


# Factors influencing the implementation of the EuroFIT lifestyle change program in professional football clubs in Europe: a qualitative study in four European countries

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## ABSTRACT

This paper investigated facilitators and barriers to implementing the European Football Fans in Training program (EuroFIT) in professional sports clubs in England, the Netherlands, Norway, and Portugal. We analyzed qualitative data collected at clubs that delivered EuroFIT, based on semi-structured interviews with coordinating staff ( $n = 15$ ), coaches ( $n = 16$ ), and focus group interviews with participants ( $n = 108$ ), as well as data from clubs that considered delivering EuroFIT in the future, based on interviews with staff ( $n = 7$ ) and stakeholders ( $n = 8$ ). Facilitators for implementation related to the content and structure of the program, its evidence-base, and the context for delivery in the football stadia. Financial and human resources were both facilitators and barriers. Further barriers were mostly practical, relating to human resources and infrastructure. Major differences between countries related to experience and commitment to running community projects, and differences in infrastructure, financing, and human resources. Professional football clubs' ability to support health promotion efforts depended on their ethos and the financial and human resources available to them. Overall, the EuroFIT program was well received by clubs, coaches, participants, and stakeholders, which was reflected by the many facilitators supporting sustained implementation. For sustainable implementation, it is crucial that clubs and their stakeholders engage fully with the EuroFIT program and understand that for an adequate program delivery their views (ethos) and ways of working influence the implementation and thereby the effectiveness of EuroFIT. An important prerequisite for future roll out of EuroFIT would be a strong EuroFIT delivery partner organization to ensure financial and human resources while overseeing and guiding the quality of delivery in clubs.

## Lay summary

The European Football Fans in Training program (EuroFIT) led to health improvements in male football fans delivered through professional sports clubs in England, the Netherlands, Norway, and Portugal. This study looked at what factors influenced the implementation of the program. Facilitators for implementation related to the content and structure of the program, its evidence-base, and the context for delivery in the football stadia. Financial and human resources were both facilitators and barriers. Further barriers were mostly practical, relating to human resources and infrastructure. Major differences between countries related to experience and commitment to running community projects, and differences in infrastructure, financing, and human resources. Professional football clubs' ability to support health promotion efforts depended on their

ethos and financial and human resources available to them. Overall, the EuroFIT program was well received by clubs, coaches, participants, and stakeholders, which was reflected by the many facilitators supporting sustained implementation. Yet, an important prerequisite for the future roll out of EuroFIT would be a strong EuroFIT delivery partner organization to ensure financial and human resources, while overseeing and guiding the quality of delivery in clubs.

**Keywords:** Barriers and facilitators, Public health, Sedentary lifestyle, Physical activity, Diet, Football

### Implications

**Practice:** Healthy lifestyle programs can be delivered in football clubs if the program has the credibility of an evidence base, and if coach leaders can see it is well put together, well-structured with good training that nevertheless allows some flexibility in delivery.

**Policy:** Programs are easiest to delivery if football clubs and their professional organizations have experience in and commitment to running community projects, and if financial, facilities, and human resources are available.

**Research:** The systematic approach to deal with cross-cultural settings and differences between the participating four countries can be used as a template for other qualitative studies investigating implementation factors across multiple countries.

## INTRODUCTION

To maximize the impact on public health in a sustained manner, lifestyle change interventions must reach their target populations, and be effective and well implemented [1–5]. However, it is rare for effective lifestyle change interventions to be successfully translated to real-world settings after a research project has ended [6–8]. Even if interventions are adopted, they are often not implemented as designed or are intuitively modified over time to fit the context, resulting in uncertain impact, effectiveness, and sustainability [9]. Although some studies have tried to examine public health interventions in real-world settings [10–13], they have reported that implementation was often not sustained, once researchers stepped back from the role as the main facilitator. As such, there is a need to better understand how effective lifestyle change programs can be implemented and scaled up beyond controlled study settings to achieve long-term health benefits [14, 15].

Planning for real-world implementation should begin during program development and continue during a trial phase by observing and reflecting on factors that influence intervention implementation [16]. In addition, implementation researchers stress the need to use strategies that are designed to support sustainable implementation [17]. Implementation strategies are most helpful if they effectively address the most important factors that either facilitate or hinder the implementation process [18]. Therefore, implementation strategies based on an assessment of the relevant factors that hinder or facilitate the desired changes should be prioritized [17].

The European Football Fans in Training (EuroFIT) program is a gender-sensitized, healthy lifestyle program targeting physical activity, sedentary and dietary behaviors in overweight men, aged 30–65 years, that uses the draw of the football club to attract the underrepresented group of men into healthy lifestyle programs through their football fandom [19–21]. A randomized controlled trial (RCT) showed that EuroFIT led to improvements in physical activity, diet, body weight, well-being, and biomarkers for cardio metabolic health 12 months after baseline measurement, but did not reduce the sedentary time [22]. Later analyses showed the program to be cost-effective from a societal perspective over a period of 10 years, when compared to a no active intervention scenario [23], suggesting the program to be a good

viable public health investment in countries where football is popular [23].

The aim of this study was to understand what factors influenced program implementation during the EuroFIT effectiveness trial to optimize strategies for a real-world implementation beyond the controlled setting. To do this, we wanted to consider the commonalities and differences between the four countries. Therefore, we explored: (i) which implementation factors were perceived as facilitating or hindering the implementation of the EuroFIT program in professional football clubs during the pragmatic trial delivery in England, the Netherlands, Norway, and Portugal and which were perceived as likely to influence program implementation beyond the research setting; and (ii) whether the reported factors differed between the four participating countries.

## METHODS

### Study design and settings

We used an exploratory qualitative research approach to explore factors influencing implementation in various cross-cultural settings to inform the design of implementation strategies for real-world implementation beyond the controlled setting of the EuroFIT trial. Data collection was conducted in two ways [22, 24]: we collected data during the trial in clubs that all delivered the EuroFIT program for the first time, and in parallel, outside the trial, we investigated the views of staff at football clubs that were considered potential future deliverers. The latter also included interviews with stakeholders that could potentially fund or support delivery in football clubs. Qualitative methods were appropriate because we could not specify in advance the potential range of answers each set of participants might make and because we needed to allow plenty of opportunity for varying views to be heard. Each country had a research team connected to the participating universities, while in the UK a representative of football clubs (e.g. Healthy Stadia) also participated in the research team. These teams recruited clubs, supported program implementation, collected, and analyzed data in alignment with the EuroFIT research group. Data collection took place in England, the Netherlands, Norway, and Portugal between February 2016 and March 2017.

