

Behaviour change: mobile and digital health interventions

Search strategies

NICE guideline

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1 Research questions

1. What intervention components and other study characteristics are associated with the effectiveness of digital and mobile health interventions to change established behaviours relating to physical activity, sedentary behaviour and diet?
2. What components and characteristics of digital and mobile health interventions are effective at changing smoking behaviour?
3. What components and characteristics of digital and mobile health interventions are effective at changing alcohol consumption?
4. What components and characteristics of digital and mobile health interventions are effective at changing unsafe sexual behaviour?
5. Cost effectiveness search combined for all four questions

Each question had a separate search strategy which combined a behaviour change set, an “unhealthy behaviour” set and a digital therapies set. The behaviour change and digital therapies sets were identical for each search. The unhealthy behaviour set matched the unhealthy behaviour in the question eg smoking behaviour.

The cost effectiveness search covered all four questions in one search.

Results were managed using Endnote. Grey literature searches were added to the Endnote database where possible but for some websites, results were collated in a Word document. Result numbers in search summary tables reflect the number of grey literature results added to Endnote.

2 Main searches: summary

2.1 Physical activity, sedentary behaviour and diet

Database name	Date searched	Update searches	Database Platform	Database segment or version	No. of results	No of results – update searches
Cochrane Central Register of Controlled Trials (CENTRAL)	8/11/2018	9/07/2019	Wiley	Cochrane Central Register of Controlled Trials Issue 10 of 12, October 2018	1903	337
Cochrane Database of Systematic Reviews (CDSR)	8/11/2018	9/07/2019	Wiley	Cochrane Database of Systematic Reviews Issue 11 of 12, November 2018	64	4
DARE	9/11/2018	Not searched because DARE no longer updated	CRD		458	n/a
Embase	8/11/2018	9/07/2019	Ovid	Embase 1974 to 2018 Week 45	9680	711
Health Management Information Consortium (HMIC)	8/11/2018	9/07/2019	Ovid	HMIC Health Management Information Consortium 1979 to July 2018	176	12
MEDLINE	8/11/2018	9/07/2019	Ovid	Ovid MEDLINE(R) 1946 to November 07, 2018	5796	305
MEDLINE-in-Process (including Epub Ahead-of-Print)	8/11/2018	9/07/2019	Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations November 07, 2018 Ovid MEDLINE(R) Epub Ahead of Print November 07, 2018	2723	777
PsycINFO	8/11/2018	9/07/2019	Ovid	PsycINFO 1967 to November Week 1 2018	3057	176

Social Policy and Practice (SPP)	8/11/2018	9/07/2019	Ovid	Social Policy and Practice 201810	77	14
Grey literature (incl Google, Google Scholar, NICE Evidence search)	15/11/201—19/11/2018	10/07/2019			93	27
Total					24,027	2,362

2.2 Smoking behaviour

Database name	Date searched	Update searches	Database Platform	Database segment or version	No. of results	No of results – update searches
Cochrane Central Register of Controlled Trials (CENTRAL)	11/02/2019	24/07/2019	Wiley	Cochrane Central Register of Controlled Trials Issue 2 of 12, February 2019	544	34
Cochrane Database of Systematic Reviews (CDSR)	11/02/2019	24/07/2019	Wiley	Cochrane Database of Systematic Reviews Issue 2 of 12, February 2019	35	3
DARE	11/02/2019	Not searched because DARE no longer updated	CRD		225	n/a
Embase	11/02/2019	24/07/2019	Ovid	Embase 1974 to 2019 Week 06	1498	118
Health Management Information Consortium (HMIC)	11/02/2019	24/07/2019	Ovid	HMIC Health Management Information Consortium 1979 to November 2018	87	1
MEDLINE	11/02/2019	24/07/2019	Ovid	Ovid MEDLINE(R) 1946 to February 08, 2019	840	55

MEDLINE-in-Process (including Epub Ahead-of-Print)	11/02/2019	24/07/2019	Ovid	Ovid MEDLINE(R) Epub Ahead of Print February 08, 2019 Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations 1946 to February 08, 2019	474	264
PsycINFO	11/02/2019	24/07/2019	Ovid	PsycINFO 1987 to February Week 1 2019	1201	36
Social Policy and Practice (SPP)	11/02/2019	24/07/2019	Ovid	Social Policy and Practice 201901	26	3
Grey literature (incl Google, Google Scholar, NICE Evidence search)	22/11/2018-06/12/2018	26/07/2019			58	11
Total					4,988	525

2.3 Alcohol consumption

Database name	Date searched	Update searches	Database Platform	Database segment or version	No. of results	No of results – update searches
Cochrane Central Register of Controlled Trials (CENTRAL)	4/03/2019	06/08/2019	Wiley	Cochrane Central Register of Controlled Trials Issue 3 of 12, March 2019	502	17
Cochrane Database of Systematic Reviews (CDSR)	4/03/2019	06/08/2019	Wiley	Cochrane Database of Systematic Reviews Issue 3 of 12, March 2019	26	0

DARE	4/03/2019	Not searched because DARE no longer updated	CRD		171	n/a
Embase	4/03/2019	06/08/2019	Ovid	Embase 1974 to 2019 Week 09	1220	90
Health Management Information Consortium (HMIC)	4/03/2019	06/08/2019	Ovid	HMIC Health Management Information Consortium 1979 to November 2018	57	
MEDLINE	4/03/2019	06/08/2019	Ovid	Ovid MEDLINE(R) 1946 to March 01, 2019	702	25
MEDLINE-in-Process (including Epub Ahead-of-Print)	4/03/2019	06/08/2019	Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations 1946 to March 01, 2019 Ovid MEDLINE(R) Epub Ahead of Print March 01, 2019	281	175
PsycINFO	4/03/2019	06/08/2019	Ovid	PsycINFO 1987 to February Week 4 2019	1390	37
Social Policy and Practice (SPP)	4/03/2019	06/08/2019	Ovid	Social Policy and Practice 201901	100	13
Grey literature (incl Google, Google Scholar, NICE Evidence search)	11/12/2018 - 21/12/2018	05/08/2019 - 12/08/2019			83	13
Total					4,532	370

2.4 Unsafe sexual behaviour

Database name	Date searched	Update searches	Database Platform	Database segment or version	No. of results	No of results – update searches
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Cochrane Central Register of Controlled Trials (CENTRAL)	07/01/2019	19/08/2019	Wiley	Cochrane Central Register of Controlled Trials Issue 1 of 12, January 2019	479	17
Cochrane Database of Systematic Reviews (CDSR)	07/01/2019	19/08/2019	Wiley	Cochrane Database of Systematic Reviews Issue 1 of 12, January 2019	40	6
DARE	07/01/2019	Not searched because DARE no longer updated	CRD		400	
Embase	07/01/2019	19/08/2019	Ovid	Embase 1974 to 2019 Week 01	3819	411
Health Management Information Consortium (HMIC)	07/01/2019	19/08/2019	Ovid	HMIC Health Management Information Consortium 1979 to September 2018	42	0
MEDLINE	07/01/2019	19/08/2019	Ovid	Ovid MEDLINE(R) ALL 1946 to January 04, 2019	2972	236
MEDLINE-in-Process (including Epub Ahead-of-Print)	07/01/2019	19/08/2019	Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations January 04, 2019 Ovid MEDLINE(R) Epub Ahead of Print January 04, 2019	2725	1325
PsycINFO	07/01/2019	19/08/2019	Ovid	PsycINFO 1987 to December Week 5 2018	1484	87
Social Policy and Practice (SPP)	07/01/2019	19/08/2019	Ovid	Social Policy and Practice 201810	224	10

Grey literature (incl Google, Google Scholar, NICE Evidence search)	10/01/2019 - 15/01/2019				42	7
Total					12,227	2,099

3 Main searches: database strategies

3.1 Physical activity, sedentary behaviour and diet

3.1.1 Database name: MEDLINE

- 1 Health Behavior/ (45366)
- 2 Health Knowledge, Attitudes, Practice/ (99108)
- 3 Risk Reduction Behavior/ (11030)
- 4 Behavior Therapy/ (26424)
- 5 PSYCHOTHERAPY/ (51947)
- 6 Cognitive Therapy/ (22446)
- 7 MOTIVATION/ (61241)
- 8 Patient Education as Topic/ (80668)
- 9 Patient acceptance of healthcare/ (40472)
- 10 Health promotion/ (67656)
- 11 "Outcome and Process Assessment (Health Care)"/ (25372)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (30919)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (85007)
- 14 motivat*.ti. (14276)
- 15 or/1-14 (527599)

- 16 exp EXERCISE/ (171384)
- 17 exp EXERCISE MOVEMENT TECHNIQUES/ (7181)
- 18 exp SPORTS/ (166933)
- 19 exp exercise therapy/ (44336)
- 20 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (59119)
- 21 SEDENTARY LIFESTYLE/ (7177)
- 22 exercis*.ti. (96830)
- 23 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*)).tw. (8118)
- 24 FOOD HABITS/ (75391)
- 25 FOOD PREFERENCES/ (13035)
- 26 Nutrition therapy/ (1900)
- 27 *DIET/ (71091)
- 28 Body Mass Index/ (113344)
- 29 Healthy diet/ (1823)
- 30 diet*.ti. (153498)
- 31 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (128024)
- 32 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (12651)
- 33 or/16-32 (758745)
- 34 TELEMEDICINE/ (18331)

- 35 Therapy, Computer-Assisted/ (6379)
- 36 User-Computer Interface/ (34997)
- 37 Software Design/ (5717)
- 38 MULTIMEDIA/ (1800)
- 39 Computers, Handheld/ (3273)
- 40 Videotape Recording/ (11109)
- 41 Internet/ (66293)
- 42 Social Networking/ (2217)
- 43 Blogging/ (889)
- 44 Social Media/ (5146)
- 45 Electronic Mail/ (2463)
- 46 Cell Phones/ (7521)
- 47 Text Messaging/ (2056)
- 48 Smartphone/ (2343)
- 49 Mobile Applications/ (3510)
- 50 WEARABLE ELECTRONIC DEVICES/ (593)
- 51 Video Games/ (4436)
- 52 Virtual Reality/ (534)
- 53 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (40496)

- 54 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (10611)
- 55 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (4836)
- 56 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (2356)
- 57 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw. (7304)
- 58 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (9090)
- 59 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (6362)
- 60 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (8308)
- 61 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (274438)
- 62 (e-mail* or email* or electronic mail*).tw. (11269)
- 63 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (10144)
- 64 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (32928)
- 65 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (40211)
- 66 ((virtual or augmented) adj3 reality).tw. (6570)
- 67 Speech Recognition Software/ (638)

68 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw.
(697)

69 IVR.tw. (930)

70 or/34-69 (483456)

71 and/15,33,70 (6324)

72 limit 71 to yr="2000 -Current" (6070)

73 limit 72 to english language (5924)

74 Animals/ not Humans/ (4479922)

75 73 not 74 (5861)

76 limit 75 to (clinical conference or comment or editorial or historical article or
letter or news) (65)

77 75 not 76 (5796)

3.1.2 Database name: MiP/epub ahead of print

1 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification
or modify or modifying or therapy or therapies or program* or intervention* or
technique* or establish* or individual*)).ti. (5552)

2 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification
or modify or modifying or therapy or therapies or program* or intervention* or
technique* or establish* or individual*)).ab. (16505)

3 motivat*.ti. (2403)

4 or/1-3 (21473)

- 5 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (9718)
- 6 exercis*.ti. (12262)
- 7 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*)).tw. (1940)
- 8 diet*.ti. (18469)
- 9 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (21136)
- 10 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (2037)
- 11 or/5-10 (58215)
- 12 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (15582)
- 13 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1863)
- 14 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2042)
- 15 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (458)
- 16 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (2274)
- 17 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5168)
- 18 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (5560)

- 19 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw.
(7089)
- 20 (app or apps or wearable* or online* or on-line* or internet* or www or web or
website* or webpage* or portal or search engine*).tw. (65697)
- 21 (e-mail* or email* or electronic mail*).tw. (2935)
- 22 (text messag* or texting or texter* or texted or SMS or short messag* or
multimedia messag* or multi-media messag* or mms or instant messag* or picture
messag* or audio messag*).tw. (2348)
- 23 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or
Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or
Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*).tw. (9986)
- 24 (social media* or social network* or blog* or vlog* or video-blog* or gaming or
game or games or gamification or wii fit or discussion board* or online forum*).tw.
(12082)
- 25 ((virtual or augmented) adj3 reality).tw. (1960)
- 26 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (97)
- 27 IVR.tw. (320)
- 28 or/12-27 (111342)
- 29 and/4,11,28 (687)
- 30 limit 29 to yr="2000 -Current" (684)
- 31 11 and 28 (3986)
- 32 limit 31 to yr="2017 -Current" (2530)
- 33 30 or 32 (2777)
- 34 limit 33 to english language (2743)

35 limit 34 to (clinical conference or comment or editorial or historical article or letter or news) (20)

36 34 not 35 (2723)

3.1.3 Database name: Cochrane Library (CDSR and CENTRAL)

#1 [mh ^"Health Behavior"]

#2 [mh ^"Health Knowledge, Attitudes, Practice"]

3 [mh ^"Risk Reduction Behavior"]

#4 [mh ^"Behavior Therapy"]

#5 [mh ^Psychotherapy]

#6 [mh ^"Cognitive Therapy"]

#7 [mh ^Motivation]

#8 [mh ^"Patient Education as Topic"]

#9 [mh ^"Patient acceptance of healthcare"]

#10 [mh ^"Health promotion"]

#11 [mh ^"Outcome and Process Assessment (Health Care)"]

#12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ti

#13 ((behavio?r* or lifestyle* or "life style*") near/2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ab,kw

#14 motivat*:ti

#15 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14

#16 [mh Exercise]

#17 [mh "EXERCISE MOVEMENT TECHNIQUES"]

#18 [mh Sports]

#19 [mh "exercise therapy"]

#20 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) near/3 (fit* or activ* or train*)):ti

#21 [mh "Sedentary lifestyle"]

#22 exercis*:ti

#23 (sedentary near/3 (behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*)):ab

#24 [mh ^"Food habits"]

#25 [mh ^"Food preferences"]

#26 [mh ^"Nutrition therapy"]

#27 [mh Diet[mj]]

#28 [mh ^"Body mass index"]

#29 [mh ^"Healthy diet"]

#30 diet*:ti

#31 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) near/3 (eat* or diet* or food* or nutrition* or weight* or or overweight)):ab

#32 ((fruit* or vegetable*) near/2 (intake* or consum* or eat* or ate)):ab

#33 #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32

#34 [mh ^Telemedicine]

#35 [mh ^"Therapy, Computer-Assisted"]

#36 [mh ^"User-Computer Interface"]

#37 [mh ^"Software design"]

#38 [mh ^Multimedia]

#39 [mh ^"Computers, Handheld"]

#40 [mh ^"Videotape Recording"]

#41 [mh ^Internet]

#42 [mh ^"Social networking"]

#43 [mh ^Blogging]

#44 [mh ^"Social media"]

#45 [mh ^"Electronic mail"]

#46 [mh ^"Cell Phones"]

#47 [mh ^"Text messaging"]

#48 [mh ^Smartphone]

#49 [mh ^"Mobile applications"]

#50 [mh ^"Wearable electronic devices"]

#51 [mh ^"Video games"]

#52 [mh ^"Virtual reality"]

#53 ((digital* or digitis* or digitiz* or electronic*) near/3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)):ab

#54 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*):ab

#55 (ehealth* or e-health* or mhealth* or m-health* or mobile health*):ab

#56 ((laptop or palm or handheld or tablet or pda or pc) near/2 comput*):ab

#57 ((mobile* or cell* or tablet*) near (phone* or telephone* or handset* or hand-set*)):ab

#58 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*):ab

#59 ((mobile or electronic* or digital*) near/2 (device* or tablet*)):ab

#60 ((mobile or electronic* or digital* or device* or software*) near/3 application*):ab

#61 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*):ab

#62 (e-mail* or email* or electronic mail*):ab

#63 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*):ab

#64 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*):ab

#65 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*):ab

#66 ((virtual or augmented) near/3 reality):ab

#67 [mh ^"Speech recognition software"]

#68 ((voice* or speech or speak*) near/3 response* near/3 (interact* or unit*)):ab,kw

#69 IVR:ab

#70 {Or #34-#69}

#71 #15 and #33 and #70 with Cochrane Library publication date from Jan 2000 to Nov 2018

#72 "clinicaltrials.gov":so

#73 #71 not #72

3.1.4 Database name: Embase

- 1 behavior change/ (29391)
- 2 health behavior/ (59758)
- 3 attitude to health/ or risk reduction/ (192061)
- 4 behavior therapy/ (40715)
- 5 psychotherapy/ (81097)
- 6 cognitive therapy/ (42638)
- 7 motivation/ (90746)
- 8 patient education/ (105532)
- 9 patient attitude/ (61821)
- 10 health promotion/ (89150)
- 11 Outcome assessment/ (448013)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (43685)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (137647)
- 14 motivat*.ti. (17800)
- 15 or/1-14 (1198160)
- 16 exp exercise/ (298037)
- 17 exp kinesiotherapy/ (68117)

- 18 exp sport/ (142089)
- 19 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (81311)
- 20 sedentary lifestyle/ or sitting/ (30206)
- 21 physical activity/ (132254)
- 22 exercis*.ti. (130755)
- 23 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*)).tw. (13255)
- 24 feeding behavior/ or Food intake/ or Portion size/ (176889)
- 25 food preference/ (12258)
- 26 diet therapy/ (48221)
- 27 *diet/ (64556)
- 28 unhealthy diet/ or healthy diet/ (2104)
- 29 body mass/ (356222)
- 30 diet*.ti. (188606)
- 31 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (196642)
- 32 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (18628)
- 33 or/16-32 (1360806)
- 34 telemedicine/ (19543)
- 35 computer assisted therapy/ (4456)
- 36 computer interface/ (29004)

- 37 digital computer/ (2367)
- 38 software design/ (552)
- 39 multimedia/ (3483)
- 40 personal digital assistant/ (1284)
- 41 videorecording/ (71739)
- 42 Internet/ (99751)
- 43 social network/ (12880)
- 44 blogging/ (244)
- 45 social media/ (13012)
- 46 e-mail/ (17567)
- 47 mobile phone/ (14530)
- 48 text messaging/ (3664)
- 49 smartphone/ (6537)
- 50 mobile application/ (6928)
- 51 electronic device/ (1544)
- 52 video game/ (2261)
- 53 virtual reality/ (13789)
- 54 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (80547)
- 55 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (16499)

- 56 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (7789)
- 57 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (3723)
- 58 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw. (12046)
- 59 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (20026)
- 60 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (12173)
- 61 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (14541)
- 62 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (451625)
- 63 (e-mail* or email* or electronic mail*).tw. (27897)
- 64 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (17229)
- 65 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (59664)
- 66 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (62037)
- 67 ((virtual or augmented) adj3 reality).tw. (11126)
- 68 automatic speech recognition/ (915)
- 69 interactive voice response system/ (569)

70 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw.
(1114)

71 IVR.tw. (1794)

72 or/34-71 (837047)

73 and/15,33,72 (13565)

74 limit 73 to yr="2000 -Current" (13264)

75 limit 74 to english language (12971)

76 Nonhuman/ not human/ (4246142)

77 75 not 76 (12843)

78 limit 77 to (conference abstract or conference paper or "conference review" or
editorial or letter) (3163)

79 77 not 78 (9680)

3.1.5 Database name: PsycINFO

1 Behavior Change/ (11277)

2 READINESS TO CHANGE/ or CHANGE STRATEGIES/ (1681)

3 Lifestyle Changes/ (1193)

4 Health Behavior/ or Health Knowledge/ (31941)

5 Health Attitudes/ or Harm Reduction/ (12667)

6 Attitude Change/ or Behavioural Intention/ (6829)

7 Behavior Therapy/ (13320)

8 PSYCHOTHERAPY/ (48624)

- 9 Cognitive Behavior Therapy/ or Cognitive Therapy/ (29984)
- 10 MOTIVATION/ (46364)
- 11 Client Education/ (3687)
- 12 Health Promotion/ (22777)
- 13 Treatment Outcomes/ (31291)
- 14 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (38395)
- 15 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (92104)
- 16 motivat*.ti. (32129)
- 17 or/1-16 (317910)
- 18 exp EXERCISE/ (23943)
- 19 exp Physical Activity/ (37125)
- 20 exp SPORTS/ (24239)
- 21 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (18154)
- 22 SEDENTARY BEHAVIOR/ (1138)
- 23 exercis*.ti. (14081)
- 24 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*)).tw. (3224)
- 25 Eating Behavior/ or Eating attitudes/ (12388)

