



Interventions to promote empathy responses in health professionals: a systematic review



Vasileios Kiosses¹, Vasileios Karathanos¹, Athina Tatsioni^{2,3}

¹University of Ioannina, Medical School, Ioannina Greece

²Department of Internal Medicine, University of Ioannina, Medical School, Ioannina Greece

³Tufts University School of Medicine, Boston, MA, USA

Background:

Empathy during doctor-patient encounters has been identified as an essential element. Physician's empathic understanding of patients' medical or non medical situation is linked with increased patients' satisfaction, trust, less patient's stress, less possibilities for burnout among professionals. However a systematic appraisal of interventions that may promote empathy has not been performed.

Research Question:

Are trainings in improving health professionals' or students' empathy effective?

Data Sources:

We searched Pubmed, Cochrane Database of Clinical Trials, Scopus, and PsycInfo (from inception to November 2012) using terms related to "empathy" and "randomized controlled trials".

Inclusion Criteria:

RCTs written in English that evaluated interventions promoting empathic responses in health professionals were included. Dissertations and papers in a protocol stage were excluded.

Main Outcome:

We considered a change in empathic responses as the main outcome. We categorized studies based on whether empathy was measured by observers, participated staff, or patients.

Results:

Out of 722 items, 17 articles were eligible. Thirteen studies used experiential while 4 non-experiential learning approaches. Duration ranged from 2 days to 24 weeks.

*Observers in 4 studies rated **simulated interviews**. Raters used the motivational interviewing treatment integrity 3.0 in one study, and supported that trained medical students scored better ($p < 0.001$).

*Six studies used physician **self-rated questionnaires** without reporting significant changes. Patients (actual or simulating) rated health professionals' empathy in 5 studies. Patients used the Consultation and Relational Empathy Measure in one study, and reported that trained physicians had greater improvement ($p = 0.04$).

In another study, coders used the Staff-Patient Interaction Rating Scale to assess students' improvement, after training in a communication program, and showed a significant time by group interaction effect ($p = 0.038$).

Conclusions:

Few of the trials that evaluated empathy promoting interventions among health care staff showed a significant improvement. Although in most cases, the studies reported positive changes in empathic understanding after the completion of the intervention.

First author, publication year	Outcome	Measure	Participants analyzed (intervention / control)	Difference within group		Difference between groups	
				Intervention Estimate (SD or 95% CI)	Comparison group Estimate (SD or 95% CI)	Estimate (SD or 95% CI)	P-value
Rater: External Observer in Simulated Interviews							
Daeppen 2011	behavioral coding system	MITI	131 (66/65)	4.0 (0.6) [0.62–0.83]	3.4 (0.7) [0.62–0.83]	No Data	<0.001
Rater: External Observer in Actual Interviews							
Tulsky 2011	Effectiveness of computerized interactive intervention	Number of empathic statements	48 (24 /24)	0.4 [0.3-0.5]	0.2 [0.1-0.3]	RR=1.9 (1.1-3.3)	0.024
Tulsky 2011	Effectiveness of computerized interactive intervention	Continuer response to empathic opportunity	48 (24 /24)	No Data	No Data	OR=2.1 (1.1-4.2)	0.028
Boncivici 2008	Physicians' empathic expression	GRS	155 (79 /76)	Mean: 8.43[7.82-9.03]	Mean: 11.59[10.99-12.18]	1.41	< .01
Boncivici 2008	Physicians' empathic expression	ECCS	155 (79 /76)	Mean: 2.66[2.48-2.84]	Mean: 4.01[3.89-4.12]	3.86	< .01
Rater: Patients with Questionnaires in Actual or Simulated Interviews							
Riess 2012	Change in empathic and relational skills	CARE	99 (54/ 45)	39.9(5.8)	41.8(4.6)	Dif.=2.2	0.04
Rater: Observer with Questionnaire In Actual or Simulated Interviews							
Shapiro 2009	Effectiveness of an intervention	SPIR	79 (38 /41)	2.29 (6.30)	-0.68 (6.20)	No Data	0.038

Table 1: Studies with statistically significant results

Observers in 4 studies rated **actual interviews**. Raters used the Global Rating Scale for empathy and the Empathy Communication Coding System in one study, and supported that trained physicians expressed more empathy ($p < 0.01$). In another study, coders found that trained oncologists used more empathic statements ($p = 0.024$) and were more likely to respond to negative emotions empathically ($p = 0.028$).

Bibliography:

1. Bonvicini, K. A., Perlin, M. J., Bylund, C. L., Carroll, G., Rouse, R. A., Goldstein, M. G. (2009) Impact of communication training on physician expression of empathy. *Patient Education and Counseling*, 75:3-10.
2. Riess, H., Kelley, J. M., Bailey, R., Dunn, E. J., Phillips, M. (2012) Empathy training for resident physicians: A randomized trial of a neuroscience-informed curriculum. *Journal of General Internal Medicine*, 27(10): 1280-1286