015 Yi11 Yi16 Yi19 Yi25 <b>IPDT - ET</b>
2nd groups	X005 X007* Xi03 Xi32 Y010 Y013 Y017* Y018 Y020 Y036 Y041 Yi16 Yi20 Yi23 Yi24 Yi25 <b>IPDT - PP</b>	X030 Y019 Y030 Y031 Y032* Y033 <b>ICBT - EP</b>	X030 Y019 Y030 Y031* Y032 Y033 <b>ICBT</b>
3rd groups	X030 Y019 Y030 Y031 Y032* Y033 Y037 Yi13 <b>ICBT</b>	Y001 Y003 Y009 Y012 Y013 Y018 Y020 Y021 Y034 Y037* Y041 Yi06 Yi11 Yi13 Yi20 Yi22 Yi23 Yi25 <b>ET + AT + CVL</b>	Xi03 Xi32* Y003 Y010 Y011 Y012 Y013 Y017 Y018 Y020 Y021 Y022 Y034 Y036 Y037** Y041 Yi05 Yi06 Yi13 Yi14 Yi20 Yi22 Yi23 Yi24 Yi28 <b>ET + ECA</b>

2 results scores: **BSE**: Behavior Summarized Evaluation scale, **APEC**: Autism Psychodynamic Evaluation of Changes,  
3 psychic state indicators **INS**: INSight, **EAD**: Expression negative Affect Defense, **RRE**: Relation to REality, **CPQ**: Child Psychotherapy process Q-Set,  
12 mediators: **ICBT**: Ideal Cognitive Behavioral Technique, **IPDT**: Ideal PsychoDynamic Technique, **EP**: Patient Engagement, **PP**: Patient Participatio,  
**ALM**: ALliance, **ET**: Therapists Engagement, **AT**: Therapist Adjustment, **IT**: InTeraction, **ECA**: Emotion Countenance Affects, **CVL**: Communication,  
Verbalization Language, **IS**: Interpretation Signification, **CC**: Counselling and Behavior

**active mediators on the results scores and the others**

mediators	EG_year		Dev_year	
	correlation coefficients	p-values	correlation coefficients	p-values
ICBT	0.207	0.02158 *	-0.355	0.0001508 ***
IPDT	-0.284	0.0001485 ***	0.417	1.636e_06 ***
EP	-0.299	0.0007956 ***	0.331	0.001911 **
PP	-0.439	3.752e-07 ***	0.295	0.0009089 ***
ALM	-0.338	0.0001331 ***	0.256	0.004259 **
ET	-	-	-	-
AT	-0.188	0.03756 *	-	-
IT	-	-	0.263	0.00326 **
ECA	-	-	-	-
CVL	-	-	-	-
IS	-	-	0.243	0.006741 **
CC	0.314	0.0004127 **	-0.504	2.754e-09 ***

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**group analysis: comparing the weak and the strong groups**

chgweakgroup

```

ICBTy      IPDTy      EPy      PPy      ALMy      ETy      ATy      ITy
"plat_dec" "hollow " "grw_plat" "growth " "growth " "grw_plat" "hollow " "stable "
ECAy      CVLy      ISy      CCy      INSy      EADy      RREy      EG_y
"peak " "decline " "hollow " "plat_dec" "hollow " "peak " "growth " "stable "
Dev_y
"grw_plat"
    
```

cumweakgroupmatrix

	ICBTy	IPDTy	EPy	PPy	ALMy	ETy	ATy	ITy	ECAy	CVLy	ISy	CCy	INSy	EADy	RREy	EG_y	Dev_y
2m	14.3	27.2	-13.6	-27.1	8.5	44.0	25.7	13.6	16.7	20.4	7.5	11.8	-27.9	10.3	-7.4	32.3	19.3
6m	14.0	19.1	0.0	-10.0	14.2	47.6	22.1	11.4	20.2	12.8	-1.4	10.7	-33.6	24.2	0.6	33.2	22.3
12m	7.3	35.5	0.0	-5.0	19.7	47.6	43.6	12.2	13.7	9.7	7.1	4.3	-26.4	15.9	11.9	34.5	22.7

chgstronggroup

```

ICBTy      IPDTy      EPy      PPy      ALMy      ETy      ATy      ITy
"plat_dec" "stable " "stable " "stable " "stable " "plat_dec" "decline " "stable "
ECAy      CVLy      ISy      CCy      INSy      EADy      RREy      EG_y
"grw_plat" "stable " "grw_plat" "plat_dec" "grw_plat" "grw_plat" "grw_plat" "decline"
Dev_y
"growth "
    
```

cumstronggroupmatrix

	ICBTy	IPDTy	EPy	PPy	ALMy	ETy	ATy	ITy	ECAy	CVLy	ISy	CCy	INSy	EADy	RREy	EG_y	Dev_y
2m	2.5	44.1	14.8	2.3	24.5	50.9	35.0	19.2	14.2	15.6	3.0	-8.1	-13.9	13.3	9.7	27.0	39.3
6m	1.8	46.7	17.3	5.0	24.8	50.9	30.2	20.8	22.6	17.7	7.2	-6.5	-10.3	16.6	13.0	23.1	44.0
12m	-4.1	48.2	18.1	4.2	22.7	47.2	23.7	20.2	21.4	19.1	5.6	-12.9	-7.7	16.8	15.6	17.6	51.3

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group analysis: comparing the [3 – 6] and the [7 – 15] groups

```
data41patientslt_7 <- data41patients[which(age41patients < 7), ]
```

```
data41patientsge_7 <- data41patients[which(age41patients >= 7), ]
```

```
lme(Dev_year~ time + following, random=~ -1 | patient, corr=corAR1(), data=...)
```

the [3-6] group model

Dev\_year ~ 20.99 + 0.973 x time\* + 0.136 x following

p-value(intercept)= 0.0001

p-value(time) = 0.0150

the [7 – 15] group model

Dev\_year ~ 37.427 + 0.445 x time\* + 1.596 x following

p-value(intercept)= 0

p-value(time) = 0.0329

\* time in months

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**Go on with the inclusions, 100 patients being the ultimate objective.**

**Carry on with group and subgroups levels analysis**

**Design elaborate and powerful models with enough patients to get nice results**

**Apply this DAP to other populations such as the borderline**