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campaign*) or Instagram) and campaign*) or TikTok) and campaign*) or phon*) and campaign*) or app*) and campaign*) or newspaper*) and campaign*) or magazine*) and campaign*) or leaflet*) and campaign*) or booklet*) and campaign*) or billboard*) and campaign*) or poster*) and campaign*) AND ((((((((((mental N2 illness*) or "psychiatric illness*") or mental) N2 health) or mental) N2 condition*) or mental) N2 disorder*) or "psychiatric disorder*" or "psychiatric disease*" or anxi* or depress* or "obsessive compulsive disorder" or OCD or "bipolar disorder" or "manic depress*" or schizophre* or psycho* or paranoi* or "personality disorder" or "attention deficit hyperactivity disorder" or ADHD or "post traumatic stress disorder" or PTSD or eating) N1 disorder*) or anorexi* or bulimi* or "binge eating disorder" or BED or "panic attack*" or "panic disorder" or phobi* (limit to English language)

Cochrane trials only and Cochrane reviews only (31/03/2021): tobacco OR nicotine OR cigar* OR e-cig* OR "electronic cigarette" OR smok* OR vap* AND "mass media" OR multi-media AND campaign* OR media AND campaign* OR campaign* AND messag* OR health AND messag* OR health AND campaign* OR "social marketing" AND campaign* OR "social marketing" AND messag* OR broadcast* AND campaign* OR televis* AND campaign* OR TV AND campaign* OR film* AND campaign* OR radio AND campaign* OR advert* AND campaign* OR internet AND campaign* OR online AND campaign* OR email* AND campaign* OR website* AND campaign* OR digital* AND campaign* OR "social media" AND campaign* OR Facebook AND campaign* OR Twitter AND campaign* OR Instagram AND campaign* OR TikTok AND campaign* OR phon* AND campaign* OR app* AND campaign* OR newspaper* AND campaign* OR magazine* AND campaign* OR leaflet* AND campaign* OR booklet* AND campaign* OR billboard* AND campaign* OR poster* AND campaign* AND mental NEAR/2 illness* OR "psychiatric illness*" OR mental NEAR/2 health OR mental NEAR/2 condition* OR mental NEAR/2 disorder* OR "psychiatric disorder*" OR "psychiatric disease*" OR anxi* OR depress* OR "obsessive compulsive disorder" OR OCD OR "bipolar disorder" OR "manic depress*" OR schizophre* OR psycho* OR paranoi* OR "personality disorder" OR "attention deficit hyperactivity disorder" OR ADHD OR "post traumatic stress disorder" OR PTSD OR eating NEAR/1 disorder* OR anorexi* OR bulimi* OR "binge eating disorder" OR BED OR "panic attack*" OR "panic disorder" OR phobi*

Reference lists of included studies and relevant systematic reviews were also screened to retrieve further articles.

S2: Data items

Data extraction sheet headings:

- Author(s), year and title
- Country and setting
- Study design
- Participants and sample size
- Intervention/exposure (including dose and duration)
- Control/comparator
- Outcome(s)
- Measurement of outcome(s)
- Key findings
- Funder
- Target group
- Smoking definition
- Mental health definition/measurement
- Recruitment methods
- Data collection dates and methods
- Additional information

S3: EPHPP tool risk of bias assessment independent reviewer ratings

Reviewer	Selection bias		Study design		Confounders		Blinding		Data collection methods		Withdrawals and dropouts		Global rating	
	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT
Davis 2017	/	/	/	/	+	+	-	-	-	-	/	/	-	-
Davis 2018	+	+	-	/	+	+	-	-	-	-	-	-	-	-
McAfee 2017	-	-	+	-	/	+	-	-	/	-	?	-	-	-
Neff 2016	/	/	/	/	+	+	-	-	/	-	/	-	/	-
Nonnemaker 2014	/	/	-	-	+	+	-	-	-	-	?	?	-	-
Prochaska 2018	/	/	/	/	+	+	-	-	/	-	-	-	-	-
Thornton 2011	-	-	-	-	-	-	-	-	-	-	?	?	-	-
Thornton 2013	-	/	-	-	/	/	-	-	+	+	?	?	-	-

+: low risk of bias; /: moderate risk of bias; -: high risk of bias; ?: not applicable

S4: EPHPP tool risk of bias assessment consensus ratings

	Selection bias		Study design		Confounders		Blinding		Data collection methods		Withdrawals and dropouts		Global rating	
Davis 2017	/	/	/	/	+	+	-	-	-	-	/	/	-	-
Davis 2018	+	+	-	-	+	+	-	-	-	-	-	-	-	-
McAfee 2017	-	-	+	+	+	+	-	-	/	-	?	?	-	-
Neff 2016	/	/	/	/	+	+	-	-	/	-	/	-	/	-
Nonnemaker 2014	/	/	-	-	+	+	-	-	-	-	?	?	-	-
Prochaska 2018	/	/	/	/	+	+	-	-	/	-	-	-	-	-
Thornton 2011	-	-	-	-	-	-	-	-	-	-	?	?	-	-
Thornton 2013	-	-	-	-	/	/	-	-	+	+	?	?	-	-

