

# Report from working group 1

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## Predictors and moderators of outcome in youth psychotherapy


TREATme Dissemination Seminar

December 11, 2020

# 16 MC members – 4 students – 13 countries

Austria	Henriette Löffler-Stastka
Austria	Branka Milic
Austria	Marian Hochgerner (student)
Croatia	Tamara Prevendar
Denmark	Stig Poulsen
Finland	Vera Gergov
Greece	Eleni Voursoura
Italy	Giuseppe Chiarenza
fyR Macedonia	Silvana Markovska
Malta	Nigel Camilleri
Malta	Andrea Saliba
Malta	Emma Saliba (student)
Malta	Rosemarie Vella Baldacchino (student)
Malta	Daniel Vella Fondacaro (student)
Norway	Randi Ulberg
Portugal	Sandra Torres
Romania	Bogdan Tudor Tulbure
Romania	Ioana Podina
Spain	LuisJoaquin Garcia-Lopez
Switzerland	Martin Debbané

## OBJECTIVES



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graph LR; A((Focus on the empirical, qualitative and theoretical literature, and describe the-state-of-the-art on specific markers interacting with psychotherapy for adolescents and young adults)) --> B((Share knowledge on age specific markers that influence therapeutic outcome, in order to help develop effective individualized treatments))
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Focus on the empirical, qualitative and theoretical literature, and describe the-state-of-the-art on specific markers interacting with psychotherapy for adolescents and young adults

Share knowledge on age specific markers that influence therapeutic outcome, in order to help develop effective individualized treatments

## Deliverables

Develop systematic reviews and meta-analyses on existing knowledge.

Identify putative age specific markers; e.g. diagnoses, gender and other patient characteristics, cultural aspects, etc.

Suggest putative specific markers for treatment of young people that should be further investigated.

Organize TS on specific markers during the first year of the Action.

Publish reports from WG meetings.

Disseminate information through the Action's website on putative age specific markers.

Together with WG 2 overseen by MC, organize the Action's first International conference.



# Beginning of the work

- To meet the deliberables, we decided to conduct a systematic review of putative age specific markers; e.g. diagnoses, gender and other patient characteristics, cultural aspects, etc.

# Where to start

- Definition of "age specific markers"?
  - Predictors and moderators of outcome
- Overall search strategy?
  - Relevant clinical outcome studies of psychotherapeutic interventions for adolescents and young adults
    - predictors and moderators
- How to make the choices and build the searches (moderator/predictor vs. disorder groups)?



Systematic search for outcome studies within specific psychiatric disorders + manual selection for predictors and moderators



# Moderators

- Which intervention works for **whom** and **under what circumstances** (Baron & Kenny, 1986)
- These factors are commonly referred to in clinical and epidemiological research as **moderators**

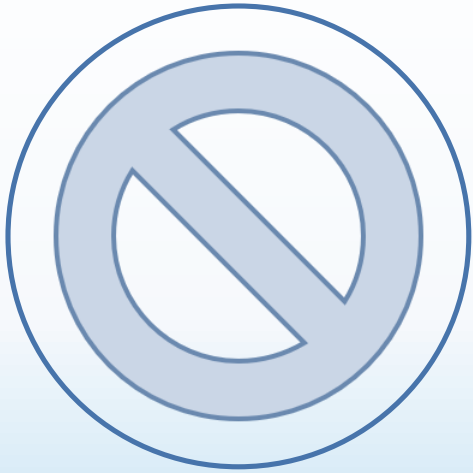


modifiers

effect  
modifiers

Predictors  
of  
differential  
outcomes

# Moderators



Different from **predictors of treatment**, which are variables that influence treatment outcome in a general, non-specific way



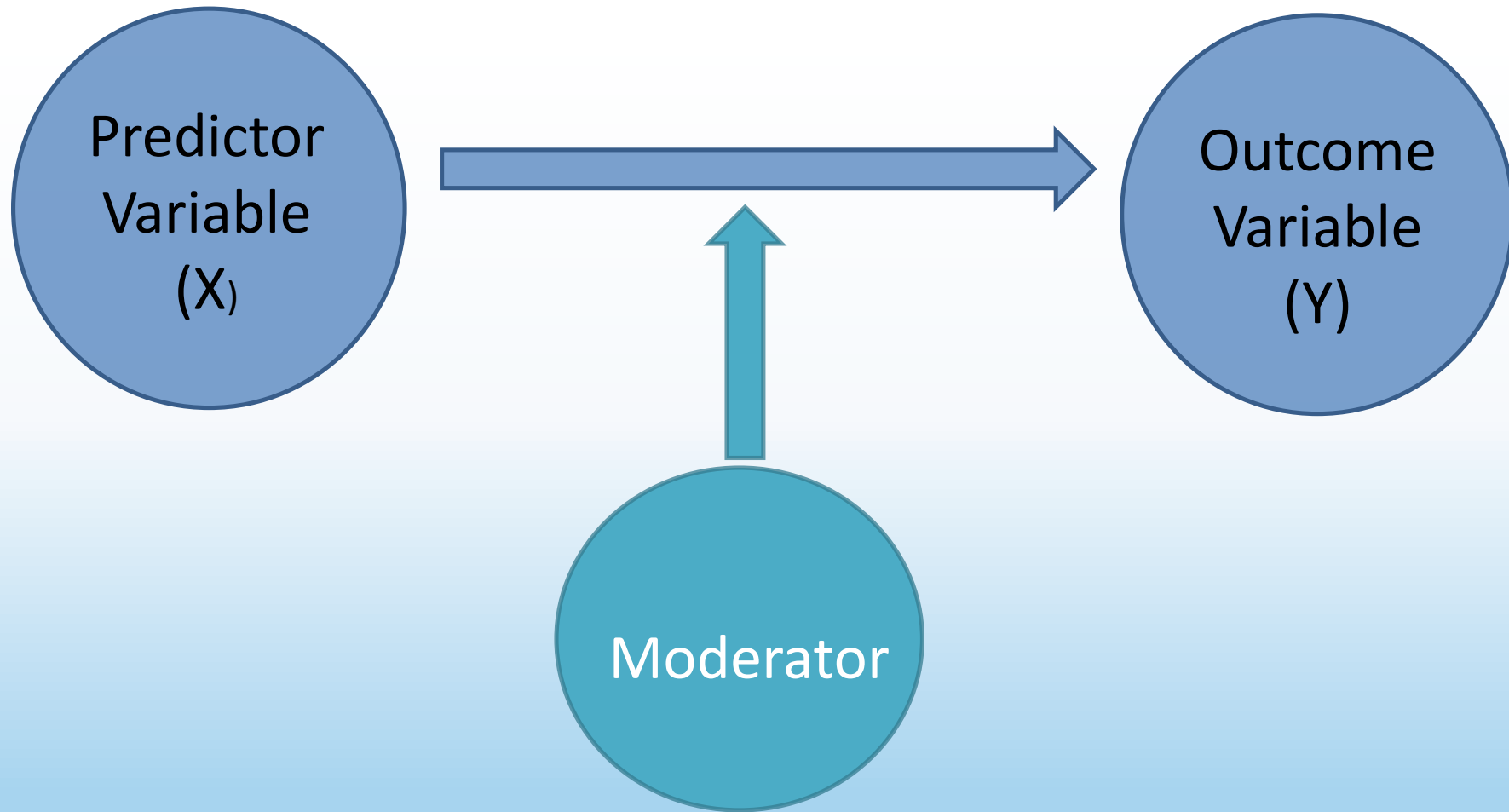
Nor should moderators be confused with **treatment mediators**, which are the mechanisms within a treatment responsible for therapeutic change.

# What is a predictor of treatment outcome?

- We generally we ask the question:

“Does X predict or cause Y?”





Which subgroups of the sample (e.g., younger patients, males, patients with co-morbid disorders) have particularly strong or weak responsiveness to the interventions being evaluated

# Moderators of treatment outcome

- **Baseline** characteristics, which are **independent of received treatment**, and have an **interactive effect with treatment condition** on treatment outcome

(Kraemer, Wilson, Fairburn & Agras, 2002)



# Examples

- Demographic characteristics
- Severity markers
- Comorbidity
- Psychosocial stressors
- Personality traits
- Cognitive style
- Expectations about treatment

# Why study predictors and moderators?

- *Non-specific predictors* indicate which patients are harder to treat and may require more intensive treatments
- *Moderators* signal to clinicians which particular interventions are most effective with particular subpopulations.

# General choices for the review

- Databases
  - PubMed
  - PsycINFO
- Study types
  - All clinical trials:
    - RCT's
    - Non-randomized controlled studies
    - Observational (pre-post) studies
- Language
  - Title and abstract in English
- Age
  - 12 to 30 (Adolescents and young adults)

# Specific choices made: treatment

## Psychotherapeutic interventions

- Psychotherapy
- Psychotherapeutic treatment
- Psychotherapeutic intervention
- Psychological therapy
- Psychological treatment
- Psychological intervention
- Psychosocial therapy
- Psychosocial treatment
- Psychosocial intervention
- Supportive therapy
- Supportive treatment
- Counselling
- Counseling
- Motivational interviewing
- Psychoeducation
- Psychoeducational
- Cognitive therapy
- (Cognitive analytic therapy)
- Behavioral therapy
- Behavioural therapy
- CBT
- Psychoanalysis
- Psychodynamic therapy
- Psychoanalytic therapy
- Dynamic therapy
- Transference focused (therapy)
- Mentalization based (therapy)
- Metacognitive therapy
- Interpersonal therapy
- Interpersonal and social rhythm therapy
- Schema therapy
- Schema-focused therapy
- Acceptance and Commitment Therapy
- Acceptance based (therapy)
- Problem solving therapy
- Problem solving treatment
- Insight oriented therapy
- Rational emotive
- Solution focused therapy
- Family therapy
- Family systems therapy
- Parenting intervention
- Parent management training
- Group therapy
- Mind-Body Therapy
- Art Therapy
- Dance Therapy
- Music Therapy
- Play Therapy
- Expressive therapy

# Specific choices made: treatment

## Other relevant interventions

- Cognitive remediation
- Cognitive training
- Behavioral activation
- Behavioural activation
- Behavior activation
- Behavioral weight control
- Behavioural weight control
- Applied behavior analysis
- Applied behaviour analysis
- Attention bias modification
- Exposure and response prevention
- Exposure therapy
- Systematic Desensitization
- Eye movement desensitization reprocessing
- EMDR
- Psychology biofeedback
- Hypnosis
- Mindfulness
- Relaxation

# Specific choices made: disorder groups

- Anxiety disorders
  - anxiety disorder
  - neurotic disorder
  - panic disorder
  - agoraphobia
  - social phobia
  - social anxiety
  - mutism
  - separation anxiety
  - phobic disorder
  - phobia
  - generalized anxiety
  - obsessive compulsive
  - ocd
  - hoarding
  - body dysmorphic disorder
  - Body Image Disorder
  - trichotillomania
  - hair pulling disorder
  - excoriation disorder
  - dermatillomania
  - skin picking disorder
  - trauma and Stressor Related Disorders
  - traumatic stress disorder
  - posttraumatic stress disorder
  - stress disorder, post-traumatic
  - ptsd
  - acute stress disorder
  - adjustment disorder
- Depressive disorders
  - mood disorder
  - depressive disorder
  - depression
  - affective disorder
  - dysthymic disorder
  - dysthymia
  - premenstrual dysphoric disorder
  - seasonal affective
- Bipolar disorders
  - bipolar and related disorders
  - bipolar disorder
  - mania
  - manic depression
  - bipolar depression
  - pediatric bipolar
  - cyclothymic disorder
  - cyclothymia

# Specific choices made: disorder groups

- Psychotic disorders
  - psychotic disorder
  - psychosis
  - psychoses
  - schizophrenia
  - schizoaffective
  - schizophreniform
  - reactive psychosis
  - reactive psychoses
- Eating disorders
  - feeding and eating disorder
  - feeding disorder
  - eating disorder
  - anorexia
  - bulimia
  - binge eating
  - pica
  - rumination disorder
  - avoidant restrictive food intake
  - arfid
  - avoidant eating
  - purging disorder
  - night eating syndrome
  - food addiction
  - orthorexia
  - ednos
  - ofsed

# Specific choices made: disorder groups

- Personality disorders

- personality disorder
- schizotypal personality
- schizoid personality
- paranoid personality
- narcissistic personality
- borderline personality
- histrionic personality
- antisocial personality
- obsessive compulsive personality
- avoidant personality
- dependent personality
- character pathology
- character neurosis
- Axis II disorder

- Conduct disorders

- conduct disorder
- oppositional Defiant
- defiant disorder
- externalizing behavior
- externalizing behaviour
- antisocial behavior
- antisocial behaviour

- Substance use disorders

- substance related disorder
- substance use disorder
- substance abuse
- substance misuse
- substance dependence
- addiction
- drug use
- drug abuse
- drug addiction
- alcohol related disorder
- alcohol use disorder
- alcohol abuse
- alcohol dependence
- alcoholism
- amphetamine
- cocaine
- inhalant
- marijuana
- cannabis
- opioid
- heroin
- opium
- morphine
- hallucinogen
- tobacco
- nicotine
- smoking
- polydrug
- stimulant
- substance induced psychosis
- Substance Induced Psychotic Disorder
- drug psychosis
- drug psychoses



# Specific choices made: disorder groups

- ADHD
  - attention deficit disorder
  - adhd
  - hyperkinetic disorder
  - attention deficit hyperactivity disorder
- Autism
  - autistic spectrum disorder
  - autism spectrum disorder
  - autistic disorder
  - autism
  - Asperger syndrome
  - Asperger
  - Asperger's
  - child development disorders, pervasive
  - pervasive child development disorder

# Building the search string

- Searches have to be built in different ways in PubMed and PsycINFO
- All disorder groups had a general search string (treatments + age + study type) + a disorder specific search string
- Searches were conducted by one researcher with the assistance of informatician from Medical Library in Helsinki
- Two independent researchers reproduced the searches

# Results

	Pubmed	PsycInfo	Combined
ADHD	225	312	497
Anxiety	1581	1269	2628
Autism	91	266	332
Bipolar	150	139	263
Conduct	125	1294	1366
Depression	2325	2102	4114
Eating	437	547	919
Personality	230	379	593
Psychosis	530	686	1173
Substance	1616	1915	2136
		Total=	14021
	Total (duplicates removed)		9980

- Search results were imported to reference manager Mendeley for further processing
  - Free access for all researchers
  - Possibility to create groups

# Inclusion criteria

- Researchers were divided into pairs by different disorder groups
  - Disorder groups that had > 2000 search results were divided into group of 2-3 pairs
- 4 step process
- All researchers worked in pairs and rated the papers independently
  - Consensus between the researches before proceeding to next step

# Inclusion process

- **STEP 1: Reading the titles only**
  - Include the paper if it
    1. **Disorder:** includes patients with the specified disorder for each search (depression, anxiety etc.)
    2. **Intervention:** presents a psychosocial intervention program for that disorder (depression, anxiety etc.) of any duration & orientation
  - If you are having doubts regarding the inclusion of a particular study, you should keep it for further investigation. Exclude only studies for which you have found at least one positive evidence that it is off track.

