Appendix Tables and Figures

Search Strategy

Supplementary Table 1. Final Codebook and Corresponding Consolidated Framework for Implementation Research Code

Supplementary Table 2. Study Characteristics

Supplementary Table 3. Risk of Bias of Included Studies using the Critical Appraisal Skills Programme Tool

Search Strategy

OVID Medline 11/1/2016

1	health care surveys/ or interviews as topic/ or focus groups/ or questionnaires/ or self report/	439720
2	case stud*.mp.	76421
3	field notes.mp.	1376
4	(perception* or belief*).tw.	234351
5	(health surve* or interview* or focus group*).tw.	306701
6	qualitative research/	28859
7	(qualitative study* or ethnograph*).tw.	29417
8	1 or 2 or 3 or 4 or 5 or 6 or 7	894188
9	((High adj2 perform*) or (Low adj2 perform*) or (top adj2 perform*) or (bottom adj2 perform*) or laggard*).mp.	122470
10	(hospital* or organization* or organisation* or clinic*).mp.	5031621
11	9 and 10	17150
12	8 and 11	721

Embase 11/1/2016

1	'health care survey'/exp OR 'interview'/exp OR 'questionnaire'/exp OR 'self report'/exp OR 'qualitative research'/exp OR 'ethnography'/exp	755,666
2	'case stud*':ti,ab OR 'field notes':ti,ab OR percept*:ti,ab OR belief*:ti,ab OR 'focus group*':ti,ab OR qualitative:ti,ab	602,846
3	(high NEAR/2 perform*):ti,ab OR (low NEAR/2 perform*):ti,ab OR (top NEAR/2 perform*):ti,ab OR (bottom NEAR/2 perform*):ti,ab OR laggard*:ti,ab	143,986
4	perform* NEAR/3 (hospital* OR organization* OR organisation* OR clinic*)	70,570
5	#1 OR #2	1,229,104
6	#3 AND #4	1,204
7	#5 AND #6	77

Scopus 11/4/2016 (682 documents)

((TITLE-ABS-KEY ("health care survey" OR "interview*" OR "questionnaire*" OR "self report*" OR "qualitative" OR "ethnograph*")) OR (TITLE-ABS-KEY ("case stud*" OR "field notes" OR percept* OR belief* OR "focus group*"))) AND ((TITLE-ABS-KEY ((high W/2 perform*) OR (low W/2 perform*) OR (top W/2 perform*) OR (bottom W/2 perform*))) AND (TITLE-ABS-KEY (perform* W/3 (hospital* OR health* OR medic* OR clinic*))))

Web of Science 11/4/2016

1	TS=("health care survey" OR "interview*" OR "questionnaire*" OR "self report*" OR "qualitative" OR "ethnograph*" OR "case stud*" OR "field notes" OR percept* OR belief* OR "focus group*")	1,858,089
2	TS=((high NEAR/2 perform*) OR (low NEAR/2 perform*) OR (top NEAR/2 perform*) OR (bottom NEAR/2 perform*))	371,714
3	TS=(perform* NEAR/3 (hospital* OR health* OR medic* OR clinic*))	83,655
4	#3 AND #2	2,738
5	#4 AND #1	406

UPDATE(2016-5/22/2017) – 80 unique citations
Ovid Medline: 63; after deduplication: 22
Embase: 12; after deduplication: 9
Scopus: 100; after deduplication: 38
WoS: 76; after deduplication: 11

UPDATE2(2017-2/8/2018) – 157 unique citations
Ovid Medline: 86; after deduplication: 78
Embase: 26; after deduplication: 14
Scopus: 89; after deduplication: 51
WoS: 64; after deduplication: 14

Supplementary Table 1. Final Codebook and Corresponding Consolidated Framework for Implementation Research Code

