

Self-harm and suicide module - evidence profile SUI2: Suicide prevention media campaigns to reduce deaths from suicide, suicide attempts and acts of self-harm

WHO mhGAP guideline update: Mental Health Gap Action Programme (mhGAP) guideline for mental, neurological and substance use disorders

2023

Contents

1. Background	3
2 Methodology	3
2.1. PICO Question	3
2.2. Search strategy	4
2.3. Data collection and analysis	5
2.4. Selection and coding of identified records	5
2.5. Quality assessment	5
2.6. Analysis of subgroups or subsets	5
3. Results.....	6
3.1. Systematic reviews and/or studies identified by the search process	6
3.2. Narrative description of studies that contributed to GRADE analysis.....	10
3.3. Grading the Evidence	10
3.4. Additional evidence not mentioned in GRADE tables	10
4. From Evidence to Recommendations.....	13
4.1. Summary of findings	13
4.2. Summary of judgements.....	23
5. References	24
6. Glossary	25
Appendix I. Search terms used to identify systematic reviews	26
Appendix II. Studies meeting PICO criteria.....	28

Mental Health Gap Action Programme (mhGAP) guideline for mental, neurological and substance use disorders, available at: <https://www.who.int/publications/i/item/9789240084278>

1. Background

The use of media campaigns is considered a form of universal prevention provided to the total population by delivering messages across multiple media platforms repeatedly over specified time periods. Media campaigns aim to change human behaviour by affecting decision-making processes at the individual level (Torok et al, 2017). This makes media campaigns attractive for the use in suicide prevention efforts with the aim to reduce suicidal behaviours in the community with the most desirable outcome being a reduction of suicides (Pirkis et al, 2019). Nevertheless, suicide prevention media campaigns can be diverse, Pirkis et al (2019) note multiple purposes as following:

- Target distal outcomes related to beliefs, attitudes, and behaviours.
- Educate the general public about suicide warning signs and risk factors, with a view to equipping those who may be concerned about someone to react appropriately.
- Raise awareness and reduce stigmatizing attitudes among the general public, thereby increasing the likelihood that someone who is at risk might reach out for help without fear of dismissive, derisive, or discriminatory responses.
- Target vulnerable individuals themselves, encouraging them to seek help for suicidal thoughts and behaviours from informal and formal sources.

The target scoping question for the current review was ‘Are suicide prevention media campaigns effective in reducing deaths from suicide and acts of self-harm?’

2 Methodology

The review was carried out in two steps. The first step was identifying through a systematic search of the literature for the most recent and updated systematic review published from January 2010 until January 2022, as per the below criteria. Based on step one, step two updated the most recent systematic review on the topic, by systematically checking if there are additional primary studies after the most recent and updated systematic review until end of February 2022.

2.1. PICO Question

The question to be answered by the current report is as follows: “Are suicide prevention media campaigns effective in reducing deaths from suicide and acts of self-harm?”.

This will be investigated within the following PICO (population, intervention, comparator, outcome) framework:

Population (P):	general population
Intervention (I):	media campaign (suicide prevention)
Comparator (C):	no intervention – no media campaign
Outcomes (O):	deaths from suicide, acts of self-harm, suicidal ideation

List critical outcomes:

- **Critical outcome 1:** suicide mortality
- **Critical outcome 2:** acts of self-harm

List important outcomes:

- **Important outcome 1:** thoughts of self-harm in last month
- **Important outcome 2:** plans of self-harm in last month

Subgroups: gender
wide age groups – youth, older adults, working age
country level income

2.2. Search strategy

List of bibliographic databases to be searched include MEDLINE (Medical Literature Analysis and Retrieval System Online), Embase, PsycInfo, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus, Cochrane Library (for reviews, trials, protocols), Global Index Medicus (GMI), and Epistemonikos.

List of repositories of systematic reviews protocols to be searched: PROSPERO (International prospective register of systematic reviews) Register, Open Science Framework, and Cochrane.

The search string used in the most recently published systematic literature review is considered as reasonably wide to cover all studies of interest. The following search string will be used: (selfharm OR (suicid* NOT (euthanasia OR “assisted suicide”))) AND (campaign* OR service announcement*).

We used the following inclusion criteria:

- *Type of studies:* all epidemiological study designs
- *Types of participants:* not limited
- *Types of interventions:* media campaigns targeting suicide prevention
- *Types of outcome measures:* deaths from suicide, suicide attempts, acts of self-harm and thoughts and plans of self-harm in the last month
- *Published language of study:* any language
- *Date range¹:* January 2010 to January 2022 for systematic literature reviews and based on the most recent and updated systematic literature review, we will search for individual (primary) studies published after the conclusion of that systematic literature review until January 2022.

¹ It is preferred that identified systematic reviews have been published within the past two years e.g. since November 2019. This is not a hard cut-off and older reviews should be considered on a case-by-case basis, particularly those covering the time period since the last update of the mhGAP guideline in 2015. It is acknowledged that COVID has led to the pausing of many mental health research activities over the previous two years, and this may also impact the availability of systematic reviews within the preferred two year period. For any reviews that fall outside the two year period, the guideline methodologist will advise on suitability and these should be flagged for discussion.

2.3. Data collection and analysis

The traditional approach was followed to identify relevant studies as recommended by the WHO (World Health Organization) handbook in Chapter 8 of the Handbook for Guideline Development (WHO, 2014).

- records retrieved from the bibliographic databases were recorded and duplicates removed.
- records were assessed for eligibility by examining their titles and abstracts according to the inclusion and exclusion criteria (presented above) by two independent researchers, all records included by at least by one researcher moved to the following round to ensure comprehensiveness.
- the full texts of articles were retrieved and examined in line with the inclusion and exclusion criteria.
- data from eligible studies were extracted into pre-defined templates that include the characteristics of the study design and of the population, intervention, comparator, outcomes, and main findings.

The search strategy and results were documented at each step and presented in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram (Page et al., 2021), which includes the number of excluded articles and the reasons for their exclusion at the full-text screening stage. The PRISMA diagram will be included in an annex to the report of the systematic review.

2.4. Selection and coding of identified records

The records obtained from the searches were first transferred and deduplicated in EndNote using the EndNote duplication feature. Screening and other management were conducted in Microsoft Excel. Further duplicates were removed if identified during the screening process. A copy of the original reference library in electronic format EndNote and screening process in Excel are supplied as appendixes.

