Tinnitus og internet

Gerhard Andersson, professor
Inst för beteendevetenskap och lärande
Öronkliniken

LINKÖPING UNIVERSITY

Syfte

- Lite historik
- Berätta hur internet kan användas i tinnitusrehabilitering
- Internationalisering

Background

- Fakta om tinnitus
- Kognitiv beteendeterapi kan minska besvärern (Hesser et al., 2011)
- Internet-KBT med behandlarstöd är effektivt
- Långtidseffekter samt lika verksamt som att träffa psykolog
- Dock ett komplement och inte en ersättning
- Oavsett detta finns det få som jobbar med KBT och tinnitus i Sverige (och i världen)

År 1998

- Vi i Sverige var bland de första att testa om KBT gick att förmedla via internet
- KBT åtminstone delvis ses som en form av patientutbildning

Internetbehandling

- Text och film etc
- Information, instruktioner och hemuppgifter
- Väggledd och stöttad av kliniker (som kan få handledning)

بەخت یاوەرت بێت بۆ بەشی یەکەم

پێشەکی بۆ بەشی یەکەم

لەم بەشەدا زانیاریەکی تەواوت پێشکەش دەکرێت سەبارەت بە (KBT) هەروەها بۆت ڕوون دەکرێتەوە چۆن خەمۆکی لە ڕوانگەی (KBT) پێناسەدەکرێت. یەکێک لە ئەرکە گرنگەکانی ئەم بەشە ئەوەیە، کە گرنگی ڕاهێنانە جیاوازەکان لە بەشە جیاوازەکاندا ڕوون بکاتەوە. بە واتایەکی تر بۆت ڕوون دەبێتەوە بۆچی گرنگە ڕاهێنانەکانی ئەم چارەسەرکردنە بەشێوەیەکی باش جێبەجێ بکەیت و هەروەها لە ئامانجەکانی تێ بگەیت. (KBT) جەخت لەسەر ئەوە دەکات، کە تێگەیشتن لە مەبەستی ئەنجامدانی چالاکیەک گرنگترە لە چۆنیەتی ئەنجامدانی چالاکیەکە. هەرکاتێک تۆ لە سەروبەندی جارەسەرکردنەکە تێ گەیشتیت، پرۆسەری چارەسەرکردنەکە بۆ تۆ ئاسان دەبێت. بێجگە لەمەش، دوای تەواو بوونی جارەسەرکردنەکە، زانیاریەکان بە شێوەیەکی پۆزەتیڤ لە لای تۆ دا دەمێنێتەوە و دەتوانیت لە داهاتوودا دووبارە بەکاریان بێنیتەوە.

زانستی سایکۆلۆژیا لە ڕەفتاری جیاجیا دەکۆڵێتەوە و هۆکاری ڕەفتارە جیاجیاکان و شێوەی هەستکردن و بیرکردنەوەی مرۆڤ ڕوون دەکاتەوە. بنەمای بەشێکی زانستی سایکۆلۆژیا لەسەر ئەوە داڕێژراوە چۆن مرۆڤ لە دۆخە جیاوازەکاندا فێربووە بیریکاتەوە و هەڵسوکەوتی جیاواز بکات. ئەم بەشە بە (سایکۆلۆژیای فێربوون) دەناسرێت.

Formatet underlättar kliniska studier

- Dominerar vad gäller behandlingsstudier inom psykologi (mer än 60% av kontrollerade studier).
- Minst 300 kontrollerade studier i världen för en mängd problemområden (tex ensamhet)
- Kostnadseffektivt

Computers in Human Behavior 26 (2010) 592–596

Contents lists available at ScienceDirect

Computers in Human Behavior

journal homepage: www.elsevier.com/locate/comphumbeh

Guided self-help via internet for panic disorder: Dissemination across countries

T. Nordgreen [a,b,*], B. Standal [a], H. Mannes [a], T. Haug [a,b], B. Sivertsen [a,b], P. Carlbring [c], G. Andersson [c,d], E. Heiervang [b], O.E. Havik [a,b]

[a] Department of Clinical Psychology, University of Bergen, Norway
[b] Anxiety Disorders Research Network, Haukeland University Hospital, Norway
[c] Department of Behavioural Sciences and Learning, Linköping University, Sweden
[d] Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden

Fördelar och nackdelar?

- Passar inte alla patienter
- Kan föras över/översättas till andra språk
- Bättre kvalitet på data
- Intressenter (stakeholders) föredrar ”face-to-face” eller blandade insatser
- Tekniken ändras
- Kostnadseffektivt
- Långsam implementering

Changes in Tinnitus Experiences During the COVID-19 Pandemic

Eldré W. Beukes[1,2], David M. Baguley[3,4,5], Laure Jacquemin[6,7], Matheus P. C. G. Lourenco[8,9], Peter M. Allen[2], Joy Onozuka[10], David Stockdale[11], Viktor Kaldo[12,13,14], Gerhard Andersson[13,14,15] and Vinaya Manchaiah[1,16]*

- 3103, 48 länder, nätenkät
- 8% rapporterade symptom (och 8% var osäkra).
- Covidsymptom förvärrade tinnitus för 40% och förbättrade för 6%. Sju personer hade fått tinnitus i samband med covid. För gruppen i stort var tinnitus inte påverkat för de flesta (67%)

