

A flexible framework for planning and evaluating early-stage health interventions: FRAME-IT

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Abstract

Health interventions exhibit three stages of maturity: early-, mid-, and late-stages. Early-stage interventions have innovative content necessitating evaluation; however existing evaluation frameworks omit constructs and guidelines relevant to this evaluation. Early-stage interventions require planning and evaluation that supports creating, testing, and exploring content to establish general feasibility and enable refinement for further testing, prior to randomised controlled trialling and wider dissemination. Feasibility, Reach-out, Acceptability, Maintenance, Efficacy, Implementation, Tailorability (FRAME-IT) was developed for a mixed methods feasibility study of a novel well-being intervention. FRAME-IT was conceived as a complementary framework to Reach, Efficacy, Adoption, Implementation, Maintenance (RE-AIM; Glasgow, Vogt, & Boles, 1999) which is better suited for mid- and late-stage interventions. FRAME-IT is proposed to support: (1) early-stage intervention planning and design, by guiding research focus and data sourcing strategy with relevant constructs; (2) comprehensive evaluation, by including constructs appropriate for early-stage interventions, i.e. feasibility, acceptability, and tailorability; (3) future intervention scalability, by including and adapting some of RE-AIM's constructs to encourage a smoother translation of research into practice as interventions are scaled-up.

Key words

Evaluation framework; early-stage interventions; planning health interventions; feasibility studies; translational research; RE-AIM

1. Introduction

Feasibility, Reach-out, Acceptability, Maintenance, Efficacy, Implementation, Tailorability (FRAME-IT) was developed for, and successfully trialled in, a mixed methods feasibility study of a novel laughter and well-being tool (Gonot-Schoupinsky & Garip, 2019). Here FRAME-IT is presented in more depth, as an early-stage health intervention planning and evaluation framework for interventions with innovative and untested, or barely tested content, including, but not limited to, technology-based content. Personalised healthcare is predicted to grow in importance; as well as the benefits this will bring, substantial changes to the way in which innovative research is undertaken are envisaged (Ricciardi & Boccia, 2017). FRAME-IT was conceived for research benefitting health self-care, and its constructs therefore support a person-centered approach to the planning and evaluation of health interventions.

The World Health Organisation (WHO, 2018) defines health interventions as acts to ‘assess, improve, maintain, promote or modify health, functioning or health condition’. Interventions vary between those that explore potential ways to improve population health and those that disseminate evidence-based intervention content. A classification of digital health interventions by the WHO (2016) is helpful to classify early-stage health interventions that originated with innovation; it discerns three stages of intervention maturity: early-stage, mid-stage, and mature or advanced late-stage.

Early-stage interventions focus on the creation and testing of intervention content e.g. a product, service, solution, application, programme, process, tool, approach, or software. At this early stage content feasibility is tested and small-scale implementation may be involved (WHO, 2016). A mid-stage intervention involves wider testing, and may be concerned with refining intervention content. In a late-stage mature intervention content

has been quality tested and the focus is on scale-up (i.e. optimising the impact of the intervention so that it benefits more people), implementation and dissemination (WHO, 2016).

