Four decades of outcome research of psychotherapy

Lessons for the future

World Congress of Psychotherapy
Amsterdam, June 7th, 2018

Prof. Pim Cuijpers
OVERVIEW

• Mental disorders as public health challenge
• Effects of psychological treatment of mental disorders: focus on depression
• Comparison with pharmacotherapy
• Can psychological treatments help with the reduction of the disease burden?
THE PUBLIC HEALTH IMPORTANCE OF MENTAL DISORDER

• Almost 1 in 5 people worldwide affected,
• More than 750,000 people die by suicide
• 184 million disability adjusted life years lost
• $2.5 to $8.5 trillion in lost output, doubled by 2030
• Return on investment: $1 - $3.3 to $5.7
• Strong political support for action
MENTAL DISORDERS ACROSS THE LIFE SPAN

- 5-14 years
- 15-29 years
- 30-49 years
- 50-59 years
- 60-69 years
- 70+ years

- Men Malignant neoplasms
- Men Diabetes mellitus
- Men Mental and behavioral disorders
- Women Malignant neoplasms
- Women Diabetes mellitus
- Women Mental and behavioral disorders
CAN PSYCHOLOGICAL TREATMENT HELP WITH SOLVING BURDEN OF MENTAL DISORDERS?

- Two main types of treatment of mental disorder: psychological and pharmacological
- Majority of patients (75%) prefer psychotherapy
- But how effective are psychotherapies?
- And how do they compare to medications?
- In the following:
  - A brief overview of all disorders
  - Then a focus on depression
## EFFECTS OF PSYCHOTHERAPY VERSUS CONTROL

<table>
<thead>
<tr>
<th></th>
<th>$N_{ma}$</th>
<th>$N_{st}$</th>
<th>ES</th>
<th>95% CI</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>31</td>
<td>369</td>
<td>0.70</td>
<td>0.64–0.75</td>
<td>3</td>
</tr>
<tr>
<td>SAD</td>
<td>9</td>
<td>48</td>
<td>0.88</td>
<td>0.74–1.03</td>
<td>2</td>
</tr>
<tr>
<td>Panic</td>
<td>5</td>
<td>42</td>
<td>0.81</td>
<td>0.59–1.04</td>
<td>2</td>
</tr>
<tr>
<td>GAD</td>
<td>5</td>
<td>38</td>
<td>0.84</td>
<td>0.71–0.97</td>
<td>2</td>
</tr>
<tr>
<td>PTSD</td>
<td>9</td>
<td>28</td>
<td>1.62</td>
<td>1.21–2.03</td>
<td>1</td>
</tr>
<tr>
<td>OCD</td>
<td>3</td>
<td>16</td>
<td>1.39</td>
<td>1.04–1.74</td>
<td>1</td>
</tr>
<tr>
<td>Psychotic</td>
<td>7</td>
<td>28</td>
<td>0.09</td>
<td>-0.03–0.21</td>
<td>20</td>
</tr>
<tr>
<td>Bipolar</td>
<td>3</td>
<td>13</td>
<td>0.49</td>
<td>0.03–0.96</td>
<td>4</td>
</tr>
</tbody>
</table>
Psychological treatment of adult depression

Overview: Cuijpers, Can Psychol 2017
METHODS

• Database RCTs on therapies for depression
• >70 published meta-analyses
• Methods: Cuijpers et al., BMC Psychiatry 2008; 8: 36.
• Data can be downloaded by other researchers: www.evidencebasedpsychotherapies.org
• Overview: Cuijpers, Can Psychol 2017
• Not only significance, but also size of effect:
  - Small: \( d=0.20 \) NNT=17
  - Moderate: \( d=0.50 \) NNT=6
  - Large: \( d=0.80 \) NNT=4
• Threshold for clinical relevance: \( d=0.24 \) (Cuijpers et al., Depr Anx, 2014)
Available for free at: http://bit.do/meta-analysis
Or through Researchgate

See also my lectures on how to do meta-analyses on YouTube
Randomized Trials on Psychotherapies for Adult Depression (N=400)

