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The contributions of creative approaches towards knowledge mobilisation in public health interventions: a scoping review.

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Review Methods

Type of review: Scoping Review

Review stages: Preliminary preparation: consultation with research team and scholars, determination of MESH terms for initial search, grey literature parameters. Search: Pilot screening Pre-registration discussion and update with team members Screening Pilot extraction, Extraction, synthesis.

Current review stage: First pre-registration

Start date: August 2024

End date: December 2024

Background

This scoping review will seek to identify and summarise the existing knowledge on understanding the methods and creative approaches which promote the mobilisation of public health evidence in ways which seek to reduce health inequalities. A taxonomy of creative approaches used specifically for knowledge mobilisation will be devised, which will include a variety of approaches, and priority will be given to those which have been robustly evaluated.

The Marmot report emphasised the importance of public health in addressing the widening gaps in health equity in the UK (Marmot et al 2020). Recently, The Health Foundation highlighted projections of ill-health and mortality for 2040 in the UK, which identified disparities in geographical location, gender, ethnicity, wealth and barriers to sustained preventative and responsive public health and health care (Watt et al 2023). These disparities forecast increased loss of healthy life years and mortality among populations living in the northern regions of the UK and pockets of severe deprivation in cities (Raleigh, 2024). “Hidden” deprivation tends to be geographically located within previous heavy industry regions (such as ex-mining and ship building) coastal and rural areas (CMO report, 2021, Emmins, 2023, DEFRA, 2024). Broadly, the communities of the UK are highly heterogeneous meaning that public health initiatives which adopt a “one size fits all” ethos are less likely to produce optimal outcomes for those working and living in these communities.

People living in deprived communities are more likely than those from wealthier communities to experience poor access to the social determinants of health, impacting the likelihood of chronic health conditions. Statistical analyses indicate that people who are born and raised in deprived communities are more likely to develop higher rates of obesity, diabetes, hypertension, cardiovascular disease, asthma, musculoskeletal conditions, dementias and engage in higher risk taking and addictions in adulthood than those living in wealthier regions (Baranyi et al. 2023; British Medical Association, 2017; Knies et al 2023; Ford et al 2024). Stagg et al identified that multimorbidity (two or more chronic health conditions) has increased among younger adults (aged 35 plus) since the COVID-19 pandemic within the Southwark area of London (Stagg et al 2022). This work underlines the broader epidemiological studies and projections for the UK (Watt, 2023) indicating the need for early adult preventative public health strategies. In summary, life course events such as early childhood in poverty, stressful situations and less than optimal opportunities for educational, work and engagement in local economies and communities all contribute to a higher risk of diminished health outcomes from early adulthood.

Addressing these inequalities includes the need for robust systemic national and local policies, such as raising educational attainment and opportunities for meaningful sustained work, preventative health promotion aimed at communities, a focus on wellbeing and community participation (Marmot, 2022). Current UK policy lean towards top-down interventions which obscure the contributions which local communities can make towards culturally and contextually meaningful interventions. Evidence within local communities emphasise the need for adequate resources in time, finances and skill sets to effectively establish and sustain change (National Center for Chronic Disease Prevention and Health Promotion 2021). Communities and those acting as change agents within these communities, such as public health professionals, community workers and third sector providers can be instrumental in acting as conduits for knowledge mobilisation.

Knowledge mobilisation (KMB) is a contested concept with no universally agreed definition as highlighted by Langley (Langley, 2018). Fundamentally, KMB includes activities that intend to build on and make use of existing bodies of knowledge to inspire action. For the purposes of this review, we define KMB as a non-linear creative process and practice which promotes a shared understanding of specific contexts which is sensitive to the key ways in which organisations and individuals can contribute. Knowledge mobilisation as a fluid process indicates that change occurs as an iterative and complex interplay of active change, which builds on existing knowledge and beliefs to foster adaptation of new knowledge and perspectives. Langley emphasises the complexity and importance of context and sensitivity with those most likely to use this in practice and in ways that disrupt the dominant professional and societal boundaries between knowledge producer and user (Langley, 2018). Social action is an integral component of creative KMB meaning that one of the key outcomes from the process and practices can demonstrate change and commitment to new understandings. This tends to come from “bottom up” models, such as the Mode 2 model, which includes personal, group and organisational levels of change. Gibbons defined Mode 2 models of knowledge mobilisation as embracing multiple perspectives and disciplines towards the formation of a nuanced bricolage of shared understanding, equitable contribution and new knowledge production (Gibbons,2000).

Current work in this area is under researched with most of the evidence implicit as an integral part of tacit practice. Within public health teams, practitioners have a deep understanding of their local community garnered by working directly with service providers and regular analysis of quantitative data, which underpins their collective decision-making. However, these practices can be enhanced by the use of evidence-based public health knowledge adapted to their local needs by engaging in the process of KMB.