2. The relationship between FRAME-IT and RE-AIM

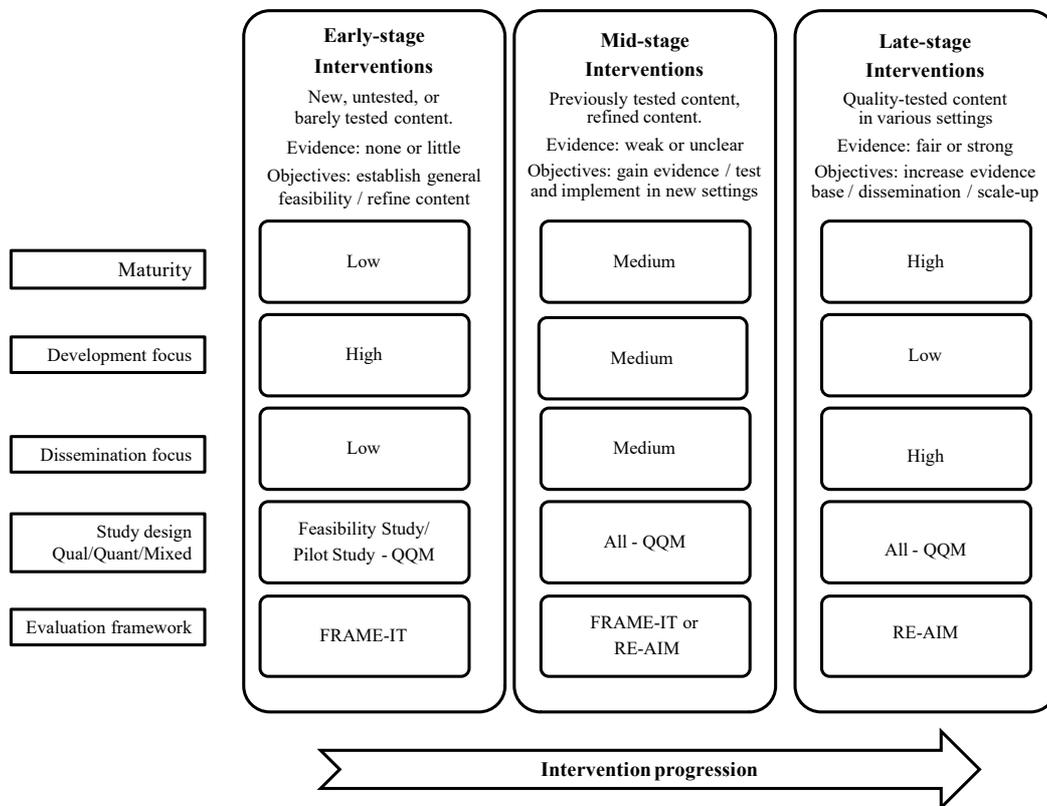
FRAME-IT was developed as an early-stage planning and evaluation framework that is analogous to the Reach, Efficacy, Adoption, Implementation, Maintenance (RE-AIM; Glasgow et al., 1999) framework, which is a comprehensive planning and evaluation framework for later-stage interventions. RE-AIM was formulated for the evaluation of public health interventions where dissemination is a priority and has been used in over 430 published studies (Holtrop, Rabin, & Glasgow, 2018). RE-AIM also supports intervention planning (e.g. Klesges, Estabrooks, Dzewaltowski, Bull, & Glasgow, 2005).

A complementary framework to RE-AIM is of interest to encourage a smoother transition from the concerns of intervention development to implementation needs in order to close the gap between research and practice (e.g. Glasgow, Lichtenstein, & Marcus, 2003; Glasgow & Riley, 2013). Incorporating RE-AIM elements within early phases of research has been recommended to improve external validity and increase the speed in which interventions can be translated (Phillips, Alfano, Perna, & Glasgow, 2014). Four of RE-AIM's constructs (Reach, Efficacy, Implementation, and Maintenance) are therefore intentionally reflected in FRAME-IT to facilitate continuity as the intervention matures and to support later scale-up challenges. The anticipation of these challenges early on may also result in more sustainable interventions (e.g. Shelton, Cooper, & Stirman, 2018).

3. Intervention life-cycle taxonomy

Intervention maturity differentiates the research focus of interventions and can inform intervention objectives, design and evaluation. A taxonomy comparing interventions by level of maturity, inspired by the WHO (2016) classification, was developed to assist intervention planning and evaluation, as shown in Figure 1. Early-stage interventions have specific concerns. Their level of maturity is low, as content is new, and their development focus is high in order to create and refine content. As the intervention matures content is defined and evidence for it is gathered, and the focus on development yields to dissemination concerns. The objectives of early-stage interventions, to establish general feasibility and refine content, are supported with FRAME-IT. Once the intervention matures RE-AIM can support implementation and dissemination needs.

Figure 1. Three-stage health intervention life-cycle taxonomy



Note. Inspired by WHO (2016)

4. FRAME-IT constructs

There are seven FRAME-IT constructs; each will be discussed in detail. Early-stage interventions, and some mid-stage interventions, necessitate flexibility as they are concerned with exploring, as well as testing intervention content both quantitatively and qualitatively. FRAME-IT ‘construct facets’ need to therefore be defined according to research needs and objectives, prior to intervention commencement, to maximise the way in which the constructs can support intervention planning and evaluation. In case specialised research entails additional constructs, a suffix can be added to FRAME-IT.