- 26 Food Preferences/ (4343)
- 27 Food Intake/ (13733)
- 28 DIETS/ or Dietary restraint/ (13137)
- 29 Body Mass Index/ (4943)
- 30 diet*.ti. (9667)
- 31 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*)
adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (41207)
- 32 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (3282)
- 33 or/18-32 (131348)
- 34 TELEMEDICINE/ (4551)
- 35 Computer Assisted Therapy/ (972)
- 36 Human Computer Interaction/ (9780)
- 37 Computer Assisted Instruction/ or Computer Software/ (24450)
- 38 MULTIMEDIA/ (2280)
- 39 Digital Computers/ (1092)
- 40 Videotapes/ (2441)
- 41 INTERNET/ or Websites/ or Electronic Learning/ (31497)
- 42 Social Networks/ (10999)
- 43 Blog/ or Online Social Networks/ (7030)
- 44 Social Media/ (5819)
- 45 Computer Mediated Communication/ (5408)
- 46 Cellular Phones/ (4120)

- 47 Text Messaging/ (691)
- 48 Mobile Devices/ (2081)
- 49 Computer Applications/ (11148)
- 50 TECHNOLOGY/ or Electronic Communication/ (37971)
- 51 Computer Games/ (6594)
- 52 Virtual Reality/ (7318)
- 53 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (12991)
- 54 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (3026)
- 55 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2340)
- 56 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (1165)
- 57 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw. (4951)
- 58 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5001)
- 59 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (3237)
- 60 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (2387)
- 61 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (132728)
- 62 (e-mail* or email* or electronic mail*).tw. (8919)

- 63 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (4485)
- 64 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (25070)
- 65 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (74553)
- 66 ((virtual or augmented) adj3 reality).tw. (5485)
- 67 Automated Speech Recognition/ (961)
- 68 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (343)
- 69 IVR.tw. (270)
- 70 or/34-69 (294052)
- 71 and/17,33,70 (3414)
- 72 limit 71 to yr="2000 -Current" (3198)
- 73 limit 72 to english language (3103)
- 74 limit 73 to ("comment/reply" or editorial or letter) (46)
- 75 73 not 74 (3057)

3.1.6 Database name: HMIC

- 1 behaviour change/ (536)
- 2 health behaviour/ or behaviour adaption/ or behaviour adjustment/ (1530)

- 3 behaviour therapy/ (248)
- 4 Psychotherapy/ (732)
- 5 Motivation/ or Achievement motivation/ (548)
- 6 Patient education/ (516)
- 7 Patient attitudes/ (164)
- 8 Health promotion/ (6615)
- 9 Patient outcome/ (3131)
- 10 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (890)
- 11 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,sh. (2944)
- 12 motivat*.ti. (362)
- 13 or/1-12 (15711)
- 14 exp exercise/ (147)
- 15 exp physical activity/ (2650)
- 16 exp Sport/ (322)
- 17 exp exercise therapy/ or Fitness/ or Physical fitness/ (336)
- 18 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (1302)
- 19 Sedentary life/ (166)
- 20 exercis*.ti. (901)

- 21 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*)).tw. (226)
- 22 exp Food habits/ (688)
- 23 Diet/ (2218)
- 24 body mass index/ (691)
- 25 Nutrition/ (1840)
- 26 diet*.ti. (1378)
- 27 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (3512)
- 28 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (533)
- 29 or/14-28 (9797)
- 30 telemedicine/ or telehealth/ or telecare/ (2041)
- 31 exp Digital technology/ (24)
- 32 exp Digital media/ (47)
- 33 Computer software/ or Computer programs/ (635)
- 34 Multi media/ (54)
- 35 Personal digital assistants/ (2)
- 36 Videos/ or Video cameras/ (245)
- 37 Internet/ or exp Internet websites/ (2519)
- 38 Social networking/ (39)
- 39 Blogging/ (6)
- 40 Email/ (146)

- 41 Mobile telephones/ (278)
- 42 Text messaging/ (84)
- 43 Health technology/ or Telemeters/ (665)
- 44 Computer games/ (37)
- 45 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (1554)
- 46 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1357)
- 47 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (314)
- 48 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (55)
- 49 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (298)
- 50 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (138)
- 51 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (68)
- 52 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (112)
- 53 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (9066)
- 54 (e-mail* or email* or electronic mail*).tw. (641)

- 55 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (223)
- 56 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (643)
- 57 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (1568)
- 58 ((virtual or augmented) adj3 reality).tw. (51)
- 59 Speech transmission systems/ (8)
- 60 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (13)
- 61 IVR.tw. (7)
- 62 or/30-61 (16830)
- 63 and/13,29,62 (184)
- 64 limit 63 to yr="2000 -Current" (176)

3.1.7 Database name: SPP

- 1 (behaviour or behaviour change or behaviour modification).de. (4610)
- 2 health behaviour.de. (4)
- 3 Attitudes.de. (11556)
- 4 (risk reduction* or risk perception*).de. (24)
- 5 Psychotherapy.de. (2761)

- 6 cognitive behavioural therapy.de. (379)
- 7 Motivation.de. (959)
- 8 (patient education or health education).de. (1584)
- 9 compliance*.de. (74)
- 10 patient participation.de. (5)
- 11 (health promotion or health improvement or outcomes).de. (8394)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (1168)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,de. (3938)
- 14 motivat*.ti. (483)
- 15 or/1-14 (31071)
- 16 (Exercise or Physical exercise).de. (1783)
- 17 Kinesiology.de. (1)
- 18 Sports.de. (32)
- 19 Keeping fit.de. (118)
- 20 Physical activity.de. (134)
- 21 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (693)
- 22 Inactivity.de. (58)
- 23 exercis*.ti. (595)

- 24 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*)).tw,de. (64)
- 25 (Food or Fast foods).de. (890)
- 26 Consumption.de. (110)
- 27 Nutrition.de. (1404)
- 28 Diet.de. (594)
- 29 body mass index.de. (10)
- 30 (healthy diet or unhealthy diet).de. (5)
- 31 diet*.ti. (213)
- 32 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw,de. (2312)
- 33 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw,de. (87)
- 34 or/16-33 (5683)
- 35 (telemedicine or telehealth or telecare).de. (331)
- 36 (Computers or Digital Technology).de. (2013)
- 37 Software.de. (100)
- 38 multimedia.de. (13)
- 39 Information technology.de. (3813)
- 40 videos.de. (211)
- 41 Internet.de. (2887)
- 42 Online services.de. (102)
- 43 (Social networks or Social Networking).de. (2616)

- 44 Blogging.de. (1)
- 45 (online communities or websites).de. (13)
- 46 Social media.de. (561)
- 47 email.de. (77)
- 48 mobile phones.de. (163)
- 49 text messag*.de. (1)
- 50 Computer apps.de. (50)
- 51 Computer games.de. (95)
- 52 virtual reality.de. (3)
- 53 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw,de. (875)
- 54 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw,de. (676)
- 55 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw,de. (47)
- 56 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw,de. (45)
- 57 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw,de. (288)
- 58 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw,de. (119)
- 59 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw,de. (92)

- 60 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw,de. (56)
- 61 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw,de. (8920)
- 62 (e-mail* or email* or electronic mail*).tw,de. (519)
- 63 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw,de. (110)
- 64 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw,de. (3844)
- 65 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw,de. (5913)
- 66 ((virtual or augmented) adj3 reality).tw,de. (62)
- 67 assistive technology.de. (1551)
- 68 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,de. (4)
- 69 IVR.tw,de. (8)
- 70 or/35-69 (22461)
- 71 and/15,34,70 (79)
- 72 limit 71 to yr="2000 -Current" (77)

3.1.8 Database name: DARE

1 MeSH DESCRIPTOR Health Behavior

2 MeSH DESCRIPTOR Health Knowledge, Attitudes, Practice

3 MeSH DESCRIPTOR Risk Reduction Behavior

4 MeSH DESCRIPTOR Behavior Therapy

5 MeSH DESCRIPTOR PSYCHOTHERAPY

6 MeSH DESCRIPTOR Cognitive Therapy

7 MeSH DESCRIPTOR MOTIVATION

8 MeSH DESCRIPTOR Patient Education as Topic

9 MeSH DESCRIPTOR Patient Acceptance of Health Care

10 MeSH DESCRIPTOR Health promotion

11 MeSH DESCRIPTOR Outcome and Process Assessment (Health Care)

12 ((behavio?r* or lifestyle* or "life style*")) AND ((change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*))

13 (motivat*):TI

14 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13

15 MeSH DESCRIPTOR Exercise EXPLODE ALL TREES

16 MeSH DESCRIPTOR Exercise Movement Techniques EXPLODE ALL TREES

17 MeSH DESCRIPTOR Sports EXPLODE ALL TREES

18 MeSH DESCRIPTOR Exercise Therapy EXPLODE ALL TREES

19 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*)):TI AND ((fit* or activ* or train*)):TI

20 MeSH DESCRIPTOR Sedentary Lifestyle

21 (exercis*):TI

22 (sedentary) AND ((behavio?r* or lifestyle* or less or time or change* or changing or modification or modify or modifying or program* or intervention*))

23 MeSH DESCRIPTOR Feeding Behavior

24 MeSH DESCRIPTOR FOOD PREFERENCES

25 MeSH DESCRIPTOR Nutrition therapy

26 MeSH DESCRIPTOR Diet

27 MeSH DESCRIPTOR body mass index

28 MeSH DESCRIPTOR healthy diet

29 (diet*):TI

30 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*))
AND ((eat* or diet* or food* or nutrition* or weight* or overweight))

31 ((fruit* or vegetable*)) AND ((intake* or consum* or eat* or ate))

32 #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24
OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31

33 MeSH DESCRIPTOR Telemedicine

34 MeSH DESCRIPTOR Therapy, Computer-Assisted

35 MeSH DESCRIPTOR User-Computer Interface

36 MeSH DESCRIPTOR Software design

37 MeSH DESCRIPTOR Multimedia

38 MeSH DESCRIPTOR Computers, Handheld

39 MeSH DESCRIPTOR Videotape Recording

40 MeSH DESCRIPTOR Internet

41 MeSH DESCRIPTOR Social Networking

42 MeSH DESCRIPTOR Blogging

43 MeSH DESCRIPTOR social media

44 MeSH DESCRIPTOR Electronic Mail

45 MeSH DESCRIPTOR cell phones

46 MeSH DESCRIPTOR text messaging

47 MeSH DESCRIPTOR Smartphone

48 MeSH DESCRIPTOR Mobile Applications

49 MeSH DESCRIPTOR Video games

50 MeSH DESCRIPTOR Virtual Reality Exposure Therapy

51 ((digital* or digitis* or digitiz* or electronic*)) AND ((intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*))

52 ((telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*))

53 ((ehealth* or e-health* or mhealth* or m-health* or mobile health*))

54 ((laptop or palm or handheld or tablet or pda or pc)) AND (comput*)

55 ((mobile* or cell* or tablet*)) AND ((phone* or telephone* or handset* or hand-set*))

56 ((smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*))

57 ((mobile or electronic* or digital*)) AND ((device* or tablet*))

58 ((mobile or electronic* or digital* or device* or software*)) AND (application*)

59 ((app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*))

60 ((e-mail* or email* or electronic mail*))

61 ((text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*))

62 ((Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*))

63 ((social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*))

64 ((virtual or augmented)) AND (reality)

65 MeSH DESCRIPTOR Speech Recognition Software

66 ((voice* or speech or speak*)) AND (response*) AND ((interact* or unit*))

67 (IVR)

68 #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42
OR #43 OR #44 OR #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52
OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62
OR #63 OR #64 OR #65 OR #66 OR #67

69 #14 AND #32 AND #68

70 (#69) IN DARE FROM 2000 TO 2018

3.2 Smoking behaviour

3.2.1 Database name: MEDLINE

- 1 Health Behavior/ (45998)
- 2 Health Knowledge, Attitudes, Practice/ (100865)
- 3 Risk Reduction Behavior/ (11213)
- 4 Behavior Therapy/ (26580)
- 5 PSYCHOTHERAPY/ (52215)
- 6 Cognitive Therapy/ (22800)
- 7 MOTIVATION/ (62037)
- 8 Patient Education as Topic/ (81276)
- 9 Patient acceptance of healthcare/ (41250)
- 10 Health promotion/ (68489)
- 11 "Outcome and Process Assessment (Health Care)"/ (25522)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (31704)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (88724)
- 14 motivat*.ti. (14510)
- 15 or/1-14 (536362)

- 16 SMOKING/ (134753)
- 17 SMOKING CESSATION/ (26364)
- 18 "TOBACCO USE CESSATION"/ or exp "TOBACCO USE"/ or "TOBACCO USE DISORDER"/ (13254)
- 19 SMOKERS/ (620)
- 20 Electronic Nicotine Delivery Systems/ or Vaping/ (2220)
- 21 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (2052)
- 22 "TOBACCO USE CESSATION PRODUCTS"/ (1540)
- 23 exp Pipe smoking/ (77)
- 24 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (1458)
- 25 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (205322)
- 26 (tobacco* or nicotin* or cigar* or cigs).tw. (181417)
- 27 or/16-26 (345447)
- 28 TELEMEDICINE/ (18800)
- 29 Therapy, Computer-Assisted/ (6426)
- 30 User-Computer Interface/ (35277)
- 31 Software Design/ (5745)
- 32 MULTIMEDIA/ (1812)
- 33 Computers, Handheld/ (3309)
- 34 Videotape Recording/ (11143)
- 35 Internet/ (67139)

- 36 Social Networking/ (2375)
- 37 Online Social Networking/ (18)
- 38 Blogging/ (899)
- 39 Social Media/ (5446)
- 40 Electronic Mail/ (2497)
- 41 Cell Phones/ (7646)
- 42 Text Messaging/ (2135)
- 43 Smartphone/ (2586)
- 44 Mobile Applications/ (3730)
- 45 WEARABLE ELECTRONIC DEVICES/ (808)
- 46 Video Games/ (4564)
- 47 Virtual Reality/ (665)
- 48 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (41615)
- 49 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (10819)
- 50 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (5012)
- 51 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (2389)
- 52 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (7469)

- 53 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (9549)
- 54 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (6581)
- 55 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (8536)
- 56 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (280473)
- 57 (e-mail* or email* or electronic mail*).tw. (11530)
- 58 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (10364)
- 59 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (34101)
- 60 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (41293)
- 61 ((virtual or augmented) adj3 reality).tw. (6746)
- 62 Speech Recognition Software/ (650)
- 63 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (708)
- 64 IVR.tw. (952)
- 65 or/28-64 (493916)
- 66 and/15,27,65 (2474)

- 67 Meta-Analysis.pt. (97015)
- 68 Network Meta-Analysis/ (636)
- 69 Meta-Analysis as Topic/ (16706)
- 70 Review.pt. (2318258)
- 71 exp Review Literature as Topic/ (11888)
- 72 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw. (115177)
- 73 (review\$ or overview\$).ti. (377372)
- 74 (systematic\$ adj5 (review\$ or overview\$)).tw. (116572)
- 75 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw. (7413)
- 76 ((studies or trial\$) adj2 (review\$ or overview\$)).tw. (35528)
- 77 (integrat\$ adj3 (research or review\$ or literature)).tw. (8779)
- 78 (pool\$ adj2 (analy\$ or data)).tw. (22678)
- 79 (handsearch\$ or (hand adj3 search\$)).tw. (7549)
- 80 (manual\$ adj3 search\$).tw. (4682)
- 81 or/67-80 (2528618)
- 82 Randomized Controlled Trial.pt. (475681)
- 83 Controlled Clinical Trial.pt. (92882)
- 84 Clinical Trial.pt. (514173)
- 85 exp Clinical Trials as Topic/ (321696)
- 86 Placebos/ (34221)
- 87 Random Allocation/ (97558)

- 88 Double-Blind Method/ (149490)
- 89 Single-Blind Method/ (26248)
- 90 Cross-Over Studies/ (44557)
- 91 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw. (975109)
- 92 (random\$ adj3 allocat\$).tw. (27650)
- 93 placebo\$.tw. (182980)
- 94 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw. (146764)
- 95 (crossover\$ or (cross adj over\$)).tw. (68920)
- 96 or/82-95 (1712382)
- 97 81 or 96 (3920585)
- 98 66 and 97 (889)
- 99 limit 98 to yr="2000 -Current" (863)
- 100 limit 99 to english language (843)
- 101 Animals/ not Humans/ (4512858)
- 102 100 not 101 (843)
- 103 limit 102 to (clinical conference or comment or editorial or historical article or letter or news) (3)
- 104 102 not 103 (840)

3.2.2 Database name: MiP/epub ahead of print

- 1 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (5816)
- 2 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (17525)
- 3 motivat*.ti. (2494)
- 4 or/1-3 (22693)
- 5 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (1078)
- 6 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (483)
- 7 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (25123)
- 8 (tobacco* or nicotin* or cigar* or cigs).tw. (22000)
- 9 or/5-8 (39150)
- 10 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (16574)
- 11 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1980)
- 12 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2245)
- 13 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (493)
- 14 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (2413)

- 15 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5603)
- 16 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (5868)
- 17 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (7421)
- 18 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (69440)
- 19 (e-mail* or email* or electronic mail*).tw. (3073)
- 20 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (2480)
- 21 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*).tw. (10582)
- 22 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (12606)
- 23 ((virtual or augmented) adj3 reality).tw. (2133)
- 24 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (97)
- 25 IVR.tw. (318)
- 26 or/10-25 (117363)
- 27 and/4,9,26 (192)
- 28 Meta-Analysis.pt. (42)
- 29 Review.pt. (159953)

- 30 (metaanaly* or metanaly* or (meta adj3 analy*)).tw. (28086)
- 31 (review* or overview*).ti. (83068)
- 32 (systematic* adj5 (review* or overview*)).tw. (33457)
- 33 ((quantitative* or qualitative*) adj5 (review* or overview*)).tw. (1914)
- 34 ((studies or trial*) adj2 (review* or overview*)).tw. (6880)
- 35 (integrat* adj3 (research or review* or literature)).tw. (2100)
- 36 (pool* adj2 (analy* or data)).tw. (4190)
- 37 (handsearch* or (hand adj3 search*)).tw. (1071)
- 38 (manual* adj3 search*).tw. (908)
- 39 or/28-38 (242740)
- 40 Randomized Controlled Trial.pt. (277)
- 41 Controlled Clinical Trial.pt. (20)
- 42 Clinical Trial.pt. (404)
- 43 ((random* or control* or clinical*) adj3 (trial* or stud*)).tw. (144673)
- 44 (random* adj3 allocat*).tw. (4701)
- 45 placebo*.tw. (18600)
- 46 ((singl* or doubl* or trebl* or tripl*) adj (blind* or mask*)).tw. (14844)
- 47 (crossover* or (cross adj over*)).tw. (11600)
- 48 or/40-47 (161861)
- 49 39 or 48 (370340)
- 50 27 and 49 (102)

51	limit 50 to yr="2000 -Current" (102)
52	9 and 26 (2292)
53	49 and 52 (655)
54	limit 53 to yr="2017 -Current" (449)
55	51 or 54 (481)
56	limit 55 to english language (474)
57	limit 56 to (clinical conference or comment or editorial or historical article or letter or news) (0)
58	56 not 57 (474)

3.2.3 Database name: Cochrane Library

#1	[mh ^"Health Behavior"]
#2	[mh ^"Health Knowledge, Attitudes, Practice"]
#3	[mh ^"Risk Reduction Behavior"]
#4	[mh ^"Behavior Therapy"]
#5	[mh ^Psychotherapy]
#6	[mh ^"Cognitive Therapy"]
#7	[mh ^Motivation]
#8	[mh ^"Patient Education as Topic"]
#9	[mh ^"Patient acceptance of healthcare"]
#10	[mh ^"Health promotion"]

- #11 [mh ^"Outcome and Process Assessment (Health Care)"]
- #12 ((behaviour* or behavior* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ti
- #13 ((behaviour* or behavior* or lifestyle* or "life style*") near/2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ab,kw
- #14 motivat*:ti
- #15 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14
- #16 [mh ^Smoking]
- #17 [mh ^"Smoking cessation"]
- #18 [mh ^"Tobacco Use Cessation"]
- #19 [mh "Tobacco Use"]
- #20 [mh ^"Tobacco Use Disorder"]
- #21 [mh ^Smokers]
- #22 [mh "Electronic Nicotine Delivery Systems"]
- #23 [mh ^Vaping]
- #24 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*):ab,kw
- #25 [mh ^"Tobacco Use Cessation Products"]
- #26 [mh "Pipe smoking"]
- #27 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas):ab,kw