Internet Interventions 20 (2020) 100317

Contents lists available at ScienceDirect

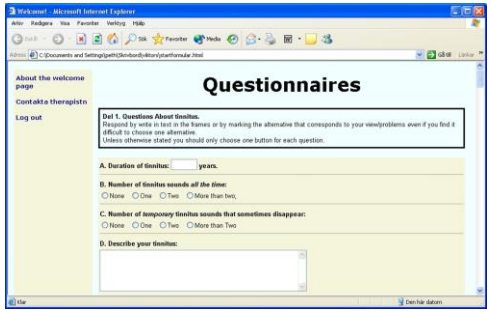
Internet Interventions

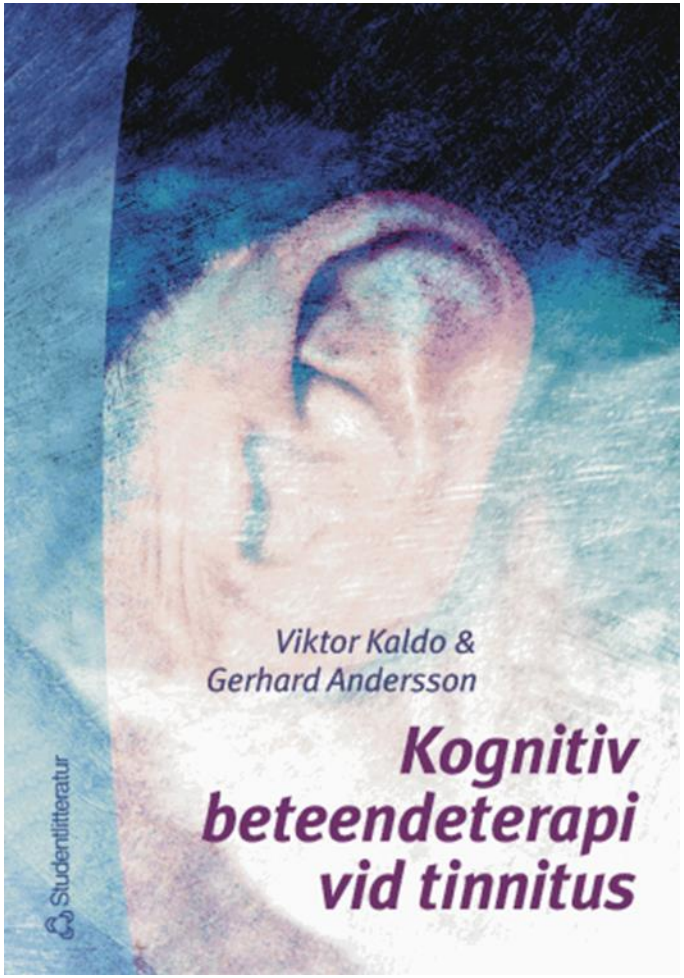
journal homepage: www.elsevier.com/locate/invent

The COVID-19 pandemic: The 'black swan' for mental health care and a turning point for e-health

Tinnitus

- Audiologavdelningen i Uppsala
- Först ut att implementera
- Den andra studien vi gav oss på efter huvudvärk
- Tekniken av i sin linda




Viktor Kaldo &
Gerhard Andersson
Kognitiv beteendeterapi vid tinnitus
Studentlitteratur

Internet-Based Cognitive–Behavioral Self-Help Treatment of Tinnitus: Clinical Effectiveness and Predictors of Outcome

Viktor Kaldo-Sandström
University Hospital, Uppsala, and Uppsala University, Uppsala, Sweden

Hans Christian Larsen
University Hospital, Uppsala

Gerhard Andersson
University Hospital, Uppsala, and Linköping University, Linköping, Sweden

Table 3. Means and standard deviations at pre- and posttreatment and at 3-month follow-up ($N = 77$).

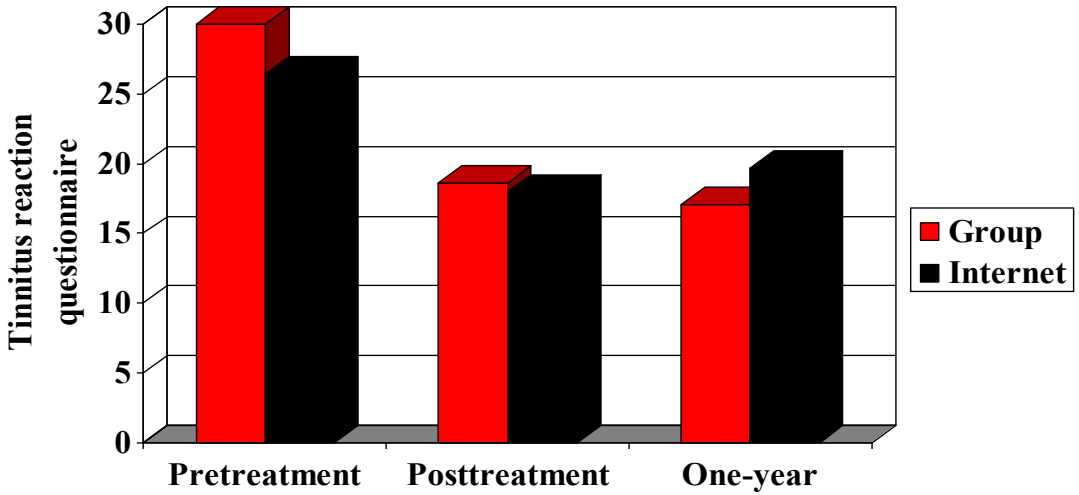
	Pre-		Post-[a]		Follow-up[a]		*t* test (pre- to post-)		*t* test (pre- to follow-up)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*t*	*p*	*t*	*p*
Tinnitus Reaction Questionnaire	33.0	17.0	24.2	15.2	24.4	17.5	$t(76) = 5.04$	<.001	$t(76) = 4.76$	<.001
HADS-Depression	6.4	3.6	4.9	3.4	4.6	3.6	$t(76) = 4.50$	<.001	$t(76) = 5.34$	<.001
HADS-Anxiety	7.6	3.7	6.1	3.6	6.2	3.9	$t(76) = 3.81$	<.001	$t(76) = 3.72$	<.001
Insomnia Severity Index	19.2	6.9	16.8	5.9	16.9	6.3	$t(76) = 4.79$	<.001	$t(76) = 4.03$	<.001

Note. HADS = Hospital Anxiety and Depression Scale. [a]Missing data replaced with pretreatment values for intention-to-treat analysis.

Available online at www.sciencedirect.com
ScienceDirect
Behavior Therapy 39 (2008) 348–359
Behavior Therapy
www.elsevier.com/locate/bt

Internet Versus Group Cognitive-Behavioral Treatment of Distress Associated With Tinnitus: A Randomized Controlled Trial

Viktor Kaldo, Susanna Levin, Jenny Widarsson, Monica Buhrman
Uppsala University
Hans-Christian Larsen, Uppsala University Hospital
Gerhard Andersson, Linköping University, Linköping University Hospital



Cognitive Behaviour Therapy Vol 38, No 3, pp. 162–173, 2009

Routledge
Taylor & Francis Group

A Cluster Randomised Trial of an Internet-Based Intervention Program for Tinnitus Distress in an Industrial Setting

Jo-Anne M. Abbott[1], Viktor Kaldo[2], Britt Klein[1], David Austin[1], Catherine Hamilton[3], Leon Piterman[4], Ben Williams[1] and Gerhard Andersson[5]

Cognitive Behaviour Therapy, 2013
Vol. 42, No. 2, 146–158, http://dx.doi.org/10.1080/16506073.2013.769622

Routledge
Taylor & Francis Group

Internet-Based Cognitive Behaviour Therapy for Tinnitus Patients Delivered in a Regular Clinical Setting: Outcome and Analysis of Treatment Dropout