For this review the modes of knowledge mobilisation in public health focus on the use of creative methods to deliberately provide a mechanism to impart evidenced knowledge, typically associated with public health, in active engagement and co-production with key stakeholders. Creative approaches may include activities such as theatre, music, art, LEGO™ Serious Play™, poetry, photography, which seek to foster alternative ways of engaging people in shared knowledge generation.

An integral component of knowledge mobilisation is understanding how people learn, especially in communities where knowledge expertise may be variable. Underpinning many creative approaches is a tacit knowledge that people learn best by experiential and engagement methods. The human brain responds and retains knowledge longer if highly interactive, tactile and visual methods are used which embrace self-expression and build on existing experiences and skill sets. As such these methods are highly relevant to fostering a sense of receptiveness to new evidence and behaviour change. Vygotsky and Brookfield emphasised the value of experiential learning, by which individuals learn by doing (Daniels, 2001., Brookfield,1986). This approach provides space for reflection, play and a shift

towards a nuanced understanding of the issues, such as organisational contexts. Adult play is distinctive from child play in that it is characterised as involving four key aspects; 1) social bonding, 2) emotional expression, 3) cognitive development, and 4) constructive competition (LEGO™ Serious Play™ 2017; McClusker, 2020). Recent brain studies have shown that the most effective learning happens in contexts which provide creative activities, such as gaming and building novel structure, by the stimulation of parts of the brain associated not only with memory but also problem-solving (Benedek, et.al, 2020). Since learning and change are integral components of effective knowledge mobilisation, an understanding of the theories of adult learning can help shape the design and delivery of mobilisation activities.

Knowledge mobilisation involves engaging with policy makers, key decision-makers, national and local public health practitioners and partner organisations to enable the active utilisation of evidenced-based knowledge by assimilation into practice. This practice would tend to be most receptive when local cultures, historical, current and proposed changes in viewpoints are considered. Public health practitioners working in collaboration with aligned partner organisations are key to engaging in sustained changes with the broad aim of reducing health inequalities and maximising wellbeing. There is a paucity of knowledge about what works well and supports the assimilation of new knowledge into sustainable changes in policy and practice. Delving into creative approaches towards knowledge mobilisation may provide key insights into how research evidence can be mobilised into policy and practice. Anecdotal and local evidence, typically found in “grey literature” indicates that the modes and methods of enabling knowledge mobilisation need to be engaging and relevant to the community using it and/or those who are the likely beneficiaries of change. This may mean adopting creative approaches typified as meaningful tangible engagement and memorable interactions. Langley et.al (2022) provides a comprehensive overview of the ways in which creative practices can be used to enhance co-production in research and knowledge mobilisation.

Creative approaches defy precise definition but can best be described as activities which include learning by engaging with discovery and playful methods. Neuroscience indicates that individuals are likely to think broadly and to remember new knowledge when engaging in creative activities. Within the context of knowledge mobilisation in public health, the information has to be accurate (based on a sound evidence-base), up to date and assimilated by the communities of knowledge users. This indicates that participants are actively engaged in the knowledge mobilisation as essential partners and not passive recipients of evidence (as is often found in didactic methods of participation). It is the process of assimilating knowledge evidence into the real-world context of experience and expectations which support effective change in practice. The use of creative approaches provide an engaging and joyful mechanism for exploration and possibilities by the sharing of knowledge and beliefs.

Primary research question(s)

1. What are the types of creative approaches used in terms of their characteristics, mode of delivery and impact on knowledge mobilisation in public health?
2. How are creative approaches used to support knowledge mobilisation in public health?
3. How have these creative approaches been evaluated in the context of knowledge mobilisation in public health?

Secondary research question(s)

4. What are the underlying mechanisms used in creative approaches which support evidence uptake/application to policy or practice?
5. Which creative approaches were evaluated and reported upon as effective or less than effective?

Expectations / Hypotheses

Within the research community, knowledge mobilisation is a fairly recent concept and builds upon knowledge translation, co-production, knowledge sharing and assimilation. It is possible that knowledge mobilisation may be used as a generic term with little regard to the complex processes which constitute mobilisation. The All-Parliamentary Group in Arts, Health and Wellbeing Inquiry Report (2017) suggests that the most relevant research approaches in public health would be to adopt qualitatively led mixed methods, using observational, wellbeing measures and possibly economic measures as outcomes.

Similarly, the identification of what constitutes a creative approach often defies definition in relation to knowledge mobilisation. Whilst one might define a creative approach as anything which does not seem to be using a traditional approach, didactic teaching, such as rote learning, in many scenarios teaching includes creative approaches and tools to engage with learners. This review assumes that many sources of evidence will not include a distinctive definition of 'creativity' and so it may be challenging to determine. Recent work by Phillips et.al (2024) suggests that a combination of traditional and creative approaches may be most beneficial.