# Inclusion process

- **STEP 2: Reading the abstracts**
  - Include the paper if it
    1. Meets the criteria from step 1
    3. **Study type:** outcome study published in peer-review journals
    4. **Participants:** age range: 12 – 30 years
    5. **Language:** at least title and abstract should be in English (as search terms are in English)
  - All criteria have to be met at the same time
  - If you are having doubts regarding the inclusion of a particular study, you should keep it for further investigation. Exclude only studies for which you have found at least one positive evidence that it is off track.

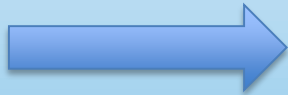


Compare ratings with your pair, reach consensus

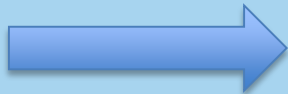
- STEPS 1&2 were combined in most of the pairs

# Inclusion process

- **STEP 3: Reading the full-texts**
  - Include the paper if it
    1. Meets the criteria from step 2
    6. **Participants' clinical status:** Participants being diagnosed with a clinical disorder or at least having a high level of symptoms on at least one relevant self-report measure (above the agreed-upon cut-off point for that measure)
    7. **Assessment points:** Pre-treatment (compulsory), Post-treatment (compulsory), and Follow-up (not compulsory).



Compare ratings with your pair, reach consensus

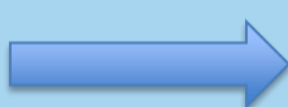


**All relevant outcome studies for the specific disorder are identified!**

# Inclusion process

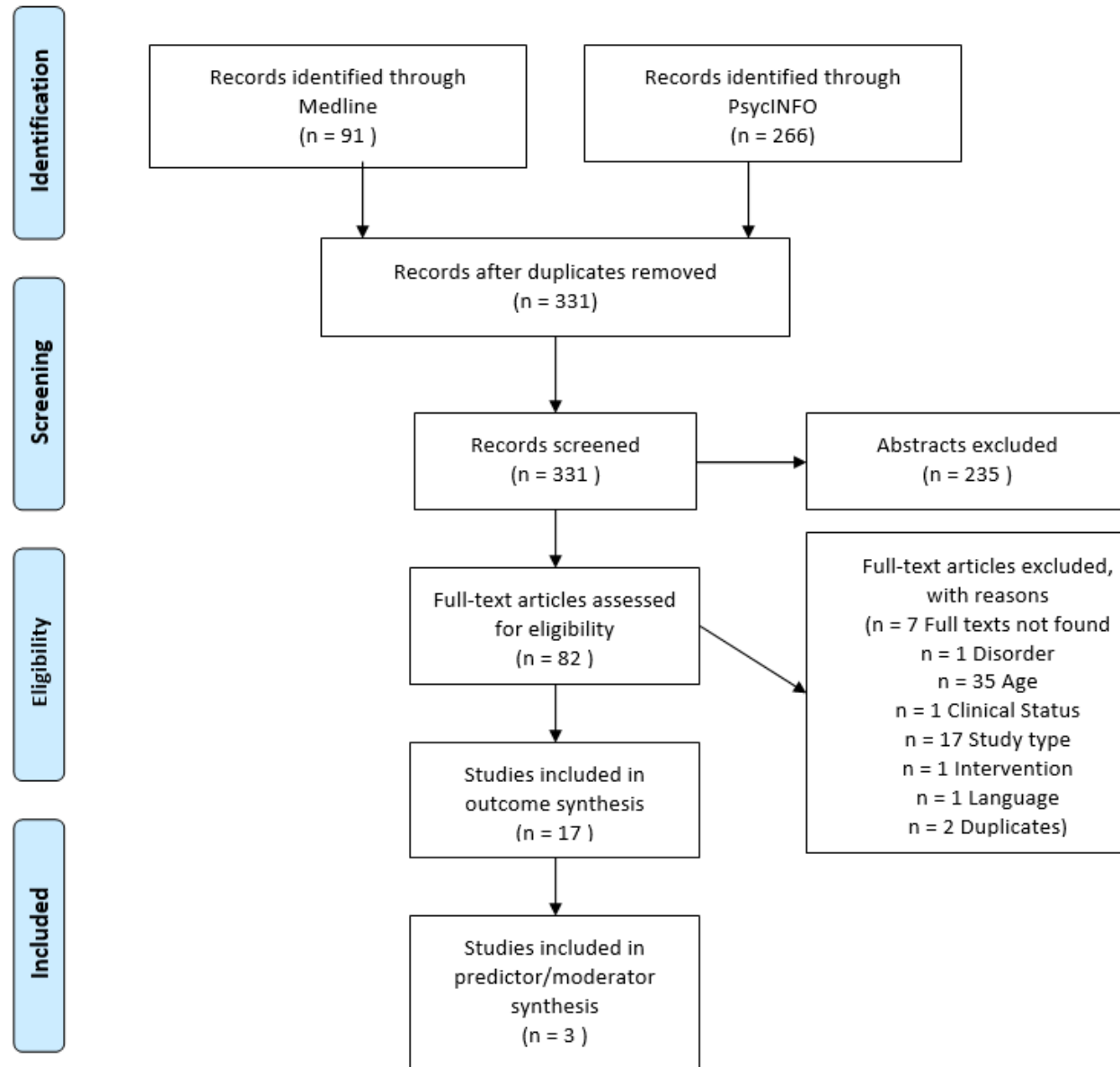
- **STEP 4: Reading the full-texts**
  - Include the paper if it
    1. Meets the criteria of step 3
    8. **Predictors and/or moderators:** all relevant variables are assessed before the treatment and the paper explicitly displays at least one statistical analysis concerning predictors & moderators

 Compare ratings with your pair, reach consensus

 **All relevant predictor/moderator studies for the specific disorder are identified!**



# PRISMA chart, example: Autism Spectrum Disorder



# Data extraction

- Article information (authors, journal etc.)
- Sample information (sample size, diagnosis, age, gender etc.)
- Design (randomization?, comparison group?)
- Treatment (approach, duration)
- Predictors / moderators (variable, type of statistical analysis)
- Risk of bias assessment

# Data extraction

<div> <div>Klip</div> <div>Kopier</div> <div>Formatpencil</div> <div>Udklipsholder</div> <div>Skrifttype</div> <div>Justering</div> <div>Ombryd tekst</div> <div>Flet og centrér</div> <div>Tal</div> <div>Betinget formatering</div> <div>Formatér som tabel</div> <div>Celletypografi</div> <div>Indsæt</div> <div>Slet</div> <div>Formatér</div> <div>Autosum</div> <div>Fyld</div> <div>Ryd</div> </div>								
P1								
Q	R	S	T	U	V	W	X	Y
Other sample characteristics	Study Randomization	Control condition	Notes on study design	Treatment paradigm	Type of control condition	Number of sessions	Length of follow up	Predictors or moderators
Optional field, if relevant add anything of interest: comorbidity, social status, etc.	Yes / No	Yes / No (if yes: Specify type of control condition in column V)	Free field	Add all active treatments separated by semi-colon	Select (if necessary more than one of the following): No control condition Treatment As Usual (TAU) Wait-list Control Group (WLCG) Placebo Medication Other active treatment	Specify number of sessions, frequency, and length for all treatment conditions (including TAU) separated by semi-colons. If group therapy, also list number of patients in therapy group	In case there is a FU: List all FU time points in mths/years after end of treatment - <u>not</u> after beginning of treatment.	List all tested predictor/moderator variables rows in the following format: characteristic/condition/phenomenon (if relevant: name of total score/subscale). REMEMBER: Only variables measured at baseline qualify as predictors/moderators. PLEASE NOTE: If each predictor/moderator variable is related to several outcome variables, repeat predictor/moderator variable in new rows corresponding to the relevant outcome variable listed in column Y

# Status

- Step 1: Title and abstract screening: Completed
- Step 2: Full text search for outcome studies: Completed
- Step 3: Identification of predictor / moderator studies: (almost) completed
- Step 4: Extraction of information on predictors and moderators: Ongoing – completed in 4 diagnostic groups

# Status

DIAGNOSIS	# predictor / moderator papers	Extraction completed
Eating Disorders	48	
Mood I	20	
Mood II	24	
Mood III	30	
Personality disorders	3	Yes
Psychosis	8	Yes
Anxiety I	15	
Anxiety II	7	
ADHD	10	
Conduct disorders & ODD	0	Yes
Autism	3	Yes
SUD I (inclusion criteria not final)	52	
SUD II (inclusion criteria not final)		

# Status

- Re-distributing papers for data extraction – final deadline Jan. 31, 2021
- Planned first articles:
  - *Socio-demographic predictors and moderators of outcome of youth psychotherapy* (across diagnoses)
  - *Clinical predictors and moderators of outcome of youth psychotherapy* (across diagnoses)
- Lead author group writing Introduction and Methods section
- Subsequent articles:
  - Individual papers on predictors and moderators within diagnostic groups

# Publications in 2020

- Registered protocol in PROSPERO: "Predictors and moderators of psychotherapy outcome for mental disorders in young people: Protocol for a systematic review" [CRD42020166756]
- Submitted protocol article to *Systematic Reviews*:
  - Vousoura, E. et al. (2020). *Predictors and moderators of outcome of psychotherapeutic interventions for mental disorders in young people: Protocol for systematic reviews*
- Presented 4 e-posters at the European Psychiatric Association Conference 2020:
  - Camilleri, N. et al. (2020): *Evidence based psychotherapeutic interventions for young people with mental disorders: a systematic review*
  - Sacco, R. et al. (2020): *Evidence based psychotherapeutic interventions for young people with substance use disorders: a systematic review*
  - Saliba, A. et al. (2020): *Evidence based psychotherapeutic interventions for young people with autism spectrum disorders: a systematic review*
  - Vella Fondacaro, D. et al. (2020): *Evidence-based psychotherapeutic interventions for young people with mood disorders: a systematic review*



## WORKING GROUP 2 – MECHANISMS OF CHANGE

### Dissemination Seminar Dec 2020

Report from Svenja Taubner, Erkki Heinonen & Sonja Protic on behalf of WG-2





Trainingschool in Nikosia, 2018

# European Network on Individualized Psychotherapy Treatment of Young People with Mental Disorders

<https://www.treat-me.eu/>

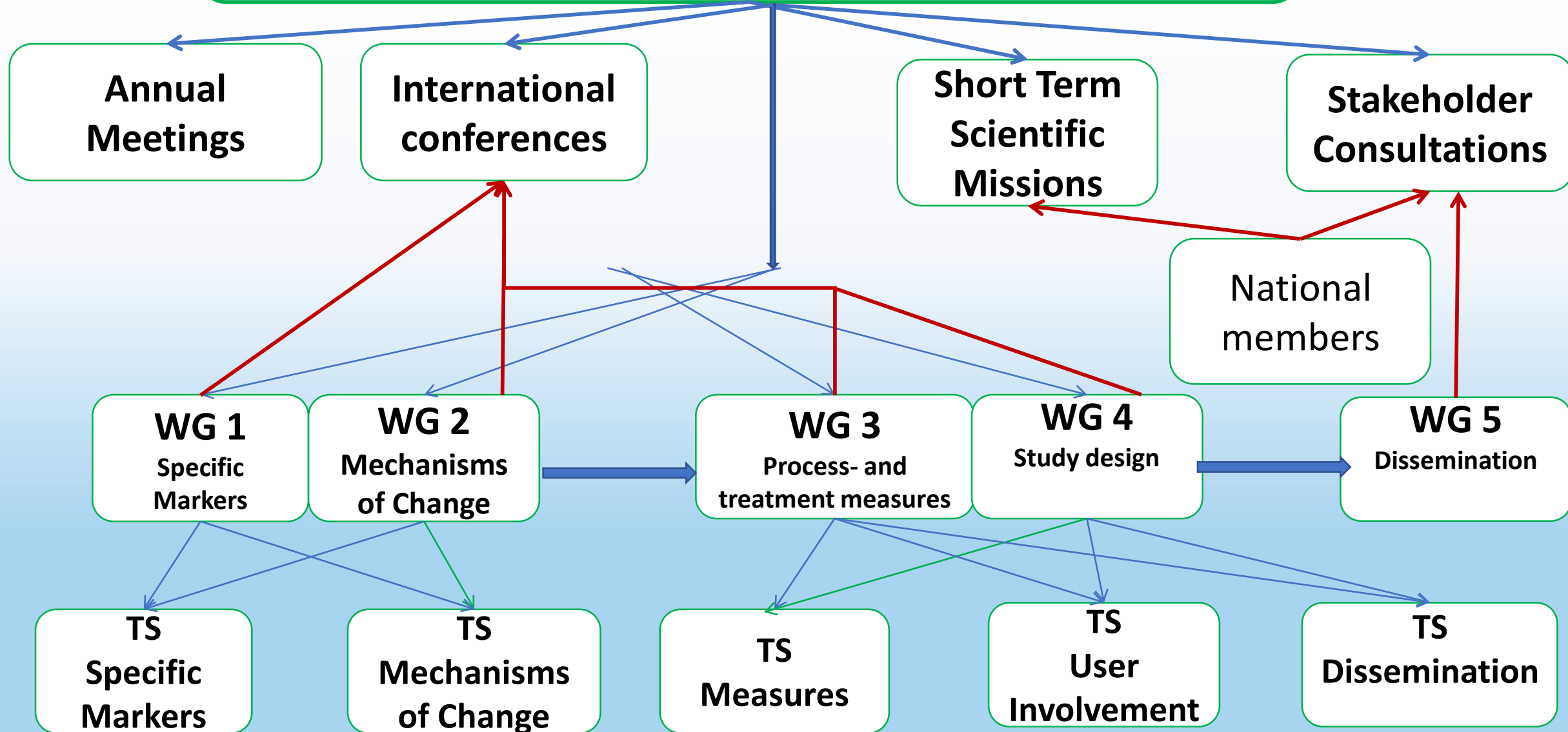


## Main aims of TREATme

- To establish a sustainable, multidisciplinary, network of researchers focusing on individualized psychotherapy for young people with mental disorders.
- To integrate the European research community focusing on adolescents and young adults (age 14 to 30), who are in the transitional phase between childhood and adult life
- To connect and leverage current and future national research investments, in order to help address the major societal challenge of mental health and well-being in the young.

