Transgenerational mental health

Opportunities to prevent transmission of psychiatric problems to next generations

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Radboud University Nijmegen and Maastricht University

Basel , August 17, 2016

Transgenerational mental health: our common concern

Transgenerational Mental Health

Concerns the transmission of neurobiological, cognitive & social-emotional abilities & vulnerabilities from parents to children, including the stigma and transmission of psychiatric and related problems, generation after generation.

Science and **Practice** of "*transgenerational mental health":*

(1) epidemiology and impact of parental MI on children, families and society,

(2) biological, psychological and social determinants and mechanisms of transmission,

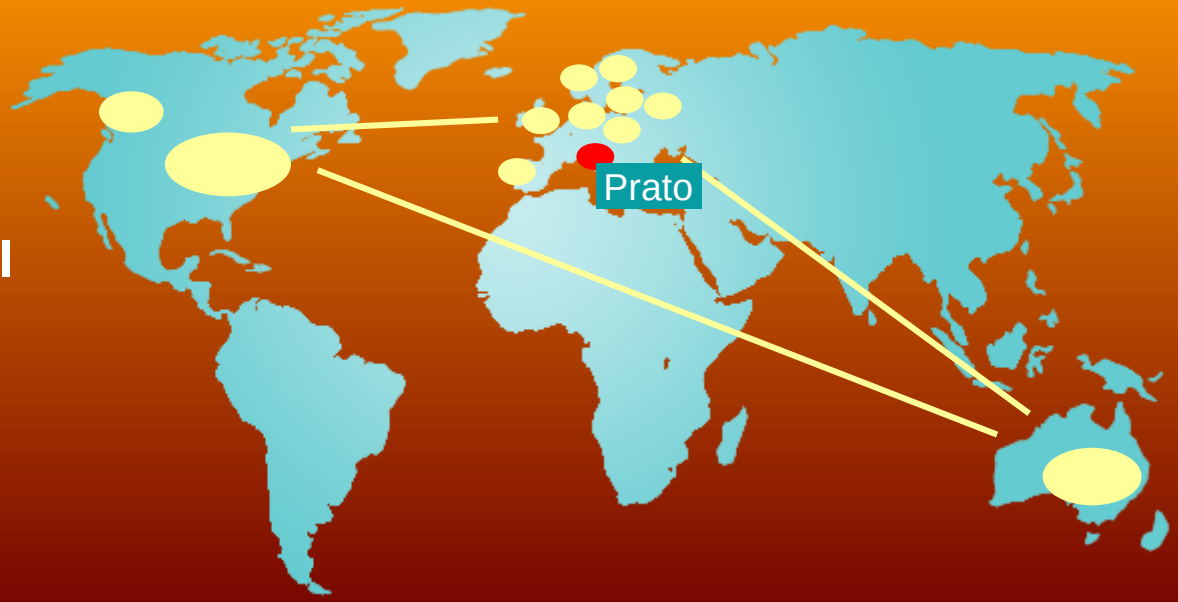
(3) development of effective policies & practices that

- enhance a family approach in dealing with mental illness
- prevent transgenerational transmission of mental illness
- promote transgenerational transmission of mental health and resilience

Improving the lifes of

Children of Parents with Mental Illness COPMI

Families affected by Parental Mental Illness FaPMI



Worldwide attention

History Micheal Rutter 1966; 1984

International Prato Research Collaborative:

sharing knowledge, practices, tools & policies

Innovative solutions, common Research & Development partnerships

Advocacy and consultation to countries

Previous Conferences: Adelaide 2008, Oslo 2010, Vancouver 2012, Berkely 2014

Worldwide basic research: Developmental psychopathology, Epigenetics, Neurobiology, Nursing ……