The relationship between creativity, engagement and knowledge mobilisation in public health needs to be understood. The current evidence base within public health prevention and health promotion using creativity is very patchy and difficult to assimilate to obtain a broad view of the types and uses of creativity in knowledge mobilisation. There is a lack of guidance by National Institute for Health and Care (NICE) about using the creative arts in public health, despite an acknowledgment that this would be worthy of critical appraisal (APPG, 2017). To date, it is assumed that there is a large evidence base about the contribution of the arts in health but that sourcing and synthesising this evidence is challenging.

Currently whilst many research and service commissioners seek robust evidence of knowledge mobilisation, the reality is that funding is rarely dedicated to understanding the processes involved and how these can be transferred to other programmes of knowledge mobilisation. Evaluations of real-world knowledge mobilisation are considerably outnumbered by a plethora of theories, models and frameworks designed to support building an evidence base for those directly tasked with the activities of knowledge mobilisation. Ziam et.al (2024) rightly raises the discomfort in proposing such frameworks in the absence of understanding what works in practice and why.

It is known that there are key gaps in the evaluation and reporting of how knowledge mobilisation works using creative methods in public health. Evidence of what works well or less well is not likely to be readily documented in the academic journals but may be held within the online grey literature. Evidence may be held within the provider organisations and not publicly available.

An inductive approach will be taken whilst conducting the scoping review given a likely dearth of knowledge across the evidence base for knowledge mobilisation in public health and creativity. This means that no extant framework will be used to guide the scoping review process. Instead, it is anticipated that the review will at least provide enough evidence to devise a taxonomy of creative approaches utilised in knowledge mobilisation in public health. At best the review may provide a foundation towards a full systematic review and possible framework to inform practitioners and other key stakeholders.

An internet-based review of the grey literature will be limited given that generic search engines, such as Google Scholar, only show information which the algorithms identify and are likely to be restricted to mostly medical, scientific and engineering contributions (Haddaway, et.al 2015). Resources are limited to sole use of the internet as the source of all information. This results in a risk of inadvertent missing data, such as case studies. To mitigate the ongoing non-availability of the British Library EThOS database through cyber-attack, and suspension of linked grey literature databases, such as DART-Europe E-theses Portal, other grey literature databases will be used, such as White Rose Research Online, (a collaboration between the universities of Leeds, Sheffield and York) to identify dissertations and associated sources of information. Within Mendeley reference management software, the functionality to undertake wide searches will be harnessed.

Stakeholder User Involvement

This work will be informed by consultation and ongoing collaboration with the core PACE group, who represent knowledge users and providers. Members of the team will be encouraged to consider ways in which to inform the progress of the scoping review process, critically assess the summaries and highlight any key gaps in understanding with the academic team members. It is anticipated that some of the PACE members will be keen to learn about the use and value of scoping reviews in view of their own lived experiences. Pollock et al (2022) encourages the co-creation

of scoping reviews with key stakeholders. This review will use the guidance as suggested by Pollock to enhance the review process and dissemination.

Dependent variable(s) / outcome(s) / main variables

The main variables of interest are:

1. Knowledge Mobilisation in Public Health
2. Creative approaches
3. Changes in policy and/or practice as a result of engaging in Knowledge Mobilisation in Public Health using creative approaches.

Independent variable(s)

The assumed associations are: Creative approaches used in knowledge mobilisation in public health can lead to changes in beliefs and actions leading towards holistic public health policy and practice. Creative approaches are associated with improved knowledge mobilisation in public health.

Additional variable(s) / covariate(s)

Assimilation of new evidenced-based knowledge can be identified by changes in policy and/or practice at national, local and individual levels. The mediators towards changes in decision-making and actions can be influenced by readiness to change within organisations, strong receptive leadership and resources towards prevention and response. Covariates can include local needs, skill and knowledge levels of participants, resources towards new initiatives.

Moderators can include new knowledge assimilation within spaces which are deemed safe and positive for knowledge learning; it is possible that using creative approaches foster greater sustained levels of knowledge acquisition.

Software

Using Microsoft Excel a template for storing all references will be constructed. This will provide a comprehensive backup of the work and enable access beyond the licence lifetime of the Covidence software.

Mendeley v.2.88.0 will be used to manage references and also undertake a grey literature search within the functionality of the software (Elsevier, 2024).

<https://www.mendeley.com/search/>

Covidence systematic review tools will be used to undertake the majority of searching, selection and reviewing of articles. These tools will also enable team members of the review team to contribute towards decision-making and inclusion or exclusion of items. <https://www.covidence.org/>

NVivo version 14 will be used to identify key trends within the literature. This will include the use of automated coding using AI embedded in the software. (Lumivero, 2024). <https://lumivero.com/>

Publish or Perish v8. software will be used to search Google Scholar. This software provides an auditable interface to the searching of Google Scholar resources.