## The EuroFIT program

Drawing on the Football Fans in Training (FFIT) program [25], EuroFIT was developed guided by theories of self-termination (SDT) [26] and goal achievement (AGT) [27] theory and, the sociology of masculinity in relation to health and health behavior [28], with experiential input from target users (i.e. male football fans) and football club/community coaches. Men were attracted to the program through their interest in football and their personal connections and loyalties to the football club they supported. EuroFIT was delivered by trained coaches at the football club, weekly, to groups of 15–20 men aged 30–65 with a self-reported BMI  $\geq 27$  kg/m<sup>2</sup>. Each of the 12 weekly sessions lasted 90 min, and included learning about how to increase physical activity, reduce sedentary time, and eat more healthily. The sessions were highly interactive to facilitate mutual learning and the establishment of new group norms around the behaviors mentioned above. Men were taught to use a “toolbox” of behavior change techniques informed by SDT and AGT, from which they could select those that they found most helpful to change their behavior. A pocket-worn, validated device (the SitFIT) was used to self-monitor daily physical activity levels and time spent sitting down [29], and a game-based app (MatchFIT) aimed to encourage between-session social support. Each session included a physical activity training session where coaches supported men to be physically active at their own pace. The sessions took place at the clubs’ home stadium or training grounds, allowing men to gain an “insider view”. After the 12 weekly sessions, one group reunion was held at the club 6–9 months after the start of the program.

## Implementation support for trial clubs

The research team in each country was responsible for securing collaboration with local partners, recruitment of the clubs, implementation support for the clubs, and data sampling during the trial. As part of the trial recruitment, professional football clubs that already focused on public health projects were initially contacted by the research team because they expected these clubs might be interested. If clubs showed an interest, they received additional information about the program, including information on the program’s aims and content, requirements for clubs that participated in the trial, details about how coach training would be delivered, and possible strategies that could be used for recruitment of participants. All clubs received funding to deliver the program as part of the research grant (i.e. to reimburse expenses).

The support for clubs during the trial included support activities when preparing for trial delivery, assistance in recruiting and checking the eligibility of participants against predefined criteria, as well as various forms of tangible and intangible support. To prepare clubs for delivery of the program content with fidelity, the research team developed and delivered detailed manuals for coaches and a two-day training program for club coaches which was delivered in an accessible style. This included encouraging positive “banter,” making sessions enjoyable, promoting a “team” environment, promoting positive motivational strategies, and using interactional styles congruent with other (predominantly) male contexts [14]. Coaches were taught about the importance of graded physical activity, as well as warm-up activities to prevent injuries [15]. Coaches were trained to guide participants through the “educational” content of the program,

helping participants choose from a “toolbox” of behavior change techniques (including setting and reviewing goals for behaviors and outcomes, action planning, self-monitoring, and information about health and emotional consequences of change) and in emphasizing personally relevant benefits of behavior change (e.g. being better able to fulfill valued activities and roles).

During the trial, researchers had regular contact with the coaches and the club managers through email and phone to answer any questions which arose. Researchers observed two sessions at each club and provided feedback on implementation to the coaches.

## Participant recruitment for this study

During the trial, interviews/focus group discussions (FGDs) were held with: (i) EuroFIT trial participants, (ii) coaches responsible for delivering the sessions at the clubs, (iii) club representatives (i.e. community managers or leaders involved in the decision making), and (iv) other stakeholders potentially relevant for future implementation of EuroFIT. Men were eligible to participate in FGDs if they attended at least 6 of the 12 program sessions and were purposively selected per country to achieve a range of ages. Each FGD took place at the football club and was led by one or two trained moderators of the research group. Coaches and club representatives were eligible to participate in an interview if they had been personally involved in the recruitment, delivery, or organization of sessions of the EuroFIT program at their club. One club representative and at least one coach were interviewed at each of the trial clubs in each of the four countries.

To gain insights into factors influencing the decision to start a EuroFIT program, we also recruited other club representatives, coaches, and supporter liaison officers at professional football clubs, *not* involved in the EuroFIT trial. To avoid selection bias, we approached clubs in a random order until we achieved two clubs per country willing to participate in the interviews. Finally, researchers in each country’s team conducted interviews with stakeholders who might influence future implementation and scaling up of EuroFIT: (i) staff leading football leagues or other football-related organizations; (ii) national or local politicians/policy makers; and (iii) potential funders (e.g. health insurance companies, main sponsors of football clubs, charities). Types of respondents differed in each country to accommodate variations in the local settings.

## Data collection procedures

We developed standard operational procedures and topic guides for the interviews and FGDs for this particular study, guided by templates previously reported [30–32]. All topic guides were developed in English and then translated into Dutch, Norwegian, and Portuguese. Both interviews and FGDs were conducted by local qualitative researchers who were fluent native speaker in Portuguese, English, Norwegian, and Dutch (MNS & HVP (PT), CB, AG & SW (UK), ØR, MS, FEA (NOR), and FvN, JJ & IvdG (NL)) and took place at the football club. All interviewers had previously conducted qualitative research studies and were experienced social scientists, psychologists, or public health researchers. All members of the research team who were active in interviewing and analysis received a two-day training on these procedures. Regular team debriefing meetings with peer

feedback were organized to ensure that data collection and analysis were conducted consistently and to allow for reflexive discussion of the way we were collecting and analyzing data. All interviews and focus group participants gave written consent before participating in the study. Each interview or FGD was audio recorded with the permission of all participants and transcribed verbatim in the local language [32].

The FGDs with men who participated in the EuroFIT program aimed to find out what men thought of the program, any impacts it had had on their lives, elements of the program they viewed as helpful or unhelpful in supporting them to make changes, and any suggested changes to the program.

Interviews with club representatives and coaches in trial clubs aimed to find out what coaches and club representatives thought of the program and their experiences during the delivery. They were also asked what they perceived worked or did not work when planning and initiating the program, barriers and facilitators experienced during implementation within the trial, and their views on (conditions needed for) their continuation of the program.

Interviews outside the trial aimed to find out what potential non-trial clubs and stakeholders thought of the EuroFIT program as described to them and to investigate the potential barriers and facilitators for adopting and implementing the program in their own clubs and their ideas on scaling up models.