2.5. Quality assessment

AMSTAR2 (Assessing the Methodological quality of SysTemAtic Reviews) (Shea et al., 2017)² was used to assess systematic reviews and GRADE (Grading of Recommendations Assessment, Development and Evaluation) criteria (Schünemann, Brożek, Guyatt, & Oxman, 2013) for the level of certainty individual papers were relevant.

2.6. Analysis of subgroups or subsets

Examination of the main differences by region, level of the income (low- and middle-income Ccountries vs high-income countries), gender and wide age groups was planned, if possible.

² https://amstar.ca/Amstar_Checklist.php.

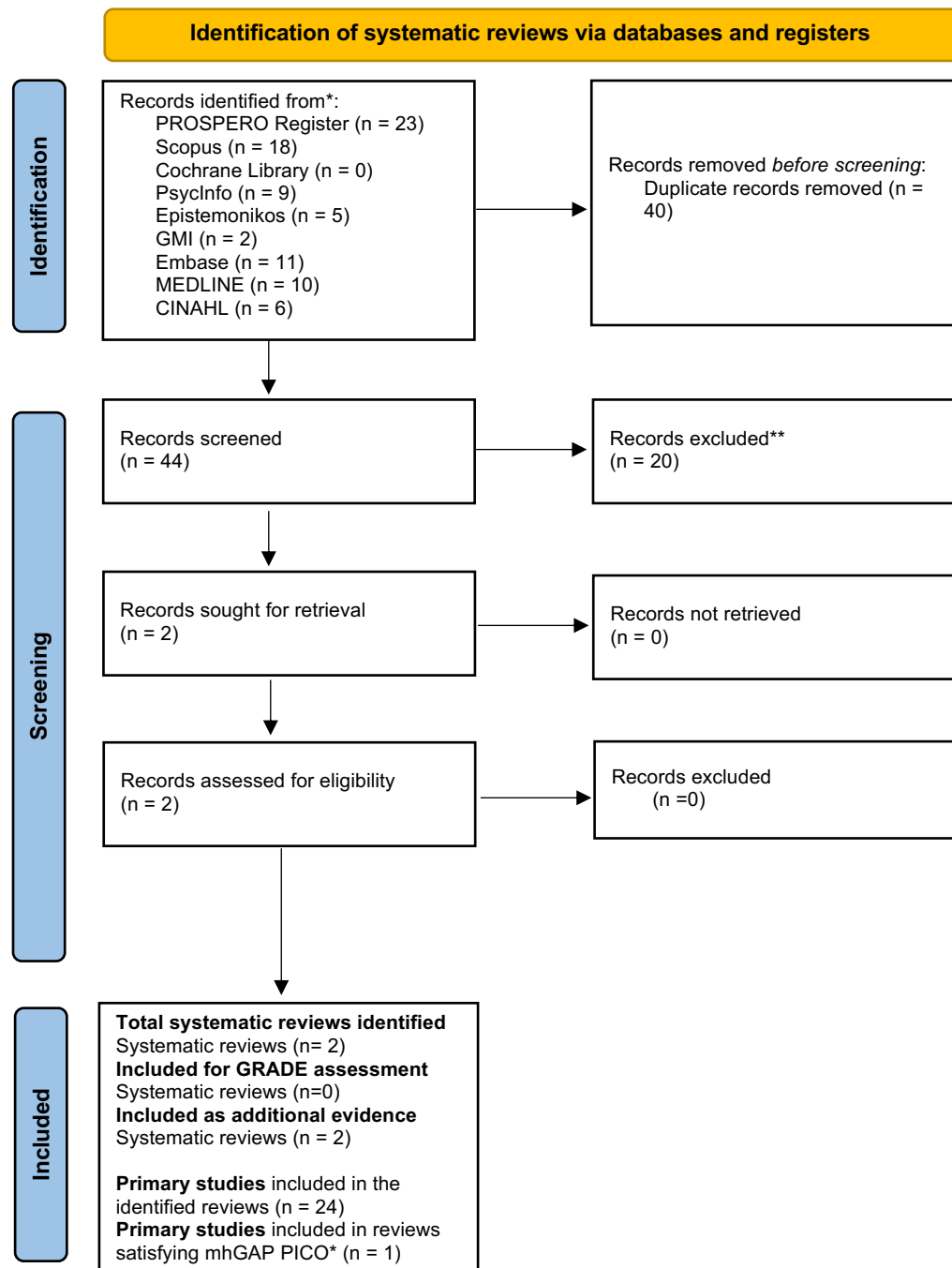
3. Results

Two relevant systematic reviews were identified. The most recent systematic literature review by Pirkis et al was published in 2019 (within the last 2 years). Their searches were systematically updated for more recent literature published from May 2017 until February 2022.

