

# Why Family-Focused Treatment with UHR Youth and their Families?

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What have treatment studies conducted with youth at UHR for psychosis taught us so far?

# Randomized Controlled Prevention Trials in Patients at Clinical High-Risk for Psychosis

Parameter	McGorry	McGlashan	Amminger	Morrison	Addington
<b>Active tx vs control condition</b>	Risperidone + CBT vs Placebo + Support	Olanzapine vs Placebo	Omega 3 Fatty Acids vs Placebo, CBT for both	CBT vs Monitoring	CBT vs Supportive Therapy
<b>N's</b>	31/28	31/29	41/40	35/23	27/24
<b>Positive symptoms</b>	↓	↓	↓	↓	No diff.
<b>Conversion to psychosis</b>	↓ at end of tx; no diff. at f/u	↓ at end of tx; no diff. at f/u	↓	↓ at end of tx; no diff. at f/u	No diff.
<b>Negative symptoms</b>	No diff.	No diff.	↓	No diff.	No diff.
<b>Functioning</b>	Not assessed	Not assessed	↓	Not assessed	No diff.
<b>Side effects</b>	Significant weight gain	Significant weight gain	None	None	None

Randomized controlled multicentre trial of cognitive behaviour therapy in the early initial prodromal state: effects on social adjustment post treatment

Bechdolf et al., 2007, *Early Intervention in psychiatry*: 1:71-78

- 128 help-seeking outpatients in a potential early initial prodromal state of psychosis (EIPS)
- EIPS – self-experienced cognitive thought and perception deficits (basic symptoms).
- Treatment: CBT (12 months – received an average of 23 sessions) vs Supportive counseling (12 months – average of 16 sessions)
- Outcome: Social adjustment
- Both treatments resulted in significant improvements on social adjustment scales with no significant differences between groups.

Addington et al., 2010

## Percentage of time given to different interventions

<b>Intervention</b>	<b>CBT</b>	<b>Support</b>
Assessment	42%	31%
Goal Setting	26%	0%
Engagement	47%	43%
Formulation	27%	0%
Normalization	30%	0%
Education	23%	0%
Alternative Solutions	13%	0%
Alternative explanations	17%	0%
Safety Behaviors	5%	0%
Metacognitive beliefs	7%	0%
Core beliefs	24%	0%
Relapse prevention	9%	0%
Termination	15%	0%
Crisis Intervention	0%	1%
Support	0%	75%
Befriending	0%	18%

# Theoretical Basis of CBT

Paul French and Anthony Morrison (2004)

- Initial onset of psychotic symptoms is related to an inability to generate alternative explanations for internal or external events.
- This may be partially due to the fact that there are not supportive social relationships in place that would help the individual to generate more normative explanations (or the individual is not making use of potentially supportive others).
- Unhelpful cognitive responses (such as selective attention) and behavioral responses (such as avoidance) may contribute to the maintenance of distress and psychotic interpretations.

# A lot of Interest in CBT. Look for results from:

- Morrison's group with a sample of 288!
- The Dutch Early Detection and Intervention Evaluation group (EDIE-NL) trial (Rietdijk et al., 2010)  
Patients aged 14-35 referred to mental health services

Screen the entire population with the Prodromal Questionnaire and for high-scorers following up with the CAARMS

RCT of CBT (max 25 sessions within 6 months) vs. TAU

# What have we discovered with RCTs with the UHR population?

- Randomized controlled trials testing the prophylactic effects of antipsychotic medications have produced inconclusive results with discouraging side effects.
- Low risk interventions (omega-3 fatty acids and psychosocial) are well suited to a UHR population because they show some effectiveness and limit exposure to adverse events in potentially false positive cases.
- It is important to develop psychosocial interventions that can improve functional outcomes.
- Perhaps we should look beyond the individual (UHR youth) to understand the impact of intervention on significant others?

# Why family interventions during the UHR period?

- UHR youth tend to be adolescents living with their families.
- They are in a developmental stage that requires them to cope with the daily demands of family environments.
- Parents who bring these youths to clinics are often looking for support and guidance and may be at risk for developing symptoms themselves due to the stress imposed by their youths' symptoms.

# Comparable family burden in families of clinical high-risk and recent-onset psychosis patients

Wong et al., 2008 Early Interv Psychiatry, 2(4): 256-261

- The Family Experiences Interview Schedule was used to assess objective and subjective burden.
- Worry was as high as previously reported for more chronic patients, but there was a relative absence of anger.
- “Early in emerging psychotic illness, families report helping patients and worrying about them but they don’t have much anger or resentment. This may be an ideal time for intervention with families.”

# Family History of Mental Illness

## 377 UHR youth from the NAPLS study

Woods et al [Schizophr Bull. 2009 Sep;35\(5\):894-908](#)

Family History of Psychotic Illness
In First Degree Relatives: 18.6%
In First or Second Degree Relatives: 33.0%
Family History of Nonpsychotic Psychiatric Illness
In First Degree Relatives: 48%
In First or Second Degree Relatives: 66.1%

# What do empirical findings suggest about the potential utility of family interventions during the UHR period?

- **Evidence from adoption, expressed emotion, and treatment studies indicates that families play a key role in the evolution of symptoms in psychosis.**
- Evidence from studies of individuals with bipolar illness indicates that FFT with pharmacotherapy is more effective in preventing hospitalization than individual therapy with pharmacotherapy.
- Early work on family factors during the first putative prodrome suggests that families may play an important protective role.

# Genotype-environment interaction in schizophrenia-spectrum disorder

Tienari et al (2004) *The British Journal of Psychiatry*

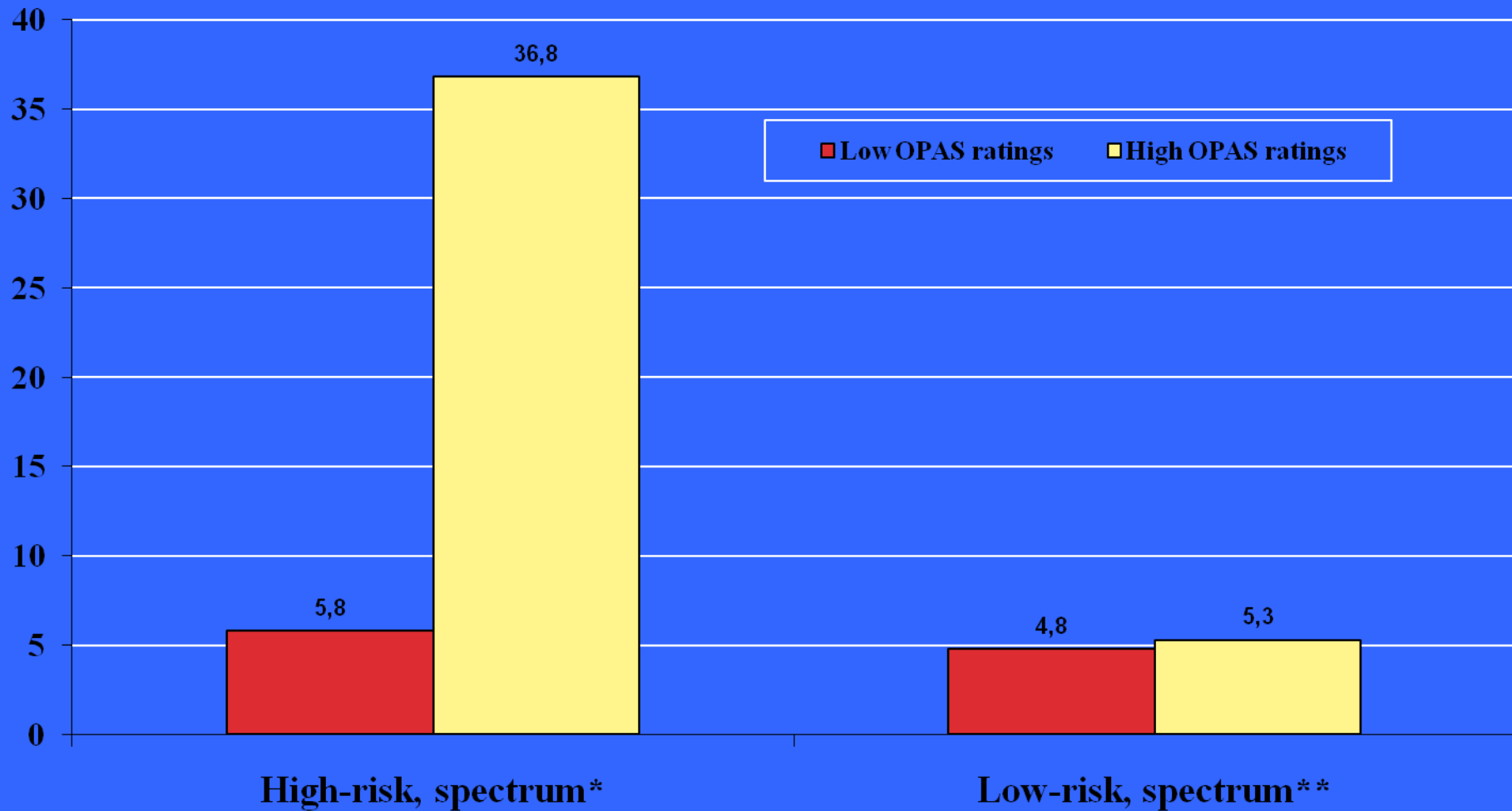
- Adopted offspring of biological mothers with and without schizophrenia-spectrum disorders were compared at median age 44
- Adoptive families assessed at home
- Family assessments    Median age = 23

