ESCAPE-pain in the community and leisure sectors

Evaluation of the ESCAPE-pain project funded by the Sport England Active Ageing programme – Summary Report

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https://healthinnovationnetwork.com/projects/promote-and-support-the-spread-of-escape-knee-pain/

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Summary

This report sets out the evaluation of a project delivered by the Health Innovation Network (HIN) to extend delivery of ESCAPE-pain (for hips and knees) in community and leisure settings. The project was funded though the Sport England Active Ageing Programme and the evaluation was funded by Versus Arthritis.

The overall aim of the evaluation was to assess the extent to which delivery of ESCAPE-pain in leisure and community venues helps older inactive people become more active, as measured by participation in at least thirty minutes of moderate intensity physical activity per week. The evaluation also assessed changes to participant's general health, wellbeing and social function – both in the short term and sustained for six to twelve months; and included a process evaluation to highlight what worked well and areas for development from a stakeholder perspective.

The evaluation objectives were addressed using:

- longitudinal quantitative and qualitative methods:
- collection of quantitative outcomes in around 1,000 participants,
- qualitative interviews with 110 participants,
- a quantitative questionnaire survey of 200 participants about health service utilisation and economic activity;
- qualitative interviews with organisational leads and ESCAPE-pain facilitators; and
- analysis of administrative data.

Between January 2018 and December 2019, an estimated 1,364 participants had completed an ESCAPE-pain programme funded through the HIN's Sport England Active Ageing project. Of these, approximately 1,044 met the definition of 'inactive'. Seventeen organisations delivered 200 cohorts at 75 different sites. Cohorts were delivered from sites across England with representation in twelve of the fifteen Academic Health Science Networks (AHSNs) regions (North West London, the South West and the West of England were the only AHSNs with no sites).

Physical and emotional wellbeing

Compared to baseline, participants reported less pain and stiffness, and improved physical function and emotional wellbeing at the end of the twelve-week programme. Quantitative assessment shows **improvements in pain and physical function were sustained at three, six and twelve-month follow-up**. There was some tapering of effect over time, though the results of an objective measure of physical function (Sit to Stand Test) indicate improvements are maintained. Qualitative assessment of **physical and mental wellbeing** found interviewees described very positive results which they attributed to their participation in the ESCAPE-pain**. Improvements were sustained over the twelve-month follow-up period.**

Individual development

Longitudinal qualitative analysis found :

- post-programme improvements in markers of self-efficacy which in many cases were sustained at six- and twelve-month follow-up:
- appreciation physical activity is a safe, beneficial self-management strategy that controls pain;
- behavioural change,

- namely increased physical activity;
- exercise self-efficacy;
- independence and functional ability;
- socialisation; and
- reduced fears and barriers about leisure/community centres.

Participants often described feeling better able to manage their pain and said that they felt they had more control over their condition. They described improvements in pain as a motivator to maintain increased physical activity levels and talked explicitly of using exercise to manage their pain. Most participants described improvements in physical function and these changes were specifically linked by participants to being able to sustain increased activity levels, particularly in terms of informal pastimes such as walking, gardening, housework, shopping, as well as formal exercise and fitness classes. Participants reported improved quality of life – results which were confirmed in quantitative assessment.

Social and community development

In qualitative interviews after ESCAPE-pain, many participants identified aspects of the group element of ESCAPE-pain as the thing they liked most. They talked of enjoying being a part of a group, particularly the opportunity to share experiences and have conversations with one another. Many participants also felt less alone and just knowing that other people experienced similar problems to them was beneficial.

Participants also mentioned that being in a group setting was motivating - observing either other people in the class improve or that other people were worse off than themselves improved their outlook on their condition.

Participants' positive accounts of changes in their emotional wellbeing were frequently linked closely with descriptions of improvements in their social life. The group setting meant they met others with similar problems and made new friends and they described being able to do more socially such as going out to see friends, and how this in turn reduced their isolation and consequently improved their mental health.

Another reason commonly mentioned as a factor in improved emotional wellbeing was the increased control they felt over their condition. Some interviewees reported that their social life continued to be limited by some aspect of their knee/hip condition, and that there had been no change in the extent of that limitation.

