# A meta-analysis of recovery educational and awareness interventions for mental health professionals

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## BACKGROUND

The history of mental health care has been marked by various struggles for the dignity of service users. Some reform movements have started to use strategies aimed at professionals' beliefs and attitudes change.





## AIM

To systematically review and synthesize all information related to awareness-raising and training of professionals in aspects related to empowerment, recovery and, in general, in rights-based care to achieve full citizenship of mental health services users.

# **METHODS**



We searched academic databases as well as web search engines, aiming at also finding grey literature on the topic.



Mental health professionals, defined as all staff involved in the management of mental health service users.

All participants included should have assisted to recoveryeducational oriented, or awareness-raising programs.



We conducted all analyses using R version 3.4.3, package meta.

We meta-analyzed effect size of change in knowledge, attitudes and intention to implement recovery-based practice, using a random effects model.

We examined **moderators** of effect size: year of publication, gender, age, study design, duration of intervention and time between pre and post evaluations.

# RESULTS

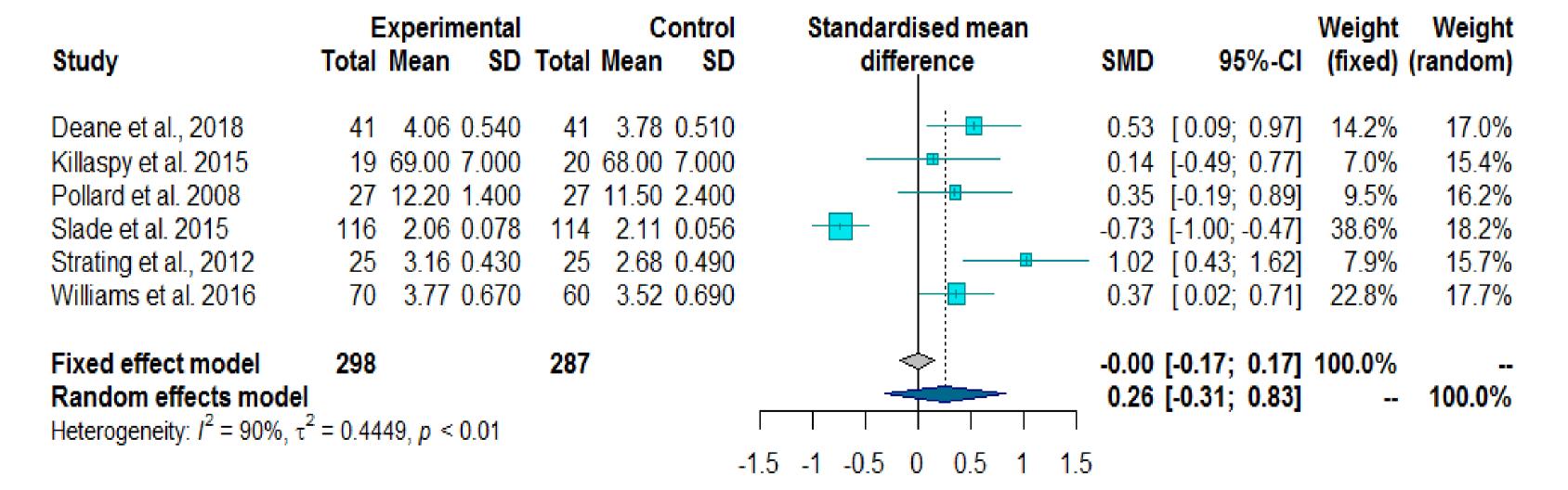
#### 1. Change in knowledge of recovery principles