Table 1 lists the seven FRAME-IT constructs. It also shows the construct facets that were defined for the feasibility study of the Laughie laughter prescription (Gonot-Schoupinsky & Garip, 2019); examples of a more precise definition behind the first two of these construct facets are also noted.

Table 1. FRAME-IT constructs and examples of construct facets

| Constructs | Research-focused construct facets |
|----------------|--|
| Feasibility | Laughie creation ¹ ; technical ease of Laughie ² |
| Reach-out | Potential users; populations |
| Acceptability | Overall experience; solo laughter |
| Maintenance | Laughie usage: fidelity, techniques, motivation |
| Efficacy | Laughie ability to elicit laughter Laughie ability to increase well-being |
| Implementation | Support; dissemination |
| Tailorability | Customization (design); personalisation (usage) |

Note: Construct facet definition examples: 1. How feasible it is it for participants to create their Laughie; 2. How feasible is it for participants to record and use their Laughie on the smartphone

Source: Gonot-Schoupinsky and Garip (2019).

4.1. Feasibility

While the study design for an early-stage intervention is likely to be a feasibility study, feasibility as a construct refers to the specific make it or break it elements of the proposed intervention. This can include functionality, i.e. does the intervention work as intended, and usability, i.e. can the intervention be used effectively (WHO, 2016). Technical feasibility is a concern for any intervention involving an interface with technology. If technology is too complicated, feasibility is questionable. Equally an intervention involving exercise may not be feasible if, for instance, it is too physically demanding. A behaviour change may also be required to benefit from an intervention; if this is not practical the feasibility of the intervention must also be questioned. The purpose of the feasibility construct is to ensure that the overriding practical concerns relating to whether the intervention can work as intended are considered, so that these can be satisfactorily addressed early on.

4.2. Reach-out

Reach-out acts as a bridge to the 'Reach' of RE-AIM, by emphasizing the demographics and health profiles of potential future populations at an early stage. It answers the question: Who could this intervention potentially reach? This can be informed directly (i.e. participant sample demographics) and indirectly (i.e. participant opinions). RE-AIM's Reach becomes relevant as intervention maturity progresses, and is defined as 'the risk characteristics and percentage of people affected by or receiving a program or policy' (Glasgow et al., 1999).

4.3. Acceptability

An intervention may be feasible but not acceptable in that it is not comfortable or satisfying for the user. Acceptability may include notions of appropriateness or morality, and relates to how a user feels about the intervention. External circumstances may affect acceptability, and inter- and intra-individual acceptability may also vary. Acceptability can also vary at an organisational level, for instance a health programme may be acceptable in one school, but not another (e.g. Bennett, Cunningham, & Johnston Molloy, 2016), therefore this consideration, where appropriate, can also be anticipated at an early-stage of an intervention to facilitate future implementation.

A range of facets to explore acceptability have been proposed, including affective attitude, burden, ethicality, opportunity costs, and self-efficacy (Sekhon, Cartwright, & Francis, 2017). Including qualitative research can be invaluable to explore FRAME-IT constructs, for instance to find ways to improve intervention acceptability (e.g. Yardley, Ainsworth, Arden-Close, & Muller, 2015). Acceptability may also be cross-referenced with other constructs, for instance maintenance to gain more insight. The purpose of this construct is to gain a clear understanding of the elements that may impede acceptability, as well as those that could increase it. Acceptability has been referred to as ‘a critical scalability consideration’ for large scale intervention implementation (Milat, King, Bauman, & Redman, 2013).

4.4. Maintenance

Maintenance evaluates the components that play a role in stable on-going usage. Fidelity (whether intervention content is being used as instructed) and usage behaviour (how intervention content is being used, and what works and does not) are evaluated. In

early-stage interventions fidelity is viewed as exploratory and work-in-progress so that the original usage directives may be refined and optimised. Consequently it is important to consider participant usage and motivation techniques that support, or deter, ongoing usage, and cross-reference this data to acceptability and feasibility constructs. This information can also inform how the intervention can be adapted (i.e. cross-referenced to the tailorability construct). Maintenance fidelity, and associated intervention adaptations to optimise it, is important to explore early on as it can impact future intervention scalability potential (Milat et al., 2013). As an intervention matures, and guidelines for usage are clarified, long-term behaviour change at both the individual and organisational level is considered (Glasgow et al., 1999).

