Helping Patients to Sustain Changes:

Evaluating the Effectiveness of a Transdiagnostic Internet based Maintenance Treatment after Inpatient Psychotherapy in a RCT

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Psychotherapy for common mental health disorders with state-of-the-art-methods like cognitive behavior therapy (CBT) is efficient

(e.g. APA, 2009; Butler, Chapman, Forman & Beck, 2007; Milenkovic, Schelling, & Margraf, 2008)

The Problem

The Problem

Long-Term Outcome in the Treatment of Mental Disorders

- **MDD:** Relapse 18 month after CBT: 39%; ADM: 61%; combination: 38%
  (Meta-Analysis; Vittengle, Clark, Dunn & Jerret, 2007; 28 Studies; N=1880)
- **Anxiety Disorders:** 52% still met diagnostic criteria 2 years after CBT
  (Participants of 8 RCT; N=396; Durham et al., 2005)
- **Bulimia Nervosa:** 21%-55% risk of relapse within 1-2.5 years after achieved remission in CBT (Hamli et al. 2003; Richard et al., 2005; Olmsted, Kaplan, Rockert, 2005)
- **AUD:** Rates of relapse 50% and above (Chung & Maisto, 2006; Walitzer & Dearing, 2006; Lowman, Allen & Stout et al.,1996)

The Problem

Long ... **ders**

...8%

...man, Allen

Conclusion:

Despite the proven efficacy of state-of-the-art treatments for common mental health disorders there is still a dire need to help patients to sustain initially achieved changes **!**

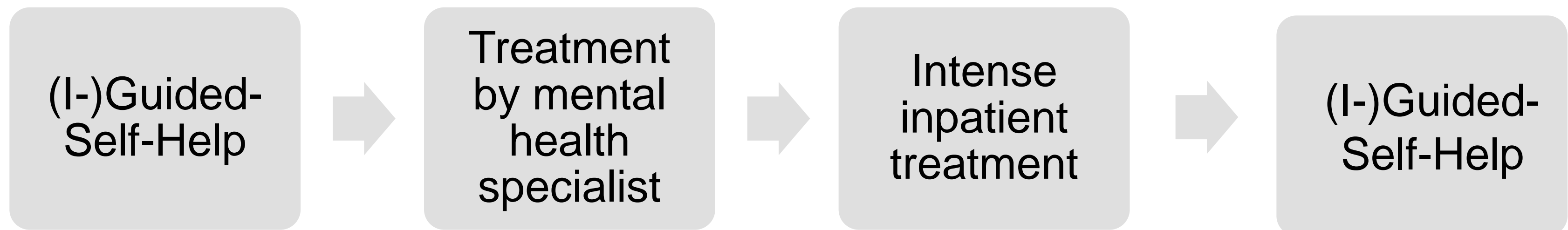
Solutions?

Solutions?

Continuation phase therapy: effective, but costly (depression: Jarret, 2008; Klein, 2004; Rost, 2002; Bockting, 2005; Fava, 2004; Teasdale, 2000; Kupfer et al. 2007; panic disorder : Biondi & Picardi 2003; obesity: Perry, 1988; personality disorders: Willberg, 2003; Leirvag, 2010; OCD: McKay, 1996, McKay, 2003)

(Internet based) guided self-help? (Andersson & Cuijpers, 2009; Benight, Ruzek & Waldrep, 2008; Cuijpers, Donker, van Straten & Andersson, 2010; Griffiths, Farrer & Christensen, 2010)

Guided-Self-Help in a stepped care approach



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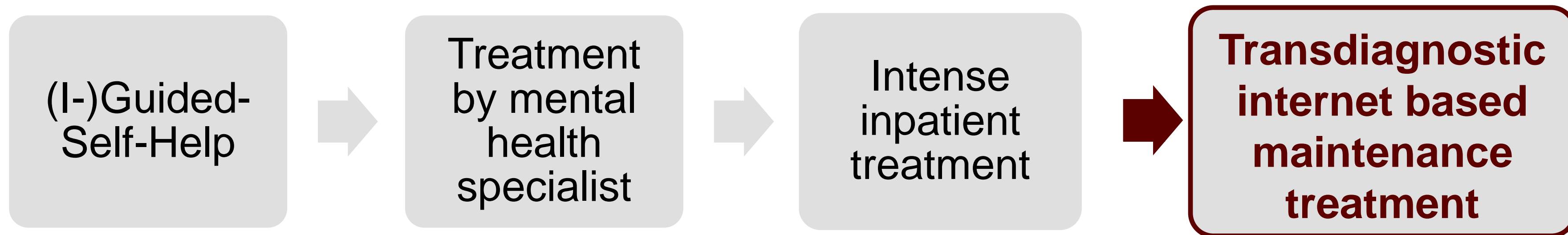

Why Transdiagnostic?

Transdiagnostic internet based maintenance treatment (TIMT)

- 296.2
- 296.3
- 300.4
- 300.3
- 300.21
- 300.23
- 309.81
- 307.80
- 309.28
- 301.83

Why Transdiagnostic?

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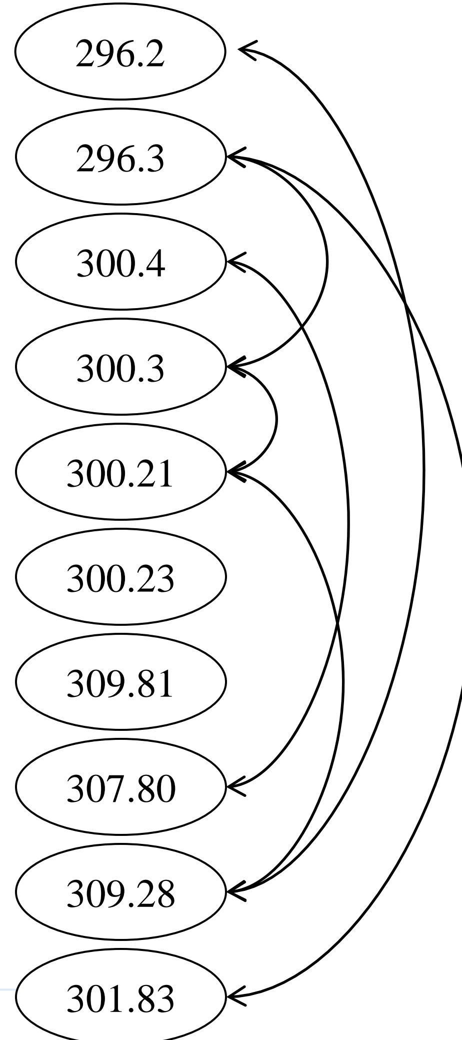

Comorbidity:
Often high comorbidity in routine care (Zimmerman, McGlinchey, Chelminski & Young, 2008)

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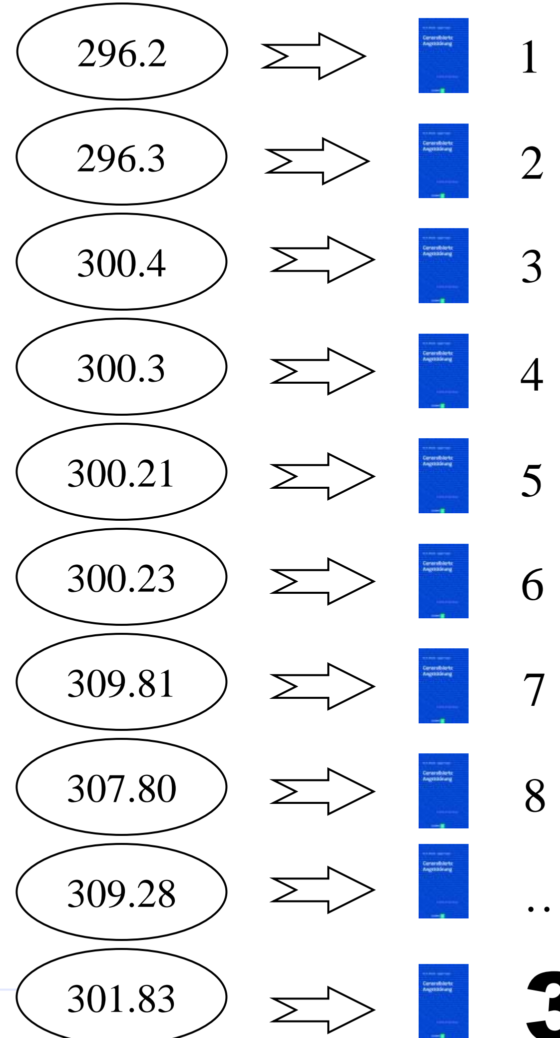