# OPAS Scales

- Critical/Conflictual
- Constricted
- Boundary Problems

# Effects of genetic risk and family functioning on eventual schizophrenia-spectrum disorders

% of sub-sample

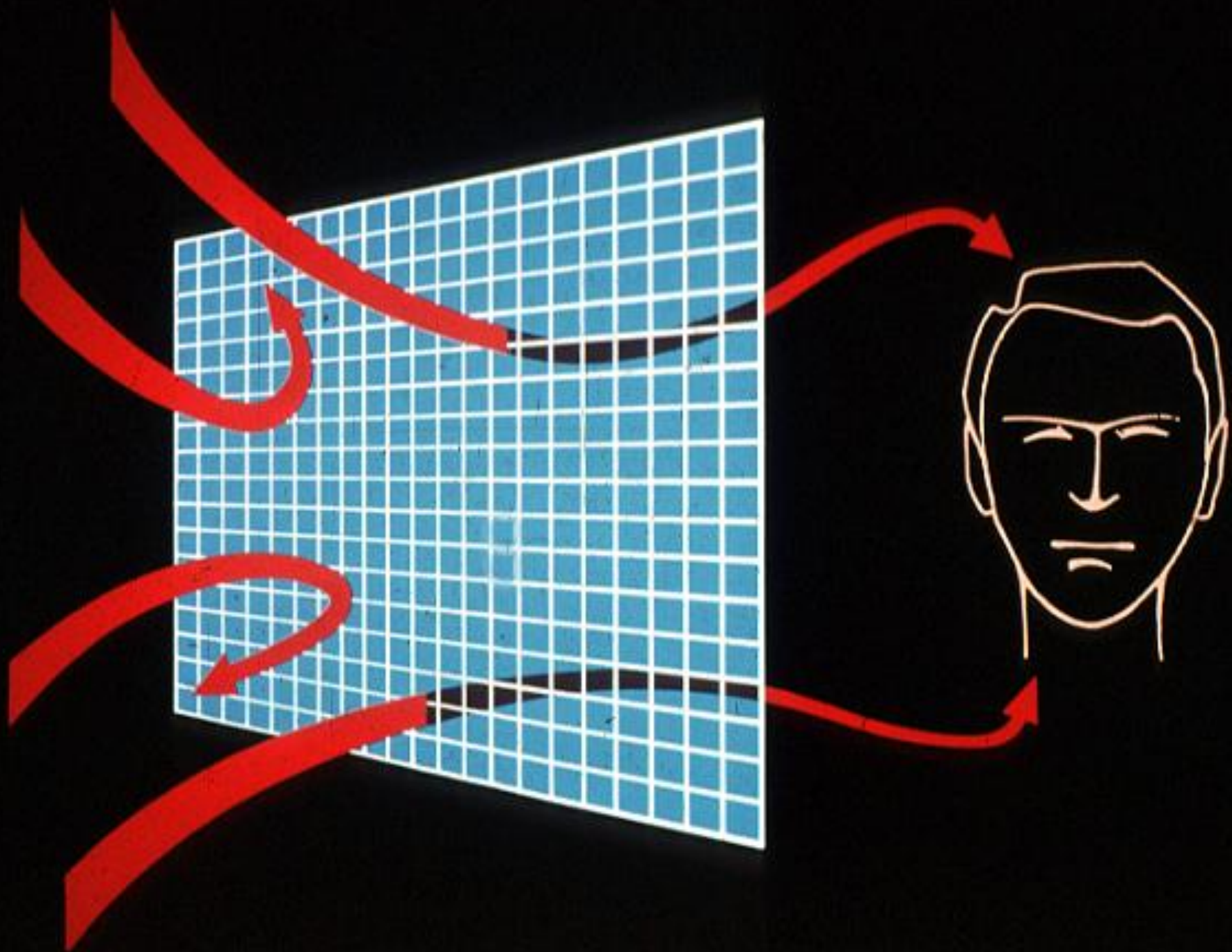


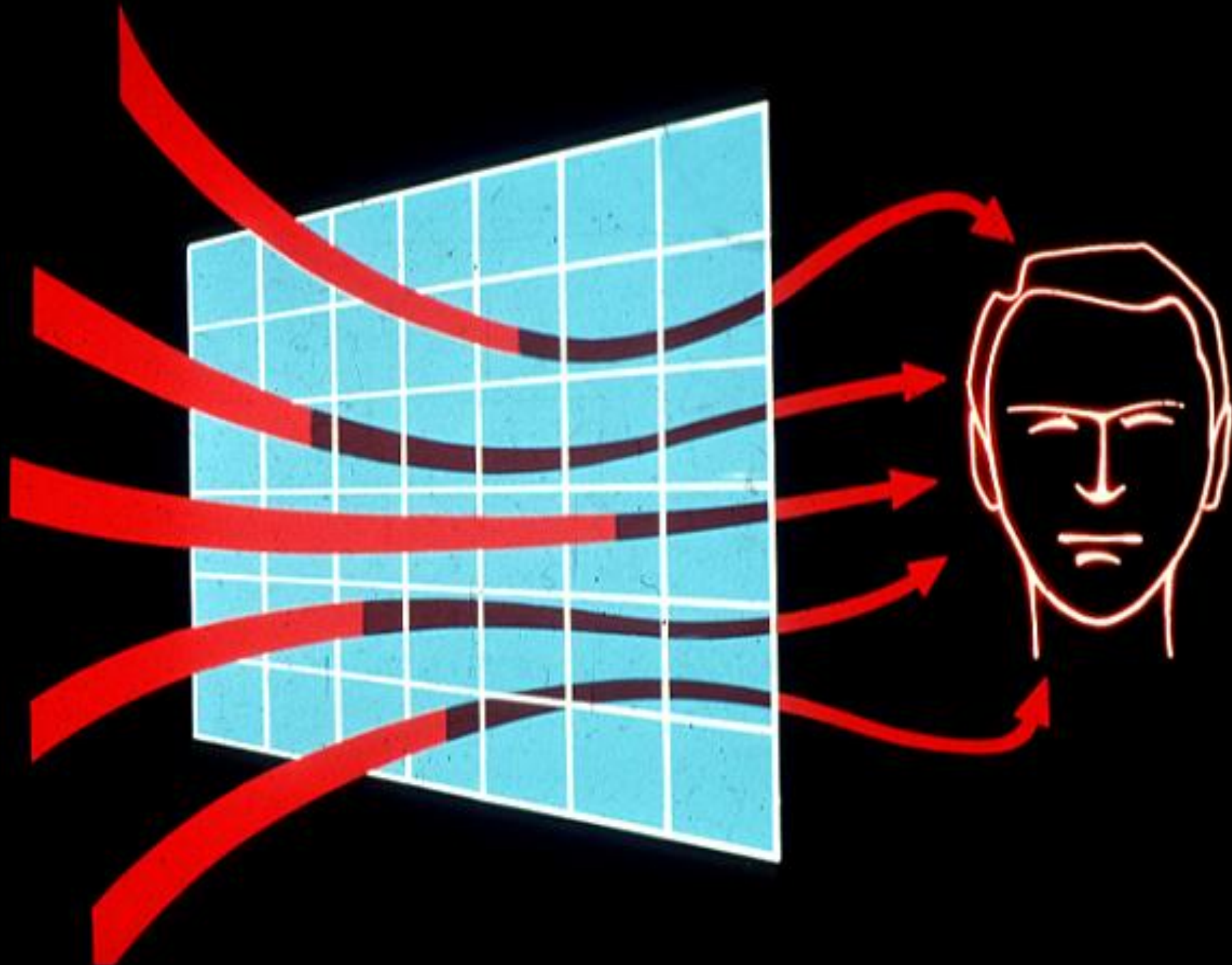
\*  $p < 0.001$

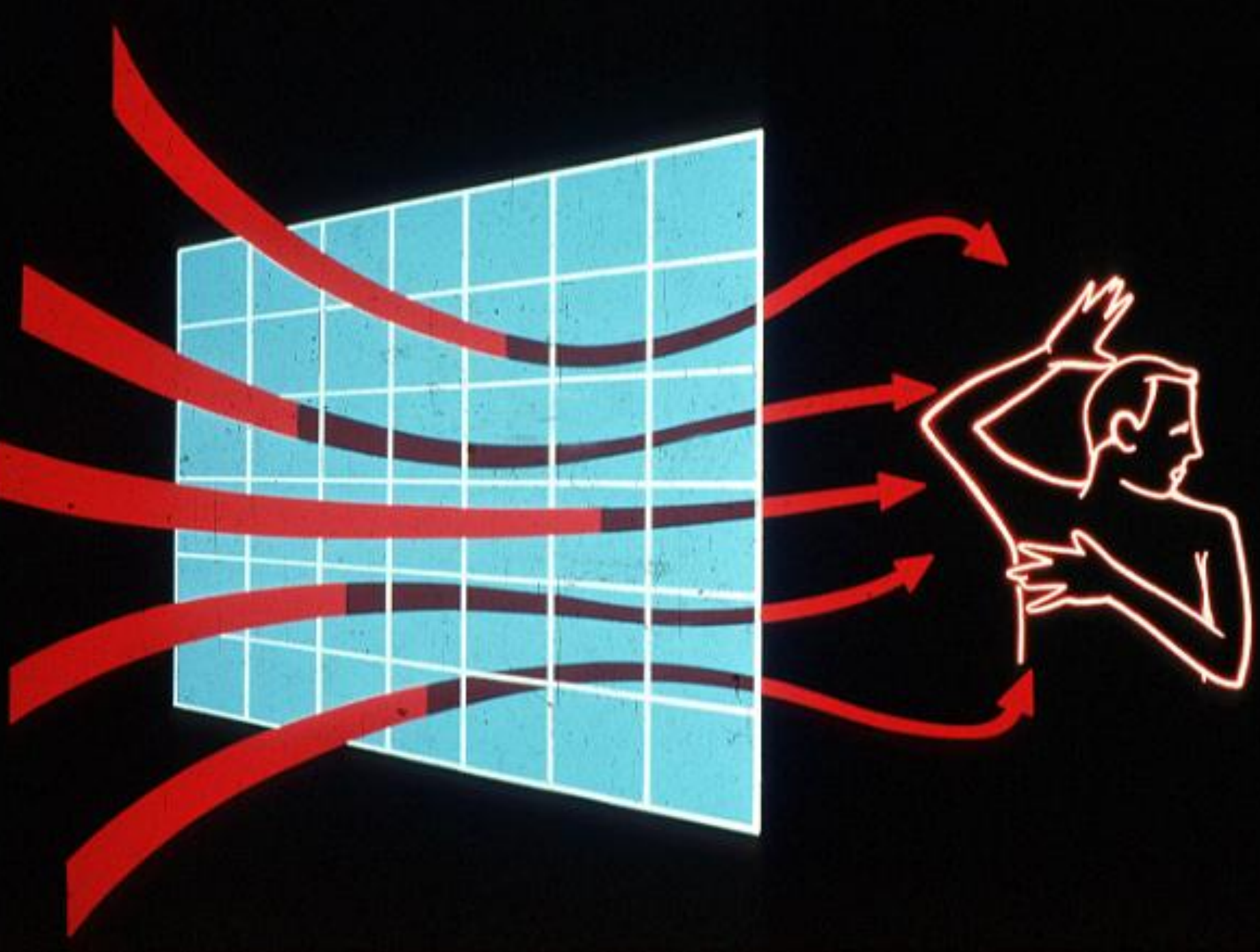
\*\* $p = 0.582$

# Implications:

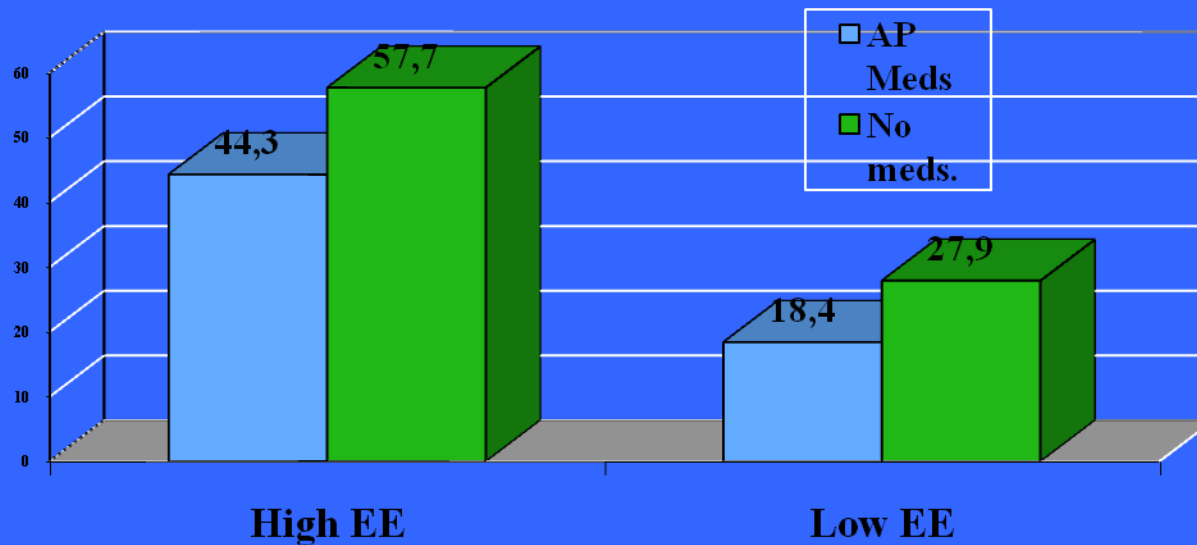
- Adoptees at genetic risk are more sensitive to problems in the adoptive family.
- There may be a protective effect in having been reared in a “healthy” adoptive family.



