Evaluating Interventions

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Introduction

Physical inactivity has been described as a global pandemic (Andersen, Mota, & DiPetro, 2016; Tremblay et al., 2017, World Health Organisation, 2018). It is then unsurprising that bold societal and government action has been recommended to make physical activity opportunities, such as sport and exercise, desirable and accessible for all groups (Ding et al., 2016, Reis et al., 2016). Indeed, policy and initiatives have highlighted the need for investigations into both the effectiveness and cost-effectiveness of community physical activity interventions (e.g., Canada Chief Medical Officer, 2016; National Institute of Health and Care Excellence, 2014; UK Chief Medical Officers', 2019; World Health Organisation, 2018). The importance of evaluating the impact and the implementation of physical activity and public health interventions is also reported in the literature (Dunton, 2018, Mansfield 2018, Pringle, McKenna & Zwolinsky, 2018), yet putting this into practice can sometimes be challenging (Dugdill and Stratton, 2007, Department of Health, 2007, Pringle et al., 2018).

Guidance is available on evaluation (Centre for Disease Control, 1999, Dugdill and Stratton, 2007, Hayes et al., 2012, Medical Research Council 2006, National Obesity Observatory, 2012, Sport England, 2006), as are several useful texts on the evaluation of physical activity interventions. In this entry, the practicalities of actually 'doing' the evaluation of sport and exercise-led interventions, and key learning from this process, including examples of evaluating interventions that have been reported in the peer reviewed literature, are presented. Examples of the 'good', and 'not so good' are provided with key considerations at three critical time periods of the evaluation process, including planning, implementing, and disseminating which are phases that are not mutually exclusive since

many of these issues cross-over within the intervention-evaluation lifespan. However, these phases are used as an organising framework for this entry.

Evaluation

Reasons to Evaluate

Although the health benefits of sport and exercise are well established, low sports participation rates and physical activity levels continue to be a public health concern across the globe (World Health Organisation, 2018). Consequently, interventions with novel approaches are needed that support lifelong participation in physical activity (e.g., Sibley, Thompson, Carter, & Hurley, 2018), including interventions that are delivered beyond the traditional healthcare settings and promotional campaigns (e.g., Mutrie et al., 2018, Zwolinsky, McKenna, & Pringle, 2016). Government policy and initiatives highlight the need for investigations into both the effectiveness and cost-effectiveness of community physical activity interventions (e.g., National Institute of Health & Care Excellence, 2014). This begs the question, why evaluate?

Foremost, evaluation provides an opportunity to identify effective interventions that enable people to adopt and maintain physical activity and reduce sedentary behaviour (Lewis, Napolitano, Buman, Williams & Nigg, 2017). This is particularly relevant for underserved and hard-to-engage populations, some of whom have been shown to be unresponsive to traditional sport, exercise, and physical activity interventions (Curran, Pringle, McKenna, Lozano & Zwolinsky, 2016, Hargreaves and Pringle 2019). It is thus important to know what interventions work best for these groups.

Another reason to evaluate is to help inform commissioners' decisions as to where best to allocate resources. Evaluation provides the opportunity to identify interventions or the parts of interventions that are ineffective/less effective in order that outcomes might inform future commissioning decisions around the investment of public health resources and the

development of supportive policy for sport and physical activity. In doing so, evaluation seeks to promote accountability of recipients of resources (Eldredge et al., 2016). Likewise, identifying ineffective components of interventions provides an opportunity for remedial action to be taken by deliverers and to refine interventions and their components so they are more acceptable to participants (Kime, Pringle, Rivett & Robinson, 2018).

Evaluation of the process by which interventions are implemented also provides an opportunity to show others 'how to do it'. The sharing of knowledge with others on what works, why, and how and what doesn't work, or works less well is also an important contribution to shaping effective practice (Pringle & Zwolinsky, 2017). This can help avoid the duplication of costly erroneous decisions and mistakes (Eldredge et al., 2016). Sharing the learning from the implementation of evaluations is also an important contribution to professional practice. This is because it can help commissioners and local communities promote sports participation and physical activity for health gain (Department of Health, 2007). Finally, and most importantly, evaluation establishes if sport and exercise programmes meet the health needs of local communities, an important consideration in modern day efforts to improve the health of local communities (Kime & Pringle, 2018). Interventions that do not assesses and address people's determinants to physical activity participation and engagement in public health interventions are less likely to be adopted, and this includes interventions aimed at underserved groups (Pringle et al., 2014).

How Evaluation Differs from the Related Concepts of Audit and Research

Audit is assessment against a set of criteria or principles such as the recommended number of green spaces or cycle lanes per head of population. *Research* is the disciplined inquiry that aims to aims to contribute new and original knowledge to the field, whereas evaluation is the systematic investigation of the merit, worth or significance of an object (Centres for Disease Control, 1999). It has been suggested that the evaluation of programmes

and interventions differs from basic research in that its primary aim is not to add to a body of knowledge, but to learn how to improve a programme (Centres for Disease Control, 1999). That said, evaluation can contribute original findings and indeed many evaluations that are disseminated contribute to evidence based practice and are published as research outputs.