Domain **Theme/Code[a]** **Code**	**Pertinent Definition, Inclusions, Exclusions, and Notes**	**Corresponding Consolidated Framework for Implementation Research[1] Code (Definition)**
Poor Organizational Culture		Culture (Norms, values, and basic assumptions of a given organization.)
Hierarchical		Hierarchical Culture (Clear lines of authority over organizational processes, respect for formal hierarchy, adherence to rules, stability and predictability.)
Negative approach to problems	When leadership's approach to problems dis-incentivizes employees from speaking up (include punitive, ineffective)	(Opposite of) Organizational Incentives and Rewards (Extrinsic incentives such as goal-sharing, awards, performance reviews, promotions, and raises in salary, and less tangible incentives such as increased stature or respect.)
Unvalued nurses	Underutilized or undervalued	
Limited staff roles	Exclude nurses	
Un-empowered middle management		
Autocratic		
"Culture of Fear"	Any use of fear to describe the collective feeling of employees.	
Not Collaborative		(Opposite of) Team Culture (Cohesion, morale, human resource development, mutual support)
Not Multidisciplinary	Between different types of employees (e.g., nurses and physicians) or use of the word "disciplines."	
Not Interdepartmental	Between different departments (e.g., medicine and surgery) or use of the word "interdepartmental." Include references to siloes.	
Lacking Group Connectivity	Lacking team culture, include "like a family"	Part of Team Culture
Lacking a Learning Climate	Opposite of learning climate.	Learning climate (A climate in which: 1. Leaders express their own fallibility and need for team members' assistance and input; 2. Team members feel that they are essential, valued, and knowledgeable partners in the change process; 3. Individuals feel psychologically safe to try new methods; and 4. There is sufficient time and space for reflective thinking and evaluation.)

Domain Theme/Code[a] Code	Pertinent Definition, Inclusions, Exclusions, and Notes	Corresponding Consolidated Framework for Implementation Research[1] Code (Definition)
Communication (structured)	Formal communication processes or use of policies.	Networks & Communications (The nature and quality of webs of social networks, and the nature and quality of formal and informal communications within an organization.)
Communication (unstructured)	Informal communication processes.	
Low Morale	Include any description of generally poor morale by interviewees.	Part of Team Culture
Limited Ownership and Involvement		Engaging (Attracting and involving appropriate individuals in the implementation and use of the innovation through a combined strategy of social marketing, education, role modeling, training, and other similar activities.)
General	Culture that supports involvement/ownership in QI/patient safety	Readiness for Implementation (Tangible and immediate indicators of organizational commitment to its decision to implement an innovation.)
Lack of accountability	Lack of external or internal accountability, include feedback.	Goals and Feedback (The degree to which goals are clearly communicated, acted upon, and fed back to staff, and alignment of that feedback with goals.)
Lack of involvement	In QI/patient safety	
Lack of champions	Include mention of "constipators" (employees who actively or passively resist improvement)	Champions ("Individuals who dedicate themselves to supporting, marketing, and 'driving through' an [implementation]", overcoming indifference or resistance that the innovation may provoke in an organization.)
Poor self-efficacy	Include when interviewees mention they do not believe they can make a change	Self-efficacy (Individual belief in their own capabilities to execute courses of action to achieve implementation goals.)
Un-empowered frontline staff	Include when interviewees mention that they lack the external tools/supports to make a change	
Lack of ownership	(General) for the institution's problems	
Blaming patients	When patient factors (mental illness, poverty, cultural barriers, etc.) are mentioned as the cause for poor performance by employees	

Domain Theme/Code[a] Code	Pertinent Definition, Inclusions, Exclusions, and Notes	Corresponding Consolidated Framework for Implementation Research[1] Code (Definition)
Disconnected Leadership		Leadership Engagement (Commitment, involvement, and accountability of leaders and managers with the implementation of the innovation.)
Disconnected	Include poorly accessible leaders	
Non-transparent	Any discussion of poor transparency	
Unsupportive		
Lack of Leader Development	When discussing leadership training	
Inadequate Infrastructure		Needs & Resources of Those Served by the Organization (The extent to which the needs of those served by the organization (e.g., patients), as well as barriers and facilitators to meet those needs, are accurately known and prioritized by the organization.)
Inadequate Quality Improvement Infrastructure	Include any mention of quality improvement teams, systems, processes, mechanisms, training, education, or guidelines (include "reflecting and evaluating")	Includes Reflecting and Evaluating (Quantitative and qualitative feedback about the progress and quality of implementation accompanied with regular personal and team debriefing about progress and experience.)
Poor Information Technology Services	Include any technology limitations (e.g. electronic medical records, automated feedback, lack of data, etc.)	
Insufficient Staffing and High Turnover	Include difficulties with recruitment and retention or staff role/training mismatch	
Lack of Resources	When a general lack of resources (financial or dedicated time) is noted	Available Resources (The level of resources organizational dedicated for implementation and on-going operations including physical space and time.)
Lack of Cohesive Mission and Vision-includes reference to implicit or explicit organizational goals		
Externally Motivated	External goals (e.g., quality targets, financial penalties, public relations) cited as organizational motivation	**External Policy & Incentives** (A broad construct that includes external strategies to spread innovations including policy and regulations (governmental or other central entity), external mandates, recommendations and guidelines, pay-for-performance, collaboratives, and public or benchmark reporting.) and **Peer pressure** (Mimetic or competitive pressure to implement an innovation,

