

INTERROGATING THE IMPACT THAT COVID-19 HAD ON THE 'BUZZIN' BEE' DIGITAL PIONEER PROJECT



PROJECT REPORT
JANUARY 2021



INTRODUCTION

There has been a huge rise in the popularity of wearables including fitness bands and smart watches and this is expected to grow over the coming years¹. Research shows that their use may be associated with modest short-term increases in physical activity however more research is needed to assess the long-term effects². The Buzzin' Bee project focussed on using wearables to increase people's physical activity levels alongside face-to-face professional and peer-to-peer support. However, 2020 was an unforeseen, extraordinary year, seeing the emergence of COVID-19 and national lockdowns enforced across the world. These necessitated huge changes in people's daily lives and routines which in turn affected their levels of physical activity and our ability to run the project as planned.

BACKGROUND TO THE PROJECT

Initially the 'Buzzin' Bees' project aimed to get residents of Blackburn with Darwen active and enthused about getting and staying healthy by providing health wearables (Fitbit's), running group sessions relating to health and physical activity and providing personalised support from the project facilitator (phase 1). It was intended that 2 cohorts of 30 participants would be recruited, however the emergence of COVID-19 necessitated a change in focus. Repeating the initial measurements was not possible, nor was recruiting and completing a second cohort due to the lockdown restrictions in place, therefore the project focus changed to understanding the impact of the virus on the existing participants (phase 2).



SCALE OF THE PROBLEM/ISSUE

PHASE 1

The project engaged 30 residents across the Blackburn with Darwen area: 16 from Bastwell ward which is a predominantly South Asian area and 14 from Higher Croft ward, a predominantly White area. Both areas experience high levels of deprivation and poor health outcomes. Bastwell includes three lower super output areas (LSOAs) amongst the most deprived 10% nationally and Higher Croft includes one each of the most deprived 1%, 5% and 10% of LSOAs nationally. Obesity levels in Higher Croft are above the national average, whilst in Bastwell emergency admissions for coronary heart disease are over 80% higher than nationally. In both wards, 45% of residents aged 50-64, report being limited by long-term illness to some extent, compared with 23% nationally³.

PHASE 2

A national lockdown was enforced on 23rd of March 2020 with gradual easing from mid-May, however Blackburn remained under enhanced measures due infection rates continually above the national average, with the Bastwell group being subject to additional hyper-local restrictions. While exercise outdoors was encouraged throughout the lockdown, research completed by Sport England⁴ showed that different sections of the community were disproportionately affected. The briefing paper found that women and deprived group's physical activity levels were more negatively affected however Asian ethnicities and those with children in the household tended to do more. Many of the Buzzin Bees participant fell into groups that were both negatively and positively affected.

¹ chargedetail.co.uk/2019/10/31/wearable-tech-market-to-be-worth-40bn-by-2020/ accessed December 2020

² Tang et al (2020) Effectiveness of wearable trackers on physical activity in healthy adults: systematic review and meta-analysis of randomised controlled trials. JMIR Mhealth and Uhealth, 8 (7): e15576

³ www.ons.gov.uk and www.gov.uk

⁴ indd.adobe.com/view/793b48d5-bbcd-4de3-a50f-11d241a506b3 accessed via www.sportengland.org