## Analysis

We used a structured thematic framework approach to analyze the qualitative data [24]. A detailed description of the six analytical steps is described in Table 1.

The codebook for analyzing the data sets in each country was guided by a modified version of The Integrated Checklist of Determinants of practice (TICD-framework) (Appendix 1) [33]. The modified TICD framework was used to categorize the factors that were inductively identified from the data into one of the seven domains of the framework. To be consistent with the TICD terminology we have used the term “factors,” where a factor could be a facilitator in one club, but a barrier in another club. We adjusted the names of the seven TICD domains to better reflect the sports and public health context: (i) program factors; (ii) club/coach factors; (iii) program participant factors; (iv) professional interaction factors; (v) factors related to resources and incentives; (vi) factors related to capacity for organizational change; and (vii) wider social, political, and legal factors (see Table 2).

Thereafter, an overall synthesis of findings took place related to the barriers and facilitators for implementation in the countries and clubs and factors influencing scale up beyond the research setting.

## Ethical approval

Ethical approval was obtained from the country-specific ethics committees, that is, Ethics committee of the VU University Medical Center [2015.184], and Ethics committee of Radboud university medical center [2016–2663], the Netherlands; the Regional committees for medical and health research ethics, Norway [2015/1862]; Ethics Council of the Faculty of Human Kinetics, University of Lisbon [CEFMH 36/2015]; and Ethics Committee at the University of Glasgow College of Medicine, Veterinary and Life Sciences [UK]

**Table 1.** | Six stages of data analysis approach

**Step 1. Familiarization and initial coding.** Researchers independently read three transcripts from different clubs from three\* countries first line by line. For each line or subsection that carried meaning, the text was highlighted and assigned a code (in English).

\*Because of the different timing of the football season, Norway started data collection later and used the shared codebook developed based on data of the other three countries. Therefore, during the initial coding phase researchers in Norway read transcripts from FGDs and interviews conducted in England for this part.

**Step 2. Developing a consolidated codebook.** During a two-day face-to-face meeting, researchers from the four countries shared and discussed the initial codes. An affinity diagram was developed by assembling similar codes into groups, discarding duplicate codes, and assigning groups of similar codes a descriptive label. The results were used to consolidate a codebook (coding template; see appendix 1) guided by Flottorp’s TICD-framework [33] to categorize the factors that were inductively identified from the data into one of the seven TICD domains.

**Step 3. Coding and indexing.** The initial coding of the first three transcripts was adjusted using the codebook and the remaining transcripts coded against the consolidated codebook in each country. Regular conference calls were organized, following a consensus approach, in order to refine the codebook as other codes arose during the analyses. Each group provided the lead researchers with a standardized report that summarized the findings for each of the TICD framework domains with illustrative quotes in English, translated by the researchers for interviews from the Netherlands, Norway, and Portugal. The reports also included any country-specific themes.

**Step 4. Charting.** The lead researchers (IvdG, AH, MNvdS, TvA) analyzed the reports, and made Excel charts displaying the patterns of codes to identify similarities and differences across different stakeholders and across countries. This charting was done in dialogue with the researchers in the four countries.

**Step 5. Coding interviews outside the trial clubs.** After the data had been collected in the non-trial (new) clubs, the same codebook was used and additional codes were made if needed using the same approach as in Step 3. The reports also included any country-specific themes. We followed the same charting process detailed in Step 4.

**Step 6. Synthesis and drawing conclusions.** Findings were summarized and mapped onto the domains of the TICD framework [33], resulting in an overview of factors crucial to the implementation and scaling up of the EuroFIT program. A draft set of findings and conclusions was returned to the researchers from each country and the consortium for feedback and to verify that cultural and linguistic meaning were not lost in the translation. After this, the findings were presented and discussed in a general meeting with all project researchers.



**Table 2.** |TICD domains [33] adapted to the EuroFIT program and their descriptions

Domains TICD checklist	EuroFIT domains	Description EuroFIT domain
Guideline factors	Program factors	Any factors that relate to the intervention, the materials or evidence for the program. Also includes the compatibility of the program with regular tasks in terms of how well the program fits the club and the feasibility of running the program the way it is designed; also includes factors related to the development of the program
Individual health professional factors	Club/ coach factors	Any factors that relate to the knowledge, skills, and qualities of coaches that are needed to deliver the program as designed; any factors that relate to the motivation, beliefs, and attitudes of clubs or coaches that influence the implementation of the program. Also includes club culture aspects
Patient factors	Program participant factors	Any factors that relate to the needs, preferences, or behavior of participants regarding the intervention
Professional interactions	Factors related to professional interaction/networks	Any factors that relate to influences or wider local, national or international networks of clubs and coaches, for instance: coaches influenced by professional organizations, professional networks, prevailing norms or opinions of colleagues, football league organizations, or amateur football clubs. Also includes local collaborations with other partner organizations, such as healthcare organizations or universities
Incentives and resources	Incentives and resources	Any factors that relate to financial resources (funding) and human resources (such as the availability of or access to coaches) and any other resources needed to implement the program. Any factors related to financial and non-financial incentives. Also includes factors related to quality monitoring as incentive
Capacity for organizational change	Capacity for organizational change	Any factors that relate to the mandate, decision making, leadership, organizational regulations, organizational rules or policies, the priority to make a change
Social, political, and legal factors	Social, political, and legal factors	Factors that relate to the wider social and political environment, legislation, political decisions, macro budgets, corruption, influential stakeholders

[200140174]). Written informed consent to participate in the study was obtained from all participants.

## Results

### Recruitment and collected data

In total, 15 FGDs were conducted with 106 of the 560 (19%) men who had participated in the EuroFIT program during the trial. We succeeded in reaching men with a wide range of ages (see Table 3). All club representatives ( $n = 15$ ) and coaches ( $n = 16$ ) from trial clubs accepted the invitation for an interview. In England, two non-trial clubs were approached for an interview and both agreed. In the Netherlands, two out of six approached clubs agreed and were interviewed. In Norway, two out of four clubs agreed, of which representatives from two were interviewed. Finally, one of the three invited clubs was interviewed in Portugal. Reasons for nonparticipation were lack of interest ( $n = 3$ ), not being able to get into contact with the right person at the club ( $n = 1$ ), a lack of response after initial contact ( $n = 2$ ), a lack of time and resources ( $n = 1$ ), and logistical issues with scheduling interviews ( $n = 1$ ). See Table 3 for a detailed overview.