3.1. Systematic reviews and/or studies identified by the search process

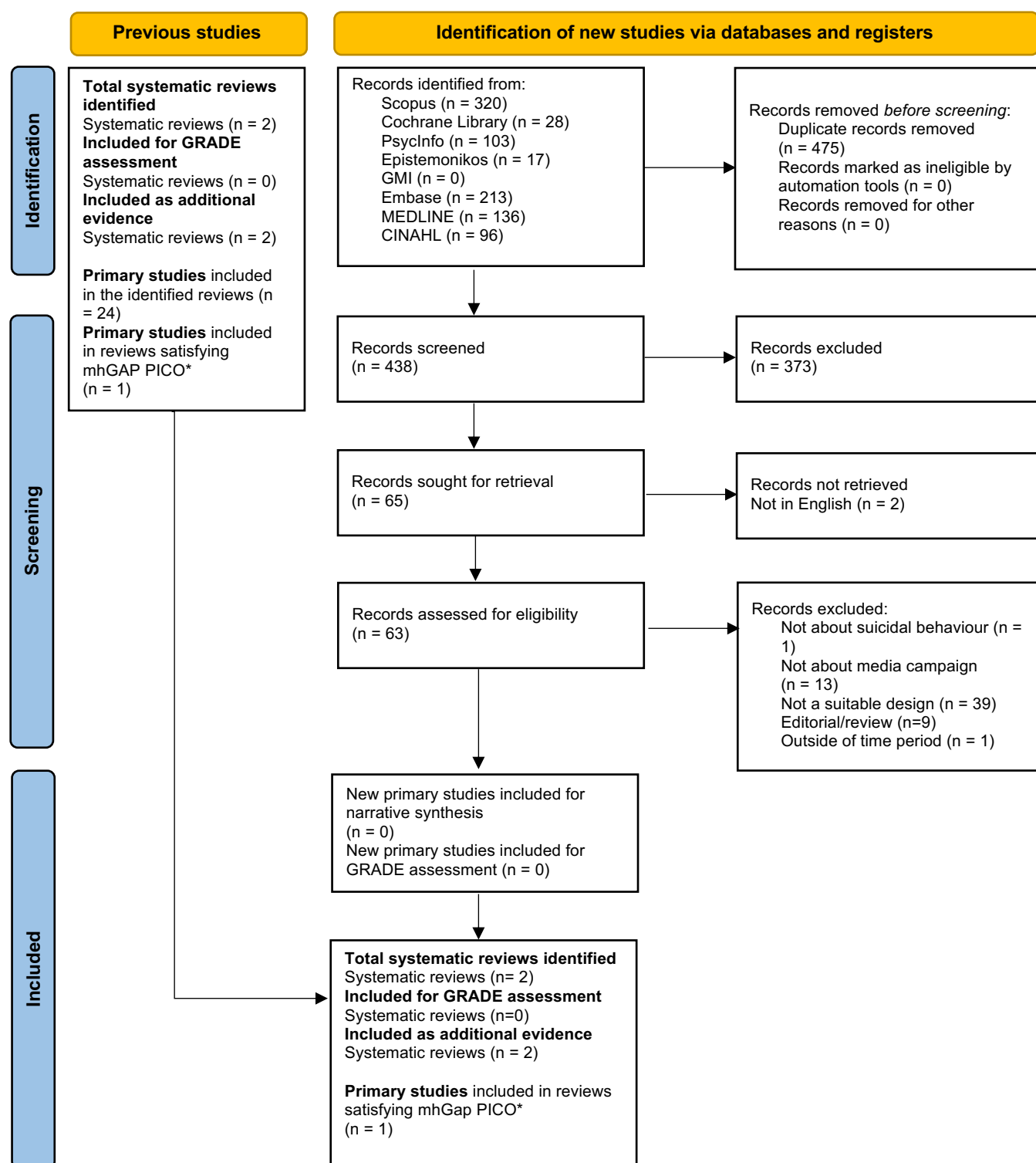
1. Pirkis, J., Rossetto, A., Nicholas, A., Ftanou, M., Robinson, J., & Reavley, N. (2019). Suicide prevention media campaigns: a systematic literature review. *Health Communication, 34*(4), 402-414.
2. Torok, M., Calear, A., Shand, F., & Christensen, H. (2017). A systematic review of mass media campaigns for suicide prevention: understanding their efficacy and the mechanisms needed for successful behavioural and literacy change. *Suicide and Life-Threatening Behaviour, 47*(6), 672-687.

Figure 1: PRISMA 2020 flow diagram for systematic reviews which included searches of databases and registers only (Step 1)



* Study satisfies PICO for current scoping question however is unable to be included in the GRADE tables due to population level analyses and outcomes.

Figure 2: PRISMA 2020 flow diagram for updated search of previously identified systematic review (Step 1) which included searches of databases and registers only



* Study satisfies PICO for current scoping question however is unable to be included in the GRADE tables due to population level outcomes

3.1.1. Included in GRADE tables/footnotes

No identified reviews or primary studies were included in the GRADE tables. Reason for exclusion were that the identified reviews did not fully satisfy the PICO and included studies did not specify a comparator or failed to compare to no intervention, did not involve media campaign as a standalone intervention, and/or had narrow samples (e.g. one study focussed on police as opposed to general population).

3.1.2. Excluded from GRADE tables/footnotes

Two systematic literature reviews identified were not included to the GRADE tables (Table 1), and they were assessed using the AMSTAR2.

Pirkis, J., Rossetto, A., Nicholas, A., Ftanou, M., Robinson, J., & Reavley, N. (2019). Suicide prevention media campaigns: a systematic literature review. *Health Communication*, 34(4), 402-414.

Torok, M., Cleave, A., Shand, F., & Christensen, H. (2017). A systematic review of mass media campaigns for suicide prevention: understanding their efficacy and the mechanisms needed for successful behavioural and literacy change. *Suicide and Life-Threatening Behaviour*, 47(6), 672-687.

Each individual study included in the reviews were compiled into a table (see Appendix II) to identify if individual studies met PICO criteria for the current scoping question. One study identified in reviews did correspond to the PICO of the question of interest. However, it used ecological level quasi-experimental design and therefore it was not feasible to provide details in GRADE table and is presented below.

Till, B., Sonneck, G., Baldauf, G., Steiner, E. and Niederkrotenthaler, T. (2013) Reasons to love life: Effects of a suicide-awareness campaign on the utilization of a telephone emergency line in Austria. *Crisis*, 34: 382-389.

3.2. Narrative description of studies that contributed to GRADE analysis

Not applicable

3.3. Grading the Evidence

Not applicable

3.4. Additional evidence not mentioned in GRADE tables

Two systematic reviews about the topic were identified and they were assessed using AMSTAR2 (Table 1).

Torok et al (2017) conducted a systematic literature review to analyse the impact of mass media on reducing suicidal behaviours and/or increasing suicide literacy including their long-term effect. Their searches covered Cochrane Library, Cochrane Central Register of Controlled Trials, Embase, MEDLINE, PsycInfo, PubMed, Scopus, and Web of Science until April 2016. The authors applied the following inclusion criteria:

P: general population

I: mass media campaigns as standalone and mixed with other interventions

C: not specified

O: suicidal behaviours and suicide literacy

The review identified 13 studies, seven measured suicidal behaviours (see Appendix II for details). Three studies out of seven involved standalone mass media campaign. One study showed decline in suicides, two studies showed no effect of media campaign. Out of three studies, only one study (Till et al 2013) had a comparator and reached the inclusion criteria for the current review (described below). Nevertheless, authors noted that multicomponent studies including media campaigns seem to be successful in reducing suicidal behaviour (in particular a decline in suicide attempts) and there was some modest impact on suicide literacy in standalone media campaigns. In conclusion, authors noted limited effectiveness of mass media campaign and there is a need for more high-quality evaluations.