SCOPE OF THE PROJECT-WHATS IN AND WHATS OUT

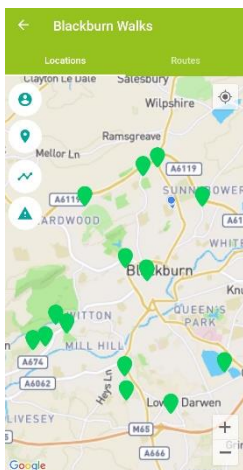
PHASE 1

Each participant was given a Fitbit device to track their activity levels. These devices allowed them to track their own activity and also compare it against that of their peers, building an element of competition and group camaraderie into the project. The devices linked to a custom-built central dashboard which was monitored by the project facilitator who helped residents on their journey to fitness. If members of the group were struggling to reach their target activity levels, the facilitator contacted them to see what support they needed. As well as supporting the participants online, weekly then fortnightly group sessions were held focussing on raising participants' awareness of health and diet, and developing healthy habits and turning these into a lifestyle. These sessions also provided an opportunity for participants to share their stories, struggles and ideas with each other, creating new health-focused peer support networks. The session content was built around an initial needs' assessment completed for each group with topics including types of exercise and their effects, food groups, portion sizes, home exercise, types of diet with their pros and cons, using spices and marinades to flavour food, goal setting and fitness tracking. Participants were also given complementary gym membership and inducted in their small groups to allow them to 'test drive' this exercise setting. Just before the national lockdown a number of the Bastwell group went on a walk to a local park with the group facilitator. The park was a familiar location to all however the route the facilitator chose took them into parts of the park some had never visited before. Of all the sessions, for this group, this was the most popular and talked about afterwards. Many planned to come back with their families and were also keen to return and explore the park further as a group once the weather was better, however coronavirus lockdown meant these plans were cancelled.



PHASE 2

Due to the lockdown and continued restrictions in Blackburn with Darwen recruiting a second cohort was out, therefore we kept in touch with the first cohort to support them with their physical activity whilst using questionnaires, case studies and focus groups to determine the effect of the COVID-19 outbreak on the first phase of the project. Participants were given the option of continuing with the project with it's new focus or completing the questionnaire and finishing. The vast majority of the Bastwell group chose to continue, whereas only around half of the Higher Croft group chose this option. To help participants start to increase their physical activity again and to enable group meetings within COVID guidelines it was decided that they would buddy up with another group member (whilst still maintaining social distancing) and test out the new 'Explore BwD' app. The app was designed by Blackburn with Darwen Borough Council and has a series of graded walks across the borough and further afield which uses mobile GPS signal to show users the route in real time. During the qualitative data collection some information was gathered about what participants wanted out of future sessions if they could go ahead. Once it became clear this was unlikely to happen, the groups chosen communication platform was used to disseminate information about related digital resources, for example, managing stress. The Orcha website⁵ reviews and rates health related apps based on data collection and use, clinical assurance and user experience.



⁵ www.orchaco.uk accessed December 2020

This website was used to select high quality apps specific to the issue, for example, relaxation, mindfulness or meditation techniques to aid stress reduction.

USE OF THE START UP FUND IF APPLICABLE

The start-up fund was used to purchase heart rate monitors and a large blood pressure cuff for the initial physical and fitness assessments. Flexi Digital was commissioned to provide the central dashboard and the wearable devices however the company went into liquidation early on. Alternative arrangements were provided by Healthier Lancashire and South Cumbria for free.

Item	Total cost (inc P&P)
Large blood pressure cuff and fingertip pulse oximeter	£72.95
Flexi Digital	£2000
	£2072.95

HOW THE BACKFILL WORKED IN PRACTICE

PHASE 1

Participants were recruited and split into groups based on location, sessions were held on 2 different days with admin time occurring straight after each group session. An afternoon a week was set aside to check data, set individual step challenges and plan sessions based on the initial and subsequent ad hoc group needs assessment.

PHASE 2

Time spent on the project in phase 2 was less structured and lead by the needs of the project, for example a large amount of time was initially spent in phase 2 to complete questionnaires and case studies with less time spent later in the project on facilitating the buddy up walking initiative. Participants from the Bastwell group who had formed a much more cohesive bond were encouraged to complete outdoor activities with their 'buddy' and report back to the rest of the group via WhatsApp.

CHALLENGES FACED AND HOW THESE WERE OVERCOME

TECHNOLOGY

Not all participants had the technology to use the Fitbit: one participant did not own a smartphone to download the Fitbit app and did not have a USB plug which is needed to charge the Fitbit. This was overcome by lending a USB plug and using the facilitators work mobile phone to sync with the Fitbit at each group meeting, the phone was kept on overnight to enable the central dashboard to download the data from the app. In practice this did not happen due to the participants infrequent attendance at the group meetings.

Two other participants had no access to home wifi. Data stored in the Fitbit app was collected overnight and could only be downloaded over wifi by the central dashboard which allowed the project facilitator to view each participant's results. Initially it was expected that the results would be displayed in real-time however in reality this was not possible until much later in the project when the company were able to collect data from participants Fitbit app's every couple of hours providing the participants phone had a wifi connection. The necessity for wifi to download Fitbit data and its lack of availability at the times needed by the participants meant it was not possible for these two to link to the central dashboard and therefore the facilitator could not view their activity levels. Attempts to phone participants were made however they were regularly not answered. In addition to the lack of wifi, one of the participants had limited pay-as-you-go data which meant they did not sync their watch with the app frequently and did not update the Fitbit app. Free wifi is provided at one of the meeting venues which meant this could be used for syncing and updates, however the wifi connection was very poor and not reliable.