- #28 (smoking* or smoker* or antismok* or anti smok* or anti-smok*):ab,kw
- #29 (tobacco* or nicotin* or cigar* or cigs):ti,ab,kw
- #30 #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29
- #31 [mh ^Telemedicine]
- #32 [mh ^"Therapy, Computer-Assisted"]
- #33 [mh ^"User-Computer Interface"]
- #34 [mh ^"Software design"]
- #35 [mh ^Multimedia]
- #36 [mh ^"Computers, Handheld"]
- #37 [mh ^"Videotape Recording"]
- #38 [mh ^Internet]
- #39 [mh ^"Social networking"]
- #40 [mh ^"Online social networking"]
- #41 [mh ^Blogging]
- #42 [mh ^"Social media"]
- #43 [mh ^"Electronic mail"]
- #44 [mh ^"Cell Phones"]
- #45 [mh ^"Text messaging"]
- #46 [mh ^Smartphone]
- #47 [mh ^"Mobile applications"]
- #48 [mh ^"Wearable electronic devices"]

- #49 [mh ^"Video games"]
- #50 [mh ^"Virtual reality"]
- #51 ((digital* or digitis* or digitiz* or electronic*) near/3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)):ab
- #52 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*):ab
- #53 (ehealth* or e-health* or mhealth* or m-health* or mobile health*):ab
- #54 ((laptop or palm or handheld or tablet or pda or pc) near/2 comput*):ab
- #55 ((mobile* or cell* or tablet*) near (phone* or telephone* or handset* or hand-set*)):ab
- #56 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*):ab
- #57 ((mobile or electronic* or digital*) near/2 (device* or tablet*)):ab
- #58 ((mobile or electronic* or digital* or device* or software*) near/3 application*):ab
- #59 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*):ab
- #60 (e-mail* or email* or electronic mail*):ab
- #61 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*):ab
- #62 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*):ab

#63 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*):ab

#64 ((virtual or augmented) near/3 reality):ab

#65 [mh ^"Speech recognition software"]

#66 ((voice* or speech or speak*) near/3 response* near/3 (interact* or unit*)):ab,kw

#67 IVR:ab

#68 {Or #31-#67}

#69

#70 #15 and #30 and #68 with Cochrane Library publication date Between Jan 2000 and Feb 2019

#71 "clinicaltrials.gov":so

#72 #70 not #71

#73 "conference":pt

#74 #72 not #73

3.2.4 Database name: Embase

1 behavior change/ (30444)

2 health behavior/ (60877)

3 attitude to health/ or risk reduction/ (196107)

4 behavior therapy/ (41151)

5 psychotherapy/ (82217)

- 6 cognitive therapy/ (43214)
- 7 motivation/ (92768)
- 8 patient education/ (106934)
- 9 patient attitude/ (63002)
- 10 health promotion/ (90507)
- 11 Outcome assessment/ (462956)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (45279)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (145344)
- 14 motivat*.ti. (18266)
- 15 or/1-14 (1231018)
- 16 smoking/ (278726)
- 17 smoking cessation/ (54021)
- 18 smoking habit/ (21243)
- 19 cigarette smoking/ or cigar smoking/ (51856)
- 20 exp "tobacco use"/ or tobacco dependence/ (367934)
- 21 smoking cessation program/ or smoking reduction/ (3122)
- 22 "smoking and smoking related phenomena"/ (181)
- 23 electronic cigarette/ or vaping/ or pipe smoking/ (4632)
- 24 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (3570)

- 25 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (2328)
- 26 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (334320)
- 27 (tobacco* or nicotin* or cigar* or cigs).tw. (237702)
- 28 or/16-27 (562383)
- 29 telemedicine/ (20170)
- 30 computer assisted therapy/ (4489)
- 31 computer interface/ (29452)
- 32 digital computer/ (2383)
- 33 software design/ (595)
- 34 multimedia/ (3567)
- 35 personal digital assistant/ (1309)
- 36 videorecording/ (73914)
- 37 Internet/ (101548)
- 38 social network/ (13526)
- 39 Online support group/ (66)
- 40 blogging/ (260)
- 41 social media/ (14164)
- 42 e-mail/ (18157)
- 43 mobile phone/ (14928)
- 44 text messaging/ (3882)
- 45 smartphone/ (7433)

- 46 mobile application/ (7521)
- 47 electronic device/ (1911)
- 48 video game/ (2487)
- 49 virtual reality/ (14317)
- 50 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (84359)
- 51 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (17069)
- 52 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (8292)
- 53 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (3816)
- 54 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*).tw. (12477)
- 55 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (21376)
- 56 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (12891)
- 57 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (15383)
- 58 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (468882)
- 59 (e-mail* or email* or electronic mail*).tw. (28887)

- 60 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (17828)
- 61 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (62408)
- 62 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (64785)
- 63 ((virtual or augmented) adj3 reality).tw. (11653)
- 64 automatic speech recognition/ (947)
- 65 interactive voice response system/ (582)
- 66 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (1144)
- 67 IVR.tw. (1828)
- 68 or/29-67 (867700)
- 69 and/15,28,68 (4562)
- 70 Systematic Review/ (193259)
- 71 Meta Analysis/ (157344)
- 72 Review/ (2320702)
- 73 Review.pt. (2407121)
- 74 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw. (188476)
- 75 (review\$ or overview\$).ti. (526935)
- 76 (systematic\$ adj5 (review\$ or overview\$)).tw. (187820)

- 77 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw. (11319)
- 78 ((studies or trial\$) adj2 (review\$ or overview\$)).tw. (51130)
- 79 (integrat\$ adj3 (research or review\$ or literature)).tw. (12606)
- 80 (pool\$ adj2 (analy\$ or data)).tw. (39846)
- 81 (handsearch\$ or (hand adj3 search\$)).tw. (10524)
- 82 (manual\$ adj3 search\$).tw. (6858)
- 83 or/70-82 (2975277)
- 84 exp Clinical Trial/ (1365483)
- 85 Randomization/ (81161)
- 86 Placebo/ (330268)
- 87 Double Blind Procedure/ (157997)
- 88 Single Blind Procedure/ (33890)
- 89 Crossover Procedure/ (58176)
- 90 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw. (1538192)
- 91 (random\$ adj3 allocat\$).tw. (40333)
- 92 placebo\$.tw. (284981)
- 93 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw. (220701)
- 94 (crossover\$ or (cross adj over\$)).tw. (97886)
- 95 or/84-94 (2598686)
- 96 83 or 95 (5092940)
- 97 69 and 96 (1738)

- 98 limit 97 to yr="2000 -Current" (1719)
- 99 limit 98 to english language (1684)
- 100 Nonhuman/ not human/ (4311829)
- 101 99 not 100 (1683)
- 102 limit 101 to (conference abstract or conference paper or "conference review" or editorial or letter) (185)
- 103 101 not 102 (1498)

3.2.5 Database name: HMIC

- 1 behaviour change/ (538)
- 2 health behaviour/ or behaviour adaption/ or behaviour adjustment/ (1542)
- 3 behaviour therapy/ (249)
- 4 Psychotherapy/ (734)
- 5 Motivation/ or Achievement motivation/ (550)
- 6 Patient education/ (519)
- 7 Patient attitudes/ (164)
- 8 Health promotion/ (6622)
- 9 Patient outcome/ (3156)
- 10 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (893)

- 11 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,sh. (2967)
- 12 motivat*.ti. (364)
- 13 or/1-12 (15780)
- 14 Smoking/ or exp Smoking implements/ or Smoking cessation/ (4891)
- 15 Smokers/ (432)
- 16 exp tobacco/ or exp tobacco products/ or tobacco smoke/ or Tobacco consumption/ (1260)
- 17 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (76)
- 18 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (13)
- 19 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (7522)
- 20 (tobacco* or nicotin* or cigar* or cigs).tw. (3687)
- 21 or/14-20 (9383)
- 22 telemedicine/ or telehealth/ or telecare/ (2056)
- 23 exp Digital technology/ (24)
- 24 exp Digital media/ (47)
- 25 Computer software/ or Computer programs/ (635)
- 26 Multi media/ (54)
- 27 Personal digital assistants/ (2)
- 28 Videos/ or Video cameras/ (245)
- 29 Internet/ or exp Internet websites/ (2531)

- 30 Social networking/ (39)
- 31 Blogging/ (6)
- 32 Email/ (146)
- 33 Mobile telephones/ (278)
- 34 Text messaging/ (84)
- 35 Health technology/ or Telemeters/ (677)
- 36 Computer games/ (37)
- 37 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (1567)
- 38 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1361)
- 39 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (318)
- 40 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (55)
- 41 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (298)
- 42 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (140)
- 43 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (68)
- 44 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (112)
- 45 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (9096)

- 46 (e-mail* or email* or electronic mail*).tw. (642)
- 47 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (223)
- 48 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (648)
- 49 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (1579)
- 50 ((virtual or augmented) adj3 reality).tw. (51)
- 51 Speech transmission systems/ (8)
- 52 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (13)
- 53 IVR.tw. (8)
- 54 or/22-53 (16911)
- 55 and/13,21,54 (92)
- 56 limit 55 to yr="2000 -Current" (87)

3.2.6 Database name: PsycINFO

- 1 Behavior Change/ (10065)
- 2 READINESS TO CHANGE/ or CHANGE STRATEGIES/ (1679)
- 3 Lifestyle Changes/ (1212)
- 4 Health Behavior/ or Health Knowledge/ (31526)

- 5 Health Attitudes/ or Harm Reduction/ (12386)
- 6 Attitude Change/ or Behavioural Intention/ (3339)
- 7 Behavior Therapy/ (8299)
- 8 PSYCHOTHERAPY/ (41242)
- 9 Cognitive Behavior Therapy/ or Cognitive Therapy/ (29167)
- 10 MOTIVATION/ (40252)
- 11 Client Education/ (3407)
- 12 Health Promotion/ (22949)
- 13 Treatment Outcomes/ (30158)
- 14 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (31691)
- 15 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (83199)
- 16 motivat*.ti. (27515)
- 17 or/1-16 (280905)
- 18 TOBACCO SMOKING/ (27059)
- 19 Smoking Cessation/ (12240)
- 20 electronic cigarettes/ (814)
- 21 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (1205)
- 22 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (557)

- 23 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (46188)
- 24 (tobacco* or nicotin* or cigar* or cigs).tw. (43254)
- 25 or/18-24 (64135)
- 26 TELEMEDICINE/ (4658)
- 27 Computer Assisted Therapy/ (989)
- 28 Human Computer Interaction/ (9890)
- 29 Computer Assisted Instruction/ or Computer Software/ (21540)
- 30 MULTIMEDIA/ (2284)
- 31 Digital Computers/ (977)
- 32 Videotapes/ (1653)
- 33 INTERNET/ or Websites/ or Electronic Learning/ (31689)
- 34 Social Networks/ (11072)
- 35 Blog/ or Online Social Networks/ (7191)
- 36 Social Media/ (6127)
- 37 Computer Mediated Communication/ (5448)
- 38 Cellular Phones/ (4218)
- 39 Text Messaging/ (723)
- 40 Mobile Devices/ (2155)
- 41 Computer Applications/ (9222)
- 42 TECHNOLOGY/ or Electronic Communication/ (37568)
- 43 Computer Games/ (6683)

- 44 Virtual Reality/ (7441)
- 45 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (13138)
- 46 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (3090)
- 47 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2440)
- 48 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (1176)
- 49 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*).tw. (5057)
- 50 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5231)
- 51 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (3240)
- 52 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (2389)
- 53 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (134650)
- 54 (e-mail* or email* or electronic mail*).tw. (9035)
- 55 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (4520)
- 56 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (25349)

- 57 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (70615)
- 58 ((virtual or augmented) adj3 reality).tw. (5646)
- 59 Automated Speech Recognition/ (964)
- 60 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (342)
- 61 IVR.tw. (277)
- 62 or/26-61 (286223)
- 63 and/17,25,62 (1316)
- 64 limit 63 to yr="2000 -Current" (1264)
- 65 limit 64 to english language (1238)
- 66 limit 65 to ("comment/reply" or editorial or letter) (37)
- 67 65 not 66 (1201)

3.2.7 Database name: Social Policy and Practice

- 1 (behaviour or behaviour change or behaviour modification).de. (4625)
- 2 health behaviour.de. (4)
- 3 Attitudes.de. (11601)
- 4 (risk reduction* or risk perception*).de. (24)
- 5 Psychotherapy.de. (2773)
- 6 cognitive behavioural therapy.de. (386)
- 7 Motivation.de. (965)

- 8 (patient education or health education).de. (1593)
- 9 compliance*.de. (74)
- 10 patient participation.de. (5)
- 11 (health promotion or health improvement or outcomes).de. (8476)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (1180)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,de. (3986)
- 14 motivat*.ti. (487)
- 15 or/1-14 (31269)
- 16 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).de. (867)
- 17 (tobacco* or nicotin* or cigar* or cigs).de. (227)
- 18 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping).de. (0)
- 19 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (7)
- 20 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).de. (4)
- 21 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (5)
- 22 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (1387)
- 23 (tobacco* or nicotin* or cigar* or cigs).tw. (650)
- 24 or/16-23 (1927)

- 25 (telemedicine or telehealth or telecare).de. (336)
- 26 (Computers or Digital Technology).de. (2036)
- 27 Software.de. (99)
- 28 multimedia.de. (13)
- 29 Information technology.de. (3831)
- 30 videos.de. (212)
- 31 Internet.de. (2900)
- 32 Online services.de. (108)
- 33 (Social networks or Social Networking).de. (2652)
- 34 Blogging.de. (1)
- 35 (online communities or websites).de. (13)
- 36 Social media.de. (578)
- 37 email.de. (77)
- 38 mobile phones.de. (166)
- 39 text messag*.de. (1)
- 40 Computer apps.de. (55)
- 41 Computer games.de. (99)
- 42 virtual reality.de. (3)
- 43 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw,de. (892)

- 44 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or telecar*).tw,de. (679)
- 45 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw,de. (48)
- 46 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw,de. (46)
- 47 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw,de. (290)
- 48 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw,de. (123)
- 49 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw,de. (94)
- 50 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw,de. (59)
- 51 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw,de. (9013)
- 52 (e-mail* or email* or electronic mail*).tw,de. (524)
- 53 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw,de. (112)
- 54 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw,de. (3860)
- 55 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw,de. (5985)
- 56 ((virtual or augmented) adj3 reality).tw,de. (65)
- 57 assistive technology.de. (1578)

58 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,de. (4)
59 IVR.tw,de. (8)
60 or/25-59 (22654)
61 and/15,24,60 (27)
62 limit 61 to yr="2000 -Current" (26)

3.2.8 Database name: DARE

1 MeSH DESCRIPTOR Health Behavior
2 MeSH DESCRIPTOR Health Knowledge, Attitudes, Practice
3 MeSH DESCRIPTOR Risk Reduction Behavior
4 MeSH DESCRIPTOR Behavior Therapy
5 MeSH DESCRIPTOR PSYCHOTHERAPY
6 MeSH DESCRIPTOR Cognitive Therapy
7 MeSH DESCRIPTOR MOTIVATION
8 MeSH DESCRIPTOR Patient Education as Topic
9 MeSH DESCRIPTOR Patient Acceptance of Health Care
10 MeSH DESCRIPTOR Health promotion
11 MeSH DESCRIPTOR Outcome and Process Assessment (Health Care)
12 (behavio?r* or lifestyle* or "life style*") AND (change* or changing or modification*
or modify or modifying or therapy or therapies or program* or intervention* or
technique* or establish* or individual*)
13 (motivat*):TI

14 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13

15 MeSH DESCRIPTOR Smoking

16 MeSH DESCRIPTOR Smoking cessation

17 MeSH DESCRIPTOR Tobacco use cessation

18 MeSH DESCRIPTOR Tobacco use EXPLODE ALL TREES

19 MeSH DESCRIPTOR Tobacco use disorder

20 MeSH DESCRIPTOR Vaping

21 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*)

22 MeSH DESCRIPTOR tobacco use cessation products

23 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas)

24 (smoking* or smoker* or antismok* or anti smok* or anti-smok*)

25 (tobacco* or nicotin* or cigar* or cigs)

26 #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25

27 MeSH DESCRIPTOR Telemedicine

28 MeSH DESCRIPTOR Therapy, computer-assisted

29 MeSH DESCRIPTOR User-computer interface

30 MeSH DESCRIPTOR software design

31 MeSH DESCRIPTOR multimedia

32 MeSH DESCRIPTOR computers, handheld

33 MeSH DESCRIPTOR videotape recording

34 MeSH DESCRIPTOR Internet

35 MeSH DESCRIPTOR Social networking

36 MeSH DESCRIPTOR Blogging

37 MeSH DESCRIPTOR Social media

38 MeSH DESCRIPTOR Electronic mail

39 MeSH DESCRIPTOR cell phones

40 MeSH DESCRIPTOR text messaging

41 MeSH DESCRIPTOR Smartphone

42 MeSH DESCRIPTOR Mobile applications

43 MeSH DESCRIPTOR Video games

44 MeSH DESCRIPTOR Virtual Reality Exposure Therapy

45 (digital* or digitis* or digitiz* or electronic*) AND (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)

46 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*)

47 (ehealth* or e-health* or mhealth* or m-health* or mobile health*)

48 (laptop or palm or handheld or tablet or pda or pc) AND (comput*)

49 (mobile* or cell* or tablet*) AND (phone* or telephone* or handset* or hand-set*)

50 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*)

- 51 (mobile or electronic* or digital*) AND (device* or tablet*)
- 52 (mobile or electronic* or digital* or device* or software*) AND (application*)
- 53 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*)
- 54 (e-mail* or email* or electronic mail*)
- 55 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*)
- 56 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*)
- 57 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*)
- 58 (virtual or augmented) AND (reality)
- 59 MeSH DESCRIPTOR speech recognition software
- 60 (voice* or speech or speak*) AND (response*) AND (interact* or unit*)
- 61 (IVR)
- 62 #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR #60 OR #61
- 63 #14 AND #26 AND #62
- 64 (#63) IN DARE FROM 2000 TO 2019

3.3 Alcohol consumption

3.3.1 Database name: MEDLINE

- 1 Health Behavior/ (46140)
- 2 Health Knowledge, Attitudes, Practice/ (101193)
- 3 Risk Reduction Behavior/ (11250)
- 4 Behavior Therapy/ (26626)
- 5 PSYCHOTHERAPY/ (52286)
- 6 Cognitive Therapy/ (22884)
- 7 MOTIVATION/ (62224)
- 8 Patient Education as Topic/ (81391)
- 9 Patient acceptance of healthcare/ (41428)
- 10 Health promotion/ (68662)
- 11 "Outcome and Process Assessment (Health Care)"/ (25572)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (31810)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (89062)
- 14 motivat*.ti. (14560)
- 15 or/1-14 (537840)

- 16 exp ALCOHOL-RELATED DISORDERS/ (109007)
- 17 exp ALCOHOL DRINKING/ (64678)
- 18 exp Alcoholic Beverages/ (18754)
- 19 Drinking Behavior/ (6556)
- 20 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liquor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (102991)
- 21 or/16-20 (213980)
- 22 TELEMEDICINE/ (18901)
- 23 Therapy, Computer-Assisted/ (6434)
- 24 User-Computer Interface/ (35338)
- 25 Software Design/ (5750)
- 26 MULTIMEDIA/ (1817)
- 27 Computers, Handheld/ (3315)
- 28 Videotape Recording/ (11157)
- 29 Internet/ (67338)
- 30 Social Networking/ (2422)
- 31 Online Social Networking/ (20)
- 32 Blogging/ (904)
- 33 Social Media/ (5505)
- 34 Electronic Mail/ (2501)

- 35 Cell Phones/ (7667)
- 36 Text Messaging/ (2158)
- 37 Smartphone/ (2638)
- 38 Mobile Applications/ (3792)
- 39 WEARABLE ELECTRONIC DEVICES/ (832)
- 40 Video Games/ (4597)
- 41 Virtual Reality/ (691)
- 42 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (41843)
- 43 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (10852)
- 44 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (5043)
- 45 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (2393)
- 46 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (7505)
- 47 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (9635)
- 48 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (6616)
- 49 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (8585)
- 50 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (281790)

- 51 (e-mail* or email* or electronic mail*).tw. (11568)
- 52 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (10419)
- 53 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (34320)
- 54 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (41541)
- 55 ((virtual or augmented) adj3 reality).tw. (6772)
- 56 Speech Recognition Software/ (652)
- 57 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (709)
- 58 IVR.tw. (955)
- 59 or/22-58 (496087)
- 60 and/15,21,59 (2163)
- 61 Meta-Analysis.pt. (97619)
- 62 Network Meta-Analysis/ (661)
- 63 Meta-Analysis as Topic/ (16755)
- 64 Review.pt. (2323090)
- 65 exp Review Literature as Topic/ (11969)
- 66 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw. (116005)
- 67 (review\$ or overview\$).ti. (378914)