### Barriers and facilitators for the implementation of EuroFIT

All barriers and facilitators could be categorized according to the TICD framework [33] and no new domains were found. Below, the most important factors across all seven domains are described. Illustrative quotations [Q] related to specific domain factors [D] are displayed in Table 4.

### Program factors

Both trial clubs and non-trial clubs representatives thought that using the CLUB BRAND in recruiting men and delivering the program was an important appealing factor and should be capitalized on in future implementation [D1/Q1]. Furthermore, club representatives and coaches reported that the CONTENT AND STRUCTURE of the program was facilitating factor for delivery. They liked the order of activities and the extent to which the program offered flexibility, within the provided guidelines, to run a session in a way that fits the clubs' facilities and, in particular, the spirit in which the sessions were delivered. However, some trial clubs representatives reported that the lack of flexibility in the delivery of the overall program structure would hinder them during the further rollout. They would like to change some parts of the content and structure for future deliveries, such as adding more regular football to the program, because of participant demand.

TIME MANAGEMENT was a barrier frequently mentioned by coaches delivering the program. Some coaches felt there were too many activities in the sessions, making it hard to keep the session time to 45 min [D1/Q2].

Trial clubs considered SitFIT and MatchFIT as attractive DEVICES to motivate participants to reduce sedentary behavior and increase physical activity. On the other hand, one of the main program-related barriers concerned technical and procedural issues around SitFIT and MatchFIT, such as broken devices, problems with registering to MatchFIT, and/or with uploading SitFIT data in the MatchFIT app. For future implementation, coaches reflected that technical functionality and procedures for assistance should be in place.

**Table 3.** | Data collected and characteristics of respondents

Data collected during trial			Data collected for non-trial clubs		
	Focus groups with program participants	Interviews with club representatives in trial clubs	Interviews with coaches in trial clubs	Interviews with club representatives, coaches, and supporters liaison officers in non-trial clubs	Interviews with other stakeholders
England (5 trial clubs)	<i>n</i> = 5; <i>n</i> = 36 men	<i>n</i> = 4	<i>n</i> = 5	<i>n</i> = 6	<i>n</i> = 3
The Netherlands (4 trial clubs)	<i>n</i> = 4; <i>n</i> = 28 men	<i>n</i> = 5	<i>n</i> = 5 <sup>a</sup>	<i>n</i> = 6	<i>n</i> = 4
Norway (3 trial clubs)	<i>n</i> = 3; <i>n</i> = 18 men	<i>n</i> = 3	<i>n</i> = 3	<i>n</i> = 4 <sup>b</sup>	<i>n</i> = 3
Portugal (3 trial clubs)	<i>n</i> = 3; <i>n</i> = 24 men	<i>n</i> = 3	<i>n</i> = 3	<i>n</i> = 6	<i>n</i> = 2 <sup>c</sup>
<b>Total</b>	<b><i>n</i> = 16; <i>n</i> = 106 men</b>	<b><i>n</i> = 15</b>	<b><i>n</i> = 16</b>	<b><i>n</i> = 22</b>	<b><i>n</i> = 12</b>
Characteristics of the respondents			Participants ( <i>N</i> )	Age in years ( <i>range</i> )	Interview duration in minutes ( <i>mean</i> )
Trial participants focus groups			106	30–65	73
Club representatives trial clubs			15	24–64	57
Coaches trial clubs			16	19–56	86
Club representatives non- trial clubs			8	24–63	57
Coaches non- trial clubs			6	26–48	34
Supporters liaison officers non- trial clubs			8	34–68	26
Other stakeholders			8	28–55	53

<sup>a</sup>Two coaches were interviewed separately in 1 club.

<sup>b</sup>No coach interviews in these Norwegian clubs.

<sup>c</sup>One respondent had the role of potential funder and football stakeholder at the same time.

Another barrier reported by trial clubs was that they had been confronted with questions related to PROGRAM CONTINUATION. Although all men knew that the program lasted 12 weeks and that just one follow-up session would be scheduled, the coach and the club still struggled with men's requests for follow-up activities or continuation of the program, while participants expressed their wish to keep on having weekly meetings at the club [D1/Q3].

Trial club representatives also valued the CREDIBILITY of the program because it was evidence- and theory-informed, underpinning the program would legitimize future implementation of the program and this was considered crucial in negotiations with stakeholders and funders. This, and the association with the research groups in each country was a facilitator that would help its future implementation.

### Country specific factors

Overall, all trial clubs in the different countries reported similar views on the program, but a few differences stood out. In the Netherlands, club representatives and coaches strongly expressed the need for FLEXIBILITY AND INNOVATION, that is, tailoring the program to their club constraints and facilities. Although flexibility could oppose program fidelity, it was regarded as a must for sustained implementation. This was less reported in other countries. Notably, stakeholder interviews in England also revealed that there were COMPETING PROGRAMS on the market in the UK (e.g. FFIT,

FanActive, Walking football programs), which could influence the decision about whether to adopt and implement the EuroFIT program.

### Club/coach factors

Interview data from both trial and non-trial clubs revealed that the main factor influencing implementation relates to CLUB ETHOS, their internal values, and the extent to which a club is embracing a corporate societal responsibility (CSR) strategy [D2/Q1]. In some clubs, the EuroFIT program perfectly fitted the club strategy and values, and it added value to other CSR projects; whereas in other clubs the strategy and vision of the club were predominantly focused on football performance and on economic value [D2/Q2].

In some trial clubs, respondents mentioned that having access to CLUB FACILITIES during the program was a major facilitator; trial participants in particular saw this a major attraction of the program. However, other clubs experienced difficulties in scheduling sessions and finding the facilities needed to deliver the program, which hindered the implementation of the sessions. Consequently, they had to find solutions, often outside the stadia and sometimes even on a weekly basis [D2/Q3].

Interviews also showed that coaches were often the driving force for program delivery. Their skills, QUALITIES AND ENGAGEMENT, were seen as facilitating factors for implementation. Participants and club representatives felt that the coaches were truly engaged [D2/Q4].