With these thoughts in mind, and in the context of sport and exercise interventions, *research evaluation* aims to identify efficacy (does the intervention work under controlled conditions?) and effectiveness (does the intervention work in real world and field conditions?) and implementation (how to put interventions into practice?). It thus adds to the body knowledge that defines an evidence-based intervention (Eldredge et al., 2016). The evaluations referred to in this entry fall into *programme evaluation*, where evaluation is undertaken as part of the management of an intervention in order to assess the effectiveness of an intervention and process by which the intervention was implemented. Three forms of programme evaluation that we feel are most relevant when evaluating sport and exercise interventions are impact, process, and formative evaluation.

Impact evaluation. Where it is possible, impact evaluation helps to establish if the impact outcomes are due to the intervention. This usually means having access to a comparator group (not always possible in real world community evaluations). Impact evaluation measures the effects of the programme on the short-term, intermediate, or long-term outcomes (Centres for Disease Control, 1999). Outcomes can include behavioural (such as a change in sport or exercise participation) and environmental (such as a change in sport or exercise provision), health (such as an improvement in mental well-being or a reduction in blood pressure) and quality of life (such a year lived free from disease or illness). When planning impact evaluation, impact outcomes, impact measures, timescales, resources and programme participants are important considerations (Eldredge et al., 2016).

Process evaluation. A process evaluation seeks to describe how, and how well, an intervention was implemented or put into practice. Process evaluation questions allow evaluators to interpret impact or outcome data by identifying the key implementation factors that have contributed to programme outcomes such as changes in behavioural outcomes including sport and/or exercise participation (Eldredge et al., 2016). Further, process evaluations document all aspects of the implementation of an intervention so that adjustments can be made if necessary and this helps programme refinement and development (Centres for Disease Control, 1999).

Formative evaluation. Formative evaluation contends that evaluation is an iterative process and aims to develop and improve interventions from an early stage, when opportunities for influence are likely to be greatest (Dehar, Casswell, & Duignan, 1993). Current thinking in public health is to secure participation of local communities in plans and programmes designed to meet their health and physical activity needs (Pringle and Zwolinsky, 2017, South, 2015). Formative evaluation is typically conducted in the developmental phase of an intervention and is helpful when considering and planning how participant needs can be met by an intervention. It is used to provide information that helps deliverers to plan how best to design an intervention that accommodates the needs of a target group including the determinants to participation in physical activity, as well as motives for changes health and behavioural outcomes. It can also be used during the implementation of an intervention to assess how well the intervention is working (or not!) and whether any aspect needs modifying.

Who Should Evaluate

Organisations can fall into three categories organised by sectors, including commercial sector healthcare providers who run public health improvement programmes (Curran, Lozano, & Pringle, 2015), the public sector with institutions such as local

authorities, health services, and Government departments (Kime, Pringle, Rivett, & Robinson, 2018), and the voluntary sector such as charitable organisations and/or individuals (Hargreaves and Pringle, 2019, Sharpe, Wilcox, Kinnard, & Condrasky, 2018). All of these organisations should follow evaluation processes.

Evaluations can follow three types of design. Firstly, in-house evaluation designs where staff within the delivery organisation who undertake all duties associated with the evaluation. Secondly, a consumer evaluation design, where all evaluation activities are performed by specialist evaluators. Thirdly, a partnership evaluation design, where specialist evaluators work with deliverers to evaluate sport and physical activity interventions. In this arrangement, intervention providers undertake important roles to support the evaluation such as providing pre-information, negotiating consent to participate in the evaluation, data collection, and transfer under the guidance of the evaluators (Pringle, et al., 2018). Building research and practice partnerships that improve the health of people are important, including those that support evaluation. Partnership arrangements such as these are also common, often due to the limited resources and absence of skills available in organisations (Pringle & Zwolinsky, 2017, Zwolinsky, Kime Pringle, et al., 2018). This can make it difficult to procure either of the other two evaluation designs.

Key Considerations

A central rationale for evaluation is that the findings from good quality research (and evaluations) need to ‘make it happen in practice’. Yet implementation science is far too often approached by academics without an understanding of the context in which evaluation takes place. What might work in theory (know) is often very different to what is workable in practice (do), and this ‘know-do’ gap can become a chasm that is hard to cross when developing an evaluation plan. Consequently, commissioning effective evaluations is as important as it is difficult. In this entry, the focus is on the most common of evaluation

approaches, namely partnership evaluations (Pringle et al., 2018). Based on experience and evidence, undertaking evaluation is best guided with one eye on practical experiences and another on evaluation guidance all while being reminded that the evaluation of sport and physical activity interventions is beset by challenges and difficulties (Department of Health, 2007). This gives rise to the notion of 'evaluability' which refers to the *capacity* and amenability of an intervention for monitoring and evaluation (Wholey, Hatry, & Newcomer, 2004). When establishing the evaluation of physical activity interventions, evaluability should never be assumed and a range of considerations impact on the ability to evaluate. Presented here as a series of questions, some key considerations when planning, implementing, and disseminating evaluations can be used in research and practice.