4.5. Efficacy

Efficacy evaluates whether the intervention produces the intended result(s) in the sample testing it. In early-stage interventions efficacy is an exploratory construct as the benefits of an intervention may be wider, or narrower, than anticipated. Equally an intervention may also result in unanticipated effects and risks that need to be understood. It is therefore important to consider the way in which efficacy is measured, tested, and interpreted. As the intervention matures the definition of the efficacy construct becomes more focused. RE-AIM defines efficacy as ‘success rate if implemented as in guidelines, which is defined as positive outcomes minus negative outcomes’ (Glasgow et al., 1999).

4.6. Implementation

Implementation refers to the delivery of an intervention within a setting. In early-stage interventions the objective is to explore a range of implementation options in order to

identify practical delivery mode(s) and consider future intervention dissemination challenges. For instance, initial training may be required, and if technology is involved, initial and on-going support will be necessary. Both direct (i.e. participant feedback regarding experiences) and indirect (i.e. participant opinions) perspectives may inform implementation. Other FRAME-IT constructs, such as acceptability, can also give insight here. RE-AIM's definition of implementation: 'the extent to which a program is delivered as intended' (Glasgow et al., 1999) becomes relevant as more information is gathered and the intervention matures.

4.7. Tailorability

Tailorability refers to the potential to customise intervention composition, format, and design. It also refers to the adaption of usage instructions including to enable personalised usage. This construct is of interest for technical content, for instance to explore the development of tailored computer and web-based programs (e.g. Suggs, Cowdery, & Carroll, 2006), and design issues in smartphone applications (e.g. Evans, & Clarke, 2019), and also to explore the potential to tailor non-technical content (e.g. van der Leeden, 2018). Personalised tailoring of content, and usage, is of relevance in order to increase efficacy and acceptability. This construct is underutilized (e.g. Griffiths et al., 2010; Bowen et al, 2009) however there is increasing recognition of the importance of personalising interventions for greater impact in healthcare (e.g. Ricciardi & Boccia, 2017).

Data from other constructs can inform tailorability or adaptation, for instance technical difficulties (feasibility), or user comfort concerns (acceptability) could result in new design features. Usage behaviour explored in maintenance may reveal a need for more flexible user guidelines. Inter- and intra-individual variability should be considered, as

needs may vary according to a range of reasons and circumstances. The purpose of tailorability is to refine and adapt the intervention to practical individual needs, so that the design and user instructions are optimised for beneficial impact. Tailorability may result in a range of offerings suitable for different populations.

5. Using FRAME-IT for planning

The close relationship between FRAME-IT and RE-AIM serves to guide pragmatic early-stage intervention planning and ensures that future intervention phases are anticipated and considered early on. Planning intervention research has been referred to as ‘building castles in the air’ (Tickie-Degnen, 2013), and feasibility and pilot study guidelines are varyingly defined (e.g. Eldridge et al., 2016; Smith & Harrison, 2009). Although early-stage interventions are likely to be feasibility studies or pilot studies (using qualitative, quantitative or mixed methods approaches), feasibility studies can be used at all stages of intervention maturity (e.g. Garip, Morton, Bridger, & Yardley, 2017). Intervention maturity (and not intervention design) is therefore more helpful to guide the choice of planning framework. The three-stage health intervention life-cycle taxonomy (Figure 1) can guide the decision to use FRAME-IT or RE-AIM.

FRAME-IT and its constructs supported the planning process of a novel laughter intervention (Gonot-Schoupinsky & Garip, 2019). The need to pre-define construct facets focused the research and facilitated its planning. Precise construct facet definitions ensured data sources and measures addressed all of the research objectives pertaining to each construct. Measures were chosen, or developed, and mapped to each construct and/or construct facet, to assist in the planning process. Table 2 (which extends the information in Table 1) illustrates this process in practice.