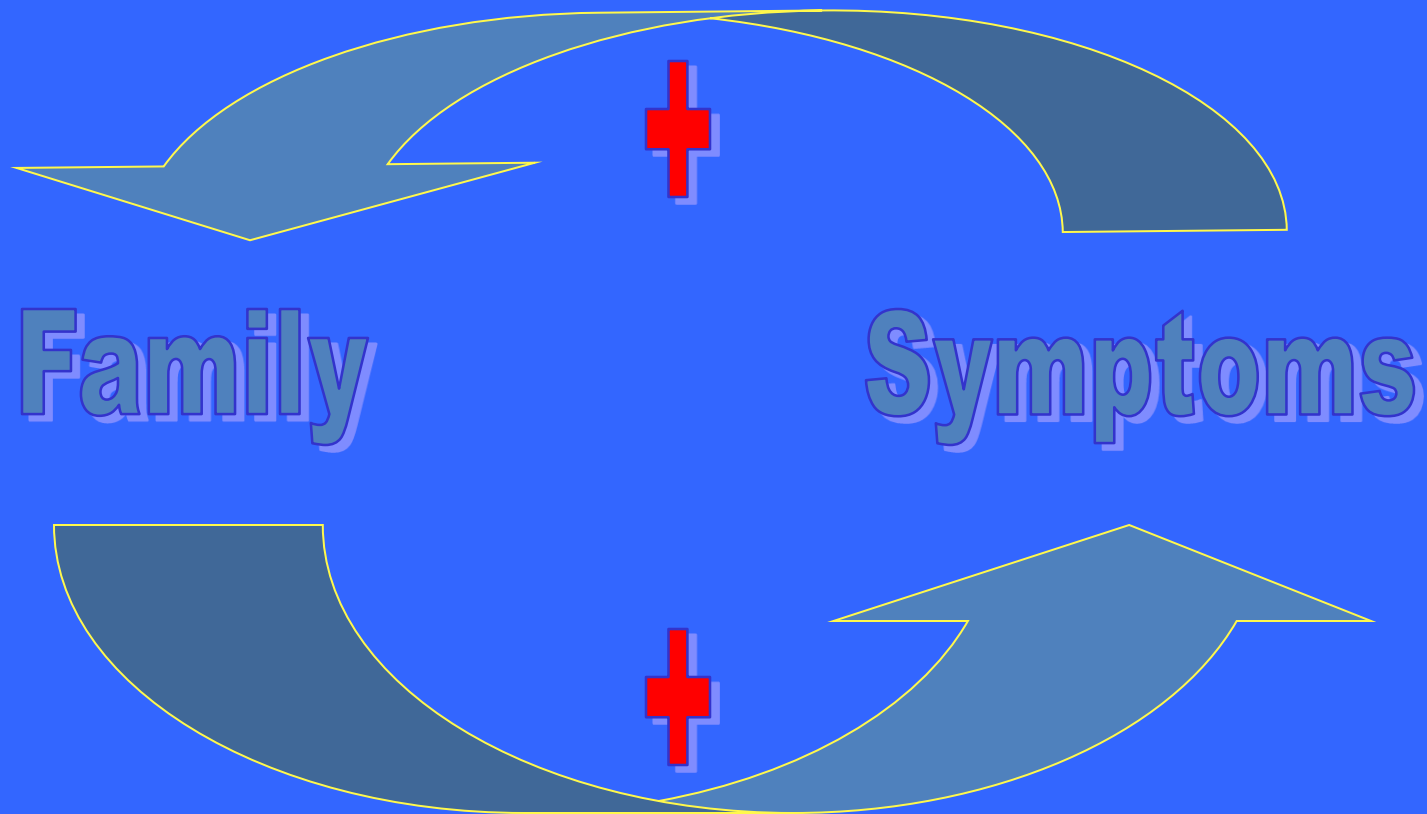




# Effects of EE and medication on relapse in schizophrenia



# Interaction of patient symptoms and family process: A simple causal model



# Assumptions of Psychoeducational Family Therapy Approaches

McFarlane et al., Journal of Marital and Family Therapy (2003) 29 (2) 223-245

- Living with a set of symptoms is difficult and confusing for patients and families alike.
- A well functioning family can benefit from knowledge about symptoms and coping skills that are tailored to the symptoms and may help the family adapt.
- Illnesses such as schizophrenia are recognized as biologically based illnesses that are only partially remediable by medication and families can have a significant impact on their relative's recovery.
- The way family members behave toward the symptomatic relative can facilitate or impede recovery by compensating for deficits and sensitivities specific to the various disorders.

# Assumptions of Psychoeducational Family Therapy Approaches (cont)

McFarlane et al., Journal of Marital and Family Therapy (2003) 29 (2) 223-245

- “For example, a family might interfere with recuperation if, in their natural enthusiasm to to promote and support progress, they create unreasonable demands and expectations.
- However, the same family could have a dramatically positive effect on recovery by gradually increasing expectations and supporting an incremental return of functioning. “

# Assumptions of Psychoeducational Family Therapy Approaches (cont)

McFarlane et al., Journal of Marital and Family Therapy (2003) 29 (2) 223-245

- The approach is strength based and aims to empower family members to optimize their effectiveness in coping with symptoms.
- A major goal of treatment is skill enhancement:
  - Increased knowledge about symptoms
  - A conceptual guide
  - Enhanced ability to identify and cope with daily stress
  - Enhanced communication skills
  - Enhanced problem solving skills

# Relapse outcome or rehospitalization, controlled trials, 1977-1997

Pitschel-Walz et al., 2001, Schizophrenia Bulletin, 27 (1) 73-92

- Outpatients (62%)
- Average age of patient: 16-40 years
- 2/3 male
- Schizophrenia or schizoaffective diagnoses
- Relatives included were usually the patient's parents (range: 50-100%)
- Duration of interventions: 2 weeks – 4 years

**Table 2. Relapse rates and effect sizes (comparison I: family intervention vs. usual care)**

Study	$n_1/n_2$	Relapse Rates		Effect size, first year	Effect size, second year
		Family intervention (%)	Usual care (%)		
Goldstein et al. 1978: high dosage	23/29	0	14	0.26	
Goldstein et al. 1978: low dosage	23/21	22	48	0.27	
Hogarty et al. 1991	21/29	19	38	0.20	
		29	62		0.33
Kelly and Scott 1990	75/104	35	45	0.11	
Leff et al. 1985	12/12	9	50	0.46	
		40	78		0.38
Posner et al. 1992	19/20	26	40	0.15	
Randolph et al. 1994	21/20	38	50	0.12	
Spencer et al. 1988	79/89	Global outcome: $\chi^2 = 5.29$ , $df = 1$ , $p = 0.0214^*$		0.18	
	77/81	Global outcome: $\chi^2 = 3.23$ , $df = 1$ , $p = 0.0723^*$			0.14
Spiegel and Wissler 1987	14/22	57	50	-0.07**	
Tarrier et al. 1989: long intervention	25/15	12	53	0.45	
		33	60		0.26
Tarrier et al. 1989: short intervention	14/15	43	53	0.10	
	57/60	60			0.03
Vaughan et al. 1992	17/17	41	65	0.24	
Xiong et al. 1994	34/29	12	36	0.28	
	32/28	13	36		0.27
Zhang et al. 1994	39/39	15	54		0.40
Mean effect sizes				$\bar{r} = 0.19$	$\bar{r} = 0.25$

Note.—Mean effect size (overall)  $\bar{r} = 0.20$ ;  $n = 874$ ;  $p < 0.0001$ ; 95% confidence interval = 0.14–0.27.

\* The Global Assessment Scale was used; the cutoff score was 60.

\*\* Negative effect sizes indicate a result in favor of the usual care treatment condition.

Spiegel et al., 1987 – treatment focus is consultation rather than education; emphasis on helping families recognize stress of caring and resolving issues rather than skill building

# Family Intervention vs. Usual Care (Medication Management)

- A treatment that includes a family intervention is clearly superior to usual care of patients with schizophrenia
- Long term-interventions are more successful than short-term interventions, although both short and long-term are superior to usual care.

**Table 5. Relapse rates and effect sizes (comparison III: family intervention vs. patient intervention)**

Study	$n_1/n_2$	Relapse Rates		Effect size, first year	Effect size, second year	Effect size, third year
		Family intervention (%)	Patient intervention (%)			
Falloon et al. 1982, 1985	18/18	6 17	44 83	0.45	0.67	
Hogarty et al. 1991	21/20	19 29	20 50	0.00	0.22	
Hogarty et al. 1997, 1**	24/23	33	9	-0.30*		
	22/23	41	13		-0.32*	
	19/22	53	14			-0.42*
Hogarty et al. 1997, 2**	24/24	33	21	-0.14*		
	22/18	41	33		-0.08*	
	19/16	53	44			-0.09*
Kelly and Scott 1990	75/90	35	35	0.00		
Ro-Trock et al. 1977	14/14	0	43	0.52		
Telles et al. 1995	$n =$ 42	Survival analysis: $\chi^2 = 5.91$ , $df = 1$ , $p =$ 0.015		-0.38*		
Mean effect sizes				$\bar{r} = -0.01^*$	$\bar{r} = 0.12$	$\bar{r} = -0.28^*$

Note.— Mean effect size (overall)  $\bar{r} = 0.01$ ;  $n = 407$ ;  $p > 0.5$ ; 95% confidence interval =  $-0.09$ – $0.11$ .

\* Negative effect sizes indicate a result in favor of the patient intervention.

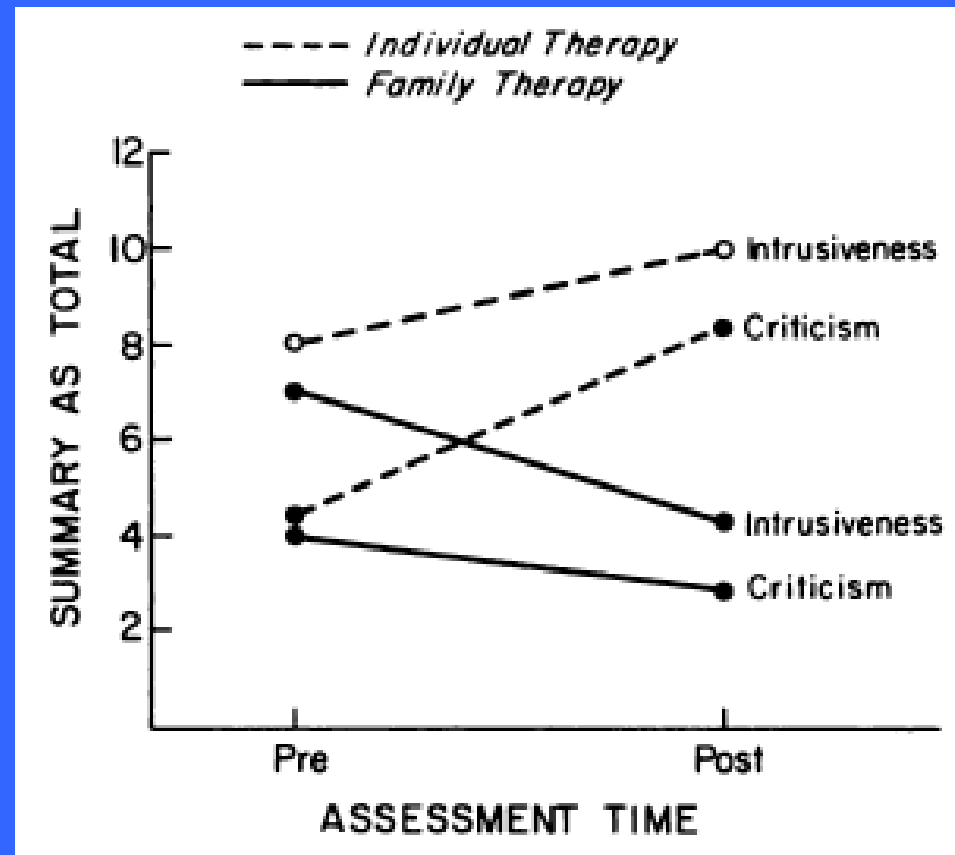
\*\* Numbers after authors and date correspond to description of study in table 1.

Hogarty 1991- social skills training; Hogarty 1997 – Individual intervention lasted 3 years

# The Impact of Individual and Family Treatment on the Affective Climate of Families of Schizophrenics

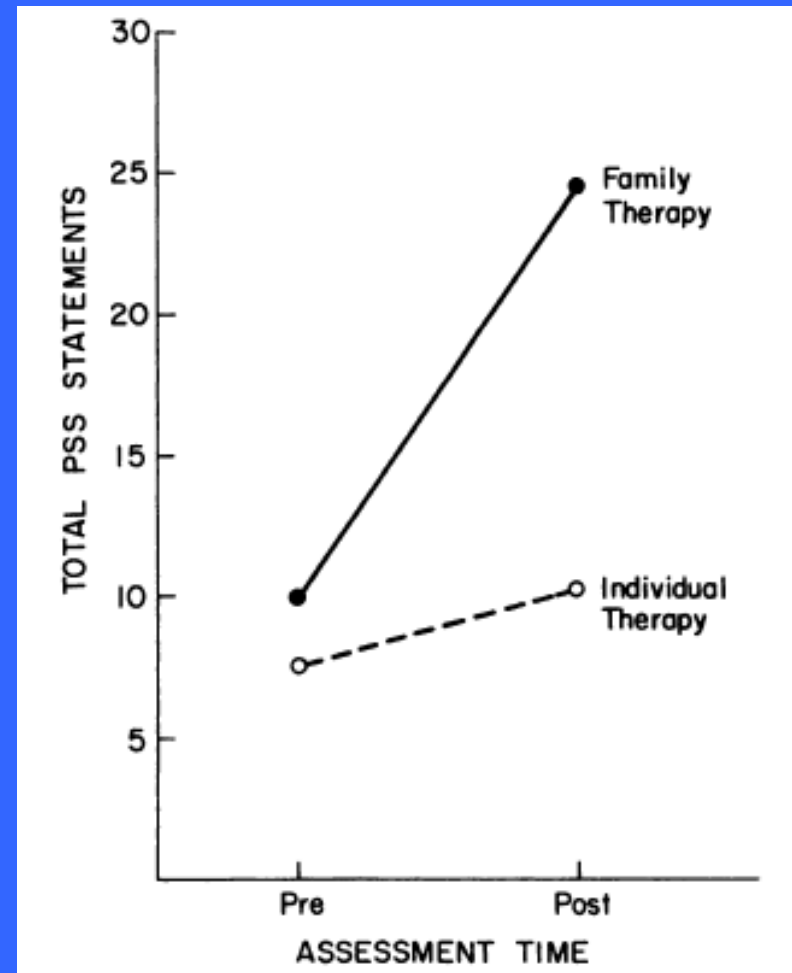
Doane, Goldstein, Miklowitz & Falloon, 1986, British Journal of Psychiatry, 148, 279-287

- 33 patients 18-45 years living with or in daily contact with parent(s).
- The total number of critical/intrusive remarks was lower after 3 months of treatment for parents participating in family therapy compared to those whose children received only individual therapy
- Criticism increased for those whose children were in individual therapy.