<https://harzing.com/resources/publish-or-perish>

Funding

The NIHR funds the work of: Fiona Marshall, Elizabeth Such, Joe Langley, Andrew Booth and Joanne Morling. Members of the Public and Community and Engagement panel (PACE).

The majority of the review will be undertaken by Fiona Marshall with the ongoing support of the other academic team members. The PACE group will be invited to consider summaries of key articles and findings from the review. Link to grant:

<https://fundingawards.nihr.ac.uk/award/NIHR159057>

Unfunded contributors: Catrin Evans

Conflicts of interest

There are no known conflicts of interest.

Overlapping authorships

Langley has produced multiple peer-reviewed articles and editorials examining the value and role of creative practices in research co-production.

Booth has published extensively on knowledge mobilisation and implementation science. Morling has co-authored a systematic review which examined the strengths and limitations to using creative methods in relation to public and patient involvement.

Evans has extensive experience of the development and application of scoping review methods.

Such has expertise in co-production and has a special interest in knowledge mobilisation in public health. Publications include peer reviewed contributions to theory and practice.

Potential individual biases will be mitigated by robust inter-reliability testing of 10% of all selected papers by other members of the team.

Search Strategy

Databases

The databases National Institute for Health and Social Care Research Journals and publications (NIHR), PsycINFO, PubMed, CINAHL(Cumulative Index to nursing and Allied Health Literature),and Scopus will be searched.

Grey literature database, OpenGrey which includes dissertations, conference papers and reports <https://opengrey.eu/> up to 2018. OATD <https://oatd.org/> will be used to identify open access thesis and dissertations.

Systematic examination of references from Google Scholar using the Publish or Perish desktop tool will be used to evaluate and select from up to 1000 references.

Web-based searches of references in selected papers, reports, annual reports of key organisations and evaluations will be undertaken to identify relevant forward citations.

Key research centres and doctoral students will be contacted to discuss their work and contribution to the aims of this scoping review. This will include the work at the UK Universities of Derby, Sheffield, Leeds and Keele.

Interfaces

The interface to be used will be EBSCO and the NIHR depository.

Grey literature

The strategies for locating grey literature will include use of digital platforms such as: You-Tube, podcasts, dissertations and thesis depositories, websites hosted by large third sector organisations. Google Scholar will be used to locate reports, podcasts and other sources of information using an iterative approach. Only the first 1000 hits will be assessed. Dissertations and thesis will be searched via the depositories, WorldCat. The 2014 and 2021 REF archives, specifically Assessment Unit 32 Art and Design: History, Practice and Theory), will be searched for impact case studies. White Rose research online will be used to search across the depositories of the Universities of Leeds, Sheffield and York Universities, UK).

Inclusion and exclusion criteria

Inclusion Criteria:

1. Item includes at least a clear description of the process and delivery of knowledge mobilisation in public health using creative approaches as an integral part of the process.
2. Creative approaches to public health, by actively engaging in the arts, digital, LEGO™ Serious Play™, storytelling, comics, animations as examples (not exhaustive) with the explicit/implicit intention towards evidenced-based knowledge mobilisation.
3. Date: 2009 to 2024 (15-year period to include new terminology of mobilisation).
4. Language: English only. All sources provide full text versions in English language.
5. Location: global.
6. Peer-reviewed literature.
7. Non-peer reviewed literature.

8. Context: public health settings such as community provision
9. Adult only (aged above 18 years old).

Exclusion Criteria:

1. Item does not describe knowledge mobilisation and evidence within a public health context (such as local community).
2. Item describes or attributes the use of Knowledge mobilisation in a superficial way without adequate description.
3. Creative approaches which do not include the process of knowledge mobilisation to impart new knowledge in public health, such as routine everyday activities like cooking, gardening, animal care (not exhaustive).
4. Traditional approaches to knowledge mobilisation, such as workshops, focus groups, online materials which do not include any creative approaches.
5. Items which do not meet the date or language criteria (2013-2024 AND English language only).
6. Full papers or contributions not available.
7. Digital contributions such as social media posts (including tweets) which cannot be verified.
8. None-human focus such as animal therapy interventions
9. Context: clinical care settings such as hospital and outreach services primarily focused on clinical interventions, sports, disaster interventions, such as rescue responses.
10. Children under 18 years of age
11. Editorials, opinion pieces, conference abstracts and other short journal contributions

The Population/concept/context (PCC) framework was used to devise the inclusion and exclusion criteria. The population focuses on individuals, public health professions, policy and practice organisations (including governments) and communities who are knowledge users and producers in the process of knowledge mobilisation within public health, The concept is that creativity methods and approaches to the design and delivery of knowledge mobilisation in public health provide key opportunities for the receiving and retention of new evidenced-based information. The context relates to not only geographical locations but also the cultural, historical and professional attitudes and values held within communities of practice primarily public health disciplines.