Domain Theme/Code[a] Code	Pertinent Definition, Inclusions, Exclusions, and Notes	Corresponding Consolidated Framework for Implementation Research[1] Code (Definition)
		typically because most or other key peer or competing organizations have already implemented or are in a bid for a competitive edge)
Vision of Mediocrity	Generally low expectations (lacking a vision of excellence)	
Conflicting Missions	When implicit and explicit goals differ or there are competing priorities	
Poorly Defined	Poorly set or poorly communicated organizational goals or expectations	
System Shocks (An organization-wide event or change that detracts from day to day operations)		N/A
Senior Leadership Turnover	When management turnover is noted as a reason for difficulty	
Financial Failure or Severe Difficulties	New or worsening organization-wide financial difficulties	
Mergers (or Reorganization)	Include any organizational restructuring	
New Electronic Health Record	Adoption (or changing) of an electronic health record system	
Major Scandals	Any mention of public relations difficulties	
External relationships		Cosmopolitanism (the degree to which an organization is networked with other external organizations)
Other hospitals	Include referral centers	Includes External Change Agents (Individuals who are affiliated with an outside entity who formally influence or facilitate innovation decisions in a desirable direction.)
Stakeholders	Includes patients/public	Includes Innovation Participants (Individuals served by the organization that participate in the innovation, e.g., patients in a prevention program in a hospital.)
Governing body		

[a]Many codes (e.g., mergers, lack of resources) remained as stand-alone themes.

Supplementary Table 2. Study Characteristics

Source	Country	Journal	Condition for Low-Performing	Cut-off for Low-Performing	Primary Sampling Unit	Secondary Sampling Unit[a]	Study Quality[b]
Overall Performance							
D'Aunno et al, 2016[2]	USA	Health Services Research	Avoidable costs (avoidable inpatient admissions, 30 day readmission, ED visits) and quality of care (3 diabetes measures, 2 CHF measures, 3 COPD measures)	Bottom 50% (then picked 3)	3 primary care ACOs	60 "key individuals": board chair, CEO, CFO, manager responsible for ACO operations; also 14 interviews with informants from insurance plan who oversaw the implementation of work that spanned all ACOs	6/10
Mabuchi et al, 2017[3]	Nigeria	Health Policy and Planning	Levels of performance-based financial incentive earning	Not reported	4 primary care health centers	Health center leaders, health workers, chairperson of Ward Development Committee, Local Government Area primary health care center department supervisor, and performance based financing consultant (# not reported)	8/10
Mannion et al, 2005[4]	UK	Journal of Health Organization and Management	United Kingdom Department of Health's star performance rating	0 or 1 star (out of 3)	4 hospitals	8-11 key managers and senior clinicians per hospital	6/10

Source	Country	Journal	Condition for Low-Performing	Cut-off for Low-Performing	Primary Sampling Unit	Secondary Sampling Unit[a]	Study Quality[b]
Ravaghi et al, 2015[5]	UK	The Health Care Manager	United Kingdom Department of Health's star performance rating	0 star (out of 3)	1 hospital	57 “key informants”	7/10
Composite Metric							
Brewster et al, 2016[6]	USA	Medical Care	Risk-standardized readmission rates	>1% point increase in readmissions over 2 years	3 hospitals	82 “key staff”, including physicians, nurses, and staff	8/10
Chang et al, 2017[7]	USA	Annals of Emergency Medicine	CMS's case-mix-adjusted ED LOS and boarding times for admitting patients	Bottom 5%	4 hospitals	60 “key hospital informants”: administrative leadership and members of flow task forces (hospital executives, ED chairs and directors, nurse managers, and hospitalists)	9/10
Engle et al, 2017[8]	USA	Psychological Services	Composite quality measure and resident centered care score	“Low” on both quality and resident centered care; also added a site based on “site visitor impressions”	5 VA Community Living Centers (VA nursing homes)	108 executive leaders, middle managers, and frontline staff	8/10
Fetene et al, 2016[9]	Ethiopia	PLOS One	5 quality indicators obtained from Health Management Information System primary health system-based planning report	Bottom 5%	3 primary health systems	94 clinical and administrative staff	7/10