+: low risk of bias; /: moderate risk of bias; -: high risk of bias; ?: not applicable

S5: CASP Checklist appraisal tool independent reviewer ratings

Reviewer	Statement of aims		Appropriate methodology		Appropriate design		Appropriate recruitment strategy		Appropriate data collection		Consideration of researcher & participant relationship		Consideration of ethical issues		Rigorous data analysis		Statement of findings	
	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT
Thornton 2011	+	+	+	+	+	+	?	+	?	+	-	?	-	?	?	+	+	+

+: yes; -: no; ?: can't tell

S6: CASP Checklist appraisal tool consensus ratings

Reviewer	Statement of aims		Appropriate methodology		Appropriate design		Appropriate recruitment strategy		Appropriate data collection		Consideration of researcher & participant relationship		Consideration of ethical issues		Rigorous data analysis		Statement of findings	
	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT	PPH	BT
Thornton 2011	+	+	+	+	?	?	?	?	?	?	?	?	?	?	+	+	+	+

+: yes; -: no; ?: can't tell

S7: Reasons for exclusion (based on full-text screen)

	Author, year	Reason for exclusion
1	Baggett et al, 2019	Participants were not exposed to mass media campaign health messages
2	Bowden et al, 2011	Participants were not exposed to mass media campaign health messages & outcomes were not relevant
3	Campbell et al, 2016	Psychiatric comorbidity was not assessed
4	Coletti et al, 2015	Participants were not exposed to mass media campaign health messages
5	Filia et al, 2014a	Outcomes were not relevant
6	Filia et al, 2014b	Participants were not exposed to mass media campaign health messages
7	Kruse et al, 2019	Participants did not have a history of mental ill-health & were not exposed to mass media campaign health messages
8	Kruse et al, 2020	Participants did not have a history of mental ill-health & were not exposed to mass media campaign health messages
9	Latha et al, 2020	Outcomes were not relevant
10	Rodevand et al, 2019	Participants were not exposed to mass media campaign health messages
11	Sharma et al, 2016	There were no human participants (this was an analysis of the quality & quantity of quit-smoking YouTube videos) & outcomes were not relevant
12	Sharma-Kumar et al, 2018	Participants were not exposed to mass media campaign health messages

S8: Results from the included studies organised by reported outcomes and length of follow-up*

Author, year	Quit attempts (QA, ≥1 attempt lasting ≥24 hours)	Ad recall/ad exposure	Intentions to quit (ITQ)	Perceived effectiveness (PE)	Risk of bias
Neff et al, 2016 ²⁶	<p>Past 3 months Pre-post change in QAs <i>With MH condition (n=2,536)</i> OR 0.98, 95% CI: 0.77-1.26, P=0.91 <i>Without MH condition (n=5,199)</i> OR 1.24, 95% CI: 1.04-1.49, P=0.02</p>	N/A	<p>Next 30 days Pre-post change in ITQ <i>With MH condition (n=2,349)</i> OR 1.09, 95% CI: 0.78-1.52, P=0.61 <i>Without MH condition (n=4,783)</i> OR 1.41, 95% CI: 0.96-2.05, P=0.08</p> <p>Next 6 months Pre-post change in ITQ <i>With MH condition (n=2,349)</i> OR 1.10, 95% CI: 0.83-1.46, P=0.51 <i>Without MH condition (n=4,783)</i> OR 1.38, 95% CI: 1.06-1.80, P=0.02</p>	N/A	Mod
Davis et al, 2017 ²⁴	<p>Past 3 months Association between baseline PE & QA <i>With (n=2,214) vs without (n is missing) MH condition</i> OR 1.06, 95% CI: 0.86-1.32</p>	N/A	N/A	<p>Level of PE <i>With (n=2,214) vs without (n is missing) MH condition</i> b=0.12, 95% CI: 0.07-0.17, p<0.01</p>	High
Davis et al, 2018 ²⁵	<p>Past 3 months Association between GRPs & QAs <i>Overall sample (associations by MH status not reported; n=22,965 observations)</i> AOR 1.23 (1.11-1.36), p<0.001</p> <p>Interaction between GRPs & MH status for QAs No sig interaction</p>	N/A	<p>Next 30 days Association between GRPs & ITQ <i>Overall sample (associations by MH status not reported; n=22,271 observations)</i> AOR 1.17 (1.02-1.36), p=0.030</p> <p>Interaction between GRPs & MH status for ITQ No sig interaction</p>	N/A	High
Prochaska et al, 2018 ²⁷	<p>Past 6 months At follow up <i>With vs without MH condition</i> 51.1% vs 43.7%, p<0.05</p> <p>Association between increased exposure to mental health specific ad & QA <i>With MH condition (n=772)</i> AOR 1.25, 95% CI: 1.03-1.52, p<0.05 <i>Without MH condition (n=1804)</i></p>	<p>Reported seeing ≥1 Tips ad <i>With vs without MH condition</i> 84% vs 79.8%</p> <p>Reported seeing mental health specific ad <i>With vs without MH condition</i> 53.4% vs 48.3%</p> <p>Reported seeing ≥1 non mental health specific ad</p>	<p>Next 30 days At follow up <i>With vs without MH condition</i> 12.2% vs 10.6%, p=0.530</p> <p>Association between increased exposure to mental health specific ad & ITQ <i>With MH condition (n=694)</i> AOR 1.40, 95% CI: 1.04-1.90, p<0.05 <i>Without MH condition (n=1670)</i></p>	N/A	High