Viktor Kaldo[1,2], Thomas Haak[2], Monica Buhrman[3], Sven Alfonsson[3], Hans-Christian Larsen[2] and Gerhard Andersson[1,4]

Table 2. *Effect of guided Internet treatment (ICBT) on tinnitus distress and secondary outcome measures.*

				Pre to post		Pre to FU	
Measure	Pre, *M* (SD)	Post, *M* (SD)	FU, *M* (SD)	ES	*t*-test	ES	*t*-test
TRQ	34.6 (19.4)	23.8 (17.6)	23.9 (19.4)	0.58	$t[183] = 8.6^{**}$	0.55	$t[156] = 8.8^{**}$
					--		--

33
A Systematic Review and Meta-analysis of Randomized Controlled Trials of Cognitive Behavior Treatments for Tinnitus Distress
Abstract
Methods
Results

Journal of Consulting and Clinical Psychology

© 2012 American Psychological Association
0022-006X/12/$12.00 DOI: 10.1037/a0027021

A Randomized Controlled Trial of Internet-Delivered Cognitive Behavior Therapy and Acceptance and Commitment Therapy in the Treatment of Tinnitus

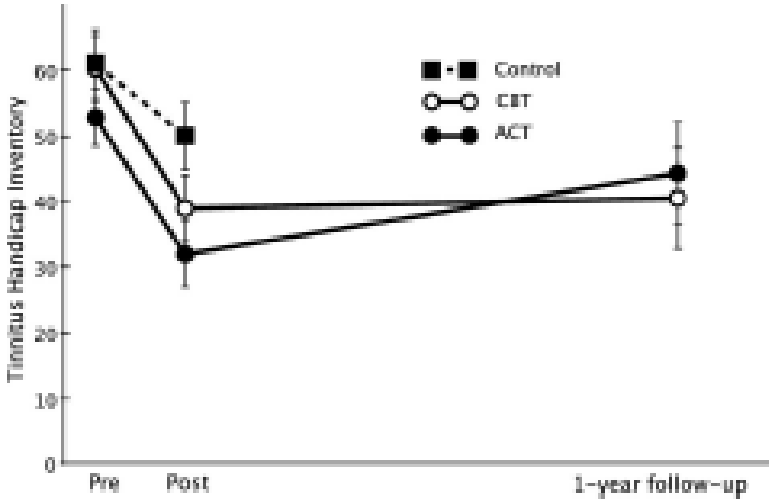
Hugo Hesser, Tore Gustafsson, Charlotte Lundén, Oskar Henrikson, Kidjan Fattahi, Erik Johnsson, and Vendela Zetterqvist Westin
Linköping University

Per Carlbring
Umeå University

Elina Mäki-Torkko
Linköping University and County Council of Östergötland

Viktor Kaldo
Karolinska Institutet

Gerhard Andersson
Linköping University and Karolinska Institutet



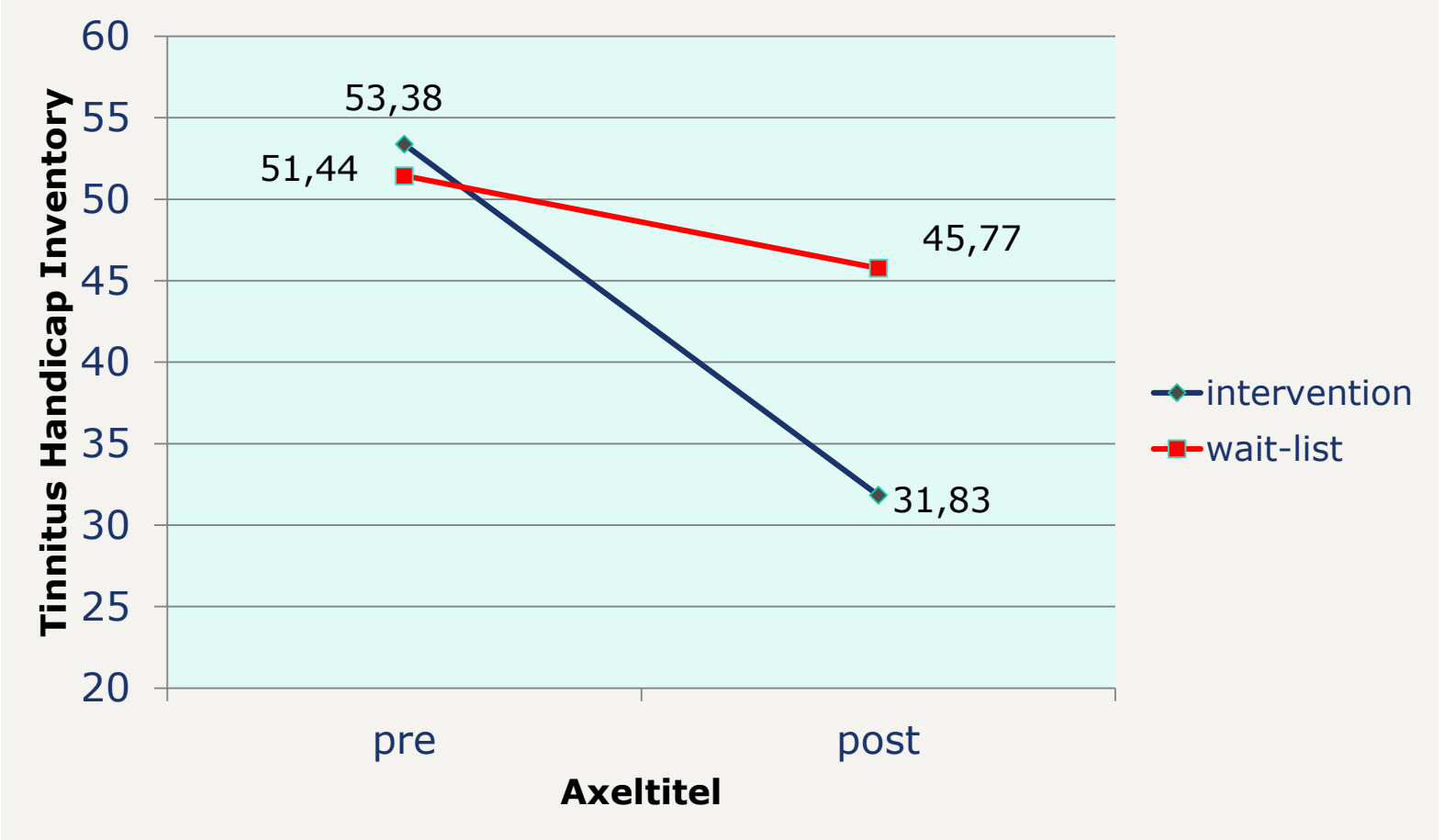
Teilnehmer Behandlungsplan

0203tnrx Anzeigen

Bearbeiten (0203tnrx): OFF (Ändern)