Pirkis et al (2019) did conducted a systematic literature review to examine effectiveness of media campaigns designed to prevent suicide. Their searches covered PsycInfo, MEDLINE, Scopus, and EBSCOHost until May 2017. The authors applied the following inclusion criteria:

P: not specified

I: mass media campaigns or public service announcements as standalone interventions explicitly aimed at suicide prevention

C: not specified

O: related to suicide (e.g. attitudes toward suicide, suicidal thoughts, suicidal behaviours, seeking help, suicide)

The review identified 20 studies, four measured suicidal behaviour. Out of four studies, two studies had a comparator, however, one of them focussed on police force only. Similarly, to the review by Torok et al (2017), only the same study (Till et al 2013) reached the inclusion criteria for the current mhGAP review. The authors concluded that studies showed diverse results, however, the studies that had sufficient power demonstrated a decline in suicidal behaviour (citing only two out of four studies which measured suicidal behaviour).

The relevant study, identified by both reviews, was conducted in Austria using a quasi-experimental design on ecological level. Till et al (2013) aimed to analyse the impact of a local media campaign on suicide numbers and on the use of helpline. The media campaign "Reasons to love life" in the Austrian federal state of Styria focused on suicide awareness and promoted help-seeking behaviour (utilizing helpline) in the population. Campaign involved billboards, multiple media outlets, the launch of a local website on suicide prevention and training of local journalists on suicide reporting from 31 March to 8 May 2011. Upper Austria was used as a control site and a period of three months before the campaign (January to March) was compared to the three months since the start (April to June).

Suicides increased from 52 before the campaign to 69 (+32.6%) since the start of the campaign in the intervention region compared to 67 to 68 (+1.4%) in the control region. Difference in the increase was not significant ($\chi^2 = 1.13$, $df = 1$, $p = .28$). Comparisons with previous years showed that suicides in the study region increased from 39 to 59 (+51.2%) in 2010 and from 58 to 61 (+5.1%) in 2009. There was an increase in the number of calls to the helpline in the intervention region compared to the control region, but not for the suicide-related calls. The authors discussion and conclusion focussed on helpline utilization.

Table 1: AMSTAR2 assessment of systematic literature reviews

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
Torok et al 2017	Y	N	PY	PY	Y	Y	PY	PY	N/N	N	NMA	NMA	N	Y	NMA	N
Pirkis et al 2019	Y	N	N	PY	N	N	PY	N	N/N	N	NMA	NMA	N	Y	NMA	Y

Y: Yes, P: Yes Partial, N: No, NMA: No meta-analysis conducted, NA: Not applicable

4. From Evidence to Recommendations

4.1. Summary of findings

None of the studies were graded due to not satisfying the PICO criteria for the current scoping question. Overall, findings are inconclusive as to the effectiveness of mass media campaigns in reducing suicide mortality, acts of self-harm or suicidal thoughts/plans. Mass media campaigns may lend themselves to integration within a multicomponent intervention strategy. There is a need for further research.

Table 2: Evidence to decision table

Please note * indicates evidence from overarching qualitative review by Gronholm et al, 2023.

Criteria, questions		Judgement	Research evidence	Additional considerations
Priority of the problem	<p>Is the problem a priority?</p> <p>The more serious a problem is, the more likely it is that an option that addresses the problem should be a priority (e.g., diseases that are fatal or disabling are likely to be a higher priority than diseases that only cause minor distress). The more people who are affected, the more likely it is that an option that addresses the problem should be a priority.</p>			
	<ul style="list-style-type: none"> • Are the consequences of the problem serious (that is, severe or important in terms of the potential benefits or savings)? • Is the problem urgent? • Is it a recognized priority (such as based on a political or policy decision)? [Not relevant when an individual patient perspective is taken] 	<p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Probably no</p> <p><input type="checkbox"/> Probably yes</p> <p><input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> Varies</p> <p><input type="checkbox"/> Don't know</p>	<p>Suicide and self-harm are serious public health problems globally (WHO, 2021). The reduction of the suicide rate is an indicator in the UN SDGs; the only one included on mental health.</p> <p>More than 700 000 people die by suicide every year. Suicide accounts for 1.3% of all deaths globally. 77% of suicides occur in LMICs.</p> <p>Suicide is the fourth leading cause of death for 15–29-year-olds (third for girls, fourth for boys). 58% of suicides happen before the age of 50 years.</p> <p>It is estimated that for every suicide there are 20 suicide attempts. Not only are suicide attempts a precursor to suicides, but a serious public health concern in themselves because they can often lead to substantial physical injury and reduced quality of life.</p>	<p>Suicide and self-harm are serious public health problems globally (WHO, 2021).</p>

Criteria, questions		Judgement	Research evidence	Additional considerations
Desirable Effects	How substantial are the desirable anticipated effects? The larger the benefit, the more likely it is that an option should be recommended.			
	<ul style="list-style-type: none"> • Judgments for each outcome for which there is a desirable effect • How substantial (large) are the desirable anticipated effects (including health and other benefits) of the option (taking into account the severity or importance of the desirable consequences and the number of people affected)? 	<input type="checkbox"/> Trivial <input type="checkbox"/> Small <input type="checkbox"/> Moderate <input type="checkbox"/> Large <input type="checkbox"/> Varies <input checked="" type="checkbox"/> Don't know	No research evidence for the media campaigns intervention Only one quasi-experimental ecological level study was identified that reported non-significant increase in suicides in the intervention region.	
Undesirable Effects	How substantial are the undesirable anticipated effects? The greater the harm, the less likely it is that an option should be recommended.			
	<ul style="list-style-type: none"> • Judgments for each outcome for which there is an undesirable effect • How substantial (large) are the undesirable anticipated effects (including harms to health and other harms) of the option (taking into account the severity or importance of the adverse effects and the number of people affected)? 	<input type="checkbox"/> Large <input type="checkbox"/> Moderate <input type="checkbox"/> Small <input type="checkbox"/> Trivial <input type="checkbox"/> Varies <input checked="" type="checkbox"/> Don't know	No research evidence for the media campaigns intervention Only one quasi-experimental ecological level study was identified that reported non-significant increase in suicides in the intervention region.	