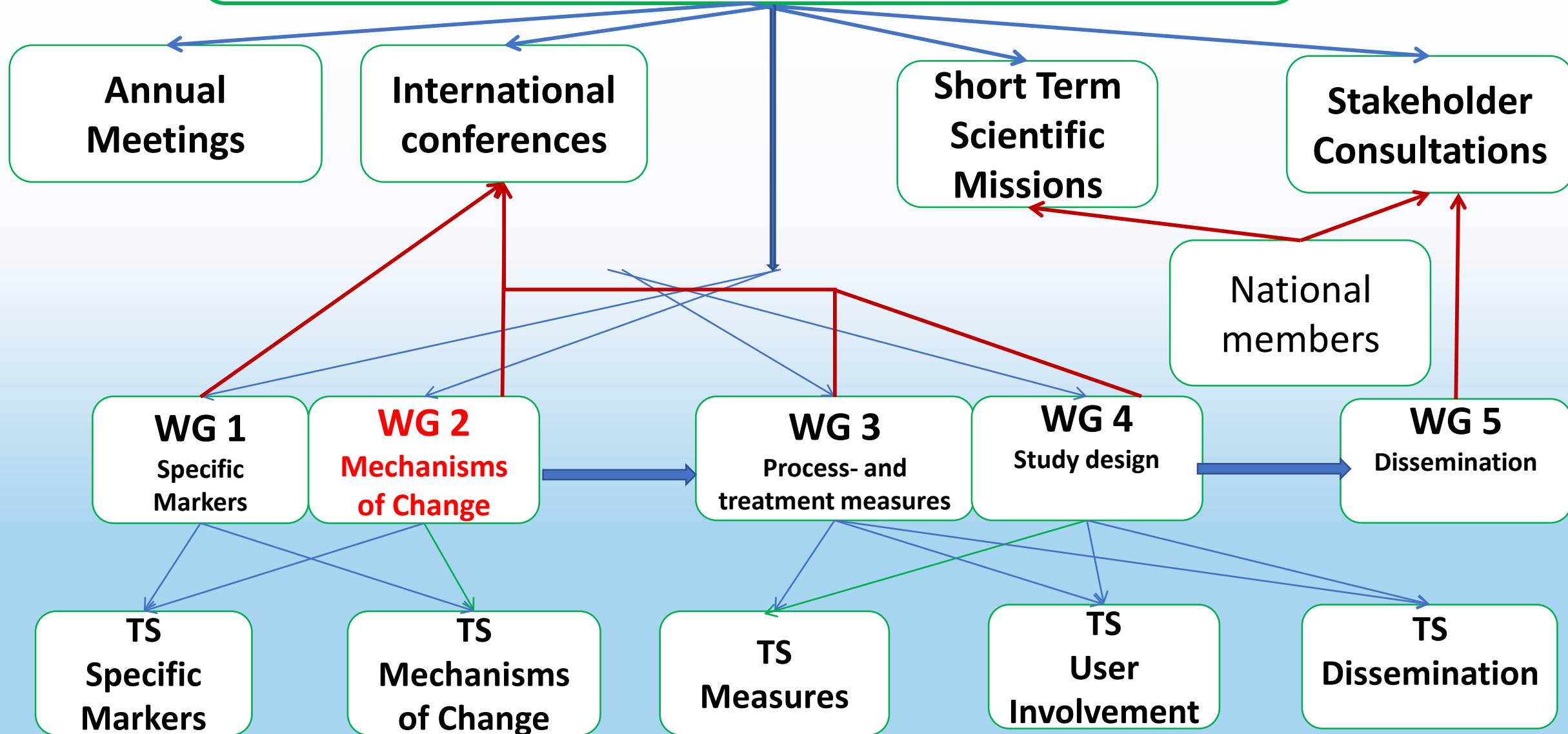
# Management Committee

Action Chair, Vice-chair, WG-leaders, National Representatives



# Management Committee

Action Chair, Vice-chair, WG-leaders, National Representatives



# TREATme WG2

18 active members from 11 countries in 2020

<b>Svenja Taubner (Leader)</b> <b>Germany</b>	<b>Erkki Heinonen (Vice-leader)</b> <b>Finland</b>	<b>Sonja Protic (Vice-leader)</b> <b>Serbia</b>
Tjasa Stepisnik Slovenia	Andrea Saliba Malta	Yianna Ioannou Cyprus
Asta Adler Lithuania	Célia Sales Portugal	Patricia Moreno-Peral Spain
Catarina Pinheiro Mota Portugal	Dina Di Giacomo Italy	Sonia Conejo-Céron Spain
Jan Ivar Røssberg Norway	Filipa Mucha Vieira Portugal	Jana Volkert Germany
José Mestre Spain	Margarida Rangel Henriques Portugal	Rasa Barkauskiene Lithuania



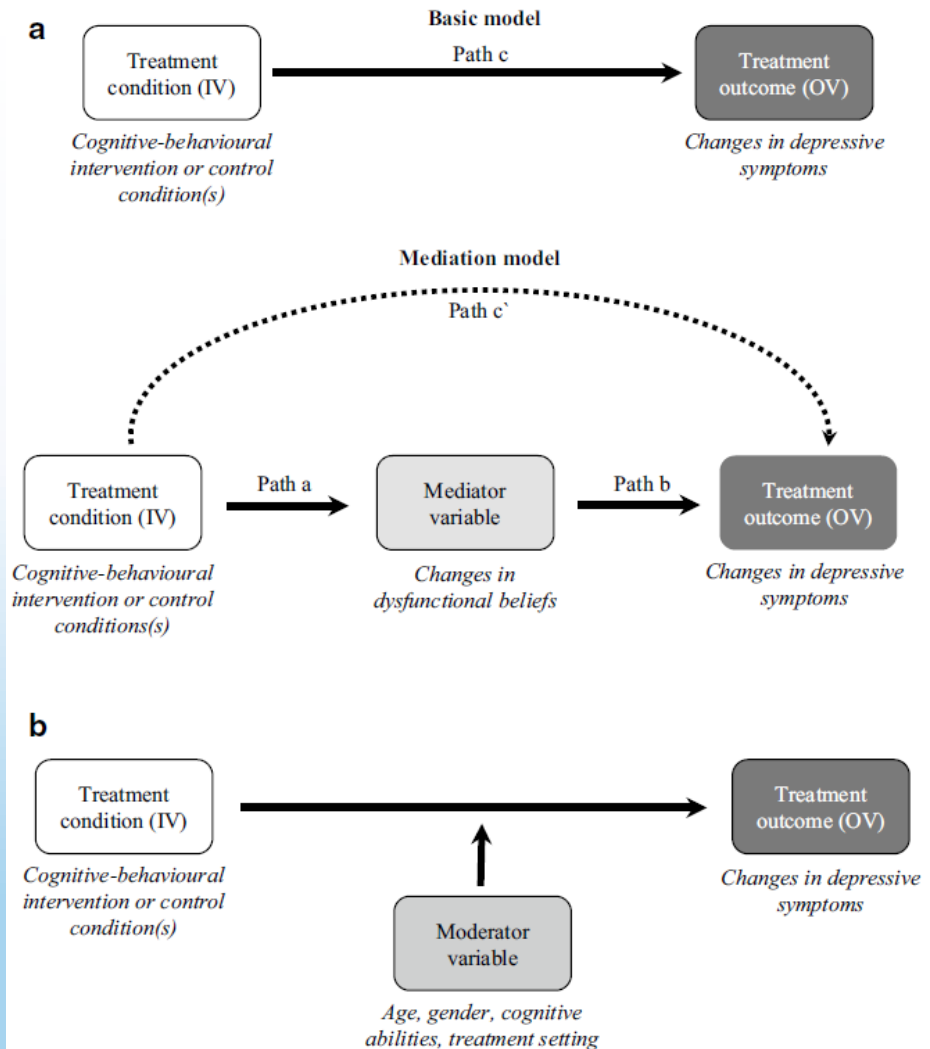
# Young people & Mental Health

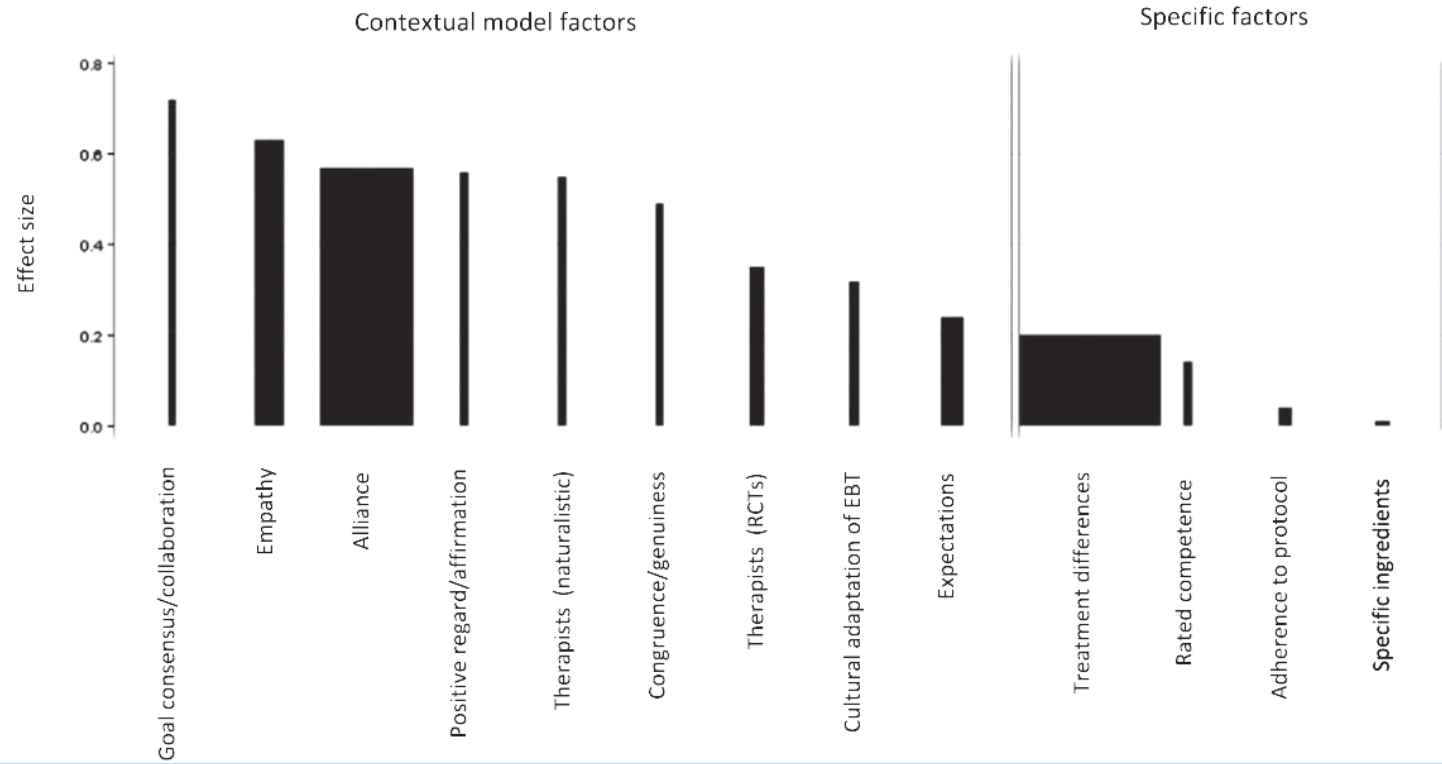
- 75% of mental disorders emerge before the age of 25 years (Kessler et al. 2012)
- Strong evidence on the general effectiveness of psychotherapy for treating mental disorders in adolescents
- However, more than 550 different psychotherapy models that can be applied for the young
- To understand therapeutic change and enhance outcomes, it is necessary to identify treatment processes or characteristics within the therapist, the adolescent, parent or family that facilitate successful therapeutic change and isolate those that are redundant and can be dismissed



# Psychotherapy works, but how?

- **Moderator:** for whom and under what circumstances?
- **Mechanism** of change: how is an intervention leading to change?
- **Mediator:** explains change statistically & causal (Kazdin 2007)





## Models of Change in Psychotherapy

- (Wampold, 2015, p. 273)



*Annual Review of Clinical Psychology*

# The Role of Common Factors in Psychotherapy Outcomes

Pim Cuijpers, Mirjam Reijnders,  
and Marcus J.H. Huibers

experimental research, and have a strong theoretical framework. Currently, no common or specific factor meets these criteria and can be considered an empirically validated working mechanism. Therefore, it is still unknown whether therapies work through common or specific factors, or both.

