



# Internet-administered cognitive behavior therapy for health problems: *A systematic review*

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# Overview

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- Background: CBT for health problems
- Methods: systematic review
- Results: 12 studies
  - General characteristics
  - Target groups
  - Interventions
- Limitations of current research
- The future

# Background

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- CBT is most extensively studied type of psychological treatment
- Most Internet interventions use CBT
  - Well-studied
  - Much used
  - Easily ‘translated’ into Internet-intervention
- Several groups of studies on Internet-interventions
  - CBT for common mental disorders
  - Preventive interventions
  - Non CBT methods
  - CBT for general health problems

# Method

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- Systematic review of CBT for general health problems
- Systematic literature searches (Pubmed, Psycinfo, Embase, Cochrane, Digital dissertations)
- Inclusion of:
  - Randomised controlled/comparative studies
  - Internet interventions
  - CBT
  - Aimed at behavior change
  - Patients with a general health problem/disorder

# Methods

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- Assessment of validity: Cochrane criteria
- Calculation of effect sizes: Cohen's  $d$
- Pooling of studies only when sufficient effect sizes were available

# Included studies

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- 1608 abstracts
- 61 papers were retrieved
- 12 studies were included
  - 3 on pain (1 combined pain/headache)
  - 3 on headache
  - 6 others:
    - Physical disabilities
    - Chronic diseases
    - Breast cancer
    - Insomnia
    - Pediatric brain injury

# The studies

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- 1,704 patients (841 in experimental groups)
- 11 studies: internet-cbt vs control
- 9 studies: waiting-list control
- No comparison to ftf
- 6 studies had no follow-up
- 6 in Sweden, 4 in US, 2 in Canada
- All after 2000
- Quality varied

# Target populations and interventions

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- 10 studies: community recruitment
- 10 studies aimed at adults (2 at children)
- Different interventions:
  - 5 studies: self-help materials + support
  - 2 studies: self-help materials, no support
  - 5 studies: online contact between patient and therapist is the core
- Range of 4 to 20 weeks



# Effects on pain

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- 3 studies: CBT versus control
- Pooled Cohens d: 0.58 (95% CI: 0.25~0.92), low heterogeneity  $I^2=0$

# Effect sizes

<i>Study</i>	<i>Disorder</i>	<i>outcome</i>	<i>d</i>	<i>95% CI</i>
Devineni, 2005	Chronic headache	headache	0.56	0.13~0.99
Strom, 2000	Recurrent headache	headache	0.19	-0.40~0.78
Andersson, 2002	Tinnitus	Distress from tinnitus	0.26	-0.23~0.75
Hopps, 2003	Physical disabilities	Loneliness	0.46	-0.45~1.37
Lorig, 2006	Chronic disea-ses	Health indica-tors	0.10	-0.04~0.24
Owen, 2005	Early-stage breast cancer.	Health-related quality of life	0.22	-0.32~0.76
Strom, 2004	Insomnia			
Wade, 2006	Pediatric brain injury	Parental mental health	0.70	0.05~1.35

# Limitations

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- Number of studies is small
- Quality not optimal
- Drop-out is high

# Discussion

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- Growing research area (50% in 2005/2006)
- No internet CBT yet for: Chronic fatigue, fibromyalgia, MS
- No conclusion whether Internet-CBT is as effective as ftf CBT (for pain comparable results)
- How should CBT be delivered over the Internet?

# Discussion

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- Limitations of research until now:
  - Waiting list control groups
  - Community recruitment
  - No comparisons to ftf treatments
  - Few studies on other age groups
- Future research:
  - Limitations of earlier research
  - How to present CBT on the Internet
  - Drop-out and stepped-care