One of the older participants had limited understanding of the technology and simply used her watch to see the number of steps she had taken, not using the app at all. While this meant that the facilitator could not see her data or easily give personal step targets, the participant was happy as the watch alone provided her with all the information needed.

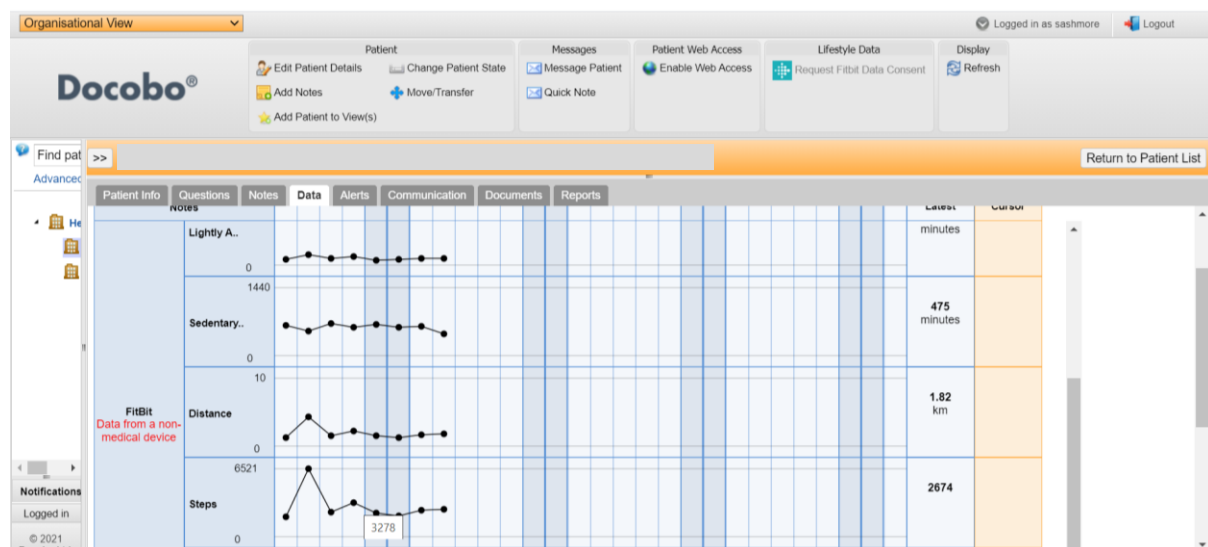
Another participant was using a relatively old phone with a small memory capacity; part way through the project she prioritised other apps over the Fitbit app meaning activity data collection was no longer available though she used her daughter’s phone to sync her Fitbit.

ONLINE PLATFORM

The central dashboard and associated software were the most challenging elements of the project. There were numerous issues which took a long time to resolve, requiring many emails chasing up, with some never reaching a satisfactory conclusion. The frequent syncing between the dashboard and the participants Fitbits did not occur until the end of the project by which time it was too late to be of any real benefit. The presentation of the Fitbit data that was collected by the software was difficult and time consuming to view on the dashboard and only showed data for the previous 28 days. It wasn’t presented numerically and wasn’t able to be exported into excel format for further analysis and simpler more comparable visual representation (figure 1). This could have been a valuable motivation tool and could have played a central role in stimulating conversation about weekly successes and failures at the group meetings, encouraging group support for each other and sharing of ideas.

The single biggest issue however, was getting all participants Fitbit’s syncing with the central dashboard. Some participants never did sync throughout the length of the project while all others had disruption to varying degrees. Occasionally the disruptions were due to participant error, for example disabling their Bluetooth connection, however there was often no obvious reason for the Fitbit’s failure to sync. Towards the end of the project, the software developers did overhaul some of the system however there was little motivation for participants to find their login details and re-do the steps needed to enable syncing as they were able to see all the data they needed to use the Fitbit effectively on their smartphone app. The lack of data sync was directly responsible for one participant choosing not to continue with the project into phase 2.