Articles in 72 peer-reviewed international scientific jourbals


Andrea Reupert


Darryl Maybery


Toni Wolf


Tytti Solantaus


Nick Kowalenko


Karin van Doesum


Joan Riebschleger


Clemens Hosman


Joanne Nicholson


Adrian Falkov


Anne Grant


Kim Foster


Grant Charles


Mel. Goodyear


Lina Gatsou

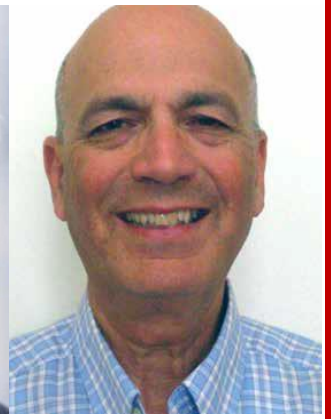

Kurt Albermann


Brenda Gladstone


Charlotte Reedtz


Kathleen Biebel

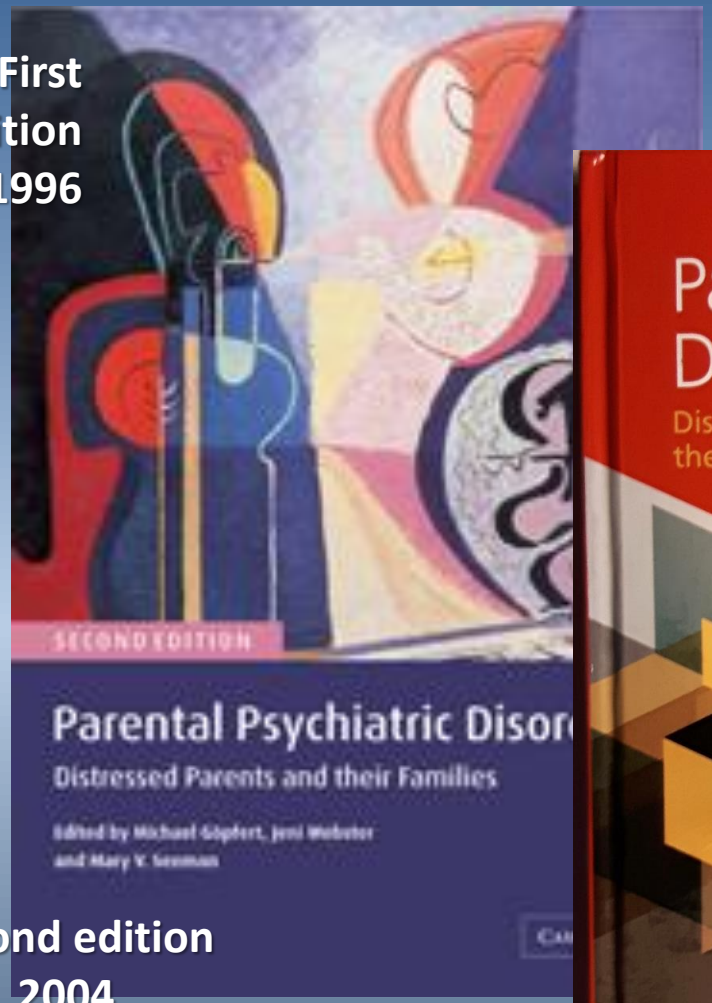

Annemi Skerfving


Ron Shor

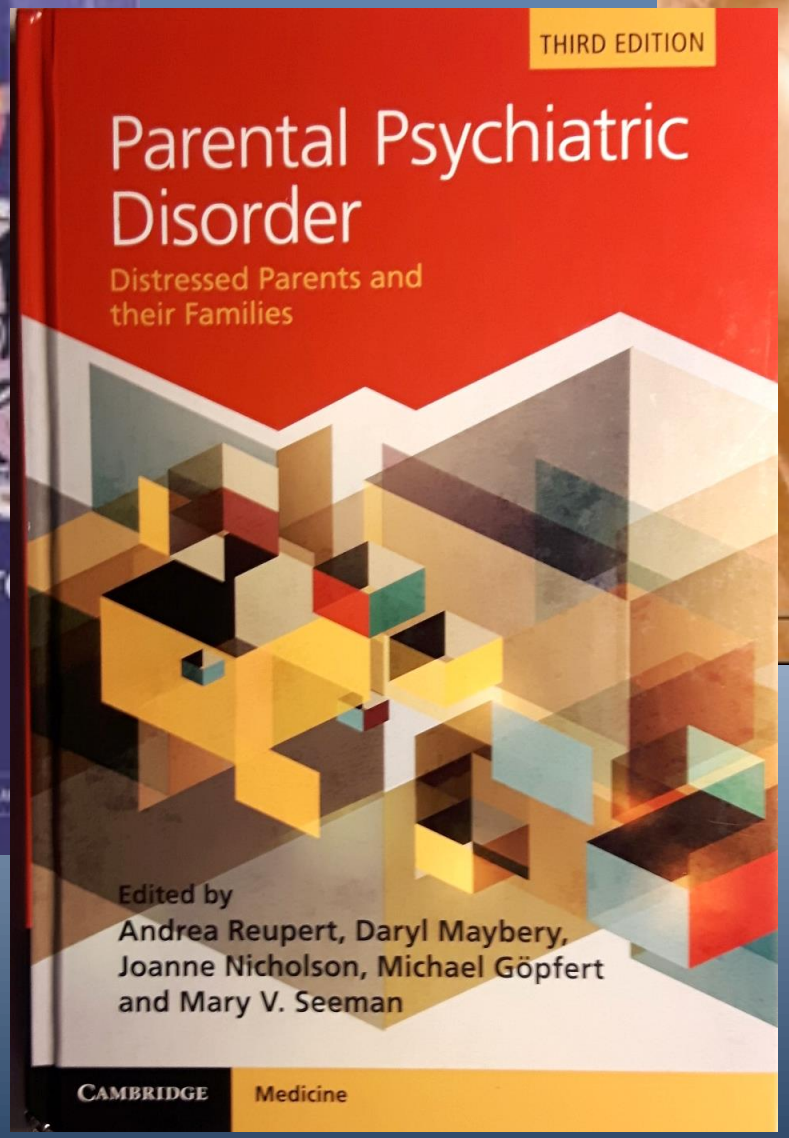
International Prato Research Collaborative on Families affected by Parental Mental Illness

Adult Psychiatry
Child Psychiatry
Psychology
Education
Social Work
Midwivery
Nursing
Health Research
Public Health
Rural Health
General Practice

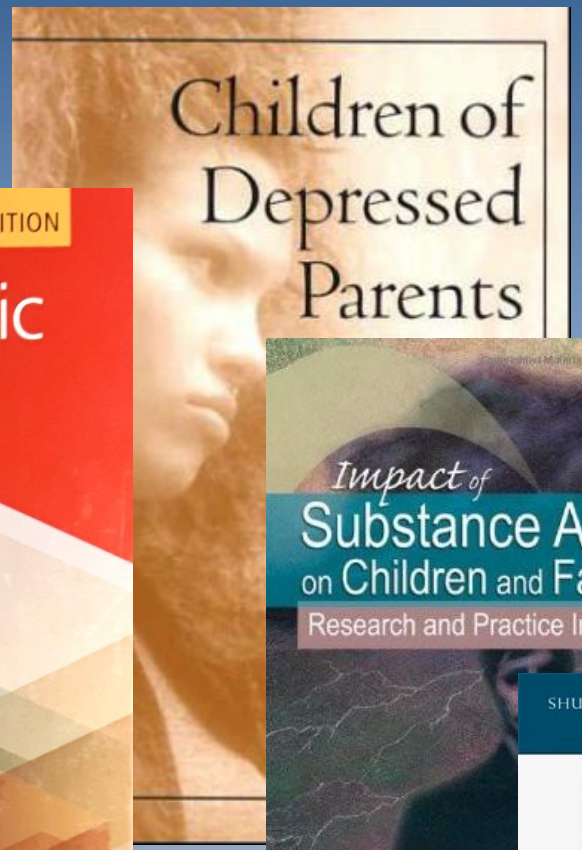
First edition 1996

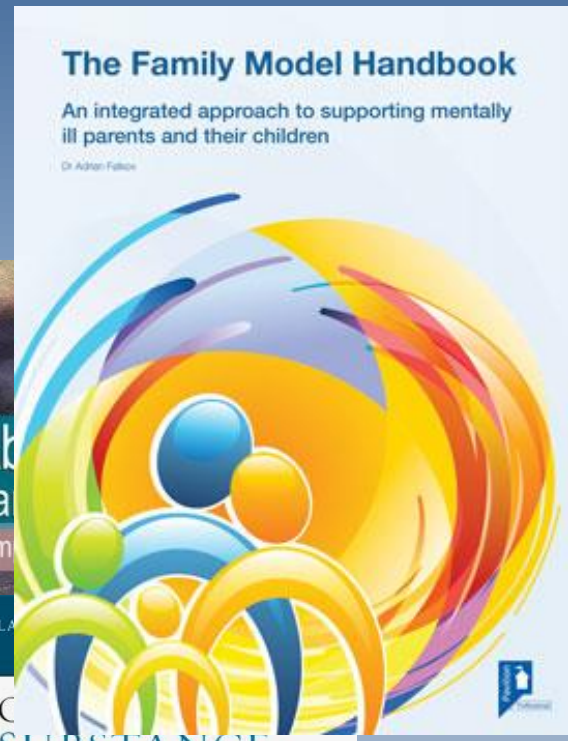


Second edition 2004

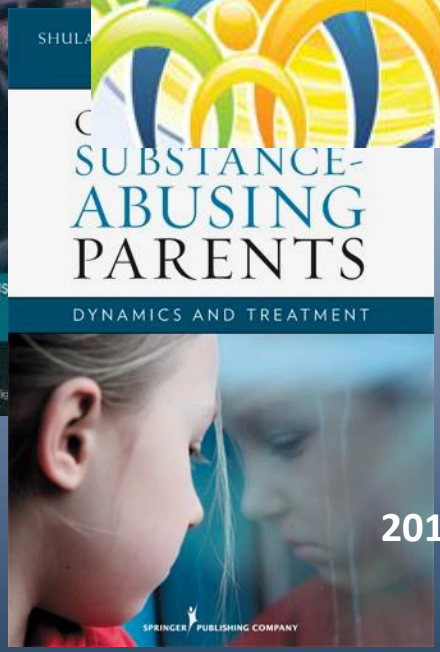


Third and most recent edition 2015





2013



2011

Journal of Parent & Family Mental Health

SPARC

A Publication of the Systems and Psychosocial Advances Research Center
A Massachusetts Department of Mental Health Research Center of Excellence

Research in the Works

Paternal Postpartum Depression

Kathleen Biebel & Shums Alikhan

While postpartum depression (PPD) has historically been associated primarily with mothers, recently there has been increased awareness of the experience of fathers and strategies to address postpartum depression in men. For fathers willing to seek help, the lack of recognition of paternal PPD results in limited supports and treatments. Given the potential implications of paternal PPD, it is essential for new fathers and their healthcare providers to recognize the prevalence of paternal PPD, the symptoms, and the challenges surrounding this issue for men.

Prevalence of Paternal Postpartum Depression

For both men and women, PPD is defined as moderate to severe depression diagnosed in the postpartum period, which is shortly after or up to one year following delivery.[1] Studies suggest anywhere from 4 to 25 percent of fathers experience paternal PPD,[2] rates that are not dissimilar to mothers.[3] Fathers are most likely to experience a first onset of paternal PPD in the first 3 to 6 months of the postpartum period.[4]

Much of what is known about paternal PPD comes from studies of mothers and PPD. Research suggests that depression in one partner is significantly correlated with depression in the other.[5,7,8] One study found 24 to 50 percent of men with paternal PPD also had partners with PPD.[6] This suggests a high likelihood that infants may be in family situations where multiple caregivers are depressed, which can lead to more severe disruptions in infant development.[8] Maternal PPD is the primary risk factor for predicting paternal PPD.[11,12] While the relationship between maternal and paternal PPD is still being researched, studies report that male partners of depressed women generally feel less supported, and experience more fear, confusion, frustration, anger, and uncertainty.[13]

Becoming a father is associated with little sleep, new and increasing demands, and new responsibilities that may trigger stress, fear, and anxiety, all of which can lead to depression.[14,15] Men with previous histories of depression as well as those who are young fathers are at increased risk of developing paternal PPD. Men are likely to underreport their symptoms of depression due to the stigma associated with depression, along with concerns about not aligning with cultural concepts of masculinity.[2]

Symptoms of Paternal Postpartum Depression

Postpartum depression includes depressive episodes that last for longer than two-weeks during the postpartum period. Symptoms associated with both paternal and maternal PPD include:

- Loss of interest in activities
- Significant weight loss or gain
- Fatigue or loss of energy
- Insomnia or hypersomnia
- Feelings of worthlessness or guilt
- Severe anxiety
- Inability to concentrate
- Thoughts of self-harm or suicide

Children / Families of Parents with Mental Illness or Addiction
a serious public health concern

- At high risk of psychiatric problems
  - Between 3 to 13 times higher risk
  - One of the main sources of new psychiatric disorders
  - Transmission generation after generation
- Risk at a broad spectrum of negative health, mental health and social outcomes in children, adolescents and adults
- Large group in society: one in 3 to 4 children*
- One in three mental patients is a parent (children < 18 yrs)
- Offspring shows high demand for professional care (5x)
- High social and economic cost

* Netherlands: concerns around 577.000 children Estimated for Switzerland around 300.000 COPMI)

Could we reduce the ever ongoing transmission of psychiatric disorders and related problems from generation to generation ?