Cuijpers et al., Curr Opin Psychiatry 2015
>600 RANDOMIZED TRIALS

- Effects of different psychotherapies versus control groups
- Direct comparisons between major types of psychotherapy with other psychotherapies
- Direct comparisons of psychotherapy with pharmacotherapy
- Comparisons of psychotherapy with combined treatment
- Comparisons of pharmacotherapy with combined treatment
- Randomized trials on psychotherapy for inpatients
- Direct comparisons of individual and group therapy
- Direct comparisons of face-to-face therapy with guided self-help
- Randomized trials on self-guided therapy for depression
## EFFECTS OF PSYCHOTHERAPIES COMPARED TO CONTROL GROUPS

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>d</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>All studies</td>
<td>325</td>
<td>0.63</td>
<td>5</td>
</tr>
<tr>
<td>CBT</td>
<td>192</td>
<td>0.70</td>
<td>4</td>
</tr>
<tr>
<td>Behavioral activation</td>
<td>20</td>
<td>0.94</td>
<td>3</td>
</tr>
<tr>
<td>Interpersonal ther.</td>
<td>25</td>
<td>0.60</td>
<td>5</td>
</tr>
<tr>
<td>Problem solving ther.</td>
<td>27</td>
<td>0.77</td>
<td>4</td>
</tr>
<tr>
<td>Supportive therapy</td>
<td>19</td>
<td>0.58</td>
<td>5</td>
</tr>
<tr>
<td>Psychodynamic ther.</td>
<td>11</td>
<td>0.40</td>
<td>8</td>
</tr>
<tr>
<td>Third wave therapies</td>
<td>18</td>
<td>0.77</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>57</td>
<td>0.68</td>
<td>4</td>
</tr>
</tbody>
</table>
**DIFFERENT TYPES OF CONTROL GROUPS (ONLY CBT)**

<table>
<thead>
<tr>
<th>Control Group</th>
<th>N</th>
<th>d</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting list</td>
<td>55</td>
<td>0.83</td>
<td>4</td>
</tr>
<tr>
<td>Care as usual</td>
<td>26</td>
<td>0.59</td>
<td>5</td>
</tr>
<tr>
<td>Pill placebo and others</td>
<td>13</td>
<td>0.51</td>
<td>6</td>
</tr>
</tbody>
</table>

$p$ for difference is 0.003
# OTHER OUTCOMES

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>d</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of life</td>
<td>31</td>
<td>0.33</td>
<td>10</td>
</tr>
<tr>
<td>Social functioning</td>
<td>31</td>
<td>0.46</td>
<td>7</td>
</tr>
<tr>
<td>Suicidality</td>
<td>4</td>
<td>0.12 n.s.</td>
<td>29</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>18</td>
<td>1.10</td>
<td>3</td>
</tr>
<tr>
<td>Social support</td>
<td>15</td>
<td>0.38</td>
<td>8</td>
</tr>
<tr>
<td>Mental health children</td>
<td>7</td>
<td>0.40</td>
<td>8</td>
</tr>
<tr>
<td>Mother-child interaction</td>
<td>8</td>
<td>0.35</td>
<td>9</td>
</tr>
<tr>
<td>Parental functioning</td>
<td>5</td>
<td>0.67</td>
<td>4</td>
</tr>
</tbody>
</table>

Kolovos et al., Br J Psychiatry 2016; Cuijpers et al., Ment H Phys Act 2014; EACP 2015; Renner et al., Psychol Med 2013; Park et al., COTR 2015
NEGATIVE EFFECTS?

- 18 controlled trials: RR of deterioration: 0.39 (95% CI: 0.27~0.57) (Cuijpers, JAD in press)
- Negative outcomes of CBT in IPD meta-analysis (Vittengl et al., Am J Psychiatry 2016):
  - Increased HAMD score with $\geq$ 1 point: 7.7%
  - Reliable deterioration (HAMD): 1.2%
  - Extreme non-response (HAMD $\geq$ 21): 5.3%
  - Any: 14%
  - No significant difference with Medication
- Reliable deterioration in 18 trials of internet-based therapy vs control in IPD meta-analysis (Ebert et al., Psychol Med 2016):
  - 2079 participants: 3% versus 8% (RR=0.47)
- 13 trials on unguided internet therapy versus control in IPD meta-analysis (Karyotaki et al., Psychol Med 2018)
  - 3805 participants: 6% versus 9% (OR: 0.62)
- Other negative outcomes are not yet known
WHAT HAVE TRIALS SHOWN FOR PSYCHOTHERAPY FOR DEPRESSION