Planning Evaluations

When Evaluators Should Be Appointed

The intervention and the evaluation should not be seen as separate entities. Too often evaluators are approached by the deliverers and commissioners of interventions who say 'we need to evaluate our programme and we need to do it soon'. Only rarely is evaluation viewed as systematic and integrated, as well as an activity that is planned at the outset when interventions are being considered. Evaluators can be, and are all too often, appointed too late in the intervention process. It is imperative that evaluators are appointed at the outset and before interventions start. Having evaluators on board in the planning stage will help shape the development of the evaluation early on and thereby help shape the intervention planning process with intervention and evaluation including issues that have yet to be considered by commissioners (Eldredge et al., 2016, Pringle et al., 2018).

What Commissioners Want to Evaluate

It is important to establish exactly what the commissioners want to evaluate. In some cases, commissioners won't be clear, so it might be necessary to work with them to clarify

what this is. Early dialogue helps to generate evaluation aims, objectives and the scope of the evaluation and this should be set within the evaluation context to include resources, time frames and outcomes. This is the next step, and these should be shared with the commissioners and other stakeholders for comment and refinement.

The Timescales and Key Time Points for the Evaluation

As part of the preliminary discussions with commissioner and other stakeholders, it is useful to identify the timeframes for the intervention and evaluation as this will have an impact on what can be undertaken during the evaluation. Most interventions are evaluation on a before, during, and after basis. It is not uncommon for evaluators to be approached after interventions have already started and with no evaluation in place.

What Resources Are Available for the Evaluation

As part of the application process, evaluators should understand what resources are available. This includes financial but also the environmental, social, and informational resources that support the evaluation. From a monetary perspective, and as a guide, it has been suggested that 10% of the overall intervention budget should be allocated for the evaluation (Dugdill & Stratton, 2007). This is a bench mark and can turn out to be much greater in practice (Pringle, 2011). In the National Evaluation of the Local Exercise Action Pilots (Pringle et al., 2018), the overall percentage of resources that were deployed to the evaluation was estimated by the evaluators as being closer 20% of the overall programme budget. In some organisations they will have fixed, limited or no budget for evaluation. It is important to assess what resources are available alongside the scope, complexity, and the size of the evaluation. To maximise the available resources, undertaking a community asset assessment can help identify resources that are available to support the evaluation (Eldredge et al., 2016). Remembering that it is important to view the intervention and evaluation as related entities. Eldredge et al., (2016) suggest these assets can be classed as; (a) policy, (b)

physical, (c) social, and (d) information assets. These can be harnessed to support the intervention and the evaluation. Specifically, policy environment asset assessment refers to the existing strategies, policies and practices that could be used to support the intervention and the evaluation. For example, policy environment asset assessment might include commissioner's adoption of minimum standards for monitoring and evaluation of interventions or policy statements that advocate the evaluation and evidence-based practice in sport and exercise delivery. Physical environment asset assessment is the natural environment or built facilities or amenities that could be used to support the intervention and the evaluation. For example, physical environment asset assessment might include green spaces, water-ways, community centres, university and college facilities, cycle lanes, and walk ways. Social environment asset assessment refers to the existing social resources that can be used to support the intervention and the evaluation. For example, social environment asset assessment involves the people who could adopt evaluation roles and responsibilities such as advocacy, data collection and inputting, the participants that can provide a perspective on the viability of evaluation procedures and protocols, as well as the influential stakeholders who can champion the case for evaluation within their organizations/communities. Finally, Information environment asset assessment is the communication channels that could be used to support the intervention and the evaluation. For example, information environment asset assessment involves the communication networks (print, social, electronic and digital media) that can be used to recruit participants to sport and exercise programmes and their evaluations or the information management systems can be used to collect and input evaluation data or the networks can be used to disseminate evaluation outcomes.

People Who Should Be Involved when Planning Evaluations

People need to be viewed as important resources and 'assets' as well as being involved in planning both evaluations and interventions. Encouraging the input of key

stakeholders gives rise to the concept of participation and also patient and public involvement. While the importance of involving communities of practice in evaluations are discussed a bit later in this entry, the current focus is on the involvement of local communities in the planning of interventions and evaluations.

As clearly articulated in this entry, patient and public involvement should be an integral part of any robust evaluation and can be undertaken throughout the life course to shape evaluations and research processes (Hassan et al., 2017). It is where work is undertaken 'in collaboration with' or 'by' patients and/or members of the public and not 'to', 'about' or 'for' them (Loeffler & Bovaird, 2018). Evaluators do not always have first-hand experience of a health condition, the population or a particular situation or a public health context, so the patient and public involvement process aims to involve patients and the public who can provide their personal experiences and perspectives to guide the design and delivery of an intervention and its evaluation. This will help to improve the quality, relevance and impact of interventions and evaluations. In addition, it is considered morally right for patients and the public to be involved at the outset in any publicly funded evaluation that may have an impact on them (Eldredge et al., 2016).