Among our clients?
In the population?

What do we need?







- Awareness & support
- Knowledge
- Theory
- Interventions & tools
- Evidence on effects & impact
- The ‘Conditions’ to make it happen

What is the impact of parental mental illness on children ?
What problems do they experience ?

research outcomes show higher risk of

Parenting & family impact

- Poorer parental care
- Attachment problems
- Child abuse and neglect
- Family conflict & divorce
- Violence between parents

Vulnerability and Resilience

- Difficult temperament
- High stress reactivity
- Negative affectivity
- Less emotional resilience
- Negative self-concept
- Poor social competence

Subjective experiences

- Not informed, no communication about illness of their parents
- Ashamed and feeling guilty
- Responsibility & Parentification "no childhood", becoming 'Young carers".

Physical impact

- Birth complications
- HPA-axis, cortisol reactivity
- Weakened immune system
- Poorer infant growth
- Chronic diseases

Psychiatric outcomes

- Early behavioral problems
- Depressed and anxious
- Psychiatric disorders
- Substance abuse
- Suicidal behavior

Social consequences

- Lower family income
- Stigma & social isolation
- Avoid disclosure, help seeking
- School Problems & Bullying
- Lower academic achievement

Not all children-COPMI show negative outcomes or are at high risk of psychiatric problems

role of protective factors

1. Parents and families have also capacities and strengths to:
   - reduce negative impact of parental mental illness
   - provide sufficient parental care, warmth, safety
   - use parenting role to create identity, structure and meaning in life
2. Part of the children show large resilience
   - Gene-based resilience and positive temperament
   - Emotional and social `competence
3. Social network provide practical and emotional support

Talk with children and families — Assess their risk factors and also strengths

Not all children in families with parental mental illness are at high risk

Focus preventive interventions at children and families who are <u>at high risk:</u>

especially where risk factors accumulate

Assess their risk and strengths profile

Children and Families with High Risk

- Very young children (prenatal > 5 yrs)
- Highly distressed pregnant mothers
- Chronic or multiple parental mental disorders
- Both parents have a mental illness
- High conflict families; abuse & neglect
- Families with parental suicide
- Families living in poverty
- Refugee or war families
- Accumulation of risk factors (‘cumulative risk’)

“Its the number of risk and protective factors that counts”

Epad Study (UK)

Early Prediction of Adolescent Depression

Collishaw et al. 2016. *Lancet Psychiatry*

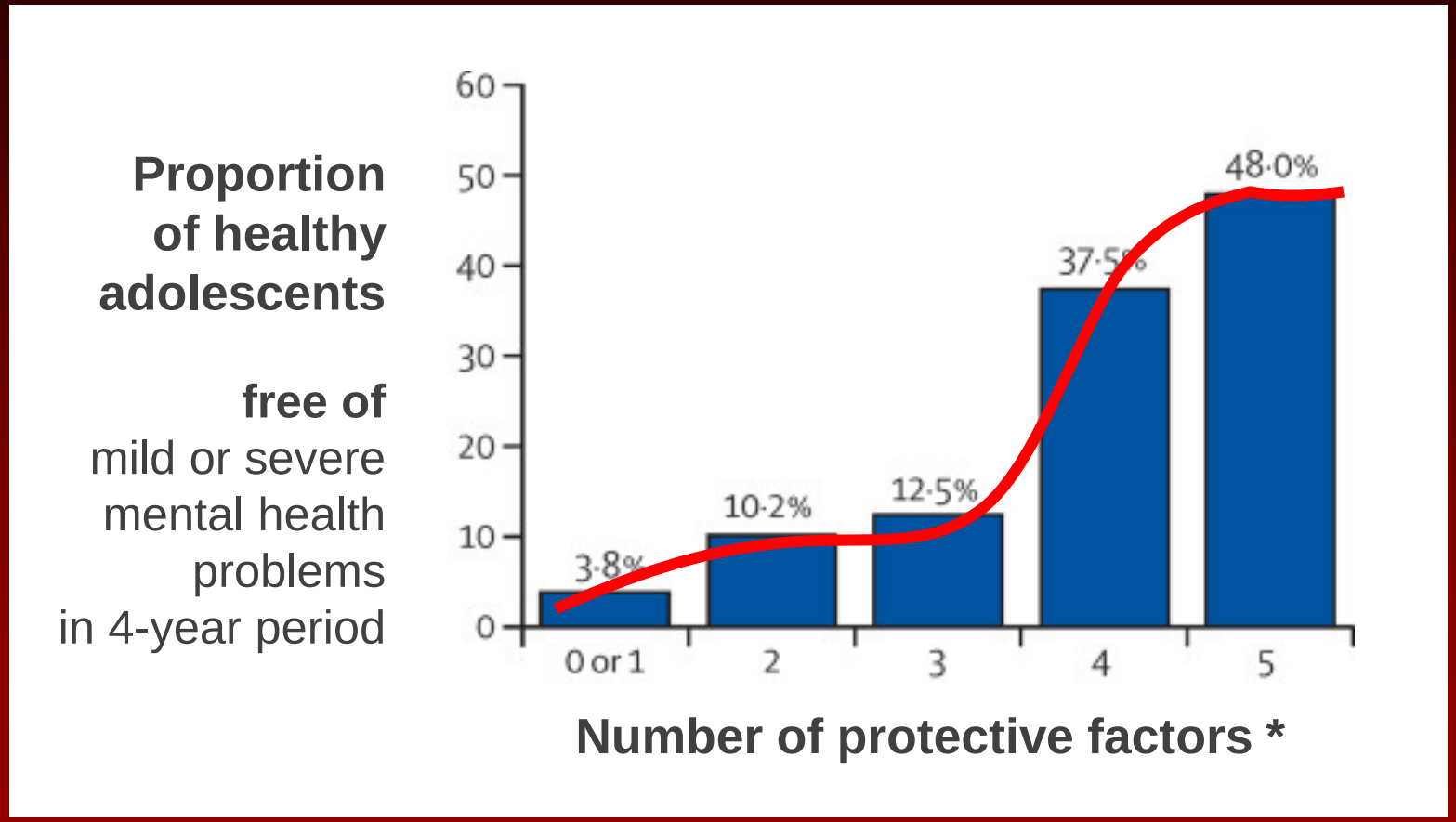
Adolescent offspring of parents with recurrent depresion

N=262

Prospective study: 4 years

3 assessments

Age at start: 9 – 17 yrs



* parental positive emotion, co-parent support, good quality-social relationships, self-efficacy, frequent exercise

“Its the number of risk and protective factors that counts”