# Recommendations for the future of Psychotherapy

(Lancet Psychiatry Commission, Holmes et al., 2018)

1. psychological treatment models need to achieve more specificity on a **conceptual level**
2. use experimental psychopathology methods in animal and human studies to understand how psychopathology develops and maintains
3. **carefully identified candidates of mediators** should be translated and implemented in psychological treatments.
4. rigorously investigate carefully chosen mechanisms in isolated treatment interventions (while the field is rather moving towards applying integrative or modular treatments)

# Memorandum of Understanding

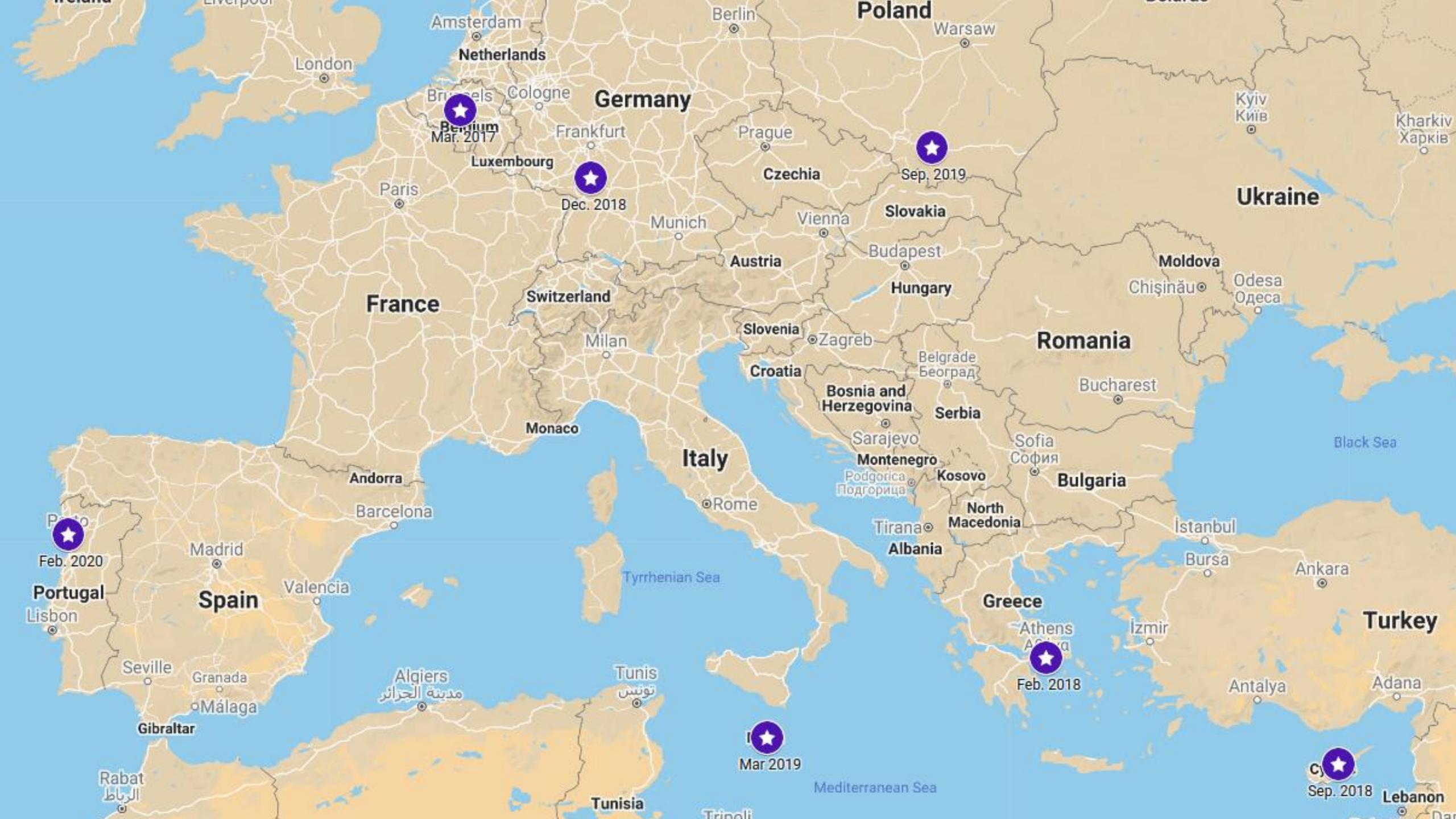
- **Working Group 2. Mechanisms of change (mediators)**
- Objectives: WG2 focuses on change mechanisms that occur within the patient and are triggered by the events in therapy sessions. In accordance with ROAMER, WG2 will identify putative mechanisms of change in treatment of mental disorders in young people.
- Task 1: Exchange knowledge and research experience, and collaborate with clinicians in order to identify putative mechanisms of change in therapy.
- Task 2: Identify what is missing in the evidence base on mechanisms of change in therapy.
- Task 3: Suggest what kind of research on mechanisms of change is needed in order to advance individualized treatment for individuals in this age group.
- Deliverables –
  - **Develop systematic reviews** and meta-analyses on existing knowledge.
  - **Identify putative age specific mechanisms of change in therapy**; e.g. self-reflection, changing automatic thoughts, change in attachment patterns, etc.
  - Suggest putative mechanisms of change in treatment of young people that should be further investigated.
  - Organize TS on mechanisms of change during the first year of the Action.
  - Publish reports from WG meetings.
  - Disseminate information through the Action's website on putative age specific mechanisms of change in therapy.

# How did we work?

7 F-2-F meetings





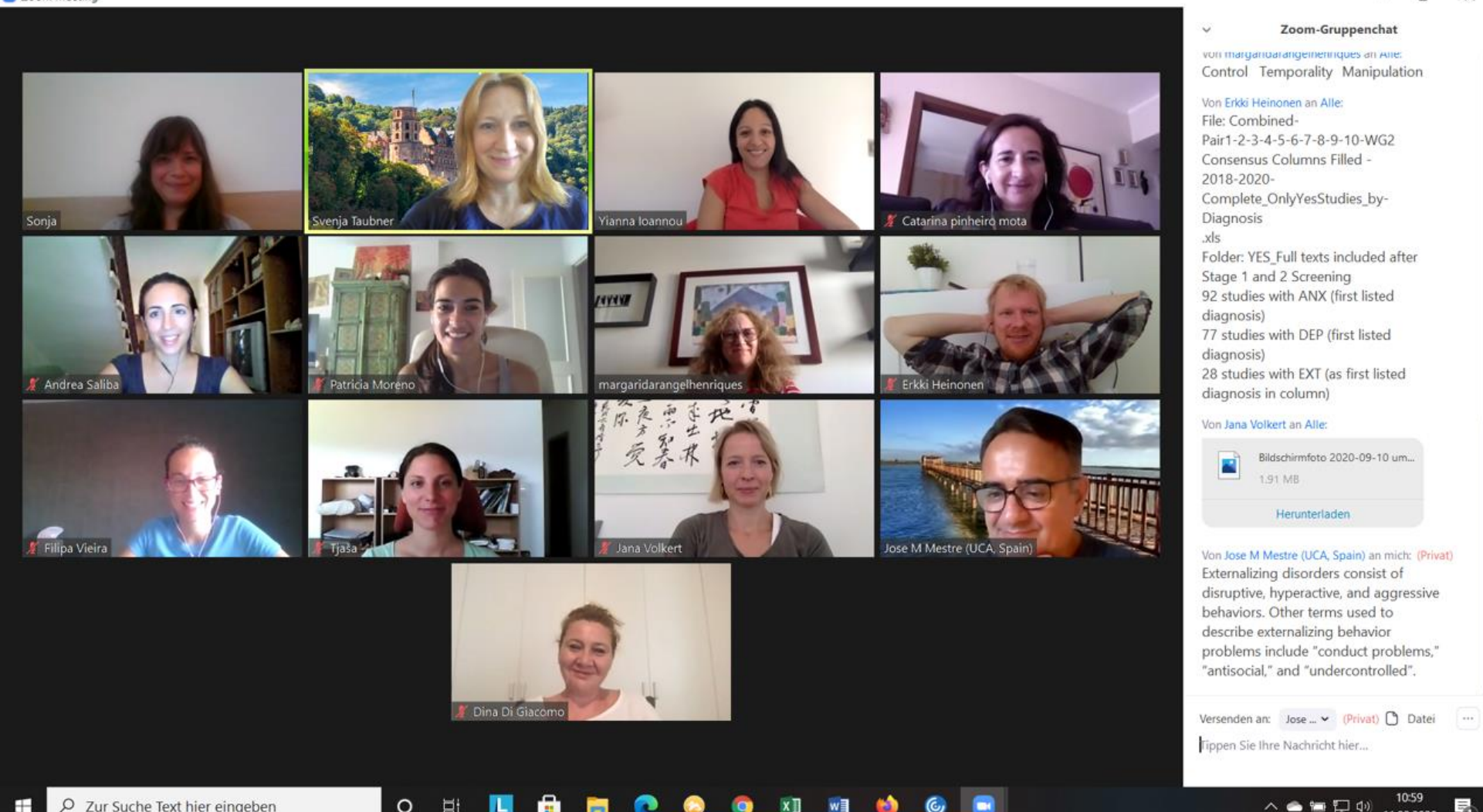




# How did we work?

## Numerous digital meetings..

Zoom Meeting



The Zoom meeting interface displays 12 participants in a grid. The participants are: Sonja, Svenja Taubner, Yianna Ioannou, Catarina pinheiro mota, Andrea Saliba, Patricia Moreno, margaridarangelhenriques, Erkki Heinonen, Filipa Vieira, Tjaša, Jana Volkert, and Jose M Mestre (UCA, Spain). A chat window on the right shows messages from Margarida Angel Henriques, Erkki Heinonen, and Jana Volkert. The chat messages include file uploads and text discussions about studies and externalizing disorders.

**Zoom-Gruppenchat**

Von margaridarangelhenriques an Alle:  
Control Temporality Manipulation

Von Erkki Heinonen an Alle:  
File: Combined-Pair1-2-3-4-5-6-7-8-9-10-WG2  
Consensus Columns Filled -  
2018-2020-  
Complete\_OnlyYesStudies\_by-  
Diagnosis  
.xls  
Folder: YES\_Full texts included after  
Stage 1 and 2 Screening  
92 studies with ANX (first listed  
diagnosis)  
77 studies with DEP (first listed  
diagnosis)  
28 studies with EXT (as first listed  
diagnosis in column)

Von Jana Volkert an Alle:  
Bildschirmfoto 2020-09-10 um...  
1.91 MB  
Herunterladen

Von Jose M Mestre (UCA, Spain) an mich: (Privat)  
Externalizing disorders consist of  
disruptive, hyperactive, and aggressive  
behaviors. Other terms used to  
describe externalizing behavior  
problems include "conduct problems,"  
"antisocial," and "undercontrolled".

Versenden an: Jose ... (Privat) Datei ...

Tippen Sie Ihre Nachricht hier...

Zur Suche Text hier eingeben

10:59  
11.09.2020

# Trainingschool of the WG-2

- **Definition of a mediator in psychotherapy**
- A mechanism of change explains how an intervention translates into a process that leads to an outcome, e.g. change in symptoms. Thus, a mechanism is an explanatory concept that can be investigated by researching mediators, i.e., variables that explain changes statistically.
- Criteria for a mediator (Kazdin 2007):
  - Sufficiently powered randomized clinical trials
  - Valid and reliable measures
  - Process design (changes of the mediator temporally precede changes in outcome)
  - Mediator variable is measured repeatedly
  - Compare mediators
  - Apply different dosages
- After the trainingschools in Athens and Nicosia creation of a search string to systematically review all psychotherapy studies that assessed mediators with the age group 10-30 years

# Inclusion Criteria

- Studies from any geographical location, written in English, available as full-text and published from inception onwards until February 1, 2020
- a) empirical quantitative studies following prospective, longitudinal, and case–control designs,
- which include b) terms related to or describing mediators,
- and c) include a psychosocial intervention and/or psychotherapeutic intervention or treatment for primary/ secondary prevention
- Includes Individuals between 10-30 years
- Data bases: MEDLINE and PsycINFO
- Search was done 23<sup>rd</sup> of February 2020



Keyword	Search term	Approx.. number of PsycINFO results
mediator	mediat* OR mediation* OR “mediating effect*” OR "indirect effect*" OR "mediator effect*" OR “mechanism of change” OR "mechanism* of chang*" OR “working mechanisms” OR "working mechanism" OR "psychotherap* mechanism*" OR “therap* mechanism*” OR "process* of therap*" OR "process* of psychotherap*" OR "psychotherap* process*" OR "therap* process*" OR “process research” OR "psychotherap* research" OR “therap* research” OR "process-outcome*" OR "psychotherap* technique*" OR "therap* technique*" OR "psychotherap* relationship*" OR "therap* relationship*" OR "therap* alliance" OR "psychotherap* alliance" OR DE "Psychotherapeutic Process" OR DE “Therapeutic Processes” OR DE “Psychotherapeutic Techniques” OR DE “Therapeutic Alliance“	290,992
sample: age groups	MA “adolescent” OR “adolescent*” OR “emerging adulthood” OR “young” OR “juvenile” OR “early adulthood” OR “young adulthood” OR “young adult” OR “young adults" OR “teen*” OR “youth*” OR “yeasty” OR “juvenil*” OR “young*” OR “subadult” OR “immature” OR “adolescen*” OR “puberty” OR “pubertal” OR “puberal” OR DE "Emerging Adulthood" OR DE "Puberty" OR DE "Adolescent Development" OR DE "Adolescent Characteristics" OR DE "Adult Development"	790,880
general string for therapy	psychotherap* OR “therap*” OR counseling OR "counselling" OR "psychological treatment*" OR "psychosocial treatment" OR "psychological intervention*" OR "psychosocial intervention*" OR psychoeducation OR "group therap*" OR "family therap*" OR “general psychiatric management” OR GPM OR MA "Mind-Body Therapies” OR "supportive psychotherapy"OR DE "Psychotherapy" OR DE "Counseling" OR DE "Psychoeducation" OR DE "Psychosocial Readjustment" OR DE "Psychotherapeutic" OR DE "Group Psychotherapy" OR DE "Family Therapy" OR DE "Creative Arts Therapy" OR DE "Mind Body Therapy" OR DE "Dance Therapy" OR DE "Art Therapy" OR DE "Play Therapy" OR DE "Supportive Psychotherapy"	823,779
well-validated therapies	“cbt” OR "cognitive therapy" OR "behavior therapies" OR "behavior therapy" OR "behavioural treatment" OR "behavioral treatment" OR "behavioral activation" OR "exposure and response prevention" OR "exposure with response prevention" OR (exposure AND "response prevention") OR REBT OR "problem solving therapy" OR "interpersonal therapy" OR "mindfulness" OR psychodynamic OR "psychodynamic therapy" OR DE psychoanalysis OR "psychoanalysis" OR "psychoanalytic" OR "mentalization based therapy" OR "mentalization based treatment" OR "MBT" OR “transference focused therapy” OR "transference focused psychotherapy" OR “metacognitive therapy" OR "metacognitive treatment" OR "Acceptance and Commitment Therapy" OR "ACT" OR "dialectical behavior therapy" OR "dialectical behaviour therapy" OR DBT OR "Schema Therapy" OR "Schema-focused Therapy" OR "Systematic Desensitization" OR "Exposure therapy" OR MA relaxation OR "relaxation" OR DE biofeedback, psychology OR ("biofeedback" AND "psychology") OR "psychology biofeedback" OR "biofeedback") OR DE hypnosis OR "hypnosis" OR "Attention bias-modification" OR DE "Cognitive Behavior Therapy" OR DE "Behavior Therapy" OR DE "Behavioral Activation System"OR DE "Exposure Therapy" OR DE "Interpersonal Psychotherapy"OR DE "Mindfulness" OR DE "Psychodynamic OR DE Psychotherapy" OR DE "Psychodynamics"OR DE "Acceptance and Commitment Therapy"OR DE "Dialectical Behavior Therapy "OR DE "Schema Therapy "OR DE "Systematic Desensitization Therapy"OR DE "Relaxation Therapy"	334,649
disorder-specific treatments	(exposure AND "response prevention") OR DE "Cognitive Behavior Therapy" OR DE "Cognitive Behaviour Therapy" OR CBT OR "cognitive therap*" OR "behavior therap*" OR "behaviour therap*" OR "behavioural treatment" OR "behavioral activation" OR "exposure and response prevention" OR "exposure with response prevention OR "Acceptance and Commitment Therapy" OR "ACT" OR "dialectical behavior therapy" OR "dialectical behaviour therapy" OR DBT OR "Schema-focused therapy" OR "schema therapy" OR DE "Cognitive Behavior Therapy" OR DE "Behavior Therapy" OR DE "Behavioral Activation System" OR DE "Exposure Therapy" OR DE "Acceptance and Commitment Therapy" OR DE "Dialectical Behavior Therapy "OR DE "Schema Therapy "	84,233
	OR “interpersonal and social rhythm therapy” OR “IPSRT” OR DE "Interpersonal Psychotherapy"	