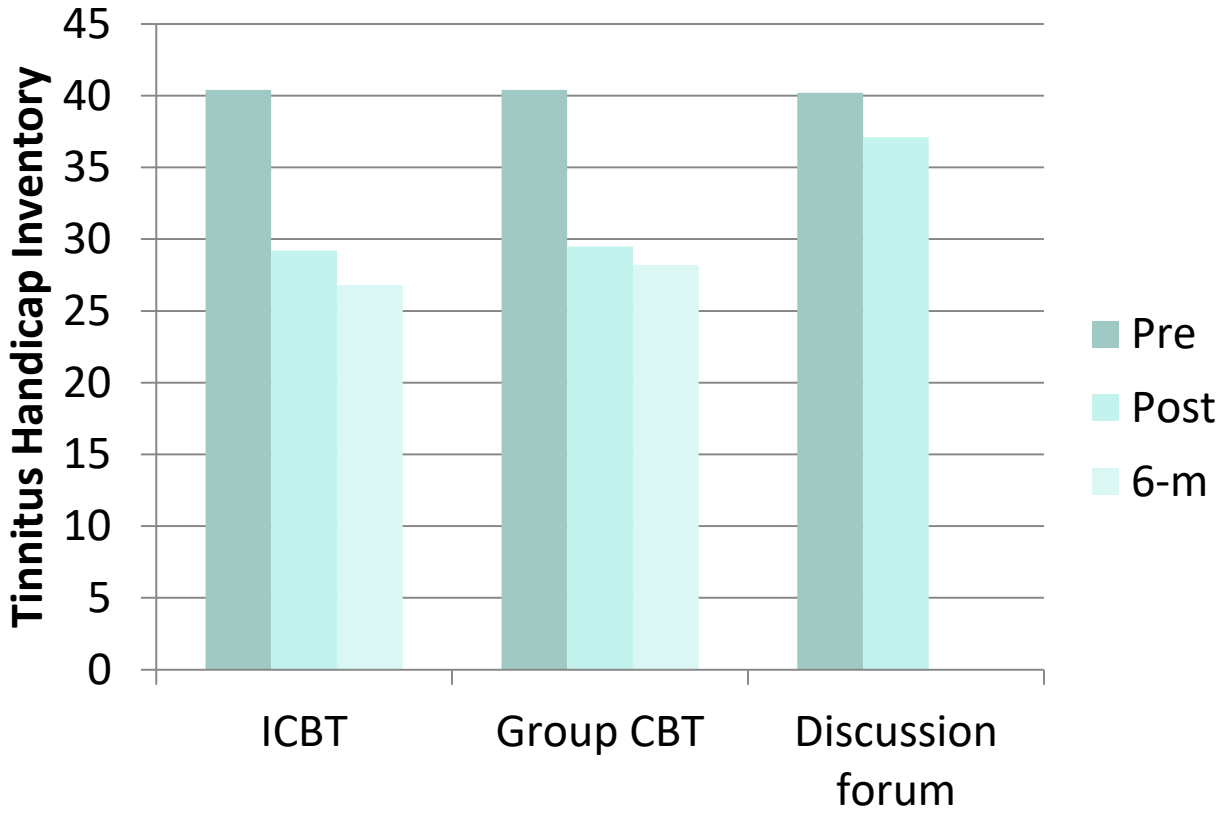
	Woche 1	2	3	4	5	6	7	8	9	10
Festgelegte Module	/	/	/	/	/	/	/	/	/	/
1) Angewandte Entspannung (Schritt 1)	X	*								
2) Angewandte Entspannung (Schritt 2)		X	*							
3) Angewandte Entspannung (Schritt 3)			X	*						
4) Angewandte Entspannung (Schritt 4, Einfache Situationen)				X	*					
5) Angewandte Entspannung (Schritt 5, Schwierigere Situationen)					X					
6) Angewandte Entspannung (Schritt 6, Weiterüben!)						X	*	*	*	*
7) Positive Vorstellungsbilder	-		*							
8) Aufmerksamkeitslenkung	-	-		*						
9) Konfrontation mit dem Tinnitus	-	-	-						*	
10) Kognitive Umstrukturierung (Schritt 1)					X					
11) Kognitive Umstrukturierung (Schritt 2)						X				
12) Verändern der tinnitusbedingten Verhaltensweisen	-	-	-	-	-	-				*
Optionale Module										
13) Einsatz von Geräuschen	-	*								
14) Umdeutung des Tinnitus	-	-					*			
15) Geräuschempfindlichkeit	-	-	-					*		
16) Schlafmanagement	-	-					*			
17) Konzentrationstraining	-	-						*		
18) Hörtaktiken	-								*	
Behandlungsabschluss										
19) Behandlungsbewertung	-	-	-	-	-	-	-	-	-	X
20) Zukunftsplanung	-	-	-	-	-	-	-	-	-	X
	1 /	2 /	3 /	4 /	5 /	6 /	7 /	8 /	9 /	10 /