Source	Country	Journal	Condition for Low-Performing	Cut-off for Low-Performing	Primary Sampling Unit	Secondary Sampling Unit[a]	Study Quality[b]
Forbes-Thompson et al, 2007[10]	USA	Health Care Management Review	Deficiencies on most recent survey inspection	≥10 deficiencies (≥1 at “harm” level and ≥1 in "quality of care")	2 nursing homes	74 administrative, direct care, and ancillary staff	9/10
Hockey and Bates, 2010[11]	USA	The Joint Commission Journal on Quality and Patient Safety	Hospital Quality Alliance Data (CHF, pneumonia)	Bottom 10% for 2 years	2 hospitals	17 frontline physicians	8/10
Hogg et al, 2002[12]	Canada	Journal of Health Services Research & Policy	Preventative care performance	Low increase in performance	4 family practices	Physicians, nurses, and/or office staff (# not reported)	6/10
Hysong et al, 2007[13]	USA	Health Services Research	Guideline adherence scores for 6 VA Clinical Practice Guidelines	Sustained low adherence to Clinical Practice Guidelines and in bottom 3 of External Peer Review Rankings	3 VA primary care clinics	102 clinical and managerial personnel including leadership, middle management, and primary care providers	5/10
Miller-Day et al, 2017[14]	USA	Journal of Health Organization and Management	Diabetes performance measures and National Committee for Quality Assurance standards for Patient-Centered Medical Homes	Bottom 2 in combined metric (diabetes and Patient-Centered Medical Home standards)	2 primary care medical practices	33 interviews of 37 “diverse leaders and personnel” including physicians, nurse practitioners, office managers, and staff	6/10

Source	Country	Journal	Condition for Low-Performing	Cut-off for Low-Performing	Primary Sampling Unit	Secondary Sampling Unit[a]	Study Quality[b]
Scott-Cawiezell et al, 2005[15]	USA	Health Care Management Review	Performance on 3 Quality Indicators from the Minimum Data Set database for selection; then used composite measures to identify low-performers	Lower quintile by working condition and performance cluster	7 nursing homes	4 per site (112-128 total) key staff (Certified Nursing Assistants, Registered Nurses, Licensed Practical Nurses, administrators, directors of nursing)	5/10
Shin et al, 2014[16]	USA	Medical Care Research and Review	AHRQ's Patient Safety Indicators (PSI-90) composite score	Bottom 5 composite PSI 90 (then picked 3)	3 VA hospitals	138 patient safety staff and senior leaders	9/10
Young et al, 1997[17]	USA	Health Care Management Review	Risk adjusted 30-day mortality and morbidity (post op complications) rates for a major surgical procedure	One of the 5 highest observed to expected mortality or morbidity ratios	10 VA surgical services	Physician and nursing leadership, QI staff, surgeons, anesthesiologists, nurses, and clinical support staff (# not reported)	6/10
Disease-Specific Metric							
Bickell et al, 2016[18]	USA	Health Services Research	Underuse of breast cancer care	Greater than 15% underuse	4 hospitals	90 oncologists, leaders, and clinical staff	6/10
Caris et al, 2017[19]	Netherlands	Infection Control and Hospital Epidemiology	No improvement in hand hygiene rates	2 least improved (no improvement)	2 units in an acute care hospital	24 unit managers, physicians, and nurses	8/10
Chuang et al, 2017[20]	USA	Vaccine	HPV vaccine initiation and completion rates	Not reported	2 outpatient family medicine/pediatric clinics in FQHC	36 clinic care team members and key stakeholders in senior leadership within the FQHC	7/10