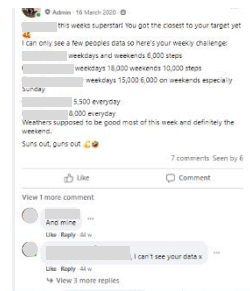
Figure 1: view of the central dashboard for one participant



COMMUNICATION

Facebook groups were initially set up for both Higher Croft and Bastwell groups, however, early on the Bastwell group asked to use WhatsApp instead. The Facebook group for Higher Croft worked well as participants could

reply to individual posts and posts could be scheduled ahead of time which saved on admin time, rather than the facilitator spending time every few days adding information. If the post scheduling was done straight after the group meeting it meant that small learning points were shared and expanded on in a timely fashion. Also, participants could be tagged into specific posts so sharing information was much more targeted. In comparison, WhatsApp is one linear stream of messages so not all information posted is relevant to every person: it was only really effective at giving information as there was no way of separating conversations. Scrolling through multiple messages means important information could be missed and the same questions are often asked multiple times. Both Facebook and WhatsApp have a 'private message' function which group members occasionally used to contact the facilitator for more personal matters.



COVID-19

COVID-19 was a challenge for participants in many ways, not just relating to the Buzzin' Bees project. Changes in social interaction due to COVID-19 gained traction around half way through the first cohort and while efforts were made to continue the work online it seemed the project wasn't high on peoples list of priorities and engagement was limited and brief. It was also focussed largely on food rather than physical activity.

Lancashire, Blackburn with Darwen specifically, has consistently had some of the highest cases per 100,000 people in England which resulted in many people living under enhanced restrictions meaning meeting together was impossible and some were still only allowed to meet one other person outside their house outdoors throughout the summer months. Eventually, restrictions did permit people to meet up in public outdoor spaces in small groups with social distancing however for some the momentum of the group meetings had been lost.

LACK OF ENGAGEMENT



A lack of engagement was a feature throughout the project. Some people did not regularly attend group meetings, some did not respond to digital group discussions, some could not be contacted for phase 2 questionnaires and only one person chose to 'buddy up' for physical activity. The intention was there but the act of following through was not. Encouragement was given via digital means and the facilitator started off the buddy up scheme by accompanying one participant on a walk, however this did not translate to others following suit.

OTHER

Two people's job either did not allow them to wear their watch or it was inconvenient to wear it while working: one kept it in her pocket and one tried wearing it on her ankle. Some people's jobs or daily activities involved movements which resulted in an artificially high step count, for example one participant worked in a sandwich shop and each movement to butter bread was counted as a step, another noted that her movements while cleaning the house created additional steps. In general, these were not problematic as they occurred on the same day or days of the week and so could be taken into account. One participant did express frustration at not being able to see accurate step counts due to this problem.

IMPACT OF THE PROJECT IN ADDRESSING THE PROBLEM/ISSUE

The impact of phase 1 of the project is difficult to objectively quantify due to the problems with data collection. The group sessions aimed to improve knowledge on topics decided by each group empowering them to make informed choices about their own health and fitness. This translated into some people making healthier food choices and reporting to lose weight which if maintained, could

I did couch to 5k which was inspiration from the Fitbit

I didn't walk anywhere before the Fitbit project, I used the car. Even though I've stopped wearing the Fitbit I still walk a lot more than I did

have an impact on the development of long-term health conditions. Comments from participants provide evidence that wearing the Fitbit was highly motivating, at least in the first few months, and for many, self-reported

It's good when the Fitbit buzzes if I've been too still, it reminds me to get up and move and motivates me to be active throughout the day

activity levels were higher than pre-Fitbit levels, which again if maintained would likely have a positive influence over minimising the development of long-term health conditions. For one participant in particular the project had a profound impact, not only on herself but also on her family and resulted in changes are likely to continue after the close of the project. Several participants have since bought their own Fitbits (which were better models than the ones allocated by the project) demonstrating their intention to continue monitoring their

I've got one for my daughter, we're in competition now!

activity levels into the future. One participant even bought a Fitbit for her daughter so they could work together.