	Criteria, questions	Judgement	Research evidence	Additional considerations
Certainty of evidence	<p>What is the overall certainty of the evidence of effects?</p> <p>The less certain the evidence is for critical outcomes (those that are driving a recommendation), the less likely that an option should be recommended (or the more important it is likely to be to conduct a pilot study or impact evaluation, if it is recommended).</p>			
	<ul style="list-style-type: none"> What is the overall certainty of this evidence of effects, across all of the outcomes that are critical to making a decision? See GRADE guidance regarding detailed judgments about the quality of evidence or certainty in estimates of effects 	<input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High <input checked="" type="checkbox"/> No included studies	<p>No research evidence for the media campaigns intervention</p> <p>Only one quasi-experimental ecological level study was identified that reported a non-significant increase in suicides in the intervention region.</p>	Paper identified non-significant increase in suicides in the intervention region.
Values	<p>Is there important uncertainty about or variability in how much people value the main outcomes?</p> <p>The more likely it is that differences in values would lead to different decisions, the less likely it is that there will be a consensus that an option is a priority (or the more important it is likely to be to obtain evidence of the values of those affected by the option). Values in this context refer to the relative importance of the outcomes of interest (how much people value each of those outcomes). These values are sometimes called 'utility values'.</p>			
	<ul style="list-style-type: none"> Is there important uncertainty about how much people value each of the main outcomes? Is there important variability in how much people value each of the main outcomes? 	<input type="checkbox"/> Important uncertainty or variability <input type="checkbox"/> Possibly important uncertainty or variability <input checked="" type="checkbox"/> Probably no important uncertainty or variability <input type="checkbox"/> No important uncertainty or variability	<p>There was no direct evidence to evaluate values and preferences of people.</p> <p>*Overall, the studies highlighted importance of mental health interventions and the outcomes of those interventions on people's mental health and wellbeing.</p> <p>The utility value could be limited by certain factors and barriers present in the health systems. For instance, low awareness, poor funding and poor political buy-in, or other social barriers</p> <p>Social networks or raising awareness can facilitate adoption and recognition of mental health issues and the perceived value of the interventions</p>	Suicide prevention is an important priority however across countries and populations there is considerable stigma, variation in criminalization of the behaviour, and religious beliefs that may impact the value people place upon suicide prevention.

	Criteria, questions	Judgement	Research evidence	Additional considerations
Balance of effects	<p>Does the balance between desirable and undesirable effects favour the intervention or the comparison?</p> <p>The larger the desirable effects in relation to the undesirable effects, taking into account the values of those affected (i.e. the relative value they attach to the desirable and undesirable outcomes) the more likely it is that an option should be recommended.</p>			
	<ul style="list-style-type: none"> • Judgments regarding each of the four preceding criteria • To what extent do the following considerations influence the balance between the desirable and undesirable effects: <ul style="list-style-type: none"> - How much less people value outcomes that are in the future compared to outcomes that occur now (their discount rates)? - People's attitudes towards undesirable effects (how risk averse they are)? - People's attitudes towards desirable effects (how risk seeking they are)? 	<input type="checkbox"/> Favours the comparison <input type="checkbox"/> Probably favours the comparison <input type="checkbox"/> Does not favour either the intervention or the comparison <input type="checkbox"/> Probably favours the intervention <input type="checkbox"/> Favours the intervention <input type="checkbox"/> Varies <input checked="" type="checkbox"/> Don't know	There was no direct evidence to evaluate balance of effects.	
Resources required	<p>How large are the resource requirements (costs)?</p> <p>The greater the cost, the less likely it is that an option should be a priority. Conversely, the greater the savings, the more likely it is that an option should be a priority.</p>			
	<ul style="list-style-type: none"> • How large is the difference in each item of resource use for which <u>fewer</u> resources are required? • How large is the difference in each item of resource use for which <u>more</u> resources are required? • How large an investment of resources would the option require or save? 	<input type="checkbox"/> Large costs <input type="checkbox"/> Moderate costs <input type="checkbox"/> Negligible costs and savings <input type="checkbox"/> Moderate savings <input type="checkbox"/> Large savings <input type="checkbox"/> Varies <input checked="" type="checkbox"/> Don't know	There was no direct evidence to evaluate resource requirements.	

Criteria, questions		Judgement	Research evidence	Additional considerations
Certainty of evidence of required resources	What is the certainty of the evidence of resource requirements (costs)?			
	<ul style="list-style-type: none"> • Have all-important items of resource use that may differ between the options being considered been identified? • How certain is the evidence of differences in resource use between the options being considered (see GRADE guidance regarding detailed judgments about the quality of evidence or certainty in estimates)? • How certain is the cost of the items of resource use that differ between the options being considered? • Is there important variability in the cost of the items of resource use that differ between the options being considered? 	<input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High <input checked="" type="checkbox"/> No included studies	There was no direct evidence to evaluate resource requirements.	
Cost effectiveness	Does the cost-effectiveness of the intervention favour the intervention or the comparison?			
	<p>The greater the cost per unit of benefit, the less likely it is that an option should be a priority.</p> <ul style="list-style-type: none"> • Judgments regarding each of the six preceding criteria • Is the cost effectiveness ratio sensitive to one-way sensitivity analyses? • Is the cost effectiveness ratio sensitive to multivariable sensitivity analysis? • Is the economic evaluation on which the cost effectiveness estimate is based reliable? • Is the economic evaluation on which the cost effectiveness estimate is based applicable to the setting(s) of interest? 	<input type="checkbox"/> Favours the comparison <input type="checkbox"/> Probably favours the comparison <input type="checkbox"/> Does not favour either the intervention or the comparison <input type="checkbox"/> Probably favours the intervention <input type="checkbox"/> Favours the intervention <input type="checkbox"/> Varies <input checked="" type="checkbox"/> No included studies	No reviews examining cost-effectiveness identified.	