Titus trial



MANOVA: $F_{(1,117)}=48.60$, $p<.0001$; Hedges' $g=0.88$

Weise et al. 2016, *Psychosomatic Medicine*



German trial MINT N=128; Jasper et al. 2015 Psychotherapy and Psychosomatics

Internet Interventions 2 (2015) 189–199

Contents lists available at ScienceDirect

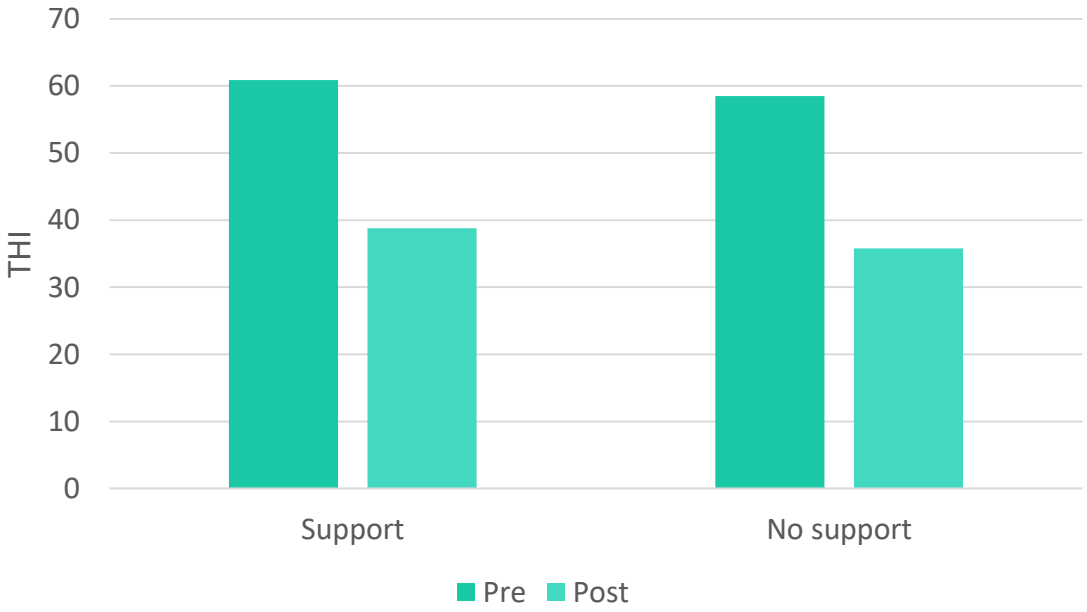
Internet Interventions

journal homepage: www.invent-journal.com/

The role of "on demand" therapist guidance vs. no support in the treatment of tinnitus via the internet: A randomized controlled trial

Julia Rheker [a,*], Gerhard Andersson [b,c], Cornelia Weise [a,b]

[a] Department of Psychology, Division of Clinical Psychology and Psychotherapy, Philipps-University Marburg, Germany
[b] Department of Behavioural Sciences and Learning, Linnaeus Centre HEAD, Swedish Institute for Disability Research, Linköping University, Sweden
[c] Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden



Cornelia Weise · Maria Kleinstäuber
Viktor Kaldo · Gerhard Andersson

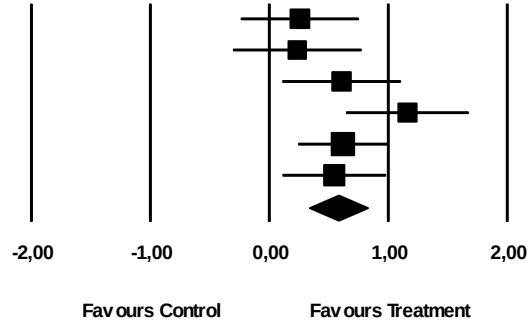
Mit Tinnitus leben lernen

Ein Manual für Therapeuten und Betroffene

EXTRAS ONLINE

Springer

Study name	Comparison	Statistics for each study						
		Hedges's g	Standard error	Variance	Lower limit	Upper limit	Z-Value	p-Value
Andersson et al. 2002	ICBT vs waitlist	0,256	0,256	0,065	-0,244	0,757	1,003	0,316
Abbot et al. 2009	ICBT vs control	0,235	0,278	0,077	-0,310	0,780	0,847	0,397
Hesser et al. 2012a	ICBT vs control	0,608	0,257	0,066	0,104	1,111	2,367	0,018
Hesser et al. 2012b	IACT vs control	1,161	0,265	0,070	0,640	1,681	4,373	0,000
Nyenhuis et al. 2013a	ICBT vs control	0,619	0,194	0,038	0,238	1,000	3,188	0,001
Jasper et al. 2014a	ICBT vs control	0,546	0,225	0,050	0,105	0,986	2,429	0,015
		0,574	0,125	0,016	0,328	0,820	4,579	0,000



