

# Implementation and effectiveness of NECT in Sweden

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# Prevalence of self-stigma

Study	Prevalence (%)
Krajewski et al 2013	33
Ly et al 2013	20
Assefa et al 2012	46
West et al 2011	36
Brohan et al 2010	42
Brohan et al 2010	21
Werner et al 2008	20-33
Ritsher & Phelan 2004	28



# Correlates of self stigma - a meta analysis

	Effect sizes
• Hope	-.58
• Self-esteem	-.55
• Empowerment	-.52
• Self efficacy	-.54
• Quality of life	-.47
• Symptoms	.41
• Treatment adherence	-.38
• Social support	-.28

*(45 studies, N= 5506, Livingstone & Boyd Soc Sci Med 2010)*



# Earlier studies of NECT

- Qualitative study (US, 18 participants)
  - Perceived NECT as helping. Six areas of improvement : experiential learning, self esteem, cognitive abilities, hope, coping, emotional changes
- RCT study (US, 39 participants)
  - No difference between NECT+TAU and TAU only
  - Accounting for degree of exposure: significant differences regarding level of self-stigma and insight of illness
- Quasi-experimental study (Israel, 109 participants)
  - Differences in favour of NECT regarding self-stigma, self esteem, qol and hope



# Introducing NECT in Sweden

- Cooperation between
  - *CEPI*: Translation of work books and responsible for scientific activities
  - *A national anti-stigma campaign (Hjärnkoll)*: Financing translations and first round of training of facilitators (and future trainers)
  - *Psychosis Clinic Gothenburg*: Providing facilities for the NECT groups and staff working as facilitators
- First training days during spring 2014 (Philip Yanos)
- Pilot study autumn 2014 in Gothenburg
- RCT study 2015-2016 in Gothenburg
- Ongoing RCT study focusing people with first episode psychosis in Stockholm



# The Pilot study

- Aimed to test feasibility, instruments used and preliminary effects
- Screening of patients using a self-stigma questionnaire (SSMIS-SF)
- Pre-post study with 47 participants (31 remaining at termination of NECT)
- Measures
  - Self-stigma (Corrigan, Self Stigma of Mental Illness Scale-SF) 20 items
  - Quality of life (MANSA) 12 items
  - Self-esteem (Rosenberg) 10 items
  - Social and clinical background characteristics

Hansson & Yanos. Narrative Enhancement and Cognitive Therapy: A Pilot Study of Outcomes of a Self-Stigma Intervention in a Swedish Clinical Context. *Stigma and Health* 2016.



# Corrigan's self-stigma model – four step progressive levels

- *Awareness* of public attitudes
  - *Agreement* of these attitudes and prejudice
  - *Applying* these attitudes on the own person
  - *Harming* and devaluating the own person
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- Progressing through these four levels implicate an increasing internalization of the publics' attitudes and an increasing "damage" on self-esteem, self image etc.



# Results from the pilot study – Self-stigma (n=31)

Variable SSMIS	Baseline m, sd	Termination m, sd	Significance	Effect size
Awareness	30,7 $\pm$ 7,9	24,0 $\pm$ 6,9	.001	.9
Agreement	18,0 $\pm$ 8,0	13,1 $\pm$ 6,6	.001	.7
Apply	14,4 $\pm$ 6,8	11,3 $\pm$ 5,6	.007	.5
Harm	14,9 $\pm$ 7,1	10,7 $\pm$ 6,2	.006	.6
Totalt	78,1 $\pm$ 20,4	59,1 $\pm$ 15,9	.001	1.0





# Results pilot study – Self-esteem and qol

Measure	Baseline	Termination	Significance	ES
Self Esteem	25,3 $\pm$ 5,2	28,4 $\pm$ 5,0	.002	.6
Quality of life	48,7 $\pm$ 13,1	52,5 $\pm$ 11,1	.023	.3



# The RCT study in Gothenburg

- Screening of self-stigma including 300 patients
- Participants above cut-off score randomized to NECT or a wait-list control group
- NECT + TAU vs TAU only
- Data collection using the same instruments but including a 6-month follow-up of the intervention group
- 106 participants (53 + 53), 87 remaining in the study at termination

Hansson et al. The effectiveness of narrative enhancement and cognitive therapy: a randomized controlled study of a self-stigma intervention. Soc Psychiatry Psychiatr Epidemiol. 2017



