

The Effect of Changing Attitudes, Norms, or Self-Efficacy on Health Intentions and Behavior: A Meta-Analysis

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Introduction

- Previous meta-analytic work has demonstrated that interventions that elicit changes in intentions to engage in a health behavior lead to meaningful changes in health behavior (Webb & Sheeran, 2006).

- Theories such as the Theory of Planned Behavior (Ajzen, 1985) posit that changing attitudes, norms, or self-efficacy should elicit meaningful changes in both intentions and behavior.

- The current meta-analysis set out to consider the extent to which interventions that elicit significant changes in attitudes, norms, or self-efficacy lead to meaningful changes in health-related intentions and behavior.

Inclusion Criteria and Literature Search

- There were four inclusion criteria for this meta-analysis. Studies had to:

1. Focus on typical health behaviors (e.g., diet, exercise, cancer screening, etc.).
2. Involve experimental manipulation of attitudes, norms, or self-efficacy, thus including an accompanying comparison condition.
3. Generate a significant effect on attitudes, norms, or self-efficacy.
4. Include a measure of intentions or behavior.

- The following databases were searched in May, 2010: Web of Knowledge, PsychINFO, PubMed, ProQuest, and Dissertation Abstracts International

Method

- Figure 1 below shows the flow of information during the review process.
- The final meta-analysis included 129 studies that met the inclusion criteria.
- There was a high level of agreement between coders (kappa coefficients $M = 0.92$ and intraclass correlations $M = 0.94$) and disagreements were resolved through discussion.

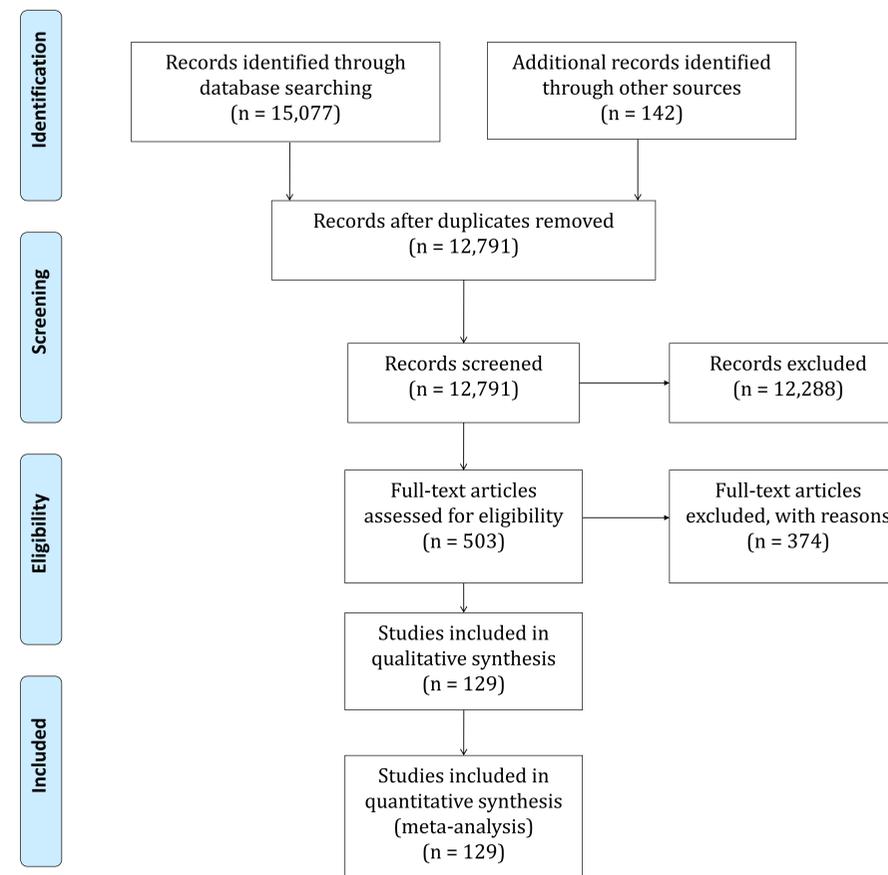


Figure 1: Flow of information through the phases of the review.

Results and Conclusion

- Interventions that elicited changes in attitudes or self-efficacy also elicited small-to-medium changes in intentions. Interventions that elicited changes in norms were able to elicit small changes in intentions.

- Interventions that elicited changes in self-efficacy also elicited small-to-medium changes in behavior. Interventions that elicited changes in attitudes were able to elicit small changes in behavior. Interventions that elicited changes in norms only had a negligible effect on behavior.

- Significant Q statistics suggest that there is heterogeneity of effect sizes, and future analyses will consider moderation of effects. Additionally, it will be explored whether or not interventions that elicit changes in two or more of the constructs of attitudes, norms, and self-efficacy also elicit larger changes in intentions and behavior.

- This meta-analysis builds on prior meta-analytic work and demonstrates that interventions that elicit changes in attitudes, norms, or self-efficacy have differential effects on changing health-related intentions and behavior.

Results

Variable	Intention					Behavior				
	N	k	d+	95% CI	Q	N	k	d+	95% CI	Q
Attitude	13,012	47	.37	[.33 to .40]	273.29***	29,146	55	.20	[.18 to .23]	393.82***
Norm	4,847	11	.26	[.21 to .32]	69.42***	7,966	11	.08	[.03 to .12]	72.54***
Self-efficacy	10,346	39	.34	[.30 to .38]	192.64***	26,421	76	.39	[.36 to .41]	792.47***

Table 1: Impact of changing attitudes, norms, or self-efficacy on health-related intentions and behavior.

References

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action-Control: From cognition to behavior* (pp.11-39). Heidelberg: Springer.

Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin*, 132, 249-268.

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