Pittsburgh Girls Study

Van der Molen et al. 2012
J. of Abnormal Child Psychology

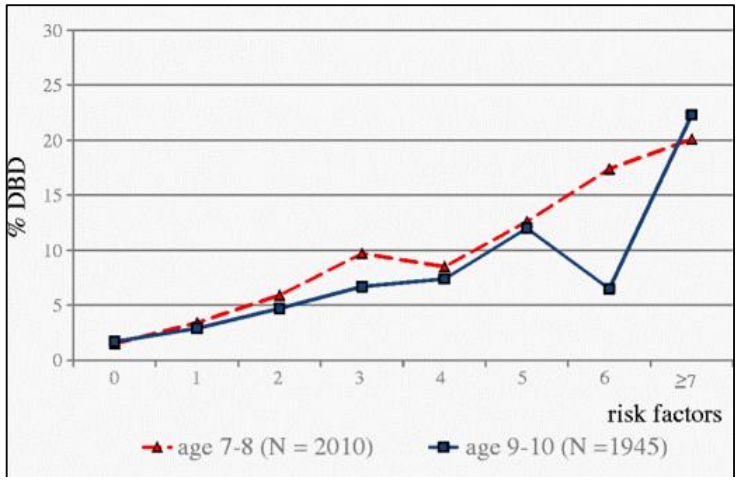
Longitudinal study

N = 2034 (7 – 12 yrs)

Risk of Child Disruptive Behavior Disorder

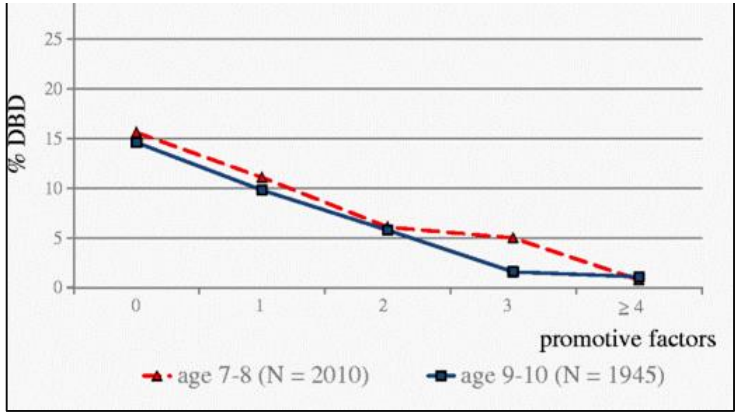
Number of maternal risk factors

Percentage child disruptive behavior disorder



Number maternal promotive factors

Percentage child disruptive behavior disorder



Maternal risk factors:

e.g.

psychopathology
single mother
prenatal substance use
poor neighborhood
poor parenting

Maternal promotive factors

e.g.
low depression
maternal warmth
consistant discipline

30 years of research on transgenerational mental health issues

- epidemiology
- risk factors
- neurobiology
- epigenetics
- resilience
- development
- Families
- parenting
- interventions
- prevention
- economic

large body of jigsaw pieces of knowledge

across 72 scientific peer-reviewed journals

Prevention aims to influence causal factors

in development of illnesses, health and well-being

1. **What are the major causal factors and mechanisms in transmission of psychiatric problems from parents to children?**

2. **Could we describe it in a transparent, useful theoretical model**

   → **to integrate our scattered knowledge: Knowledge map**

   → **to serve as Road & Planning Map for improving the lives of families and prevent psychiatric and related problems in the children?**

What type of theoretical framework do we need?

Transmission mechanisms

Risk and Protective factors

Dynamic & Socio-ecological

Parent – Child – Family – Network – Community

Developmental: pregnancy to adulthood

Stress –coping – support

✚ Practical

What are the major mechanisms of transgenerational transmission of psychiatric problems ?

- **Genetic and epigenetic transmission of risk / resilience**
- **Prenatal biology: Pregnancy stress impact the brain**

- **Parent-child interaction**
- **Family processes and conditions**
- **Social system impact: stressors, opportunities, support** (e.g. social network, schools, health care, community)

+

Interactions between mechanisms

Gene-environment (epigenetics)

Sociopsycho-neurological processes

Could we influence these major mechanisms of transgenerational transmission

YES

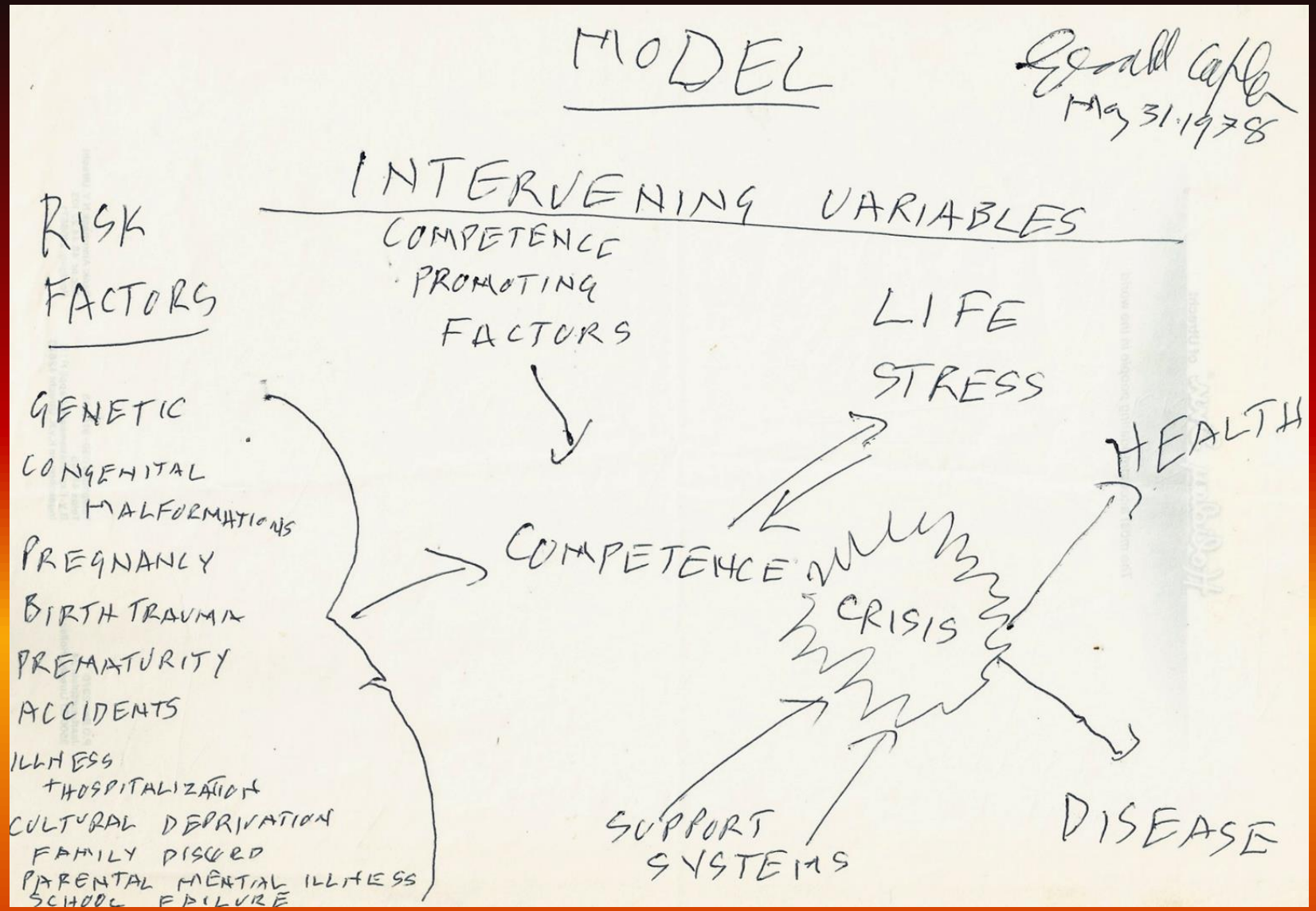
- **Genetic and epigenetic transmission of risk**
- **Prenatal biology: Pregnancy stress impact the brain**
- **Parent-child interaction**
- **Family processes and conditions**
- **Social system impact: stressors, opportunities, support** (e.g. social network, schools, health care, community)

