S8 – Theory table

Interventions to improve hand hygiene in community settings: A systematic review of theories, barriers and enablers, behavior change techniques, and hand hygiene station design features

Authors
Sridevi K. Prasad[1] 0000-0003-0457-9534
Jedidiah S. Snyder[2] 0000-0002-7688-4450
Erin LaFon[2]
Lilly A. O'Brien[2] 0009-0004-1987-3706
Hannah Rogers[3] 0000-0002-9515-1439
Oliver Cumming[4,5] 0000-0002-5074-8709
Joanna Esteves Mills[5]
Bruce Gordon[5]
Marlene Wolfe[2] 0000-0002-6476-0450
Matthew C. Freeman[2] 0000-0002-1517-2572
Bethany A. Caruso[1*] 0000-0001-9738-9857

1 Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA, USA; bcaruso@emory.edu (BAC); sridevi.prasad@emory.edu (SKP)

2 Gangarosa Department of Environmental Health, Rollins School of Public Health, Emory University, Atlanta, GA, USA; matthew.freeman@emory.edu (MCF); marlene.wolfe@emory.edu (MW) jedidiah.snyder@emory.edu (JSS); lilly.obrien@emory.edu (LAO); erin.lafon@emory.edu (EL)

3 Woodruff Health Sciences Center Library, Emory University, Atlanta, GA, USA; hannah.rogers@emory.edu (HR)

4 Department of Disease Control, London School of Hygiene and Tropical Medicine, London, UK; oliver.cumming@lshtm.ac.uk (OC)

5 Water, Sanitation, Hygiene and Health Unit, World Health Organization, Geneva, Switzerland; estevesj@who.int (JEM); gordonb@who.int (BG)

*Corresponding author: Bethany A. Caruso bcaruso@emory.edu
Emory University, Rollins School of Public Health, 1518 Clifton Rd, Atlanta, GA 30322

***Supplementary File 8*.** Theories or models reported to be used in included studies (N=223).

Theory	Total n (%)	Effective** n (%)
Total Studies	**223**	**183 (82.1)**
Study did not report using theory for intervention design	**160 (71.8)**	**131 (81.9)**
Study did report using theory for intervention design*	**63 (28.2)**	**52 (82.5)**
Theory of Planned Behavior	14 (22.2)	10 (71.4)
Health Belief Model	11 (17.5)	10 (90.9)
Behaviour Centered Design/Evo-Eco Model	7 (11.1)	5 (71.4)
RANAS	6 (9.5)	5 (83.3)
COM-B	6 (9.5)	5 (83.3)
IBM-WASH	5 (7.9)	4 (80.0)
Health Access Process Approach	2 (3.2)	1 (50.0)
Social Ecological Model	2 (3.2)	2 (100.0)
Social-cognitive Learning Theory	2 (3.2)	2 (100.0)
Stages of Change Model	2 (3.2)	2 (100.0)
Theory of Normative Social Behavior	2 (3.2)	2 (100.0)
Theory of Reasoned Action	2 (3.2)	2 (100.0)
Behavior Place Theory	1 (1.6)	1 (100.0)
Bloom's Taxonomy of Learning Theory	1 (1.6)	1 (100.0)
Choice-architecture Approach	1 (1.6)	1 (100.0)
Ideation Theory	1 (1.6)	1 (100.0)
Dual Process Theory	1 (1.6)	0 (0.0)
Ecological Theory of Health Promotion	1 (1.6)	1 (100.0)
Health Behavior Change Model	1 (1.6)	1 (100.0)
Heuristic Model for Teachable Moments	1 (1.6)	1 (100.0)
Organization Behavior Modification Model	1 (1.6)	1 (100.0)
Focus Theory	1 (1.6)	1 (100.0)
Nudge Theory	1 (1.6)	1 (100.0)
Goal Attainment Model	1 (1.6)	1 (100.0)
Social Cognitive Theory	1 (1.6)	1 (100.0)

***Note: ****Multiple theories could have been reported per study so the total number of theories (74) is greater than the total number of studies that report using theory (63).; **Effectiveness is determined if authors reported that the intervention was effective at improving hand hygiene outcomes*