Table 2. Using FRAME-IT to plan evaluation measures

| | Research-focused construct facets | Measures for evaluation |
|----------|---|-------------------------|
| F | Laughie creation; technical ease of Laughie | 2, 5 |
| R | Potential users; populations | 1, 5 |
| A | Overall experience; solo laughter | 2, 5 |
| M | Laughie usage: fidelity, techniques, motivation | 2, 3, 4, 5 |
| E | Laughie ability to elicit laughter | 3, 5 |
| | Laughie ability to increase well-being | 3, 4, 5 |
| I | Support; dissemination | 5 |
| T | Customization (design); personalisation (usage) | 5 |

Note. 1. Demographic checklists; 2. Creation checklists; 3. Laughie checklists; 4. WHO five well-being index (WHO, 1998); 5. Interviews.

Source: Gonot-Schoupinsky and Garip (2019).

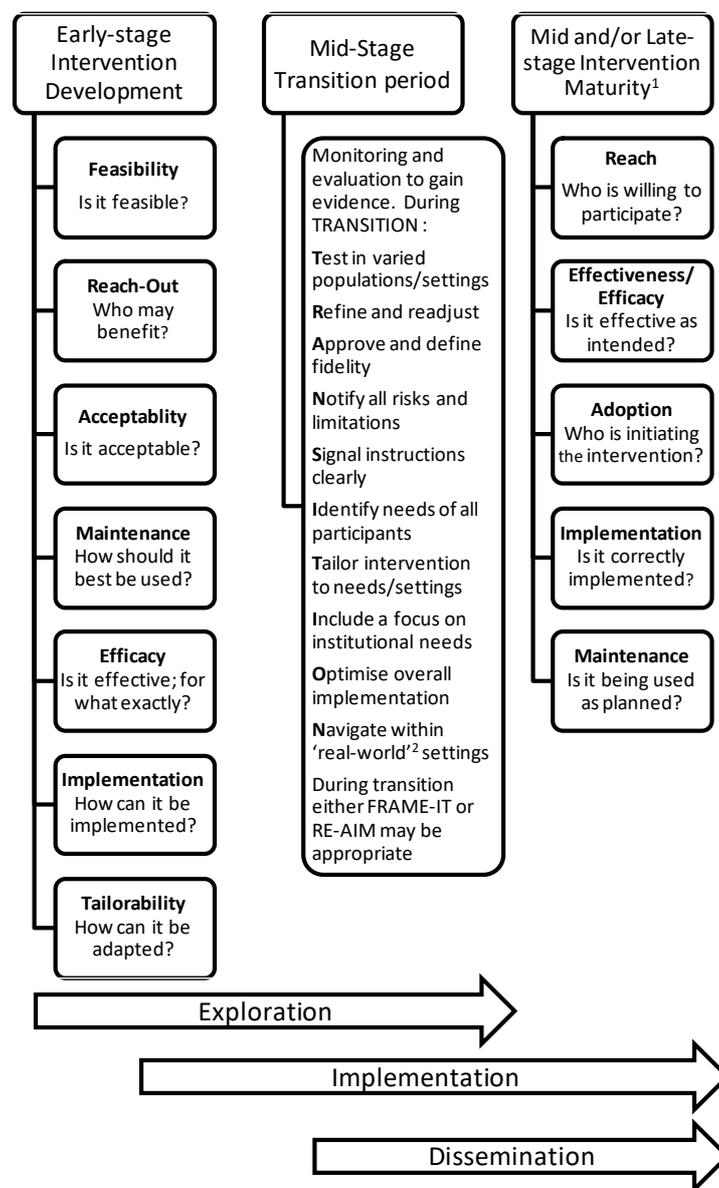
FRAME-IT constructs enable flexibility that is essential for the exploratory stages of interventions when they are first conceived, developed and tested. However each construct must be clearly defined with one or more construct facets. The need for precise construct definitions is a potential limitation of FRAME-IT (RE-AIM offers pre-defined construct definitions) as inadequate definitions can result in inappropriate evaluation. When planning research, the presentation of research findings is also important. FRAME-IT was found to be a practical solution for presenting and discussing quantitative and qualitative findings (Gonot-Schoupinsky & Garip, 2019).

6. Research objectives during the intervention life-cycle

Intervention objectives change during the intervention life-cycle, and this is reflected in the overall questions researchers seek to answer at each stage. Figure 2 summarises how FRAME-IT and RE-AIM constructs are contrastingly used to direct these

questions. Mid-stage objectives to gather evidence, and clarify intervention fidelity and implementation guidelines are reflected in the checklist ‘Test, Refine, Approve, Notify, Signal, Identify, Tailor, Include, Optimise, Navigate’ (TRANSITION). The TRANSITION checklist can be used to consider whether FRAME-IT or RE-AIM is the more suitable planning and evaluation framework to utilise.