Family-based treatment of parental disorders & child disorders

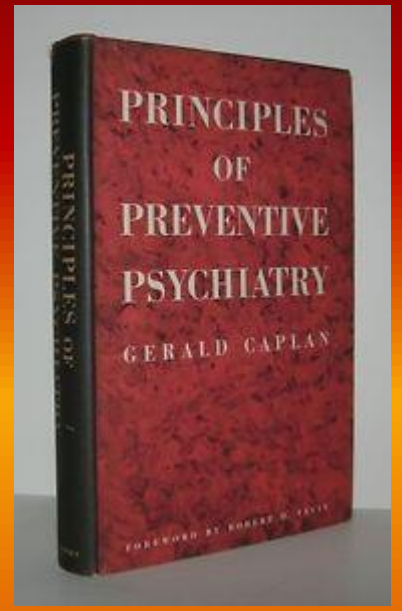
Preventive interventions specifically developed for COPMI- FaPMI

Preventive interventions that influence common factors of multiple problems

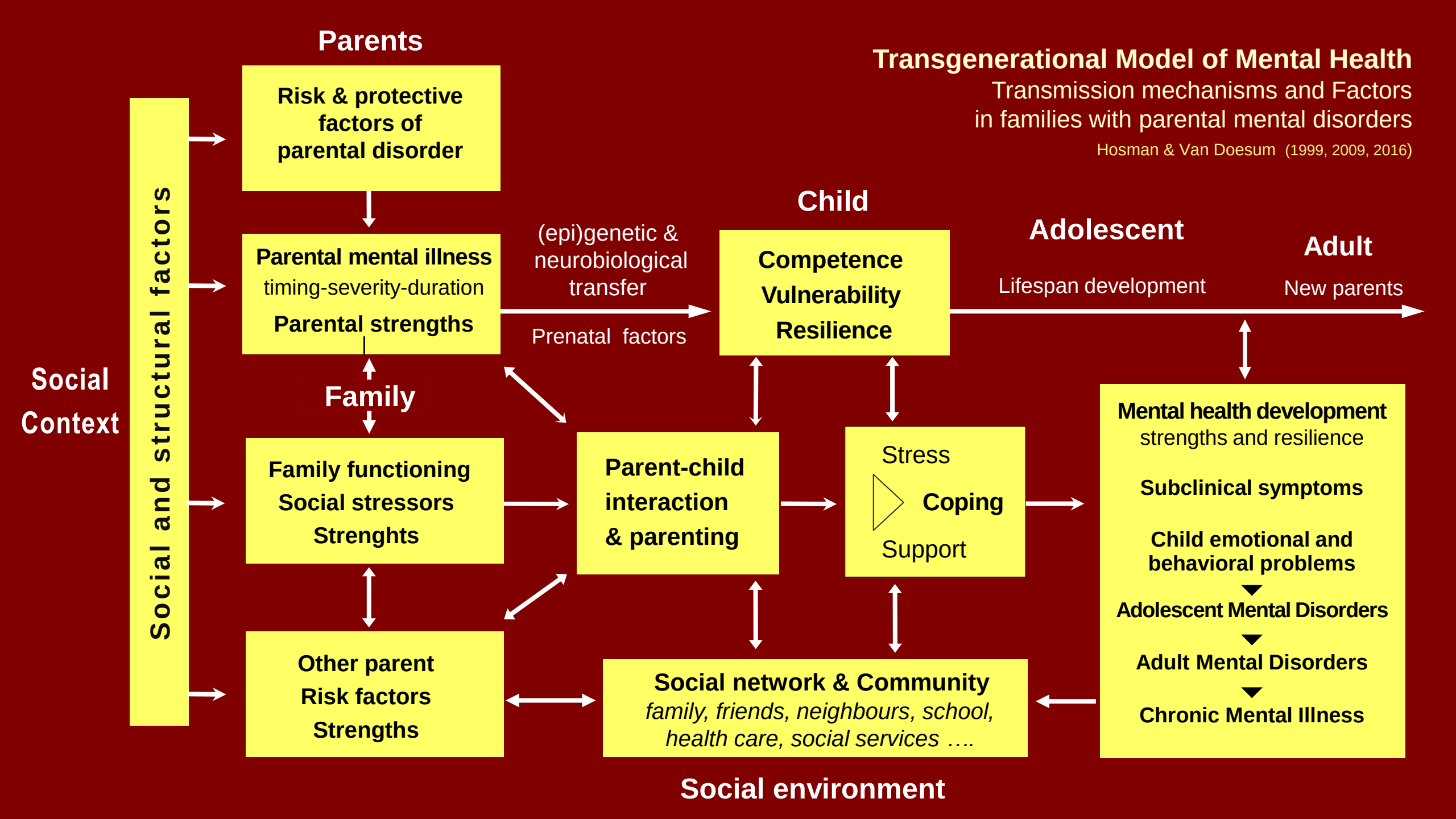
Universal interventions: parenting education and social-emotional development



Gerald Caplan
May 31, 1978
Nijmegen



Crisis Theory for Prevention
Gerald Caplan, Child Psychiatrist and Pioneer of Preventive Psychiatry (1964)


Transgenerational Model of Mental Health
Transmission mechanisms and Factors
in families with parental mental disorders
Hosman & Van Doesum (1999, 2009, 2016)
Parents
Risk & protective factors of parental disorder
Parental mental illness
timing-severity-duration
Parental strengths
Family
Family functioning
Social stressors
Strenghts
Other parent
Risk factors
Strengths
Social and structural factors
Social Context
(epi)genetic & neurobiological transfer
Prenatal factors
Child
Competence
Vulnerability
Resilience
Adolescent
Adult
Lifespan development
New parents
Parent-child interaction & parenting
Stress
Coping
Support
Social network & Community
family, friends, neighbours, school, health care, social services ….
Mental health development
strengths and resilience
Subclinical symptoms
Child emotional and behavioral problems
Adolescent Mental Disorders
Adult Mental Disorders
Chronic Mental Illness
Social environment

From analysis to action

From science to practice

Significant reduction of

mental health burden and onset of new psychiatric disorders

in the population of children in families living with parental mental illness

What are our strategic opportunities?

Clinical perspective

improving the options to prevent transgenerational transmission of mental disorders within client contacts with parents, children and families in health and mental health care

Public health perspective

improving mental health in the population of children and families living with parental mental illness or at high risk

Our strategic options are defined by:

- Intervention in which stage of development and transgenerational transmission?
- How define the COPMI – FaPMI target group
- Focus on which risk or protective factors
- From which health sector or public sector?
- Clinical perspective (clients) or a public health perspective

Among all these groups are parents having children

Clinical approach

Public mental health

Chronic disorder

Tertiary prevention

Persons with past disorder

Recurrence prevention

Persons with diagnosable disorder

Secondary prevention

Early detection
Early treatment

subclinical symptoms

Indicated prevention

Groups at high risk

Selective prevention

Primary prevention

Whole populations subpopulations

Universal prevention

Hosman 2016

Multiple Target Groups in Transgenerational Mental Health

Which professionals and organizations are involved?

Adult psychiatrists
Psychotherapists
Clinical social work
Psychatric nurses

Primary Health Care
Perinatal care
, nurses, GPs
Midwives
……Social services

Public health
(pre-)Schools, media
NGO's, Family org.
Policy-makers

Parents	Family	Children
Chronic patients		Child-Adolescent mental disorder
Parental Mental disorder		Distress, emotional symptoms Behavioral problems
Distress, subclinical symptoms		COPMI at high risk
Parents at high risk		COPMI
		Vulnerable children
All parents		All children

Child & Adolescent psychiatrists
Psychotherapists
Psychatric nurses

Primary Health Care
Perinatal care
GPs, nurses,
midwives
Social services……

Public health
(pre-)Schools, media
NGO's, Family org.
Policy-makers

Preconception **Prenatal** **Postpartum-Infancy** **Childhood** **Adolescence** **Adulthood**

“Treatment of parents will result in reducing and preventing psychopathology in their children”

true or false?

Meta-analyses

Cuijpers et al. 2015
Seven RCT studies

Gunlicks & Weissman 2008
10 studies

Controlled studies

Weissman et al. 2006 (CS)

Polwski et al. (2008)

What is the evidence?

Less depression in mothers after psychotherapy →

improved mother-child interaction and better child mental health.

Significant but small effect sizes (g= 0.35 to 0.40)

Some evidence that successful treatment with antidepressives results in less depressive and disruptive child behavior disorders.