How Evaluation Can Be Used to Develop the Intervention

Adopting a community asset approach in the evaluation process is important for formative evaluation, which is often overlooked. However, formative evaluation should be viewed as an integral component during intervention development and implementation to discover whether there is a need for an intervention and how the intervention can meet the needs of intended recipients of programmes. At the planning stage, formative evaluation can be undertaken to:

1. Ensure an intervention is appropriately tailored and adapted to the needs of the target population.

2. Involve the population for whom the intervention is aimed at. A participatory approach is important when an intervention addresses complex issues and/or requires behaviour change (Medical Research Council, 2006).
3. Understand the theory/processes of change that the intervention is based on. This facilitates a greater awareness of what is likely and unlikely to work during the intervention development phase (Jurg, De Meij, Van der Wal, & Koelen, 2008).
4. Understand how an intervention can be evaluated (Eldredge et al., 2016).
5. Monitor the progress of an intervention and improve its implementation. This provides an opportunity to make on-going improvements to the intervention and increases the chances of achieving outcomes (Hargreaves & Pringle. 2019, Saunders, Evans & Joshi, 2005).
6. Provide evidence that individual components of the intervention are being delivered effectively (Eldredge et al., 2016).

The "Getting Sorted" intervention is an example of how formative evaluation was used to design and develop the self-care programme for young people with a chronic health condition to help them better manage their condition (Kime, McKenna, & Webster., 2012). This intervention was implemented against a backdrop of self-care interventions that largely catered for adults with chronic conditions and not young people. Interventions were also based on healthcare professionals' assumptions around what they thought young people needed and did not account wider lifestyle issues impacting on young people that were predominantly medically focused. Therefore, formative evaluation was used to address gaps in the service provision for young people and develop a self-care intervention that was tailored to their needs. Further, a key aspect of this formative evaluation was the involvement

of participants in the design, development, implementation and refinement of the intervention.

A qualitative methodology was adopted as conducive to the exploratory nature of formative evaluation. Focus groups (referred to as talking groups by the young people) were conducted with young people (aged 12-17) and led by young people (aged 18-25) acting as facilitators. A simple schedule was devised by the facilitators in collaboration with researchers and healthcare professionals, to determine the key issues for the development of a self-care programme which also included physical activity. The schedule included three main questions: "*What problems or difficulties have you faced living with type 1 diabetes or asthma?", "What topics should a self-care programme include to help support you to manage these problems?"* and "*How, when and where should the programme be delivered?"* (Kime et al., 2012, p.5).

Working together, the young people, facilitators, and researchers used the themes from the focus groups to develop a self-care intervention, known as '*Getting Sorted*'. The intervention consisted of five workshops each focusing on one of the identified themes. Each workshop was held on one weekend day and the intervention lasted 20 weeks with one workshop every 4 weeks. The workshops adopted a peer-education model, where young people with type 1 diabetes or asthma facilitated the workshops and managed the activities. A researcher was present at the workshops, who, in conjunction with the young people and facilitators, monitored the individual workshops and provided feedback on how the workshops and the intervention as a whole could be modified and improved. This process ensured that the intervention remained appropriately tailored to the needs of young people.

The strength of formative evaluation in developing '*Getting Sorted*' was the involvement of young people from the outset. This ensured that the intervention was based on the views of those young people who would benefit from the intervention. In line with guidance on

community involvement (South, Stansfield, & Fentem, 2015), young people were given a voice and encouraged to make decisions on the content of the intervention, its structure and delivery. Throughout the implementation of the intervention, they were also involved in making decisions about what worked, what did not work, and which aspects of the intervention needed to change.

The preparatory process in 'Getting Sorted' resulted in a more informed intervention and increased the likelihood that the intervention would be effective. Adopting this participatory approach, though, was not without its difficulties. For the researchers and healthcare professionals involved, extra resources and workloads were required to recruit, train and manage the young people, which impacted on their time and resources. Inevitably, this led to the researchers and healthcare professionals committing more of their own time to the intervention and evaluation. However, the example illustrates how formative evaluation can be used to shape an intervention.

Commitment, Capacity and Capability for Evaluation

As mentioned, assessing and drawing on of local assets (including social assets, such as people, their expertise, relationships and connections) is an important part of evaluation planning (Eldredge et al., 2016). Yet there is also a need to draw upon the skills of local stakeholders – especially to improve the health of those most in need of support. Those supporting partnership evaluations are key; however not everyone will be on board with efforts to evaluate sport, exercise, and physical activity programmes (Pringle, 2011). With that in mind, Pringle, Hargreaves, Lozano, McKenna and Zwolinsky (2014) purport that it is important to consider the 3Cs of evaluation, namely *capability*, *capacity* and *commitment*.

Capability. This predominately refers to the expertise, knowledge and skills to undertake evaluation tasks. In partnership evaluations, the deliverers of sport and physical activity interventions, be that paid or voluntary staff, may be tasked with providing pre-

information about the intervention to participants, securing participant consent for the evaluation, collecting demographics and physical activity data and inputting (Department of Health, 2007, Pringle et al., 2014). As discussed later, non-evaluation specialists don't always possess the evaluation skills and expertise and understandably most have received no formal training in these evaluation roles. Therefore, it is not uncommon for people at times to feel incapable and or uncomfortable when asked to perform evaluation tasks. This can manifest in both reluctance and or a lack of commitment when faced with such requests.