Figure 2. Research objectives at each stage of intervention maturity



Note. Inspired by WHO (2016).

1. Questions phrased after consulting re-aim.org (2019);
2. Glasgow and Estabrooks (2018).

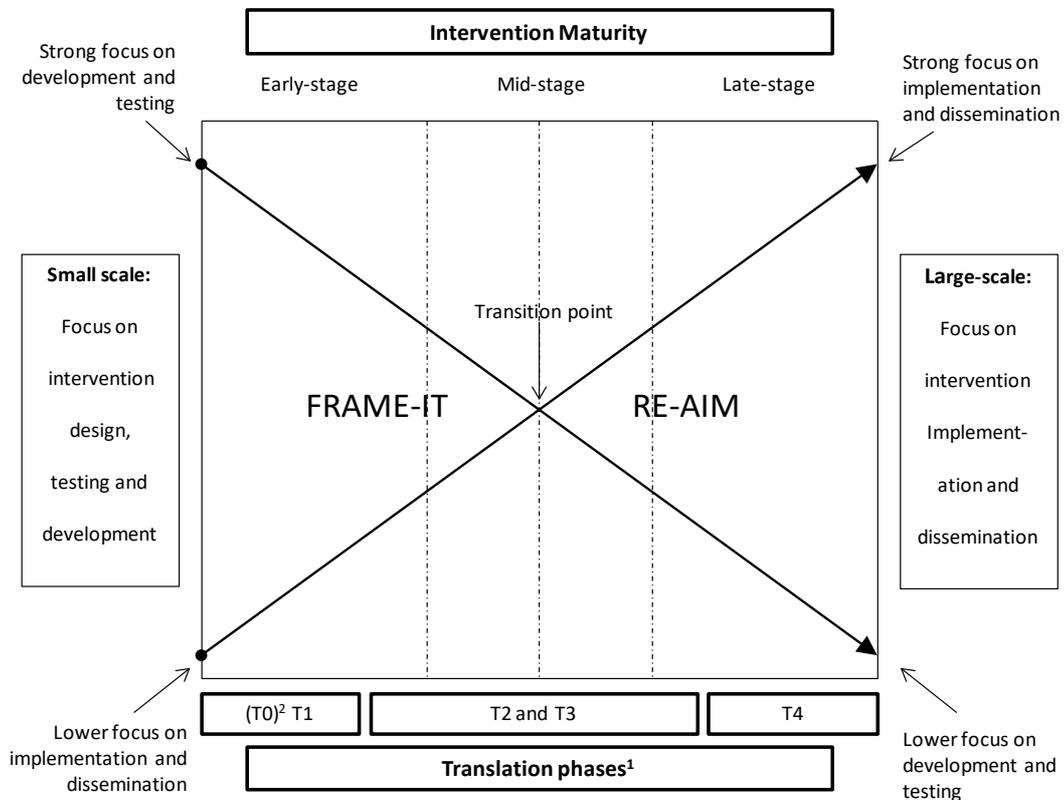
7. Translating research and transitioning from FRAME-IT to RE-AIM

The translation of research from more controlled circumstances to practice in ‘real-world’ settings can be challenging (e.g. Glasgow, Lichtenstein, & Marcus, 2003; Glasgow & Estabrooks, 2018). The ‘bench-to-bedside’ translation of ‘basic discoveries’ into clinical practice and population health has been termed a ‘central dilemma’ in medicine and public health (Khoury, Gwinn, & Ioannidis, 2010).

Research translation undergoes five phases, the definitions of which vary (Fort et al., 2017). Khoury et al. (2010) define: T0 description and discovery; T1 discovery to health applications; T2 health applications to evidence guidelines; T3 guidelines to health practice; T4 health practice to population health outcomes. The National Center for Advancing Translational Science (NCATS, 2018) defines a ‘non-linear’ ‘translational science spectrum’ comprising: basic research; pre-clinical research; clinical research; clinical implementation; and public health stages, with patient testing at each point. T0 is also defined as a phase that excludes human testing (Fort et al., 2017).