- 68 (systematic\$ adj5 (review\$ or overview\$)).tw. (117480)
- 69 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw. (7454)
- 70 ((studies or trial\$) adj2 (review\$ or overview\$)).tw. (35681)
- 71 (integrat\$ adj3 (research or review\$ or literature)).tw. (8838)
- 72 (pool\$ adj2 (analy\$ or data)).tw. (22782)
- 73 (handsearch\$ or (hand adj3 search\$)).tw. (7563)
- 74 (manual\$ adj3 search\$).tw. (4706)
- 75 or/61-74 (2534702)
- 76 Randomized Controlled Trial.pt. (476630)
- 77 Controlled Clinical Trial.pt. (92914)
- 78 Clinical Trial.pt. (514398)
- 79 exp Clinical Trials as Topic/ (322226)
- 80 Placebos/ (34251)
- 81 Random Allocation/ (97785)
- 82 Double-Blind Method/ (149735)
- 83 Single-Blind Method/ (26331)
- 84 Cross-Over Studies/ (44667)
- 85 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw. (977789)
- 86 (random\$ adj3 allocat\$).tw. (27734)
- 87 placebo\$.tw. (183312)
- 88 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw. (146988)

89 (crossover\$ or (cross adj over\$)).tw. (69052)
90 or/76-89 (1716105)
91 75 or 90 (3929425)
92 60 and 91 (744)
93 limit 92 to yr="2000 -Current" (719)
94 limit 93 to english language (709)
95 Animals/ not Humans/ (4519378)
96 94 not 95 (705)
97 limit 96 to (clinical conference or comment or editorial or historical article or letter or news) (3)
98 96 not 97 (702)

3.3.2 Database name: MiP/epub ahead of print

1 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (5874)
2 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (17652)
3 motivat*.ti. (2515)
4 or/1-3 (22853)
5 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or

excess* or binge* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (12400)

6 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (16821)

7 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (2003)

8 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2291)

9 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (502)

10 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*).tw. (2434)

11 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5704)

12 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (5928)

13 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (7486)

14 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (70169)

15 (e-mail* or email* or electronic mail*).tw. (3111)

16 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (2495)

- 17 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*).tw. (10744)
- 18 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (12721)
- 19 ((virtual or augmented) adj3 reality).tw. (2199)
- 20 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (96)
- 21 IVR.tw. (314)
- 22 or/6-21 (118611)
- 23 and/4-5,22 (155)
- 24 Meta-Analysis.pt. (49)
- 25 Review.pt. (161417)
- 26 (metaanaly* or metanaly* or (meta adj3 analy*)).tw. (28565)
- 27 (review* or overview*).ti. (80640)
- 28 (systematic* adj5 (review* or overview*)).tw. (34005)
- 29 ((quantitative* or qualitative*) adj5 (review* or overview*)).tw. (1936)
- 30 ((studies or trial*) adj2 (review* or overview*)).tw. (6926)
- 31 (integrat* adj3 (research or review* or literature)).tw. (2100)
- 32 (pool* adj2 (analy* or data)).tw. (4287)
- 33 (handsearch* or (hand adj3 search*)).tw. (1097)
- 34 (manual* adj3 search*).tw. (906)
- 35 or/24-34 (241680)

- 36 Randomized Controlled Trial.pt. (277)
- 37 Controlled Clinical Trial.pt. (20)
- 38 Clinical Trial.pt. (409)
- 39 ((random* or control* or clinical*) adj3 (trial* or stud*)).tw. (146330)
- 40 (random* adj3 allocat*).tw. (4768)
- 41 placebo*.tw. (18769)
- 42 ((singl* or doubl* or trebl* or tripl*) adj (blind* or mask*)).tw. (15010)
- 43 (crossover* or (cross adj over*)).tw. (11690)
- 44 or/36-43 (163618)
- 45 35 or 44 (370532)
- 46 23 and 45 (63)
- 47 limit 46 to yr="2000 -Current" (63)
- 48 5 and 22 (1905)
- 49 45 and 48 (415)
- 50 limit 49 to yr="2017 -Current" (264)
- 51 47 or 50 (282)
- 52 limit 51 to english language (281)

3.3.3 Database name: Cochrane Library (CDSR and CENTRAL)

#1 [mh ^"Health Behavior"]

- #2 [mh ^"Health Knowledge, Attitudes, Practice"]
- #3 [mh ^"Risk Reduction Behavior"]
- #4 [mh ^"Behavior Therapy"]
- #5 [mh ^Psychotherapy]
- #6 [mh ^"Cognitive Therapy"]
- #7 [mh ^Motivation]
- #8 [mh ^"Patient Education as Topic"]
- #9 [mh ^"Patient acceptance of healthcare"]
- #10 [mh ^"Health promotion"]
- #11 [mh ^"Outcome and Process Assessment (Health Care)"]
- #12 ((behavior* or behaviour* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ti
- #13 ((behavior* or behaviour* or lifestyle* or "life style*") near/2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ab
- #14 motivat*:ti
- #15 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14
- #16 [mh "ALCOHOL-RELATED DISORDERS"]
- #17 [mh "ALCOHOL DRINKING"]
- #18 [mh "Alcoholic Beverages"]
- #19 [mh ^"Drinking Behavior"]

#20 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) near/4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavior* or behaviour* or temperance or abstinence or abstain* or stop or stopping)):ab

#21 #16 or #17 or #18 or #19 or #20

#22 [mh ^Telemedicine]

#23 [mh ^"Therapy, Computer-Assisted"]

#24 [mh ^"User-Computer Interface"]

#25 [mh ^"Software design"]

#26 [mh ^Multimedia]

#27 [mh ^"Computers, Handheld"]

#28 [mh ^"Videotape Recording"]

#29 [mh ^Internet]

#30 [mh ^"Social networking"]

#31 [mh ^"Online social networking"]

#32 [mh ^Blogging]

#33 [mh ^"Social media"]

#34 [mh ^"Electronic mail"]

#35 [mh ^"Cell Phones"]

#36 [mh ^"Text messaging"]

#37 [mh ^Smartphone]

#38 [mh ^"Mobile applications"]

- #39 [mh ^"Wearable electronic devices"]
- #40 [mh ^"Video games"]
- #41 [mh ^"Virtual reality"]
- #42 ((digital* or digitis* or digitiz* or electronic*) near/3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)):ab
- #43 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*):ab
- #44 (ehealth* or e-health* or mhealth* or m-health* or mobile health*):ab
- #45 ((laptop or palm or handheld or tablet or pda or pc) near/2 comput*):ab
- #46 ((mobile* or cell* or tablet*) near (phone* or telephone* or handset* or hand-set*)):ab
- #47 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*):ab
- #48 ((mobile or electronic* or digital*) near/2 (device* or tablet*)):ab
- #49 ((mobile or electronic* or digital* or device* or software*) near/3 application*):ab
- #50 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*):ab
- #51 (e-mail* or email* or electronic mail*):ab
- #52 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*):ab

#53 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*):ab

#54 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*):ab

#55 ((virtual or augmented) near/3 reality):ab

#56 [mh ^"Speech recognition software"]

#57 ((voice* or speech or speak*) near/3 response* near/3 (interact* or unit*)):ab

#58 IVR:ab

#59 {Or #22-#58}

#60 #15 and #21 and #59 with Cochrane Library publication date Between Jan 2000 and Mar 2019

#61 "clinicaltrials.gov":so

#62 #60 not #61

#63 "conference":pt

#64 #62 not #63

3.3.4 Database name: Embase

- 1 behavior change/ (30441)
- 2 health behavior/ (60882)
- 3 attitude to health/ or risk reduction/ (195409)
- 4 behavior therapy/ (41044)

- 5 psychotherapy/ (82036)
- 6 cognitive therapy/ (43039)
- 7 motivation/ (92758)
- 8 patient education/ (106696)
- 9 patient attitude/ (62727)
- 10 health promotion/ (90537)
- 11 Outcome assessment/ (460124)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (45316)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (145486)
- 14 motivat*.ti. (18285)
- 15 or/1-14 (1227071)
- 16 drinking behavior/ (45254)
- 17 alcohol consumption/ (114734)
- 18 exp alcohol abuse/ (35042)
- 19 alcohol intoxication/ (11496)
- 20 alcohol abstinence/ (6156)
- 21 exp alcoholic beverage/ or alcohol/ (257113)
- 22 drunkenness/ (3763)

- 23 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (156657)
- 24 or/16-23 (427298)
- 25 telemedicine/ (20151)
- 26 computer assisted therapy/ (4469)
- 27 computer interface/ (29452)
- 28 digital computer/ (2384)
- 29 software design/ (593)
- 30 multimedia/ (3567)
- 31 personal digital assistant/ (1305)
- 32 videorecording/ (74035)
- 33 Internet/ (101340)
- 34 social network/ (13545)
- 35 Online support group/ (70)
- 36 blogging/ (262)
- 37 social media/ (14148)
- 38 e-mail/ (18198)
- 39 mobile phone/ (14891)
- 40 text messaging/ (3882)
- 41 smartphone/ (7470)

- 42 mobile application/ (7518)
- 43 electronic device/ (1943)
- 44 video game/ (2495)
- 45 virtual reality/ (14251)
- 46 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (84743)
- 47 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (17091)
- 48 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (8336)
- 49 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (3815)
- 50 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*).tw. (12509)
- 51 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (21493)
- 52 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (12936)
- 53 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (15499)
- 54 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (468906)
- 55 (e-mail* or email* or electronic mail*).tw. (28886)

- 56 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (17844)
- 57 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (62546)
- 58 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (64991)
- 59 ((virtual or augmented) adj3 reality).tw. (11610)
- 60 automatic speech recognition/ (940)
- 61 interactive voice response system/ (578)
- 62 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (1126)
- 63 IVR.tw. (1825)
- 64 or/25-63 (868010)
- 65 and/15,24,64 (4268)
- 66 Systematic Review/ (193733)
- 67 Meta Analysis/ (156788)
- 68 Review/ (2318937)
- 69 Review.pt. (2405833)
- 70 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw. (188010)
- 71 (review\$ or overview\$).ti. (526521)
- 72 (systematic\$ adj5 (review\$ or overview\$)).tw. (187531)

- 73 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw. (11288)
- 74 ((studies or trial\$) adj2 (review\$ or overview\$)).tw. (50967)
- 75 (integrat\$ adj3 (research or review\$ or literature)).tw. (12644)
- 76 (pool\$ adj2 (analy\$ or data)).tw. (39790)
- 77 (handsearch\$ or (hand adj3 search\$)).tw. (10387)
- 78 (manual\$ adj3 search\$).tw. (6868)
- 79 or/66-78 (2972619)
- 80 exp Clinical Trial/ (1363105)
- 81 Randomization/ (81107)
- 82 Placebo/ (329461)
- 83 Double Blind Procedure/ (157485)
- 84 Single Blind Procedure/ (33812)
- 85 Crossover Procedure/ (58109)
- 86 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw. (1534586)
- 87 (random\$ adj3 allocat\$).tw. (40186)
- 88 placebo\$.tw. (284239)
- 89 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw. (220232)
- 90 (crossover\$ or (cross adj over\$)).tw. (97758)
- 91 or/80-90 (2593108)
- 92 79 or 91 (5086246)
- 93 65 and 92 (1507)

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- 94 limit 93 to yr="2000 -Current" (1488)
 - 95 limit 94 to english language (1466)
 - 96 Nonhuman/ not human/ (4310881)
 - 97 95 not 96 (1456)
 - 98 limit 97 to (conference abstract or conference paper or "conference review" or editorial or letter) (236)
 - 99 97 not 98 (1220)

3.3.5 Database name: HMIC

- 1 behaviour change/ (538)
- 2 health behaviour/ or behaviour adaption/ or behaviour adjustment/ (1542)
- 3 behaviour therapy/ (249)
- 4 Psychotherapy/ (734)
- 5 Motivation/ or Achievement motivation/ (550)
- 6 Patient education/ (519)
- 7 Patient attitudes/ (164)
- 8 Health promotion/ (6622)
- 9 Patient outcome/ (3156)
- 10 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (893)

- 11 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,sh. (2967)
- 12 motivat*.ti. (364)
- 13 or/1-12 (15780)
- 14 exp Alcohol/ (635)
- 15 Alcohol consumption/ (2164)
- 16 Alcohol related problems/ (207)
- 17 Alcohol abuse/ or alcohol abusers/ (1095)
- 18 Drunkenness/ (58)
- 19 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liquor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (3772)
- 20 or/14-19 (5225)
- 21 telemedicine/ or telehealth/ or telecare/ (2056)
- 22 exp Digital technology/ (24)
- 23 exp Digital media/ (47)
- 24 Computer software/ or Computer programs/ (635)
- 25 Multi media/ (54)
- 26 Personal digital assistants/ (2)
- 27 Videos/ or Video cameras/ (245)

- 28 Internet/ or exp Internet websites/ (2531)
- 29 Social networking/ (39)
- 30 Blogging/ (6)
- 31 Email/ (146)
- 32 Mobile telephones/ (278)
- 33 Text messaging/ (84)
- 34 Health technology/ or Telemeters/ (677)
- 35 Computer games/ (37)
- 36 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (1567)
- 37 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1361)
- 38 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (318)
- 39 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (55)
- 40 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*).tw. (298)
- 41 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (140)
- 42 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (68)
- 43 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (112)

- 44 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (9096)
- 45 (e-mail* or email* or electronic mail*).tw. (642)
- 46 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (223)
- 47 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (648)
- 48 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (1579)
- 49 ((virtual or augmented) adj3 reality).tw. (51)
- 50 Speech transmission systems/ (8)
- 51 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (13)
- 52 IVR.tw. (8)
- 53 or/21-52 (16911)
- 54 and/13,20,53 (58)
- 55 limit 54 to yr="2000 -Current" (57)

3.3.6 Database name: PsycINFO

- 1 Behavior Change/ (10082)
- 2 READINESS TO CHANGE/ or CHANGE STRATEGIES/ (1683)

- 3 Lifestyle Changes/ (1215)
- 4 Health Behavior/ or Health Knowledge/ (31618)
- 5 Health Attitudes/ or Harm Reduction/ (12407)
- 6 Attitude Change/ or Behavioural Intention/ (3343)
- 7 Behavior Therapy/ (8308)
- 8 PSYCHOTHERAPY/ (41307)
- 9 Cognitive Behavior Therapy/ or Cognitive Therapy/ (29219)
- 10 MOTIVATION/ (40343)
- 11 Client Education/ (3410)
- 12 Health Promotion/ (22984)
- 13 Treatment Outcomes/ (30211)
- 14 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (31779)
- 15 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (83430)
- 16 motivat*.ti. (27599)
- 17 or/1-16 (281530)
- 18 exp Drinking Behavior/ (56784)
- 19 Alcohol Drinking Attitudes/ (2647)
- 20 Sobriety/ (1518)
- 21 exp Alcoholic Beverages/ (2362)

- 22 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (66669)
- 23 or/18-22 (85910)
- 24 TELEMEDICINE/ (4669)
- 25 Computer Assisted Therapy/ (996)
- 26 Human Computer Interaction/ (9905)
- 27 Computer Assisted Instruction/ or Computer Software/ (21560)
- 28 MULTIMEDIA/ (2288)
- 29 Digital Computers/ (979)
- 30 Videotapes/ (1655)
- 31 INTERNET/ or Websites/ or Electronic Learning/ (31736)
- 32 Social Networks/ (11097)
- 33 Blog/ or Online Social Networks/ (7224)
- 34 Social Media/ (6172)
- 35 Computer Mediated Communication/ (5454)
- 36 Cellular Phones/ (0)
- 37 Text Messaging/ (727)
- 38 Mobile Devices/ (2167)
- 39 Computer Applications/ (9229)
- 40 TECHNOLOGY/ or Electronic Communication/ (37661)

- 41 Computer Games/ (6701)
- 42 Virtual Reality/ (7466)
- 43 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (13218)
- 44 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (3101)
- 45 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2469)
- 46 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (1180)
- 47 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (5073)
- 48 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5288)
- 49 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (3257)
- 50 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (2409)
- 51 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (135269)
- 52 (e-mail* or email* or electronic mail*).tw. (9064)
- 53 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (4542)

- 54 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (25475)
- 55 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (70905)
- 56 ((virtual or augmented) adj3 reality).tw. (5680)
- 57 Automated Speech Recognition/ (966)
- 58 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (342)
- 59 IVR.tw. (277)
- 60 or/24-59 (287189)
- 61 and/17,23,60 (1532)
- 62 limit 61 to yr="2000 -Current" (1460)
- 63 limit 62 to english language (1427)
- 64 limit 63 to ("comment/reply" or editorial or letter) (37)
- 65 63 not 64 (1390)

3.3.7 Database name: Social Policy and Practice

- 1 (behaviour or behaviour change or behaviour modification).de. (4625)
- 2 health behaviour.de. (4)
- 3 Attitudes.de. (11601)
- 4 (risk reduction* or risk perception*).de. (24)

- 5 Psychotherapy.de. (2773)
- 6 cognitive behavioural therapy.de. (386)
- 7 Motivation.de. (965)
- 8 (patient education or health education).de. (1593)
- 9 compliance*.de. (74)
- 10 patient participation.de. (5)
- 11 (health promotion or health improvement or outcomes).de. (8476)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (1180)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,de. (3986)
- 14 motivat*.ti. (487)
- 15 or/1-14 (31269)
- 16 (drinking habit* or alcohol related harm* or binge drink* or alcohol consumption* or drunken* or abstinence* or alcohol use* or alcohol abus* or alcohol misus* or intoxicat*).de. (3346)
- 17 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw,de. (3735)
- 18 16 or 17 (5046)
- 19 (telemedicine or telehealth or telecare).de. (336)

- 20 (Computers or Digital Technology).de. (2036)
- 21 Software.de. (99)
- 22 multimedia.de. (13)
- 23 Information technology.de. (3831)
- 24 videos.de. (212)
- 25 Internet.de. (2900)
- 26 Online services.de. (108)
- 27 (Social networks or Social Networking).de. (2652)
- 28 Blogging.de. (1)
- 29 (online communities or websites).de. (13)
- 30 Social media.de. (578)
- 31 email.de. (77)
- 32 mobile phones.de. (166)
- 33 text messag*.de. (1)
- 34 Computer apps.de. (55)
- 35 Computer games.de. (99)
- 36 virtual reality.de. (3)
- 37 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw,de. (892)
- 38 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw,de. (679)

- 39 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw,de. (48)
- 40 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw,de. (46)
- 41 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw,de. (290)
- 42 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw,de. (123)
- 43 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw,de. (94)
- 44 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw,de. (59)
- 45 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw,de. (9013)
- 46 (e-mail* or email* or electronic mail*).tw,de. (524)
- 47 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw,de. (112)
- 48 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw,de. (3860)
- 49 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw,de. (5985)
- 50 ((virtual or augmented) adj3 reality).tw,de. (65)
- 51 assistive technology.de. (1578)
- 52 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*).tw,de. (4)

53 IVR.tw,de. (8)
54 or/19-53 (22654)
55 and/15,18,54 (103)
56 limit 55 to yr="2000 -Current" (100)

3.3.8 Database name: DARE

1 MeSH DESCRIPTOR Health Behavior
2 MeSH DESCRIPTOR Health Knowledge, Attitudes, Practice
3 MeSH DESCRIPTOR Risk Reduction Behavior
4 MeSH DESCRIPTOR Behavior Therapy
5 MeSH DESCRIPTOR PSYCHOTHERAPY
6 MeSH DESCRIPTOR Cognitive Therapy
7 MeSH DESCRIPTOR MOTIVATION
8 MeSH DESCRIPTOR Patient Education as Topic
9 MeSH DESCRIPTOR Patient Acceptance of Health Care
10 MeSH DESCRIPTOR Health promotion
11 MeSH DESCRIPTOR Outcome and Process Assessment (Health Care)
12 (behavio?r* or lifestyle* or "life style*") AND (change* or changing or modification*
or modify or modifying or therapy or therapies or program* or intervention* or
technique* or establish* or individual*)
13 (motivat*):TI

14 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13

15 MeSH DESCRIPTOR alcohol-related disorders EXPLODE ALL TREES

16 MeSH DESCRIPTOR alcohol drinking EXPLODE ALL TREES

17 MeSH DESCRIPTOR alcoholic beverages EXPLODE ALL TREES

18 MeSH DESCRIPTOR drinking behavior

19 (Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) AND (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or heaviest or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)