Capacity. This refers to the resources that are available to undertake and support evaluation roles and responsibilities. Thinking about the community asset assessment we provide examples of the social resources that can help to build *capacity* for evaluation. The social environmental assets are especially important in partnership evaluations. This includes paid or voluntary staff who can adopt important evaluation roles and responsibilities such as, providing pre-information to participants, collecting and or inputting evaluation data. On their own or combined, a lack of *capacity* and *capability* can result in a lack of *commitment* to the implementation of evaluations.

Commitment. This refers to the intensity and direction of motivation to undertake evaluation duties. In partnership evaluations, those tasked with evaluation duties often feel that their priority is to deliver interventions and not to support the evaluation. Additional evaluation responsibilities may be a low priority or not a priority at all. There are certainly people who will feel overwhelmed by the prospect of these additional responsibilities and it may be common to encounter a response that is along the lines of 'we neither have the time nor the skills to take on these duties' and or that 'I am just not interested'. This is especially the case when requests to perform evaluation roles are suddenly imposed on people (Pringle & Zwolinsky, 2017).

The successful intervention implementation – rather than evaluation – is often the most important consideration for delivery staff. Therefore, the appointment of evaluators at the outset is important, as they can begin to assess the 3Cs, identify risks, and shape solutions to address these challenges. This starts with building relationships followed by a discussion between evaluators and their evaluation partners and understanding people's concerns. This will help identify and define evaluation roles responsibilities with a view to enhancing people's preparedness for and building in resources for evaluations. Appointing evaluators from the outset is important for building *capacity* for evaluation.

Training and Help to Support the Evaluation Processes

Thinking about the 3Cs, enhancing the preparedness of those supporting evaluations is essential. In several cases, people will be presented with evaluation duties for the first time. Broaching the evaluation, negotiating participant consent and collecting data might be new experiences for deliverers and volunteers, so some training and education is likely to be needed. In some cases, evaluators will be asking deliverers to change their behaviour by taking on these roles, for others they neither have the *capacity* for nor or the *commitment* to perform evaluation duties, so evaluators might encounter some resistance. In the National Evaluation of Local Exercise Action Pilots (Pringle, Gilson, McKenna, & Cooke, 2010), volunteer physical activity leaders were required to collect evaluation data such as demographics and physical activity data. They had not signed up for this duty (they were there to be physical activity advocates and leaders) and threatened to withdraw their services (Pringle & Zwolinksy, 2017).

An audit of the 3Cs is a good starting point in which to identify assets build training needs and provide support and this strengthens the case for appointing evaluators at the outset. Moreover, it sets the tone for future working practice, galvanising resources, listening and helping people, these attributes are corner stones to good evaluation (Pringle et al., 2018).

The importance of engaging people at the outset, building up relationships and listening to people about their needs cannot be overstated and works in most cases even though for some it might take a bit more effort and local assistance from key stakeholders to win their support. Training based on people's needs is important and can involve a combination of on-site and away day classroom based sessions as well as online and remote telephone support and tutorials or a combination of these approaches throughout the life course of the evaluation (Pringle, 2011).

Implementing the Evaluation

In this section, key considerations when implementing the evaluations of sport, physical activity and health interventions are considered including instrumentation, participant responses and ethical processes and practices.

Ethical approval Requirements and Key Ethical Considerations

Research and evaluation ethics need to be carefully considered when conducting an evaluation of physical activity interventions. This applies to all types of evaluation studies and in particular those that involve participants, regardless of the setting and context. Evaluations should be conducted in line with the requirements of the data protection regulations in your jurisdiction. It is important to think about the impact of evaluations on people's rights, including: providing appropriate pre-information that fully explains the evaluation, the purpose, their *commitment*, risks and benefits and how their data will be used.

It is also important to think about securing informed consent/assent, as well as data protection and confidentiality, and anonymity. Ethical consideration also includes people's right to withdraw from evaluations and how their data will be collected, stored, analysed, shared and reported. When deliverers are engaging people in evaluations, they will be dealing with many of these ethical issues and this will be new territory for many, especially for volunteers. Therefore, training will be needed. Further information on what needs to be

considered and the process that needs to be followed, guidance is available from university research ethics committees. For evaluations that are aligned to health and social care, further advice can be sought from the Health Service Research Authority in your jurisdiction. If evaluators are working with children and or vulnerable adults and older adults, it is also important to consider that the appropriate disclosure and baring checks are in place and further information can be sought from the disclosure and barring service in your jurisdiction.

The Evaluation Instrumentation and processes

When undertaken properly, evaluations can determine merit, worth or value and provide evidence about not just whether, but how and why something works (or not). These outcomes are predicated on using instrumentation and processes that are fit for purpose. This can be problematic as evaluations typically adopt bespoke methods that need to be adapted to the setting, population; resources and outcome requirements, balancing acceptability alongside validity and reliability. This complexity highlights the challenges associated with implementing functional evaluations that have suitable processes and instrumentation. This is also concerned with in-building quality assurance processes for checking the completeness and quality of the data submitted at regular intervals during the evaluation and training will need to be provided (Sport England, 2006).