# Formed pairs to screen 3661 studies

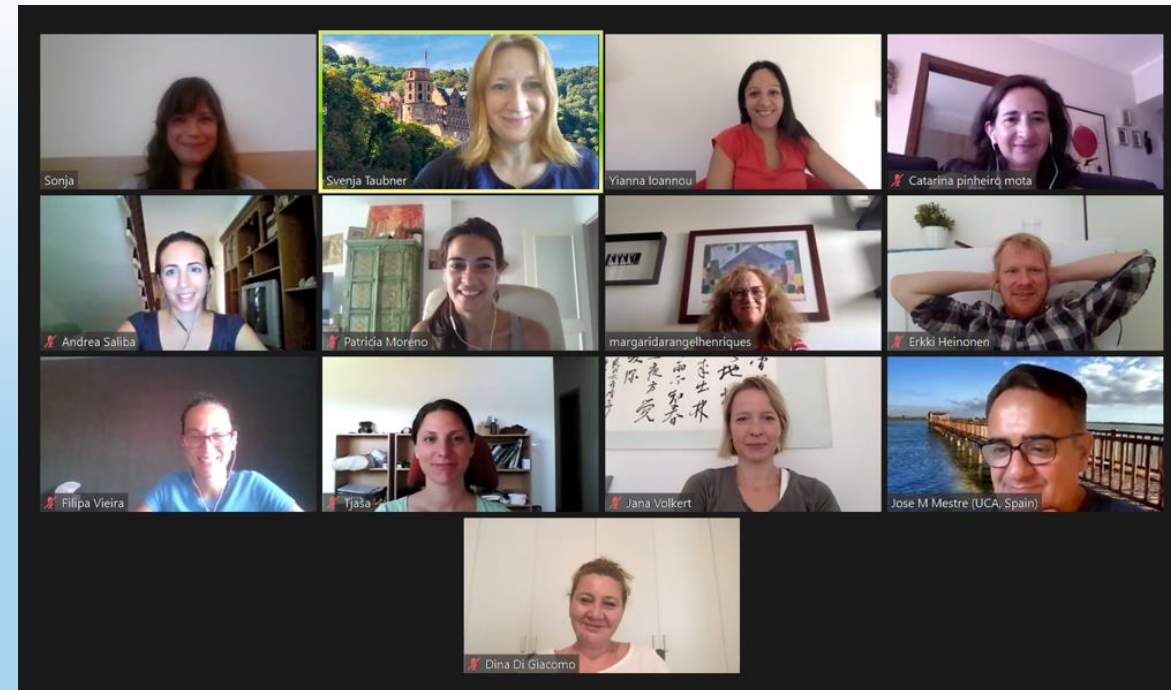
- Pair 1 (Rater 1/Rater 2): Jana / Erkki – will rate studies 55-385
- Pair 2 (Rater 1/Rater 2): Celia / Catarina – will rate studies 386-716
- Pair 3 (Rater 1/Rater 2): Filipa / Margarida – will rate studies 717-1047/ 3500-3661
- Pair 4 (Rater 1/Rater 2): Sonia / Patricia – will rate studies 1048-1348
- Pair 5 (Rater 1/Rater 2): Asta / Rasa – will rate studies 1349-1679
- Pair 6 (Rater 1/Rater 2): Jan Ivar / Svenja – will rate studies 1680-2010/ 3337-3499
- Pair 7 (Rater 1/Rater 2): Marija / Tjasa – will rate studies 2010-2340
- Pair 8 (Rater 1/Rater 2): Dina / Andrea – will rate studies 2340-2670
- Pair 9 (Rater 1/Rater 2): Stefanie / Yianna – will rate studies 2670-3000
- Pair 10 (Rater 1/Rater 2): Sonja / Jose – will rate studies 3001-3336

# Extraction of 366 included studies

First Reviews: „General and disorder-specific mechanisms of change in the treatment of adolescents“

## Forming pairs for extraction

- Pair 1: Sonja-Tjasa (studies 5-49)
- Pair 2: Svenja-Jan Ivar (studies 50-93)
- Pair 3: Andrea-Yianna (studies 94-137)
- Pair 4: Patricia-Sonia C. (studies 138-170 & 372-382)
- Pair 5: Jose-Dina (studies 171-214)
- Pair 6: Filipa-Asta (studies 215-239 & 383-402)
- Pair 7: Celia-Rasa (240-283)
- Pair 8: Erkki-Jana (studies 284-327)
- Pair 9: Catarina-Margarida (328-371)



# Work in Grant Period 4 so far..

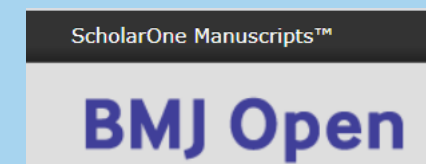
- 7 short Zoom meetings, Agreement on the extraction rules
- Interrater Reliability – group and cross checks of every paper in the extraction pairs, Dec 10th upload of all extraction results in dropbox

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2	Study ID	Name of rater	Which formal diagnosis system was used?: DSM-III/IV	Main diagnosis	Main diagnosis abbreviation (DEP, ANX, SUB, EXT, OTH)	for GEN paper (any participate with age 10-19 years, has to be	Trauma included (YES/NO/UNCLEAR)	Ext. included (YES/NO/UNCLEAR)	PD included (YES/NO/UNCLEAR)	Family Therapy (YES/NO/UNCLEAR)	Comorbidity (%)	Mean age (SD)	Age range	Gender: % Female	Included in review: YES/NO	if NO, state reason	Author	Year	Title	Journal (vol., pages)	Country (conduct of study)	Inclusion criteria, specify:	Exclusion criteria, specify:	Which formal diagnosis system was used?: DSM-III/IV	Theories of change	Name intervention
12	2716	Svenja	DSM-IV	Anxiety Disorder	ANX	NO	NO	NO	NO	NO		9,93	7-16	57	No	sample too old	Silverman, P.	2009	Directionality of change in youth			primary anxiety	developmental delays (e.g., autism), psychosis/schizophrenia			
13	2723	Svenja	DSM-IV	Obsessive Compulsive Disorder	OTH	NO	NO	NO	NO	NO			7-17		NO	no mediation analysis										
14	2748	Svenja	DSM-IV	Post Traumatic Stress Disorder	TRAUMA	Yes	YES	NO	NO	Yes		13,89	unclear	50	YES	sample too old	Smith, P.	2007	Cognitive-behavioral		UK	8-18 years old, presence of organic brain damage	the effect of CBT	CBT		
15	2754	Svenja	DSM-IV	Social Phobia	ANX	NO	NO	NO	NO	NO		22,09	18-51	58	NO	sample too old										
16	2807	Svenja	DSM-IV	PTSD, Depressive Disorder	TRAUMA	NO	NO	NO	NO	NO		34,36	20-60	18,5	NO	sample too old										
17	2849	Svenja		Obsessive Compulsive Disorder	OTH	NO	NO	NO	NO	NO		32,6	18-65	49	NO	sample too old										
18	2872	Svenja	DSM-IV	Anxiety Disorder	ANX	Yes	NO	NO	NO	NO		13,8	12-17	63,3	YES	sample too old	Swain, J.	2015	Mechanisms of change		Australia	main diagnoses mental health problems (e.g. psychological trauma)	As such, it was hypothesized that	"Problems"		
19	2903	Svenja	DSM-IV	Social Anxiety Disorder	ANX	NO	NO	NO	NO	NO		34,55			NO	sample too old										
20	2909	Svenja	DSM-IV	Panic Disorder	ANX	NO	NO	NO	NO	NO		40,14		70	NO	sample too old										
21	2950	Svenja	DSM-IV	Anxiety sensitive personality disorder	Oth	Yes	NO	NO	NO	NO		18,9	18-28	83,7	Yes	sample too old	Timpano, A.	2016	Effects of a brief anxiety management program		USA	elevated levels of AS (score of 1.5 SD above the mean)	We hypothesize that anxiety sensitivity mediates the relationship between PTSD and AS	Anxiety sensitivity		
22	3126	Svenja	unclear	Diverse	Dep, anx, ext, oth	Yes	NO	YES	NO	Yes	74	10,44	4-17	42	Yes	sample too old	Warren, J.	2011	Parenting self-efficacy		USA	routine intake if not specified	unclear, clinical increases in each group	Divergent		
23	3240	Svenja	DSM-IV	Anxiety Disorder	ANX	NO	NO	NO	NO	NO		9,67	6-13	34	NO	sample too young										
24	3294	Svenja	DSM-IV	PTSD	TRAUMA	NO	NO	NO	NO	NO		39,1	19-74	100	NO	sample too old										
25	3431	Svenja	DSM-IV	Anxiety Disorder	ANX	Yes	NO	Maybe	NO	NO	Eleven participants	11,5	8-15	52,1	YES	sample too old	Fjermesta, T.	2020	Therapist alliance-building		Norway	one anxiety disorder		Alliance mediated effects	Frueh, F.	
26	3515	Svenja	DSM-IV	Anxiety Symptom	ANX	Yes	NO	NO	NO	NO		13,5		35,8	YES	sample too old	Kwok, S.Y.H.	2019	Integrating positive psychology		Hong Kong	score range of 11 or above of HADS		change in emotional well-being	Positively	
27	3576	Svenja	DSM-IV	Post Traumatic Stress Disorder	TRAUMA	NO	NO	NO	NO	NO		15,1		77	No	no mediator analysis	Ovenstad, L.	2020	Therapists' behavior		Norway	age 10 to 18 years, exposure to at least one traumatic event		Rapport-building	Trauma	
28	219	Jan Ivar	None	none	OTH	no	no	no	no	no		27	18-42	58	No	No mediator analysis										
29	2870	Jan Ivar	DSM III	Anxiety/depression	DEP, ANX	No	No	No	Unclear	NO		27,5	21-42	52	No	No proper mediation analysis										
30	3647	Jan Ivar	DSM IV	OCD	OTHER	No	NO	NO	NO	NO		12,8	8-18	58,6	YES	sample too old	Wolters, I.	2018	Mediating Child Psychology		Netherlands	Children and adolescents	Medication for DSM IV	Cognitive changes	Controlling	
31	2871	Jan Ivar	DSM III	ANX	OTH	No	NO	NO	NO	NO		29	23-42	53	NO	No mediator analysis										
32	2797	Jan Ivar	DSM IV	ANX	ANX	No	NO	NO	NO	NO		37	20-60	85	No	Age above inclusion criteria										
33	2752	Jan Ivar	None	No specific diagnosis	anx sensit	No	no	no	no	no		19,9	Unclear	18-51	YES	sample too old	Smits, J.	2008	Cognitive mechanisms		USA	Anxiety sensitivity A score equal or above	No diagnostic significance	anxiety sensitivity exercises		
34	964	Jan Ivar	DSM IV	Anx/depression	DEP, ANX	No	no	no	no	no		27,8	18-52	82,3	No	age above										
35	1011	Jan Ivar	none	Distress/Anx/Depression	Other	no	no	no	no	no	no	21,4	18-32	na	No	age above										
36	671	Jan Ivar	DSM-IV	Complex conduct disorder	EXT	Yes	No	yes	no	yes	yes (42.3%)	10,5	6-16	25%	yes	sample too old	Dadds, M.	2012	Outcomes	Psychiatry	Australia	conduct problem	see inclusion	DSM IV	Change in emotional well-being	
37	600	Jan Ivar	None	Insomnia	OTH	no	no	no	no	no		49	19-85	54.7%	no	No mediator analysis										
38	565	Jan Ivar	unclear	anxiety/depression	ANX Depr	yes	no	no	no	no	unclear	different			no	A meta analysis of candidate mediators of change										
39	2106	Jan Ivar	DSM IV	PTSD SUD	SUB, Trauma	no	yes	no	no	no	unclear	39,2	unclear	100%	No	Above mean age and should have been excluded before.										
40	2675	Jan Ivar	none	relationship problem	other	na	no	no	no	no	unclear	34,56	21-60	50%	NO	Above mean age and should have been excluded before.										
41	3649	Jan Ivar	DSM IV/ADIS	Anxiety	ANX	yes	no	no	no	no	ADHD 10%, ODD	10,8	7-17	51.6%	YES	sample too old	Wu, M.	2020	The impact of treatment		US	7-17 years and no medication		DSM IV	Exposure tasks (Coping)	
42	3630	Jan Ivar	DSM IV	PTSD SUD	Trauma	Yes	yes	no	no	Unclear	na	13,10	6-17	73.5	YES	sample too old	Tutus, D.	2019	Parental (Psychological)		Germany	At least one trauma		DSM IV	Parents dysfunctional	
43	3544	Jan Ivar	DSM IV TR	PTSD	Trauma	no	yes	no	no	no	no	32,78	18-65	26	No	Mean age above 31.5										
44	3563	Jan Ivar	DSM IV	anxiety	ANX	No	no	no	NO	no	MDD 19%, 31%	22,3	18-29	71%	No	sample too old										
45	2752	Jan Ivar	none	depressive symptom	DEP	no	no	no	no	no	no	40	21-60	36%	No	Age above inclusion criteria										
46	2915	Jan Ivar	ICD 10	depression and anxiety	DEP, ANX	no	no	no	no	no	unclear	44	19-80	13%	No	age above 31.5										
47																										
Extraction sheet			Abbreviation codes		Risk of Bias Explanation																					