- No significant differences between therapies
- Individual, group, telephone, and guided-self-help are effective
- No significant difference in:
  - Older adults
  - Comorbid general medical disorders
  - Postpartum depression
- Possibly lower effects in:
  - Chronic depression
  - Comorbid substance use problems
  - Subthreshold depression
  - Inpatients
- At least as effective in LAMI countries
- N sessions (6-24): not related to outcome
- Deterioration is lower (61%) in therapy versus control

References available on request
How to prove that your therapy is effective, even when it is not: a guideline

P. Cuijpers¹,²* and I. A. Cristea³,⁴

¹ Department of Clinical Psychology, VU University Amsterdam, The Netherlands
² EMGO Institute for Health and Care Research, The Netherlands
³ Department of Clinical Psychology and Psychotherapy, Babeș-Bolyai University, Cluj-Napoca, Romania
⁴ Clinical Psychology Branch, Department of Surgical, Medical, Molecular and Critical Pathology, University of Pisa, Pisa, Italy

Aims. Suppose you are the developer of a new therapy for a mental health problem or you have several years of experience working with such a therapy, and you would like to prove that it is effective. Randomised trials have become the gold standard to prove that interventions are effective, and they are used by treatment guidelines and policy makers to decide whether or not to adopt, implement or fund a therapy.

Methods. You would want to do such a randomised trial to get your therapy disseminated, but in reality your clinical experience already showed you that the therapy works. How could you do a trial in order to optimise the chance of finding a positive effect?

Results. Methods that can help include a strong allegiance towards the therapy, anything that increases expectations and hope in participants, making use of the weak spots of randomised trials (risk of bias), small sample sizes and waiting list control groups (but not comparisons with existing interventions). And if all that fails one can always not publish the outcomes and wait for positive trials.

Conclusions. Several methods are available to help you show that your therapy is effective, even when it is not.

Received 27 July 2015; Accepted 1 September 2015

Key words: Control groups, randomised trial, researcher allegiance, risk of bias.
THE EFFECTS OF THERAPY ARE OVERESTIMATED

• The use of waiting list control groups
• Majority has some risk of bias (~70% of RCTs)
• Publication bias (reduces effect size with ~25%, like in ADM studies)
• Researcher allegiance and others
• Effect sizes drop with >50% after adjustment for these problems
## A Better Estimate of the Effects of Therapies for Depression (All Types)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>d</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>All studies</td>
<td>325</td>
<td>0.63</td>
<td>5</td>
</tr>
<tr>
<td>No waiting list</td>
<td>179</td>
<td>0.51</td>
<td>6</td>
</tr>
<tr>
<td>Low risk of bias</td>
<td>71</td>
<td>0.38</td>
<td>8</td>
</tr>
<tr>
<td>Adjusted for publ. bias</td>
<td>84</td>
<td>0.31</td>
<td>11</td>
</tr>
</tbody>
</table>

Cuijpers et al., Epidem Psychiatr Sc 2018
## A Better Estimate of the Effects of Therapies for Depression (Only CBT)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>d</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>All studies</td>
<td>165</td>
<td>0.62</td>
<td>5</td>
</tr>
<tr>
<td>No waiting list</td>
<td>84</td>
<td>0.47</td>
<td>7</td>
</tr>
<tr>
<td>Low risk of bias</td>
<td>38</td>
<td>0.36</td>
<td>9</td>
</tr>
<tr>
<td>Adjusted for publ. bias</td>
<td>44</td>
<td>0.29</td>
<td>11</td>
</tr>
</tbody>
</table>

Cuijpers et al., Epidem Psychiatr Sc 2018
Effect sizes of the 3 best examined types of therapy

Cuijpers et al., Epidem Psychiatr Sc 2018
• Not enough studies to make comparable breakdowns, because most trials use waiting list control groups