Economic development

Analysis of data from a sub-set of 108 ESCAPE-pain participants who took part in a Health Utilisation Questionnaire Survey found that **between baseline and six-month follow up there was a fall in use of health and social care services associated with knee/hip pain.** Participants reported fewer visits to their GP, appointments with a health care professional at a hospital or clinic and hospital procedures or interventions. **The number of prescribed medications fell as did the purchase of over the counter remedies and treatments. This pattern of reduced use of services was sustained to twelve-months**, though there was a tapering of reduction over time. Longitudinal qualitative analysis found evidence of reduced use of health and social care and that this was associated with improvements in clinical outcomes (reduced pain, increased physical function, and improved mental wellbeing.) Analysis identified a close interdependent relationship between interviewees' activity levels and their experiences of pain, physical function, emotional wellbeing, and social participation. The qualitative interviews revealed many examples where participants believed that ESCAPE-pain had delayed the need for knee/hip surgery.

The number of employed respondents in the Health Utilisation Questionnaire Survey sample is too small to establish statistically significant change from baseline to six and twelve-month follow up. There is however some limited evidence these employed participants took less time off work due to their knee/hip condition after ESCAPE-pain compared to before they took part in the programme. The qualitative interviews support the survey findings that participation in ESCAPE-pain was associated with an increase in economic activity. This impact was observed not only in relation to paid employment but also in terms of participants' participation in unpaid work, including

family and home care responsibilities and voluntary work outside the home. There was also some evidence which indicated that some participants who were in employment had altered their working patterns over the twelve-month follow-up period in order to be able to manage their condition more effectively which would indicate reduced levels of presenteeism.

Delivery partner engagement

Delivery partners (- the organisations who were running the ESCAPE-pain classes -) were asked to estimate the number of people they engaged with to find participants who met the project criteria (inactive, aged 55 or older and with knee/hip pain for over three months). Not all partners were able to provide these figures which makes interpretation problematic. About 1,044 'inactive' people started and completed at least 75 per cent of sessions (including those who were not counted as 'inactive' was estimated to be 1,364.) The attrition rate – those who started the programme but did not complete at least 75 per cent of the twelve sessions – was estimated to be 12 per cent. Based on data submitted by 15 organisations for 44 cohorts, the overall average number of sessions attended by participants in these cohorts was 9.66 (81 per cent), ranging from three to twelve sessions.

Changes in physical activity levels

Based on questionnaire data submitted by providers, in participants who were 'inactive' at baseline: 74.7 per cent were active three months later, 69.4 per cent were active six months later, and 68.9 per cent were active twelve months later. Longitudinal qualitative analysis found that at each interview point many intended to maintain their current physical activity levels.

Quantitative analysis of variation in changes in activity levels was conducted by gender, age, disability status and ethnic group. This sub-group analysis was particularly affected by the small numbers of participants for whom data was collected at the six and twelve-month follow-up points. The low numbers mean it is not possible to draw any conclusions about the nature of variations which have been identified at these follow-up points. Generally, compared to younger participants, participants in the older age groups were less likely to report increased engagement in moderate intensity physical activity. The margin between age groups tended to increase over time – improvements in physical activity in older participants appeared to drop off more sharply. However, this pattern is not consistent across all age groups at all follow-up points.

There are marked differences between men and women in terms of their engagement in moderate intensity activity following ESCAPE-pain. However, the pattern is mixed, varies between the different measures and over time. This means it is difficult to draw any conclusions from these variations.

Those with a disability tended to show greater improvements in engagement in low-intensity activity – especially in those participants who were inactive at pre-programme. This is reversed in relation to moderate intensity activity. In both cases, the picture is more mixed at six-month follow-up. The pattern in relation to changes in physical activity in participants from different ethnic groups is mixed. White participants tended to show more improvements overall and over a longer time.

The longitudinal qualitative analysis identified five key factors enabling, driving or motivating physical activity:

- ease of access to suitable opportunities (physical, financial and situational such as having family or home responsibilities to fulfil);
- social networks (particularly the group element of organized regular activities such as the ESCAPE-pain follow-on classes) and professional support;
- observed improvement in outcomes (particularly the knowledge the exercise helps) and achievement of objectives (including avoiding knee/hip surgery);
- personal characteristics (particularly self-motivation and previous experience of exercise); and strategies adopted to make exercise routine.