**Table 4.** | Data extracts related to barriers and facilitators for the implementation of EuroFIT

EuroFIT domains	Factor	Illustrative quote
Program factors	Club brand	[D1/Q1] I think the entry point here; in coming closer to the club—and in having that passion for football.... then I think the threshold for joining such a program is lower than it would have been otherwise (NOR, Club representative from non-trial club, Club 02)
Program factors	Time management	[D1/Q2] “Time management within the session was hard, besides the content we have tried to listen to the participants, this was really important but time consuming, but we felt that they really needed to share, and thus, it was impossible to accomplish the time deadline for the theoretical component...” (Portugal, interview coach, club 415)
Program factors	Program continuation	[D1/Q3] Which is a...-which is a downside of it is that the...the way that it's been set up is that the...the guys at EuroFIT at [club name], right, haven't planned or thought about the fact that we'd want to carry on... (England, club 103, focus group participants)
Club/coach factors	Club ethos	[D2/Q1] We thought it was great to sort of be able to do something for our fans in relation to health... it is nice to sort of be able to say that we also want our fans to have good health and be able to change their lifestyle (Norway, Club representative, club 312)
Club/coach factors	Club facilities	[D2/Q2] “Here what matters is football... no offense to EuroFIT... but it is the way things are here...” (Portugal, interview club representative, club 414)
Club/coach factors	Quality and Engagement	[D2/Q3] “Booking facilities was the hardest part... it took a lot of time... and sometimes it was not easy to convince other club departments...” (Portugal, interview coach, club 414)
		[D2/Q4] P6:... when they saw that you actually put down effort, [that] you did something to do your best under the circumstances that you have, and they were really good at selecting and... [pause] “that is well done! I can see you are really going at it now” [impersonating the coach], right? And it is that positivity which I think is so good with those two coaches that we've had, that... they have sort of fitted very well together, and then they have been good at engaging themselves as well. An immense engagement from both -
		P2: Agree
Club/coach factors	Commitment	P6: - and that has been fantastic! (Norway, participants focus group, club 310)
		[D2/Q5] “We have just coordinated it, and then you [the University] have delivered it, but outsiders do not need to know that... it (the program) has not been delivered with any anchoring [in the club] or enthusiasm [from the club]” (Norway, interview club representative, club 311).
Club/coach factors	Fan size	[D2/Q6] “Big clubs will have the structure to implement this, but small clubs with very small fan bases and very limited resources, both financially and practically, will not want to focus on this... they are struggling to be kept alive” (Portugal, interview with stakeholder).
Club/coach factors	Club Rivalry	[D2/Q7] We need to put something of ours in the program (...). We cannot keep repeating the same thing; we need to innovate (...). A major barrier would be the program to be seen as always the same... “Oh they are doing the same, more than 20 times!!!” ... We need to add a plus every time... (...) Furthermore we don't want to do the same as the other clubs, that way we will lose interest from our fans. We need specificity... (...) We need differentiation, for example using a different name with our brand also. (Portugal, interview club representative, club 413)
Participant factors	Willingness	[D3/Q1] “It has been an amazing chemistry (in the group) where we have all backed each other up and talked positively about each other. We have had so much fun and laughter, that to me, the Tuesday evenings have been a blast”. (Norway, focus group participants, club 310)
Participant factors	Participant characteristics/preferences and expectations	[D3/Q2] “I think it was neither difficult nor easy. It demanded a lot from us. (...) some participants talked a lot, others were quiet... both of the situations represent a different peril or possibility and have to be managed” (Portugal, Coach interview, Club 415)
Factors related to professional interaction/networks	Growth through reputation and ambassadors	[D4/Q1] “Feedback from [names of the existing participating clubs]. That is really, so, a testimonial from other clubs is always positive. What have they gotten in return from this? That, yeah, to get them to talk warmly about the project, get them to be less offensive, that will help (Norway, stakeholder interview, football organization)

**Table 4.** Continued

EuroFIT domains	Factor	Illustrative quote
Incentives and resources	Financial resources	[D5/Q1] “Our club has its own sponsors from several domains... not only for the football component but for other amateur sports... we have some facilities that are very crowded, thus the sponsors like to see their logo on those facilities... they can sponsor not only with money, there are other ways to help... for a project of this kind maybe some entities would have interest... we would have to see how to make it visible” (Portugal, interview club representative, non-trial club)
Incentives and resources		[D5/Q2] “Finding a sponsor, amongst our own sponsors would not be difficult but that would not work because it would be a very limited temporal solution. Sponsors change from season to season...” (Portugal, interview club representative, club 415)
	PR for club	[D5/Q3] “And, reputation-wise, a very good project for the club. Without a doubt. We had the front page of the [name of regional newspaper]... but then I think also that all from, all who work here to all the board members, they were, no one was doubting what EuroFIT really was about” (Norway, club representative interview, club 310)
Incentives and resources	Stakeholder interest	[D5/Q4] “We have our own Facebook-page. And we have quite regularly posted messages, maybe once every two or once every three weeks. And a lot of people from the EuroFIT groups ‘liked’ our page. We just saw that there was a lot of traffic on the pages so to say. It attracts quite a lot of people, around the 2 and 4, 5 thousand... erm ... viewers. Not the ‘likes’, but the real viewers. So those are the people who have seen it. Whereas, usually that number is between 700 and 1000, so this was really... erm yes... massive”. (The Netherlands, interview club representative, club 209)
Capacity for organizational change	Decision-making	[D5/Q5] “I mean, it would have to be club-specific sponsors because, you know, when... for example, if it was like, let’s say it’s sponsored by [Brand 1] or something... we can’t really do much because we’re [Brand 2].” (England, Community Manager, Club 101)
	Leadership	[D6/Q1] “I think potentially a change of ownership might be a barrier for the football club itself because you don’t know what other people think. We’re in that situation presently, the staff that we work with up on the club side presently are quite supportive but you never know, things change within the football club because that could be a barrier or it could be a massive benefit, they could buy into everything that we do and then it becomes a massive plus. Alternatively, they might think, well, we’ll just get on with what we do, so that could be a barrier.” (England, club representative, Non-trial Club 1)
Capacity for organizational change	Organizational structures	[D6/Q2] “Starting from this year a specific department for social responsibility related projects was created. I would say that talking about budget for this it would be possible from now on...” (Portugal, interview club representative, club 413)
Social, political, and legal factors	Funding for public health initiatives	[D7/Q1] “In [city name] the Public Health budget has been severely cut over the last four years.....Public Health [city name] have gone from fifty-two staff to twenty-six. And their budget has just been cut by another six per cent for next year. So that... ‘cause that’s where we’d... would have originally looked for funding for a men’s health project would have been Public Health but they just haven’t got the budget for it” (England, Community manager, Club 103)



### Country specific factors

In the Netherlands, trial clubs and non-trial clubs mentioned that very few other programs were targeting male football fans, which facilitated and would facilitate (future) implementation of EuroFIT.