All studies versus CAU controlled studies

• GAD: All studies (N=31): $d = 0.80$ (95% CI 0.67-0.93)
  Care-as-usual (N=4): $d = 0.45$ (95% CI: 0.26-0.64)
• Panic: All studies (N=42): $d = 0.81$ (95% CI: 0.59-1.04)
  Care-as-usual (N=4): $d = 0.27$ (95% CI: -0.12-0.65)
• SAD: All studies (N=48): $d = 0.88$ (95% CI: 0.74-1.03)
  Care-as-usual (N=3): $d = 0.44$ (95% CI: 0.12-0.77)

Cuijpers et al., World Psychiatry 2016
### EFFECTS OF PSYCHOTHERAPY VERSUS CONTROL

<table>
<thead>
<tr>
<th>Condition</th>
<th>N&lt;sub&gt;ma&lt;/sub&gt;</th>
<th>N&lt;sub&gt;st&lt;/sub&gt;</th>
<th>low RoB</th>
<th>WL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>31</td>
<td>369</td>
<td>29%</td>
<td>43%</td>
</tr>
<tr>
<td>SAD</td>
<td>9</td>
<td>59</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Panic</td>
<td>5</td>
<td>49</td>
<td>8%</td>
<td>78%</td>
</tr>
<tr>
<td>GAD</td>
<td>5</td>
<td>43</td>
<td>21%</td>
<td>67%</td>
</tr>
<tr>
<td>PTSD</td>
<td>9</td>
<td>91</td>
<td>4%</td>
<td>80%</td>
</tr>
<tr>
<td>OCD</td>
<td>3</td>
<td>21</td>
<td>5%</td>
<td>57%</td>
</tr>
<tr>
<td>Psychotic</td>
<td>7</td>
<td>77</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Bipolar</td>
<td>3</td>
<td>23</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>72</strong></td>
<td><strong>732</strong></td>
<td><strong>19%</strong></td>
<td><strong>49%</strong></td>
</tr>
</tbody>
</table>
Psychotherapy, pharmacotherapy or both?
## COMPARISONS WITH PHARMACOTHERAPY

<table>
<thead>
<tr>
<th>Comparison</th>
<th>N</th>
<th>d</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychotherapy vs pharmacotherapy</td>
<td>48</td>
<td>-0.03</td>
<td>121</td>
</tr>
<tr>
<td>Psychotherapy vs combined treatment</td>
<td>32</td>
<td>0.41</td>
<td>8</td>
</tr>
<tr>
<td>Pharmacotherapy vs combined treatment</td>
<td>22</td>
<td>0.30</td>
<td>11</td>
</tr>
<tr>
<td>Psychotherapy + pharmacotherapy vs PSY+ placebo</td>
<td>16</td>
<td>0.25</td>
<td>13</td>
</tr>
</tbody>
</table>

PSYCHOTHERAPY VS ADM IN MOOD AND ANXIETY

- 67 trials (40 depression; 27 anxiety disorders)
- In mood and anxiety disorders
- Psychotherapy less effective in dysthymia (d=-0.30)
- Psychotherapy more effective in OCD (d=0.64)
- Counseling less effective than pharmacotherapy (d=-0.33)
- TCAs less effective than psychotherapies (d=0.21)
- Remains significant in multivariate metaregression analyses, except for dysthymia

Cuijpers et al., World Psychiatry, 2013
ARE PSYCHOTHERAPY AND PHARMACOTHERAPY EQUALLY EFFECTIVE?

- Differential effect in all unipolar mood disorders is $d=0.03$ (95%CI: -0.14~0.08; 48 studies; n.s.) (Cuijpers et al., 2013)
- Dysthymia: $d=-0.30$ (95% CI: -0.60~0.00; 5 studies; $p<0.05$).
- Without placebo control: $d=-0.13$ (95% CI:-0.23~-0.03; 31 studies, $p<0.05$) (Cuijpers et al., 2015)
- Sponsorship bias (Cristea et al., 2016):
  - Without industry funding: $d=+0.10$ (95%CI: -0.09~0.29)
  - With industry funding: $d=-0.10$ (95%CI: -0.21~ -0.02)
  - $P$ for difference between subgroups $p<0.05$
### Are Treatments of Depression Effective?