Source	Country	Journal	Condition for Low-Performing	Cut-off for Low-Performing	Primary Sampling Unit	Secondary Sampling Unit[a]	Study Quality[b]
Curry et al, 2011[21] and Landman et al, 2013[22]	USA	Annals of Internal Medicine; Annals of Emergency Medicine	30-day risk standardized mortality rates for patients hospitalized with acute myocardial infarction	Bottom 5% in risk-standardized mortality rates for 2 years	4 hospitals	158 physicians, nurses, administrative, and clinical staff	6/10
Ellerbe et al, 2017[23]	USA	Addiction Science & Clinical Practice	Pre-admission Substance Use Disorder treatment metrics (wait time, engagement while waiting)	Not reported	14 VA substance use disorder or mental health residential rehabilitation treatment programs	63 staff with social work degree or PhD, physicians or nurses (all providers) or program managers	7/10
Gabbay et al, 2013[24]	USA	Annals of Family Medicine	Improvement in 3 registry-based performance measures related to diabetes care	5 least improved (lowest quintile)	5 adult primary care practices	55 clinicians, managers, and staff	6/10
Gagliardi and Nathens, 2015[25]	Canada	Journal of Trauma Acute Care Surgery	ED length of stay (prior to transfer to designated trauma center)	Longer than median ED length of stay (11 highest of 22)	9 EDs	27 ED physicians and nurses	6/10
Hafner et al, 2008[26]	USA	Journal of Clinical Outcomes Management	Provision of smoking cessation counselling in adult patients in acute myocardial infarction, heart failure, and pneumonia populations	10 hospitals with least improvement (-19% to 10%)	7 hospitals	1-11 per site (mean 6);14 group interviews with physicians, clinical staff, and QI individuals	9/10
Kirsh et al, 2012[27]	USA	American Journal of Medical Quality	% of patients with A1C >9%	“Stratified into high, mid and low”	3 VA community based outpatient clinics	More than 29 including site visits; primary clinic directors and/or primary care leaders, physicians, nurses, pharmacists	2/10

Source	Country	Journal	Condition for Low-Performing	Cut-off for Low-Performing	Primary Sampling Unit	Secondary Sampling Unit[a]	Study Quality[b]
McAlearney et al, 2015;[28] McAlearney et al, 2016;[29] and McAlearney and Hefner, 2016[30]	USA	Infection Control and Hospital Epidemiology; Health Care Manage Review; Medical Care Research and Review	CLABSI rates	CLABSI rates increased, stayed the same, were inconsistent, or failed to reach zero despite intervention	3 hospitals	194 administrative and clinical leaders, staff, and frontline clinicians and nurses	9/10
Newby et al, 2016[31]	UK	Family Practice	Vaccination rates	Uptake below 75% in two or more at-risk groups	10 family practices	20 senior members of staff (18 practice managers and 2 general practitioners)	8/10
Ralston et al, 2017[32]	USA	Academic Pediatrics	Use of bronchodilators and steroids during bronchiolitis quality improvement collaborative	End of project performance and magnitude of change, stratified by quartile, oversampling top and bottom (80%)	4 children's hospitals	Team members from the collaborative: mostly physicians, also nurses and respiratory therapists (# not reported)	8/10
Rose et al, 2012[33]	USA	Health Services Research	Anticoagulation Control; defined by time in therapeutic range for warfarin	Selected 3 of bottom 10 (out of 100)	3 anticoagulation clinics	55 staff, physicians and pharmacists	9/10
Wakeam et al, 2014[34]	USA	The Joint Commission Journal on Quality and Patient Safety	Hospital Compares' PSI 04 (Death rates among surgical inpatients with serious treatable complications)	Rates worse than national average	3 hospitals	106 chiefs, surgeons, nurses, rapid response team members, and quality officers	6/10

Abbreviations: ACO, Accountable Care Organization; AHRQ, Agency for Healthcare Research and Quality; CEO, chief executive officer; CFO, chief financial officer; CHF, congestive heart failure; CLABSI, central line-associated bloodstream infection; CMS, Centers for Medicare and Medicaid Services; COPD, chronic obstructive pulmonary disease; ED,

Emergency Department; FQHC, Federally Qualified Health Center; HPV, Human Papillomavirus; LOS, length of stay; PSI; Patient Safety Indicators' PSI-90, Patient Safety and Adverse Events Composite; VA, Veterans Affairs; UK, United Kingdom; USA, United States of America

[a] As studies often did not report separate values, secondary sampling units include also, when applicable, interviewees in mid- or high-performing sites.

[b] Based on Critical Appraisal Skills Programme (CASP) Qualitative Research Checklist. Scores are out of a potential 10 points, with 10 indicating higher quality. The breakdown of individual scores can be found in **Supplementary Table 3**.