Study	Experimental Total Mean SD		Standardised mean difference	SMD 95%-CI	Weight Weight (fixed) (random)
Chen et al. 2014 Crowe et al. 2006 (Gov) Crowe et al. 2006 (Nongov) Deane et al., 2018 Meehan et al. 2009 Peebles et al. 2009 Repique et al. 2016 Salgado et al. 2010 Slade et al. 2015	23 4.050 0.4900 101 8.690 2.3300 147 9.390 1.7200 73 4.190 0.5100 114 3.890 0.4900 31 4.310 0.2500 31 3.470 0.7000 27 3.690 0.4900 128 2.934 0.3307	101 7.320 1.98 147 7.540 1.99 73 3.910 0.54 64 3.210 0.88 35 4.130 0.29 41 3.440 0.74		0.39 [-0.19; 0.98] 0.63 [0.35; 0.91] 0.99 [0.75; 1.23] 0.53 [0.20; 0.86] 1.03 [0.71; 1.36] 0.65 [0.16; 1.15] 0.04 [-0.43; 0.51] 0.40 [-0.14; 0.94] 0.04 [-0.20; 0.29]	12.9% 11.0% 17.5% 11.4% 9.5% 10.5% 9.8% 10.6% 4.2% 8.7%
Wilrycx et al. 2012  Fixed effect model  Random effects model  Heterogeneity: $I^2 = 83\%$ , $\tau^2 =$	96 3.066 0.2200 <b>771</b> 0.137, p < 0.01	210 3.027 0.30 <b>850</b>	-1 -0.5 0 0.5 1	0.14 [-0.10; 0.38] 0.49 [ 0.39; 0.59] 0.49 [ 0.23; 0.75]	

Recovery knowledge increased after interventions with a medium effect size (p<0.01).

Studies' publication year moderated results (Q(1) = 5.44, p = 0.02). More recent publications showed lower intervention effects.

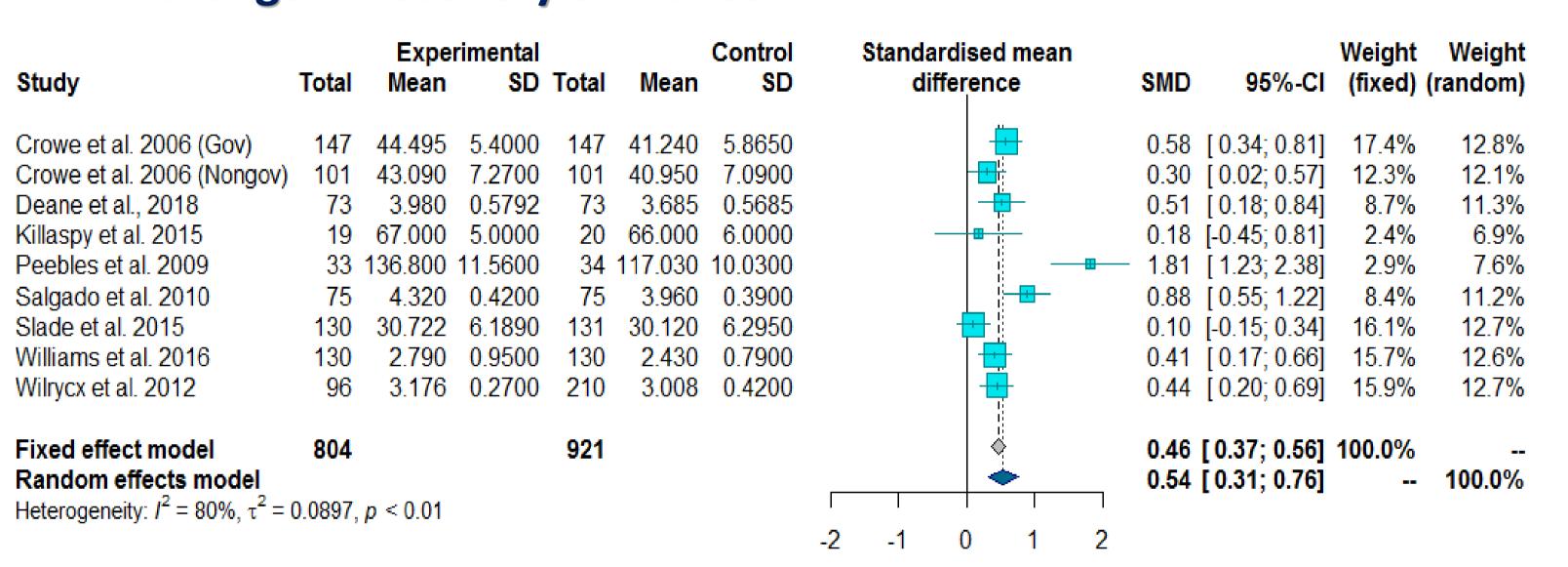
#### 3. Change in recovery-based practice



Recovery-based practice showed a small increase after interventions. However, this effect was not statistically significant (p = 0.37).