Participant experiences and perceptions of ESCAPE-pain

During the post-programme qualitative interviews all participants were asked how likely they were to recommend ESCAPE-pain to family and friends. Most said they were 'extremely likely' (n=58) or 'likely' (n=26) to recommend it; two said they were 'neither likely nor unlikely' (n=2) and none said they were unlikely to recommend it. Sixteen interviewees said they had already recommended the programme to friends or family.

Participants were asked how they first heard about the ESCAPE-pain programme. The most common response was

through being signposted or referred by a clinician – most frequently a physiotherapist. Others had heard about the programme from another professional – outside of a clinical setting – most frequently from an ESCAPE-pain facilitator during an exercise class they were delivering at a leisure centre; or heard about the programme from a family member or friend; or had seen or heard material advertising an ESCAPE-pain programme placed in various settings. Interviewees were asked why they decided to participate in the ESCAPE-pain programme. To improve their health condition(s) was the most common response; followed by the physical benefits - to do more exercise; aspects relating to the programme; the convenience of the programme; previous experience of the participant; and advice from a healthcare professional.

Interviewees were asked what they liked about the ESCAPE-pain programme. More than half of all comments related to aspects of the ESCAPE-pain programme itself and most of the other comments were about the group element. Interviewees were asked what they disliked about the ESCAPE-pain programme. More than half said there was nothing they disliked, and the others mentioned aspects relating to the programme, the venue and convenience. All interviewees were asked what they would change about the ESCAPE-pain programme to make it better. Suggestions for improvements fell into two broad categories: changes to the ESCAPE-pain programme itself and changes to extend the length of the programme.

Most participants said that paying for ESCAPE-pain would not have presented a barrier to their attendance but four said they would not have been able to pay had there been a charge. The eight interviewees who were charged to attend were from the Greater Manchester Active (Oldham), Redditch and Suffolk Sport (Whitton) sites. Class prices at these sites ranged from £2 - £3.30 per session.

Facilitator experiences and perceptions

One hundred individuals were trained to deliver ESCAPE-pain as part of this project. Twenty-nine of them took part in a qualitative interview for the evaluation. All expressed overwhelmingly positive views of the training and about the extent to which it equipped them to deliver ESCAPE-pain. Facilitators were wholly positive about ESCAPE-pain, they considered it an effective intervention and reported that they enjoyed delivering it.

Features mentioned as benefits included:

- the osteoarthritis specificity and focus specifically on knees and hips was said to appeal to participants;
- the interactive and social aspects;
- the group intervention generates a strong group dynamic which promotes improvements in individual physical, emotional, and social outcomes;
- holding the course twice a week maintains the momentum and increases the potential for participants to develop a routine of exercising, and means they are doing the exercises at least twice a week even if they do not do them at home between sessions;
- it offers structured sessions, and a holistic approach covering education and exercise.

They reported having received positive feedback from participants and observed positive outcomes. They made no suggestions for changes to the programme itself, however, were frequently critical of the amount of project paperwork.

Facilitators were employed on different terms and conditions to deliver the programme – some were full time employed staff, and others were sessional freelance workers. In most cases, facilitators felt well-supported and said they could focus on delivery. However, facilitators who also had responsibility for set up and were working in isolation in some cases lacked organisational support and may not have had the skillset and/or experience to manage all aspects of operationalisation. These individuals would benefit from increased awareness amongst organisational leads of the additional hours required in supporting activities. Facilitators were aware of their professional strengths and weaknesses. They had Level 3 and Level 4 fitness qualifications, were experienced in delivering group sessions, had wide knowledge of health conditions coming through referral pathways, and felt confident to advise on nutrition and carry out motivational interviewing. They recognised that they had little knowledge of medication, and did not wish to contradict GPs or physiotherapists, who they considered to be experts in their areas. Facilitators were familiar with classes and gym memberships for exit pathways, and often involved in their delivery. This helped with continuity after an ESCAPE-pain programme had finished.