The Primary Evaluation Outcome(s)

Outcomes may seem an obvious implementation consideration but many evaluations use instrumentation that is selected with little regard for how the data relate to the primary programme outcomes. Making a goal specific selection of meaningful instrumentation and using decision support tools (similar to flowcharts) can help to narrow down the countless available options. Evaluation outcomes can include behavioural outcomes (e.g. changes in physical activity levels), environmental outcomes (e.g change in service provision), health outcomes (e.g. changes physical well-being) and quality of life outcomes (e.g. year of disease

free living). The primary outcome(s) evaluators are trying to effect should be the main determining factor.

Further considerations include the evaluation being embedded in foundations of measurement and instrumentation that is valid and reliable. In achieving this, valid and reliable instrumentation should capture the construct of interest, be stable and allow for case wise comparisons longitudinally. Evaluators should also take into consideration the domains, dimensions and determinants of any behaviour, practice or outcome they plan to assess. The other important considerations including sample size, resource, financial constraints, operational *capacity*, accessibility, and timescales (Strath et al., 2013). What is more, instrumentation and processes should conform to a realistic, feasible and practical framework that can establish, what works, who it works for, and in what circumstances (Pawson & Tilley, 1997).

The Evaluation Population

The evaluation population includes the stakeholders in the interventions (e.g., participants and deliverers). *Programme evaluation* of sport, exercise, and physical activity includes people attending interventions for a whole host of reasons such as fun, social, achievement as well as health. From an ethical perspective, the evaluation should not be so overwhelming so as to deter the participant from engaging the intervention. It is also not uncommon for participants to present at sport and exercise interventions with concerns over surveillance and monitoring and may decline their involvement (Department of Health, 2007).

In a major evaluation conducted of a bespoke men's health improvement service delivered in professional soccer clubs, these issues were described first hand (Pringle et al., 2014). Men who attended one pilot programme included those who had been engaged in the criminal justice system. In some cases, and as a result of their behaviour, there were men who

had developed adversaries in the community. It is then no surprise that some men were reluctant to expose their identities and their contact details for evaluation purposes. 'Staying under the radar' was a priority; this made capturing demographic, physical activity and health impact data difficult and at times impossible. This example shows why it is so important to consider the population and their amenability for evaluation at the outset.

People's Responses to the Evaluation

Given the topic, physical activity it is not uncommon to come across participants who 'feel judged' during an intervention. People will have taken a huge step to turn up at a programme in an effort to address their health and fitness concerns, often knowing their lifestyle behaviours are perhaps suboptimal. Subsequently they might be experiencing a whole host of negative feelings, including anxiety, embarrassment and discomfort. It is perhaps unsurprising that participants can quickly feel that pre-intervention evaluation questions and screening processes about their health and physical activity might result in perceptions of feeling 'judged', especially if the person asking the questions appears healthy. One approach to address this concern is to break down the pre-screening or the pre-intervention evaluation into small manageable chunks. Using the first session to gently introduce people to the evaluation, collecting (demographic) data on whom the people are and where they come from with the remainder of the sessions focussed on an induction to the intervention.

At the second session, efforts are focused on collecting information on the health and physical activity profiles and empathy is important in the implement of the evaluation. Convey don't criticise, encourage individuals to understand and accept the need for change based on their needs and motives, in doing so understanding change from their perspective (Pringle & Zwolinsky, 2017). Building in evaluation so it becomes part of the intervention is important such as a pre-intervention or follow up lifestyle and safety assessments. The value

of collecting this information may not be obvious to participants, but over time, participants can become interested in the data they provide and what it means, in part because it provides an indicator of how they are progressing in their attempts to change their physical activity or their health profiles (Pringle et al., 2014). This approach draws on the idea of autonomy support that highlights the importance of acknowledging others perspectives, offering choice, avoiding controlling language and involving others in goal setting (Ryan & Deci, 2000).

The Amenability of the Setting for Evaluation

The setting where evaluation takes places needs to be conducive for the implementation of evaluation processes. In one of the Local Exercise Action Pilots, participants undertook walking in local parks, but the pavilion in the park burnt down and this meant there was no sheltered accommodation for people to complete self-report measures during inclement weather (Pringle, 2011). As discussed earlier, an assessment of community assets can help identify the environmental resources such as facilities that can support the evaluation.

Language and Literacy Barriers

Evaluation can be hindered when the primary language is not the first language or when there are concerns around the readability and comprehension of what is being asked in evaluations. Further, evaluation approaches should be accessible and acceptable to participants. Therefore, piloting instrumentation in advance is a worthwhile investment when identifying their amenability and acceptability of data capture (Pringle et al., 2018). As discussed, an assessment of social assets as part of a community asset assessment is helpful when identifying participants and stakeholders who can provide an opinion on evaluation processes and instrumentation. Where instrumentation and processes are not working so well, it will help evaluators modify and adapt and consider other approaches so they are more conducive to the population and the place where they are administered. In the long run, this

approach will help contribute to the development of more participant friendly evaluation material. For some participants, they might just require some additional help in understanding what is being asked of them, so interviewer led approaches and in-building data capture into the intervention can help. The examples in the following entry section illustrate the importance of engaging with participants and stakeholders when planning evaluations.