# Family processes change in response to family interventions

- Non-emotional problem solving statements increased more dramatically within family therapy.
- Intervention may have reduced risk of relapse by teaching families problem solving and communication skills.



Pre-post Change in Problem Solving

# Implications

- This study suggests the possibility that parents of recently discharged patients with schizophrenia who do not receive family treatment may become more frustrated with trying to cope and may express some of this stress by becoming even more critical or intrusive toward the patient.
- When the family environment continues to be stressful for the relapse-prone patient, the environment may exceed his abilities to cope and result in the return of symptoms.
- Family therapy can lower the level of criticism in the home probably by teaching alternate ways of coping with and communicating about patient related problems.
- Individually treated patients whose families accomplished a reduction in criticism and intrusiveness were far less likely to relapse.

# Immigrant Families coping with schizophrenia – behavioural family intervention v. case management with a low-income Spanish-speaking population.

Telles, Lopez et al. 1995 British Journal of Psychiatry, 167:473-479

## Sample:

- low-income, unacculturated immigrant Hispanic American families
- Level of education – very low - 45% did not complete grade school
- Proportion with high EE – very low – 9%

# Immigrant Families coping with schizophrenia – behavioural family intervention v. case management with a low-income Spanish-speaking population.

Telles, Lopez et al. 1995 British Journal of Psychiatry, 167:473-479

## Findings:

- With subset with high acculturation – no difference between treatment groups
- With subset with low acculturation – significant differences favoring case management

## Cautionary Tale:

- Perhaps active interventions that include specific directives and exercises that are foreign to a particular culture could be experienced as stressful.
- For example, some traditionally minded, unacculturated subjects expressed discomfort about communication exercises that involved establishing eye contact or expressing negative feelings with an authority figure (father). This was considered disrespectful.

# Family Intervention vs. Patient Intervention

- Inconclusive
- Three studies had a result in favor of the family intervention, one study had no difference, and two studies had a result in favor of the patient intervention.

**Table 7. Studies and effect sizes (comparison V: family intervention A vs. family intervention B)**

Study	Type of family interventions	Effect size, first year	Effect size, second year	Effect size, third year	Effect size, fourth year
Leff et al. 1990	Psychoeducational program + family therapy vs. psychoeducational program + relatives' group	0.34	0.03		
McFarlane et al. 1995a, 1**	Psychoeducational multifamily group vs. psychoeducational single-family treatment	0.13	0.20	0.24	0.35
McFarlane et al. 1995a, 2**	Psychoeducational multifamily group vs. family dynamic multifamily group	0.34	0.18	0.05	0.12
McFarlane et al. 1995a, 3**	Psychoeducational single-family treatment vs. family dynamic multifamily group	0.21	-0.01*	-0.17*	-0.21*
McFarlane et al. 1995b	Psychoeducational multifamily group vs. psychoeducational single-family treatment	0.15	0.15		
Schooler et al. 1997	Intensive applied family management vs. supportive family management				
	Moderate dose		0.13		
	Low dose		-0.01*		
	Targeted early intervention		0.06		
Tarrier et al. 1989	Family intervention vs. brief psycho-educational program	0.35	0.23		
Zastowny et al. 1992	Behavioral family management training vs. supportive family management approach	-0.07*			
Mean effect sizes		$\bar{r} = 0.18$	$\bar{r} = 0.10$	$\bar{r} = 0.07$	$\bar{r} = 0.12$

Note.— Mean effect size (overall)  $\bar{r} = 0.10$ ;  $n = 659$ ;  $p < 0.01$ ; 95% confidence interval = 0.03–0.18.

\* Negative effect size indicates a result in favor of the family intervention approach that was considered more limited by the authors.

\*\* Numbers after authors and date correspond to description of study in table 1.

# Empirical Data on Type of Intervention

- McFarlane's work provides some evidence for the PEMFG approach yielding better results than treatment in a single-family setting.
- This may be confounded with length of treatment.
- The jury is still out – more study is needed
- It would be useful to test empirically the theoretical mechanisms of change articulated by the two approaches (PEMFG, FFT)
  - Do families feel less socially isolated over the course of treatment w/PEMFG compared to FFT and does that change mediate outcomes?
  - Do families strengthen communication skills more effectively with PEMFG (via vicarious learning) than they do with the direct training approach provided in FFT? Do these changes in communication skills mediate outcome?

# Clinical Impressions of the Advantages of Multi-Family Group Intervention

- 2 therapists - co-therapy team
- Low key atmosphere in group
- Decrease in family isolation
- Opportunities for vicarious learning from other parents/youths and cross-parenting within the treatment.
- Opportunities for youths to connect with peers with similar challenges and in so doing appreciate their strengths.
- Communication skills learned vicariously not directly taught.

# Clinical Impressions of the advantages of FFT

- Treatment individually tailored to needs of each family – pacing, language, specific material
- Family is supported in “processing” the educational material and applying it to their own lives.
- Families have the privacy to speak freely and ask questions.
- Greater flexibility with scheduling
- Direct teaching regarding communication enhancement

# Family Outcomes from a RCT of Relapse Prevention Therapy in First-Episode Psychosis

Gleeson, McGorry et al., 2010, J Clin Psychiatry; 71(4):475-483

- Hyperfocus on patients; family interventions may be helpful to family members.
- Family participants who received a more intensive intervention including elements of behavioral family therapy perceived **less stress related to their relative's negative symptoms and an increase in perceived opportunities to make a positive contribution to the care of their relative** compared to carers in the TAU condition.

# The 2009 Schizophrenia PORT Psychosocial Treatment Recommendations and Summary Statements

Dixon et al., 2009 Schizophrenia Bulletin, 36 (1) 48-70.

“Persons with schizophrenia who have ongoing contact with their families should be offered a family intervention that lasts at least 6-9 months.”

# What do empirical findings suggest about the potential utility of family interventions during the UHR period?

- Evidence from adoption, expressed emotion, and treatment studies indicates that families play a key role in the evolution of symptoms in psychosis.
- **Evidence from studies of individuals with bipolar illness indicates that FFT with pharmacotherapy is more effective in preventing hospitalization than individual therapy with pharmacotherapy.**
- Early work on family factors during the first putative prodrome suggests that families may play an important protective role.

# Studies of FFT in Bipolar Disorder

# Family-Focused Treatment of Bipolar Disorder: 1-Year Effects of a Psychoeducational program in conjunction with Pharmacotherapy

Miklowitz et al., Biol Psychiatry 2000; 48:582-592

## Sample Characteristics

- Bipolar patients (N=101) were recruited from four psychiatric inpatient and outpatient units in the Boulder/Denver, Colorado region
- DSM-III-R diagnosis of bipolar I disorder, manic, mixed, or depressed episode in the previous 3 months.
- Age between 18-60
- No drug/alcohol disorders in previous 6 months
- Living with or in regular contact with close relatives (37 parents; **56 spouses**; 7 siblings; 1 adult offspring)
- Willingness to commit to pharmacotherapy
- 30% of the potential participants initially identified were excluded because of no regular contact with family members.

# Family-Focused Treatment of Bipolar Disorder: 1-Year Effects of a Psychoeducational program in conjunction with Pharmacotherapy

Miklowitz et al., Biol Psychiatry 2000; 48:582-592

## Treatments

- Patients were randomized to one of two 9-month psychosocial protocols:
  - FFT with pharmacotherapy or
    - Up to 21 one-hour family or marital sessions (weekly for 3 months, biweekly for 3 months, monthly for 3 months) in family home. Mean = 19.4 sessions
  - Crisis management (CM) with pharmacotherapy
    - 2 home based psychoeducation sessions + crisis sessions as needed. Monthly calls to monitor status.

# How Tolerable is Family-Focused Treatment?

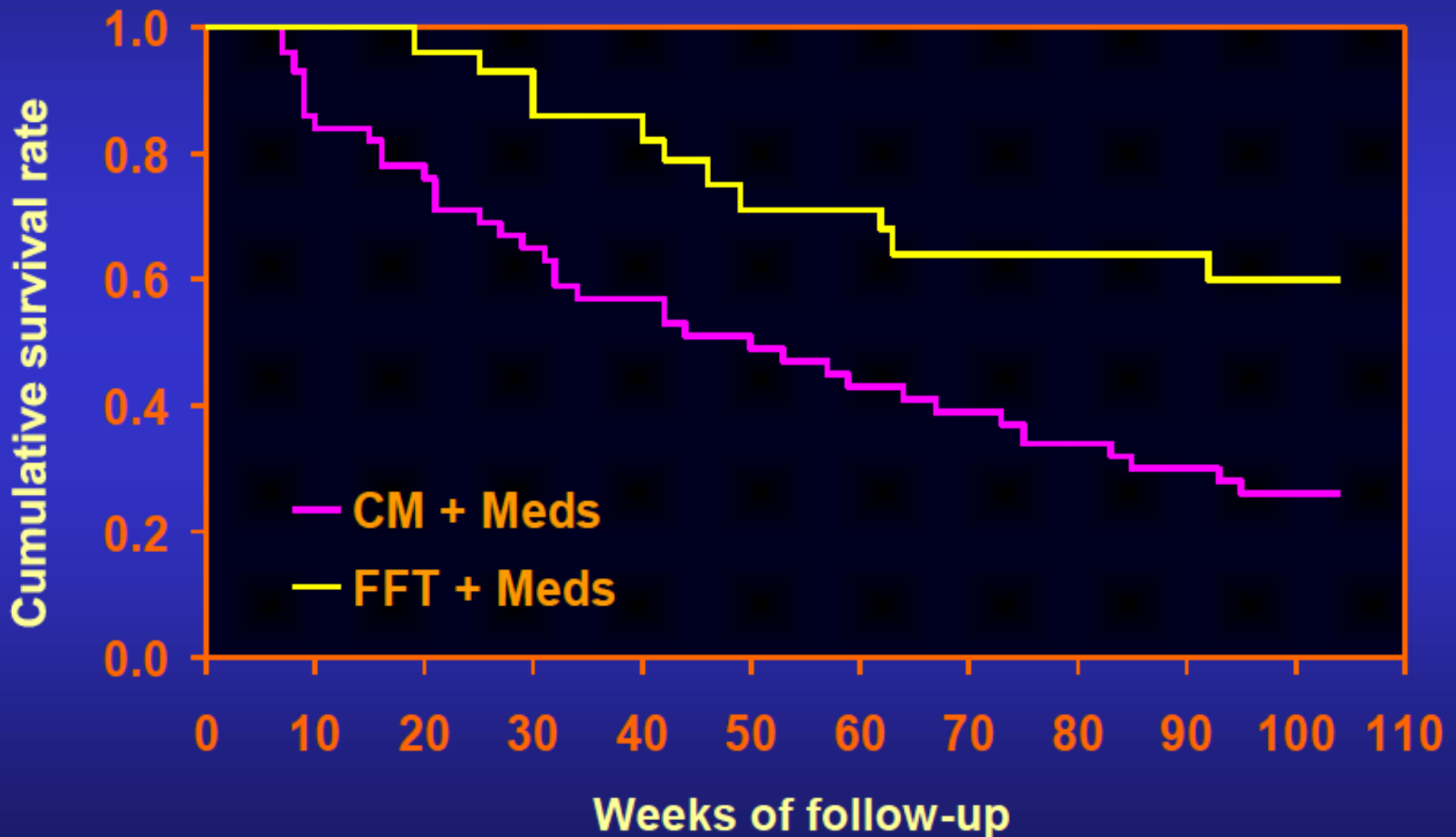
Drop out rates

FFT + Meds: 10%

Crisis Management + Meds: 27%

# FFT + Medication Delays Relapse More than Crisis Management + Medication

(N = 101)



CM vs. FFT  $\chi^2(1) = 8.71, p = .003$ ; FFT, mean survival = 73.5 weeks; CM, 53.2 weeks.