Treatment of parents will result in reducing and preventing psychopathology in their children

Some comments

Positive effect on children, but **small:** Valuable, not sufficient.

Timing treatment: impact of parental disorder in pregnancy or early life could be structural

Treatment Gap: still large number of untreated cases

In treatment **Parent role mostly not discussed,**

neither implications for children

What else could you do in mental health care to support the prevention of transgenerational transmission?

1. **Check always if clients are parents; child clients are from FaPMI**
2. **Use a family approach**
3. **Listen to stories of parents and children**
   Offer information about parental illness
4. **Assess risk profile** and **identify strengths: tailored support**
5. **Make use of Evidence-based preventive interventions**

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6. **Capacity building of primary care and public health** on COPMI-FaPMI

Multiple evidence-based preventive interventions for COPMI - FaPMI

to adopt, provide, refer to

Parent / Family	1. Let's Talk about Children; Child Talks 2. Family Talk intervention (6-8 sessions) *; Family Group CBT Preventive Program 3. Effective Family Program (comprehensive + Professionals Training) * 4. Family Options Program; Preventive Basic Care Management 5. Online parent and family support*, Family Focus DVD
Child / Mother	6. Parent-Baby Intervention (video-home-training) * 7. Squeeze the Mouse (4-8 yr + parents) 8. Play & Support group programs (8-12 yr)
Adolescent	9. CBT Prevention of Depression Program 10. Psychoeducative support groups * 11. COPMI online programs * 12. Online Survivalkid (16-24 yr)

*currently implemented in different countries (e.g. Family Talk Program in 10 countries)

Effective?
Examples of evidence-based effects (RCTs)

Parent-baby intervention (Karin van Doesum et al.)

Home visiting program — prevents insecure attachment
at 5 yrs: less externalising problems (high stress group)

Let's Talk (Tytti Solantaus et al.)

Talking with parents — 30% reduction child emotional symptoms
Socio-ecological approach — 61% drop in registered child protection cases

CBT Depression prevention Adolescents (Weersing, Beardslee) — Drop of 34% (22%) incidence depression
Timing: Only when parent has no acute episode

Meta-analysis Siegentaler et al 2012 — 49% Overall reduction in outcome indicators (ES= -22)

Use from the wide range of effective prevention programs in child and youth mental health

Prenatal interventions

Parenting education

Child abuse prevention

Social-Emotional Learning (Pre-school, school-based)

Depression and anxiety prevention

Psychosis prevention

Eating disorder prevention

Internet prevention programs

Access through national databases effective programs

Major limitations

Available Preventive interventions:

- Limited use and implementation rate
- Small reach and impact in risk populations
- Need increase in effect level
- Single interventions insufficient

Solutions

- Increase knowledge on programs, lower resistance
- Public health approach
- Combine interventions → Collective impact
- Improve structral conditions for implementation

What are our strategic opportunities?

Clinical perspective

improving the options to prevent transgenerational transmission of mental disorders within client contacts with parents, children and families in health and mental health care

Integrate COPMI prevention in primary health care, schools, communities

Public health perspective

improving mental health in the **population** of children and families living with parental mental illness or

E-mental health (internet)

Integrate in local policies

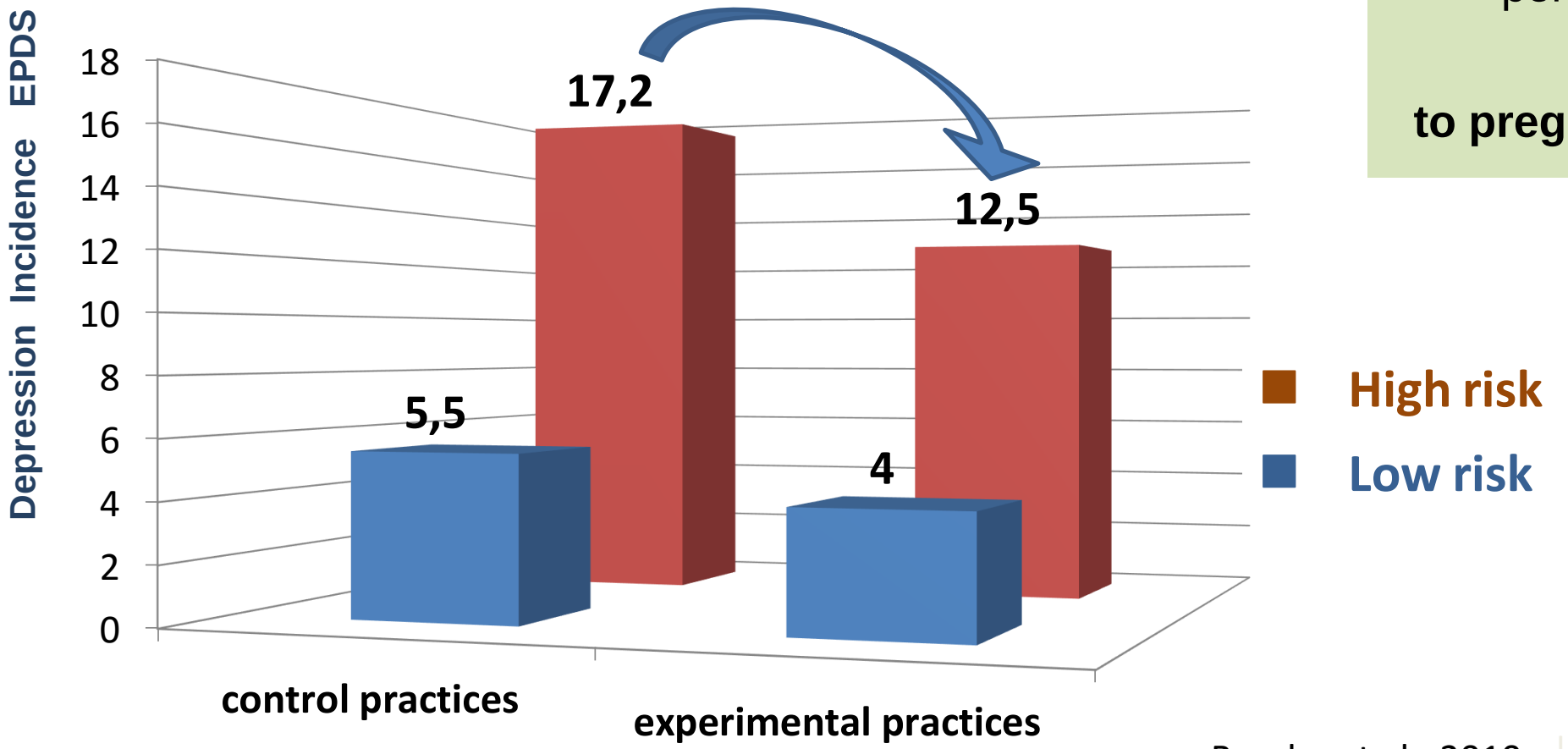
Prevention of postnatal depression

Training home-visistors

in assessment and cognitive-behavioral person-centered support

to pregnant women

N = 2241 pregnant women or young mothers < 6 weeks
Cluster randomization across 101 primary care practices