In Norway, a trial club representative acknowledged their lack of COMMITMENT for running community projects, due to a lack of infrastructure and coordinating organization on CSR activities. These clubs saw EuroFIT as a one-time project with a clear endpoint, which potentially could be a barrier to the sustained implementation of EuroFIT [D2/Q5].

In Portugal, the major barrier pertained to the lack of a previous track record concerning health programs running in football clubs (no tradition existed). Furthermore, given the overload of sports activities already occurring in club facilities (in the absence of a health promotion organized structure), there were large differences in how trial clubs managed access to FACILITIES. Non-trial clubs stressed that the FAN SIZE was also a major barrier to nationwide scaling up [D2/Q6]. All three trial Portuguese clubs stated that they would want to re-brand the program (use their own name) in order to distinguish the program from their RIVAL CLUBS during future implementation [D2/Q7].

Given the long history of running projects through their Community Sports Trusts or Charitable Foundation model, clubs in England generally had appropriate capacity and facilities and already established financial models which facilitated implementation. One club experienced difficulties in accessing club facilities for weekly meetings.

### Participant factors

A strong facilitating factor for implementation was the WILLINGNESS and the high level of interest expressed by fans to participate in EuroFIT. According to coaches and club representatives of the trial clubs, participants were generally very ENGAGED, committed, and POSITIVE about the program [D3/Q1]. Barriers for program delivery were certain PREFERENCES and unrealistic EXPECTATIONS about the program with some individual participants, such as expecting to participate in a project specifically about playing football instead of a lifestyle change program for people with a generally low level of fitness as a starting point. Small numbers of men expected more guidance on healthy eating (e.g. diet schemes); others, mainly those who were already quite fit at the start of the program, wanted more time for physical activity. Some coaches perceived this difference in the physical fitness status of men at the beginning of the program as a barrier to program implementation. GROUP DYNAMICS were another factor that was related to the extent to which the program could be delivered as designed. The group dynamics could be either facilitator or barrier for program delivery [D3/Q2].

### Country specific factors

In all countries, participant RECRUITMENT and ENGAGEMENT appeared to have a positive impact on implementation. In Norway, one club reported geographical distance as a barrier for implementation. There are thinly populated areas in Norway resulting in long traveling distances to the club, which meant that some stakeholders believed this might influence participants' decision to participate during all 12 weeks. In Portugal, it was noted that the lack of similar programs run by football clubs facilitated the recruitment of participants

(recruitment strategies were only email-based and the enthusiasm was huge around it) and generated interest around this type of program for football fans.

### Factors related to professional interaction/networks

Coaches and club representatives of the trial clubs welcomed the opportunity to learn from other (European) clubs and to EXTEND THEIR NETWORK. Partnering with and RESEARCH GROUP SUPPORT during the trial was also regarded as a strong facilitator, because of the support and project coordination that clubs had received from researchers. However, the fact that they had to wait for the outcomes of the study after 12 months and therefore could not yet see data on success, hindered future implementation; clubs expressed the need to continue with the program and not wait for the final scientific publication reporting its effectiveness.

Finally, for future implementation, respondents from non-trial clubs indicated that it would be a huge facilitator when clubs heard about EuroFIT from clubs that were already delivering the program, for example through AMBASSADORS for the project on a national level and across Europe [D4/Q1].

### Country specific factors

When staff in both trial clubs and non-trial clubs reflected on the potential for a national scaling up of EuroFIT, interviewees reported that, in Portugal and Norway, there was a LACK OF INFRASTRUCTURE and no overall COORDINATING ORGANIZATION for CSR activities in professional football clubs. This was reported as a barrier for the future implementation of the EuroFIT program. On the other hand, due to the lack of EXPERIENCE/tradition in Portugal, the engagement in EuroFIT made policy stakeholders more aware of their need to support national roll out. The novelty was also a facilitator for recruitment, with club fans being really enthusiastic and responsive to recruitment messages.

### Incentives and resources

Interviews with staff in both trial clubs and non-trial clubs showed that FINANCIAL RESOURCES were seen as a precondition for implementation and, conversely, lack of funding to deliver the program was seen as a barrier. The fact that clubs received payment to cover the costs of delivering the program in the trial delivery was seen as a facilitator for implementation by some clubs. Some trial and non-trial clubs thought that finding financial resources for delivering the EuroFIT program would be feasible [D5/Q1]. However, trial and non-trial clubs expressed their concerns with regard to sustainable funding for delivery [D5/Q2].

HUMAN RESOURCES were reported both as a facilitator and a barrier for implementation. In some clubs, access to a pool of adequately trained coaches, stability within the coach team, and the easy appointing or hiring of adequately trained coaches were reported as facilitators. In other clubs, a lack of human resources or instability in the coach team or the management team were reported as a barrier.

In both trial and non-trial clubs, respondents mentioned an important incentive: the EuroFIT program provides clubs with the opportunity for positive PR, such as building a reservoir of goodwill and generating POSITIVE MEDIA EXPOSURE [D5/Q3/Q4].

Interview data from both trial and non-trial clubs revealed that **STAKEHOLDERS' INTEREST** affected the activities in football clubs and their CSR activities. Different kinds of stakeholders have an interest, a right, a claim, or even an ownership in football clubs. These stakeholders can have different views on community work in clubs and different views on which target groups should be prioritized (e.g. youth, elderly), may have different demands, or even have conflicting interests. As a consequence, some club representatives noted that existing sponsor deals might block deals with potential EuroFIT sponsors [D5/Q5].