20 #15 OR #16 OR #17 OR #18 OR #19

21 MeSH DESCRIPTOR Telemedicine

22 MeSH DESCRIPTOR Therapy, Computer-Assisted

23 MeSH DESCRIPTOR User-Computer Interface

24 MeSH DESCRIPTOR Software design

25 MeSH DESCRIPTOR Multimedia

26 MeSH DESCRIPTOR Computers, Handheld

27 MeSH DESCRIPTOR Videotape Recording

28 MeSH DESCRIPTOR Internet

29 MeSH DESCRIPTOR Social Networking

30 MeSH DESCRIPTOR Blogging

31 MeSH DESCRIPTOR social media

32 MeSH DESCRIPTOR Electronic Mail

- 33 MeSH DESCRIPTOR cell phones
- 34 MeSH DESCRIPTOR text messaging
- 35 MeSH DESCRIPTOR Smartphone
- 36 MeSH DESCRIPTOR Mobile Applications
- 37 MeSH DESCRIPTOR Video games
- 38 MeSH DESCRIPTOR Virtual Reality Exposure Therapy
- 39 ((digital* or digitis* or digitiz* or electronic*)) AND ((intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*))
- 40 ((telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*))
- 41 ((ehealth* or e-health* or mhealth* or m-health* or mobile health*))
- 42 ((laptop or palm or handheld or tablet or pda or pc)) AND (comput*)
- 43 ((mobile* or cell* or tablet*)) AND ((phone* or telephone* or handset* or hand-set*))
- 44 ((smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*))
- 45 ((mobile or electronic* or digital*)) AND ((device* or tablet*))
- 46 ((mobile or electronic* or digital* or device* or software*)) AND (application*)
- 47 ((app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*))
- 48 ((e-mail* or email* or electronic mail*))

49 ((text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*))

50 ((Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*))

51 ((social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*))

52 ((virtual or augmented)) AND (reality)

53 MeSH DESCRIPTOR Speech Recognition Software

54 ((voice* or speech or speak*)) AND (response*) AND ((interact* or unit*))

55 (IVR)

56 #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52 OR #53 OR #54 OR #35

57 #14 AND #20 AND #56

58 (#57) IN DARE FROM 2000 TO 2019

3.4 Unsafe sexual behaviour

3.4.1 Database name: MEDLINE

- 1 Health Behavior/ (45735)
- 2 Health Knowledge, Attitudes, Practice/ (100104)

- 3 Risk Reduction Behavior/ (11126)
- 4 Behavior Therapy/ (26513)
- 5 PSYCHOTHERAPY/ (52086)
- 6 Cognitive Therapy/ (22511)
- 7 MOTIVATION/ (61689)
- 8 Patient Education as Topic/ (81026)
- 9 Patient acceptance of healthcare/ (40896)
- 10 Health promotion/ (68095)
- 11 "Outcome and Process Assessment (Health Care)"/ (25456)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (36892)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (102962)
- 14 motivat*.ti. (16890)
- 15 or/1-14 (553550)
- 16 exp Sexual Behavior/ (99179)
- 17 Sexual Health/ (384)
- 18 Sex education/ (8520)
- 19 exp Sexually Transmitted Diseases/ (323025)
- 20 HIV/ (17947)
- 21 Blood-Borne Pathogens/ (2912)

- 22 Pregnancy, Unplanned/ (1636)
- 23 Birth control/ (18898)
- 24 Pregnancy in Adolescence/ (7574)
- 25 Pregnancy Unwanted/ (2536)
- 26 Contraceptive Agents/ (4486)
- 27 Condoms/ (9651)
- 28 Contraception behavior/ (7465)
- 29 Condoms, Female/ (426)
- 30 (contracep* or condom*).tw. (79574)
- 31 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw. (81959)
- 32 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (316149)
- 33 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw. (15664)
- 34 (birth adj control*).tw. (4855)
- 35 (famil* adj3 plan*).tw. (27240)
- 36 or/16-35 (636204)
- 37 TELEMEDICINE/ (18600)
- 38 Therapy, Computer-Assisted/ (6398)
- 39 User-Computer Interface/ (35152)
- 40 Software Design/ (5729)

- 41 MULTIMEDIA/ (1807)
- 42 Computers, Handheld/ (3294)
- 43 Videotape Recording/ (11129)
- 44 Internet/ (66784)
- 45 Social Networking/ (2303)
- 46 Blogging/ (896)
- 47 Social Media/ (5336)
- 48 Electronic Mail/ (2484)
- 49 Cell Phones/ (7596)
- 50 Text Messaging/ (2095)
- 51 Smartphone/ (2476)
- 52 Mobile Applications/ (3633)
- 53 WEARABLE ELECTRONIC DEVICES/ (716)
- 54 Video Games/ (4517)
- 55 Virtual Reality/ (601)
- 56 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (57351)
- 57 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (12655)
- 58 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (7090)
- 59 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (2854)

- 60 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*)).tw. (9776)
- 61 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (14820)
- 62 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (12269)
- 63 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (15767)
- 64 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (346382)
- 65 (e-mail* or email* or electronic mail*).tw. (14435)
- 66 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (12707)
- 67 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (44063)
- 68 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (53377)
- 69 ((virtual or augmented) adj3 reality).tw. (8743)
- 70 Speech Recognition Software/ (644)
- 71 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (800)
- 72 IVR.tw. (1261)
- 73 or/37-72 (605180)

74 and/15,36,73 (3302)

75 limit 74 to yr="2000 -Current" (3093)

76 limit 75 to english language (3025)

77 Animals/ not Humans/ (4499580)

78 76 not 77 (3016)

79 limit 78 to (clinical conference or comment or editorial or historical article or letter or news) (45)

80 78 not 79 (2971)

3.4.2 Database name: MiP/epub ahead of print

1 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (5730)

2 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (16954)

3 motivat*.ti. (2463)

4 or/1-3 (22059)

5 (contracep* or condom*).tw. (5911)

6 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw. (10318)

7 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (30999)

- 8 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw. (1624)
- 9 (birth adj control*).tw. (388)
- 10 (famil* adj3 plan*).tw. (2515)
- 11 or/5-10 (45220)
- 12 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (16238)
- 13 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1932)
- 14 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2156)
- 15 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (479)
- 16 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (2391)
- 17 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5486)
- 18 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (5786)
- 19 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (7338)
- 20 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (68364)
- 21 (e-mail* or email* or electronic mail*).tw. (3026)

- 22 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (2442)
- 23 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*).tw. (10410)
- 24 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (12505)
- 25 ((virtual or augmented) adj3 reality).tw. (2072)
- 26 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (98)
- 27 IVR.tw. (321)
- 28 or/12-27 (115656)
- 29 and/4,11,28 (171)
- 30 limit 29 to yr="2000 -Current" (171)
- 31 11 and 28 (2798)
- 32 limit 31 to yr="2000 -Current" (2779)
- 33 30 or 32 (2779)
- 34 limit 33 to english language (2743)
- 35 limit 34 to (clinical conference or comment or editorial or historical article or letter or news) (18)
- 36 34 not 35 (2725)

3.4.3 Database name: Cochrane Library

#1 [mh ^"Health Behavior"]
#2 [mh ^"Health Knowledge, Attitudes, Practice"]
3 [mh ^"Risk Reduction Behavior"]
#4 [mh ^"Behavior Therapy"]
#5 [mh ^"Psychotherapy"]
#6 [mh ^"Cognitive Therapy"]
#7 [mh ^"Motivation"]
#8 [mh ^"Patient Education as Topic"]
#9 [mh ^"Patient acceptance of healthcare"]
#10 [mh ^"Health promotion"]
#11 [mh ^"Outcome and Process Assessment (Health Care)"]
#12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ti
#13 ((behavio?r* or lifestyle* or "life style*") near/2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ab,kw
#14 motivat*:ti
#15 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14
#16 [mh "Sexual Behavior"]
#17 [mh ^"Sexual health"]
#18 [mh ^"Sex education"]
#19 [mh "Sexually Transmitted Diseases"]
#20 [mh ^"HIV"]
#21 [mh ^"Blood-Borne Pathogens"]
#22 [mh ^"Pregnancy, Unplanned"]
#23 [mh ^"pregnancy, unwanted"]
#24 [mh ^"Birth control"]

- #25 [mh ^"Pregnancy in Adolescence"]
- #26 [mh ^"Contraceptive Agents"]
- #27 [mh ^Condoms]
- #28 [mh ^"contraceptive behavior"]
- #29 [mh ^"Condoms, Female"]
- #30 (contracep* or condom*):ab
- #31 ((sex* or intercourse or coit*) near/3 (risk* or protected or unprotected or safe* or unsafe* or behaviour* or behavior* or health* or unhealth* or educat*)):ti,ab
- #32 (STD* or STI* or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*):ti,ab
- #33 (pregnan* near/3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)):ti,ab
- #34 (birth near control*):ab
- #35 (famil* near/3 plan*):ab
- #36 {Or #16-#35}
- #37 [mh ^Telemedicine]
- #38 [mh ^"Therapy, Computer-Assisted"]
- #39 [mh ^"User-Computer Interface"]
- #40 [mh ^"Software design"]
- #41 [mh ^Multimedia]
- #42 [mh ^"Computers, Handheld"]
- #43 [mh ^"Videotape Recording"]
- #44 [mh ^Internet]
- #45 [mh ^"Social networking"]
- #46 [mh ^Blogging]
- #47 [mh ^"Social media"]
- #48 [mh ^"Electronic mail"]
- #49 [mh ^"Cell Phones"]
- #50 [mh ^"Text messaging"]
- #51 [mh ^Smartphone]
- #52 [mh ^"Mobile applications"]
- #53 [mh ^"Wearable electronic devices"]

#54 [mh ^"Video games"]

#55 [mh ^"Virtual reality"]

#56 ((digital* or digitis* or digitiz* or electronic*) near/3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)):ab

#57 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*):ab

#58 (ehealth* or e-health* or mhealth* or m-health* or mobile health*):ab

#59 ((laptop or palm or handheld or tablet or pda or pc) near/2 comput*):ab

#60 ((mobile* or cell* or tablet*) near (phone* or telephone* or handset* or hand-set*)):ab

#61 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*):ab

#62 ((mobile or electronic* or digital*) near/2 (device* or tablet*)):ab

#63 ((mobile or electronic* or digital* or device* or software*) near/3 application*):ab

#64 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*):ab

#65 (e-mail* or email* or electronic mail*):ab

#66 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*):ab

#67 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*):ab

#68 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*):ab

#69 ((virtual or augmented) near/3 reality):ab

#70 [mh ^"Speech recognition software"]

#71 ((voice* or speech or speak*) near/3 response* near/3 (interact* or unit*)):ab,kw

#72 IVR:ab

#73 {Or #37-#72}

#74 #15 and #36 and #73 with Cochrane Library publication date from Jan 2000 to Jan 2019

#75 #15 and #36 and #73 with Publication Year from 2000 to 2019, in Trials

#76 #74 or #75

#77 "clinicaltrials.gov":so

#78 #76 not #77

3.4.4 Database name: Embase

- 1 behavior change/ (30093)
- 2 health behavior/ (60366)
- 3 attitude to health/ or risk reduction/ (194221)
- 4 behavior therapy/ (40848)
- 5 psychotherapy/ (81702)
- 6 cognitive therapy/ (42744)
- 7 motivation/ (91873)
- 8 patient education/ (106325)
- 9 patient attitude/ (62471)
- 10 health promotion/ (89869)
- 11 Outcome assessment/ (457551)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (44283)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (139728)
- 14 motivat*.ti. (18066)
- 15 or/1-14 (1215576)

- 16 exp sexual behavior/ (193296)
- 17 sexual health/ (13798)
- 18 sexual education/ (10760)
- 19 exp sexually transmitted disease/ (82498)
- 20 Human immunodeficiency virus/ (107366)
- 21 bloodborne bacterium/ (1917)
- 22 unplanned pregnancy/ (4929)
- 23 birth control/ (3670)
- 24 adolescent pregnancy/ (9087)
- 25 unwanted pregnancy/ (3088)
- 26 contraceptive agent/ (17585)
- 27 condom/ (19009)
- 28 contraceptive behavior/ (3631)
- 29 female condom/ (327)
- 30 (contracep* or condom*).tw. (92108)
- 31 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw. (107869)
- 32 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (402069)
- 33 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw. (19045)
- 34 (birth adj control*).tw. (4393)

- 35 (famil* adj3 plan*).tw. (25587)
- 36 or/16-35 (761897)
- 37 telemedicine/ (19846)
- 38 computer assisted therapy/ (4471)
- 39 computer interface/ (29212)
- 40 digital computer/ (2375)
- 41 software design/ (577)
- 42 multimedia/ (3544)
- 43 personal digital assistant/ (1291)
- 44 videorecording/ (73097)
- 45 Internet/ (100705)
- 46 social network/ (13261)
- 47 blogging/ (251)
- 48 social media/ (13686)
- 49 e-mail/ (17918)
- 50 mobile phone/ (14777)
- 51 text messaging/ (3789)
- 52 smartphone/ (7111)
- 53 mobile application/ (7260)
- 54 electronic device/ (1763)
- 55 video game/ (2353)

- 56 virtual reality/ (14089)
- 57 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (82797)
- 58 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (16798)
- 59 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (8089)
- 60 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (3773)
- 61 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (12312)
- 62 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (20865)
- 63 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (12609)
- 64 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (15063)
- 65 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (461884)
- 66 (e-mail* or email* or electronic mail*).tw. (28490)
- 67 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (17591)
- 68 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (61241)

- 69 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (63540)
- 70 ((virtual or augmented) adj3 reality).tw. (11439)
- 71 automatic speech recognition/ (936)
- 72 interactive voice response system/ (577)
- 73 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (1136)
- 74 IVR.tw. (1814)
- 75 or/37-74 (855169)
- 76 and/15,36,75 (5115)
- 77 limit 76 to yr="2000 -Current" (4971)
- 78 limit 77 to english language (4881)
- 79 nonhuman/ not human/ (4287071)
- 80 78 not 79 (4843)
- 81 limit 80 to (conference abstract or conference paper or "conference review" or editorial or letter) (1025)
- 82 80 not 81 (3818)

3.4.5 Database name: HMIC

- 1 behaviour change/ (537)
- 2 health behaviour/ or behaviour adaption/ or behaviour adjustment/ (1537)

- 3 behaviour therapy/ (248)
- 4 Psychotherapy/ (733)
- 5 Motivation/ or Achievement motivation/ (550)
- 6 Patient education/ (517)
- 7 Patient attitudes/ (164)
- 8 Health promotion/ (6616)
- 9 Patient outcome/ (3140)
- 10 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (890)
- 11 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,sh. (2944)
- 12 motivat*.ti. (364)
- 13 or/1-12 (15732)
- 14 exp Sexual behaviour/ (760)
- 15 Sex psychology/ (8)
- 16 Sexual health/ (1002)
- 17 Sex education/ (431)
- 18 exp Sexually transmitted infections/ (637)
- 19 HIV/ (3544)
- 20 Contraceptives/ (104)
- 21 Condoms/ (100)

- 22 (contracep* or condom*).tw. (1229)
- 23 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw. (2428)
- 24 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (4869)
- 25 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw. (697)
- 26 (birth adj control*).tw. (54)
- 27 (famil* adj3 plan*).tw. (672)
- 28 or/14-27 (9094)
- 29 telemedicine/ or telehealth/ or telecare/ (2047)
- 30 exp Digital technology/ (24)
- 31 exp Digital media/ (47)
- 32 Computer software/ or Computer programs/ (635)
- 33 Multi media/ (54)
- 34 Personal digital assistants/ (2)
- 35 Videos/ or Video cameras/ (245)
- 36 Internet/ or exp Internet websites/ (2526)
- 37 Social networking/ (39)
- 38 Blogging/ (6)
- 39 Email/ (146)
- 40 Mobile telephones/ (278)

- 41 Text messaging/ (84)
- 42 Health technology/ or Telemeters/ (670)
- 43 Computer games/ (37)
- 44 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (1561)
- 45 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1359)
- 46 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (315)
- 47 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (55)
- 48 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*).tw. (298)
- 49 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (138)
- 50 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (68)
- 51 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (112)
- 52 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (9078)
- 53 (e-mail* or email* or electronic mail*).tw. (642)
- 54 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (223)

- 55 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (644)
- 56 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (1570)
- 57 ((virtual or augmented) adj3 reality).tw. (51)
- 58 Speech transmission systems/ (8)
- 59 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (13)
- 60 IVR.tw. (8)
- 61 or/29-60 (16864)
- 62 and/13,28,61 (46)
- 63 limit 62 to yr="2000 -Current" (42)

3.4.6 Database name: PsycINFO

- 1 Behavior Change/ (10040)
- 2 READINESS TO CHANGE/ or CHANGE STRATEGIES/ (1671)
- 3 Lifestyle Changes/ (1201)
- 4 Health Behavior/ or Health Knowledge/ (31387)
- 5 Health Attitudes/ or Harm Reduction/ (12361)
- 6 Attitude Change/ or Behavioural Intention/ (3329)
- 7 Behavior Therapy/ (8275)

- 8 PSYCHOTHERAPY/ (41127)
- 9 Cognitive Behavior Therapy/ or Cognitive Therapy/ (29024)
- 10 MOTIVATION/ (40120)
- 11 Client Education/ (3397)
- 12 Health Promotion/ (22859)
- 13 Treatment Outcomes/ (30053)
- 14 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (31454)
- 15 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (82304)
- 16 motivat*.ti. (27384)
- 17 or/1-16 (279310)
- 18 exp Psychosexual Behavior/ (89690)
- 19 Sex Education/ (2664)
- 20 SEXUAL ATTITUDES/ (3950)
- 21 exp Sexually Transmitted Diseases/ (43297)
- 22 HIV/ (33265)
- 23 Birth Control/ (2591)
- 24 Adolescent Pregnancy/ (2643)
- 25 Contraceptive Devices/ (708)
- 26 CONDOMS/ (3751)

- 27 (contracep* or condom*).tw. (15185)
- 28 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw. (54472)
- 29 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (54618)
- 30 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw. (6056)
- 31 (birth adj control*).tw. (1157)
- 32 (famil* adj3 plan*).tw. (3609)
- 33 or/18-32 (167076)
- 34 TELEMEDICINE/ (4612)
- 35 Computer Assisted Therapy/ (986)
- 36 Human Computer Interaction/ (9810)
- 37 Computer Assisted Instruction/ or Computer Software/ (21490)
- 38 MULTIMEDIA/ (2275)
- 39 Digital Computers/ (971)
- 40 Videotapes/ (1651)
- 41 INTERNET/ or Websites/ or Electronic Learning/ (31608)
- 42 Social Networks/ (11021)
- 43 Blog/ or Online Social Networks/ (7130)
- 44 Social Media/ (6015)
- 45 Computer Mediated Communication/ (5432)

- 46 Cellular Phones/ (4184)
- 47 Text Messaging/ (711)
- 48 Mobile Devices/ (2112)
- 49 Computer Applications/ (9199)
- 50 TECHNOLOGY/ or Electronic Communication/ (37416)
- 51 Computer Games/ (6638)
- 52 Virtual Reality/ (7375)
- 53 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (13000)
- 54 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (3061)
- 55 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2395)
- 56 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (1171)
- 57 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (5013)
- 58 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5141)
- 59 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (3213)
- 60 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (2361)
- 61 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (133456)

- 62 (e-mail* or email* or electronic mail*).tw. (8989)
- 63 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (4484)
- 64 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (25097)
- 65 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (70047)
- 66 ((virtual or augmented) adj3 reality).tw. (5577)
- 67 Automated Speech Recognition/ (963)
- 68 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw. (342)
- 69 IVR.tw. (276)
- 70 or/34-69 (284101)
- 71 and/17,33,70 (1655)
- 72 limit 71 to yr="2000 -Current" (1546)
- 73 limit 72 to english language (1510)
- 74 limit 73 to ("comment/reply" or editorial or letter) (26)
- 75 73 not 74 (1484)

3.4.7 Database name: Social Policy and Practice

- 1 (behaviour or behaviour change or behaviour modification).de. (4610)

- 2 health behaviour.de. (4)
- 3 Attitudes.de. (11556)
- 4 (risk reduction* or risk perception*).de. (24)
- 5 Psychotherapy.de. (2761)
- 6 cognitive behavioural therapy.de. (379)
- 7 Motivation.de. (959)
- 8 (patient education or health education).de. (1584)
- 9 compliance*.de. (74)
- 10 patient participation.de. (5)
- 11 (health promotion or health improvement or outcomes).de. (8394)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (1168)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,de. (3938)
- 14 motivat*.ti. (483)
- 15 or/1-14 (31071)
- 16 (sexual behavio?r* or sexual activit* or harmful sexual behavio?r* or sexual health or sex education or sexually transmitted* or birth control or teenage pregnancy* or adolescent pregnancy).de. (2947)
- 17 (contracep* or condom*).tw,de. (559)
- 18 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw,de. (5165)