There were not moderators for practice results.

#### 2. Change in recovery attitudes

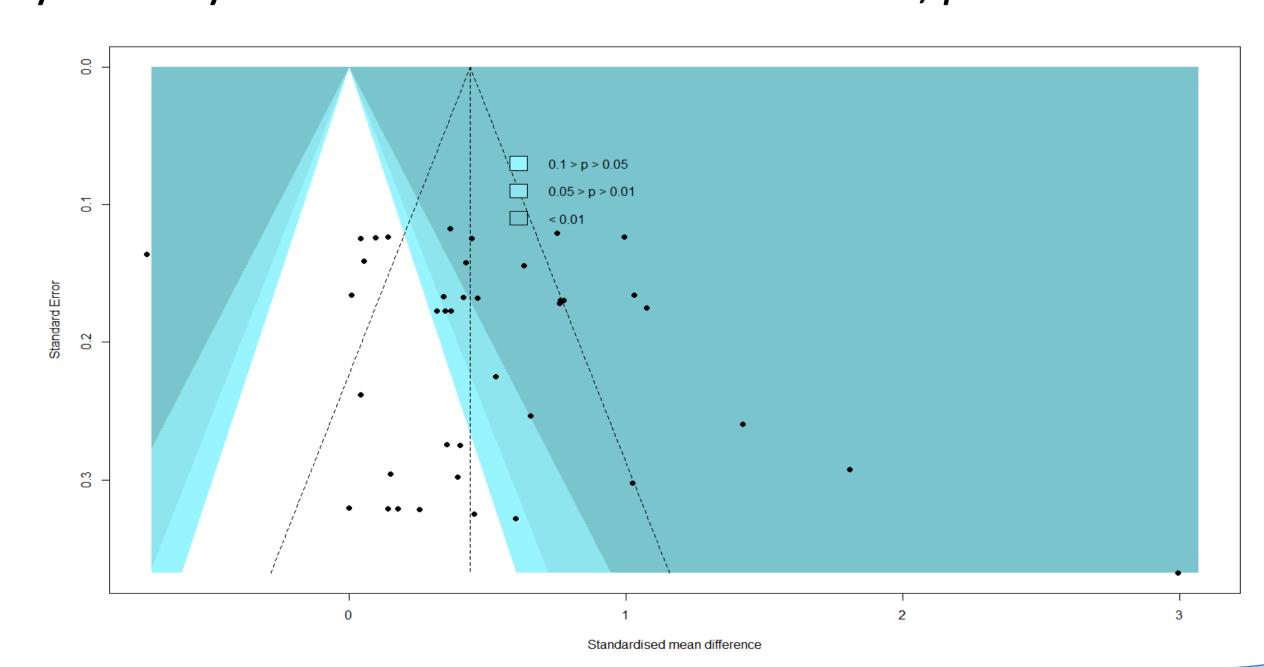


Recovery attitudes increased after intervention with a medium effect size (p<0.01).

Gender moderated the results (QM(1) = 16.89, p<0.01) and also did the study design (RCT, k = 3; non-randomized, k = 6; Q(1)=5.49, p = 0.02). Women showed more resistance to change their attitudes. Nonrandomized studies showed a higher intervention effect (SMD = 0.58) compared to RCTs (SMD = 0.24).

#### 4. Examination of reporting bias

Overall, there is no clear evidence of reporting bias. With the exception of two outlier outcomes, observation of the funnel plot did not show a clear asymmetry. Rank correlation test: z = 1.165, p = 0.24.



# CONCLUSIONS

Our review provides evidence that mental health professionals gain knowledge in recovery principles and adopt a more positive attitude to recovery after training. However, current interventions did not evidence to produce a change in recoverybased practice. There was a high heterogeneity between studies. Future trials should considerate these limitations for improving efficacy of recovery educational and awareness interventions for mental health professionals.