The Social Dynamics that Impact on Evaluations

This can include power dynamics including fear of ridicule and control as well as the acceptability in local communities and these are all factors that can impact on operationalizing evaluations. For instance, a programme of exercise to music classes were provided for South Asian Women which took place at a set time and venue in the local community. As the sessions progressed, physical activity providers learnt that male family members (partners, husbands, brothers, and fathers) became increasingly unhappy that the women's habitual attendance at set times and exercising to music was seen as being 'Westernised', having 'too much freedom' and 'disrespectful of their local culture'. Indeed, some male family members themselves had also come under peer-pressure from Elders to intervene. Listening to the women's concerns was key to resolving issues that would later support both the intervention and the evaluation. In response, providers were able to rotate the time and day of the session and allowed the participants to make their own music through their own song and clapping, in doing so conforming to local expectations and traditions, but facilitating attendance at the dance session (Pringle, 2011).

The example illustrates a number of points for evaluators. Firstly, that following up on non-engagement can be extremely informative in understanding the reasons for non-engagement and identifying complex reasons impacting on engagement. Secondly, it also highlights the need to identify the constraints in which providers work with and how solutions might be found to facilitate engagement in interventions and evaluations. Thirdly,

that social support is instrumental when engaging new behaviours. Finally, the lives of people engaging/trying to engage in interventions and evaluations can be complicated and complex and evaluators need to appreciate and fit in around these circumstances.

Building Evaluator - Participant Relationships

As already discussed, some participants, including those presenting at interventions with sub-optimal health profiles, will have taken a huge step to change their health behaviours and profiles. Evaluation inevitably involves those investigations into unhealthy and inactive health profiles at the start of interventions. These can sometimes be viewed as intrusive and uncomfortable by participants, especially when there is no pre-exiting relationship between participant and the evaluator (Pringle et al., 2014). Building relationships between the two parties can help facilitate ethical and effective evaluation processes that enable participants to 'tell their story' in a non-threatening environment and result is informative and useful evaluation data.

With those thoughts in mind, the next example illustrates how an evaluator built relations with hard-to-engage men attending a bespoke weight management programme in North West England, UK (Lozano-Sufrategui, Pringle, Carless & McKenna, 2017). The intervention used sport and physical activity as an important of the weight management programme. The evaluation of the programme was challenging because it consisted of ethnographic observations, focus groups, and interviews undertaken by lead-author Lorena Lozano-Sufrategui and the participants were middle aged men who did not typically respond to traditional health improvement services. The socio-demographic differences between the researcher and the participants were all too evident. In overcoming these differences, the researcher adopted a non-judgemental, and friendly but professional style. By deploying a bottom-up approach, where participants' interests are listened to and valued first and last, instead of imposing the interests of the researcher on participants. This approach aspires to

view participants as having important expertise and making valuable contributions when implementing sport, physical activity and public health process (Eldredge et al., 2016).

Another key element of building evaluation-participant relations is developing trust and rapport. This is important in evaluations with an ethnographic component, which involve prolonged engagement in the field. In the example with hard-to-engage men, observing participants without participating in the social activities of the programme was not very insightful. However, in this instance, when the researcher adopted the role of participant-and-observer and joined the men in the activities (e.g. playing football and touch rugby) they realised that there were some behaviours and conversations they had missed during her previous data capture. Participating in these activities also meant that the researcher was not only physically closer to the participants, but also attuned to what was going on in the field. By joining the participants in the sporting activities delivered as part of the intervention, the evaluator found that, despite demographic differences between themselves and the participants, she had something to give them and they were not just an interloper (Hammersley & Atkinson, 1995). This set the foundation for a strong relationship that created the ideal conditions that helped the men tell their story about their physical activity lifestyle choices and behaviour goals and changes.

Disseminating the Evaluation

In this section, the key considerations for disseminating the outcomes which emerge from evaluating sport and exercise interventions are discussed. This includes the impact of evaluations, involving stakeholders when planning dissemination strategies the intended audience and planning evaluation reports.

When and What to Prepare for in the Evaluation Report

Individuals would normally be working on the evaluation report as they go through the evaluation, drafting earlier sections in preparation for the summative report such as the

introduction and methods. If an interim report is required, then individuals would aim to develop and use this as a framework for the final report. Producing an interim report provides an opportunity to get some feedback as to if the content and format is suitable for the commissioner and other stakeholders. It is much better to get some feedback from the client during the evaluation and not at the end or before it is too late. This activity also reaffirms what parts of the evaluation commissioners are particularly interested in, any further investigations that are required and how this might inform the final evaluation documentation. Getting an appreciation on the format, pitch and writing style can emerge from this process. The restrictions of space do not allow a discussion of the use of images, style formatting and colours, but these are other considerations. Thinking through the social assets that exist locally regular dialogue with commissioners or project advisory groups during the lifespan of the evaluation is recommended when creating a report that is useful for their purposes. This might include advocacy, lobbying, as well as demonstrating impact of the interventions. In doing so, commissioners and other stakeholders are seen as important social assets that can support the evaluation process.