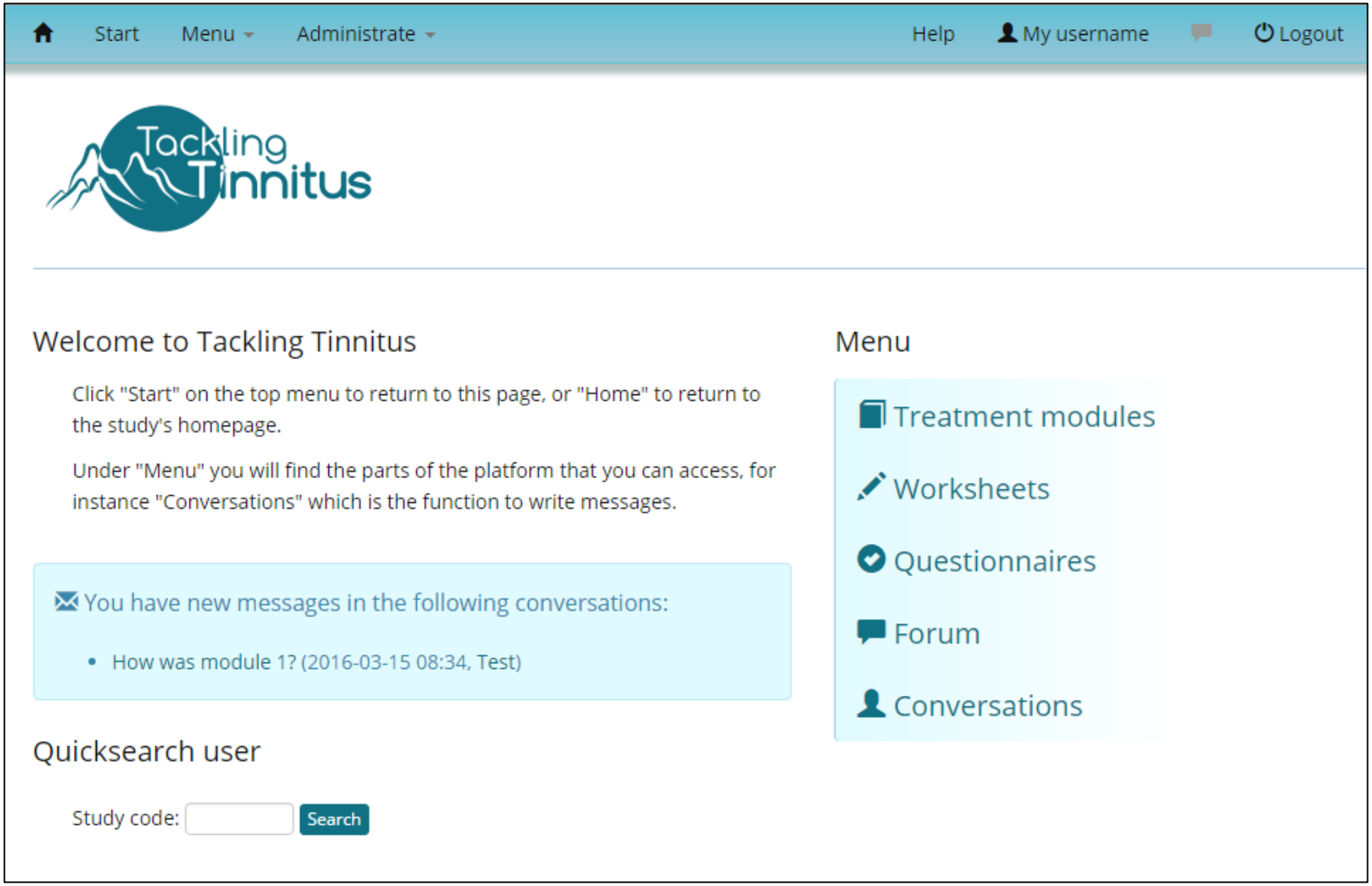
Meta Analysis

Andersson, G. (2015). Clinician-supported internet-delivered psychological treatment of tinnitus. *American Journal of Audiology, 24,* 299-301.

Studier i England

- Eldré Beukes, Vinaya Manchaiah, David Baguley, Peter Allen
- Först pilotstudie med lovande resultat
- Två kontrollerade studier publicerade varav en i reguljär vård
- Uppdaterat program

Suggested modules	Optional modules
▪ Intervention outline ▪ Tinnitus overview ▪ Progressive relaxation in six phases ▪ Positive imagery ▪ Reinterpretation of tinnitus ▪ Focus exercise ▪ Identifying negative thoughts ▪ Cognitive restructuring ▪ Exposure to tinnitus ▪ Summary ▪ Future planning	▪ Sound enrichment ▪ Sleep guidelines ▪ Concentration tips ▪ Sensitivity to sound ▪ Hearing tactics


Start
Menu
Administrate
Help
My username
Logout
Tackling Tinnitus
Welcome to Tackling Tinnitus
Click "Start" on the top menu to return to this page, or "Home" to return to the study's homepage.
Under "Menu" you will find the parts of the platform that you can access, for instance "Conversations" which is the function to write messages.
You have new messages in the following conversations:
How was module 1? (2016-03-15 08:34, Test)
Quicksearch user
Study code:
Search
Menu
Treatment modules
Worksheets
Questionnaires
Forum
Conversations

Start Menu Administrate Help My username Logout

Tackling Tinnitus

Fixed modules

1. About this treatment

2. Tinnitus Overview

3. Relaxation: Step 1

4. Positive imagery

Optional modules

1. Sound enrichment

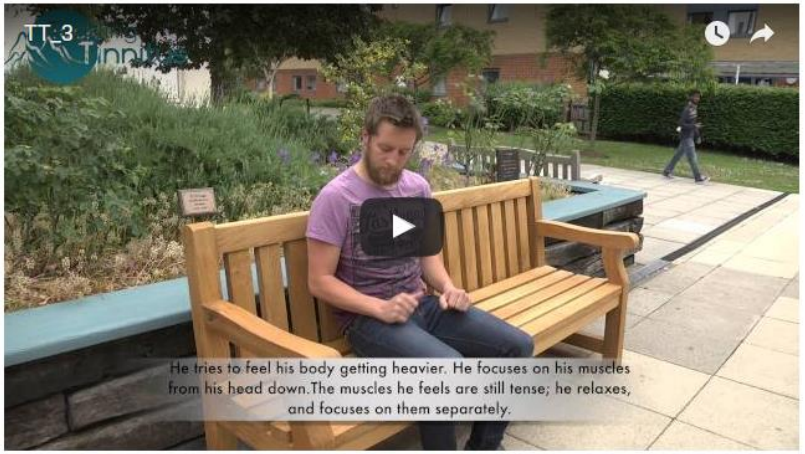
2. Sleep guidelines

Tackling Tinnitus

Relaxation: Step 3
1. Faster relaxation
2. Where to practise
3. How
4. Demonstration
5. Further help

Demonstration

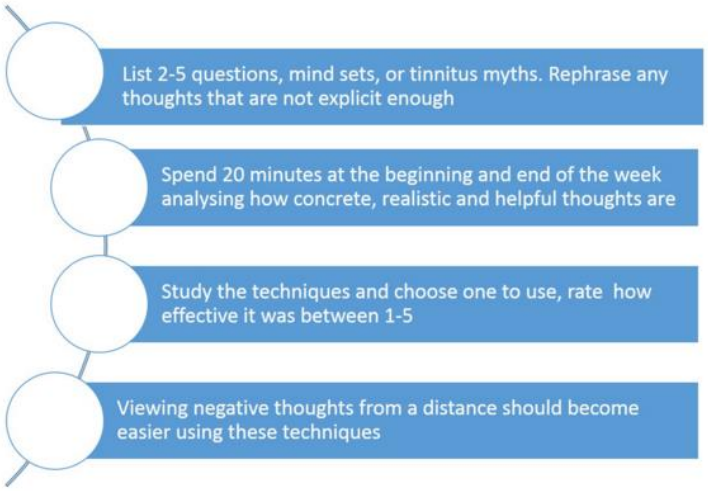
Click the play button to watch this video demonstrating faster relaxation



Matt is using relaxation technique three (faster relaxation), which helps him to relax faster than deep breathing does. Although he feels the benefits of deep breathing, there are time he feels he needs to relax in less time than it takes to do deep breathing and deep relaxation techniques. He ensures that he is comfortable by removing his watch and his phone from his pocket, and takes time just to relax, taking a few deep breaths. He then focuses on his relaxation word, which is the word calm. He also ensures that he uses diaphragmatic breathing, by ensuring he is not breathing from his chest, but his diaphragm. He inhale's deeps and exhales slowly, getting the natural rhythm of his breaths. Once his got his breathing rhythm right, he focuses on trying to relax all his muscles at once. He tries to feel his body getting heavier. He focuses on his muscles from his head down. The muscles he feels are still tense; he relaxes, and focuses on relaxing them separately.

Tackling Tinnitus

- Cognitive restructuring
- 1. What is cognitive restructuring?
- 2. Analysing negative thoughts
- 3. Challenge thoughts
- 4. Techniques
- 5. Mind-sets
- *6. How*
- 7. Further help



Print

	NEGATIVE THOUGHT	TECHNIQUE SELECTED TO ANALYSE THOUGHTS	RESULT
1.			
2.			