BENEFITS REALISED AS A RESULT OF IMPLEMENTING THE PROJECT BOTH FINANCIAL AND SOCIAL

FINANCIAL

One participant was found to have high blood pressure during the initial measurements and visited her GP. She did not wish to take medication and so by changing her diet and increasing her physical activity she reduced her blood pressure to within acceptable levels, therefore eliminating or delaying the need for lifelong medication.

SOCIAL

The Bastwell group bonded well which had a huge impact on their ability to support each other and could be one explanation for the high retention rate in this group into phase 2. Attendance at the group meetings was particularly low in the Higher Croft group making group bonding more difficult however the meetings were still seen as generally good. Unfortunately, the full social benefits that could have developed for both groups were curtailed by COVID-19 related social distancing and online work could not replace the support provided face-to-face.

"Getting together with the rest of the group was motivating, I felt a little bit of competition between us, so it was disappointing when we had to stop because of coronavirus"

PERSONAL REFLECTIONS ABOUT BEING A DIGITAL PIONEER RELATING TO "SUPPORTING THE FRONTLINE" OR "EMPOWERING THE PERSON" ELEMENTS OF OUR DIGITAL FUTURE

At times I have found the Buzzin Bees project challenging both personally and professionally. For me, empowering people to make their own choices about all aspects of their life is very important however I found it particularly difficult to do this with the Higher Croft group. I felt that the meetings weren't as productive and didn't 'flow' as well as the Bastwell group. The discussions felt stilted and I felt that there was an expectation that I would tell people what to do rather than give information to enable participants to make their own informed choices and

decisions. Sometimes, the Bastwell group was the opposite and I had to bring the discussions back to the topic chosen for the meeting if they went so far off track to become unrelated to the project. These felt like stark differences and I spent some time reflecting on whether I had treated the 2 groups differently to get these different outcomes. Interestingly, participants from both groups seemed pleased with the group meetings so possibly I was being over sensitive and critical of the group dynamic.

Initially lockdown presented certain challenges to me and, like the project participants, I also had to adapt. With hindsight, I feel I could have supported participants better in the first couple of weeks which may have helped them stay engaged.

I feel I could have dedicated more time to using the Fitbit app to help people get the most out of it and its additional features as well as greater use of other digital technology early on, for example physical activity and health related apps. This early introduction could have increased participants confidence in trying this type of technology and could have led to increased engagement in this throughout the life of the project.

RESULTS OF THE PROJECT, QUANTITATIVE AND QUALITATIVE

Repeating the quantitative health measurements taken at the beginning of phase 1 was not possible due to COVID restrictions. Therefore, the results of the project are based on several sources of information:

- Phase 1 evaluation questions completed in May 2020 (qualitative) n=5. See appendix 1 for questions asked.
- Data based on the phase 2 questionnaire (quantitative) n=21 See appendix 2 for a copy of the questionnaire.
- Notes made from discussions had while completing phase 2 questionnaires over the phone (qualitative) n=7
- Focus groups with topics of discussion based on the phase 2 questionnaire (qualitative) n=6
- Case studies (qualitative) n=5 See appendices 3 to 7 for individual case studies.

It was hoped that qualitative data showing differences in the number of steps taken would be available, however problems with the syncing between the Fitbit's and the dashboard meant that viewing client's data as a whole was not feasible and so was impossible to see a numerical change throughout both phase 1 and phase 2. All participants reported walking more (during phase 1) leading to the assumption that participants increased the number of daily steps taken as a result of phase 1.

PHASE 1 EVALUATION QUESTIONS

These questions were sent electronically to participants around the time the first phase was due to finish (before the change in focus of the Buzzin Bees project had been negotiated), however only five were completed and returned and these were all from the Bastwell group. This was requested not long after the first lockdown was imposed when participants were in the midst of additional stressors such as home schooling and were still adapting to the sudden change in daily life so the facilitator decided not to pursue completion too strongly at that point. The questions were open ended and reflected what would have been discussed as a group had the sessions reached their natural conclusion unhindered by COVID-19. The answers to these questions have been amalgamated into the qualitative data from phase 2.