The Outcomes of Evaluation Findings

A number of possible outcomes can emerge from the evaluation of interventions. Figure 12 shows a decision tree analysis illustrating some of the different phases and decisions in this process. To answer the question; 'is the intervention effective?' in phase 1, an evaluation of the intervention is normally undertaken. Emerging from the evaluation are a series of outcomes to this question in Phase 2; 'yes', 'may be' and 'no'. Form here, in Phase 3, there are several possible scenarios for how the evaluation outcomes are used to inform decisions around the future provision of sport and exercise interventions. First, evaluation outcomes supporting intervention effectiveness can lead to the commissioning/re commissioning of an intervention. Second, evaluation outcomes that demonstrate limited

intervention effectiveness can result in the intervention being either commissioned or decommissioned. Finally, evaluation outcomes that demonstrate that the intervention is ineffective can result in the intervention being decommissioned. Given that a purpose of evaluation is to learn and refine interventions, the evaluation outcomes should inform a process of review in Phase 4 and, where relevant, refinement and re-development of interventions or the development of new interventions and services.

The outcomes from the evaluation of sport and exercise interventions are set within the wider social, economic, and political context in which they are delivered. As such, a broad set of factors can influence how evaluation outcomes are deployed when making decisions to commission sport and exercise interventions. For instance, interventions which show limited effectiveness may be re-commissioned or developed because there is strong political support from key decision makers and influential stakeholders or because the continuation of the intervention is a requirement of further funding arrangements and future investments (Pringle et al., 2018).

<Insert Figure 12 here>

Figure 12. Decision tree analysis for evaluation outcomes.

People Interested in the Evaluation Outcomes

An exciting goal from evaluation is that stakeholders might use the results and findings and therefore need to be told of the outcomes emerging from such evaluations. The outcomes from an evaluation might be disseminated to a range of audiences and this will depend on the nature of the evaluation, who has commissioned the work, and who might benefit from learning of the evaluation outcomes. It is therefore good practice to be thinking

about this throughout the evaluation and not only at the end. In broad terms, the following stakeholders might want to know about the evaluation outcomes:

1. Commissioner of the evaluation/commissioners of the interventions.
2. Deliverers and stakeholders of the intervention.
3. Participants who engaged the intervention.
4. Wider community of practice (participants, supporters of participant's commissioners' purchasers and providers) impact and process outside of the immediate evaluation).
5. Evaluation community: How the evaluation was undertaken and any learning that emerged from the process.

The Method and the Format of Dissemination

The dissemination of the evaluation findings will need to be adapted to suit the audience. This can vary by evaluation and the audience. In the majority of cases, the evaluators disseminate the findings and they will work with commissioners in the process. It is not uncommon for commissioners to produce their own in-house summaries for different audiences and employ their own consultants for this role. The National Evaluation of Local Exercise Action Pilots was designed to assess the effectiveness of community physical activity interventions. This is a good example of where the extensive programme evaluation report was produced and published in full on the commissioner's website. However, recognizing the need for different dissemination formats, the evaluation report was summarised into a shorter summary report for different stakeholders and made available at a national launch event in hard copy and then as a PDF download. Presentations on the outcomes were also delivered through the Regional Physical Activity Networks across England and a slide set made available for practitioners to use. Further, it is increasingly important to share the outcomes of evaluations with the local community through the use of

lay summaries and local networks. Importantly dissemination activities needs to be appropriately resourced and planned (Reed, 2018) and properly communicated.

The Demonstrated Impact from Evaluations

One definition of impact is "the demonstrable contribution that excellent research makes to society and the economy. This occurs in many ways – through creating and sharing new knowledge and innovation; inventing ground breaking new products, companies and jobs; developing new and improving existing public services and policy; enhancing quality of life and health; and many more." (United Kingdom Research Institute, 2018). Reed (2018) has produced a typology of evaluation impact and this is a helpful resource when considering the different types of impact that might be fostered by evaluations. The need to articulate the actual benefits to specific groups and evidence of the significance of these benefits is clearly articulated and this could include communities of practice and the local communities in which they serve through services and interventions. It is also recommended to build in pathways and indicators of impact at the outset of the research and evaluation process, so impact is ideally discussed and established at the start.

As an example of impact, Curran et al., (2015) evaluated a bespoke men's health and weight management service delivered in community venues in North West England. The evaluation identified favourable physical activity and health outcomes for hard-to-engage men attending the programme elsewhere (Curran et al., 2015, Lozano-Sufrategui et al., 2017). The evaluation resulted in decisions to re-commission an amended version of the lifestyle service for another three years.

Conclusion

The current entry provides a series of key considerations for those planning and implementing evaluations and these can be used as a checklist. A number of excellent sources of guidance have been referenced and readers are encouraged to use these resources, along with the resources and assets that exist in the local community. The involvement of the public, patients, providers, and purchasers of interventions provide valuable insights that can be used to shape both interventions and their evaluations. Evaluation is comprehensive, and includes the various guises that evaluation can take, and the strategic need for flexibility and user engagement, which stands evaluative approaches in contrast to research and audit.

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Figure 12: Decision Tree for Evaluation Outcomes