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Low dissemination barriers

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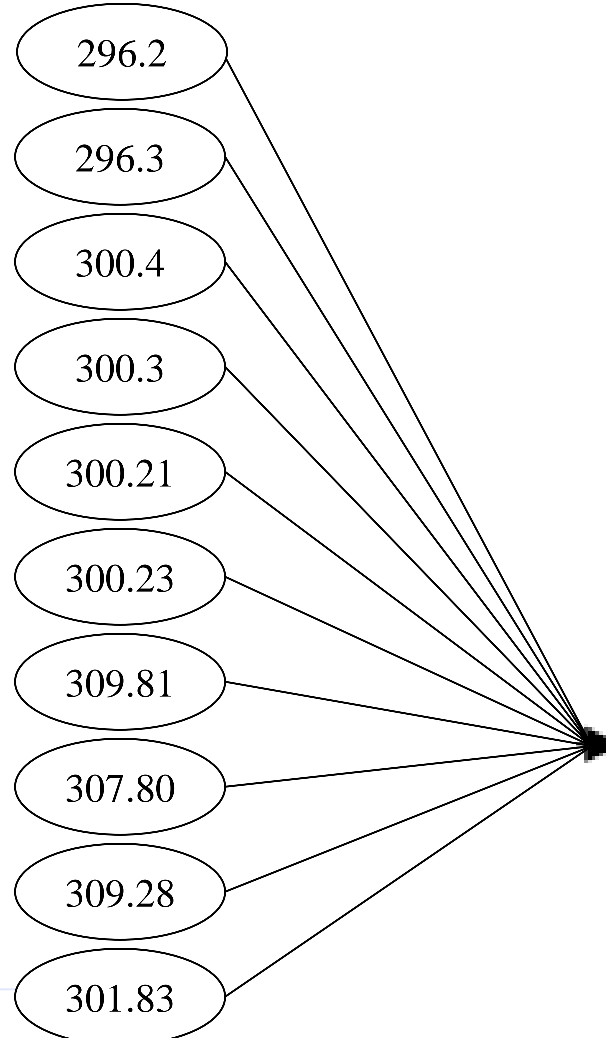

Comorbidity:
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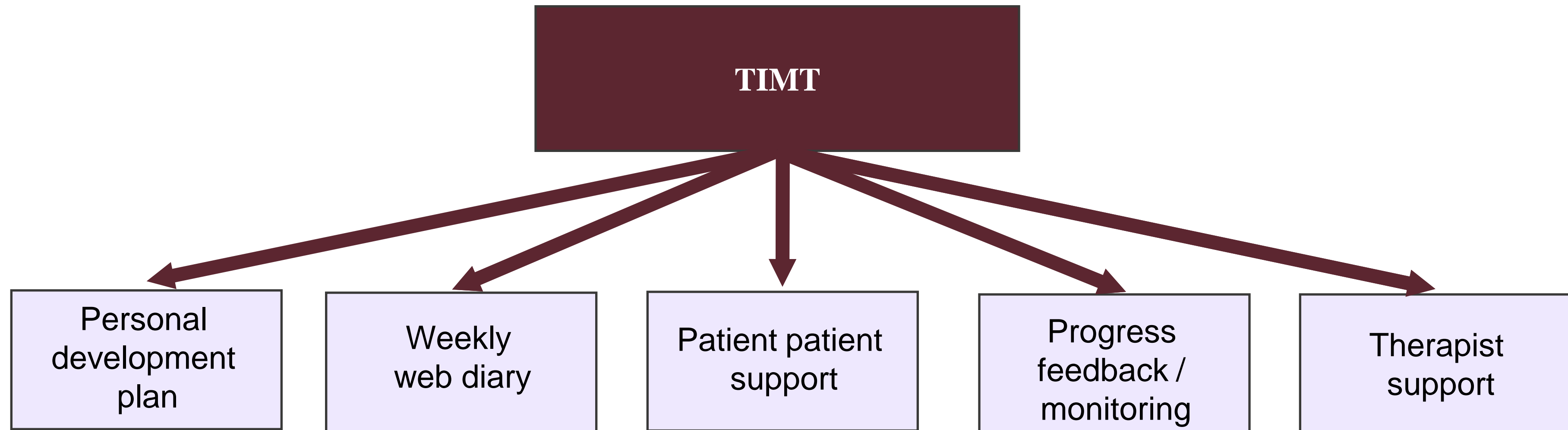
Low Dissemination barriers

Common factors:
1. common maintaining factors across disorders (e.g. Clark & Taylor, 2009)
2. similar challenges: integrating newly learned behavior into daily life

The Concept

Transdiagnostic Internet based Maintenance Treatment (TIMT)



Ebert at al., 2008

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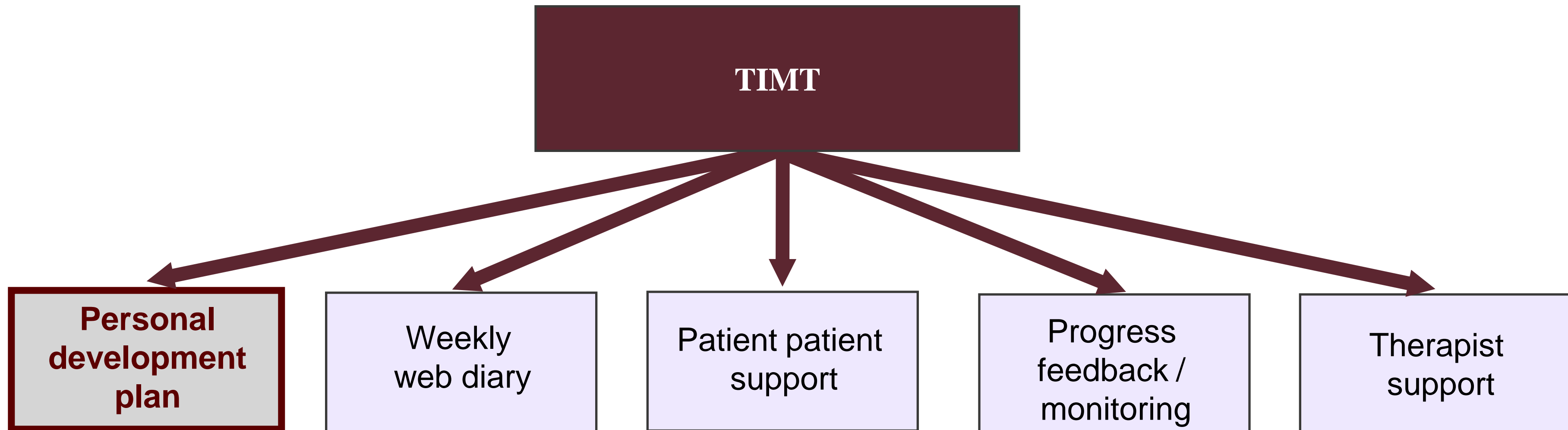
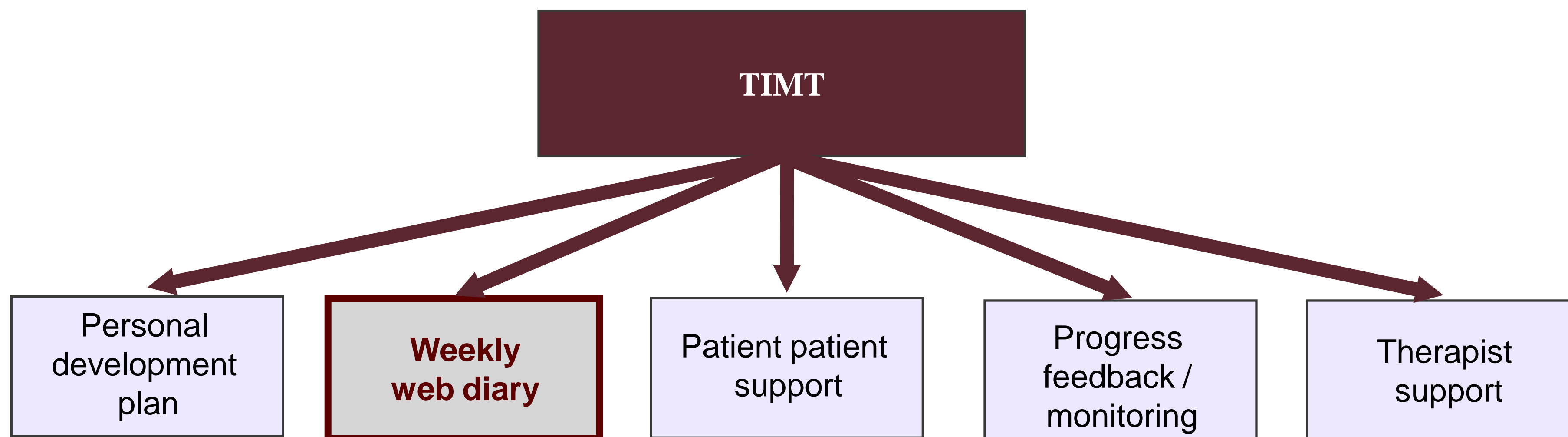