Organisational leads

Delivery partners described the motivation around applying to deliver ESCAPE-pain through the Sport England project in five broad categories:

- project provided resources to deliver pre-conceived plans around ESCAPE-pain;
- clear evidence of local need that ESCAPE-pain was able to address;
- project provided opportunities to develop the organisational offer by expanding their portfolio of services (internal motivation of profit/commercialization);
- project provided opportunities to improve the local physical activity offer by enhancing community services (external motivation of community development); and
- the personal motivation of staff involved.

Organisational leads were overwhelmingly positive about the ESCAPE-pain programme, and about the support they had received from the HIN. The experience of implementing ESCAPE-pain was broadly good, though the contracting process – set up for an NHS Trust – was identified as a problem, and all identified some problems with implementation. Negative comments primarily concerned the project requirements for data collection, although organisations found the data a useful evidence base when approaching funders. Inclusion criteria around inactivity were also criticised; activity levels were difficult to assess and some participants were not sufficiently inactive for the organisation to qualify for funding. Organisations were, however, reluctant to turn away non-qualifying participants so in some circumstances ran sessions at a loss.

There is a strong relationship between the delivery partners' experiences of implementing ESCAPE-pain and the sustainability of delivery. Difficulties with recruitment was the single most frequently mentioned problem with implementation and was also specifically cited as a barrier to sustainability. A range of promotional activities were tested and monitored to find what worked best but the outcome was not always predictable and varied from area to area. Organisations welcomed the opportunity to share promotional ideas and experiences with others.

Exit routes were sometimes already well-established, but where this was not the case, organisations either developed their own routes or researched local community options to ensure ESCAPE-pain completers had exit pathways available. During interviews conducted in the first year of the project, most interviewees were unable to articulate their organisation's plans for sustaining ESCAPE-pain beyond cohorts allocated for the Sport England project. A small number were at a more advanced stage of thinking around sustainability, including one organisation which was developing a strategic plan around ESCAPE-pain with details on maintaining relationships to ensure local clinical referral pathways. Interviewees described two key barriers to the sustainability of ESCAPE-pain beyond the Sport England project: a lack of certainty around organisational funding and the lack of referral pathways to provide participants in sufficient numbers to deliver the programme. Where ESCAPE-pain is embedded within a well-established existing activity on referral scheme interviewees were positive about the potential for long term sustainability. Such programmes typically had a large throughput of clients, and stable funding. In contrast the loss of such a contract was identified as a key factor in one organisation's difficulties with recruitment which ultimately led them to withdraw from delivering ESCAPE-pain. Another organisation identified the threat of losing their exercise on referral contract as a key barrier to sustainability.

Interviewees expressed enthusiasm for continuing to deliver ESCAPE-pain if possible, but this was dependent on finding a sustainable model. Plans for sustainability included: charging participants to attend; revenue generated from subsidized gym memberships for participants after ESCAPE-pain; ESCAPE-pain as a CCG commissioned service; and establishing reliable referral pathways such as ESCAPE-pain as an exit pathway from physiotherapy. The aim was to cover costs rather than to generate profit, but this was sometimes difficult due to staff and venue costs, particularly in rural areas where staff needed to travel to venues in communities some distance away.

Overall, ESCAPE-pain appeared to foster the development of referral and maintenance pathways and support the development of relationships with other local agencies, with potentially wider benefits for public health.

Return on investment

Calculations using NHS Reference Costs indicate that cost savings to the NHS were in the region of £228.46 per respondent over the first six months after ESCAPE-pain and then increased to £261.26 in the following six months. This suggests a total saving over the twelve months after ESCAPE-pain of £490 per participant. Extrapolating this to the estimated 1,364 participants who completed a Sport England ESCAPE-pain programme between March 2018 and January 2020 provides an indicative cost saving to the NHS in the region of £668,000 (£311,620.20 plus

£356,355.28).

The cost of delivery per participant calculated using the formula shown above was £118.48. Extrapolating this figure to the 1,364 participants who had completed a Sport England funded ESCAPE-pain cohort by January 2020 gives a total figure of £161, 600.

These figures give an ROI of 4.13:1 or £4.13 saved for every £1 spent.