Due to differing definitions the relationship of these five phases to the three stages of intervention lifecycle is open to interpretation. T1 appears to relate to early-stage, and T4 to late-stage, interventions. T2 and T3 correspond more to mid-stage intervention maturity concerns, bridging efficacy and effectiveness research as the intervention is increasingly exposed to real-world concerns. FRAME-IT appears therefore suited for the evaluation and planning needs of T1 to T3, and RE-AIM for those of T2 to T4 as detailed in Figure 3.

Figure 3. Translating research and transitioning from FRAME-IT to RE-AIM



Note. Inspired by WHO (2016).

1. Two definitions: i) T0 description and discovery; T1 discovery to health applications; T2 health applications to evidence guidelines; T3 guidelines to health practice; T4 health practice to population health outcomes (Khoury et al., 2010); ii) T0 basic research; T1 pre-clinical research; T2 clinical research; T3 clinical implementation; T4 public health (NCATS, 2018). 2. If human testing is involved.

The transition from FRAME-IT to RE-AIM relates to a variety of issues that are summarised in Figures 1, 2, and 3. As the focus of an intervention changes from development and testing to implementation and dissemination the use of RE-AIM becomes more appropriate. Interventions in mid-stage maturity may still benefit from the use of FRAME-IT constructs depending on where they are on the transition continuum. A theoretical transition point is indicated in Figure 3.

8. Concluding thoughts

FRAME-IT is a comprehensive planning and evaluation framework for early-stage health interventions. It is conceived to enable a smooth transition to RE-AIM and thus a smoother translation of early-stage interventions to mid- and late-stage interventions that are better served by the RE-AIM framework. Addressing the gap between development and dissemination concerns early on may facilitate research translation and lead to more efficient and sustainable interventions.

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Declaration of conflicting interests

The authors declare that there is no conflict of interest.

References

- Bennett, A. E., Cunningham, C., & Johnston Molloy, C. (2016). An evaluation of factors which can affect the implementation of a health promotion programme under the Schools for Health in Europe framework. *Evaluation and Program Planning*, *57*, 50–54.
- Bowen, D., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., ... Squires, L. (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, *36*(5), 452-457.
- Eldridge, S. M., Lancaster, G. A., Campbell, M. J., Thabane, L., Hopewell, S., Coleman, C. L., & Bond, C. M. (2016). Defining feasibility and pilot studies in preparation for randomised controlled trials: Development of a conceptual framework. *Plos ONE*, *11*(3).
- Evans, S. H., & Clarke, P. (2019). Resolving design issues in developing a nutrition app: A case study using formative research. *Evaluation & Program Planning*, *72*, 97–105.
- Fort, D. G., Herr, T. M., Shaw, P. L., Gutzman, K. E., & Starren, J. B. (2017). Mapping the evolving definitions of translational research. *Journal of Clinical and Translational Science*, *1*(1), 60–66.
- Garip, G., Morton, K., Bridger, R., & Yardley, L. (2017). Evaluating the feasibility of a web-based weight loss programme for naval service personnel with excess body weight. *Pilot and Feasibility Studies*, *3*(1), 1–10.
- Glasgow, R. E., & Estabrooks, P. E. (2018). Pragmatic Applications of RE-AIM for Health Care Initiatives in Community and Clinical Settings. *Preventing Chronic Disease*, *15*.
- Glasgow, R. E., & Riley, W. T. (2013). Pragmatic measures: What they are and why we need them. *American Journal of Preventive Medicine*, *45*(2), 237–243.