+ Add a new row − Remove a row

Save

Start Menu Administrate Help My username Logout

Tackling Tinnitus

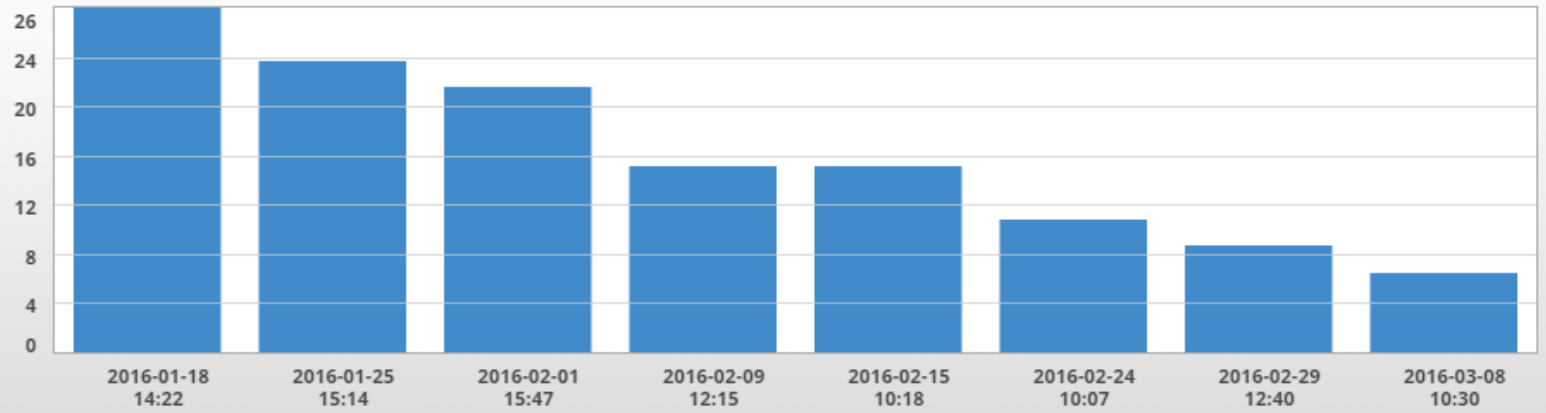
User: 1234dcba

Back

User | Questionnaires | Questionnaire roadmaps | Visualizations | Modules | Worksheets

Visualizations

[THI-s] Problems caused by tinnitus



Tackling Tinnitus

User 1234dcba, answers to worksheets

Back

User | Questionnaires | Questionnaire roadmaps | Visualizations | Modules | Worksheets

Worksheets

Module 1. Quiz: What is expected from you

Module 1. Set aside time for the programme

Module 1. Goal setting

Send feedback

Created **2016-01-18 13:30:20**

Select the goals from this list that apply to you or create your own goals:

- [x] To learn ways to cope with tinnitus more effectively
- [x] To learn more about tinnitus and its causes
- [x] To make the tinnitus less annoying and intrusive
- [x] To be able to relax whenever I get the opportunity
- [x] To feel more optimistic about the future
- [ ] Not to feel as exhausted after concentrating on a task
- [x] To be able to spend time in quiet places without being bothered by tinnitus
- [ ] To fall asleep faster and not wake up as often
- [x] To reduce the tension and stress caused by tinnitus

Please write further goals that you may define for yourself below:

Module 2. What best describes your tinnitus?

Start Menu Administrate Help My username Logout

Tackling Tinnitus

Conversations New conversation SMS Chat

Chat logs Back

Your media:

When you are ready for the live chat, click the button to connect to Test:

» Connect to Test

Help

Chat with Test

Disable audio/video

My 23/9 14:20

Hi and welcome to the chat session!

Test 23/9 14:21

Thank you!

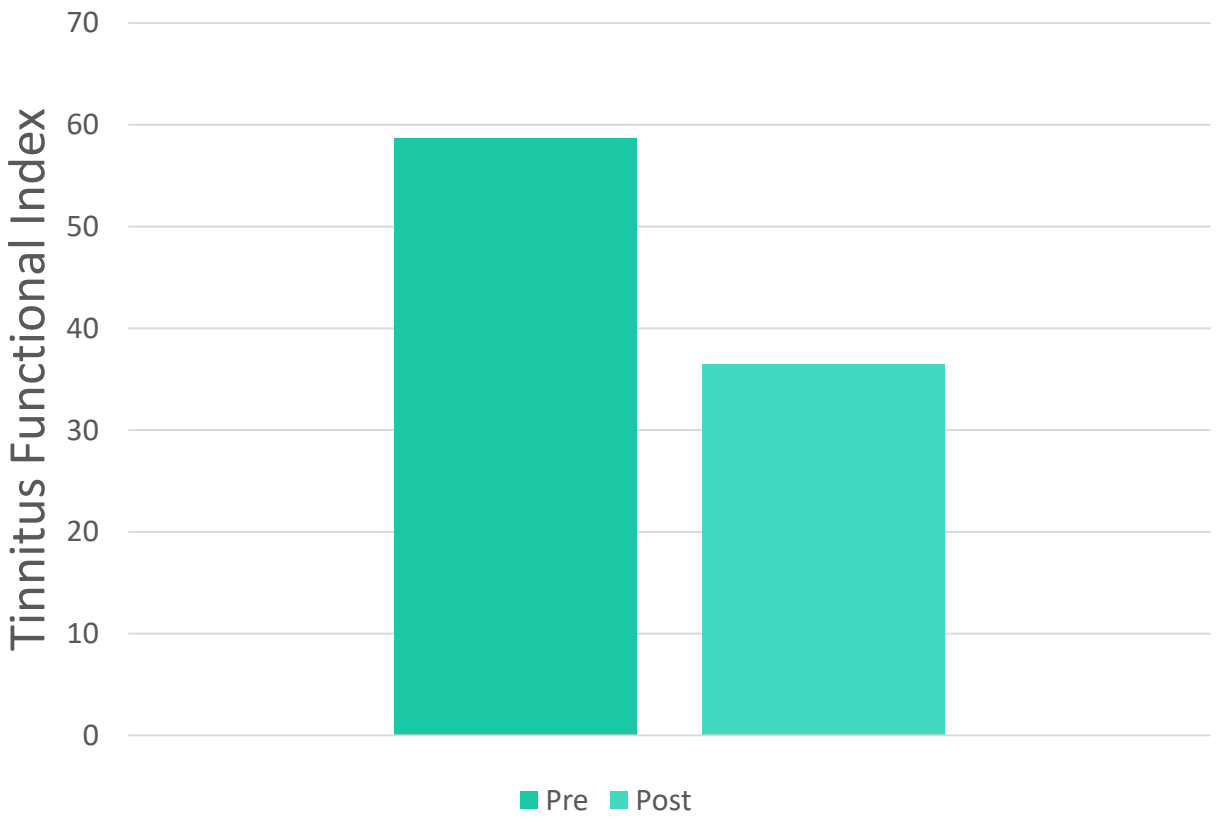
My 23/9 14:21

Should we switch to audio/video?