Criteria, questions		Judgement	Research evidence	Additional considerations
Health equity, equality and non-discrimination	<p>What would be the impact on health equity, equality and non-discrimination? (WHO INTEGRATE)</p> <p>Health equity and equality reflect a concerted and sustained effort to improve health for individuals across all populations, and to reduce avoidable systematic differences in how health and its determinants are distributed. Equality is linked to the legal principle of non-discrimination, which is designed to ensure that individuals or population groups do not experience discrimination on the basis of their sex, age, ethnicity, culture or language, sexual orientation or gender identity, disability status, education, socioeconomic status, place of residence or any other characteristics. All recommendations should be in accordance with universal human rights standards and principles. The greater the likelihood that the intervention increases health equity and/or equality and that it reduces discrimination against any particular group, the greater the likelihood of a general recommendation in favour of this intervention.</p>			
	<ul style="list-style-type: none"> • How are the condition and its determinants distributed across different population groups? Is the intervention likely to reduce or increase existing health inequalities and/or health inequities? Does the intervention prioritise and/or aid those furthest behind? • How are the benefits and harms of the intervention distributed across the population? Who carries the burden (e.g. all), who benefits (e.g. a very small sub-group)? • How affordable is the intervention for individuals, workplaces or communities? • How accessible - in terms of physical as well as informational access - is the intervention across different population groups? • Is there any suitable alternative to addressing the condition, does the intervention represent the only available option? Is this option proportionate to the need, and will it be subject to periodic review? 	<input type="checkbox"/> Reduced <input type="checkbox"/> Probably reduced <input type="checkbox"/> Probably no impact <input checked="" type="checkbox"/> Probably increased <input type="checkbox"/> Increased <input type="checkbox"/> Varies <input type="checkbox"/> Don't know	<p>There was no direct evidence to evaluate health equity, equality, and non-discrimination.</p> <p>*The review noted considerations for ensuring MNS interventions are equitable, equally available, and non-discriminatory:</p> <ul style="list-style-type: none"> • Accessibility, physical/practical considerations • time & travel constraints. • Accessibility, informational barriers • Affordability - medication and treatment costs <p>These factors may be exacerbated for certain groups:</p> <ul style="list-style-type: none"> • People with low education/literacy - e.g. written instructions, psychoeducation materials • Women - travel restrictions, stronger stigma/shame, caregiving responsibilities • Low resource settings - affordability/cost considerations exacerbated. 	

Criteria, questions		Judgement	Research evidence	Additional considerations
Feasibility	<p>Is the intervention feasible to implement?</p> <p>The less feasible (capable of being accomplished or brought about) an option is, the less likely it is that it should be recommended (i.e. the more barriers there are that would be difficult to overcome).</p>			
	<ul style="list-style-type: none"> • Can the option be accomplished or brought about? • Is the intervention or option sustainable? • Are there important barriers that are likely to limit the feasibility of implementing the intervention (option) or require consideration when implementing it? 	<input type="checkbox"/> No <input type="checkbox"/> Probably no <input checked="" type="checkbox"/> Probably yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/> Don't know	<p>Media campaigns targeting suicide prevention have been conducted in several countries and settings. Nevertheless, it is important to test messages (public service announcements; Pirkis et al 2019), they are likely to be impacted by the religion, attitudes, and values.</p> <p>*Included reviews considered feasibility, and how this can be enhanced.</p> <p>Acceptability of interventions for stakeholders - requires increased engagement with specialist staff, increased visibility of the task-sharing workforce within health facilities, perception of usefulness by providers and service users (e.g. via positive feedback), context-specific interventions, standardized implementation steps for simpler decision-making and delivery.</p> <p>Health worker workload, competency- requires training, refreshers, supervision, networking with others in same role.</p> <p>Availability of a task-sharing workforce</p> <p>Availability of caregivers.</p> <p>Participant education and literacy requires verbal explanations/tasks.</p>	

Criteria, questions		Judgement	Research evidence	Additional considerations
			<p>Logistical issues such as e.g., mobile populations, affordability of travel to receive care, lack of private space.</p> <p>Limited resources/mental health budget</p> <p>Sustainability considerations:</p> <ul style="list-style-type: none"> • Training and supervision • Integrating into routine clinical practice <p>Provider type (e.g. formally employed lay health workers vs. volunteers)</p>	
Human rights and sociocultural acceptability	<p>Is the intervention aligned with human rights principles and socioculturally acceptable? (WHO INTEGRATE)</p> <p>This criterion encompasses two distinct constructs: The first refers to an intervention's compliance with universal human rights standards and other considerations laid out in international human rights law beyond the right to health (as the right to health provides the basis of other criteria and sub-criteria in this framework). The second, sociocultural acceptability, is highly time-specific and context-specific and reflects the extent to which those implementing or benefiting from an intervention as well as other relevant stakeholder groups consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention. The greater the sociocultural acceptability of an intervention to all or most relevant stakeholders, the greater the likelihood of a general recommendation in favour of this intervention.</p>			
	<ul style="list-style-type: none"> • Is the intervention in accordance with universal human rights standards and principles? • Is the intervention socioculturally acceptable to patients/beneficiaries as well as to those implementing it? To which extent do patients/beneficiaries value different non-health outcomes? • Is the intervention socioculturally acceptable to the public and other relevant stakeholder groups? Is the intervention sensitive to sex, age, ethnicity, culture or language, sexual orientation or gender identity, disability status, education, socioeconomic status, place of residence or any other relevant characteristics? • How does the intervention affect an individual's, population group's or organization's autonomy, i.e. their ability to make a competent, informed and voluntary decision? 	<p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Probably no</p> <p><input checked="" type="checkbox"/> Probably yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Varies</p> <p><input type="checkbox"/> Don't know</p>	<p>There was no direct evidence to evaluate alignment with human rights principle and sociocultural acceptability.</p> <p>*The review noted a number of considerations which would impact the right to health and access to health care. E.g. stigma and discrimination and lack of confidentiality could affect the help-seeking among service users.</p> <p>The importance of sociocultural acceptability of MNS interventions was clearly expressed. Pre-intervention considerations that take into account cultural and social aspects improve the acceptability of implemented</p>	

Criteria, questions		Judgement	Research evidence	Additional considerations
	<ul style="list-style-type: none"> How intrusive is the intervention, ranging from low intrusiveness (e.g. providing information) to intermediate intrusiveness (e.g. guiding choices) to high intrusiveness (e.g. restricting or eliminating choices)? Where applicable, are high intrusiveness and/or impacts on the privacy and dignity of concerned stakeholders justified? 		<p>interventions.</p> <p>When interventions were perceived as appropriate for the culture and target group, the content and medium of the intervention received more positive feedback from service users and caregivers. Also, considerations of age, sex and language have been highlighted as important to acceptability and accessibility.</p> <p>Mitigating steps to improve sociocultural acceptability include:</p> <ul style="list-style-type: none"> To train health workers in non-judgemental care Integrate preventative mental health awareness messages to reduce the stigma Train acceptable counsellors for the local settings and target groups <p>Facilitate the use of indigenous/ local phrases and terms to increase acceptability, accessibility and fidelity.</p>	

MNS: mental, neurological and substance use; UN SDGs: united nations sustainable goals

4.2. Summary of judgements

Table 3: Summary of judgements

This provides a snapshot of the evidence to decision table.