- Relevant personal goals they want to achieve
- Implementation intentions, how to achieve these goals
  (Gollwitzer, 1993, 1996; Sheeran, Aubrey & Kellett, 2007)
- Barriers + strategies

Ebert at al., 2008

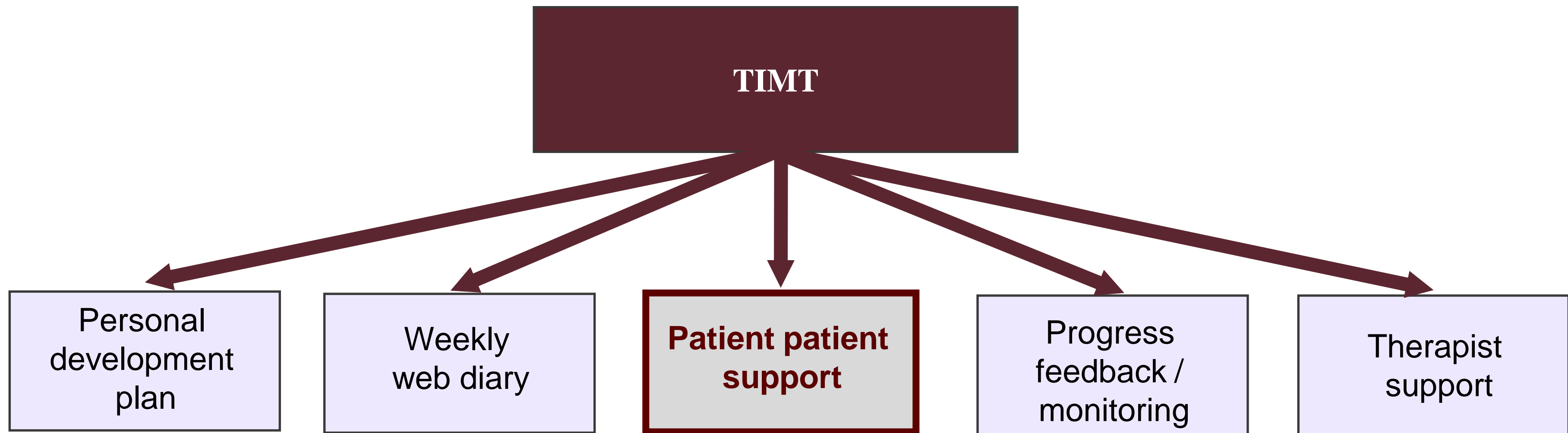
Transdiagnostic Internet based Maintenance Treatment (TIMT)



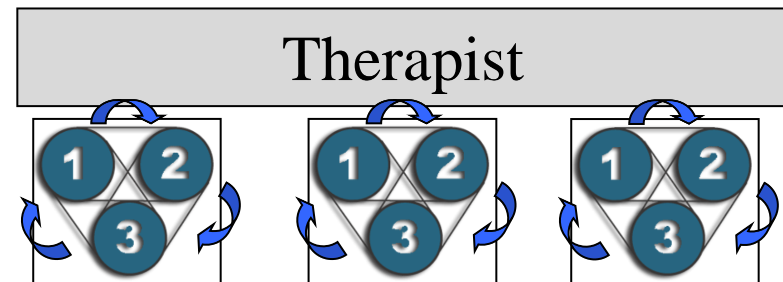
- **Duration:** 12 weeks
- **Reflection:** structured reflection of goal attainment
- **Planning:** goals to achieve next week
- **Life-Events:** report of relevant emotional life-events

Ebert at al., 2008

Transdiagnostic Internet based Maintenance Treatment (TIMT)



- Subgroups of 3-6 patients
- Feedback web-diaries
- Reciprocal emotional and motivational support



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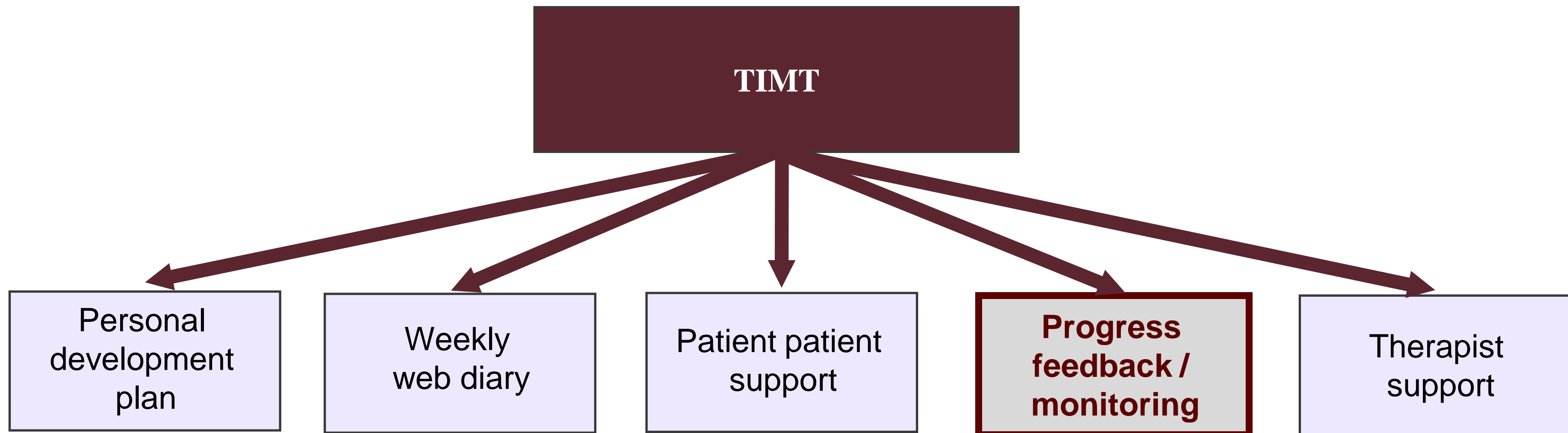
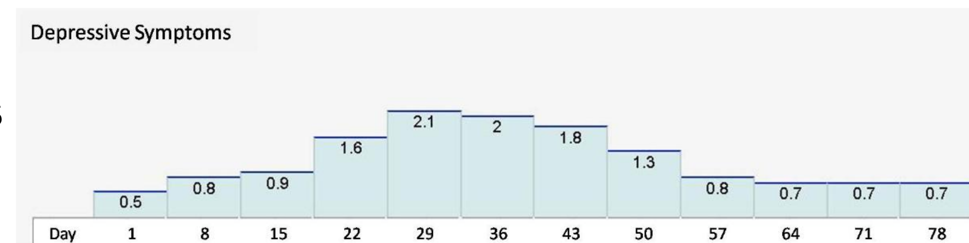


- Weekly monitoring of therapeutic progress
- Automatically calculated progress feedback