- 19 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw,de. (3987)
- 20 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw,de. (724)
- 21 (birth adj control*).tw,de. (25)
- 22 (famil* adj3 plan*).tw,de. (647)
- 23 or/16-22 (10197)
- 24 (telemedicine or telehealth or telecare).de. (331)
- 25 (Computers or Digital Technology).de. (2013)
- 26 Software.de. (100)
- 27 multimedia.de. (13)
- 28 Information technology.de. (3813)
- 29 videos.de. (211)
- 30 Internet.de. (2887)
- 31 Online services.de. (102)
- 32 (Social networks or Social Networking).de. (2616)
- 33 Blogging.de. (1)
- 34 (online communities or websites).de. (13)
- 35 Social media.de. (561)
- 36 email.de. (77)
- 37 mobile phones.de. (163)
- 38 text messag*.de. (1)

- 39 Computer apps.de. (50)
- 40 Computer games.de. (95)
- 41 virtual reality.de. (3)
- 42 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw,de. (875)
- 43 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw,de. (676)
- 44 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw,de. (47)
- 45 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw,de. (45)
- 46 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw,de. (288)
- 47 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw,de. (119)
- 48 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw,de. (92)
- 49 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw,de. (56)
- 50 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw,de. (8920)
- 51 (e-mail* or email* or electronic mail*).tw,de. (519)
- 52 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw,de. (110)

- 53 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw,de. (3844)
- 54 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw,de. (5913)
- 55 ((virtual or augmented) adj3 reality).tw,de. (62)
- 56 assistive technology.de. (1551)
- 57 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,de. (4)
- 58 IVR.tw,de. (8)
- 59 or/24-58 (22461)
- 60 and/15,23,59 (233)
- 61 limit 60 to yr="2000 -Current" (224)

3.4.8 Database name: DARE

- 1 MeSH DESCRIPTOR Health Behavior
- 2 MeSH DESCRIPTOR Health Knowledge, Attitudes, Practice
- 3 MeSH DESCRIPTOR Risk Reduction Behavior
- 4 MeSH DESCRIPTOR Behavior Therapy
- 5 MeSH DESCRIPTOR PSYCHOTHERAPY
- 6 MeSH DESCRIPTOR Cognitive Therapy
- 7 MeSH DESCRIPTOR MOTIVATION

8 MeSH DESCRIPTOR Patient Education as Topic

9 MeSH DESCRIPTOR Patient Acceptance of Health Care

10 MeSH DESCRIPTOR Health promotion

11 MeSH DESCRIPTOR Outcome and Process Assessment (Health Care)

12 ((behavio?r* or lifestyle* or "life style*")) AND ((change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*))

13 (motivat*):TI

14 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13

15 MeSH DESCRIPTOR sexual behavior EXPLODE ALL TREES

16 MeSH DESCRIPTOR Reproductive Health EXPLODE ALL TREES

17 MeSH DESCRIPTOR sex education

18 MeSH DESCRIPTOR sexually transmitted diseases EXPLODE ALL TREES

19 MeSH DESCRIPTOR HIV

20 MeSH DESCRIPTOR blood-borne pathogens

21 MeSH DESCRIPTOR Pregnancy, Unplanned

22 MeSH DESCRIPTOR Contraception EXPLODE ALL TREES

23 MeSH DESCRIPTOR Pregnancy in Adolescence

24 MeSH DESCRIPTOR Pregnancy, Unwanted

25 MeSH DESCRIPTOR Contraceptive Agents

26 MeSH DESCRIPTOR condoms

27 MeSH DESCRIPTOR condoms, female

28 MeSH DESCRIPTOR Contraception Behavior EXPLODE ALL TREES

29 (contracep*) OR (condom*)

30 (sex* or intercourse or coit*) AND (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat)

31 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*)

32 (pregnan*) AND (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)

33 (birth) AND (control*)

34 (famil*) AND (plan*)

35 #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34

36 MeSH DESCRIPTOR Telemedicine

37 MeSH DESCRIPTOR Therapy, Computer-Assisted

38 MeSH DESCRIPTOR User-Computer Interface

39 MeSH DESCRIPTOR Software design

40 MeSH DESCRIPTOR Multimedia

41 MeSH DESCRIPTOR Computers, Handheld

42 MeSH DESCRIPTOR Videotape Recording

43 MeSH DESCRIPTOR Internet

44 MeSH DESCRIPTOR Social Networking

45 MeSH DESCRIPTOR Blogging

46 MeSH DESCRIPTOR social media

47 MeSH DESCRIPTOR Electronic Mail

48 MeSH DESCRIPTOR cell phones

49 MeSH DESCRIPTOR text messaging

50 MeSH DESCRIPTOR Smartphone

51 MeSH DESCRIPTOR Mobile Applications

52 MeSH DESCRIPTOR Video games

53 MeSH DESCRIPTOR Virtual Reality Exposure Therapy

54 ((digital* or digitis* or digitiz* or electronic*)) AND ((intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*))

55 ((telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*))

56 ((ehealth* or e-health* or mhealth* or m-health* or mobile health*))

57 ((laptop or palm or handheld or tablet or pda or pc)) AND (comput*)

58 ((mobile* or cell* or tablet*)) AND ((phone* or telephone* or handset* or hand-set*))

59 ((smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*))

60 ((mobile or electronic* or digital*)) AND ((device* or tablet*))

61 ((mobile or electronic* or digital* or device* or software*)) AND (application*)

62 ((app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*))

63 ((e-mail* or email* or electronic mail*))

64 ((text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*))

65 ((Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*))

66 ((social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*))

67 ((virtual or augmented)) AND (reality)

68 MeSH DESCRIPTOR Speech Recognition Software

69 ((voice* or speech or speak*)) AND (response*) AND ((interact* or unit*))

70 (IVR)

71 #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45
OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52 OR #53 OR #54 OR #55
OR #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63 OR #64 OR #65
OR #66 OR #67 OR #68 OR #69 OR #70

72 #14 AND #35 AND #71

73 (#72) IN DARE FROM 2000 TO 2019

4 Main searches: search engines

4.1 Physical activity, sedentary behaviour and diet

Search engine	
Name	dblp computer science bibliography
URL	https://dblp.uni-trier.de/
Date searched	16/11/2018 (original search), 10/07/2019 (update search)
Search terms	“Behaviour change” AND Apps OR Digital OR Technology OR mhealth OR ehealth OR internet OR smartphone OR social media OR online OR Diet OR Physical Activity OR Nutrition or Weight OR Sedentary
How the results were selected	Used search engine to perform Boolean searches on a range of selected terms (as above). Viewed results and exported potentially relevant results to Endnote
Results	8 original search, 1 update search

Search engine	
Name	ACM Digital library
URL	https://dl.acm.org/
Date searched	16/11/2018 (original search), 10/07/2019 (update search)
Search terms	Used search engine to search “behaviour change” AND (digital OR apps OR technology OR mhealth OR ehealth OR internet OR online OR social media or smartphone) OR (diet OR nutrition OR “physical activity” OR weight OR sedentary). Limited to 2000 to date and Periodicals only
How the results were selected	Viewed 79 results and exported potentially relevant results to Endnote
Results	38 original search, 1 update search

4.2 Smoking behaviour

Search engine	
Name	dblp computer science bibliography
URL	https://dblp.uni-trier.de/
Date searched	30/11/2018 (original search), 26/07/2019 (update search)
Search terms	“Behaviour change” AND Apps OR Digital OR Technology OR mhealth OR ehealth OR internet OR smartphone OR social media OR online OR smoker or smokers or smoking
How the results were selected	Used search engine to perform Boolean searches on a range of selected terms (as above). Also browsed all results for “Smoking” search and viewed all that were publication type papers, thesis, informal publications or “parts in books or collections”. Viewed results and exported potentially relevant results to Endnote if not already found in other database searches.
Results	15 original search, 1 update search

Search engine	
Name	ACM Digital library
URL	https://dl.acm.org/
Date searched	3/12/2018 (original search), 26/07/2019 (update search)
Search terms	Used search engine to search “behaviour change” AND (digital OR apps OR technology OR mhealth OR ehealth OR internet OR online OR social media or smartphone) OR (smoker or smokers or smoking). Limited to 2000 to date and Periodicals only
How the results were selected	Viewed results of search combinations and exported potentially relevant results to Endnote
Results	5 original search, 1 update search

4.3 Alcohol consumption

Search engine	
Name	dblp computer science bibliography
URL	https://dblp.uni-trier.de/
Date searched	19/12/2018 (original search), 7/08/2019 (update search)

Search terms	“Behaviour change” AND Apps OR Digital OR Technology OR mhealth OR ehealth OR internet OR smartphone OR social media OR online OR alcohol or drinking or drunk
How the results were selected	Used search engine to perform Boolean searches on a range of selected terms (as above). Viewed results and exported potentially relevant results to Endnote if not already found in other database searches.
Results	6 original search, 5 update search

Search engine	
Name	ACM Digital library
URL	https://dl.acm.org/
Date searched	19/12/2018 (original search), 12/08/2019 (update search)
Search terms	Used search engine to search “behaviour change” AND (digital OR apps OR technology OR mhealth OR ehealth OR internet OR online OR social media or smartphone) OR (alcohol or drinking or drunk). Limited to 2000 to date and Periodicals only for some results
How the results were selected	Viewed results of search combinations and exported potentially relevant results to Endnote
Results	10 original search, 2 update search

4.5 Unsafe sexual behaviour

Search engine	
Name	dblp computer science bibliography
URL	https://dblp.uni-trier.de/
Date searched	14/01/2019 (original search), 20/08/2019 (update search)
Searcher	Andrea Heath
Search terms	“Sexual health” or “sexual behaviour/behavior” or (sex or sexual) AND “Behaviour/behaviour change”.
How the results were selected	Used search engine to perform Boolean searches on a range of selected terms (as above). Viewed results and exported potentially relevant results to Endnote if not already found in other database searches.
Results	4 original search, 1 update search

Search engine	
Name	ACM Digital library
URL	https://dl.acm.org/
Date searched	15/01/2019 (original search), 20/08/2019 (update search)
Searcher	Andrea Heath
Search terms	Used search engine to search “behaviour change” OR (digital OR apps OR technology OR mhealth OR ehealth OR internet OR online OR social media or smartphone) AND sexual. Separately searched “sexual health” and “sexual behaviour/behavior”. Limited to 2000 to date and Periodicals only for some results
How the results were selected	Viewed results of search combinations and exported potentially relevant results to Endnote
Results	9 original search, 0 update search

5 Main searches: websites

5.1 Physical activity, sedentary behaviour and diet

Website	
Name	Public Health England
URL	www.gov.uk/government/organisations/public-health-england
Date searched	15/11/2018 (original search), 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to browse PHE documents using search terms digital, apps, smartphone, technology, internet, "behaviour change", "physical activity", sedentary, diet
Results	Original search 11, update search 0

Website	
Name	Public Health Wales
URL	www.wales.nhs.uk
Date searched	15/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Lifestyle sections Physical Activity, Food and Nutrition and Obesity
Results	0

Website	
Name	Scottish Public Health Observatory
URL	www.scotpho.org.uk
Date searched	15/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed "Diet and Nutrition" and "Physical Activity" behavioural topic areas. Also browsed "Reports and Papers"

Results	0
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Website	
Name	Department of Health
URL	www.gov.uk/government/organisations/department-of-health
Date searched	16/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to browse DoH documents using search terms digital, apps, smartphone, technology, internet, "behaviour change", "physical activity", sedentary, diet. Also searched NICE Evidence Search using same key words and limiting to source (DoH) Did not include results that had already been picked up by other database searches eg HMIC
Results	3 original search, 0 (update search)

Website	
Name	Public Health Agency (Northern Ireland)
URL	http://www.publichealth.hscni.net/
Date searched	15/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Searched Publications using key terms – digital, apps, smartphone, technology, internet, "behaviour change", "physical activity", sedentary, diet
Results	0

Website	
Name	Public Health Institute
URL	www.cph.org.uk
Date searched	16/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed reports "Population health". Also searched via "advanced Google search" using key terms and website url
Results	0

Website	
Name	Royal Society for Public Health
URL	https://www.rsph.org.uk/
Date searched	16/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Reports. Also searched via “advanced Google search” using key terms and website url
Results	0

Website	
Name	Centre for Behaviour Change UCL
URL	https://www.ucl.ac.uk/behaviour-change
Date searched	15/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed website including link to Digital Health Hub
Results	3 original search (one listed in grey literature results document, 1 exported to Endnote because recent journal article not yet indexed in medline/embase)

Website	
Name	The Kings Fund
URL	https://www.kingsfund.org.uk
Date searched	16/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Topic “Technology and data”, searched Publications using key terms. Also searched via “advanced Google search” using key terms and website url
Results	1 original search, 0 update search

Website	
Name	The Behavioural Insights Team
URL	https://www.behaviouralinsights.co.uk/
Date searched	19/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Health category in Blogs & read potentially relevant blogs looking for links to publications. Also searched via “advanced Google search” using key terms and website url
Results	1 original search, 0 update search

Website	
Name	nesta
URL	https://www.nesta.org.uk/
Date searched	19/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed “Health” section, used search function to search key terms. Also searched via “advanced Google search” using key terms and website url
Results	4 original search, 0 update search

Website	
Name	NICE Evidence Search
URL	www.evidence.nhs.uk
Date searched	19/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to perform Boolean searches combining (digital technology, apps, computers, smartphone, apps, internet) AND (diet or physical activity or sedentary or weight or nutrition).
Results	2 original search, 1 update search

Website	
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Name	Google
URL	Google.co.uk
Date searched	19/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND (diet or sedentary or "physical activity" or weight or nutrition) Browsed first 50 results and copy & pasted relevant ones to search document, plus imported one to Endnote
Results	8 original search, 5 update search

Website	
Name	Google Scholar
URL	www.scholar.google.com
Date searched	19/11/2018 (original search) 10/07/2019 (update search)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND (diet or sedentary or "physical activity" or weight or nutrition) Browsed first 50 results and exported relevant results (if not duplicates) to Endnote or when more appropriate, copy & pasted to search document.
Results	14 original search, 19 update search

5.2 Smoking behaviour

Website	
Name	Public Health England
URL	www.gov.uk/government/organisations/public-health-england
Date searched	6/12/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to browse PHE documents using search terms digital, apps, smartphone, technology, internet, "behaviour change", "smoking", "smoker", "smokers". Also browsed "Smoking" in Health Improvement section
Results	1 original search, 0 update search

Website	
Name	Public Health Wales
URL	www.wales.nhs.uk
Date searched	22/11/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Lifestyle section Smoking
Results	0

Website	
Name	Scottish Public Health Observatory
URL	www.scotpho.org.uk
Date searched	22/11/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed "Tobacco use" in Behaviours section. Also browsed "Reported and Papers".
Results	0

Website	
Name	Department of Health
URL	www.gov.uk/government/organisations/department-of-health
Date searched	6/12/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to browse DoH documents using search terms "digital technology", apps, smartphone, internet, "behaviour change", smoking, smoker, smokers. Also searched NICE Evidence Search using same key words and limiting to source (DoH) Did not include results that had already been picked up by other database searches eg HMIC
Results	1 original search, 0 update search

Website

Name	Public Health Agency (Northern Ireland)
URL	www.publichealth.hscni.nt
Date searched	22/11/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Searched Publications using key terms – digital, apps, smartphone, technology, internet, “behaviour change”, smoking, smoker, tobacco
Results	0

Website	
Name	Public Health Institute
URL	www.cph.org.uk
Date searched	22/11/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed area of expertise “Tobacco”. Also searched via “advanced Google search” terms smoking, smoker and tobacco and website url.
Results	0

Website	
Name	Royal Society for Public Health
URL	https://www.rsph.org.uk/
Date searched	22/11/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Reports. Also searched via “advanced Google search” using key terms and website url
Results	0

Website	
Name	Centre for Behaviour Change UCL

URL	https://www.ucl.ac.uk/behaviour-change
Date searched	5/12/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed website including link to Digital Health Hub. Also searched via Google advanced search combining site search with(smoking OR smokers OR smoker)
Results	10 original search, 0 in update search

Website	
Name	The Kings Fund
URL	https://www.kingsfund.org.uk
Date searched	6/12/2018 (original search) 27/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Topic "Technology and data", searched Publications using key terms. Also searched via "advanced Google search" using key terms and website url
Results	1 original search, 0 update search

Website	
Name	The Behavioural Insights Team
URL	https://www.behaviouralinsights.co.uk/
Date searched	6/12/2018 (original search) 27/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Health category in Blogs & read potentially relevant blogs looking for links to publications. Also searched via "advanced Google search" using key terms and website url and browsed publications
Results	1 original search, 0 update search

Website	
Name	nesta
URL	https://www.nesta.org.uk/

Date searched	6/12/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Browsed "Health" section, used search function to search key terms (smoking, smokers). Also searched via "advanced Google search" using key terms and website url
Results	2 original search, 0 update search

Website	
Name	NICE Evidence Search
URL	www.evidence.nhs.uk
Date searched	5/12/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	Used searched box to perform Boolean searches combining (behaviour change or digital technology, apps, computers, smartphone, internet) AND (smoking OR smoker OR smokers). Imported most results to Endnote. One result added to Word doc and saved on k:drive
Results	16 original search, 4 update search

Website	
Name	Google
URL	Google.co.uk
Date searched	5/12/2018 (original search) 26/07/2019 (update search)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND (smoking OR smoker OR smokers) Browsed first 50 results and copy & pasted relevant ones to search document, plus imported eight to Endnote
Results	11 original search, 1 update search

Website	
Name	Google Scholar
URL	www.scholar.google.com
Date searched	5/12/2018 (original search) 26/07/2019 (update search)

Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND (smoking or smoker or smokers) Browsed first 50 results and exported relevant results (if not duplicates) to Endnote
Results	15 original search, 4 update search

5.3 Alcohol consumption

Website	
Name	Public Health England
URL	www.gov.uk/government/organisations/public-health-england
Date searched	20/12/2018 (original search) 5/08/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to browse PHE documents using search terms digital, apps, smartphone, technology, internet, "behaviour change", "alcohol", drinking, "drunk". Also browsed "Harmful drinking" in Health Improvement section
Results	1 original search

Website	
Name	Public Health Wales
URL	www.wales.nhs.uk
Date searched	11/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Lifestyle section Alcohol
Results	0

Website	
Name	Scottish Public Health Observatory
URL	www.scotpho.org.uk

Date searched	11/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed "Alcohol" in Behaviours section. Also browsed "Reported and Papers".
Results	0

Website	
Name	Department of Health
URL	www.gov.uk/government/organisations/department-of-health
Date searched	20/12/2018 (original search) 5/08/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to browse DoH documents using search terms "digital technology", apps, smartphone, internet, "behaviour change", alcohol, drinking, drunk. Also searched NICE Evidence Search using same key words and limiting to source (DoH) Did not include results that had already been picked up by other database searches eg HMIC
Results	1 original search, 0 update search

Website	
Name	Public Health Agency (Northern Ireland)
URL	http://www.publichealth.hscni.net/
Date searched	12/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	Searched Publications using key terms – digital, apps, smartphone, technology, internet, "behaviour change, alcohol, drinking, drunkenness
Results	0

Website	
Name	Public Health Institute
URL	www.cph.org.uk
Date searched	12/12/2018 (original search) 12/08/2019 (update search)

Search terms (including any specific sections browsed)	Browsed area of expertise “Alcohol”. Also searched via “advanced Google search” terms alcohol, drinking and drunk and website url.
Results	0

Website	
Name	Royal Society for Public Health
URL	https://www.rsph.org.uk/
Date searched	12/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Reports. Also searched via “advanced Google search” using key terms and website url
Results	0

Website	
Name	Centre for Behaviour Change UCL
URL	https://www.ucl.ac.uk/behaviour-change
Date searched	20/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed website including link to Digital Health Hub. Also searched via Google advanced search combining site search with (alcohol OR drinking OR drunk)
Results	12 original search, 0 update search

Website	
Name	The Kings Fund
URL	https://www.kingsfund.org.uk
Date searched	20/12/2018 (original search) 12/08/2019 (update search)
Searcher	Andrea Heath

Search terms (including any specific sections browsed)	Browsed Topic “Technology and data”, searched Publications using key terms. Also searched via “advanced Google search” using key terms and website url
Results	1 original search, 0 update search

Website	
Name	The Behavioural Insights Team
URL	https://www.behaviouralinsights.co.uk/
Date searched	20/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Health category in Blogs & read potentially relevant blogs looking for links to publications. Also searched via “advanced Google search” using key terms and website url and browsed publications
Results	1 original search, 0 update search

Website	
Name	nesta
URL	https://www.nesta.org.uk/
Date searched	19/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed “Health” section, used search function to search key terms (alcohol, drinking, drunk). Also searched via “advanced Google search” using key terms and website url
Results	2 original search, 0 update search