Priority of the problem	- Don't know	- Varies		- No	- Probably No	- Probably Yes	✓ Yes
Desirable effects	✓ Don't know	- Varies		- Trivial	- Small	- Moderate	- Large
Undesirable effects	✓ Don't know	- Varies		- Large	- Moderate	- Small	- Trivial
Certainty of the evidence	✓ No included studies			- Very low	- Low	- Moderate	- High
Values				- Important uncertainty or variability	- Possibly important uncertainty or variability	✓ Probably no important uncertainty or variability	- No important uncertainty or variability
Balance of effects	✓ Don't know	- Varies	- Favours comparison	- Probably favours comparison	- Does not favour either	- Probably favours intervention	- Favours intervention
Resources required	✓ Don't know	- Varies	- Large costs	- Moderate costs	- Negligible costs or savings	- Moderate savings	- Large savings
Certainty of the evidence on required resources	✓ No included studies			ü Very low	- Low	- Moderate	- High
Cost-effectiveness	✓ No included studies	- Varies	- Favours comparison	- Probably favours comparison	- Does not favour either	- Probably favours intervention	- Favours intervention
Equity, equality and non-discrimination	- Don't know	- Varies	- Reduced	Probably reduced	- Probably no impact	ü Probably increased	- Increased
Feasibility	- Don't know	- Varies		- No	- Probably No	✓ Probably Yes	- Yes
Human rights and sociocultural acceptability	- Don't know	- Varies		- No	- Probably No	✓ Probably Yes	- Yes

✓ Indicates category selected, - Indicates category not selected

5. References

- De Leo, D., Goodfellow, B., Silverman, M., Berman, A., Mann, J., Arensman, E., ... & Kolves, K. (2021). International study of definitions of English-language terms for suicidal behaviours: a survey exploring preferred terminology. *BMJ open*, 11(2), e043409.
- Gronholm, P., Makhmud, A., Barbui, C., Brohan, E. & Chowdhary, N. (2023). Qualitative evidence regarding the experience of receiving and providing care for mental health conditions in non-specialist settings in low-and middle-income countries: A systematic review of reviews. *BMJ Mental Health*, 26:e300755.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., . . . Brennan, S. E. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *International Journal of Surgery*, 88, 105906.
- Pirkis, J., Rossetto, A., Nicholas, A., Ftanou, M., Robinson, J., & Reavley, N. (2019). Suicide prevention media campaigns: a systematic literature review. *Health Communication*, 34(4), 402-414.
- Shea, B. J., Reeves, B. C., Wells, G., Thuku, M., Hamel, C., Moran, J., . . . Kristjansson, E. (2017). AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ*, 358.
- Schünemann, H., Brożek, J., Guyatt, G., & Oxman, A. (2013). *GRADE handbook for grading quality of evidence and strength of recommendations*. Updated October 2013. The GRADE Working Group, 2013.
- Till, B., Sonneck, G., Baldauf, G., Steiner, E. and Niederkrotenthaler, T. (2013) Reasons to love life: Effects of a suicide-awareness campaign on the utilization of a telephone emergency line in Austria. *Crisis*, 34: 382-389.
- Torok, M., Caele, A., Shand, F., & Christensen, H. (2017). A systematic review of mass media campaigns for suicide prevention: understanding their efficacy and the mechanisms needed for successful behavioural and literacy change. *Suicide and Life-Threatening Behaviour*, 47(6), 672-687.
- World Health Organization. (2014). *WHO handbook for guideline development*. Geneva: World Health Organization.
- World Health Organization. (2021). *Comprehensive mental health action plan 2013–2030*. Geneva: World Health Organization.

6. Glossary

Media campaign: utilizing different media outlets aim to change human behaviour by affecting decision-making processes at the individual level (Torok et al, 2017).

Self-harm: a non-fatal act in which a person harms himself or herself intentionally, with varying motives including the wish to die (De Leo et al, 2021).

Suicidal ideation: To think of suicide with or without suicidal intent, or hope for death by killing oneself, or state suicidal intention without engaging in behaviour (De Leo et al, 2021).

Suicide: an act of deliberately killing oneself (WHO, 2014).

Suicide attempt: an act in which a person harms himself or herself, with the intention to die, and survives (De Leo et al, 2021).

Suicidal behaviour: includes suicide, suicide attempt and self-harm.