Since the terminology of knowledge mobilisation is fairly new, the search period has been set at 15 years maximum. Early evidenced items tended to use multiple terminologies with little explicit definitions provided. The limit of 15 years represents a pragmatic decision to accommodate the resource constraints of the search.

Query strings

1. Academic databases: Knowledge mobilisation; knowledge mobilization; knowledge shar*, knowledge trans*, AND public health AND creati*, creativity, arts.
2. Google Scholar: as with academic database. Then evaluat*, research, report, outcomes with all the above terms. Limited to the first 1000 hits (not duplicates).
3. Grey evidence sources: simplified key terms to enable return of any related sources. Key terms: evaluation, public health and creativity.
4. Grey evidence sources: key terms: public health AND creativity AND arts to identify descriptive evidence which has not been evaluated.
5. Manual searching of references within key reports and documents.
6. Direct contact with key provider organisations such as arts- based charities.

Search validation procedure

The search validation procedures will include:

1. Regular consultation with the team experienced in systematic and scoping reviews throughout the review process.
2. Pertinent sources of evidence will be reviewed independently by two members of the team using the data extraction tool and refined as necessary (n=15 maximum sources per staff member).

Other search strategies

Manual searches of references within highly relevant sources will be employed using the ascendancy approach.

Individual contributors, especially of grey literature, may be contacted by email, to request any other sources of evidence available, such as organisational reports.

Procedures to contact authors

Key provider organisations may be contacted by email. A follow-up email will be sent within 3 weeks later. Meta-data about these communications will not be shared.

The results of the contact with key organisations will not be made public. Only relevant outcomes will be included.

Search expiration and repetition

The literature will not be searched again during the conduct of the review given that it is a time limited scoping review.

Search strategy justification

This is a tightly bound scoping review so pragmatic decisions will be made about the relevance of literature. It is expected that many creative approaches will not have

been robustly evaluated in terms of the effectiveness of sustained knowledge mobilisation. As such the team will select a variety of approaches to inform the development of a taxonomy. These will be based on novelty, applicability to knowledge mobilisation and promotion of equitable opportunities for community contribution.

The quality of the creative approaches identified are unlikely to be ascertained except within peer-reviewed items and possibly robust evaluations. As such, given the timescale for the review, the development of a taxonomy of approaches will provide a platform for engaging with providers of creative approaches in the future.

The PRISMA-ScR (PRISMA extension for Scoping Reviews) guidelines (Tricco, 2018) will be followed to ensure that all necessary aspects of the review are considered and included in the process and reporting.

A systematic logical stepped procedure will be followed, supported by multiple software tools, including Publish or Perish, Covidence and NVivo. This method of reviewing will also support the contributions of the team as co-reviewers enabling the sharing of expertise and evidence. Up to 10% of all peer-reviewed items will be reviewed by 2 members of the team. The team will review the progress of the project on a monthly basis to discuss progress and any amendments to the process.. Learning from the process and outcomes will be critically examined by the team members to foster new knowledge and improved techniques in conducting scoping reviews.

Miscellaneous search strategy details

Individual recommendations will be followed up by the review team, such as reports, or novel creative approaches used in knowledge mobilisation.

Screening

Screening stages The review will search using 3 distinct sources of evidence:

1. Firstly, peer-reviewed and published evidence such as systematic reviews and articles will be identified and reviewed using the inclusion/exclusion criteria.
2. Secondly, grey sources will be searched to identify evidence of evaluation and reviewed using a simple template
3. Lastly, grey and word-of-mouth resources will be identified and their contribution towards the evidence as a whole will be considered. These sources will not have been evaluated or researched requiring caution when evaluating their contribution.

Scoping searches A large amount of hits are not anticipated so the first round will include abstract and keyword screening, subsequently followed by full text screening.

For the grey literature, it will be necessary to screen at full text entry since most sources of evidence will not have abstracts or use keywords. Potentially useful

sources will be screened and if need be, the full date of publication sought since many online sources do not include date identifiers.

Duplicates will be identified by use of human recognition and use of the AI functions within Covidence and NVivo which can remove duplicates (although this isn't foolproof so backups prior to removal will be made and checked by the research team).

Screened fields / blinding

There will be no blinding so there is a risk of bias.

Used exclusion criteria

It is anticipated that reformulations will be identified in the early stages of the searches and will be decided in consultation with the team members.

Exclusion screening criteria will include:

1. Identification and removal of duplicates
2. Removal of pre-prints if subsequent peer-reviewed article published
3. Removal of any full text items which require payment to access
4. Removal of poorly described activities which it is impossible to identify as connected to public health evidenced-based knowledge mobilisation. This may include community festivals which are not focused on public health mobilisation.
5. Removal of vague or poorly written/translated items from which it is difficult to ascertain the scope and intention of the item.
6. Removal of items where it is not possible to reach a consensus on date or year of issue.