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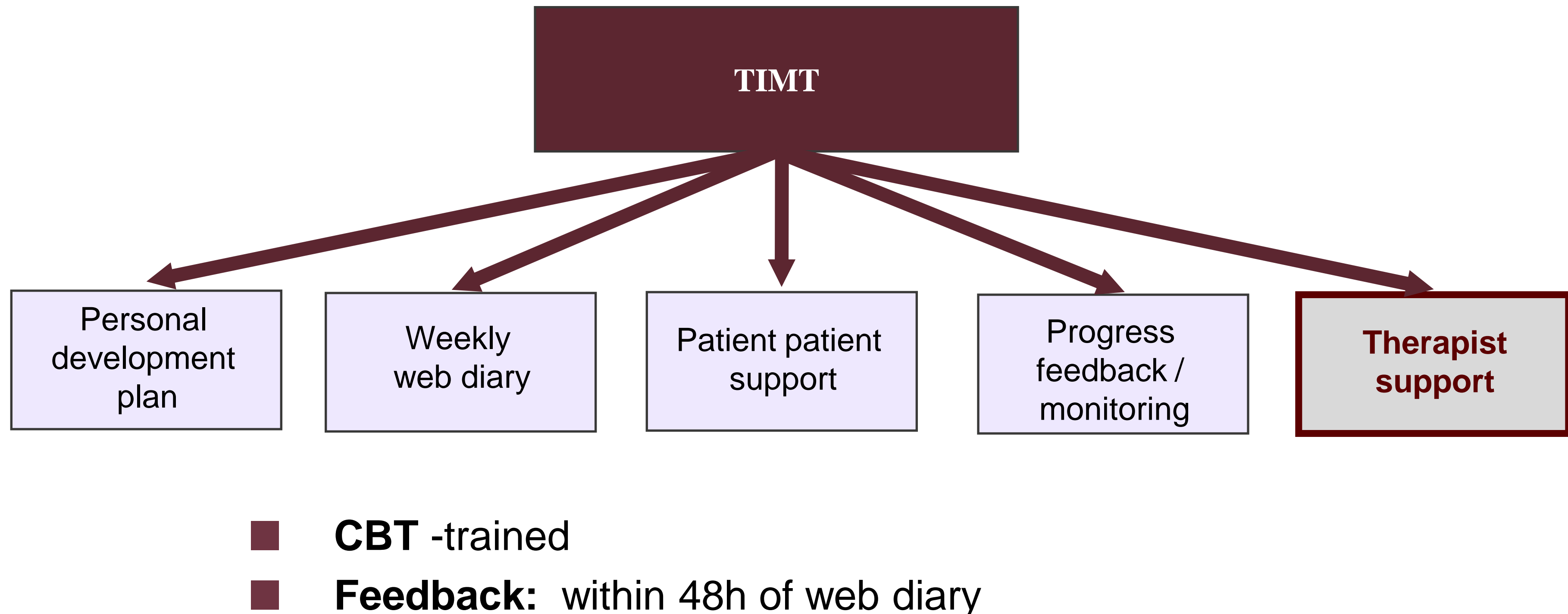


- **CBT** -trained
- **Feedback:** within 48h of web diary

Ebert at al., 2008

The Evaluation:

Can a Transdiagnostic Internet based Maintenance-Treatment (TIMT) help patients to stabilize the initial inpatient treatment effects?

20

Design & Procedure

Design: Two-arm-randomized controlled trial: TIMT + TAU vs. TAU

Inclusion/exclusion criteria: a) mental health disorder

b) no psychosis or alcohol/substance addiction, c) currently not a high risk of suicide d) internet access, e) German speaking, f) no problems with reading/writing

Study setting: Intervention integrated in care of an inpatient clinic for psychotherapy and psychosomatics

Participants

N = 400 inpatients treated for a MHD

Age: *M* = 45.03 (20-70; *SD* = 9.02)

Sex: 78.6% female

Primary diagnosis: MDD: 55.5%; anxiety stress-related, somatoform: 37.2%; eating disorders: 2.7%; personality disorders: 2.2%

Comorbidity: 48.2% ≥2 MHD, 11.2% ≥ 3 MHD

Measures

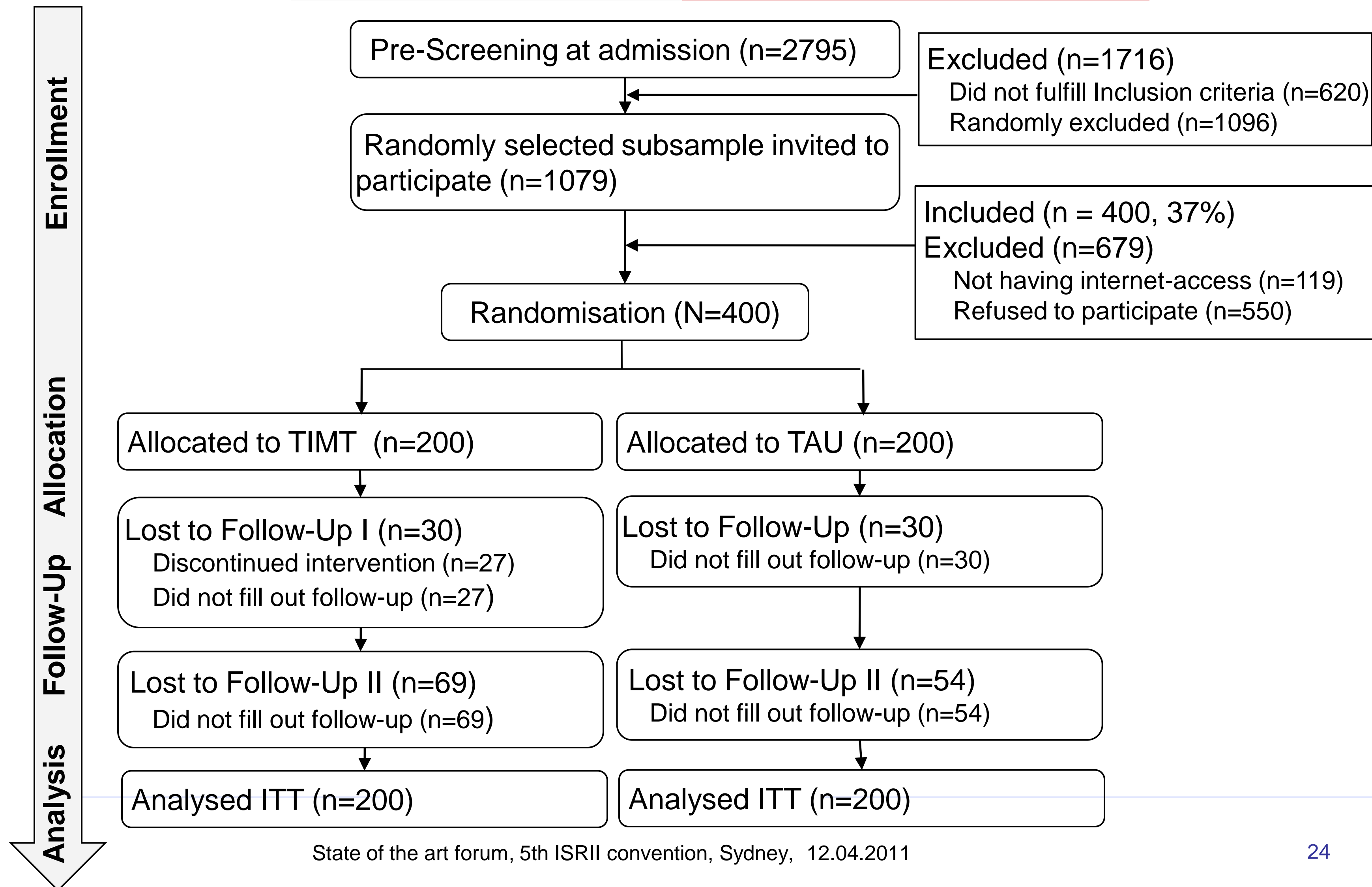
Primary outcome: Psychopathological symptom severity ($PSS_{HEALTH-49}$)

Secondary outcome: Psychological wellbeing ($WB_{HEALTH-49}$); positive and negative affect (PA/NA_{PANAS}); self-efficacy ($SE_{HEALTH-49}$); interpersonal problems ($IPP_{HEALTH-49}$); emotion regulation skills ($Total_{ERSQ}$);

Process quality: Therapist alliance (HAQ)