<table>
<thead>
<tr>
<th>Treatment</th>
<th>d</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacotherapy b)</td>
<td>0.31</td>
<td>11</td>
</tr>
<tr>
<td>Psychotherapy c)</td>
<td>0.25</td>
<td>13</td>
</tr>
<tr>
<td>Combined therapy d)</td>
<td>0.46</td>
<td>7</td>
</tr>
</tbody>
</table>

a) Only comparisons with pill placebo
b) Based on Turner et al., Nw Engl J Med 2008; adjusted for publication bias
c) Cuijpers et al., Psychol Med 2013 (N=12)
d) Data from our database, Cuijpers et al., 2015
<table>
<thead>
<tr>
<th>Comparison</th>
<th>N</th>
<th>d</th>
<th>95% CI</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMB vs placebo</td>
<td>11</td>
<td>0.74</td>
<td>0.48~1.01</td>
<td>4</td>
</tr>
<tr>
<td>PHA vs COMB</td>
<td>11</td>
<td>0.37</td>
<td>0.12~0.63</td>
<td>9</td>
</tr>
<tr>
<td>PHA vs placebo</td>
<td>11</td>
<td>0.35</td>
<td>0.21~0.49</td>
<td>9</td>
</tr>
<tr>
<td>PSY vs COMB</td>
<td>11</td>
<td>0.38</td>
<td>0.16~0.59</td>
<td>8</td>
</tr>
<tr>
<td>PSY vs placebo</td>
<td>11</td>
<td>0.37</td>
<td>0.11~0.64</td>
<td>9</td>
</tr>
</tbody>
</table>

Cuijpers et al., World Psychiatry 2013
# Long Term Outcomes (Post-Randomization)

<table>
<thead>
<tr>
<th>Therapy vs Control (acute)</th>
<th>N</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>• response at &gt;6 mn</td>
<td>22</td>
<td>1.96</td>
<td>1.50~2.55</td>
</tr>
<tr>
<td>• response at &gt;12 mn</td>
<td>11</td>
<td>1.59</td>
<td>1.14~2.21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Therapy vs Control (respond)</th>
<th>N</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sustained response &gt;6 mn</td>
<td>16</td>
<td>2.37</td>
<td>1.78~3.14</td>
</tr>
<tr>
<td>• Sustained response &gt;2 yr</td>
<td>6</td>
<td>2.19</td>
<td>1.17~4.09</td>
</tr>
<tr>
<td>• No relapse &gt;6 mn</td>
<td>11</td>
<td>3.34</td>
<td>1.60~3.41</td>
</tr>
<tr>
<td>• No relapse &gt;12 mn</td>
<td>5</td>
<td>2.46</td>
<td>1.26~4.82</td>
</tr>
</tbody>
</table>

Karyotaki et al., 2014
LONG-TERM EFFECTS

• Acute CBT with (almost) no maintenance vs discontinued pharmacotherapy, at 12 months follow-up (N=8):
  – OR = 2.61 (95% CI: 1.58~4.31), p<0.001

• Acute CBT with (almost) no maintenance vs maintenance pharmacotherapy, at 12 months follow-up (N=5):
  – OR = 1.62 (95% CI: 0.97~2.72), p=0.07
  – NNT = 9.5

Cuijpers et al., BMJ open 2013
### LONG TERM OUTCOMES (POST-RANDOMIZATION)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Combined vs ADM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• response at &gt;6 months</td>
<td>12</td>
<td>2.72</td>
</tr>
<tr>
<td>• response at &gt;12 months</td>
<td>8</td>
<td>2.72</td>
</tr>
<tr>
<td><strong>Combined vs PSY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• response at &gt;6 months</td>
<td>7</td>
<td>1.30</td>
</tr>
</tbody>
</table>

Karyotaki et al., 2014
INDIVIDUAL PATIENT DATA META-ANALYSES

• 18 trials comparing CBT with ADM and pill placebo
• N>1800 patients
• Moderators:
  • No association between baseline severity and outcome
  • No association between sociodemographics and outcome
  • No difference between ADM and CBT in melancholia or atypical depression
  • Comparable deterioration rates in CBT and ADM

Cuijpers et al., Depress Anx 2014; Weitz et al., JAMA Psychiatry 2016; Vittengl et al., AJP 2016
THE FUTURE FOR IPD META-ANALYSES