PHASE 2 QUESTIONNAIRES

As a result of the change in project direction a longer more detailed questionnaire was written loosely based on questions asked in the Sport England COVID-19 briefing with additional project specific questions added to meet the new focus. Between August and November 2020, participants were given time to complete phase 2

questionnaires via email with the remainder completed via telephone call. The benefit to completing them over the phone was that a small amount of conversation was had which gave a more nuanced picture compared to participants simply filling out the questionnaires themselves. These comments have been amalgamated with other qualitative data and presented as one alongside quantitative questionnaire data. In total 21 of 30 participants completed the questionnaire. Focus groups and case studies were completed with a subset of those who returned the questionnaires with discussions centred around the phase 2 questionnaire questions. These were done in small groups face-to-face (focus groups), and over the phone or via video call (case studies).

BASIC INFO

All respondents were female, the majority were aged 35-54 (n=15) with 3 people each in the 16-34 and 55+ age brackets. 57% were Asian British, 33% white British and 10% being of another ethnicity. Just over half were unemployed with the remainder being employed or volunteering. Some reported increased levels of work-related physical activity due to changes in job roles during the outbreak where as others reported a lot less *“During lockdown there was less volunteering and the little I could do was all done on Zoom so my activity was a lot less as there was no walking between sessions”*.

3 participants had a long-term health condition, of which 2 were shielding, 1 person was shielding to protect a vulnerable child and 3 participants (14%) had other caring responsibilities though they felt that this took up no more or less time than pre-COVID.

81% (n=17) people had children living in the house (range 1-5 children) with the majority (82%, n=14) of these having home school responsibilities. Comments such as *“It was really hard for both of us”* *“Nightmare, I dreaded the 10am start!”* *“It was draining”* *“I didn’t understand the work myself”* *“It was so stressful”* featured frequently with parents with many saying it took up a lot of time, although one parent found that home school created more time for her as there were no school runs to do.

Home school meant there was no time for walking then you just got out of the habit of wearing the Fitbit

HOUSING

All had private outdoor space however from further discussion it was found that, for most, this was a small back yard area which was used mostly for bin storage etc and so wasn’t somewhere they could exercise. Even those with spare rooms (n=4) said they were either too small or didn’t have enough space for other uses, those without spare rooms felt that there was nowhere inside they could safely exercise without interruption as more family members were occupying rooms for working from home *“Relationships got a bit strained at home, I was restricted to 1 room as my husband and mother-in-law were working from home”*.

DIGITAL ACCESS

90% (n=19) had access to IT equipment at home, of these 58% (n=11) shared it with other members of the household. Many had children using laptops for school work but one with a SMART TV used it for family exercise. All but 1 had wifi at home. In general access to wifi wasn’t a problem, however 2 additional participants who couldn’t be reached to complete a questionnaire (so whose views are not represented here) did not have wifi at home which presented additional barriers to using the Fitbit.

If I had my own IT equipment I might have tried online exercise

Prior to COVID-19 1 in 5 (n=4) people had used a digital platform for example, app-based exercise and pre-recorded or live online classes. 4 more did try online physical activity, with Joe Wicks featuring regularly in discussion, though for most this didn’t last *“I did Joe Wicks at the beginning a few times with the kids but it fizzled out”*.

PHYSICAL ACTIVITY BEHAVIOURS

There was a wide variation in the numbers of days people completed 30 mins or more of physical activity (figure 2), with 35% doing a bit or a lot more than usual, 20% doing the same and 45% doing a bit or a lot less (figure 3). Figure 4 shows that the most common form of physical activity was walking for pleasure with 15 people participating. Participants with children in general were more active “I had more time to play with my kids, we went to the park and played netball and rounders together” “I’m more active with having the kids at home because I try to use physical activity and active play to keep them occupied... I can’t rely on the kids being active at school”. Interestingly almost a quarter of participants reported not doing any physical activity in the preceding 7 days while, when given a list to choose from, only 2 said they didn’t participate in any activities leading us to assume that some did an activity but of less than 30-minute duration or not hard enough to count as physical activity.