#### Country specific factors

Staff in Dutch and Norwegian clubs were more likely to say that they had limited **HUMAN RESOURCES** to deliver the program, which affected their views of their roles and their ways of working in community projects. For example, Dutch clubs said they might need to hire external coaches, which was regarded as a potential barrier for sustained implementation. In Norway, coaches were likely to be football coaches at the club. For sustainable implementation, coaches might have to be recruited from the youth department or hired on an external basis. In Portugal, coach qualities and engagement were, in particular, crucial to implementation success. All Portuguese coaches were graduates in Physical Education and some had a master's degree. Participants noted that they were extremely engaged and involved, which in turn facilitated implementation. In England, no lack of **HUMAN RESOURCES** was experienced, as the clubs interviewed had a large team of club managers and well-trained coaches, who could provide expertise in running a health promotion project. However, they did report experiencing a high turnover in coaches and personnel, which was perceived as a barrier to sustained implementation of EuroFIT.

#### Capacity for organizational change

Interviews with staff in both trial and non-trial clubs, and their stakeholders, indicated that the establishment of well-run club departments with a specific remit for community projects and past **EXPERIENCE** with health projects serve as a major facilitator for programs like EuroFIT. Conversely, the absence of CSR departments and/or other **ORGANIZATIONAL STRUCTURES** in the England, and the lack of experience with this kind of project within both trial and non-trial clubs, were regarded as major barriers.

Other factors identified were the importance of **DECISION-MAKING** and **LEADERSHIP**. In most clubs, the decision-making to take part in the EuroFIT project was perceived as easy, with a community manager having the mandate to make a decision and no strong hierarchical procedures hindering the implementation. However, interviews in trial clubs showed that, in some clubs, the decision-making process did not run smoothly. It was also reported that (new) owners or club leadership and management could take the club in a different direction that may disrupt community work [D6/Q1].

#### Country specific factors

In general, clubs in the Netherlands and England have adopted the model of community foundations or trusts, but in clubs in Norway and Portugal, **ORGANIZATIONAL STRUCTURES** regarding community health projects are less well-developed.

One of the Portuguese clubs mentioned that, after the trial, the club was about to invest in establishing a specific department for CSR projects [D6/Q2].

Interviews with non-trial clubs showed a difference between larger and smaller clubs in both Portugal and Norway, with smaller clubs saying they lacked the structures, resources, and power to start up CSR projects at all. The smaller clubs were seen to be struggling to stay alive and financially viable. In addition, the interviews revealed that some smaller clubs also worried about the size of their fan base and the power of the club brand to make the EuroFIT program a success.

#### Social, political, and legal factors

Staff in both trial and non-trial clubs suggested that the **FIT OR NON-FIT WITH NATIONAL OR LOCAL HEALTH AGENDA** could affect the implementation of EuroFIT. Where the focus and aims of the EuroFIT program were seen to be in line with a broader health agenda and funding priorities, this is a facilitator for future implementation of the program. However, if a political or club agenda and funding priorities were focused on other topics not reflective of the EuroFIT aims, this was a barrier for the future implementation of the program. Some respondents also mentioned the difficulties of finding **FUNDING FOR PUBLIC HEALTH INITIATIVES**, and the procedures and barriers that come with funding applications. One of the particular issues mentioned by stakeholders was that the EuroFIT program was delivered to small groups ("only 15 men per group") and they were concerned that such programs were not making a big public health impact at a population level [D7/Q1].

#### Country specific factors

No clear difference between countries was observed.

## DISCUSSION

The aim of this study was to explore factors that either facilitated or hindered the implementation of the EuroFIT lifestyle change program in professional football clubs in four European countries. We used the TICD framework [33] to structure analysis and identified implementation barriers and facilitators in each of the seven domains. We found that football fans were eager to participate in the EuroFIT program and coaches were the key people in successful delivery across all countries. In addition, stakeholders within and outside the clubs were enthusiastic about the program. However, they also wanted evidence about the effectiveness of the program, which was mentioned as an important decision factor for large-scale implementation. In most cases, barriers and facilitators at the level of capacity for organizational change within the clubs were two sides of the same coin and connected to social, political, and legal factors. Important differences between countries were related to the congruence with local and national health priorities and an alliance with national public health organizations with similar health agendas and the availability of financial and human resources which were seen as crucial for future scale-up.

Overall, the credibility of the content and quality of the delivery of the EuroFIT program was met with enthusiasm by participants, coaches, and managers in trial clubs,

and considered favorable for future deliveries in the non-trial clubs. We would argue that the perceived credibility of EuroFIT was mainly due to the rigorous approach to the development of the program and the years of experience with FFIT which have contributed to its adoption in the trial clubs [34]. EuroFIT builds largely on the physical activity, healthy eating, and body weight management components used in the successful UK-based FFIT project [35, 36]. However, EuroFIT extended the FFIT program by drawing more explicitly on motivational theory-derived mechanisms, like task-oriented goals [26, 27] and self-regulation techniques, including self-monitoring to promote more autonomous motivation [37]. EuroFIT, as with FFIT, was also informed by sociological theory [28], particularly in relation to how various performances of masculinity relate to health-related behaviors [38]. Finally, core components of the EuroFIT program were co-developed with end-users (coaches/trainers and fans) who helped shape the final form of the program. Involving end-users in the development of a program ensures that the program fits the needs and capabilities of end-users which contributes positively to the successful implementation of a program [39].

In 2014, Kokko proposed that sport clubs could provide settings for health promotion and highlighted the importance of a whole-setting approach rather than just individual responsibility when promoting health [40]. This systematic mapping review on health promotion interventions in sport clubs (mainly in Europe and Australia) containing different sport settings (soccer, rugby, multiple team, or individual sports) and different target groups (sport participants, coaches, youth, etc.). They translated comparable levels of facilitators and barriers into 14 guidelines for health promotion in sport clubs [40]. When comparing the guidelines to the EuroFIT program, the guidelines link to factors found in our study to influence the implementation of EuroFIT program and should be addressed in future real-world settings. However, the guidelines do not emphasize the use of evidence-based programs. In our study, this factor was regarded as important by some respondents while other stakeholders wanted to start with the implementation without waiting for the results of the trial.

In line with implementation guidelines proposed by Geidne (2019) [41], we used a pre-planned overall process evaluation to closely monitor the program delivery fidelity in the clubs during the trial [24]. Such a monitoring program should be part of the implementation plan. In addition, clubs strongly expressed that they needed to adapt the program to the context of their club. However, this was also mentioned as a risk factor as adaptations should not lead to losing the key success factors. The importance of mutual adjustment between program developers (i.e. researchers), program providers (i.e. participants, coaches, clubs), and program implementers has become increasingly recognized [42, 43]. To maintain fidelity, we suggest that flexible adaptation should be possible for the *form* of delivery (if explicitly described), but without touching the *function* of the program activities as these are crucial for its effective mechanisms.