• Many do not find significant predictors
• Only a limited number of predictors is available
• When more predictors are available:
  • Furukawa et al., submitted (on CBASP)
  • [https://kokoro.med.kyoto-u.ac.jp/CBASP/prediction/](https://kokoro.med.kyoto-u.ac.jp/CBASP/prediction/)

Furukawa et al., Psychother Psychosom 2018
Predicting severity

Input patient characteristics

Baseline depression severity (HAMD24 score):

Baseline anxiety severity (IDS anxiety/arousal factor score):

Age in years:

- Prior medication
- History of emotional or physical neglect

Marital status
- single

Primary diagnosis depression type
- Chronic major depression

red: CBASP
blue: medications
purple: combination

Probability of dropping out within 12 weeks, CBASP: 34%
Probability of dropping out within 12 weeks, COMBINATION: 22%
Probability of dropping out within 12 weeks, MEDS: 29%
Predicting severity

Input patient characteristics

Baseline depression severity (HAMD24 score):

Baseline anxiety severity (IDS anxiety/arousal factor score):

Age in years:

- Prior medication
- History of emotional or physical neglect

Marital status:
- single

Primary diagnosis depression type:
- Chronic major depression

red: CBASP
blue: medications
purple: combination

Probability of dropping out within 12 weeks, CBASP: 34 %
Probability of dropping out within 12 weeks, COMBINATION: 22 %
Probability of dropping out within 12 weeks, MEDS: 29 %
How to reduce the disease burden of depression
EFFECTIVE TREATMENTS ARE AVAILABLE

- Evidence-based treatments are available: psychotherapies, pharmacotherapy, others
- Considerable improvements in treatment
- Comparable effects in mental health as in general medical field (Leuch, Br J Psychiatry 2012)

Cuijpers, Curr Opin Psychiatry 2015
BUT

- Only 40% of disease burden reduced by treatments (Andrews et al., 2004)
- Effects are modest and overestimated because of publication and low quality
- High relapse (~50% in 2 years, ~80% in 5 years)
- Treatments not more effective than 40 years ago
- Most progress: how to apply the treatments
- Underserved populations and access
- Uptake is low, especially in LAMI countries

Cuijpers, Curr Opin Psychiatry 2015
## CURRENTLY AVERTED YLD

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any mood disorder</td>
<td>15%</td>
</tr>
<tr>
<td>Major depression</td>
<td>16%</td>
</tr>
<tr>
<td>Any anxiety disorder</td>
<td>13%</td>
</tr>
<tr>
<td>Any alcohol rel. dis.</td>
<td>2%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>13%</td>
</tr>
<tr>
<td>Any disorder</td>
<td>13%</td>
</tr>
</tbody>
</table>

Andrews et al., Br J Psychiatry 2004
<table>
<thead>
<tr>
<th>Disorder</th>
<th>Current</th>
<th>with EBMH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any mood disorder</td>
<td>15%</td>
<td>23%</td>
</tr>
<tr>
<td>Major depression</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>Any anxiety disorder</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>Any alcohol rel. dis.</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>13%</td>
<td>22%</td>
</tr>
<tr>
<td>Any disorder</td>
<td>13%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Andrews et al., Br J Psychiatry 2004
# Averted YLD (Maximum)

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Current</th>
<th>EBMH</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any mood disorder</td>
<td>15%</td>
<td>23%</td>
<td>35%</td>
</tr>
<tr>
<td>Major depression</td>
<td>16%</td>
<td>23%</td>
<td>34%</td>
</tr>
<tr>
<td>Any anxiety disorder</td>
<td>13%</td>
<td>20%</td>
<td>49%</td>
</tr>
<tr>
<td>Any alcohol rel. dis.</td>
<td>2%</td>
<td>5%</td>
<td>34%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>13%</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td>Any disorder</td>
<td>13%</td>
<td>20%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Andrews et al., Br J Psychiatry 2004
GENERAL CHALLENGES

• Reduction of disease burden should be the starting point
• Less silos: more collaboration between disciplines in the mental health field
• Connection between clinical and basic sciences
• Data sharing and shared outcome measures: building on existing knowledge in stead of new trials
• Implementation science (LAMI countries)
RESEARCH PRIORITIES

• Better diagnostic tools

• Better understanding of depression (heterogeneity, comorbidity, aetiology, staging)

• Better understanding of processes related to treatment

• Better treatments: but how?