Brugha et al., 2010

WazzUp Mama

Distressed Pregnant Women

by midwives

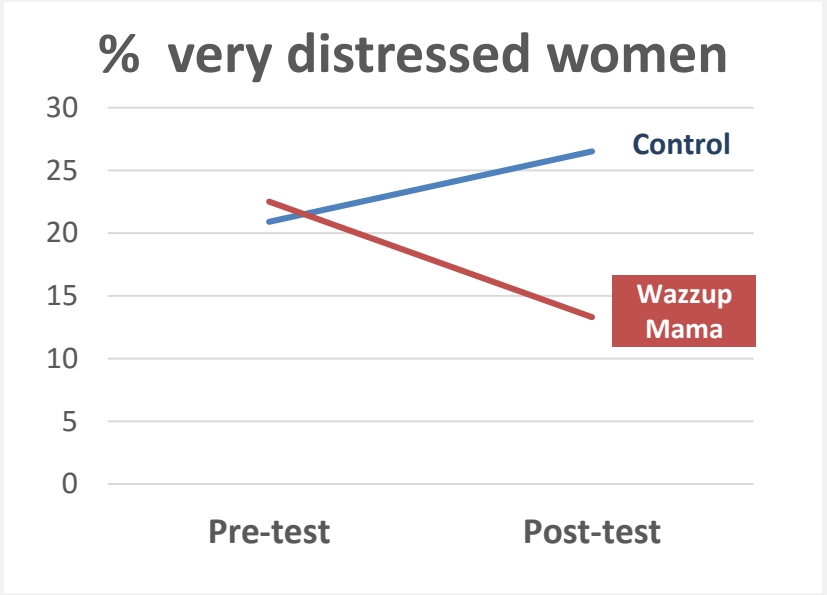
RCT n=433

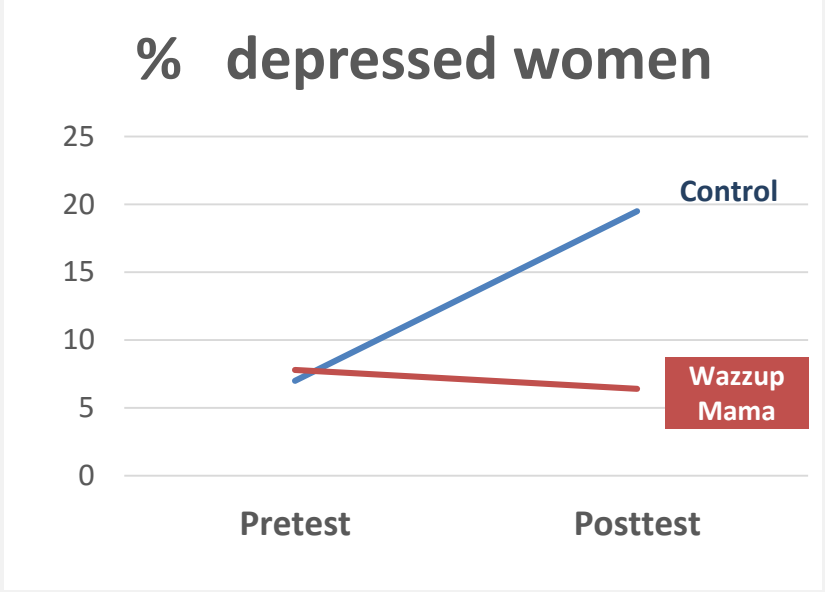
Mother-oriented Program web-based tailored

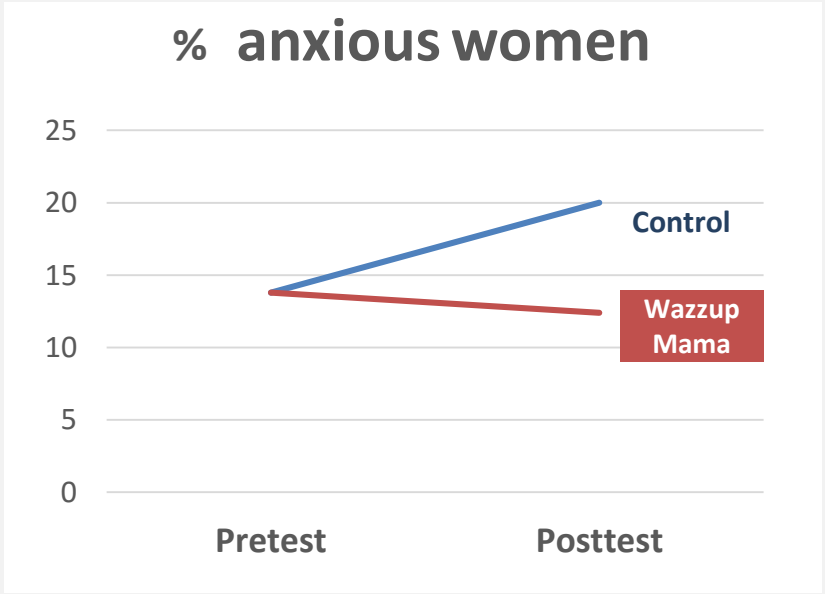
- Personalized information
- Screening tests
- Personalized advice

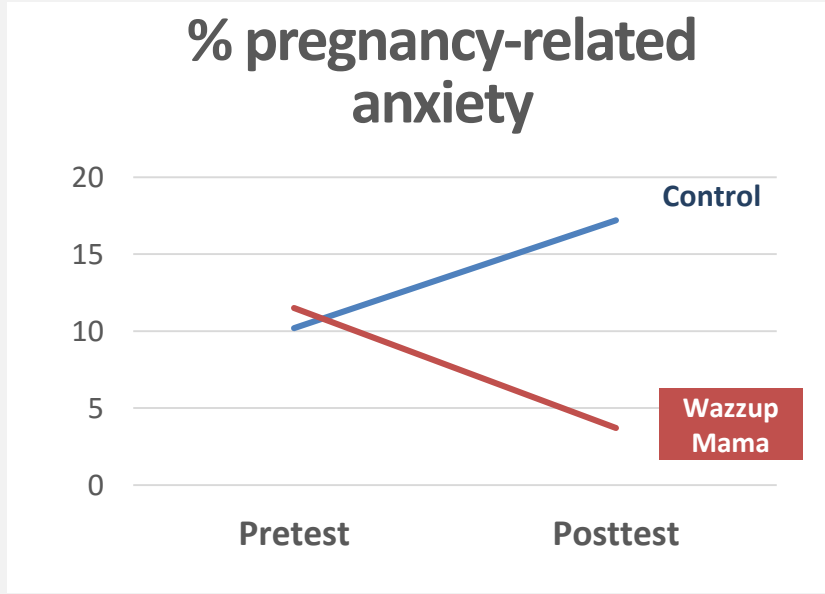
Midwives

- Format for supporting women: self-disclosure / -management
- Guidelines for consultation referral and implementation
- Regional health care map
- Formats meetings and consultation









Fontein-Kuipers et al. 2015
Research Centre Midwivery Science &
CAPHRI Maastricht University NL

Family Nurse Partnership

David Olds USA

Outcomes first 2 years

Reduced smoking pregnancy

75% less preterm

In high risk mothers
child abuse 19% → 4%

32% fewer emergency visits

Reduced use of welfare

Long term outcomes at age 15

Less abuse and maltreatment

56% less likely alcohol-drugs

56% fewer arrests

81% fewer convictions

Increased school education

Economic evaluation: Benefit to cost ratio: 2.73. Net benefit $17.000 per family

Theory-based options for Transgenerational Prevention

Parents

Prevention of parental / postnatal depression / anxiety and other mental disorders

protective tors ↓ l disorder

Reduce severity & duration parental illness by treatment

Increase strengths by MHP

duration erity disorder

COPMI-focused:

‘Child Talk’, ‘Family Talk’, Effective Family Program, Preventive case management, Internet parenting support

More MHP – prevention:

Parenting education
Nurse-Family Partnership
Stress management
Safe families

stress ctioning

er parent ths and nesses

Family

COPMI-focused:

Play and Talk groups
Support groups
Internet support

Child

Genetic & biological transfer

Pregnancy risk factors

Vulnerability resilience of child

Early cognitive stimulation

Social-emotional Learning (schools)