# Work in Grant Period 4

- WG meeting September 10-11, 2020, ZOOM
- Topic: „General and disorder-specific mechanisms of change in the treatment of adolescents,,
- Submission of the protocol paper (BMJ Open, minor revision)
- Decision on the first reviews
  - General review on adolescence-specific mediators (10-19 years), registered in PROSPERO (CRD42020177535)
  - Review on mediators in externalizing disorders in adolescence (10-19 years)
  - Review on mediators in Trauma (10-30 years)
  - Review on mediators in PDs (10-30 years)
  - Possible future Reviews: Family Therapy, Psychodynamic Psychotherapy

STATUS	ID	TITLE	CREATED	SUBMITTED
EA: <a href="#">Editorial Office, BMJ Open</a>	bmjopen-2020-042411.R1	Mediators and theories of change in psychotherapy with adolescents: a systematic review protocol <a href="#">View Submission</a> <a href="#">[View Original Files]</a>  <a href="#">Cover Letter</a>	15-Nov-2020	17-Nov-2020
• Awaiting Reviewer Selection				





# TREATme

Construyendo una  
Red Europea para  
mejorar la atención  
psicológica  
individualizada a  
jóvenes



## Research Questions for the first Review

- To identify which mediators and theories of change have been studied in psychotherapy with adolescents
- To identify if there are adolescence-, disorder- or treatment-specific mediators
- To critically evaluate the methodological approach of the current research data available on mediators in psychotherapy with adolescents

# Preliminary Results

Treatment type	No. of studies
Cognitive behavioral	206
Psychoeducation	54
Third-wave TX	43
Psychodynamic	40
Humanistic	46
Systemic	25
Integrative	22
Interpersonal	15
EMDR	3

Treatment setting	No. of studies
Individual	220
Family	52
Group	96
Inpatient	14
E-Mental health	43

# Statistical Methods

- Baron & Kenny (& Hayes)
- Maximum Likelihood
- Latent difference Score
- Linear Regression
- SEM
- Multiple Regression
- Indirect effects
- Correlation between changes
- Joint Significance
- PROCESS by Hayes
- No specific
- Sobel & Goodman Test





# Next step: Qualitative Synthesis of Mediators of outcome in adolescent psychotherapy

- All studies will be coded for:
  1. Behavioral mediators
  2. Cognitive mediators
  3. Emotional mediators
  4. Therapy-related mediators
  5. Relationship-oriented mediators
  6. Other?

# Preliminary observations...

- Cognitive mediators seem to be studied more than any other group of mediators of outcome (CBT is studied most)
- Even though alliance, attachment and relationship functioning are both developmentally crucial for young populations, they seem to receive very little attention in psychotherapy outcome studies as potentially important candidate mediators

# Future Step

- Summarize results and develop a **unified protocol** for the individualized treatment of adolescents and young adults to increase mental health and well-being in the young.





A group of approximately 12 people are gathered around a large wooden table in a casual setting, possibly a workshop or meeting. Several laptops are open on the table, and some people are looking at them. There are also notebooks and a small potted plant on the table. The text "Thank you!" is overlaid in the center of the image.

Thank you!

# Working Group 3: Age Customized Process and Treatment Measures

# Aims

- Review available measurement instruments for mediators and moderators in youth psychotherapy identified by WG1-2
- Assess the quality of these instruments
- Suggest what instruments should be used, and in what areas instruments need to be developed

# 21 Members

- Fredrik Falkenström
- Marcin Rzeszutek
- Camellia Hancheva
- Margarida Rangel
- Mariana Martins
- Nele De Witte
- Dubravka Kocijan
- Emma Motrico
- Zorana Jolic
- Sibel Halfon
- Jana Volkert
- Nuno Ferreira
- Inês Rothes
- Jose Mestre
- Hamdi Tekin
- Nurka Pranjic
- Nina Petricevic
- Ela Tollkuci
- Sidse Arnfred
- Orya Tishby
- Sigal Zilcha-Mano

# Age customized measurement

- Adolescence/young adulthood a period of transition psychologically, socially, and biologically
- Mental health problems increasing
- These issues may affect measurement
  - Reliability – i.e. we can not assume that a measure that works for adults works for adolescents
  - What we want to measure? Different processes/outcomes may be important for adolescents compared to adults



# Domains of measurement

- Process measures
- Outcome measures
- Dropout rates/reasons for dropout
- Therapist measures (e.g. training, experience, personality)
- Adherence/competence measures

# Outcome domains

- Symptoms
- Functioning
- Quality of life
- Relationships (family, friends, love relationships)
- Physical health
- Sexuality
- Education/work problems
- Self-harm
- Personality structure
- Narrative coherence
- Identity

# How do we measure?

- Self reports
- Parent/parental figures/legal guardian reports
- Teacher reports
- Peer report
- Clinician ratings
- Independent observer ratings
- Psychological or physical test results
- Individualised measures
- Qualitative interviews

# MC meeting/training school, Krakow 2019



Maudsley Centre for  
Child and Adolescent  
Eating Disorders

**NIHR** | National Institute  
for Health Research



South London  
and Maudsley  
NHS Foundation Trust

**So you want to do a systematic review  
of measurement properties.....**

**Tom Jewell**  
NIHR Clinical Doctoral Research Fellow  
King's College London

COST Action TREATME Training School, Gestalt Institute, Krakow, 17.09.2019



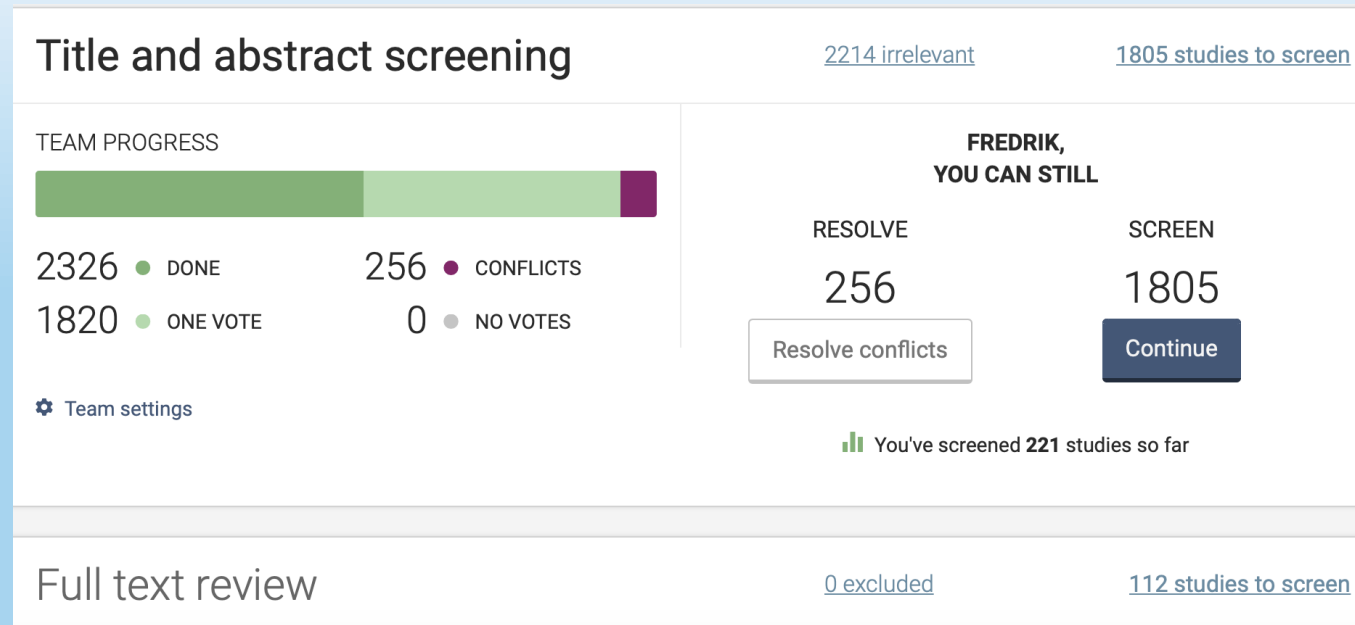
Horizon 2020

# Work so far

- Use the COSMIN system for systematizing information on measurement properties
- COSMIN is a stringent system for evaluating
  - Content validity
  - Structural validity
  - Internal consistency
  - Cross-cultural validity/Measurement invariance
  - Reliability
  - Measurement error
  - Criterion validity
  - Construct validity
  - Responsiveness
- COSMIN also provides search strings for measurement instruments
- One WG3 member (Emma Motrico) attended COSMIN training in the Netherlands early 2020

# Work so far

- First review: Working alliance measures for youth
  - Registered in Prospero
  - Age range: 12-19 (mean within, or age range within)
  - Articles reporting any psychometric information
  - Systematic search: 4117 abstracts for screening
  - Two raters for each abstract
  - Screening:





# What lies ahead (Jewel, 2019)



## The 3 Circles of COSMIN Hell

COSMIN has been through 3 iterations:

- 2007: Terwee et al. as used in Burton et al. (2015) <https://doi.org/10.1002/eat.22453> Text
- 2011: De Vet et al. as used in Jewell et al. (2019) <https://doi.org/10.1016/j.cpr.2018.12.004>
- 2018: Mokkink et al. as used in Lee et al. (2019) <https://link.springer.com/article/10.1007/s11136-019-02177-x>
- Each version gets more complex!

- And perhaps more reviews on emotion regulation, mentalization etc ...

Jewel, T. (2019). *So you want to do a systematic review of measurement properties...* Presentation at training school in Krakow, Poland, September 2019.

# Meetings





## Working Group 4. Age customized research designs

## Working Group 4

- Julian Edbrooke-Childs,
- Celia Sales,
- Camelia Hancheva,
- Ann Færden,
- Catarina Pinheiro Mota,
- Chloe Edridge,
- Giada Pietrabissa,
- Randi Ulberg,
- Nicholas Morgan,
- Nick Midgely,
- Nuno Ferreira,
- Shaun Liverpool,
- Sonia Sousa,
- Rose Mortimer,
- Filipa Martin,
- Anja Čuš,
- Bettina Moltrecht
- Sara Carletto,



## Action Objectives from MoU

- There is a scattered knowledge on individualized psychotherapy for young people. This is connected with lack of understanding between different therapeutic schools, lack of sufficient assessment tools and **adequate study designs**. Existing research groups across COST countries lack visibility so that many researchers are not aware of their presence. Secondary objectives
  - 1.Exchange and disseminate specific knowledge about important factors that will improve outcome in different youth psychotherapy modes.
  - 2.Exchange and disseminate specific knowledge about **how to best design psychotherapy studies** that can increase knowledge about what works for whom and how in youth psychotherapy.

## Action Objectives from MoU

- 3. Facilitate effective co-ordination and harmonization of research in psychotherapy for young people by: 1) Identifying putative specific markers, mechanisms of change and adequate assessment tools in psychotherapy research for young persons, 2) achieve consensus on core measures, and **3) provide advice on adequate study designs.**
- 4. Establish sustainable synergies among European research projects on how to do research on personalized youth psychotherapy and disseminate results
- 5. Support a high proportion of Early Career Investigators (ECIs) and especially female and Target Country researchers (ITCs) the COST Action: Ensure that ECIs and TCIs participation is maintained during the life of the action and fully represented in the whole range of the Action's activities including Action leadership.

## Action Objectives from MoU

- 6. Develop a critical mass of researchers across COST countries on youth psychotherapy.
- 7. Support even genders balance among the participants in the activities in the Network and encourage researchers from ITC to participate.
- 8. Mentoring and guidance will be offered to new researchers. ECIs and ITC researchers will gain experience of project leadership by fully participating in MC , WG meetings and plenary sessions.
- 9. STSMs will be organized to support ECIs and ITC researchers to interact with and learn from more experienced researchers.
- 10. TSs offer training in theoretical and methodological techniques in quantitative and qualitative data analysis.

## Working Group 4. Age customized research designs

- Objectives: WG4 focuses on the need for well-designed process and outcome research that examines the specific markers and mechanisms of change in psychotherapy for young people.
- In accordance with ROAMER “Roadmap for Mental Health Research in Europe” (ROAMER; March 2015), WG4 will identify age customized research designs, develop guidelines and facilitate collaborative European research.
- Task 1: Exchange knowledge and research experience, and review the literature in order to evaluate quantitative and qualitative research designs.
- Task 2: Identify what is missing in knowledge on research methods in youth psychotherapy.
- Task 3: Suggest appropriate research designs and methods in order to advance the research on individualized treatment for adolescents and young adults.





## Working Group 4. Age customized research designs

- Deliverables:
- 1. Develop systematic reviews and meta-analyses on existing knowledge on specific research designs in youth psychotherapy
- 2. Develop guidelines on appropriate study designs for investigating the effects of putative specific markers and mechanisms of change in psychotherapy for young people.
- 3. Organize TS on study design, adapted for research on youth psychotherapy during the fourth year of the Action.
- 4. Publish reports from WG meetings.
- 5. Disseminate information on the Action's website on customized study designs.
- 6. Together with WG3 overseen by MC, organize the Action's second International conference (Mid-Action Summit).



## Broad Overview Working Group 4

- A systematic review examining approaches for engaging young people in digital psychotherapy interventions
- Consultations on how to involve young people in the co-design of psychotherapy research studies to develop guidelines
- Training school: customizing psychotherapy research design for young people
- A) Systematic review of approaches to involving young people in the co-design and co-delivery of psychotherapy research. B) How have existing studies on moderators and mediators of psychotherapy research customized research designs to make them appropriate for young people?