# Background characteristics

Variable	Intervention group		Control group	
	N (53)	%	N (53)	%
Sex				
Male	25	47.2	27	50.9
Age (m, sd)	45.1	11.5	45.3	10.9
Living situation				
Alone	35	70	34	65.4
Working situation				
Working	14	26.9	10	18.9
Contacts with mental health care				
N of years (m, sd)	18.7	10.2	17.4	13.6
N of inpatient admissions (m, sd)	4.0	4.7	3.2	3.5
Involuntary admissions [yes]	25	47.2	30	56.6
Diagnosis, self-reported (N=76)				
Psychosis	24	64.9	28	71.8
Depression, anxiety	6	16.2	6	15.4
Other	7	18.9	5	12.8

- Long duration of illness
- Mainly out of labour market
- Mainly psychosis diagnosis
- Mainly living alone
- Several admissions inpatient care
- High frequency of involuntary admissions



# Results RCT study self-stigma

Subscale SSMIS	Group	Pre m, sd	Post m, sd	P-value	Effect size
Awareness	Exp	29,26 ± 6,34	24,93 ± 8,46	.049	
	Control	29,48 ± 6,54	28,90 ± 7,78		
Agreement	Exp	18,83 ± 5,71	14,60 ± 7,34	.028	
	Control	18,80 ± 8,74	18,26 ± 7,67		
Application	Exp	16,75 ± 7,10	13,95 ± 7,74	.042	
	Control	15,98 ± 7,16	16,33 ± 8,40		
Harm	Exp	16,66 ± 8,43	13,53 ± 8,71	ns	
	Control	17,69 ± 9,20	16,27 ± 9,22		
Overall score	Exp	81,49 ± 20,13	67,00 ± 24,60	.013	.5
	Control	82,07 ± 23,71	79,88 ± 26,48		



# Results RCT study self-esteem and qol

Measure	Group	Pre	Post	P-value	Effect size
Self-esteem	Exp	24,77 ± 6,63	27,10 ± 5,48	.008	.5
	Control	25,20 ± 6,41	24,75 ± 5,74		
Quality of life	Exp	50,62 ± 10,58	54,55 ± 12,50	ns (.09)	
	Control	51,34 ± 11,10	52,11 ± 11,24		



# Changes in self-stigma, self-esteem and quality of life between baseline and 6-month follow-up in the intervention group (N=35)

Scale	Baseline m, sd	Follow-up m, sd	P-value*	Effect size
Self stigma	79.71 ± 17.27	68.40 ± 21.76	.001	0.6
Self-esteem	25.57 ± 6.52	28.30 ± 5.82	.008	0.4
Quality of life	51.43 ± 9.80	52.76 ± 12.90	NS	



# Dose-response relationships

- Mean number of sessions attended for those remaining in the intervention group at termination was 14 (range 4-20).
- The correlation between number of sessions and changes in self-stigma was substantial ( $r=.49$ ;  $p=.001$ ), variance accounted for in changes in self-stigma was around 25%.
- A stepwise regression analysis using ratings of self-stigma at termination of intervention as dependent variable and controlling for self-stigma at baseline and number of years in contact with mental health services, number of inpatient episodes and history of involuntary care showed that the variables entering the model were self-stigma at baseline ( $t=3.07$ ;  $p=.004$ ), explaining 14% of the variance in self-stigma at termination, and exposure ( $t=4.20$ ;  $p=.001$ ), explaining a further 30% of the variance.



# The ongoing study of first episode psychosis in Stockholm

- Correlations between outcome regarding self-stigma and duration of illness were low and non-significant in the Gothenburg study
- We therefore initiated an RCT including only first episode psychosis patients in Stockholm
- A screening has been performed and the study has so far included 23 participants which have completed NECT/waiting-list period
- Based on power analysis from the former RCT we aim to include 105 participants





# Conclusions

- NECT was effective in reducing self-stigma and improving self-esteem in both cases with lower end moderate effect-sizes
- These effects seem stable over a 6-month follow-up period
- There was a relationship between number of sessions attended and changes in self-stigma
- Limitation: not all patients fulfilling inclusion criteria were included. Comparisons between patients fulfilling inclusion criteria and those included did not show any differences regarding level of self-stigma. We therefore assume that participants were representative for those fulfilling inclusion criteria.



# Whats going on?

- The Swedish Association of Local Authorities and Regions (member organization for local health care and social care services) is responsible for distribution of NECT workbooks
- Number of people trained in doing NECT probably around 100
- Number of mental health care services working with NECT ???
- Plans to train users, in cooperation with user organizations to be facilitators