Author, year	Quit attempts (QA, ≥ 1 attempt lasting ≥ 24 hours)	Ad recall/ad exposure	Intentions to quit (ITQ)	Perceived effectiveness (PE)	Risk of bias
	AOR 0.97, 95% CI: 0.83-1.14, $p=0.737$ Association between increased exposure to non-mental health specific ads & QA <i>With MH condition (n=775)</i> AOR 1.09, 95% CI: 0.88-1.35, $p=0.43$ <i>Without MH condition (n=1805)</i> AOR 1.19, 95% CI: 1.02-1.40, $p<0.05$	<i>With vs without MH condition</i> 82.5% vs 78.7%	AOR 1.17, 95% CI: 0.93-1.46, $p=0.174$ Association between increased exposure to non-mental health specific ads & ITQ <i>With MH condition (n=695)</i> AOR 1.22, 95% CI: 0.91-1.64, $p=0.188$ <i>Without MH condition (n=1671)</i> AOR 1.14, 95% CI: 0.92-1.42, $p=0.238$		
McAfee et al, 2017 ²⁸	<u>Since campaign launch (up to past 6 months & 27 days)</u> QAs in standard dose market (761 National GRPS) <i>With vs without MH condition</i> 42.5% vs 32.0%; $p<0.01$ QAs in higher dose market (758 National GRPS + 1,724 local GRPs) vs standard dose market (761 National GRPs) <i>With MH condition</i> 39.5% vs 42.5%, $p=0.797$; AOR 0.93, $p=0.689$ <i>Without MH condition</i> 38.5% vs 32.0%, $p=0.008$; AOR 1.37, $p=0.003$	N/A	N/A	N/A	High
Nonnemaker et al, 2014 ²⁹	<u>Past 12 months</u> At follow up <i>With vs without MH condition</i> 57.7% vs 53.1% Association between confirmed ad recall & QA <i>With MH condition (n=1,800)</i> OR 1.07, 95% CI: 0.75-1.53 <i>Without MH condition (n=6,021)</i> OR 1.46, 95% CI: 1.17-1.82, $p<0.001$ Association between confirmed recall of graphic/emotional ads & QA <i>With MH condition (n=1,772)</i> OR 1.12, 95% CI: 0.77-1.64 <i>Without MH condition (n=5,919)</i> OR 1.54, 95% CI: 1.21-1.95, $p<0.001$	N/A	N/A	N/A	High

Author, year	Quit attempts (QA, ≥ 1 attempt lasting ≥ 24 hours)	Ad recall/ad exposure	Intentions to quit (ITQ)	Perceived effectiveness (PE)	Risk of bias
	Association between past year GRPs & QA <i>With MH condition (n=2,019)</i> OR 1.13, 95% CI: 0.87-1.46 <i>Without MH condition (n=6,758)</i> OR 1.33, 95% CI: 1.16-1.53, p<0.001				
	Association between past year graphic/emotional ad GRPs & QA <i>With MH condition (n=2,019)</i> OR 1.27, 95% CI: 0.89-1.82 <i>Without MH condition (n=6,758)</i> OR 1.49, 95% CI: 1.24-1.79, p<0.001				
	Association between past year comparison ad GRPs & QA <i>With MH condition (n=2,019)</i> OR 0.9, 95% CI: 0.62-1.30 <i>Without MH condition (n=6,758)</i> OR 1.1, 95% CI: 0.89-1.36				
Thornton et al, 2013³⁰	N/A	Recall ≥ 1 tobacco campaign <i>With vs without psychotic disorder</i> 96.3% vs 96.9%	N/A	Perceived campaigns regarding tobacco use to be effective <i>With vs without psychotic disorder</i> 55.8% vs 44.7%, p<0.05	High
Thornton et al, 2011³¹	N/A	(All participants had a psychotic disorder) Had seen, read or heard a public health campaign regarding tobacco 93.2% (n=82/88)	N/A	N/A	High
Quantitative data		Exposure of current & past smokers, & non-smokers No sig differences (missing data)			
Qualitative data	N/A	N/A	N/A	See Table 3	

Data in bold type indicates significance.

Ad(s): advertisement(s); GRPs: gross rating points; ITQ: intention(s) to quit; MH: mental health; mod: moderate; PE: perceived effectiveness; QA: quit attempt(s); sig: significant

*See Table 3 for results for the outcome "knowledge"