# Are there particular patient groups that may benefit most from FFT?

Miklowitz et al., 2000, *Biological Psychiatry*; 48:582-592

- Patients from families that were assessed as high in expressed emotion (criticism/hostility) at baseline had the highest depression scores at entry into the study but also showed the most dramatic symptom improvement.
- Bipolar, depressed patients from families that are high in criticism/hostility may be particularly good candidates for FFT.

# Bipolar Disorder and Family Communication Effects of a Psychoeducational Treatment Program

Simoneau et al, Journal of Abnormal Psychology (1999) 108 (4) 588-597

- Measured problem solving interactions conducted before the initiation of a 9-month program of FFT compared to crisis management and again after 1 year of treatment and follow-up.

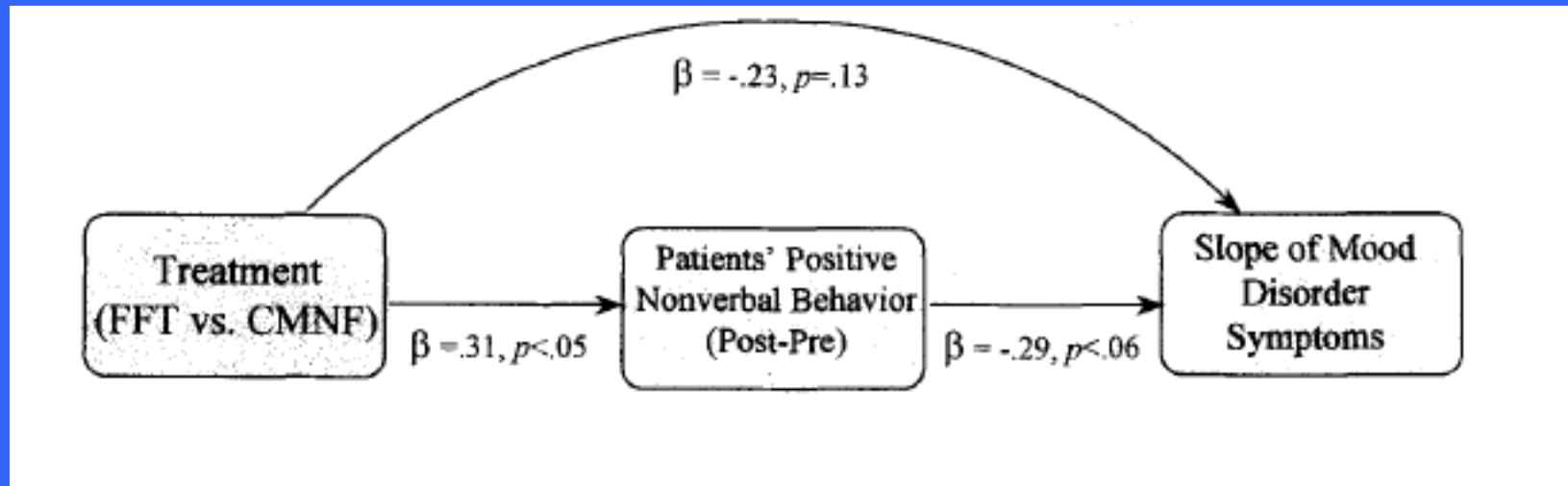
# Bipolar Disorder and Family Communication Effects of a Psychoeducational Treatment Program

Simoneau et al, Journal of Abnormal Psychology (1999) 108 (4) 588-597

	<b>CM (n=22)</b>		<b>FFT (n = 22)</b>		
	Pretreatment	1-year	Pretreatment	1-year	p
Total Positive	170 (96)	160(106)	189 (132)	260 (173)	<.05
Verbal	53 (22)	53 (32)	60 (35)	74 (43)	ns
<b>Nonverbal</b>	117 (80)	106 (78)	128 (102)	185 (137)	<.05

# Bipolar Disorder and Family Communication Effects of a Psychoeducational Treatment Program

Simoneau et al, Journal of Abnormal Psychology (1999) 108 (4) 588-597



Changes in patients' nonverbal interactional behavior as a mediator of the effects of treatment on patients' mood symptoms.

# Critique

- FFT consisted of 21 sessions over a 9-month period and crisis management consisted of 2 family education and crisis intervention sessions.
- Perhaps the superior outcome of patients in the family treatment reflects the impact of intensive psychosocial treatment more generally, and not the influence of FFT specifically?

# Family-Focused Treatment versus Individual Treatment for Bipolar Disorder: Results of a Randomized Clinical Trial

Rea, Tompson, Miklowitz et al., JCCP, 2003, 71 (3) 482-492

- Sample (N=53)
- a diagnosis of bipolar disorder, manic type; between 18-45 years; availability of at least one close family member to participate
- The majority (72%) lived with their relatives at study entry
- 66% had one relative participate; 34% had multiple relatives (such as mother and father)
- Relatives included 29 mothers, 22 fathers, 1 stepfather, 9 spouses, 7 siblings, 1 grandmother, 1 uncle, and 4 aunts

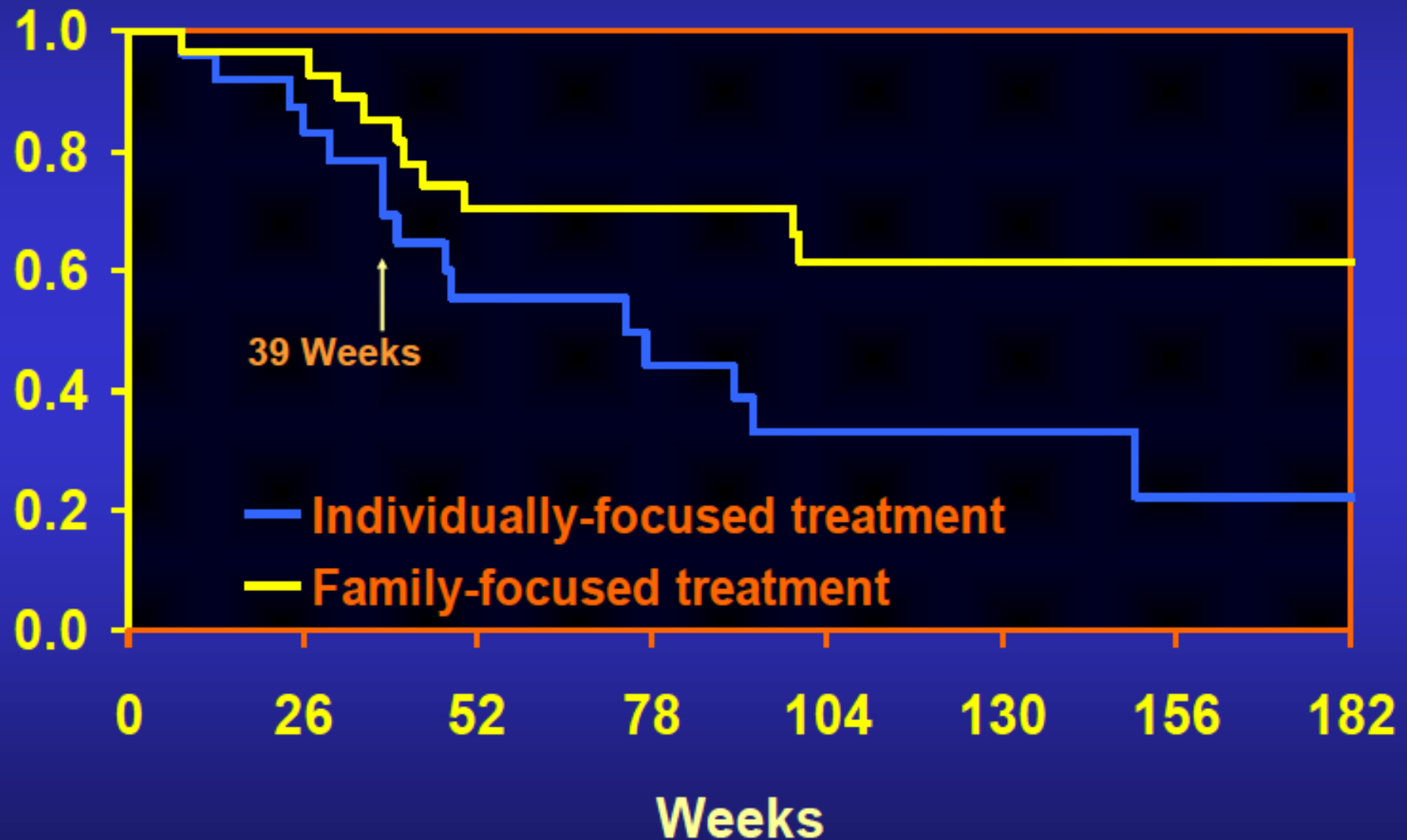
# Family-Focused Treatment versus Individual Treatment for Bipolar Disorder: Results of a Randomized Clinical Trial

Rea, Tompson, Miklowitz et al., JCCP, 2003, 71 (3) 482-492

- Treatments: FFT and pharmacotherapy (n=28) vs. individually focused patient treatment which included education, case management, and problem solving along with pharmacotherapy (n=25)
- Both treatment groups were offered 21 sessions over 9 months and the same therapists conducted both treatments
- 42 of the 53 patients (79%) completed the full 9-month psychosocial treatment protocol. Overall drop-out from study = 21%, no differences between groups