- Glasgow, R. E., Lichtenstein, E., & Marcus, A. C. (2003). Why don't we see more translation of health promotion research to practice? Rethinking the efficacy-to-effectiveness transition. *American Journal of Public Health, 93*(8), 1261–1267.
- Glasgow, R. E., Vogt, T. M., & Boles, S. M. (1999). Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *American Journal of Public Health, 89*(9), 1322–1327.
- Gonot-Schoupinsky, F. N., & Garip, G. (2019). Prescribing laughter to increase well-being in healthy adults: An exploratory mixed methods feasibility study of the Laughie. *European Journal of Integrative Medicine, 26*, 56–64.
- Griffiths, F., Borkan, J., Byrne, D., Crabtree, B. F., Dowrick, C., Gunn, J., ... Sturt, J. (2010). Developing evidence for how to tailor medical interventions for the individual patient. *Qualitative Health Research, 20*(12), 1629-1641.
- Holtrop, J., Rabin, B., & Glasgow, R. (2018). Qualitative approaches to use of the RE-AIM framework: rationale and methods. *BMC Health Services Research, 18*(1), 1–10.
- Klesges, L., Estabrooks, P., Dzewaltowski, D., Bull, S., & Glasgow, R. (2005). Beginning with the application in mind: Designing and planning health behavior change interventions to enhance dissemination. *Annals of Behavioral Medicine: A Publication of the Society of Behavioral Medicine, 29*(2), 66–75.
- Khoury, M. J., Gwinn, M., & Ioannidis, J. P. A. (2010). The emergence of translational epidemiology: from scientific discovery to population health impact. *American Journal of Epidemiology, 172*(5), 517–524.
- Milat, A. J., King, L., Bauman, A. E., & Redman, S. (2013). The concept of scalability: increasing the scale and potential adoption of health promotion interventions into policy and practice. *Health Promotion International, 28*(3), 285–298.
- National Centre for Advancing Translational Sciences (NCATS). (2018). *Translational Science Spectrum*. Retrieved March 1, 2019 from <https://ncats.nih.gov/translation/spectrum>

- Phillips, S. M., Alfano, C. M., Perna, F. M., & Glasgow, R. E. (2014). Accelerating translation of physical activity and cancer survivorship research into practice: recommendations for a more integrated and collaborative approach. *Cancer Epidemiology, Biomarkers & Prevention: A Publication of the American Association for Cancer Research, Cosponsored by the American Society of Preventive Oncology*, 23(5), 687–699.
- "RE-AIM". (2019). Retrieved February 28, 2019 from: <http://www.re-aim.org/about/>
- Ricciardi, W., & Boccia, S. (2017). New challenges of public health: bringing the future of personalised healthcare into focus. *European Journal of Public Health*, 27, 36–39.
- Sekhon, M., Cartwright, M., & Francis, J. J. (2017). Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC Health Services Research*, 17(1), 88. doi:10.1186/s12913-017-2031-
- Shelton, R. C., Cooper, B. R., & Stirman, S. W. (2018). The Sustainability of Evidence-Based Interventions and Practices in Public Health and Health Care. *Annual Review of Public Health*, 39, 55–76.
- Smith, L. J., & Harrison, M. B. (2009). Framework for planning and conducting pilot studies. *Ostomy/Wound Management*, 55(12), 34-48.
- Suggs, L. S., Cowdery, J. E., & Carroll, J. B. (2006). Tailored program evaluation: Past, present, future. *Evaluation and Program Planning*, 29(4), 426–432.
- Tickie-Degnen, L. (2013). Nuts and bolts of conducting feasibility studies. *American Journal of Occupational Therapy*, 67(2), 171–176.
- van der Leeden, M., Huijsmans, R. J., Geleijn, E., de Rooij, M., Konings, I. R., Buffart, L. M., ... Stuiver, M. M. (2018). Tailoring exercise interventions to comorbidities and treatment-induced adverse effects in patients with early stage breast cancer undergoing chemotherapy: A framework to support clinical decisions. *Disability and Rehabilitation*, 40(4), 486–496.

World Health Organisation Collaborating Centre in Mental Health. (1998). *WHO (five) well-being index (1998 version)*. Retrieved May 8, 2018 from https://www.psykiatri-regionh.dk/who-5/Documents/WHO5_English.pdf

World Health Organisation. (WHO). (2016). *Monitoring and evaluating digital health interventions: a practical guide to conducting research and assessment on research for health*. Retrieved October 14, 2018 from <http://apps.who.int/iris/bitstream/handle/10665/252183/9789241511766-eng.pdf;jsessionid=858E3B2513C6BFAA2286C5285CF07992?sequence=1>

World Health Organisation. (WHO). (2018). *International Classification of Health Interventions (ICHI): Draft in development*. Retrieved October 14, 2018 from <http://www.who.int/classifications/ichi/en/>

Yardley, L., Ainsworth, B., Arden-Close, E., & Muller, I. (2015). The person-based approach to enhancing the acceptability and feasibility of interventions. *Pilot And Feasibility Studies, 1*, 37.