Screeener instructions

The screener instructions will be divided into three methods:

For peer-reviewed systematic reviews and research articles:

1. Screen titles and then abstracts against inclusion/exclusion criteria
2. Screen full text papers using Covidence.
3. Exclude or include paper using the tabs in Covidence.

For evaluations (not peer reviewed)

1. Screen evidence using the evaluation template
2. List type of creative approach into taxonomy excel sheet
3. Exclude or include item.

For other evidence

1. Screen using knowledge of creativity approaches and KMb in PH to determine if fits criteria for inclusion
2. List type of creative approach into taxonomy Excel sheet
3. If unsure share with the team to assist with decision making and/or contact information source such as organisation.

Screening reliability

A trial of screening will enable any modifications to the criteria to be made early in the review process rather than part way. The screening trial will determine the search term strategy; it may be that use of broader terms and with less specifics may elicit more relevant sources of information because of the limitations held within abstracts and search engines (as outlined by Shokrane, 2024) Comparisons will be made between the number of articles returned, relevance to the review. Discrepancies will be discussed and resolved by the team members. Any modifications will be discussed by the team before implementation.

The software, Covidence, enables a record of all reviewers' decisions including time and item(s) of exclusion and so provides a detailed timeline of events. Although not ideal, the pragmatic decision has been taken to second review 10% of all evidence since this is a scoping review with finite resources. The reconciliation of any disagreements between the review team will be conducted at the end of the abstract screening process. Disagreements may be about lack of detail in abstracts, reviewer drift or differences in interpretation of terms used (Polanin, et.al 2019).

Screening reconciliation procedure

Discussion between the team members will take place once a month. In a spirit of collaboration, it is anticipated that reconciliation will be achieved by critical examination of the information by team members.

Sampling and sample size

It is anticipated that 10% of all abstracts and selected full sources of published peer-reviewed papers will be reviewed by a second reviewer. The grey literature will likewise be allocated and reviewed by the designated disciplinary expert such as creative approaches and/or public health. Since this is a scoping review and there is the possibility of a limited amount of relevant peer reviewed items available then the team will agree to distribute all the papers evenly for second review.

Screening procedure justification

The review will adopt a pragmatic approach and attempt to provide equal value towards grey sources of evidence. It is known that peer-reviewed publications often have their own bias with grey literature often providing a counterbalance (see Polanin et.al 2019 for a discussion on this).

Screening rounds will be kept to short sessions lasting no more than 3 hours to avoid fatigue and drift by the screener. Good practice will be maintained by the use of the

software management tools and team working within Covidence. The PRISMA diagram will be (re)produced and included in the final review report

Despite best efforts, it is likely that by the type of information being sought will be difficult to validate and open to interpretation by team members and subsequent readers of the review. The review is not intended to identify all forms of creative approaches to knowledge mobilisation in public health but rather provide insights into the breadth of validated creative approaches. Any identified gaps in knowledge may potentially be addressed by repeating the process in a few years.

Learning from this review process is important and the team will critically discuss the process and outcomes from the review. Recommendations for improvement will be made leading to potential new approaches to conducting such a scoping review.

Data management and sharing

The sources will be made available as a downloadable resource for others to use. This is likely to be in Microsoft Excel format. The repository will be located within the KNOW-PH website.

Miscellaneous screening details

None to add.

Extraction

Entities to extract

A data extraction tool will be devised. This can be found in Appendix 1 (not yet devised). This will be based on the JBI Evidence Synthesis template for scoping reviews and include the following:

Evidence Sources and Characteristics (basic source information):

Citation details: journal, report, webpage
Title Author(s), organisation
Year of publication
Origin/country of organisation
Aims/purpose/context
Participants (professionals, policymakers, third sector organisations, mixed group, community, any protected characteristics)
Methodology/methods
Creative activity type, duration
Area of public health the activity is seeking to address (e.g. obesity, inequalities etc).

Key Findings:

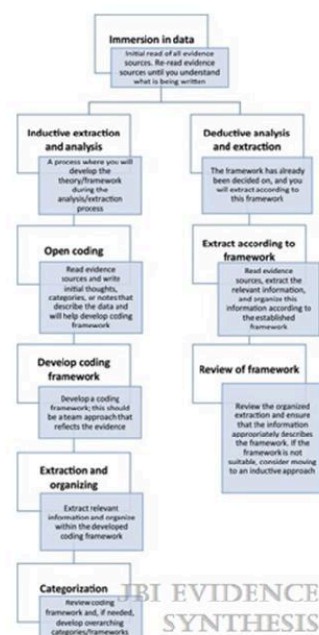
Name of the creative activity

Stakeholder audience that the creative activity is intended for; whether the activity is intended for a particular aspect of public health (eg. vaccination programmes, air quality);
 Items or components of the creative activity.
 How the creative activity was conducted (eg. storytelling, digital, gaming);
 Individual items or domains.

Categories of Creativity Activity mapped to knowledge mobilisation and public health.