Test 23/9 14:21

Yes!

Send


Tinnitus Functional Index
70
60
50
40
30
20
10
0
Pre
Post

Audiologist-Guided Internet-Based Cognitive Behavior Therapy for Adults With Tinnitus in the United Kingdom: A Randomized Controlled Trial

Eldré W. Beukes,[1] David M. Baguley,[1,2,3] Peter M. Allen,[1,4] Vinaya Manchaiah,[5,6,7,8] and Gerhard Andersson[9,10]

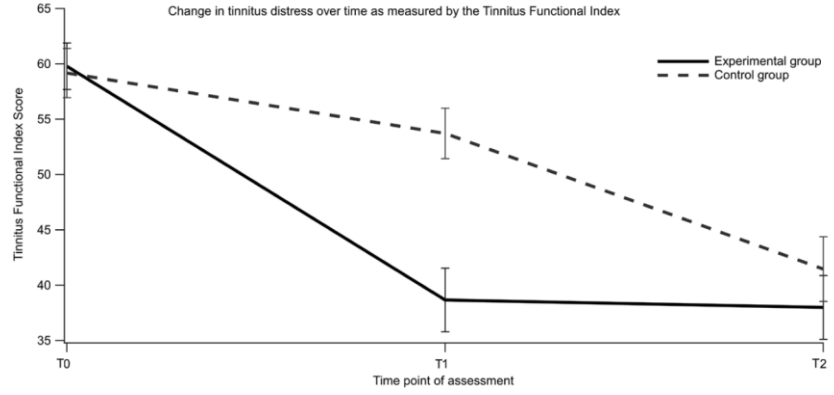


Figure 3. Change in tinnitus distress over time as measured by the TFI.

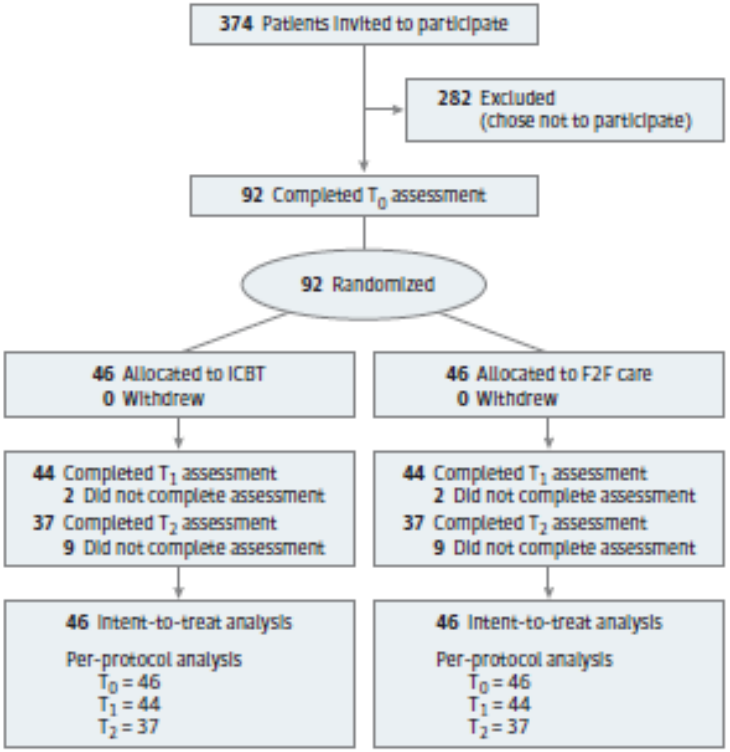
JAMA Otolaryngology–Head & Neck Surgery | Original Investigation

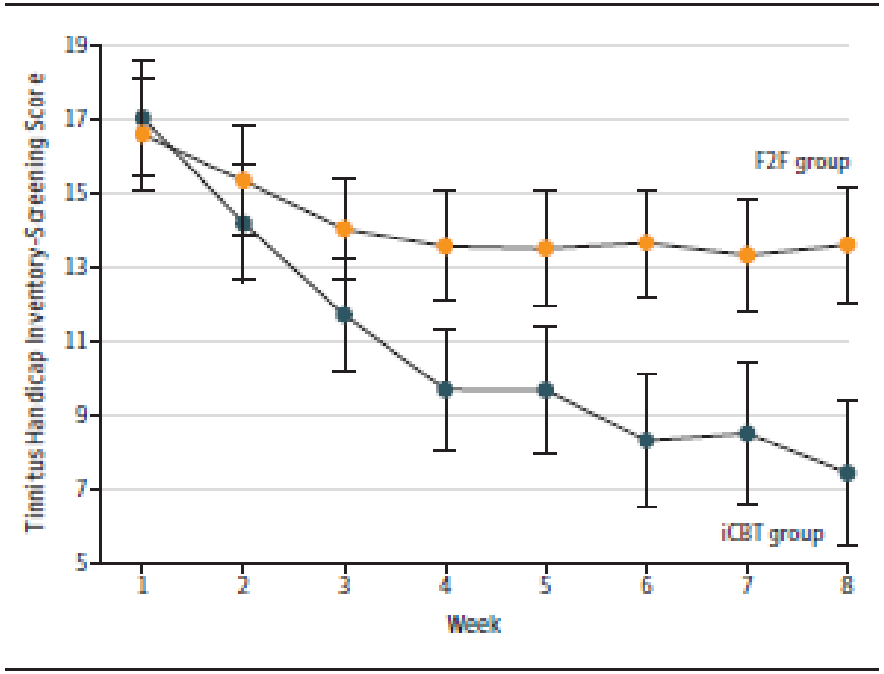
Effectiveness of Guided Internet-Based Cognitive Behavioral Therapy vs Face-to-Face Clinical Care for Treatment of Tinnitus

A Randomized Clinical Trial

Eldré W. Beukes, PhD; Gerhard Andersson, PhD; Peter M. Allen, PhD; Vinaya Manchaiah, PhD; David M. Baguley, PhD

Figure 1. CONSORT Study Profile





Slutsatser

- Nu replikerat i fyra länder (fyra språk)
- Utrymme för innovation och förbättringar
- Exempelvis skräddarsydda behandlingar och samsjukliga symptom
- Pågående studier i USA samt Turkiet

LINKÖPING UNIVERSITY