Cuijpers, Curr Opin Psychiatry 2015
Preventing Depression
A Global Priority

Pim Cuijpers, PhD
Aartjan T. F. Beekman, MD, PhD
Charles F. Reynolds III, MD

Depressive disorders erode quality of life, productivity in the workplace, and fulfillment of social and familial roles. In today’s knowledge- and service-driven economies, the population’s mental capital (i.e., cognitive, emotional, and social skills resources required for role functioning) becomes both more valuable and more vulnerable to the effects of depression. Depressive disorders, severe mental illnesses that should not be confused with normal mood variations, are part of a vicious circle of poverty, discrimination, and poor mental health in middle- and low-income countries. These realities also have major economic ramifications: treatment costs of depression are soaring but are only a fragment of the costs of reduced productivity due to depression.

Prevention may offer new possibilities to reduce the disease burden of depressive disorders. A report of the Institute of Medicine defined prevention as any intervention aimed at preventing the onset of new cases of mental disorders in people who do not yet meet criteria for such a disorder. Prevention may be directed toward the whole population (universal prevention), high-risk groups (selective prevention), or those with subsyndromal symptoms (indicated prevention). More than 30 randomized trials have demonstrated that preventive interventions can reduce the incidence of new episodes of major depressive disorder by about 25% and by as much as 50% when preventive interventions are offered in stepped-care format. Methods with proven effectiveness involve educational, psychotherapeutic, pharmacological, lifestyle, and nutritional interventions.

The Economic Case for Depression Prevention
Cost-effectiveness ratios for preventive interventions are attractive, with some programs able to treat two out of five cases of depression at a cost below $100 per case.
FUTURE DIRECTIONS

• No new treatments, formats, target groups
• Prevention of depression (reduction of incidence 20-25%)
• Improvement of treatments:
  o Focus on chronic, treatment resistant depression (e.g., CBASP)
  o Focus on relapse
• Scaling up and simplifying treatments
  o Lay health counselors
  o Guided self-help/Internet-based/telephone therapies are equally effective
  o Unguided interventions?
• Research into processes of treatments:
  o Who benefits from which treatment?
  o How do treatments work? But also how does natural recovery work and how can that be stimulated?

Cuijpers, Curr Opin Psychiatry 2015
The Lancet Psychiatry Commission on psychological treatments research in tomorrow’s science

Emily A Holmes, Ata Ghaderi, Catherine J Harmer, Paul G Ramchandani, Pim Cuijpers, Anthony P Morrison, Jonathan P Roiser, Claudi L H Bockting, Rory C O’Connor, Roz Shafran, Michelle L Moulds, Michelle G Craske

Executive summary

Background
Psychological treatments occupy an important place in evidence-based mental health treatments. Now is an exciting time to fuel treatment research: a pressing demand for improvements is poised alongside new opportunities from closer links with sister scientific and clinical disciplines. The need to improve mental health treatment is great; even the best treatments do not work for everyone, treatments have not been developed for many mental disorders, and the implementation of treatments needs to address worldwide scalability. Psychological treatments have yet to benefit from numerous innovations that have occurred in science, particularly those that have emerged in the past 20 years, and arguably vice versa. This Commission comprises ten parts that each outline an area in which we see substantial opportunity and scope for advancements that will move psychological treatments research forward.

Part 4: When in life? Psychological science, prevention, and early intervention—getting the approach right from the start
The social and economic tolls of mental health problems early in life make the development of effective prevention and early intervention approaches a priority. A preventive focus and a developmental approach are needed to identify risk factors for psychopathology, and identification of the optimal time at which to offer prevention approaches is needed to increase the likelihood of vulnerable young people growing up with positive mental health.

Part 5: Technology—can we transform the availability and efficacy of psychological treatment through new technologies?
New technologies provide exciting and timely means by which to disseminate and extend the efficacy and global reach of evidence-based interventions. eHealth and mHealth approaches that use information technology (eg, the internet, virtual reality, serious gaming) and...
CO-AUTHORS

Thank you for your attention!

Contact: p.cuijpers@vu.nl