Website	
Name	NICE Evidence Search
URL	www.evidence.nhs.uk
Date searched	21/12/2018 (original search) 12/08/2019 (update search)

Search terms (including any specific sections browsed)	Used searched box to perform Boolean searches combining (behaviour change or digital technology, apps, computers, smartphone, internet) AND (alcohol OR drinking OR drunk). Imported most results to Endnote. One result added to Word doc and saved on k:drive
Results	48 original search, 1 update search

Website	
Name	Google
URL	Google.co.uk
Date searched	19/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND (alcohol OR drinking OR drunk) Browsed first 50 results and copy & pasted relevant ones to search document, plus imported eight to Endnote
Results	13 original search, 0 update search

Website	
Name	Google Scholar
URL	www.scholar.google.com
Date searched	19/12/2018 (original search) 12/08/2019 (update search)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND (alcohol or drinking or drunk) Browsed first 50 results and exported relevant results (if not duplicates) to Endnote
Results	11 original search, 4 update search

5.4 Unsafe sexual behaviour

Website	
Name	Public Health England

URL	www.gov.uk/government/organisations/public-health-england
Date searched	10/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Used search box to browse PHE documents using search terms digital, apps, smartphone, technology, internet, "sexual health", "sexual behaviour". Plus used advanced google search to search combination of terms. Also searched NICE Evidence Search using same key words and limiting to source (PHE).
Results	4 original search, 0 update search

Website	
Name	Public Health Wales
URL	www.wales.nhs.uk
Date searched	10/01/2019 (original search) 19/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Lifestyle section Sexual health
Results	0

Website	
Name	Scottish Public Health Observatory
URL	www.scotpho.org.uk
Date searched	10/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed "Sexual health" in Behaviours section. Also browsed "Reported and Papers".
Results	0

Website	
Name	Department of Health
URL	www.gov.uk/government/organisations/department-of-health
Date searched	10/01/2019 (original search) 20/08/2019 (update search)

Search terms (including any specific sections browsed)	Used search box to browse DoH documents using search terms “digital technology”, apps, smartphone, internet, “behaviour change”, “sexual behaviour”, “sexual health”. Also searched NICE Evidence Search using same key words and limiting to source (DoH) Did not include results that had already been picked up by other database searches eg HMIC
Results	2 original search, 0 update search

Website	
Name	Public Health Agency (Northern Ireland)
URL	www.publichealth.hscni.nt
Date searched	10/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Searched Publications using key terms – digital, apps, smartphone, technology, internet, “behaviour change”, “sexual health”, “sexual behaviour”
Results	0

Website	
Name	Public Health Institute
URL	www.cph.org.uk
Date searched	10/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed area of expertise “Sexual and reproductive health”. Also searched via “advanced Google search” “sexual behaviour” and “sexual health” and website url.
Results	0

Website	
Name	Royal Society for Public Health
URL	https://www.rsph.org.uk/
Date searched	10/01/2019 (original search) 20/08/2019 (update search)

Search terms (including any specific sections browsed)	Browsed Reports. Also searched via “advanced Google search” using key terms and website url
Results	0

Website	
Name	Centre for Behaviour Change UCL
URL	https://www.ucl.ac.uk/behaviour-change
Date searched	15/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed website including link to Digital Health Hub. Also searched via Google advanced search combining site search with “sexual behaviour” or “sexual health”.
Results	1 original search, 0 update search

Website	
Name	The Kings Fund
URL	https://www.kingsfund.org.uk
Date searched	14/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Topics “Technology and data” and “Sexual health care”, searched Publications using key terms. Also searched via “advanced Google search” using key terms and website url
Results	2 original search, 0 update search

Website	
Name	The Behavioural Insights Team
URL	https://www.behaviouralinsights.co.uk/
Date searched	14/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed Health category in Blogs & read potentially relevant blogs looking for links to publications. Also searched via “advanced

specific sections browsed)	Google search" using key terms and website url and browsed publications
Results	1 original search, 0 update search

Website	
Name	nesta
URL	https://www.nesta.org.uk/
Date searched	15/01/2019 (original search) 20/08/2019 (update search)
Search terms (including any specific sections browsed)	Browsed "Health" section, used search function to search key terms ("sexual health", "sexual behaviour"). Also searched via "advanced Google search" using key terms and website url
Results	2 original search, 0 update search

Website	
Name	NICE Evidence Search
URL	www.evidence.nhs.uk
Date searched	14/01/2019 (original search) 21/08/2019 (update search)
Search terms (including any specific sections browsed)	Used searched box to perform Boolean searches combining (behaviour change or digital technology, apps, computers, smartphone, internet) AND ("sexual behaviour" or "sexual health"). Imported most results to Endnote. One result added to Word doc and saved on k:drive
Results	6 (3 in Word doc and 3 in Endnote database), 3 update search

Website	
Name	Google
URL	Google.co.uk
Date searched	15/01/2019 (original search) 21/08/2019 (update search)
Search terms (including any specific	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone or mhealth) AND ("sexual behaviour" or "sexual behavior" or "sexual health")

sections browsed)	Browsed first 50 results and copy & pasted one relevant to search document, plus imported six to Endnote
Results	7 original search, 1 update search

Website	
Name	Google Scholar
URL	https://scholar.google.co.uk/
Date searched	15/01/2019 (original search) 21/08/2019 (update search)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone or mhealth) AND ("sexual behaviour" or "sexual behavior" or "sexual health") Browsed first 50 results and exported relevant results (if not duplicates) to Endnote
Results	4 original search, 2 update search

6 Cost effectiveness searches: summary

Database name	Date searched	Update searches	Database Platform	Database segment or version	No. of results	No of results – update searches
Campbell Collaboration	25/01/2019	27/08/2019			1	0
Econlit	22/01/2018	27/08/2019	Ovid	Econlit 1886 to January 17, 2019	19	0
Embase	22/01/2018	27/08/2019	Ovid	Embase 1974 to 2019 Week 03	3573	421
HTA	22/01/2018	Not searched because HTA no longer updated	CRD		242	n/a
NHS EED	22/01/2018	Not searched because NHS EED no longer updated	CRD		213	n/a
Medline	22/01/2018		Ovid	Ovid MEDLINE(R) 1946 to January 21, 2019	1861	152
MiP/epubs	22/01/2018		Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations January 21, 2019 Ovid MEDLINE(R) Epub Ahead of Print January 21, 2019	953	646
Grey literature (including Google Scholar)	25/01/2019				20	6

Total					6,882	1,225
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7 Cost effectiveness searches: database strategies

7.1 Database name: MEDLINE

- 1 Health Behavior/ (45965)
- 2 Health Knowledge, Attitudes, Practice/ (100524)
- 3 Risk Reduction Behavior/ (11188)
- 4 Behavior Therapy/ (26562)
- 5 PSYCHOTHERAPY/ (52164)
- 6 Cognitive Therapy/ (22511)
- 7 MOTIVATION/ (61890)
- 8 Patient Education as Topic/ (81150)
- 9 Patient acceptance of healthcare/ (41100)
- 10 Health promotion/ (68389)
- 11 "Outcome and Process Assessment (Health Care)"/ (25495)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (31617)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (88489)
- 14 motivat*.ti. (14483)

- 15 or/1-14 (535137)
- 16 exp EXERCISE/ (174008)
- 17 exp EXERCISE MOVEMENT TECHNIQUES/ (7290)
- 18 exp SPORTS/ (168645)
- 19 exp exercise therapy/ (44950)
- 20 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (60086)
- 21 SEDENTARY LIFESTYLE/ (7220)
- 22 exercis*.ti. (97711)
- 23 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification* or modify or modifying or program* or intervention*)).tw. (8381)
- 24 FOOD HABITS/ (76202)
- 25 FOOD PREFERENCES/ (13168)
- 26 Nutrition therapy/ (1923)
- 27 *DIET/ (71783)
- 28 Body Mass Index/ (114816)
- 29 Healthy diet/ (2044)
- 30 diet*.ti. (155010)
- 31 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (129962)
- 32 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (12879)
- 33 or/16-32 (767389)

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- 34 SMOKING/ (134671)
- 35 SMOKING CESSATION/ (26370)
- 36 "TOBACCO USE CESSATION"/ or exp "TOBACCO USE"/ or "TOBACCO USE DISORDER"/ (13229)
- 37 SMOKERS/ (587)
- 38 Electronic Nicotine Delivery Systems/ or Vaping/ (2213)
- 39 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (2057)
- 40 "TOBACCO USE CESSATION PRODUCTS"/ (1512)
- 41 exp Pipe smoking/ (75)
- 42 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (1453)
- 43 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (204950)
- 44 (tobacco* or nicotin* or cigar* or cigs).tw. (181144)
- 45 or/34-44 (344859)
- 46 exp ALCOHOL-RELATED DISORDERS/ (108758)
- 47 exp ALCOHOL DRINKING/ (64438)
- 48 exp Alcoholic Beverages/ (18633)
- 49 Drinking Behavior/ (6548)
- 50 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (102554)

- 51 or/46-50 (213234)
- 52 exp Sexual Behavior/ (99473)
- 53 Sexual Health/ (397)
- 54 Sex education/ (8530)
- 55 exp Sexually Transmitted Diseases/ (323661)
- 56 HIV/ (18005)
- 57 Blood-Borne Pathogens/ (2917)
- 58 Pregnancy, Unplanned/ (1647)
- 59 Birth control/ (18923)
- 60 Pregnancy in Adolescence/ (7591)
- 61 Pregnancy Unwanted/ (2539)
- 62 Contraceptive Agents/ (4490)
- 63 Condoms/ (9681)
- 64 Contraceptive behavior/ (7488)
- 65 Condoms, Female/ (426)
- 66 (contracep* or condom*).tw. (73799)
- 67 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw. (71922)
- 68 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (285872)
- 69 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw. (14081)

- 70 (birth adj control*).tw. (4473)
- 71 (famil* adj3 plan*).tw. (24787)
- 72 or/52-71 (592222)
- 73 or/33,45,51,72 (1805988)
- 74 TELEMEDICINE/ (18725)
- 75 Therapy, Computer-Assisted/ (6424)
- 76 User-Computer Interface/ (35219)
- 77 Software Design/ (5745)
- 78 MULTIMEDIA/ (1809)
- 79 Computers, Handheld/ (3301)
- 80 Videotape Recording/ (11137)
- 81 Internet/ (67068)
- 82 Social Networking/ (2350)
- 83 Online Social Networking/ (16)
- 84 Blogging/ (897)
- 85 Social Media/ (5412)
- 86 Electronic Mail/ (2493)
- 87 Cell Phones/ (7642)
- 88 Text Messaging/ (2119)
- 89 Smartphone/ (2534)
- 90 Mobile Applications/ (3700)

- 91 WEARABLE ELECTRONIC DEVICES/ (754)
- 92 Video Games/ (4558)
- 93 Virtual Reality/ (636)
- 94 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (41380)
- 95 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (10768)
- 96 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (4993)
- 97 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (2388)
- 98 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*).tw. (7450)
- 99 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (9457)
- 100 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (6537)
- 101 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (8487)
- 102 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (279509)
- 103 (e-mail* or email* or electronic mail*).tw. (11476)
- 104 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (10318)

- 105 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (33899)
- 106 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (41146)
- 107 ((virtual or augmented) adj3 reality).tw. (6719)
- 108 Speech Recognition Software/ (648)
- 109 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (705)
- 110 IVR.tw. (944)
- 111 or/74-110 (492045)
- 112 and/15,73,111 (12571)
- 113 Economics/ or exp "Costs and Cost Analysis"/ or Economics, Dental/ or exp Economics, Hospital/ or exp Economics, Medical/ or Economics, Nursing/ or Economics, Pharmaceutical/ or Budgets/ or exp Models, Economic/ or Markov Chains/ or Monte Carlo Method/ or Decision Trees/ (325711)
- 114 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmacoeconomic* or pharmaco economic* or budget*).ti,ab. (591398)
- 115 ((monte adj carlo) or markov or (decision adj2 (tree* or analys*))).ti,ab. (49362)
- 116 (value adj2 (money or monetary)).ti,ab. (1766)
- 117 Quality of Life/ or Health Status Indicators/ or Quality-Adjusted Life Years/ or Value of Life/ (201539)

- 118 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab. (205307)
- 119 (disability adjusted life or daly).ti,ab. (2537)
- 120 health* year* equivalent*.ti,ab. (38)
- 121 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab. (20533)
- 122 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab. (1222)
- 123 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab. (4252)
- 124 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab. (27)
- 125 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab. (364)
- 126 (euroqol or euro qol or eq5d or eq 5d).ti,ab. (7253)
- 127 or/113-126 (1022455)
- 128 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab. (25248)
- 129 127 not 128 (1015741)
- 130 112 and 129 (1997)
- 131 limit 130 to yr="2000 -Current" (1930)
- 132 limit 131 to english language (1877)
- 133 Animals/ not Humans/ (4506319)

134 132 not 133 (1867)

135 limit 134 to (clinical conference or comment or editorial or historical article or letter or news) (6)

136 134 not 135 (1861)

7.2 Database name: MIP/Epubs

1 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (5835)

2 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (17570)

3 motivat*.ti. (2478)

4 or/1-3 (22736)

5 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (10100)

6 exercis*.ti. (12653)

7 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification* or modify or modifying or program* or intervention*)).tw. (2011)

8 diet*.ti. (18984)

9 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (21928)

10 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (2112)

11 or/5-10 (60183)

-
- 12 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (1052)
- 13 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (483)
- 14 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (25197)
- 15 (tobacco* or nicotin* or cigar* or cigs).tw. (21826)
- 16 or/12-15 (39043)
- 17 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (12511)
- 18 (contracep* or condom*).tw. (5959)
- 19 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*).tw. (10438)
- 20 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (31223)
- 21 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*).tw. (1632)
- 22 (birth adj control*).tw. (388)
- 23 (famil* adj3 plan*).tw. (2532)
- 24 or/18-23 (45570)
- 25 or/11,16-17,24 (148454)
- 26 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*).tw. (16498)

- 27 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (1976)
- 28 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (2199)
- 29 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (480)
- 30 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw. (2400)
- 31 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (5555)
- 32 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (5858)
- 33 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (7401)
- 34 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (69069)
- 35 (e-mail* or email* or electronic mail*).tw. (3056)
- 36 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (2488)
- 37 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*).tw. (10560)
- 38 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (12606)
- 39 ((virtual or augmented) adj3 reality).tw. (2107)
- 40 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*).tw. (98)

- 41 IVR.tw. (320)
- 42 or/26-41 (116943)
- 43 and/4,25,42 (1103)
- 44 25 and 42 (10238)
- 45 limit 44 to yr="2017 -Current" (6808)
- 46 43 or 45 (7192)
- 47 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmacoeconomic* or pharmaco economic* or budget*).ti,ab. (126735)
- 48 ((monte adj carlo) or markov or (decision adj2 (tree* or analys*))).ti,ab. (21570)
- 49 (value adj2 (money or monetary)).ti,ab. (338)
- 50 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab. (39946)
- 51 (disability adjusted life or daly).ti,ab. (571)
- 52 health* year* equivalent*.ti,ab. (2)
- 53 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab. (2807)
- 54 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab. (716)
- 55 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab. (795)
- 56 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab. (5)

- 57 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab. (22)
- 58 (euroqol or euro qol or eq5d or eq 5d).ti,ab. (1768)
- 59 or/47-58 (182507)
- 60 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab. (3669)
- 61 59 not 60 (181259)
- 62 46 and 61 (959)
- 63 limit 62 to yr="2000 -Current" (959)
- 64 limit 63 to english language (953)
- 65 limit 64 to (clinical conference or comment or editorial or historical article or letter or news) (0)
- 66 64 not 65 (953)

7.3 Database name: Embase

- 1 behavior change/ (30212)
- 2 health behavior/ (60586)
- 3 attitude to health/ or risk reduction/ (195169)
- 4 behavior therapy/ (40905)
- 5 psychotherapy/ (81847)
- 6 cognitive therapy/ (42796)
- 7 motivation/ (92282)

- 8 patient education/ (106609)
- 9 patient attitude/ (62747)
- 10 health promotion/ (90169)
- 11 Outcome assessment/ (459747)
- 12 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (44885)
- 13 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. (144310)
- 14 motivat*.ti. (18165)
- 15 or/1-14 (1224078)
- 16 exp exercise/ (303603)
- 17 exp kinesiotherapy/ (69470)
- 18 exp sport/ (145038)
- 19 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (83120)
- 20 sedentary lifestyle/ or sitting/ (30759)
- 21 physical activity/ (135422)
- 22 exercis*.ti. (132758)
- 23 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification* or modify or modifying or program* or intervention*)).tw. (13654)
- 24 feeding behavior/ or Food intake/ or Portion size/ (179314)

- 25 food preference/ (12426)
- 26 diet therapy/ (48807)
- 27 *diet/ (65042)
- 28 unhealthy diet/ or healthy diet/ (2365)
- 29 body mass/ (366272)
- 30 diet*.ti. (191322)
- 31 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*)
adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (200415)
- 32 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (19034)
- 33 or/16-32 (1387258)
- 34 smoking/ (277521)
- 35 smoking cessation/ (53791)
- 36 smoking habit/ (21151)
- 37 cigarette smoking/ or cigar smoking/ (51706)
- 38 exp "tobacco use"/ or tobacco dependence/ (366278)
- 39 smoking cessation program/ or smoking reduction/ (3105)
- 40 "smoking and smoking related phenomena"/ (180)
- 41 electronic cigarette/ or vaping/ or pipe smoking/ (4551)
- 42 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (3494)
- 43 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka
or hookas or shisha or shishas or sheesha or sheeshas).tw. (2308)
- 44 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (332911)

- 45 (tobacco* or nicotin* or cigar* or cigs).tw. (236781)
- 46 or/34-45 (559889)
- 47 drinking behavior/ (45140)
- 48 alcohol consumption/ (114518)
- 49 exp alcohol abuse/ (34844)
- 50 alcohol intoxication/ (11483)
- 51 alcohol abstinence/ (6164)
- 52 exp alcoholic beverage/ or alcohol/ (256320)
- 53 drunkenness/ (3118)
- 54 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liquor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or problem* or risk* or frequen* or behavio?* or temperance or abstinence or abstain* or stop or stopping)).tw. (155984)
- 55 or/47-54 (426009)
- 56 exp sexual behavior/ (193908)
- 57 sexual health/ (13872)
- 58 sexual education/ (10789)
- 59 exp sexually transmitted disease/ (82663)
- 60 Human immunodeficiency virus/ (107533)
- 61 bloodborne bacterium/ (1919)
- 62 unplanned pregnancy/ (4958)
- 63 birth control/ (3680)

- 64 adolescent pregnancy/ (9109)
- 65 unwanted pregnancy/ (3097)
- 66 contraceptive agent/ (17643)
- 67 condom/ (19065)
- 68 contraceptive behavior/ (3665)
- 69 female condom/ (331)
- 70 (contracep* or condom*).tw. (92337)
- 71 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)).tw. (108297)
- 72 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (403110)
- 73 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)).tw. (19148)
- 74 (birth adj control*).tw. (4414)
- 75 (famil* adj3 plan*).tw. (25694)
- 76 or/56-75 (763969)
- 77 or/33,46,55,76 (2864133)
- 78 telemedicine/ (20032)
- 79 computer assisted therapy/ (4478)
- 80 computer interface/ (29361)
- 81 digital computer/ (2380)
- 82 software design/ (586)

- 83 multimedia/ (3553)
- 84 personal digital assistant/ (1301)
- 85 videorecording/ (73411)
- 86 Internet/ (101111)
- 87 social network/ (13368)
- 88 blogging/ (257)
- 89 social media/ (13901)
- 90 e-mail/ (17996)
- 91 mobile phone/ (14846)
- 92 text messaging/ (3838)
- 93 smartphone/ (7244)
- 94 mobile application/ (7400)
- 95 electronic device/ (1838)
- 96 video game/ (2420)
- 97 virtual reality/ (14185)
- 98 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*)).tw. (83470)
- 99 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (16924)
- 100 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (8205)
- 101 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (3795)

- 102 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or hand-set*)).tw. (12384)
- 103 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (21092)
- 104 ((mobile or electronic* or digital*) adj2 (device* or tablet*)).tw. (12736)
- 105 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (15189)
- 106 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (464892)
- 107 (e-mail* or email* or electronic mail*).tw. (28650)
- 108 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (17696)
- 109 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*).tw. (61766)
- 110 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (64114)
- 111 ((virtual or augmented) adj3 reality).tw. (11530)
- 112 automatic speech recognition/ (941)
- 113 interactive voice response system/ (577)
- 114 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*)).tw,kw. (1138)
- 115 IVR.tw. (1818)