Supplementary Table 3. Risk of Bias of Included Studies using the Critical Appraisal Skills Programme Tool

Source	Statement of Aims	Appropriate Method	Appropriate Design	Appropriate Recruitment	Appropriate Data Collection	Relationship Between Researcher and Participant Considered	Ethical Issues Considered	Rigorous Data Analysis	Statement of Findings	How Valuable is the Research?	Total
Overall Performance											
D'Aunno et al., 2016	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	Can't Tell	Yes	Less Valuable	6/10
Mabuchi et al., 2017	Yes	Yes	Yes	Can't Tell	Yes	Yes	No	Yes	Yes	Valuable	8/10
Mannion et al., 2005	Yes	Yes	Yes	Can't Tell	Yes	No	No	Can't Tell	Yes	Valuable	6/10
Ravaghi et al., 2015	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	Can't Tell	Yes	Valuable	7/10
Composite Metric											
Brewster et al., 2016	Yes	Yes	Yes	Yes	Yes	No	Yes	Can't Tell	Yes	Valuable	8/10
Chang et al., 2017	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Valuable	9/10
Engle et al., 2017	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	Yes	Yes	Valuable	8/10
Fetene et al., 2016	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	Yes	Yes	Less Valuable	7/10
Forbes-Thompson et al., 2007	Yes	Yes	Yes	Can't Tell	Yes	Yes	Yes	Yes	Yes	Valuable	9/10
Hockey and Bates, 2010	Yes	Yes	Yes	Yes	Yes	No	Yes	Can't Tell	Yes	Valuable	8/10
Hogg et al., 2002	Yes	Yes	Yes	Can't Tell	Yes	Yes	No	Can't Tell	Yes	Less Valuable	6/10

Source	Statement of Aims	Appropriate Method	Appropriate Design	Appropriate Recruitment	Appropriate Data Collection	Relationship Between Researcher and Participant Considered	Ethical Issues Considered	Rigorous Data Analysis	Statement of Findings	How Valuable is the Research?	Total
Hysong et al., 2007	Yes	Can't Tell	No	Yes	Yes	No	Yes	Can't Tell	Yes	Less Valuable	5/10
Miller-Day et al., 2017	Yes	Yes	Yes	Can't Tell	Yes	No	No	Can't Tell	Yes	Valuable	6/10
Scott-Cawiezell et al., 2005	Yes	Yes	Yes	Can't Tell	Yes	No	No	Can't Tell	Yes	Less Valuable	5/10
Shin et al., 2014	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Valuable	9/10
Young et al., 1997	Yes	Yes	Yes	Can't Tell	Yes	No	No	Can't Tell	Yes	Valuable	6/10
Disease-Specific Metric											
Bickell et al., 2016	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	No	Yes	Less Valuable	6/10
Caris et al., 2017	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Valuable	8/10
Chuang et al., 2017	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	No	Yes	Valuable	7/10
Curry et al., 2011 and Landman et al., 2013	Yes	Yes	Yes	Can't Tell	Yes	No	No	Can't Tell	Yes	Valuable	6/10
Ellerbe et al., 2017	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Valuable	7/10
Gabbay et al., 2013	Yes	Yes	Yes	Can't Tell	Yes	No	No	Can't Tell	Yes	Valuable	6/10
Gagliardi and Nathens, 2015	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	Can't Tell	Yes	Not Valuable	6/10

Source	Statement of Aims	Appropriate Method	Appropriate Design	Appropriate Recruitment	Appropriate Data Collection	Relationship Between Researcher and Participant Considered	Ethical Issues Considered	Rigorous Data Analysis	Statement of Findings	How Valuable is the Research?	Total
Hafner et al., 2008	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Less Valuable	9/10
Kirsch et al., 2012	Yes	No	Yes	Can't Tell	No	No	No	No	No	Not Valuable	2/10
McAlearney et al., 2015; McAlearney et al., 2016; and McAlearney and Hefner, 2016	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Valuable	9/10
Newby et al., 2016	Yes	Yes	Yes	Yes	Yes	No	Yes	Can't Tell	Yes	Valuable	8/10
Ralston et al., 2017	Yes	Yes	Yes	Can't Tell	Yes	Yes	Yes	Can't Tell	Yes	Valuable	8/10
Rose et al., 2012	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Valuable	9/10
Wakeam et al., 2014	Can't Tell	Yes	Yes	Yes	Yes	Yes	Can't Tell	No	Yes	Not Valuable	6/10

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