Assessment points: Admission, discharge, 3 (12)-month follow-up

Patient Flow



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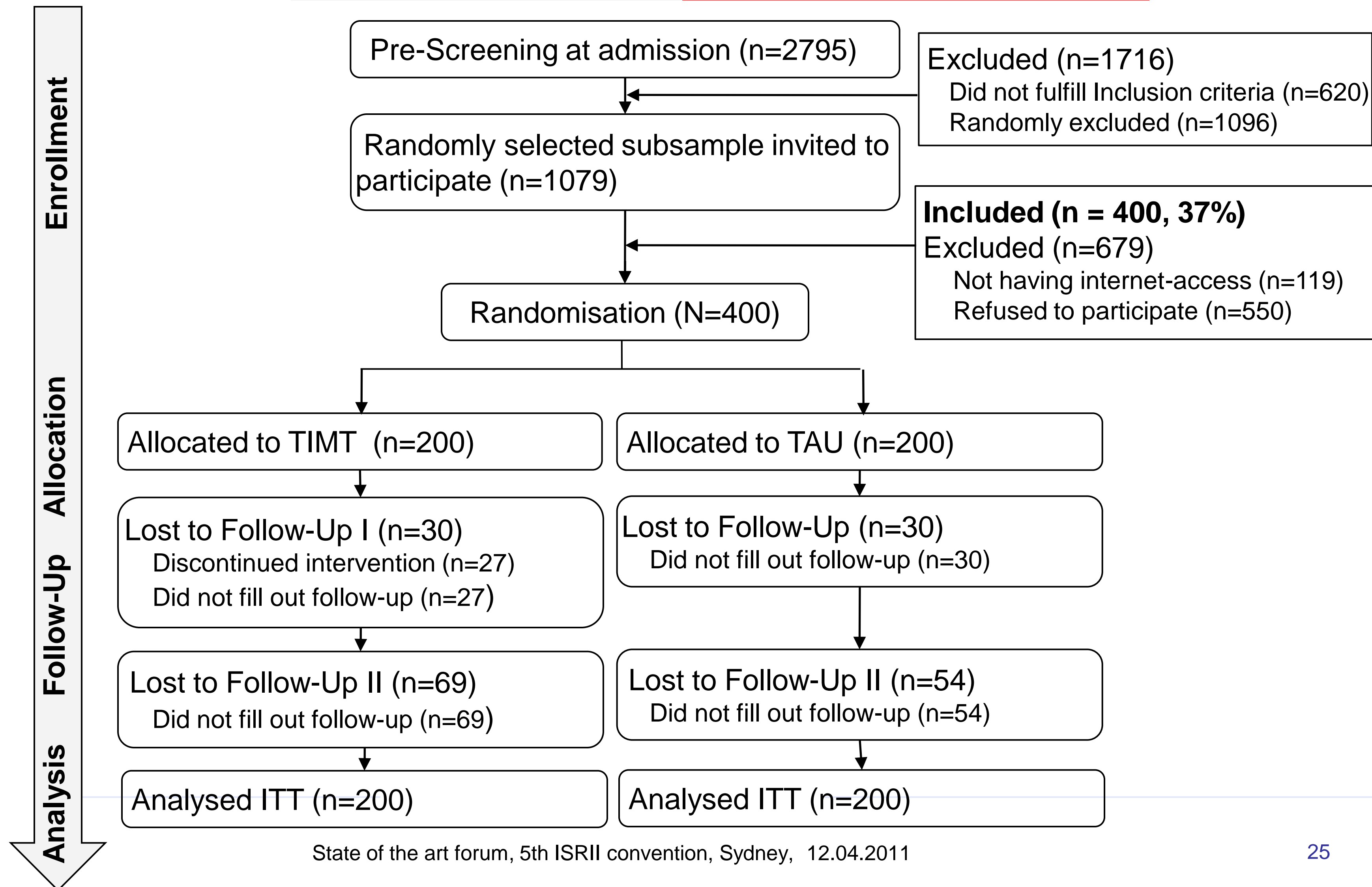

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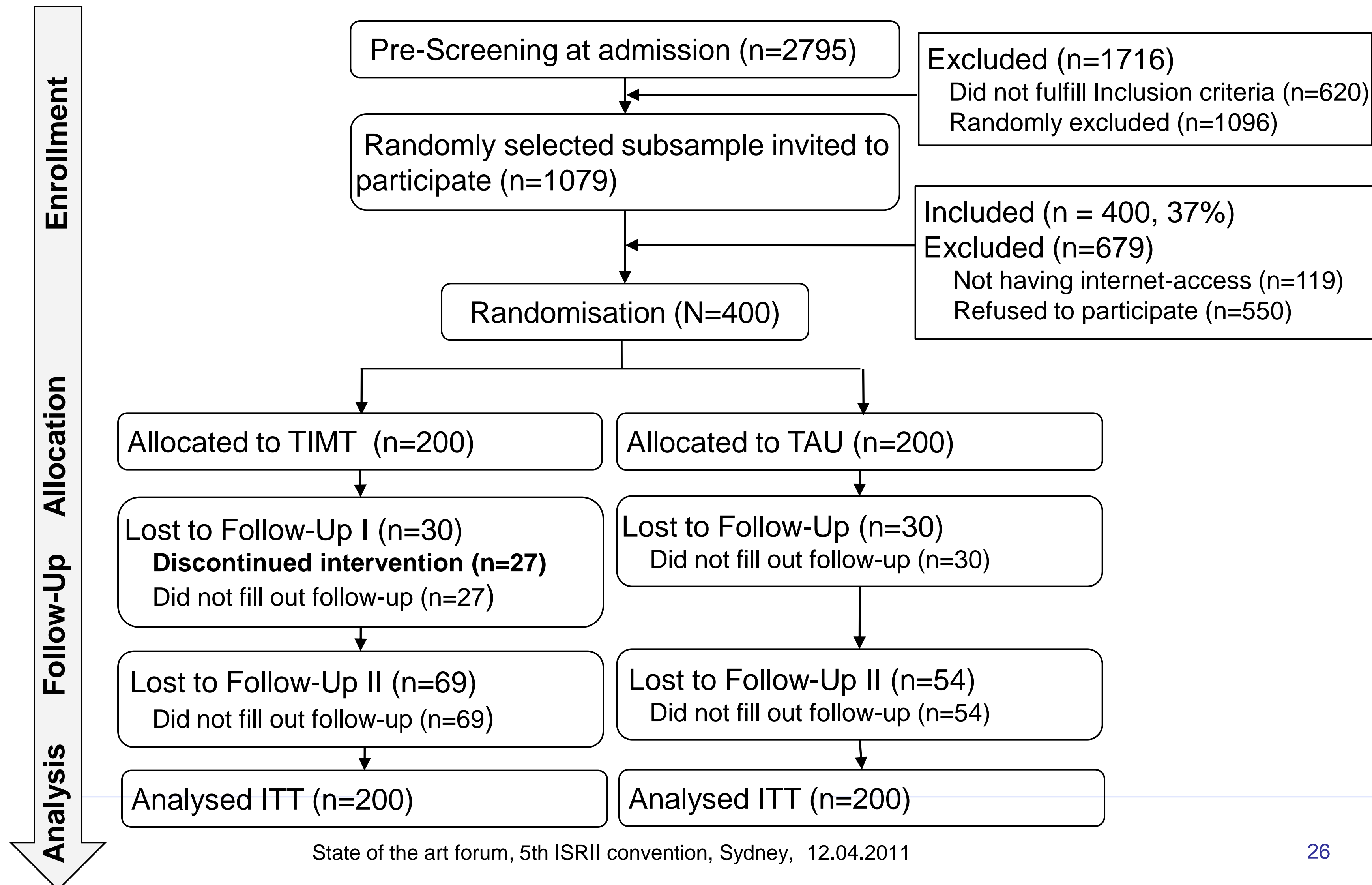

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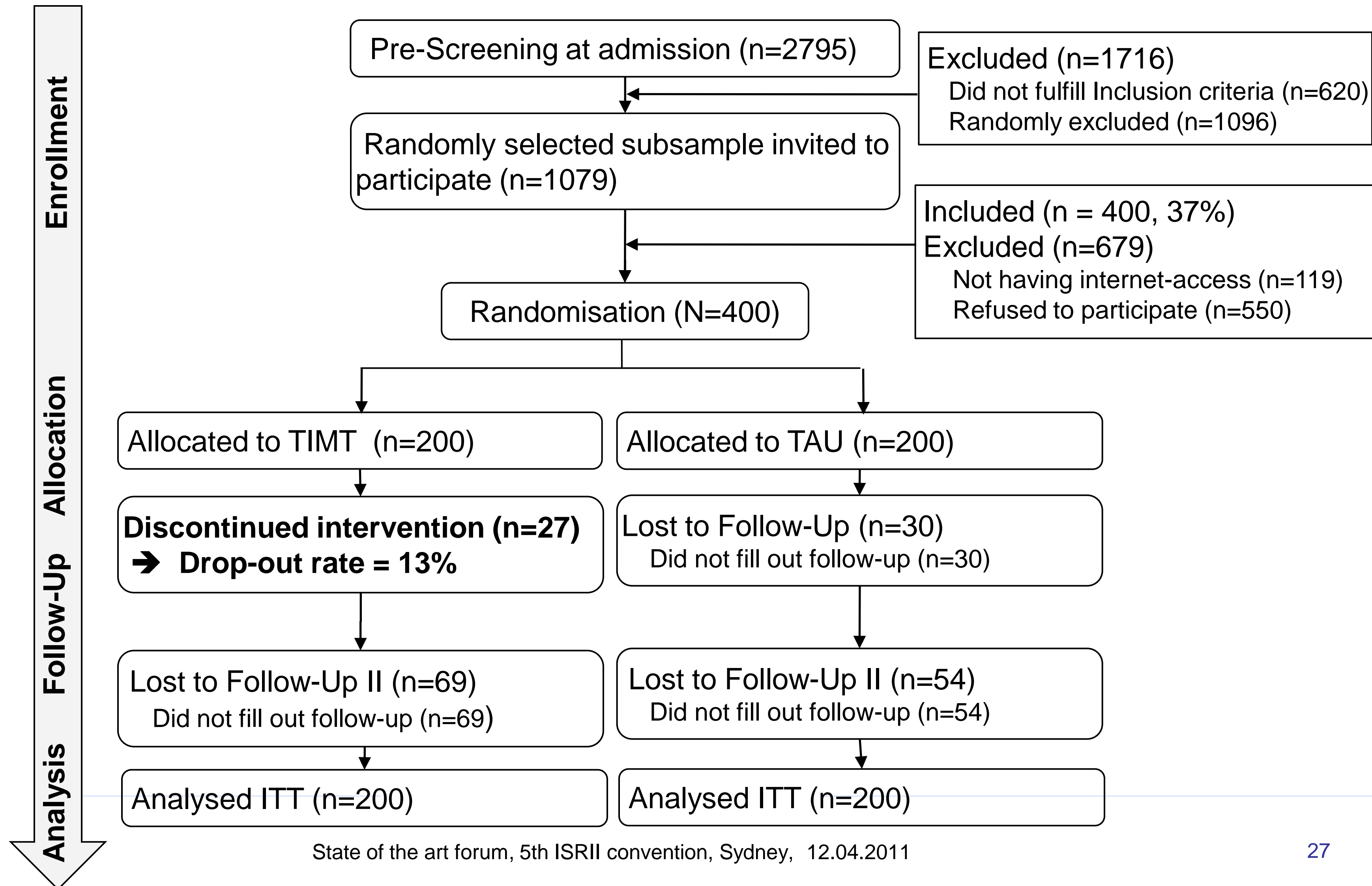