Extraction Stages

Figure 1



[Recommendations for the extraction, analysis, and presentation of results in scoping reviews](#)

Pollock, Danielle; Peters, Micah D.J.; Khalil, Hanan; McInerney, Patricia; Alexander, Lyndsay; Tricco, Andrea C.; Evans, Catrin; de Moraes, Érica Brandão; Godfrey, Christina M.; Pieper, Dawid; Saran, Ashrita; Stern, Cindy; Munn, Zachary

JBI Evidence Synthesis 21(3):520-532, March 2023.

doi:10.11124/JBI25-22-00123

The process of conducting the analyses of qualitative data within a scoping review



Figure 1 (above) outlines the approach to a “light touch” data extraction and qualitative data extraction process. https://estech.shinyapps.io/prisma_flowdiagram/
 The majority of evidence will be coded using the main categories of creative approach and of methods of knowledge mobilisation in public health. Gaps in the evidence, as identified against these categories, will be revealed in terms of both volume of the literature in each category and the extent of its coverage across a broad spectrum of creative approaches.

Extractor instructions

The Template for Intervention Description and Replication- Lite tool TIDieR-Lite, an abbreviated version of the TIDieR tool will be used to assist with data extraction

(Tricco, et.al 2018). This will include 6 main headings: Intervention name, Source ID, what, where, when and who.

Additionally, the scoping review will employ storyboarding techniques to support reviewers in identifying key data and visually mapping to a final storyboard.

Storyboarding has a high potential towards impact and is an inclusive approach, increasingly used in health and social public health enquiries (Hendricks, 2022).

Extraction procedure justification

This is a scoping review which, therefore, does not attempt to determine the quality of the identified items. Following the inclusion and exclusion criteria, it is anticipated that the selected items will be of sufficient description for a qualitative review.

Since this is a review focused on creativity methods, the team are seeking to embed a creative approach to the analysis of the data by possible use of storyboarding as a method of data extraction and analysis.

The reliability of the data depends upon adherence to the procedures outlined in this protocol. Conflicts will be resolved by consultation with the team members. These will be determined by close collaboration and monthly group discussions with all members of the scoping team. It is anticipated that 10% of all items for inclusion will be assessed by another team member to provide inter-reliability to the process.

Data management and sharing

Data will be shared within the review team using the web-based Google drive (KNOW-PH) and regular monthly meetings.

Synthesis and Quality Assessment

The scoping review will provide a descriptive analysis using a simple content analysis process within NVivo software for qualitative analysis. This will help to inform and help shape the possible development of a future framework. Analysis will support the development of a typology of creative types and approaches to knowledge mobilisation. This review is not intended to quantify or evaluate the quality of interventions.

Planned data transformations

Extracted data will be qualitatively coded within the supportive software, Nvivo v.14. Thematic coding will enable the identification of relationships between types of creative approaches used in knowledge mobilisation and other factors such as context to be identified. It is proposed that a taxonomy will be devised to show

participants, concept and context in relation to the type of creative approach used. This taxonomy will be an important contribution towards understanding the conduits of knowledge mobilisation. This information will be presented in different formats, including storyboards, bar charts and word clouds.

Data validation

Within the scoping review, outliers will be included if they are considered to contribute towards the knowledge evidence and meet the inclusion criteria. Outliers may include knowledge mobilisation approaches with less successful or less demonstrable outcomes. These suboptimal evidenced resources can provide important insights towards effective knowledge mobilisation.

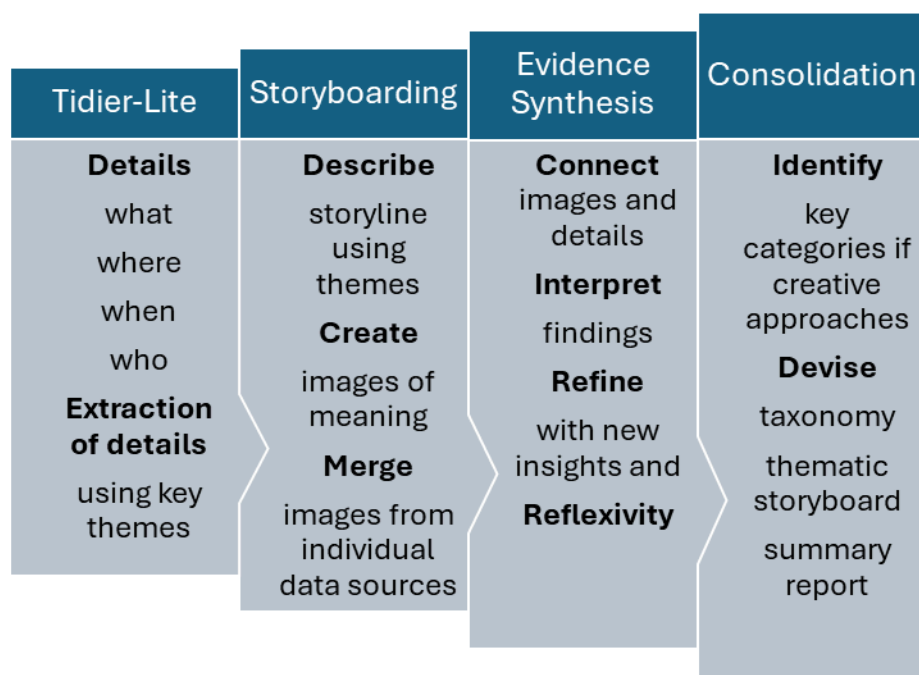
Retractions of peer-reviewed evidence tend to be readily highlighted within search engines. Any retracted papers will be critically assessed for relevance and removed if necessary. Qualitative analysis of the raw data will enable comparison with other sources, but novelty of data will be sought in preference to triangulation given a focus on methods in preference to outcomes within the scoping review.