# Greater Persistence of Effects of Family vs. Individual Therapy: Time to Rehospitalization

## UCLA FFT Study (N=53)



$\chi^2(1) = 3.87, P < .05$

# Study Results and Implications

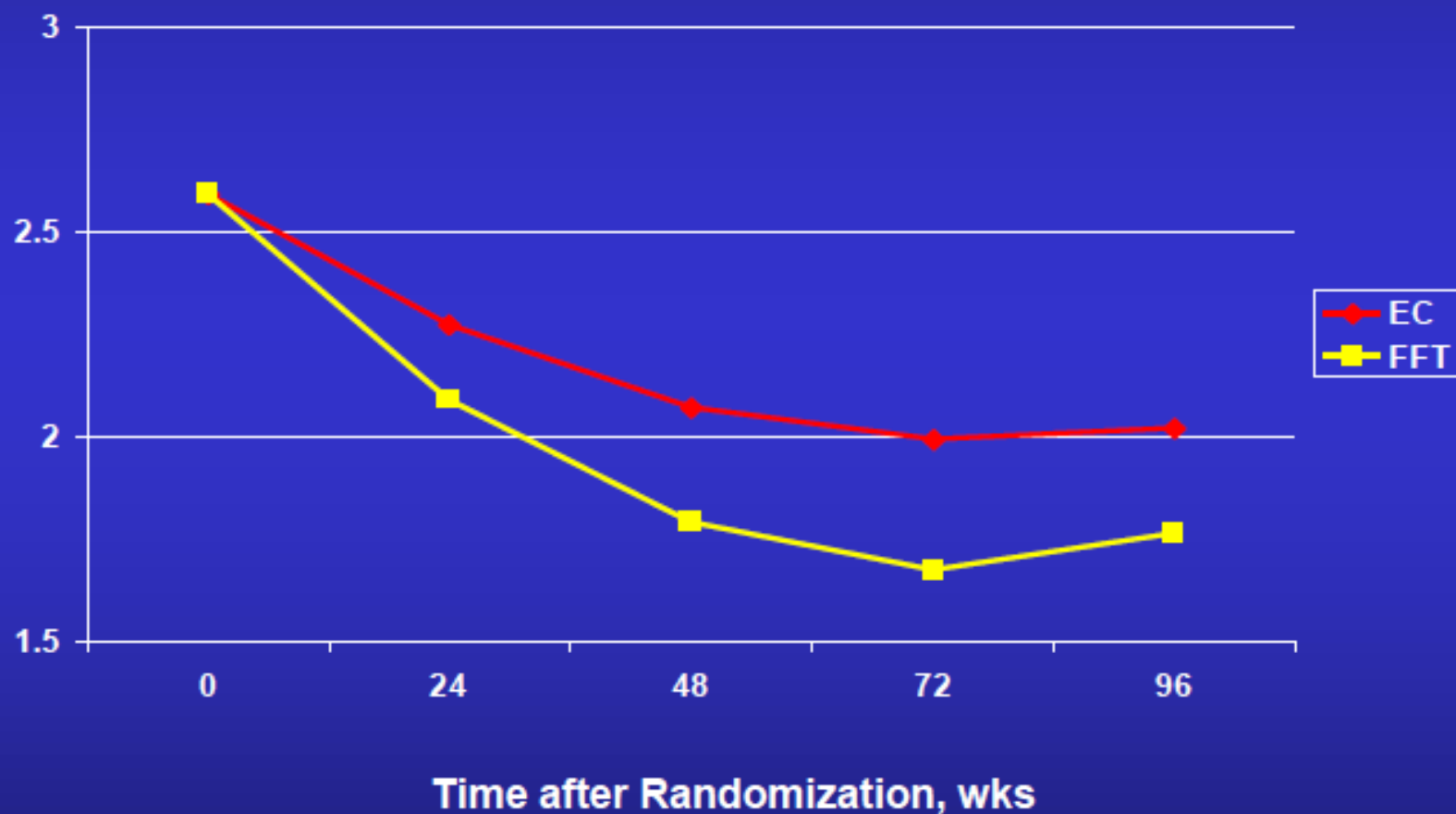
- Group differences were particularly apparent in the year following participation in the treatment program when 28% of those who received FFT relapsed as opposed to 60% of those in individually based treatment.
- Results for hospitalization post-treatment: 12% for FFT compared with 60% in individually based treatment.
- There were high rates of medication compliance in both treatment groups, and differences in outcomes are not due to better medication adherence among those in FFT.
- Possibly the skills that individuals and family members learn may be most helpful once there is no longer regular contact with the clinical team and the family must rely on tools they developed in family treatment.
- Bipolar patients may benefit from the assistance of a knowledgeable social system when their own coping strategies are compromised by their clinical state.

# Adolescent Bipolar Study: Baseline Patient Characteristics

	<b>FFT N=30</b>	<b>EC N=28</b>	<b>TOTAL N=58</b>
<b>Age, mean (sd)</b>	<b>14.5 (1.6)</b>	<b>14.4 (1.6)</b>	<b>14.5 (1.6)</b>
<b>Female (%)</b>	<b>56.7</b>	<b>57.1</b>	<b>56.9</b>
<b>Non-Hispanic White</b>	<b>80.0</b>	<b>92.9</b>	<b>86.2</b>
<b>Live with both bio. parents (%)</b>	<b>46.7</b>	<b>42.9</b>	<b>44.8</b>
<b>Bipolar I, %</b>	<b>66.7</b>	<b>64.3</b>	<b>65.5</b>
<b>Bipolar II, %</b>	<b>10.0</b>	<b>10.7</b>	<b>10.3</b>
<b>Bipolar NOS, %</b>	<b>23.3</b>	<b>25.0</b>	<b>24.1</b>
<b>Baseline Depression</b>	<b>28.8 (9.3)</b>	<b>28.3 (9.7)</b>	<b>28.6 (9.4)</b>
<b>Baseline Mania</b>	<b>24.5 (9.9)</b>	<b>24.0 (9.2)</b>	<b>24.3 (9.5)</b>

# Adolescents With Bipolar Disorder in FFT: Depression Scores Over Time

A-LIFE Psychiatric Status Rating



Treatment x time interaction, linear effect  $F [1, 5014] = 9.15, P = 0.0025$

# Indicated Prevention Study

NIMH R34-MH077856

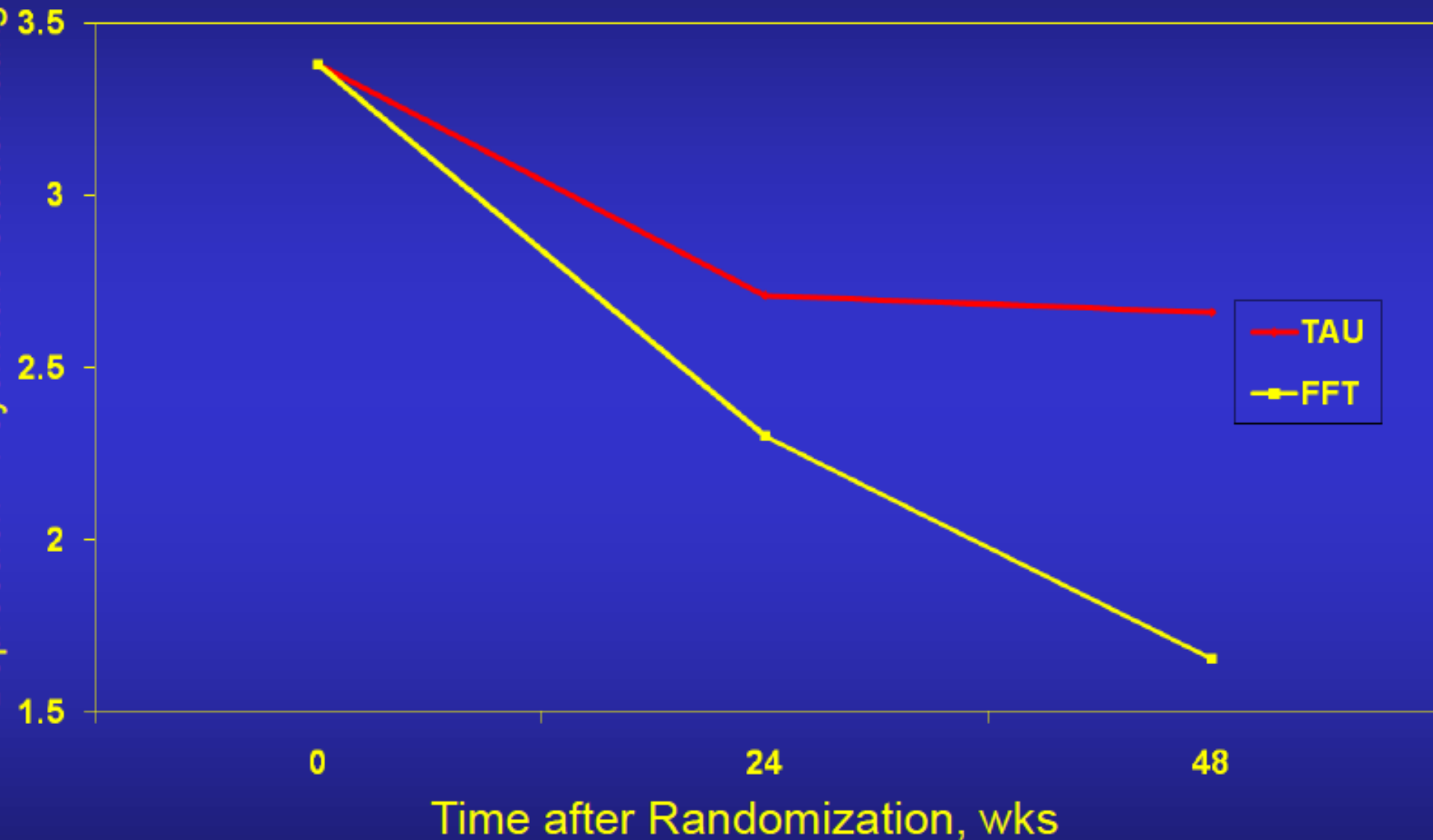
(Colorado (Miklowitz) and Stanford (Chang))

- ◆ 12 Session FFT model
- ◆ 50 children (9-17 yrs) with first-degree bipolar I relative, and either:
  - ◆ Bipolar-NOS (usually meets symptom but not duration criteria)\*
  - ◆ Cyclothymia
  - ◆ Major Depressive Disorder
  - ◆ Active depressive or hypomanic symptoms in last 2 weeks

## Colorado/Stanford Trial (N =30)

Age, M + SD	13.2 $\pm$ 2.8 (range 9-17)
Female, No. (%)	16 (53%)
Racial/ethnic minority	5 (17%)
Intact marital household	15 (56%)
Bipolar NOS	18 (60%)
Cyclothymia	2 (7%)
Major Depression	10 (33%)
Mean duration of follow-up:	30.5 $\pm$ 21.4 wks.

# Children at Risk for BD (N = 30 ): A-LIFE Depression Scores Over 1 Year) in FFT and TAU



**$F [2, 33] = 5.69, P = 0.008; \text{effect size, } d = 0.93$**

# The Systematic Treatment Enhancement Program for Bipolar Disorder: A Multi-Center Study of Effectiveness and Treatment Dissemination

- Up until now – only single site studies
- NIMH-Funded, 15 site study
- 293 assigned to a randomized psychosocial treatment study
- Follow-up over one year
- Outcomes: recovery from depression, likelihood of remaining well, functioning

# Randomized Psychosocial Intervention for Bipolar Depression

- 3 session control condition “collaborative care”  
Education (video and workbook), daily mood charting, typical biases in thinking, improving relationships through communication skills, prevention planning, treatment contract
- Intensive interventions (up to 30 sessions)
  - Cognitive Behavioral Therapy (CBT)
  - Interpersonal and Social Rhythm Therapy (IPSRT)
  - or Family Focused Therapy (FFT)

# Treatment Completion

Number of sessions as per STEP Protocol = 30

- Number actually attended = 14
- No differences across intensive treatment group

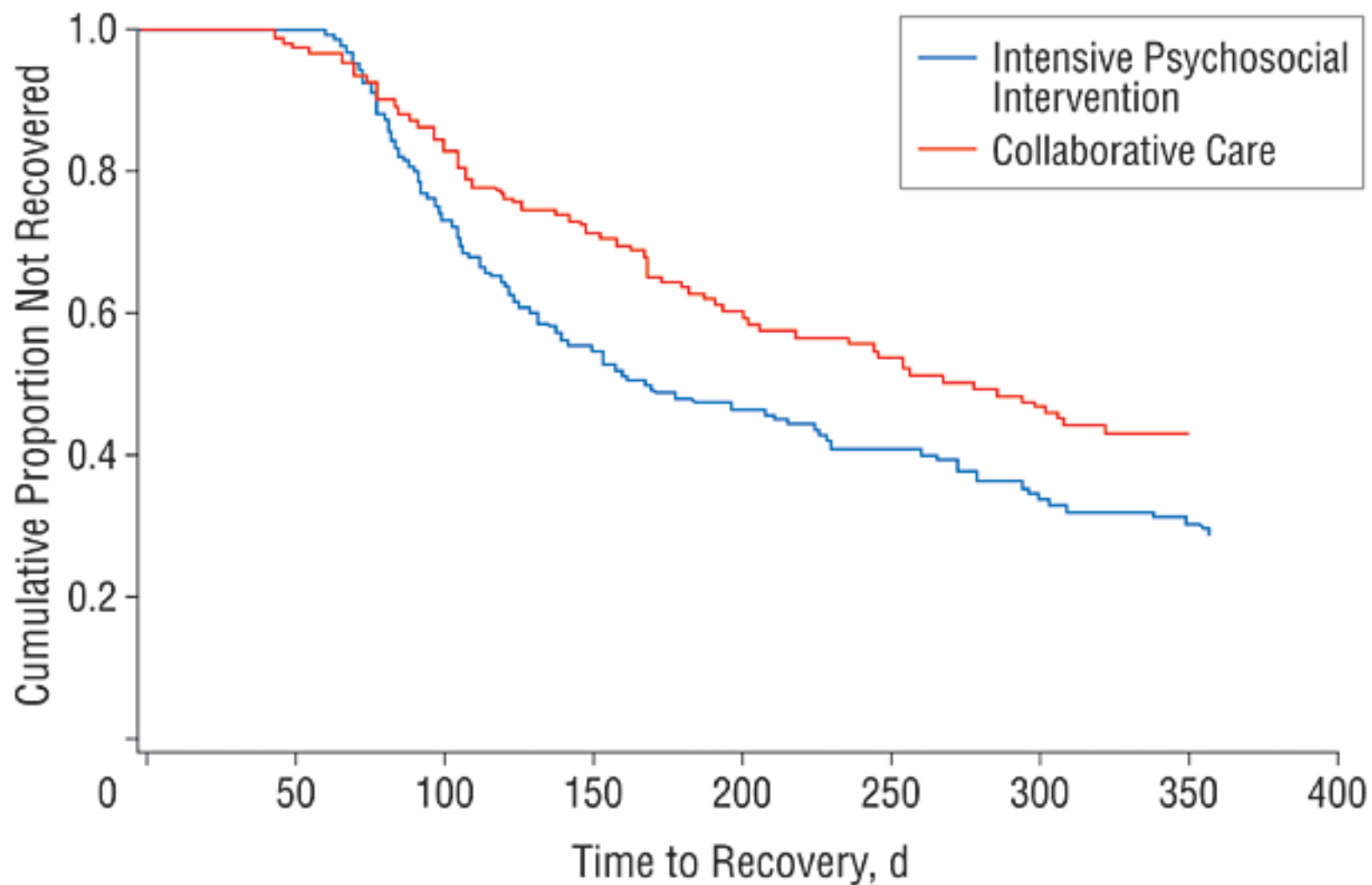
No differences in rate of study completion between Intensive (64.4%) and Control condition (69.2%)