# Working Group 4, December 2018



# Approaches used for engaging children and young people in digital mental health interventions: A systematic review

- Given the scale of research on the development and evaluation of youth digital mental health interventions, we want to understand how best to customize digital mental health interventions for young people
  1. What approaches are used for engaging youth with mental health problems in digital mental health interventions?
  2. What are the barriers and facilitators to engaging youth with mental health problems in digital mental health interventions?
  3. How do retention rates vary in youth digital mental health intervention research?



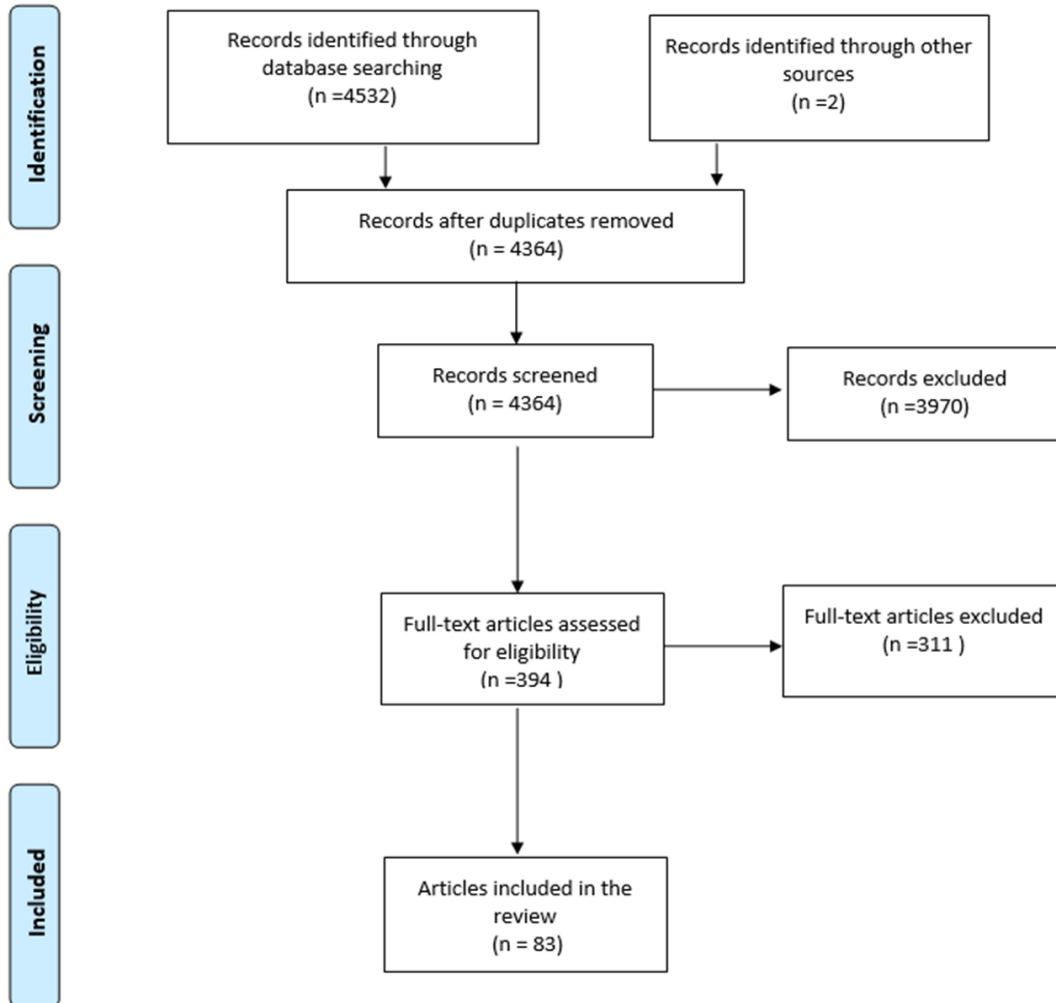


Figure 1. PRISMA flow chart of the study selection process



# Engaging children and young people in digital mental health interventions: A systematic review of modes of delivery, facilitators, and barriers

- 6 modes of delivery from 83 articles: websites, games and computer-assisted programs, apps, robots and digital devices, virtual reality, and mobile text messaging
- Two themes emerged highlighting “intervention-specific” and “person-specific” barriers and facilitators
- These themes encompass factors such as suitability, usability and acceptability and motivation, capability and opportunity for the CYP using the DIs
- The findings of this review suggest a high average retention rate of 79% across the various digital approaches

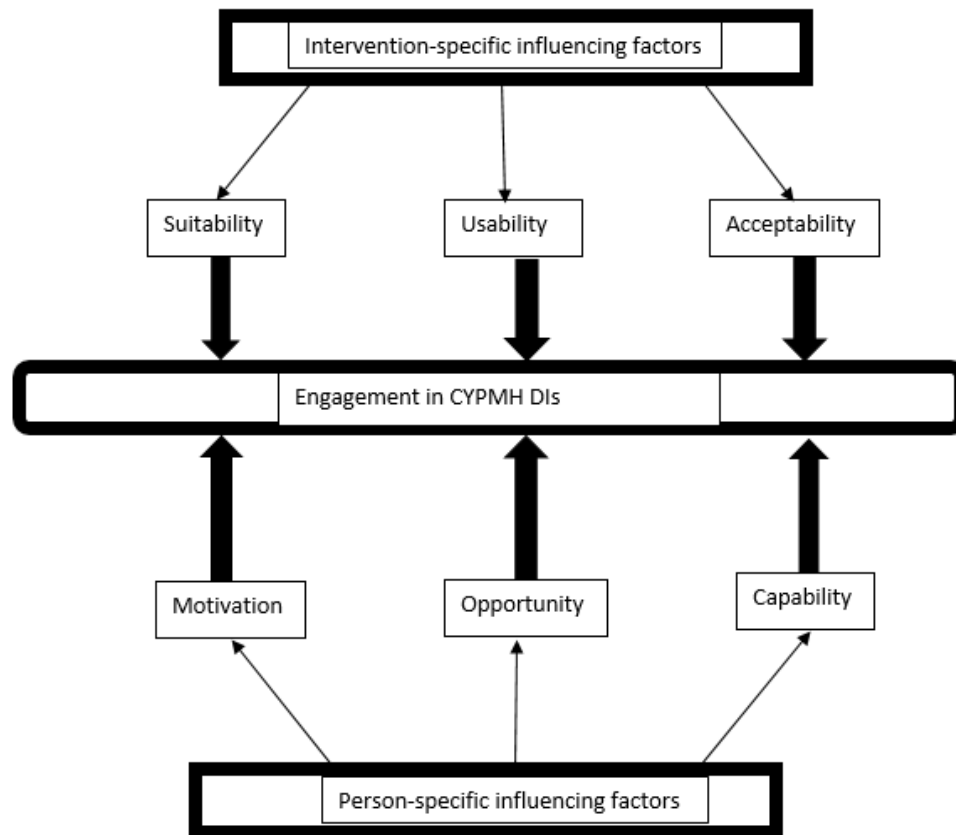


Figure 2. Framework of factors influencing engagement in CYPMH digital intervention

Preprints (earlier versions) of this paper are available at <http://preprints.jmir.org/preprint/16317>, first published Oct 11, 2019.

This paper is in the following e-collection/theme issue:

Review Kids' and Adolescents' Use of Technology Mental Health Issues in Adolescence

Article Cited By (1) Tweetations (43) Metrics

Review

## Engaging Children and Young People in Digital Mental Health Interventions: Systematic Review of Modes of Delivery, Facilitators, and Barriers

Shaun Liverpool<sup>1</sup>, MSc ; Catarina Pinheiro Mota<sup>2,3</sup>, PhD ; Célia M D Sales<sup>4</sup>, PhD ; Anja Čuš<sup>5</sup>, MSc ; Sara Carletto<sup>6</sup>, PhD ; Camellia Hancheva<sup>7</sup>, PhD ; Sónia Sousa<sup>8</sup>, PhD ; Sonia Conejo Cerón<sup>9</sup>, PhD ; Patricia Moreno-Peral<sup>9</sup>, PhD ; Giada Pietrabissa<sup>10,11</sup>, PhD ; Bettina Moltrecht<sup>1</sup>, PhD ; Randi Ulberg<sup>12</sup>, PhD ; Nuno Ferreira<sup>13</sup>, PhD ; Julian Edbrooke-Childs<sup>1</sup>, PhD

<sup>1</sup>Evidence-Based Practice Unit, University College London and Anna Freud National Centre for Children and Families, London, United Kingdom



# Working Group 4, 30-31 January 2020

Evidence Based Practice Unit (EBPU)

30-31 January 2020

**EBPU**  
Evidence Based  
Practice Unit

A partnership of

  **Anna Freud**  
National Centre for  
Children and Families

**Cost Action TREATME**  
**Core Group Meeting**

[Julian.Edbrooke-Childs@annafreud.org](mailto:Julian.Edbrooke-Childs@annafreud.org)

Working Group 4





## Working Group 4, 30-31 January 2020

### Authors

Martin, F.  
Sales, C.  
Carletto, S.  
Ceron, S.  
Cus, A.  
Edridge, C.  
Ferreira, N.  
Hancheva, C.  
Liverpool, S.  
Midgley, N.  
Moltrecht, B.  
Moreno, P.  
Morgan, N.  
Mortimer, R.  
Pietrabissa, G.  
Pinheiro, C.  
Sousa, S.  
Ulberg, R.  
Edbrooke-Childs, J.

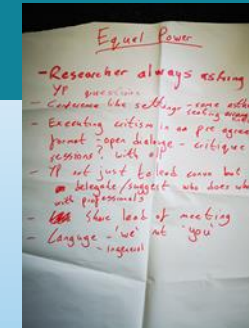
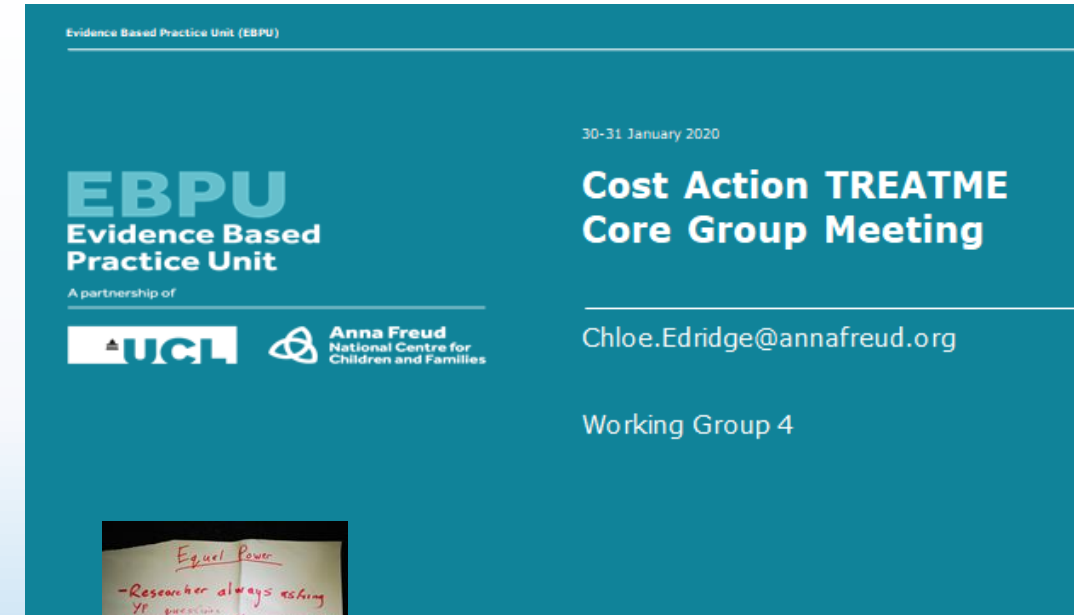
- 1. What approaches are used for patient and public involvement in mental health research with young people (11-20 years)?
- 2. What groups of young people (11-20 years) are most frequently involved in patient and public involvement in mental health research?
- 3. To what extent is patient and public involvement in mental health research with young people (11-20 years) reported according to recommended guidelines?
- 4. What are young people's (11-20 years) experiences of patient and public involvement in mental health research?
- 5. What are the young person-reported and researcher-reported barriers and facilitators to patient and public involvement in mental health research with young people (11-20 years)?

Patient and public involvement is defined as “an active partnership between the public and researchers in the research process, rather than the use of people as ‘participants’ of research.” (INVOLVE, <https://www.invo.org.uk/find-out-more/how-to-involve-people/ppi-feedback-guidance/>) and “research being carried out ‘with’ or ‘by’ members of the public rather than ‘to’, ‘about’ or ‘for’ them.” (INVOLVE, <https://www.invo.org.uk/find-out-more/what-is-public-involvement-in-research/>).



## Tentative Guidelines

- Recruitment and pre-involvement considerations
  - At the earliest possible stage of design - avoidance of “token” participation
  - Reporting of the type of involvement & recruitment method; direct and indirect experience (role of the family)
  - An individual support assessment was carried out for young people (incl. age)
  - Clear goals, guidelines and expectations were agreed mutually
- Active involvement stage
  - Use of inaugural and inclusive language
  - Consideration of the young people’s physical and mental safety
  - Setting and overall atmosphere was given to reflect a balance in power
  - A young person’s voice is heard amongst others involved
  - regular check ins and assessments with young people
- Post involvement
  - Acknowledgement of involvement and input; reimbursement for time
  - Keeping young people updated with the outcome and impact of their involvement.



## Working Group 4 – work in progress

The best practice standards for co-designing mental health research with young people:

- Two sets of guidelines: 1) best practice guidelines on conducting patient and public involvement (PPI) for mental health research with young people,
- 2) reporting guidelines for research studies to articulate how they have involved young people in the research – this is a real gap in literature
  - Best practice guidelines will need to be culturally tailored. All to discuss with their institutions about whether they have groups young people with whom they could review the guidelines, so we can begin to explore the translation of the guidelines to different countries and cultures.
  - AFC will continue to consolidate the guidelines
  - To begin the process of implementation of guidelines across Europe using the TREATme network
  - Guidance on the ethical requirements of PPI is needed

## Working Group 4. Age customized research designs

### Acknowledgments

Thanks to the young people who have helped us design and develop this project

Thanks to everyone for joining us and for the great input on WG4.