Data validity will be integral to the process. The data used will need to provide a detailed description which meets the inclusion criteria. Opinion-based materials will be excluded by the eligibility criteria. Potentially valuable contributions which lack requisite detail may be followed up by contact with the authors/organisation depending on the consensus of the team members.

Synthesis plan

For the scoping review the evidence will be synthesised by a process of inter-reliability coding within the software, NVivo. Figure 2 below offers a simple roadmap of the stages involved in the coding and organising of the data. Outliers will be included if deemed valuable to the aims of the scoping review. Consensus will be sought from other members of the team in cases of uncertainty about inclusion.

Figure 2. Roadmap of process of evidence synthesis.



Criteria for conclusions / inference criteria

This scoping review will not use any pre-specified criteria given it is essentially an exploratory endeavour to identify and describe the breadth of creative methods used in knowledge mobilisation in public health.

Synthesist blinding

Conclusions will be discussed with other team members to reach consensus.

Synthesis reliability

In line with scoping review practice, resource limitations will not sustain secondary synthesis of the data.

Synthesis reconciliation procedure

Discussions and consensus will be reached within the group.

Limitations of the Review

Resource limitations in terms of time and access to sources of information are likely to be a potential limitation. Difficulties accessing copyrighted materials, internal reports held by organisations and items requiring paywall costs to access will inevitably limit the review evidence.

Since “knowledge mobilisation” is a new term, it is unlikely that MeSH terms will include this and so broadening the search to mitigate this may be necessary by use of terms such as “knowledge sharing”. Many abstracts are restricted in word count and may not include the key terms sought in this review, meaning again that some may be missed.

Limiting the sources of evidence to English language only may be another limitation because many middle- and lower-income countries use creative approaches to public health messaging (such as murals and storytelling). It is possible that some information may be lost because of the inability to access or identify other language sources.

Publication bias analyses

As a scoping review, drawing on literature that has not been peer reviewed, it is anticipated that bias may be present. The bias in peer-reviewed articles is unknown but is not considered to impact on the outputs of the scoping review.

Synthesis procedure justification

A highly pragmatic and creative approach will be taken, given the resources and likely range of outputs. The storyboard method may be used to help accommodate the diverse range of likely evidence and provide an accessible mode of communicating the data. Additionally, all data will be synthesised to provide an overview of the breadth and application of differing methods to knowledge mobilisation as preparation for a taxonomy of approaches. Limitations in the methodology acknowledge that many creative outputs are not directly linked to academic or other expertise. This means that the usefulness of a resource may extend beyond typical markers of credibility when informing the outputs from this review.

Reflexivity by the team members will be an important way to enable public participation beyond the academic team. Storyboarding is regarded as an accessible inclusive way to enable public participants to critically consider multiple forms of data and apply to their real-world experiences in ways which can engage playfulness, creativity and flexible ways of information assimilation (Ayrton, 2019). Hendricks et.al (2022) describes in detail a stepped approach towards using storyboarding in evidence synthesis. As this method is in development, this review will aim to broadly follow the stepped approach as proposed by Hendricks et.al and adapt if necessary. The proposed steps are outlined in the Figure 1.

The results will be presented in more traditional formats including tables and narrative synthesis as standard presentation approach to presenting scoping reviews for publications.

Synthesis data management and sharing

Plain text files will be deposited within the KNOW-PH shared Google docs site. No likely embargos or conditions for access have been identified.

Miscellaneous synthesis details

A taxonomy of creative approaches used in knowledge mobilisation will be devised. This recognises the potential for supporting practitioners in the types of creativity

approaches which may work within the local context. By pooling the diverse approaches and where they are deemed to be effective or sub-optimal, choice of approach can be based on objective criteria.

Registration

The review will be registered on the Figshare platform.

https://figshare.com/collections/NIHR_KNOW-PH_Collection/7177374

Dissemination Plans

Dissemination plans include peer-reviewed publication, free source summary on the KNOW-PH website, blog and animation summary.

Disclaimer

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