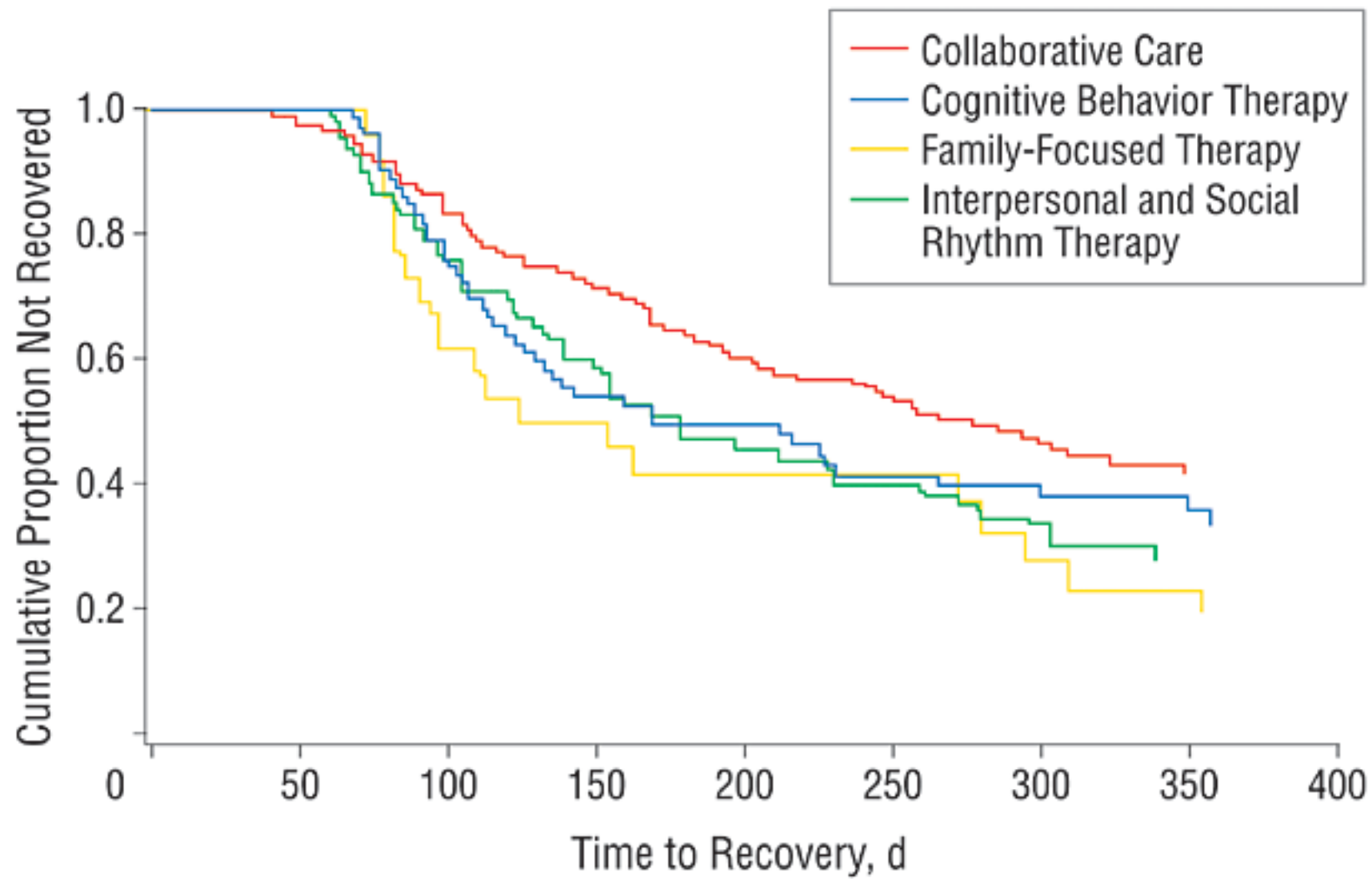
No differences among 3 intensive therapy groups in rates of study completion:

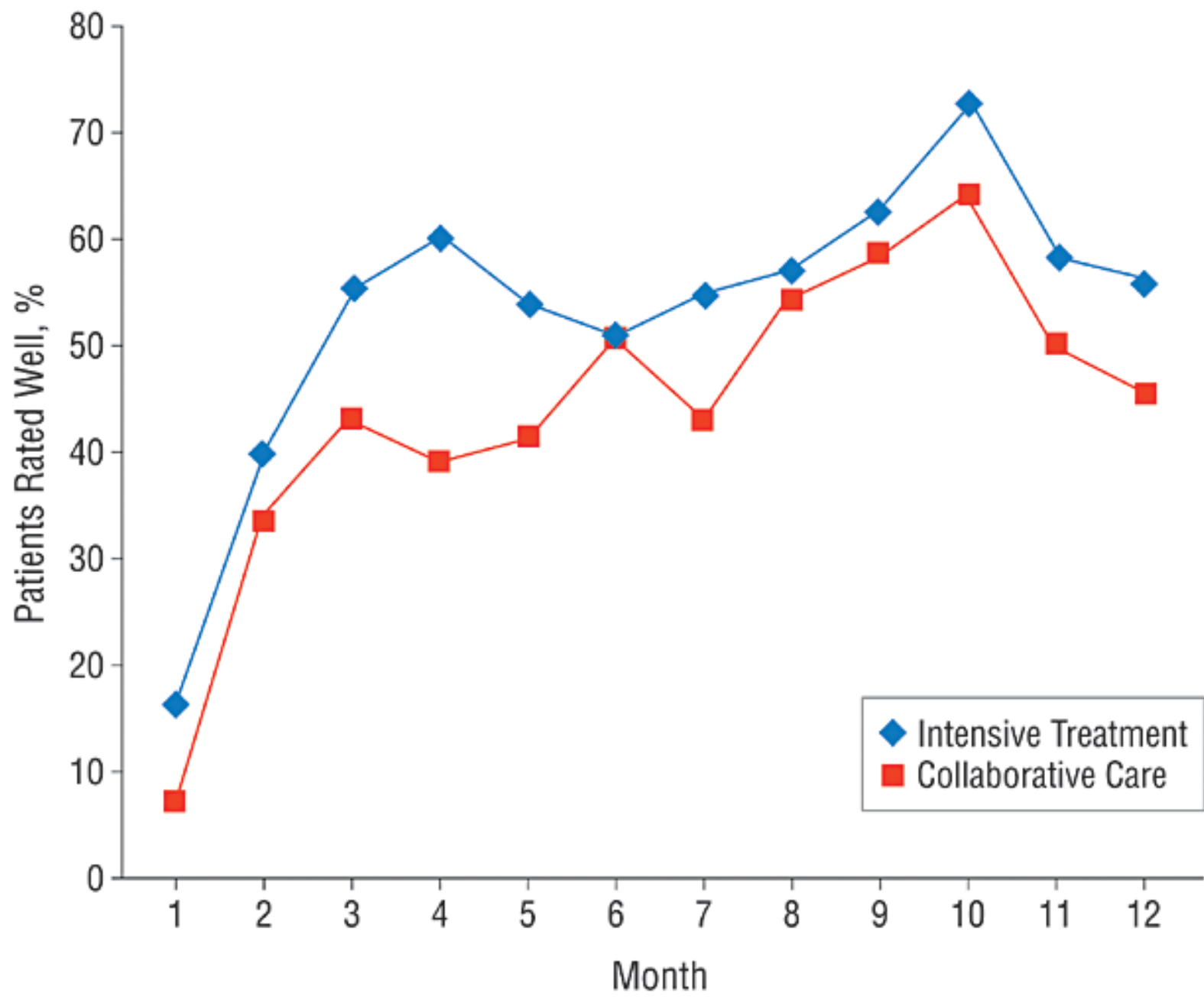
FFT (73%), IPSRT (68%), CBT (59%), CC (69%)

# STEP BD Study: Bipolar Patients in an Acute Episode of Depression

Miklowitz et al., 2007; Arch Gen Psychiatry; 64:419-427







# Discussion

- Any of the 3 intensive, specialized, manual-driven interventions resulted in clinically significant improvements in time to recovery compared to the control intervention.
- These benefits were achieved with relatively minimal training and low-intensity supervision (6 hour workshops supplemented by treatment manuals; expert therapists provided telephone supervision to therapists for the first 2 patients treated in a specific modality; review of up to 6 audiotapes; monthly case conference calls)

# What do empirical findings suggest about the potential utility of family interventions during the UHR period?

- Evidence from adoption, expressed emotion, and treatment studies indicates that families play a key role in the evolution of symptoms in psychosis.
- Evidence from studies of individuals with bipolar illness indicates that FFT with pharmacotherapy is more effective in preventing hospitalization than individual therapy with pharmacotherapy.
- **Early work on family factors during the first putative prodrome suggests that families may play an important protective role.**

# Studies of Family Treatment and Family Factors with UHR youths

Transition rates from schizotypal disorder to psychotic disorder for first-contact patients included in the OPUS trial. A RCT of integrated vs. standard treatment (Nordentoft et al., 2006)

- 79 patients in Copenhagen meeting ICD-10 research criteria for schizotypal disorder
  - Manifested over a period of at least 2 years, continuously or repeatedly:
    - Inappropriate or constricted affect
    - Odd eccentric or peculiar appearance or behavior
    - Social withdrawal
    - Odd beliefs or magical thinking
    - Suspiciousness or paranoid ideas
    - Unusual perceptions
    - Vague, circumstantial, over elaborate or stereotype thinking
    - Occasional transient quasi-psychotic periods

# Sample and treatment characteristics

- 42 assigned to Integrated treatment; 37 assigned to Standard treatment
- Intervention period = 2 years; drop-out rate @20% at one year
- Antipsychotic medication – no specific guidelines
- Average age = 25; 22% of integrated treatment group lived with parents
- Standard treatment
  - case load 1:20 – 1:30
  - home visits possible but generally office visits
  - some cases included social skills training and supportive contacts with family
- Integrated treatment (applied based on individual needs of the patient)
  - multi-disciplinary treatment team
  - case load 1:10
  - weekly assessment of symptoms
  - drug abuse treatment as needed
  - social skills training in groups or individually
  - psycho-education in multi-family groups offered

# Results

- At 1 year, 8% in integrated treatment converted to psychosis compared to 25% in the standard treatment group.
- Integrated treatment was significantly better at reducing negative symptoms.

# Factors Complicating Interpretation

- Among patients who did not transition to psychosis, significantly more in integrated treatment received antipsychotic medication than in standard treatment (63% vs 20%)
- Unclear whether the differences in potency of psychosocial intervention or medication use are driving the differences in outcome?
- Study not designed to distinguish between the effect of different treatment elements (more frequent contact vs. family intervention vs. social skills training vs. CBT during individual meetings, etc.)