Thanks to Anna Freud National Centre for Children and Families for the fruitful collaboration and support.

Thanks to Randi Ulberg for the excellent leadership of this important Cost Action.

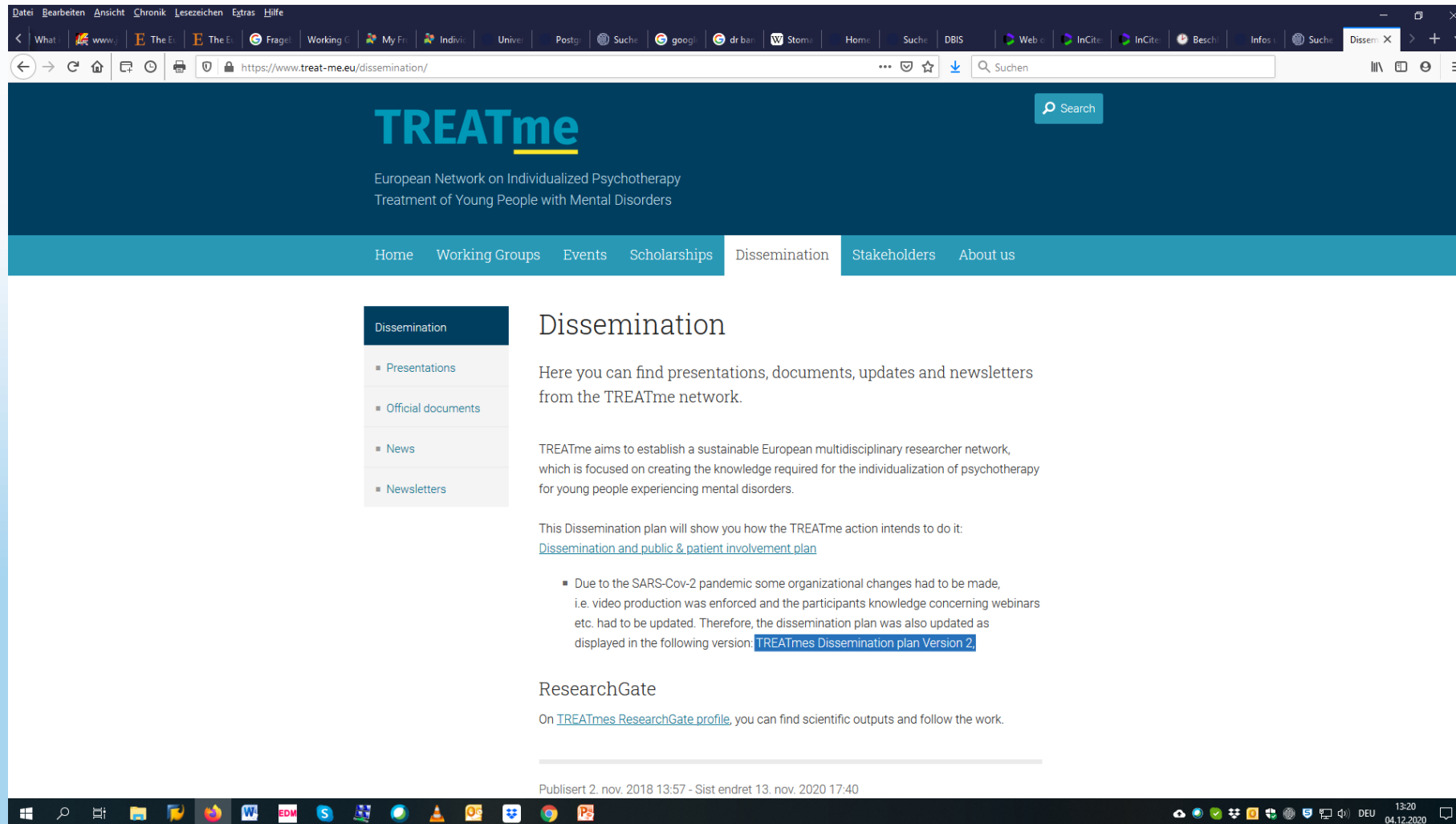
Thanks to Cost Action for funding our networking activities.



# TREATme

## WG 5 report

# Dissemination plan V2



The screenshot shows a web browser window displaying the TREATme website. The browser's address bar shows the URL <https://www.treat-me.eu/dissemination/>. The website has a dark blue header with the TREATme logo and the text "European Network on Individualized Psychotherapy" and "Treatment of Young People with Mental Disorders". A search bar is located in the top right of the header. Below the header is a navigation menu with links: Home, Working Groups, Events, Scholarships, Dissemination (which is highlighted), Stakeholders, and About us. The main content area has a left sidebar with a "Dissemination" section containing links to Presentations, Official documents, News, and Newsletters. The main text area is titled "Dissemination" and contains the following text: "Here you can find presentations, documents, updates and newsletters from the TREATme network." It then states: "TREATme aims to establish a sustainable European multidisciplinary researcher network, which is focused on creating the knowledge required for the individualization of psychotherapy for young people experiencing mental disorders." This is followed by: "This Dissemination plan will show you how the TREATme action intends to do it: [Dissemination and public & patient involvement plan](#)". A bullet point follows: "Due to the SARS-Cov-2 pandemic some organizational changes had to be made, i.e. video production was enforced and the participants knowledge concerning webinars etc. had to be updated. Therefore, the dissemination plan was also updated as displayed in the following version: [TREATmes Dissemination plan Version 2](#)." Below this is a section titled "ResearchGate" with the text: "On [TREATmes ResearchGate profile](#), you can find scientific outputs and follow the work." At the bottom of the page, a footer indicates the publication date: "Publisert 2. nov. 2018 13:57 - Sist endret 13. nov. 2020 17:40". The browser's taskbar at the bottom shows various application icons and the system clock indicating 13:20 on 04.12.2020.



# Timelines and responsibilities

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Apps Gmail YouTube Maps Übersetzen

## Timeline and Responsibilities

Action	Responsible person (WG5)	Time point	Iteration
Inform via (local universities' -/training institutes' -/hospitals' -) press release	Steffi, Hanne → All Treatme members	January 2021	Every 6 months
Newsletter	Celia, Pedro	Nov. 2020	Every 6 months
Inform and connect partners in cost action on evidence base research in clinical health research, inform and connect partners from cost action on problematic use of internet	Tamara, Celia	Sept. 2020	At the end of action
Collection of dissemination of output from the WG leaders, all	Henriette, Steffi, Hanne, Vera,	October 2020	Every month

members and ITC/STSM coordinator and dissemination of training opportunities online (fb, twitter) - newsletter, social media, homepage	Tamara		
Interviews with TREATme Members	Tamara, Randi, Giada, all WG5	November 2020	At th end of action
Webinars with TREATme Members for a broader audience	All WG 5 members	December 2020	At the end of action
Interview with a politician	Henriette, all WG 5 member		
Contact CaFTR and integrating TREATme with CaFTR	Stig, Steffi, Hanne, Randi, Vera, all WG 5 mmbrs/CG	Ongoing	After the end of the action
Contact scientific boards on EU level (European Psychiatric Association - EPA, Training Institutes Chamber - EFTA, European Psychoanalytic Federation - EPF)	Henriette	Juli 2020	Every 6 months
Contact scientific boards on national level (e.g., Austrian Society of Psychiatry, Psychotherapy, Psychosomatics - ÖGPP, training institutes...)	Henriette, all WG5 members	October 2020	Every 3 months
Contact and inform ministry of health/accreditation institution, training institutes, official bodies	all	Ongoing	At the end of the action

Windows taskbar: 13:20 04.12.2020 DEU



# WG 5 reports on:

- Facebook – Twitter – YouTube
- Publications: Giada, Henriette
- Involvement of adolescents (MEP, Zeta): Henriette, Steffi
- Collection of reports and videos from all other WGs:  
Tamara, Giada
- HP: Hanne, Marie
- Newsletter: Celia, Pedro
- Research gate: Vera

# WG 5 dissemination- sustainability

- Started the cooperation with the Model European Parliament <https://mepeurope.eu/about/>, a youth organization in the European education area. The resolution of the “Committee on Environment, Public Health and Food Safety” – Passed the MEP parliament in the meeting in Tallin 2/2018 <https://mepeurope.eu/session/mep-tallinn-2018/> and concerns the question of “How could the European Union ensure that the issue of mental health problems receives more attention and is addressed more thoroughly? How to ensure that people know when and how to seek help?” The whole resolution and further aims to support youth mental health issues and their treatment can be found on pp.12 ff C-H of the Tallin resolution booklet.  
<https://mepeurope.eu/session/mep-tallinn-2018/>
- For further information also see Model European Parliament [www.mepeurope.eu](http://www.mepeurope.eu)
- And for 2021 and ongoing <https://www.psychotherapyresearch.org/page/SPRCaFTR>

To ensure sustainability of the action special issues for **collaborative publication** of TREATme members are established:

- <https://www.frontiersin.org/research-topics/16288/individualized-psychotherapy-treatmentof-young-people-with-mental-disorders>  
(Submission Deadlines: 15 December 2020 for Abstract, 28 February 2021 for Manuscript)
- [https://www.mdpi.com/journal/ijerph/special\\_issues/Individualized Interventions](https://www.mdpi.com/journal/ijerph/special_issues/Individualized_Interventions) (open till 31st Dez. 2021)
- [https://www.mdpi.com/journal/ijerph/special\\_issues/emotional intelligence cognitive development mental health children adolescent s](https://www.mdpi.com/journal/ijerph/special_issues/emotional_intelligence_cognitive_development_mental_health_children_adolescents) (open till Oct. 2021)

# Unlearning of Aggressive Behavior and Mechanisms of Change

## Topic Editors

Svenja Taubner Heidelberg University, Germany

Sonja Protić University of Belgrade, Serbia

Thorsten Fehr University of Bremen, Germany

Katja Bertsch LMU Munich, Germany

Frontiers in Psychiatry





# WG 5 dissemination- sustainability

- ITN/EID/collaborative PhD – application – Personalized Treatment approaches for youth mental health: Julian, Henriette (only 2% below the funding cut-off!)
- SC1-DTH12-2020: “Real world data...complex chronic conditions”: Henriette, Giada → Publ.
- SC1-DTH13-2020: “Digital tools for patient-centred care” ??
- National grants D-A-CH
- **Public involvement!** – stakeholders (Antistigma, A: Health-Aims 3, 9,...) → national and international level

# TREATme Social Networks

- Facebook:

<https://www.facebook.com/TreatMeEU>

- Twitter:

<https://twitter.com/TreatMeEU>

- YouTube:

<https://youtu.be>

- Research Gate:

<https://www.researchgate.net/project/European-Network-on-Individualized-Psychotherapy-Treatment-of-Young-People-with-Mental-Disorders-TREATme>



# TREATme Social Networks


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European Research Network on Individualized Psychotherapy Treatment for Young People with Mental Health Disorders. Est. 2017

[cost.eu/COST\\_Actions/c...](https://cost.eu/COST_Actions/c...) Joined May 2017

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TreatMe

@TreatMeEU · Nov 19

On November 20th we celebrate World Children's Day to promote international togetherness, awareness among children worldwide, and improving children's welfare.



World Children's Day | United Nations  
World Children's Day is meant to celebrate worldwide fraternity and understanding between ...  
[un.org](https://un.org)

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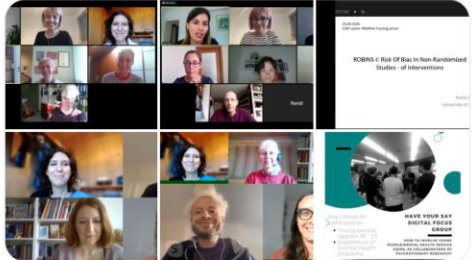
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ABOUT TRAINING SCHOOLS

0:42

TreatMe Testimony | Patricia Moreno

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ABOUT THE IMPORTANCE OF ITC CONFERENCE GRANTS

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ABOUT PSYCHOTHERAPY RESEARCH

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ABOUT TREATME AWARD

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# TREATme Social Networks

Research Gate: <https://www.researchgate.net/project/European-Network-on-Individualized-Psychotherapy-Treatment-of-Young-People-with-Mental-Disorders-TREATme>

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researchgate.net/project/European-Network-on-Individualized-Psychotherapy-Treatment-of-Young-People-with-Mental-Disorders-TREATme

R<sup>6</sup>

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Project

European Network on Individualized Psychotherapy Treatment of Young People with Mental Disorders (TREATme)

Vera Gergov

Erkki Heinonen

Tamara Prevendar

Show all 30 collaborators

Goal: The main aim of the COST Action TREATme funded by European Comission is to establish a sustainable European multidisciplinary researcher network focusing on individualized psychotherapy for young people with mental disorders. 30 European countries are represented ...

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Introduce your project to your audience to tell them what your research is about.

Goal

The main aim of the COST Action TREATme funded by European Comission is to establish a sustainable European multidisciplinary researcher network focusing on individualized psychotherapy for young people with mental disorders. 30 European countries are repre

?

+

Add hypothesis



# TREATme interviews

- Interviews on recent publications by TREATme members



TREATme interviews  
By Randi Ulberg & Tamara Prevendar

JOURNAL OF MEDICAL INTERNET RESEARCH

Liverpool et al

Review

## Engaging Children and Young People in Digital Mental Health Interventions: Systematic Review of Modes of Delivery, Facilitators, and Barriers

Shaun Liverpool<sup>1</sup>, MSc; Catarina Pinheiro Mota<sup>2,3</sup>, PhD; Célia M D Sales<sup>4</sup>, PhD; Anja Čuš<sup>5</sup>, MSc; Sara Carletto<sup>6</sup>, PhD; Camellia Hancheva<sup>7</sup>, PhD; Sónia Sousa<sup>8</sup>, PhD; Sonia Conejo Cerón<sup>9</sup>, PhD; Patricia Moreno-Peral<sup>9</sup>, PhD; Giada Pietrabissa<sup>10,11</sup>, PhD; Bettina Moltrecht<sup>1</sup>, PhD; Randi Ulberg<sup>12</sup>, PhD; Nuno Ferreira<sup>13</sup>, PhD; Julian Edbrooke-Childs<sup>1</sup>, PhD