Appendix I. Search terms used to identify systematic reviews

Searches to identify existing reviews	Searches to update reviews
<p>Scopus (Elsevier) (TITLE-ABS-KEY (selfharm OR suicid*) AND TITLE-ABS-KEY (campaign* OR "service announcement") AND TITLE (review) AND NOT TITLE-ABS-KEY (euthanasia OR "assisted suicide")) AND PUBYEAR > 2009 AND PUBYEAR < 2023</p> <p>Cochrane Library selfharm OR suicid* in Title Abstract Keyword AND campaign* OR "service announcement" in Title Abstract Keyword NOT euthanasia OR "assisted suicide" in Title Abstract Keyword - with Cochrane Library publication date Between Jan 2010 and Dec 2021, in Cochrane Reviews, Cochrane Protocols (Word variations have been searched)</p> <p>PsycInfo (Ovid) (((selfharm or suicid*) not (euthanaia or "assisted suicide")) and (campaign* or "service announcement")).ab. and review.ti. limit to yr="2010 - 2022"</p> <p>Embase (Elsevier) (suicid*:ti,ab,kw OR selfharm:ti,ab,kw) NOT (euthanasia:ti,ab,kw OR 'assisted suicide':ti,ab,kw) AND (campaign*:ti,ab,kw OR 'service announcement':ti,ab,kw) AND review:ti AND [2010-2022]/py</p> <p>MEDLINE (EBSCOHost) "AB (selfharm OR suicid*) AND AB (campaign* OR ""service announcement"") AND TI review NOT AB (euthanasia OR ""assisted suicide"")" Limiters - Date of Publication: 20100101-20220231</p> <p>CINAHL (EBSCOHost) "AB (selfharm OR suicid*) AND AB (campaign* OR ""service announcement"") AND TI review NOT AB (euthanasia OR ""assisted suicide"")" Limiters - Published Date: 20100101-20220231</p> <p>Epistemonikos (title:((title:(suicid* OR selfharm) OR abstract:(suicid* OR selfharm)) AND (title:(campaign* OR "service announcement") OR abstract:(campaign* OR "service announcement"))) AND title:(review) NOT (title:(euthanasia OR "assisted suicide") OR abstract:(euthanasia OR "assisted suicide"))) OR abstract:((title:(suicid* OR selfharm) OR abstract:(suicid* OR selfharm)) AND (title:(campaign* OR "service announcement") OR abstract:(campaign* OR "service announcement"))) AND title:(review) NOT (title:(euthanasia OR "assisted suicide") OR abstract:(euthanasia OR "assisted suicide")))) Custom year range 2010-2022</p> <p>Global Index Medicus</p>	<p>Scopus (Elsevier) (TITLE-ABS-KEY (self-harm OR suicid*) AND TITLE-ABS-KEY (campaign* OR "service announcement") AND NOT TITLE-ABS-KEY (euthanasia OR "assisted suicide")) AND PUBYEAR > 2016 AND PUBYEAR < 2023</p> <p>Cochrane Library selfharm OR suicid* in Title Abstract Keyword AND campaign* OR "service announcement" in Title Abstract Keyword NOT euthanasia OR "assisted suicide" in Title Abstract Keyword - with Cochrane Library publication date Between Jan 2017 and Dec 2021, in Cochrane Reviews, Cochrane Protocols (Word variations have been searched)</p> <p>PsycInfo (Ovid) (((selfharm or suicid*) not (euthanaia or "assisted suicide")) and (campaign* or "service announcement")).ab. limit to yr="2017 - 2022"</p> <p>Embase (Elsevier) (suicid*:ti,ab,kw OR selfharm:ti,ab,kw) NOT (euthanasia:ti,ab,kw OR 'assisted suicide':ti,ab,kw) AND (campaign*:ti,ab,kw OR 'service announcement':ti,ab,kw) AND [2017-2022]/py</p> <p>MEDLINE (EBSCOHost) "AB (selfharm OR suicid*) AND AB (campaign* OR ""service announcement"") NOT AB (euthanasia OR ""assisted suicide"")" Limiters - Published Date: 20170501-20220231 Expanders - Apply equivalent subjects Search modes - Boolean/Phrase</p> <p>CINAHL (EBSCOHost) "AB (selfharm OR suicid*) AND AB (campaign* OR ""service announcement"") NOT AB (euthanasia OR ""assisted suicide"")" Limiters - Published Date: 20170501-20220231 Expanders - Apply equivalent subjects Search modes - Boolean/Phrase</p> <p>Epistemonikos (title:((title:(suicid* OR selfharm) OR abstract:(suicid* OR selfharm)) AND (title:(campaign* OR "service announcement") OR abstract:(campaign* OR "service announcement"))) NOT (title:(euthanasia OR "assisted suicide") OR abstract:(euthanasia OR "assisted suicide"))) OR abstract:((title:(suicid* OR selfharm) OR abstract:(suicid* OR selfharm)) AND (title:(campaign* OR "service announcement") OR abstract:(campaign* OR "service announcement"))) NOT (title:(euthanasia OR "assisted suicide") OR abstract:(euthanasia OR "assisted suicide")))) Custom year range 2017 – 2022</p>

<p>tw:((tw:(suicid* OR selfharm)) AND (tw:(campaign* OR "service announcement"))) AND NOT (tw:(euthanasia OR "assisted suicide")) AND (ti:(review))) AND (year_cluster:[2010 TO 2022])</p> <p>PROSPERO Register suicide OR selfharm AND campaign* OR "Service announcement"</p>	<p>Global Index Medicus tw:((tw:(suicid* OR selfharm)) AND (tw:(campaign* OR "service announcement"))) AND NOT (tw:(euthanasia OR "assisted suicide")) AND (year_cluster:[2017 TO 2022])</p>
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Appendix II. Studies meeting PICO criteria

Table investigating if individual studies included in previous reviews (described above) met PICO criteria for the current mhGAP review.

Torok et al 2017	Pirkis et al 2019	Population	Intervention	Comparator	Outcome				Comments	Relevant to the mhGAP question
Search: April 1, 2016	Search: May 14, 2017	General pop	Media campaign SP	No media campaign	Suicide	SH/SA	Suicidal ideation	Other outcomes		
		Yes/No	Yes/No	Yes/No	measured (Yes/No) - impact	measured (Yes/No) - impact	measured (Yes/No) - impact	measured (Yes/No)		Yes/No
Daigle et al 2006	Daigle et al 2006	Yes	Yes	No	Yes - no sig effect	Yes - no sig effect	No	Yes	No comparator for suicide outcomes	No
Oliver et al 2008	Oliver et al 2008				No	No	No	Yes		No
Klimes-Dougan et al 2009	Klimes-Dougan et al 2009				No	No	No	Yes		No
Klimes-Dougan & Lee 2010	Klimes-Dougan & Lee 2010				No	No	No	Yes		No
Jenner et al 2010	Jenner et al 2010				No	No	No	Yes		No
Till et al 2013	Till et al 2013	Yes	Yes	Yes	Yes - NS increase	No	No	Yes		Yes
Matubayashi et al 2014	Matubayashi et al 2014	Yes	Yes	No	Yes - sig decrease	No	No	No	No comparator	No
Robinson et al 2013 & 2014	Robinson et al 2013 & 2014				No	No	No	Yes		No
May et al 2005		Yes	No	No	Yes - no sig effect	Yes - sig decrease	No	No	Multicomponent	No
Hegerl et al 2006		Yes	No	Yes	No (suicide	Yes - sig decrease	No	No	Multicomponent	No

Torok et al 2017	Pirkis et al 2019	Population	Intervention	Comparator	Outcome				Comments	Relevant to the mhGAP question
Search: April 1, 2016	Search: May 14, 2017	General pop	Media campaign SP	No media campaign	Suicide	SH/SA	Suicidal ideation	Other outcomes		
					acts S+SA)					
Ho et al 2011		Yes	No	Yes	Yes - decrease	Yes - sig decrease	No	No	Multicomponent	No
Szekely et al 2013		Yes	No	No	Yes - sig decrease	No	No	No	Multicomponent	No
	Omar 2005				No	No	No	Yes		No
	Pillay et al 2007				No	No	No	Yes		No
	Boeke et al 2011				No	No	No	Yes		No
	Mishara & Martin 2012	No	No	Yes	Yes - decrease	No	No	No	Police only + Multicomponent	No
	Bossarte et al 2014				No	No	No	Yes		No
	Karras et al 2014				No	No	No	Yes		No
	Klimes-Dougan et al 2016				No	No	No	Yes		No
	Mok et al 2016				No	No	No	Yes		No
	Karras et al 2016				No	No	No	Yes		No
	Karras et al 2017				No	No	No	Yes		No
	Song et al 2017				No	No	No	Yes		No
	Silk et al 2017				No	No	No	Yes		No