# Family factors in a UHR population

O'Brien et al (2006) Schizophrenia Research

- 26 UHR youth (14 male, 12 female) all living with at least one parent; average age = 16
- 81% Camberwell Family Interview (CFI) administered to mother
- If families were categorized as high EE based on > 6 critical comments and/or EOI ratings of > 4 35% of the sample high EE.

Focus of Critical Comment	%
Negative Symptoms	39%
Lack of Motivation	32%
Social Withdrawal	7%
Irritability, verbal/physical aggression	16%
Hypersensitivity (only category within positive symptom domain that received spontaneous criticism)	3%

# Correlations between CFI scales and improvement in symptoms/social functioning at 6 month follow-up controlling for respective baseline symptoms/social functioning

SOPS	Critical Comments	Emotional Involvement	Positive Remarks	Warmth
Positive	-.17	-.03	.13	.15
Negative	-.05	<b>.40*</b>	<b>.48*</b>	.34
General	-.18	.14	.24	.31
Disorganized	-.32	-.02	<b>.48*</b>	.27
Strauss Carpenter Social Functioning	.09	<b>.40*</b>	-.10	<b>.43*</b>

# Family problem solving interactions and 6-month youth outcomes

(O'Brien et al., 2009 Schizophrenia Research)

- Problem Solving Scale (low skills – high skills)
  - Problem Definition; Proposed Solutions; Resolution
- Overall Communication Process
  - Constructive
    - Displays of affection; active listening; clear speaking; calm affect
  - Conflictual
    - Irritable/angry tone; uncooperative; withdrawal; monologue; speaking for the other; off-task behavior; illogical nonsensical statements

Partial correlations between baseline problem solving codes and adolescents' symptoms and social functioning at follow-up controlling for respective baseline symptoms/functioning scores

	SOPS Positive	SOPS Negative	Social Functioning
Problem Solving interaction			
Parent			
Problem Solving	.25	.04	.19
Communication			
Constructive	.27	.06	<b>.36*</b>
Conflictual	.29	-.05	.21
Adolescent			
Problem Solving	-.08	-.03	<b>.43*</b>
Communication			
Constructive	.27	.15	<b>.38*</b>
Conflictual	<b>.40*</b>	-.13	.09

# Psychoeducational multi-family group treatment with UHR adolescents

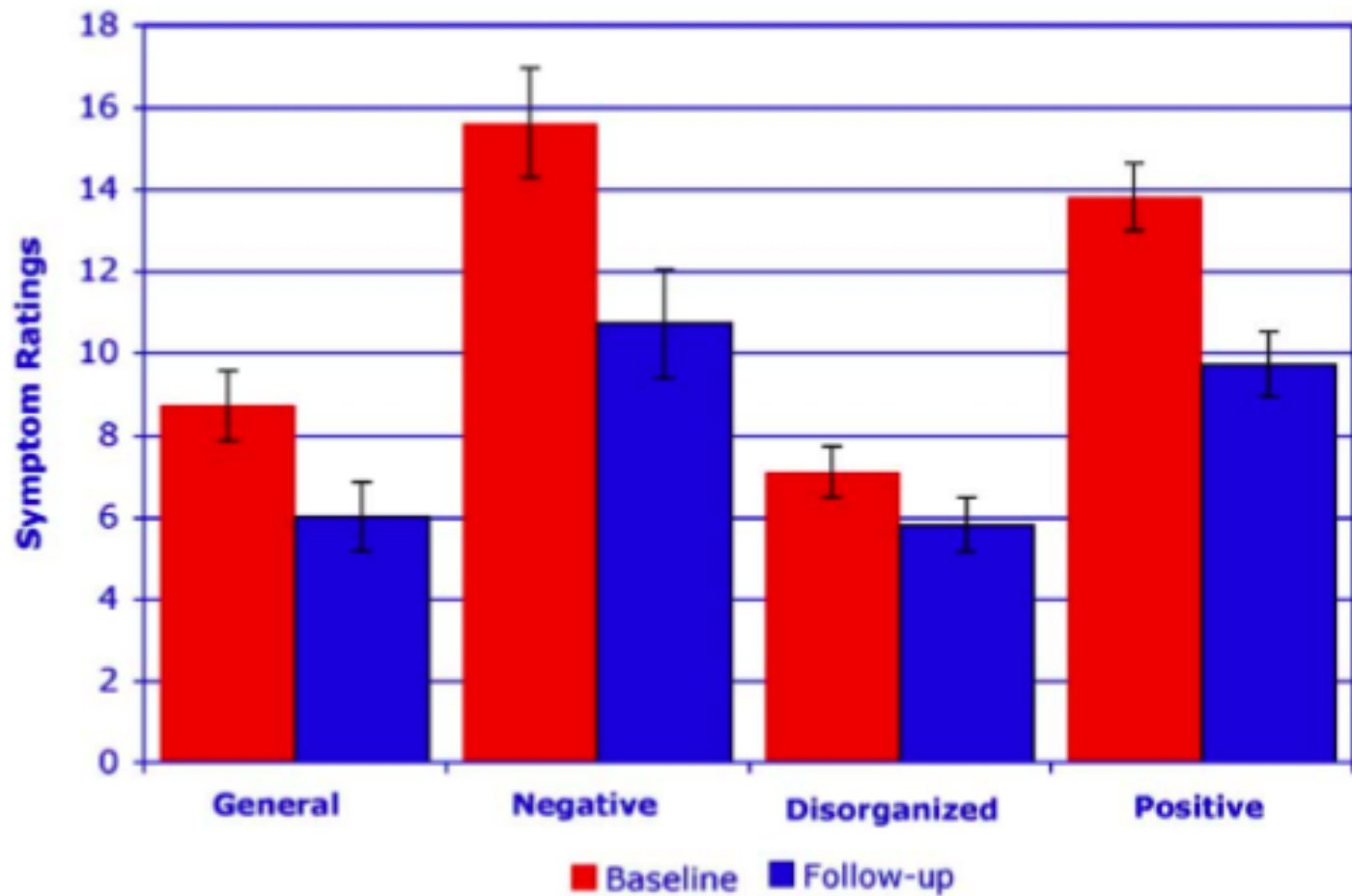
(O'Brien et al., 2007, Early Intervention in Psychiatry)

- 29 invited to participate in PMFG treatment
- 55% declined or dropped-out
  - Caregiver unavailable; youth disinterested; family inhibited by public forum of treatment
- 16 families treated
- Significant improvement in positive symptoms, general functioning, work/school functioning, and rate of non-hospitalization
- Treatment well tolerated
- Convenience sample/not a RCT

TABLE 1. Frequently raised topics for problem-solving discussions

## Youth:

- How can I manage my weight because it seems out of control since I started some new medications?
- How can I remember to take my medication?
- How can I increase my tolerance for social situations?
- How do people find good friends? How do people initiate friendships?
- How can I improve my grades at school?
- How can I find sources of inspiration because I feel so unmotivated?
- How can I get on with my schoolwork despite feeling unmotivated?
- I wish I cared more about getting things done.
- How can I manage when I feel overwhelmed and over-stimulated at school?
- I would like to feel less 'lost' in school.
- I would like to be on a team.
- I would like to get a job.
- How can I spend less time on the computer?
- How can I convince my parents to say 'yes'? How can young people deal with hearing parents say 'no'?
- I would like to have a better relationship with my father.
- I want to feel less sad.
- How can I deal with emotional distress without hurting myself?
- How can I cope with having a caregiver in my space because my mom won't leave me home alone?
- How can I stay on track when there is a lot of complexity at home?



# Multifamily Group Treatment in a Program for Patients with First-Episode Psychosis: Experiences from the TIPS Project

Anne Fjell et al., *Psychiatric Services* 58: 171-173

- 147 families participated out of 246 invited
- The most important predictor of participation was the age of the identified patient – participation declined with increasing age
- PEMFGs were well received by families
- Most families had to wait 6-12 months before starting in a group

# Ideal sequence of psychosocial treatment during the UHR phase?

- Family-Focused Treatment
  - Young age (12 – 16); high level of ambiguity
- Psychoeducational Multi-family Group
- Individual Cognitive Behavioral Treatment
  - More independent; better able to handle the cognitive demands of the treatment

# Important Elements of Future Treatment Studies with UHR Youths

Multi-site family studies

Evaluate moderators of treatment – What treatment is best for what youth/family at what stage of illness?

Evaluate mediators of treatment – What are the mechanisms of change for family treatment? MFG? CBT?

Assess functional outcome as well as symptoms for UHR youth

Assess outcome for family members as well as individuals

In individual RCTs of CBT with UHR populations – measure family members distress and family functioning. (It is also possible that change in symptoms drives change in family functioning)

Conduct follow-up over 2 years ideally

# Experience of trauma and conversion to psychosis in an UHR group

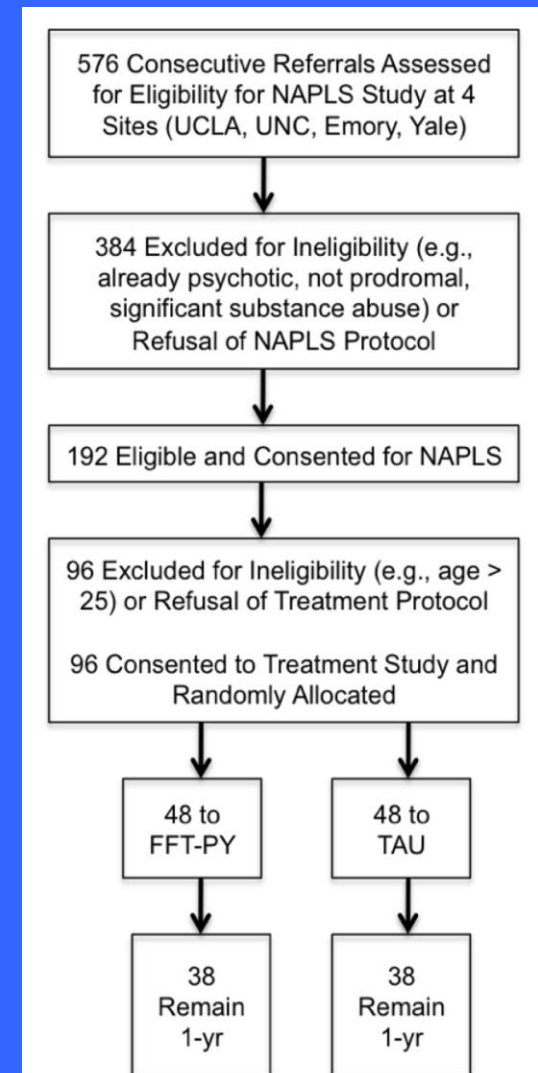
Bechdolf, Thompson, McGorry, Yung et al., 2010, Acta Psychiatr Scand 121: 377-384

**Table 3. Lifetime prevalence of trauma in the ultra-high-risk (UHR) sample ( $n = 92$ )**

	<i>Male (<math>n = 32</math>) (n, %)</i>	<i>Female (<math>n = 60</math>) (n, %)</i>
Direct combat experience in war	1 (3.1)	0 (0)
Life-threatening accident	2 (6.3)	1 (1.7)
Natural disaster	0 (0.0)	0 (0.0)
Witness	8 (25.0)	6 (10.0)
Raped	0 (0.0)	22 (36.7)
Sexually molested	3 (9.4)	23 (38.3)
Physically attacked	7 (21.9)	20 (33.3)
Physically abused as child	10 (31.3)	14 (23.3)
Seriously neglected as child	10 (31.3)	12 (20.0)
Threat with weapon	3 (9.4)	5 (8.3)
Other event	4 (12.5)	5 (8.3)
Close to you	1 (3.1)	5 (8.3)
Experienced any trauma	<b>19 (59.4)</b>	<b>45 (75.0)</b>

# A Prevention Trial of Family-Focused Treatment (FFT) in Youth at Risk for Psychosis

- Random assignment to 18 sessions of manualized FFT provided over a 6-month period versus Enhanced Care (EC), consisting of 5 sessions of psychoeducation and diagnostic feedback for families
  - Best-practice pharmacotherapy and crisis management as needed in both arms
- Primary, secondary, and tertiary hypotheses, respectively, are that at-risk youth will respond better to FFT than EC at 6- and 12-month follow-ups in terms of:
  - school and social functioning, family functioning, and parental distress,
  - symptom trajectories (SIPS scores)
  - time to first onset of full psychosis



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