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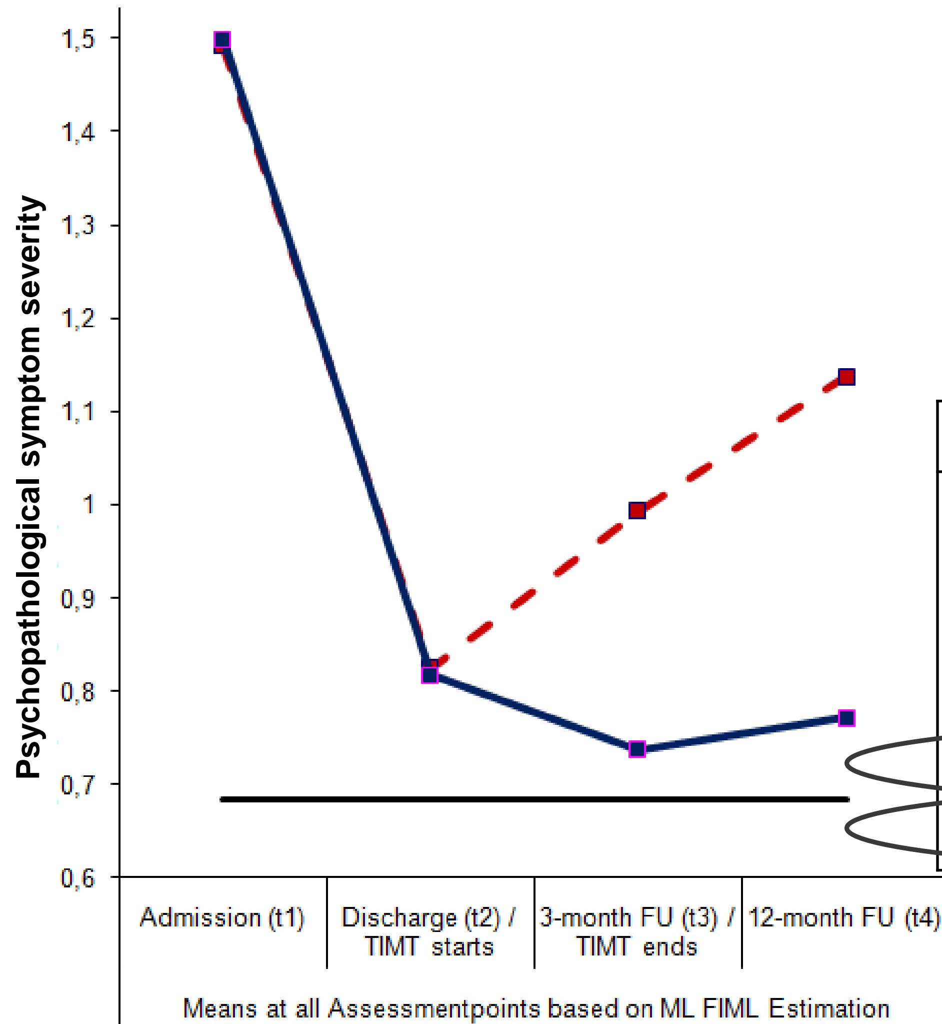


Multi-level modeling of change

ITT sample; L1: time (contrasts);L2: group, persons

Full information maximum likelihood estimation

Intercept: TAU at baseline (t2)

Contrasts:

Time 1: Change in outcome from t1-t2

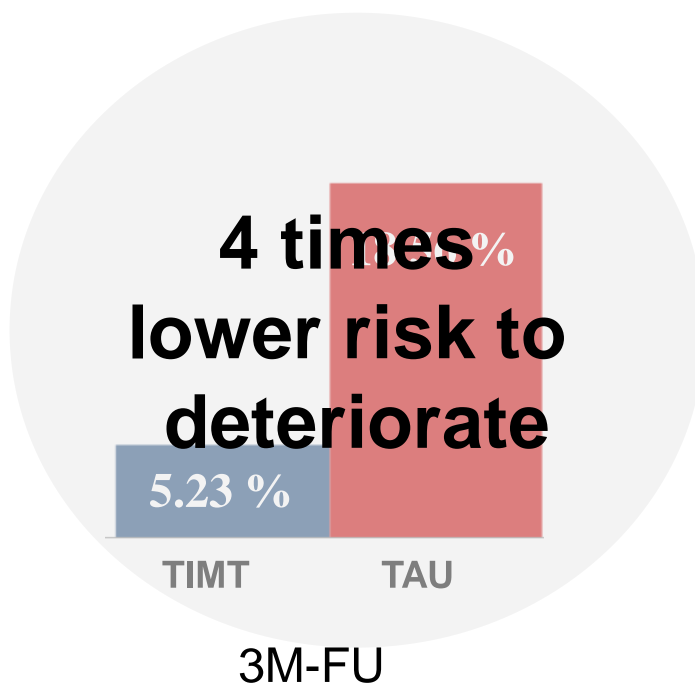
Time 2: Change in outcome from t2-t3

Time 3: Change in outcome from t2-t4

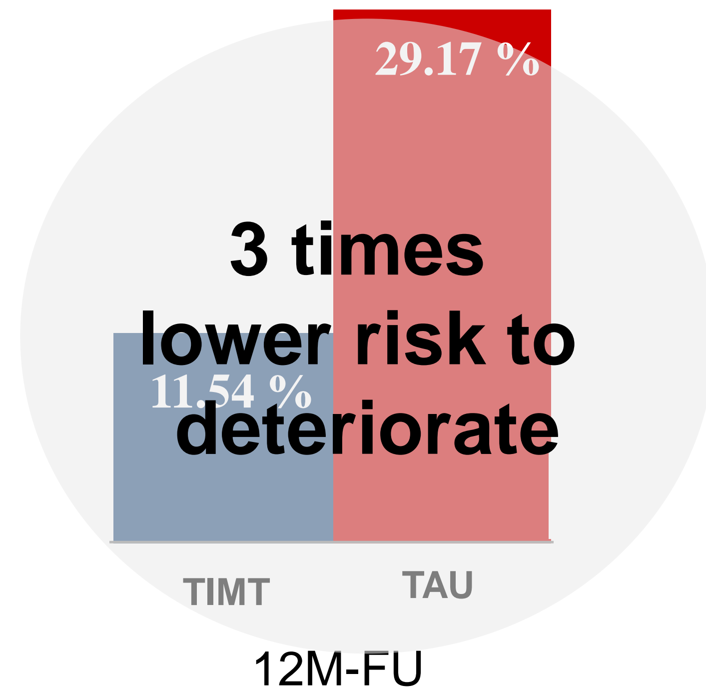
fixed effects	*B*	*SE B*	*df*	*T*	*p*	*d*
Intercept	0,82	0,05	399,85	17,89	0,00	
Time 1 (t2-t1)	0,67	0,04	400,49	15,86	0,00	
Time 2 (t2-t3)	0,17	0,04	343,49	4,47	0,00	
Time 3 (t2-t4)	0,31	0,05	320,50	6,36	0,00	
Group	-0,01	0,07	399,36	-0,12	0,91	
(t1- t2) x group	0,01	0,06	399,97	0,24	0,81	
(t2- t3) x group	-0,25	0,05	342,72	-4,68	0,00	**0.34**
(t2- t4) x group	-0,36	0,07	324,18	-5,05	0,00	**0.47**