Understanding how implementation works are needed to ensure that interventions proven effective to achieve optimal outcomes in daily practice. Durlak and DuPre (2008) analyzed 500 studies with promotion and prevention programs and found strong empirical support that the level of implementation influences the outcomes obtained [44]. They also

emphasized that an ecological system is crucial to organize and tackle contextual factors. They concluded that key elements of the delivery system relate to organizational capacity and a support system in the form of training and technical assistance. There needs to be some type of organizational structure responsible for guiding the implementation of a new innovation or program or a road map to developing such a structure. This can be a new organization or an existing community-based organization. In our facilitator and barrier analysis, we found comparable contextual factors in the organizational and support context that needs to be taken into account while when implementing EuroFIT in the future in a sustainable way.

In recent years, theoretical implementation science approaches have emphasized the understanding of what works for whom and why, with three overarching aims: (a) guiding the process of translating research into practice (emphasis on the process), (b) understanding or explaining what influences the implementation (determinants, implementation theories), and (c) evaluation frameworks (how to measure the level and success of implementation and the relationship to the outcomes) [45]. However, there is scarce literature on the implementation of health promotion programs in sport settings. In this study, we choose to learn from the research setting and analyzed the influencing facilitators and barriers, also defined in literature as determinants for implementation. We searched for insight in the determining factors to learn which facilitators can be used and which barriers need to be tackled to develop an effective implementation plan. In the next step, we will use a theory-based approach, as well as evidence on implementation strategies to select implementation strategies for EuroFIT, and to translate these into implementation protocols and materials for future scale-up of the program [46].

An important strength of the current study lies in its methods, as described in our pre-planned process evaluation [24]. A further strength lies in the use of international data, thus also allowing for the exploration of generic versus country-specific implementation factors. We used a systematic approach to deal with cross-cultural settings and differences between the participating countries. By interviewing in the native language, standardizing the instructions for the interviews and focus groups, and using standardized reports for the researchers to summarize the findings, we were able to manage the process from data sampling, verbatim transcription, and coding. This allowed a thorough exploration of barriers and facilitators both within the context of the trial, as well as beyond the research setting across four different countries. Combining the views of participants and coaches, as well as delivery partners, club representatives, and stakeholders around the football clubs strengthen the findings of this study. Finally, adapting and using the TCID framework to guide the analyses, the use of a shared codebook and standard operating procedures, and the dialogue with local researchers throughout analyses enabled us to combine and synthesize cross-cultural qualitative data in a trustworthy way.

The results of the current qualitative study are being used to develop implementation strategies to guide the implementation of EuroFIT in real-life settings. Furthermore, results are being presented and discussed with involved football and policy stakeholders. We realize that the process of implementation and developing strategies is a cyclical process and new



barriers and facilitators will be met when the support of the research group will end. Participating trial clubs, focus group participants, and interviewed stakeholders in and around the participating clubs and potential new clubs are those who were willing to participate in the study. Therefore, it is possible that the outcomes are more positive than men and stakeholders not willing to participate. Moreover, the interviewers were also involved, to a greater or lesser extent, in the delivery of the program during the trial and it is possible that interviewees have given socially desirable answers, especially in the trial clubs, which may have introduced bias with respect to barriers and facilitators.

## CONCLUSION

Overall, the EuroFIT program was well received by clubs, coaches, participants, and stakeholders, which was reflected by the many facilitators supporting sustained implementation. Most facilitators were especially related to program and participant factors. Barriers were related to practical issues, like the graphic design of the manual, more time for the sessions, and group dynamics during the sessions. Our results allow us to conclude that EuroFIT has the potential to be implemented across countries while allowing for tailoring to key contextual factors. For sustainable implementation and potential roll out to non-trial clubs, it is crucial that clubs and their stakeholders engage fully with the EuroFIT program and understand that for an adequate program delivery their views (ethos) and ways of working influence the implementation and thereby the effectiveness of EuroFIT. An important prerequisite for future roll out of EuroFIT would be a strong EuroFIT delivery partner organization to ensure financial and human resources while overseeing and guiding the quality of delivery in clubs.

## Supplementary Material

Supplementary material is available at *Translational Behavioral Medicine* online.

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## Compliance with Ethical Standards

**Conflicts of Interest:** All authors declare that they have no conflicts of interest.

**Ethical Approval:** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research

committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent :** Informed consent was obtained from all individual participants included in the study.

**Welfare of Animals:** This article does not contain any studies with animals performed by any of the authors.

**Transparency Statements:** For each of the five transparency practices, you will provide a statement that accurately describes your article. The following examples may be adapted for use. If none of the statements accurately describe your article, please provide a statement. Statements should be provided on the cover page and will be published with your manuscript.

**Study registration.** Study registration involves declaring the study design, variables, and treatment conditions in an independent, institutional repository (e.g. <http://clinicaltrials.gov>, <http://openscienceframework.org>, <https://www.isrctn.com/ISRCTN81935608>).

The study was pre-registered at International Standard Randomized Controlled Trials, ISRCTN-81935608.

**Analytic plan pre-registration.** Pre-registration of an analytic plan involves the specification of the planned sequence of analyses or the statistical model that will be reported. Reporting the planned outcome variables alone does not qualify as analytic plan pre-registration.

The analysis plan was not formally pre-registered.

## Data availability

Indicate whether the data underlying the presented analyses will be made available in a third-party archive/repository. If data is available in an archive, indicate if this is fully available to the public or has protected access (available for a limited audience, with clearly defined requirements and steps to obtain data). If data is not in a public archive, describe any steps needed to access the data.

De-identified data from this study are not available in a public archive. De-identified data from this study will be made available (as allowable according to institutional IRB standards) by emailing the corresponding author.

**Analytic code availability.** Analytic code refers to the programming code used to conduct the analyses in statistical software.

Analytic code used to conduct the analyses presented in this study are not available in a public archive. They may be available by emailing the corresponding author.

**Materials availability.** Materials include any stimuli used in this study, intervention protocols, and survey instruments and items.

Materials used to conduct the study are not publically available.

(4) Availability of Analytic Code: There is not an analytic code associated with this study.

(5) Availability of Materials: Materials (i.e. surveys, semi-structured interview scripts, and logs) are included in the [appendix](#) of the submitted manuscript.

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