- 116 or/78-115 (860579)
- 117 and/15,77,116 (23998)
- 118 health-economics/ or exp economic-evaluation/ or exp health-care-cost/ or pharmacoconomics/ or Monte Carlo Method/ or Decision Tree/ (541174)
- 119 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmaco-economic* or pharmaco economic* or budget*).ti,ab. (928134)
- 120 ((monte adj carlo) or markov or (decision adj2 (tree* or analys*))).ti,ab. (77974)
- 121 (value adj2 (money or monetary)).ti,ab. (2925)
- 122 Quality of Life/ or Quality Adjusted Life Year/ or Quality of Life Index/ or Short Form 36/ or Health Status/ (535533)
- 123 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab. (385660)
- 124 (disability adjusted life or daly).ti,ab. (3883)
- 125 Health* year* equivalent*.ti,ab. (40)
- 126 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six or sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six or sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve or sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen or sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty or euroqol or euro qol or eq5d or eq 5d).ti,ab. (61852)
- 127 or/118-126 (1743470)

- 128 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab. (35250)
- 129 127 not 128 (1734611)
- 130 117 and 129 (4845)
- 131 limit 130 to yr="2000 -Current" (4793)
- 132 limit 131 to english language (4708)
- 133 exp animal/ or exp animal-experiment/ or nonhuman/ (25358585)
- 134 (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ti,ab,sh. (5378979)
- 135 exp human/ or human-experiment/ (19263219)
- 136 133 or 134 (25494592)
- 137 136 not (136 and 135) (6232240)
- 138 (comment or editorial or letter or news).pt. (1648938)
- 139 137 or 138 (7818751)
- 140 132 not 139 (4617)
- 141 limit 140 to (conference abstract or conference paper or "conference review") (1044)
- 142 140 not 141 (3573)

7.4 Database name: HTA/NHS EED

1 MeSH DESCRIPTOR Health Behavior

2 MeSH DESCRIPTOR Health Knowledge, Attitudes, Practice

3 MeSH DESCRIPTOR Risk Reduction Behavior

4 MeSH DESCRIPTOR Behavior Therapy

5 MeSH DESCRIPTOR PSYCHOTHERAPY

6 MeSH DESCRIPTOR Cognitive Therapy

7 MeSH DESCRIPTOR MOTIVATION

8 MeSH DESCRIPTOR Patient Education as Topic

9 MeSH DESCRIPTOR Patient Acceptance of Health Care

10 MeSH DESCRIPTOR Health promotion

11 MeSH DESCRIPTOR Outcome and Process Assessment (Health Care)

12 (behavio?r* or lifestyle* or "life style*") AND (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)

13 (motivat*):TI

14 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13

15 MeSH DESCRIPTOR Exercise EXPLODE ALL TREES

16 MeSH DESCRIPTOR Exercise Movement Techniques EXPLODE ALL TREES

17 MeSH DESCRIPTOR Sports EXPLODE ALL TREES

18 MeSH DESCRIPTOR Exercise therapy EXPLODE ALL TREES

19 (physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*):TI AND (fit* or activ* or train*):TI

20 MeSH DESCRIPTOR Sedentary Lifestyle

21 (exercis*):TI

22 (sedentary) AND (behavio?r* or lifestyle* or less or time or change* or changing or modification* or modify or modifying or program* or intervention*)

23 MeSH DESCRIPTOR Feeding Behavior

24 MeSH DESCRIPTOR FOOD PREFERENCES

25 MeSH DESCRIPTOR Nutrition therapy

26 MeSH DESCRIPTOR Diet

27 MeSH DESCRIPTOR body mass index

28 MeSH DESCRIPTOR healthy diet

29 (diet*):TI

30 (health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) AND (eat* or diet* or food* or nutrition* or weight* or overweight)

31 (fruit* or vegetable*) AND (intake* or consum* or eat* or ate)

32 #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31

33 MeSH DESCRIPTOR Smoking

34 MeSH DESCRIPTOR Smoking cessation

35 MeSH DESCRIPTOR Tobacco use cessation

36 MeSH DESCRIPTOR Tobacco use EXPLODE ALL TREES

37 MeSH DESCRIPTOR Tobacco use disorder

38 MeSH DESCRIPTOR vaping EXPLODE ALL TREES

39 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*)

40 MeSH DESCRIPTOR tobacco use cessation products

41 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas)

42 (smoking* or smoker* or antismok* or anti smok* or anti-smok*)

43 (tobacco* or nicotin* or cigar* or cigs)

44 #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43

45 MeSH DESCRIPTOR Alcohol-related disorders EXPLODE ALL TREES

46 MeSH DESCRIPTOR Alcohol drinking EXPLODE ALL TREES

47 MeSH DESCRIPTOR Alcoholic beverages EXPLODE ALL TREES

48 MeSH DESCRIPTOR drinking behavior

49 (Alcohol* or Drunk* or Drink* or beer* or wine* or liqor* or liquor* or spirit* or alcopop* or cider*) AND (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)

50 #45 OR #46 OR #47 OR #48 OR #49

51 MeSH DESCRIPTOR sexual behavior EXPLODE ALL TREES

52 MeSH DESCRIPTOR reproductive behavior EXPLODE ALL TREES

53 MeSH DESCRIPTOR sex education

54 MeSH DESCRIPTOR sexually transmitted diseases EXPLODE ALL TREES

55 MeSH DESCRIPTOR HIV

56 MeSH DESCRIPTOR blood-borne pathogens

57 MeSH DESCRIPTOR pregnancy, unplanned

58 MeSH DESCRIPTOR contraception EXPLODE ALL TREES

59 MeSH DESCRIPTOR pregnancy in adolescence

60 MeSH DESCRIPTOR pregnancy, unwanted

61 MeSH DESCRIPTOR contraceptive agents

62 MeSH DESCRIPTOR condoms

63 MeSH DESCRIPTOR condoms, female

64 MeSH DESCRIPTOR contraception behavior EXPLODE ALL TREES

65 (contracep* or condom*)

66 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*)

67 (sex* or intercourse or coit*) AND (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*)

68 (pregnan*) AND (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*)

69 (birth) AND (control*)

70 (famil*) AND (plan*)

71 #51 OR #52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63 OR #64 OR #65 OR #66 OR #67 OR #68 OR #69 OR #70

72 #32 OR #44 OR #50 OR #71

73 MeSH DESCRIPTOR Telemedicine

74 MeSH DESCRIPTOR Therapy, Computer-Assisted

75 MeSH DESCRIPTOR User-Computer Interface

76 MeSH DESCRIPTOR Software design

77 MeSH DESCRIPTOR Multimedia

78 MeSH DESCRIPTOR Computers, Handheld

79 MeSH DESCRIPTOR Videotape Recording

80 MeSH DESCRIPTOR Internet

81 MeSH DESCRIPTOR Social Networking

82 MeSH DESCRIPTOR Blogging

83 MeSH DESCRIPTOR social media

84 MeSH DESCRIPTOR Electronic Mail

85 MeSH DESCRIPTOR cell phones

86 MeSH DESCRIPTOR text messaging

87 MeSH DESCRIPTOR Smartphone

88 MeSH DESCRIPTOR Mobile Applications

89 MeSH DESCRIPTOR Video games

90 MeSH DESCRIPTOR Virtual Reality Exposure Therapy

91 ((digital* or digitis* or digitiz* or electronic*)) AND ((intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*))

92 ((telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*))

93 ((ehealth* or e-health* or mhealth* or m-health* or mobile health*))

94 ((laptop or palm or handheld or tablet or pda or pc)) AND (comput*)

95 ((mobile* or cell* or tablet*)) AND ((phone* or telephone* or handset* or hand-set*))

96 ((smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*))

97 ((mobile or electronic* or digital*)) AND ((device* or tablet*))

98 ((mobile or electronic* or digital* or device* or software*)) AND (application*)

99 ((app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*))

100 ((e-mail* or email* or electronic mail*))

101 ((text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*))

102 ((Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or siri or fitbit*))

103 ((social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*))

104 ((virtual or augmented)) AND (reality)

105 MeSH DESCRIPTOR Speech Recognition Software

106 ((voice* or speech or speak*)) AND (response*) AND ((interact* or unit*))

107 (IVR)

108 #73 OR #74 OR #75 OR #76 OR #77 OR #78 OR #79 OR #80 OR #81 OR #82 OR #83 OR #84 OR #85 OR #86 OR #87 OR #88 OR #89 OR #90 OR #91 OR #92 OR #93 OR #94 OR #95 OR #96 OR #97 OR #98 OR #99 OR #100 OR #101 OR #102 OR #103 OR #104 OR #105 OR #106 OR #107

109 #14 AND #72 AND #108

110 (#109) IN NHSEED, HTA FROM 2000 TO 2019

7.5 Database name: Econlit

- 1 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti. (1335)
- 2 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification* or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab. (4267)
- 3 motivat*.ti. (2385)
- 4 or/1-3 (7713)
- 5 ((physical* or keep* or cardio* or aerobic or fitness or increas* or more or become or becoming or be or encourag*) adj3 (fit* or activ* or train*)).ti. (313)
- 6 exercis*.ti. (982)
- 7 (sedentary adj3 (behavio?r* or lifestyle* or less or time or change* or changing or modification* or modify or modifying or program* or intervention*)).tw. (30)
- 8 diet*.ti. (589)
- 9 ((health* or unhealthy or poor* or chang* or behav* or advic* or recommend*) adj3 (eat* or diet* or food* or nutrition* or weight* or overweight)).tw. (3617)
- 10 ((fruit* or vegetable*) adj2 (intake* or consum* or eat* or ate)).tw. (140)
- 11 or/5-10 (5350)
- 12 (ecig* or e-cig* or e-voke* or juul* or vape* or vaping*).tw. (26)
- 13 (waterpipe* or water pipe* or dokha or dokhas or hookah or hookahs or hooka or hookas or shisha or shishas or sheesha or sheeshas).tw. (18)

- 14 (smoking* or smoker* or antismok* or anti smok* or anti-smok*).tw. (2028)
- 15 (tobacco* or nicotin* or cigar* or cigs).tw. (2513)
- 16 or/12-15 (3638)
- 17 ((Alcohol* or Drunk* or Drink* or beer* or wine* or liquor* or liquor* or spirit* or alcopop* or cider*) adj4 (consum* or misus* or abus* or intoxicat* or inebriat* or excess* or bing* or hazardous or harmful or heavy or problem* or risk* or frequen* or behavio?r* or temperance or abstinence or abstain* or stop or stopping)).tw. (1658)
- 18 (contracep* or condom*).tw. (1206)
- 19 ((sex* or intercourse or coit*) adj3 (risk* or protected or unprotected or safe* or unsafe* or behavio?r* or health* or unhealth* or educat*).tw. (936)
- 20 (STD* or STI or "sexually transmitted disease*" or "sexually transmitted infection*" or HIV*).tw. (2056)
- 21 (pregnan* adj3 (unplanned or planned or unwanted or unintended or unintentional* or repeat* or adolescen* or teen*).tw. (280)
- 22 (birth adj control*).tw. (191)
- 23 (famil* adj3 plan*).tw. (959)
- 24 or/18-23 (4585)
- 25 or/11,16-17,24 (14591)
- 26 ((digital* or digitis* or digitiz* or electronic*) adj3 (intervention* or therap* or treatment* or medicine* or medical* or health* or monitoring or clinical* or communicat* or technol* or media* or device* or platform* or forum* or community* or communities* or discussion*).tw. (1567)
- 27 (telemed* or tele-med* or telehealth* or tele-health* or telecar* or tele-car*).tw. (50)
- 28 (ehealth* or e-health* or mhealth* or m-health* or mobile health*).tw. (61)

- 29 ((laptop or palm or handheld or tablet or pda or pc) adj2 comput*).tw. (62)
- 30 ((mobile* or cell* or tablet*) adj (phone* or telephone* or handset* or handset*).tw. (1151)
- 31 (smartphone* or smart-phone* or smart telephone* or iphone* or i-phone* or ipad* or i-pad* or blackberry* or smartwatch* or smart-watch* or android or device-based or mobile-based or podcast*).tw. (342)
- 32 ((mobile or electronic* or digital*) adj2 (device* or tablet*).tw. (218)
- 33 ((mobile or electronic* or digital* or device* or software*) adj3 application*).tw. (346)
- 34 (app or apps or wearable* or online* or on-line* or internet* or www or web or website* or webpage* or portal or search engine*).tw. (15934)
- 35 (e-mail* or email* or electronic mail*).tw. (528)
- 36 (text messag* or texting or texter* or texted or SMS or short messag* or multimedia messag* or multi-media messag* or mms or instant messag* or picture messag* or audio messag*).tw. (263)
- 37 (Facebook* or YouTube* or Twitter* or LinkedIn* or Pinterest* or Google* or Tumblr* or Instagram* or WhatsApp* or Reddit* or Flickr* or SnapChat* or Yahoo* or Bing* or MSN* or Wikipedia* or Web 2* or alexa or fitbit*).tw. (1824)
- 38 (social media* or social network* or blog* or vlog* or video-blog* or gaming or game or games or gamification or wii fit or discussion board* or online forum*).tw. (36084)
- 39 ((virtual or augmented) adj3 reality).tw. (78)
- 40 ((voice* or speech or speak*) adj3 response* adj3 (interact* or unit*).tw. (6)
- 41 IVR.tw. (8)
- 42 or/26-41 (54807)

43 and/4,25,42 (20)

44 limit 43 to yr="2000 -Current" (19)

7.6 Database name: Campbell Collaboration

<https://www.campbellcollaboration.org>

Searched existing reviews (not protocols or titles) for keywords: *behaviour or behavior or diet or "physical activity" or sedentary or smoking or alcohol or sexual or digital*. 1 result, added manually to Endnote.

Also browsed "Knowledge translation and implementation" and "Nutrition" coordinating groups. No additional results.

8 Cost effectiveness searches: search engines

Search engine	
Name	dblp computer science bibliography
URL	https://dblp.uni-trier.de/
Date searched	16/11/2018 – 14/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms	<p>“Behaviour change” AND Apps OR Digital OR Technology OR mhealth OR ehealth OR internet OR smartphone OR social media OR online.</p> <p>Plus terms for each “unhealthy behaviour” - “physical activity”, sedentary, diet, nutrition, smoking, smoker, smokers, alcohol, drinking, drunk, “sexual health”, “sexual behaviour/behavior”, sex or sexual.</p>
How the results were selected	Used search engine to perform Boolean searches on a range of selected terms (as above). Viewed results and exported potentially relevant results to Endnote
Results	1 original search, 0 update search

Search engine	
Name	ACM Digital library
URL	https://dl.acm.org/
Date searched	16/11/2018 – 15/01/2019, (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms	Used search engine to search “behaviour change” AND (digital OR apps OR technology OR mhealth OR ehealth OR internet OR online OR social media or smartphone) OR [terms related to unhealthy behaviours] - (diet OR nutrition OR “physical activity” OR weight OR sedentary OR smoker OR smokers OR smoking OR alcohol OR drinking OR drunk OR sexual). Separately searched “sexual health” and “sexual behaviour/behavior”.

	Limited to 2000 to date and Periodicals only for some results
How the results were selected	Viewed results with view to export potentially relevant results to Endnote
Results	0

9 Cost effectiveness searches: websites

Website	
Name	Public Health England
URL	www.gov.uk/government/organisations/public-health-england
Date searched	15/11/2018 – 10/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Used search box to browse PHE documents using search terms digital, apps, smartphone, technology, internet, “behaviour change”. Plus terms for each “unhealthy behaviour” - “physical activity”, sedentary, diet, smoking, smoker, smokers, alcohol, drinking, drunk, “sexual health”, “sexual behaviour”. Also browsed “Smoking” and “Harmful drinking” in Health Improvement section.
Results	9 original search, 0 update search

Website	
Name	Public Health Wales
URL	www.wales.nhs.uk
Date searched	15/11/2018 – 10/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Browsed Lifestyle sections - Physical Activity, Food and Nutrition and Obesity, Smoking, Alcohol, Sexual health
Results	0

Website	
Name	Scottish Public Health Observatory
URL	www.scotpho.org.uk
Date searched	15/11/2018 - 10/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)

Search terms (including any specific sections browsed)	Browsed “Diet and Nutrition”, “Physical Activity”, “Tobacco use”, “Alcohol” and “Sexual health” behavioural topic areas. Also browsed “Reports and Papers”.
Results	0

Website	
Name	Department of Health
URL	www.gov.uk/government/organisations/department-of-health
Date searched	16/11/2018 – 10/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Used search box to browse DoH documents using search terms digital, apps, smartphone, technology, internet, “behaviour change”. Plus terms for each “unhealthy behaviour” - “physical activity”, sedentary, diet, smoking, smoker, smokers, alcohol, drinking, drunk, “sexual behaviour” and “sexual health”. Also search NICE Evidence Search using same key words and limiting to source (DoH) Did not include results that had already been picked up by other database searches eg HMIC
Results	2 original search, 0 update search

Website	
Name	Public Health Agency (Northern Ireland)
URL	http://www.publichealth.hscni.net/
Date searched	15/11/2018 – 10/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Searched Publications using key terms – digital, apps, smartphone, technology, internet, “behaviour change”. Plus terms for each “unhealthy behaviour” - “physical activity”, sedentary, diet, smoking, smoker, alcohol, drinking, drunkenness, “sexual health”, “sexual behaviour”.
Results	0

Website	
Name	Public Health Institute
URL	www.cph.org.uk

Date searched	16/11/2018 – 10/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Browsed “Areas of expertise” - “Population health”, “Tobacco”, “Alcohol” and “Sexual and reproductive health”. Also searched via “advanced Google search” using key terms and website url.
Results	0

Website	
Name	Royal Society for Public Health
URL	https://www.rsph.org.uk/
Date searched	16/11/2018 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Browsed Reports. Also searched via “advanced Google search” using key terms and website url
Results	0

Website	
Name	Centre for Behaviour Change UCL
URL	https://www.ucl.ac.uk/behaviour-change
Date searched	16/11/2018 – 15/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Browsed website including link to Digital Health Hub. For alcohol and sexual health “unhealthy behaviours” also searched via Google advanced search combining site search with (alcohol OR drinking OR drunk or “sexual behaviour” or “sexual health”).
Results	1 original search, 0 update search

Website	
Name	The Kings Fund
URL	https://www.kingsfund.org.uk

Date searched	16/11/2018 – 14/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Browsed Topic “Technology and data”, searched Publications using key terms. Also searched via “advanced Google search” using key terms and website url
Results	2 original search, 0 update search

Website	
Name	The Behavioural Insights Team
URL	https://www.behaviouralinsights.co.uk/
Date searched	19/11/2018 – 14/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Browsed Health category in Blogs & read potentially relevant blogs looking for links to publications. Also searched via “advanced Google search” using key terms and website url
Results	1 original search, 0 update search

Website	
Name	Nesta
URL	https://www.nesta.org.uk/
Date searched	19/11/2018 – 15/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Browsed “Health” section, used search function to search key terms (eg smoking, alcohol, “sexual behaviour”). Also searched via “advanced Google search” using key terms and website url
Results	5 original search, 0 update search

Website	
Name	NICE Evidence Search

URL	www.evidence.nhs.uk
Date searched	19/11/2018 – 14/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	Used search box to perform Boolean searches combining (digital technology, apps, computers, smartphone, apps, internet) AND [terms related to unhealthy behaviours] - diet or physical activity or sedentary or weight or nutrition or smoking or smoker or smokers or alcohol or drinking or drunk or “sexual behaviour” or “sexual health”
Results	3 original search, 0 update search

Website	
Name	Google
URL	Google.co.uk
Date searched	19/11/2018 – 15/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND [terms related to unhealthy behaviours] - (diet OR sedentary OR "physical activity" OR weight OR nutrition OR smoking OR smoker OR smokers OR alcohol OR drinking OR drunk or “sexual behaviour” or “sexual behavior” or “sexual health”). Browsed first 50 results for each unhealthy behaviour and either copy & pasted relevant ones to search document (eg Thesis, reports,web pages) or imported to Endnote (journal articles).
Results	9 original search, 1 update search

Website	
Name	Google Scholar
URL	www.scholar.google.com
Date searched	19/11/2018 – 15/01/2019 (original searches), 10/07/2019-21/08/2019 (update searches)
Search terms (including any specific sections browsed)	(Behaviour OR Behavior) AND ("digital technology" or apps or smartphone) AND [terms related to unhealthy behaviours] - (diet OR sedentary OR "physical activity" OR weight OR nutrition OR

sections browsed)	smoking OR smoker OR smokers OR alcohol OR drinking OR drunk OR “sexual behaviour” OR “sexual behavior” OR “sexual health” Browsed first 50 results for each unhealthy behaviour and exported relevant results (if not duplicates) to Endnote or when more appropriate, copy & pasted to search document.
Results	1 original search, 1 update search