Reliable & Significant Change (RCI) Jacobsen & Truax, 1991

% of reliable detoriated patients from discharge to follow-up



$\chi 2$ =14.47; *df* =1; *p*< 0.001; OR: 4.13



$\chi 2$ =12.89; *df* =1; *p*< 0.001; OR: 3.16

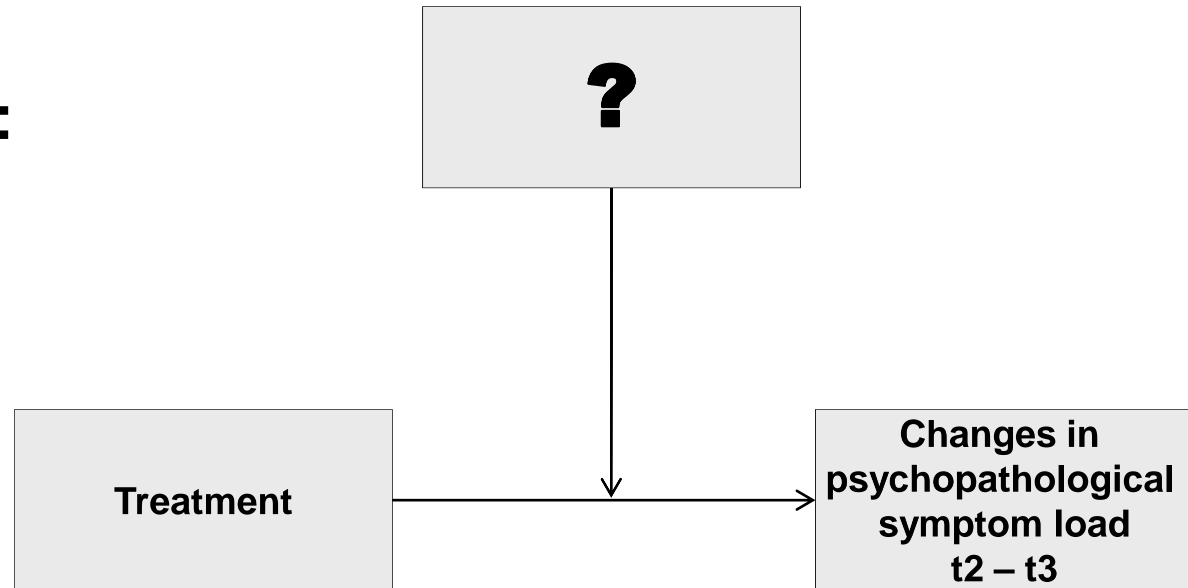
For Whom does it work?

Potential moderators:

demographic variables
sex
age
education level
computer competencies

clinical characteristics
type of disorder
comorbid personality disorder
duration of illness
residual symptoms (t2)
reliable change from t1 to t2

motivational/volitional variables
self-efficacy (t2)
self-management skills (t2)
hope for/fear of change (t1)



Multi level analyses: cross-level-interactions: time x condition x moderator

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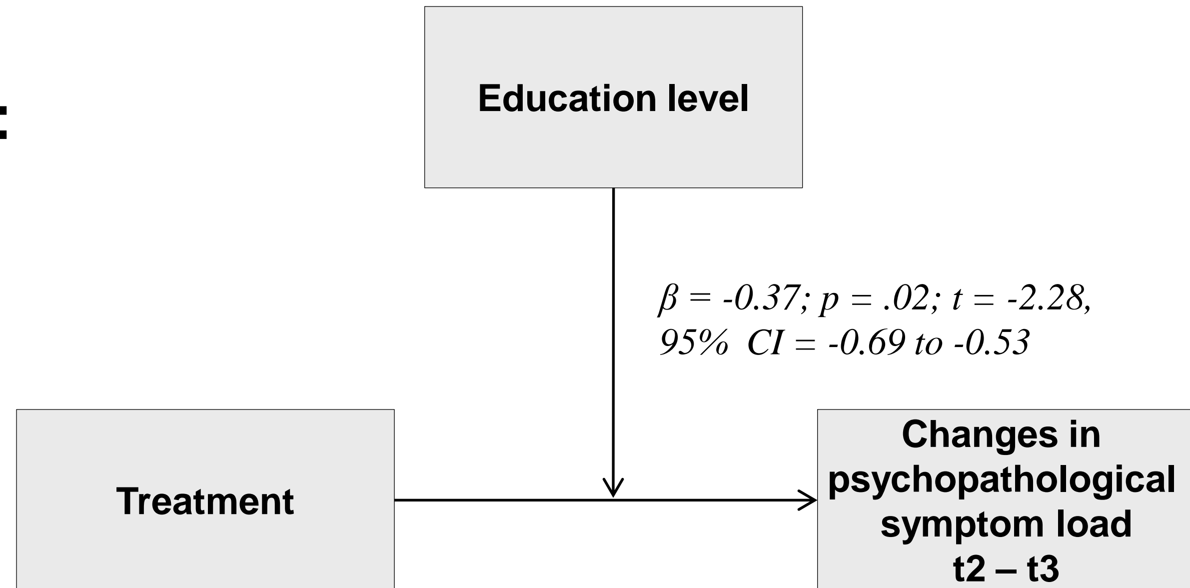

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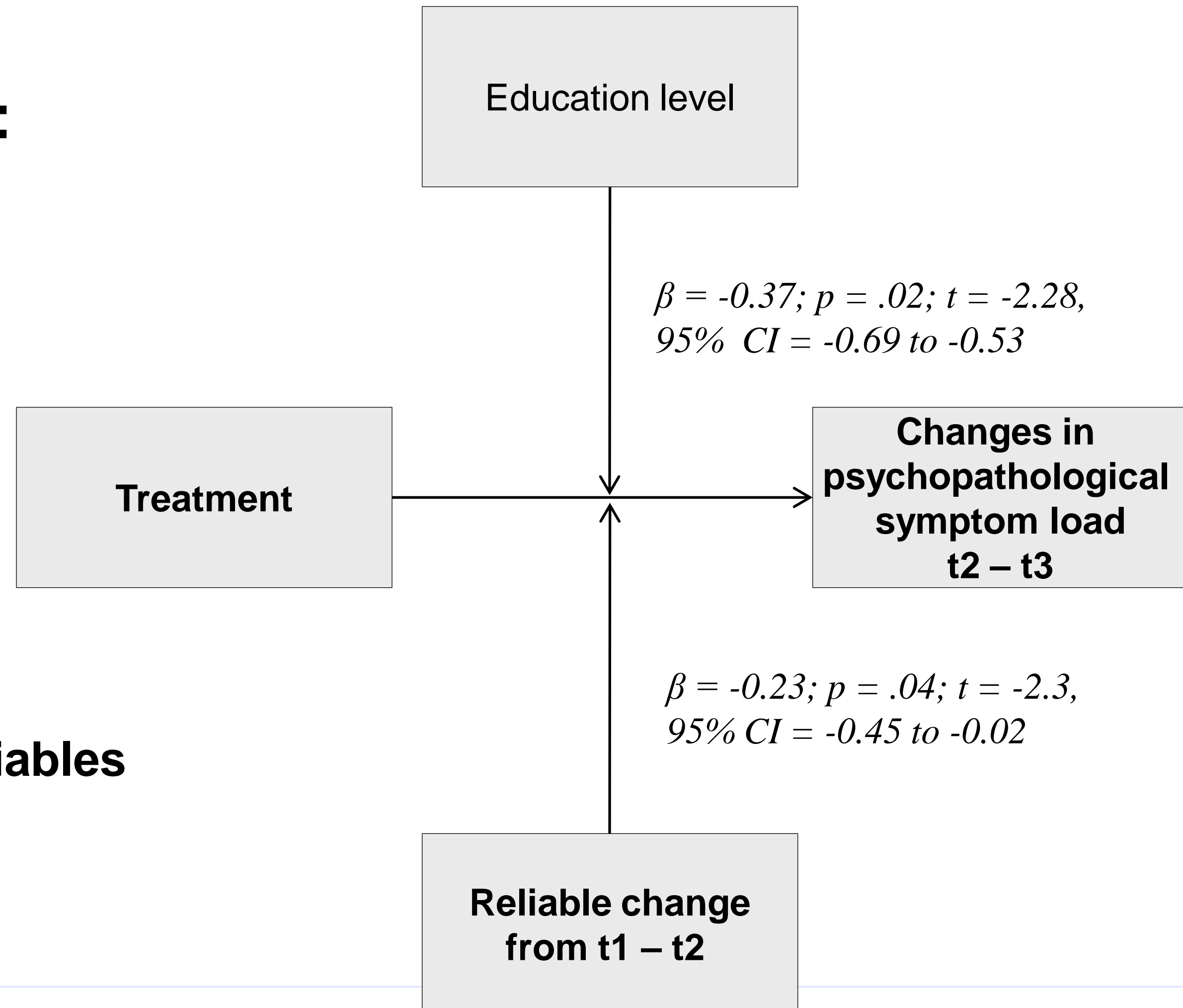