Lifespan development

resilient - vulnerable

Let’s talk

Mother-baby program

Parent-child interaction & parenting

Stress

Coping

Coping with divorce

Healthy develop

Tempor problem

Mental disorde

Chronic

Indicated prevention

Depression
Anxiety
Eating disorders
Psychosis

Anti-stigma programs

Mental health literacy

Anti-bulying programs

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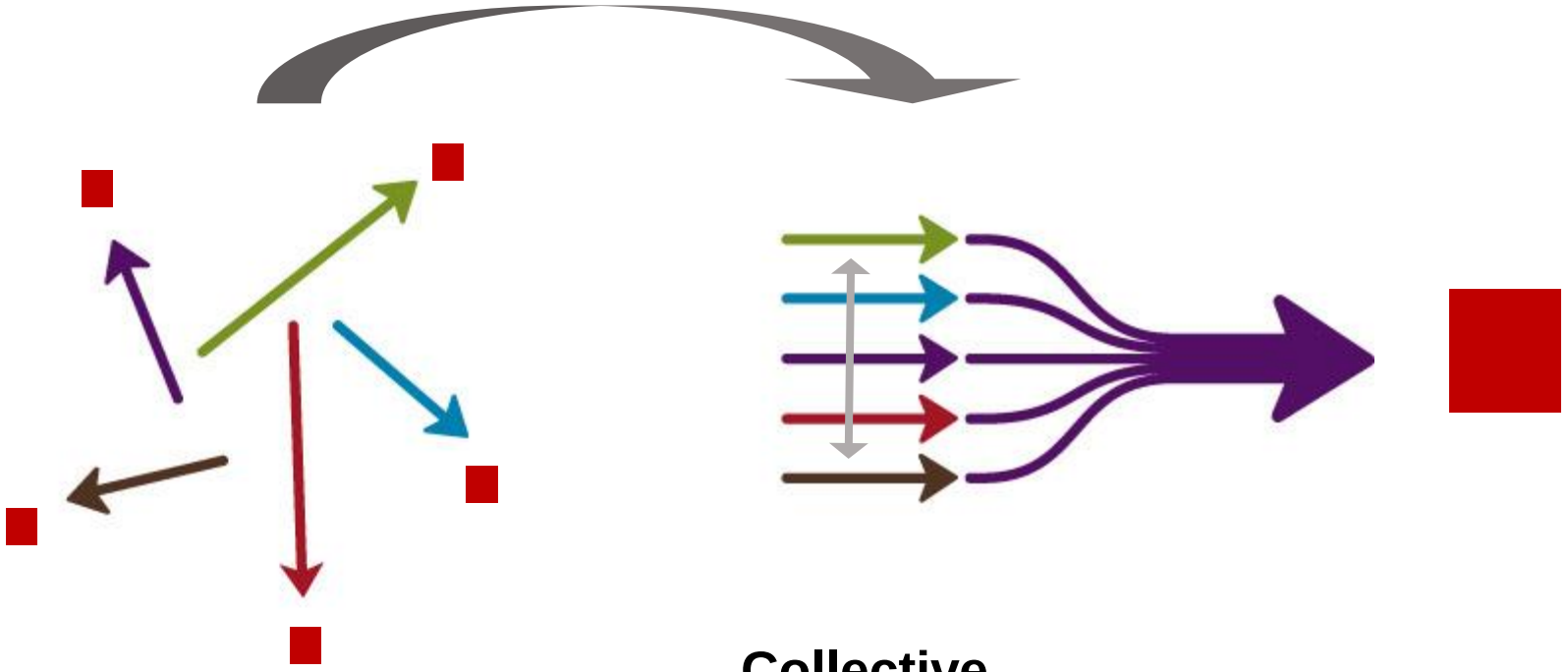
Mass media
Family organizations

Social environment

From isolated activitivities to a integrated multicomponent approach of health and social problems to generate 'Collective impact'



Isolated preventive activities
Isolated outcomes

Individual professionals, teams and organisations working independently, activities are not attuned and coördinated, therefor have limited impact

Collective, multicomponent integrated approach → **Collective impact**

Combined action

Multilayered

Theory-based

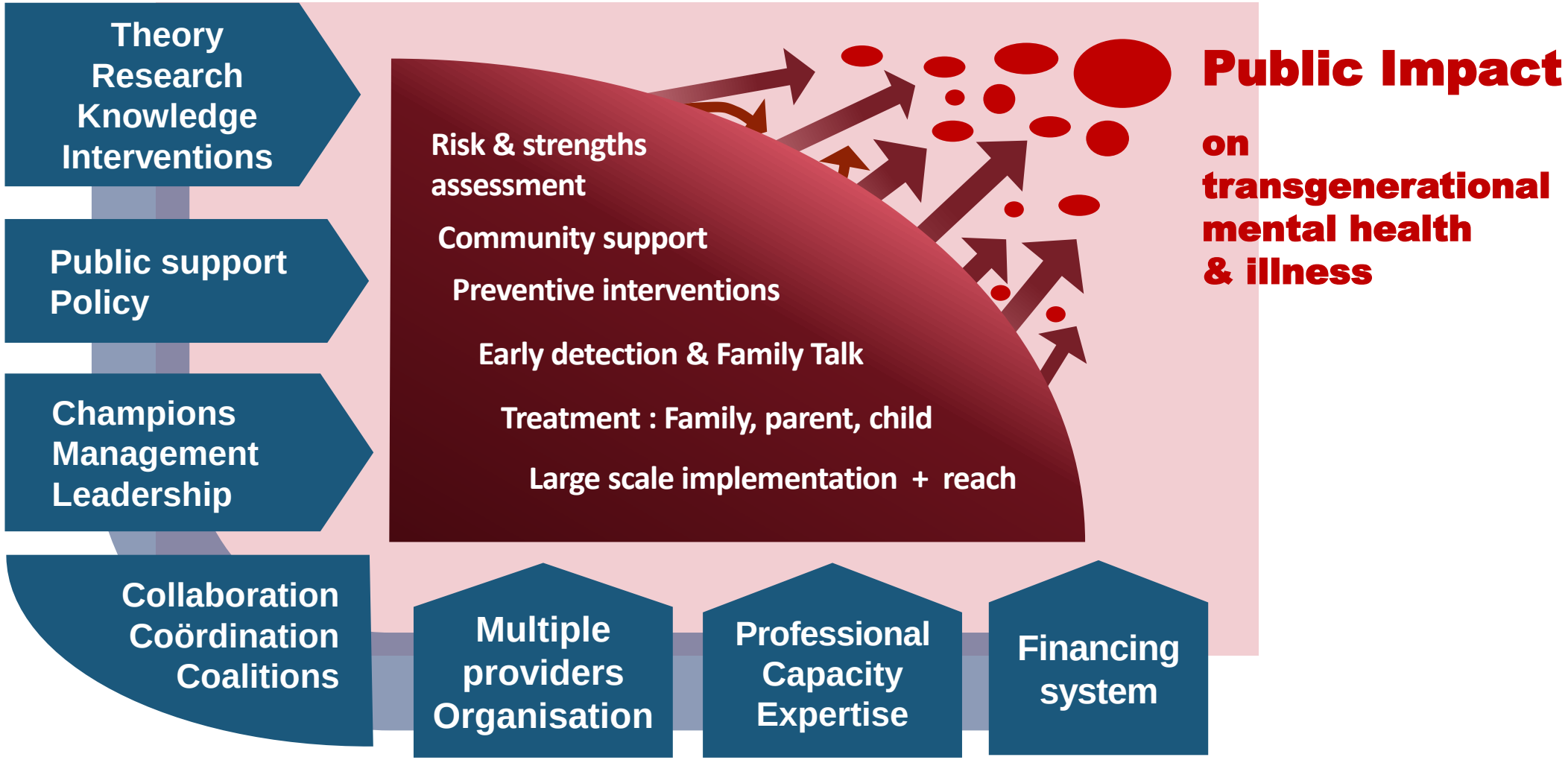
Evidence-based

Integral

Collective impact

Collective impact is the public effect resulting from a combination of interventions, programs and measures, provided from multiple organisations, services and sectors.

To achieve a Public Mental Health effect:
What 'conditions' do we need to make it happen?



Hosman 2016

To conclude

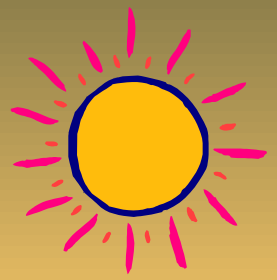
Supporting these children and families is urgently needed
We have knowledge and tools to make a change

Reflect on what you could contribute to prevent transgenerational transmission of mental illness and improve their mental health

At home sit together with your colleagues and discuss what you could do together to improve support for these families

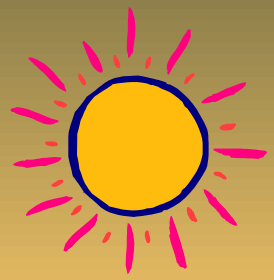
Talk with primary health care, local organizations and policy-makers have you could create much better collective impact

Make a local plan for improving the conditions to make it happen



…. and
Talk with
the Children

Thank you



…. and Talk with the Children

Thank You

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