Multi level analyses: cross-level-interactions: time x condition x moderator

Limitations/Future Research

1. No cost-effectiveness data

   ➥ Evaluation of cost-effectiveness

2. Additional university resources => generalization to routine care limited

   ➥ Evaluation in routine care

3. Transdiagnostic unified approach neglects disorder-specific characteristics

   ➥ Development of additional disorderspecific modules for highly prevalent disorders as MDD

Summary

- Long term outcomes of treatments for common mental health disorders still need to be improved
- Adding TIMT to an initial (inpatient) psychotherapy can help patients to sustain achieved changes!
- The moderator effect of education indicates that TIMT might also be effective for individuals that are often considered as unlikely candidates to utilize I-guided self-help effectively

Philipps University Marburg

Thank you for your attention!!!

Contact: David.Ebert@staff.uni-marburg.de

In TIMT it helped me the most...

In TIMT it helped me the most...
Regular reflections and to be reminded of my goals
I had a contact-partner. Until now i didn´t find a therapist, so it was very helpful to get the needed support here.
Without the appointment to write, i would not have grapple with myself and my goals in that way
To achieve one goal a week, to reflect and get the „right“ advices

Secondary Outcomes: Changes from discharge to 12 m-FU

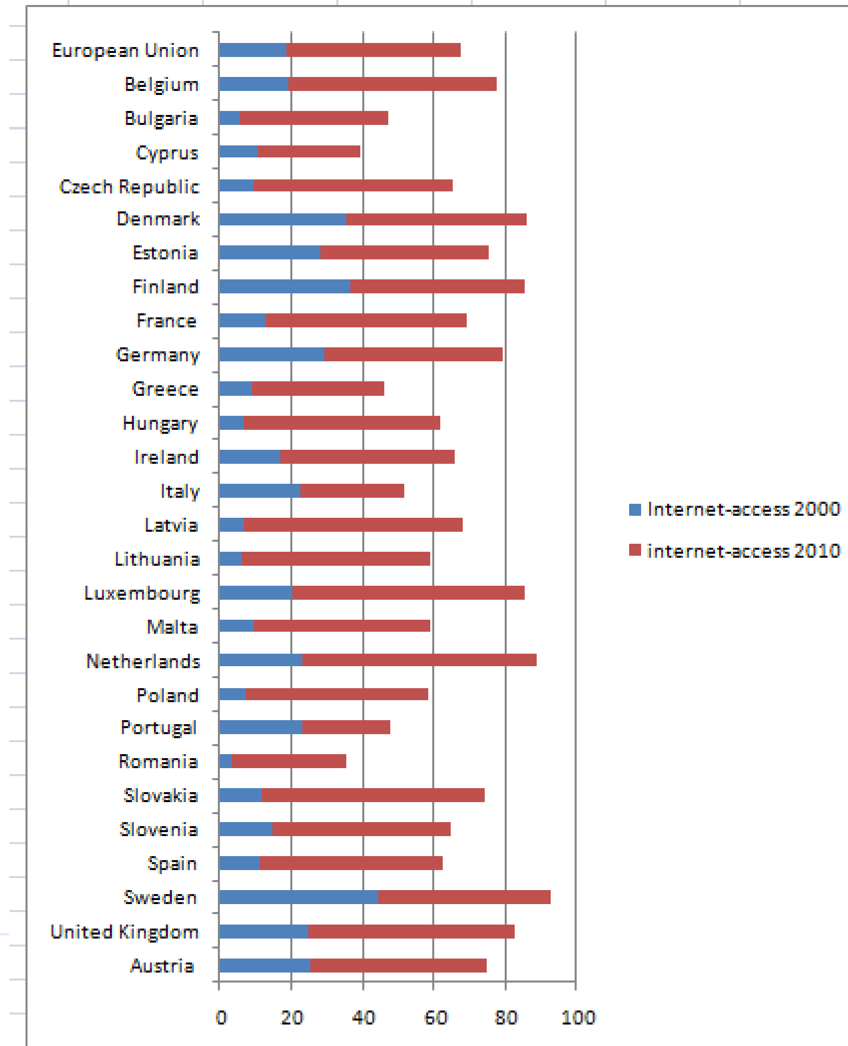
Differences in Change	*B*	*SE B*	*df*	*T*	*p*	*TAU* d_{within}	*TIMT* d_{within}	$d_{between}$
Depression	-0.31	0.11	306.59	-2.80	0.01	0.61	0.98	**0.38**
Phobic Anxiety	-0.22	0.07	284.72	-3.25	0.00	0.23	0.45	**0.21**
Somatoform symptoms	-0.39	0.09	319.64	4.23	0.00	0.56	0.89	**0.33**
Psychological well-beeing	-0.42	0.10	312.16	-4.13	0.00	0.92	1.43	**0.51**
Positive affect	0.27	0.13	297.63	2.04	0.04	-1.20	-1.48	**-0.28**
Negative affect	-0.33	0.12	325.67	-2.85	0.00	-0.11	0.25	**0.36**
Interpersonell problems	-0.29	0.09	351,59	-4.27	0.00	0.53	0.83	**0.30**
Self-efficacy	-0.25	0.11	316.44	-2.32	0.02	0.64	1.07	**0.43**

Multi-Level Modeling of Change
ITT Sample; L1: Time (Contrasts);L2:Condition,
Full Information Maximum Likelihood Estimation

Do inpatients fulfill technical requirements?

Internet-based-continuation-treatment (ICT):
a potential solution?

Internet-Access in Europe:



60.7% (May 2010)

257.8% user-growth 2000-2010

(internetworldstats.com)

Do inpatients fulfill technical requirements?

Participants: 992 inpatients treated for a Mental Disorder in 2 Clinics for Psychotherapy; Age M= 46.59 Jahre (20-70; SD=8.87); Sex: 74.7% woman

Measures: Questionnaire of Internetcompetencies , QIC-17

Results: 88.5 % do have access to the internet ; 79.8% do possess relevant skills for participating

Ebert et al., 2009

Inpatient Psychotherapy in Germany

- **Common:** 400.000 treated inpatients yearly
- **Effective:** Inpatient treatment of mental-disorders is effective (mean $d = 0.67$) (Steffanowski, et al 2007) (Study setting; $d = 0.75$; N=2402)
- 70% recommendation of outpatient (maintenance)-therapy (Harfst, 2002)
- Evidence-based treatments not available in less inhabited regions
- Even when available: waiting-time for outpatient-psychotherapy 6-12 Month in Germany (Schulz et al., 2008)
- **High risk of relapse / recurrence**: 78% not recovered at 12 month FU (study setting, N=514)

Inpatient Psychotherapy: Challenges/Risks

- **Residual symptoms** (MDD: Tailor 2010; Anxiety-Disorders: Bech, 2010 ; Eating-Disorders : Keel 2010).
- **Need for transfer** (Holmes, 1971; Lang, 1966).
- **Characteristics of disorders** (as severe, recurrent & chronic MDD , Rost, 2002: Eating-Disorders, Halmi et al., 2003; AUD: Chung & Maisto, 2006; OCD: Emmelkamp, Kloek & Blaauw,1992)
- **Patient-characteristics** (MDD: Tailor 2010; Ramanaetal, 1995; anxiety-: disorder: Brown & Barlow,1995; Olatunj et al., 2010; Durham et al., 2005; Eating-Disorders : Keel 2010)

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