Figure 2: amount of physical activity

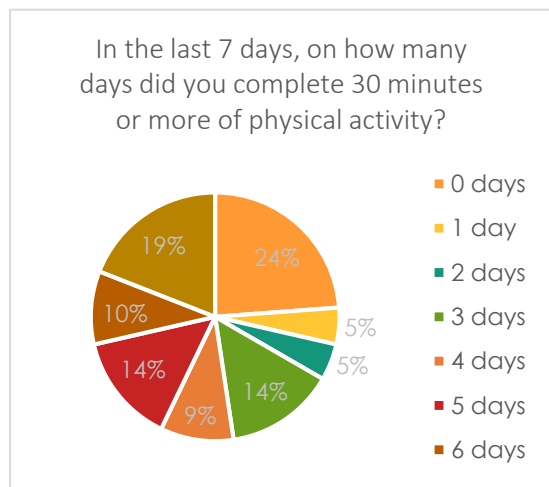


Figure 3: comparison of physical activity amount

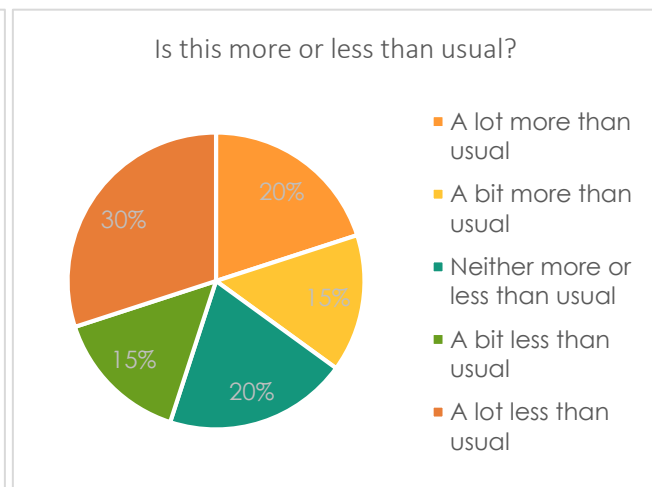
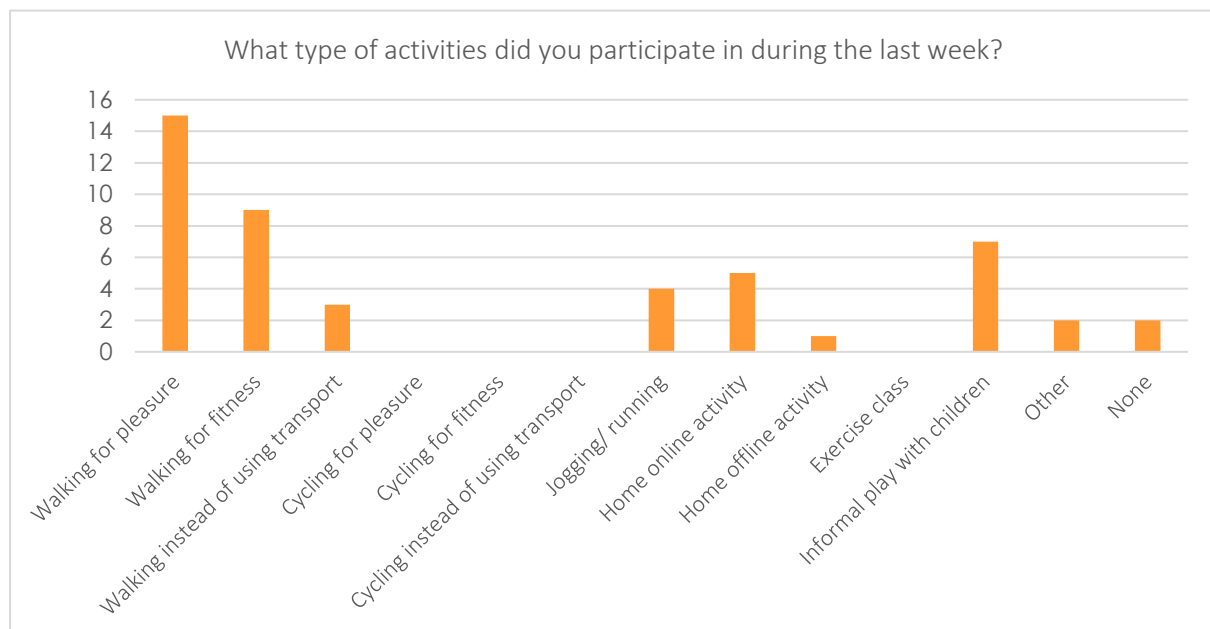


Figure 4: types of activity

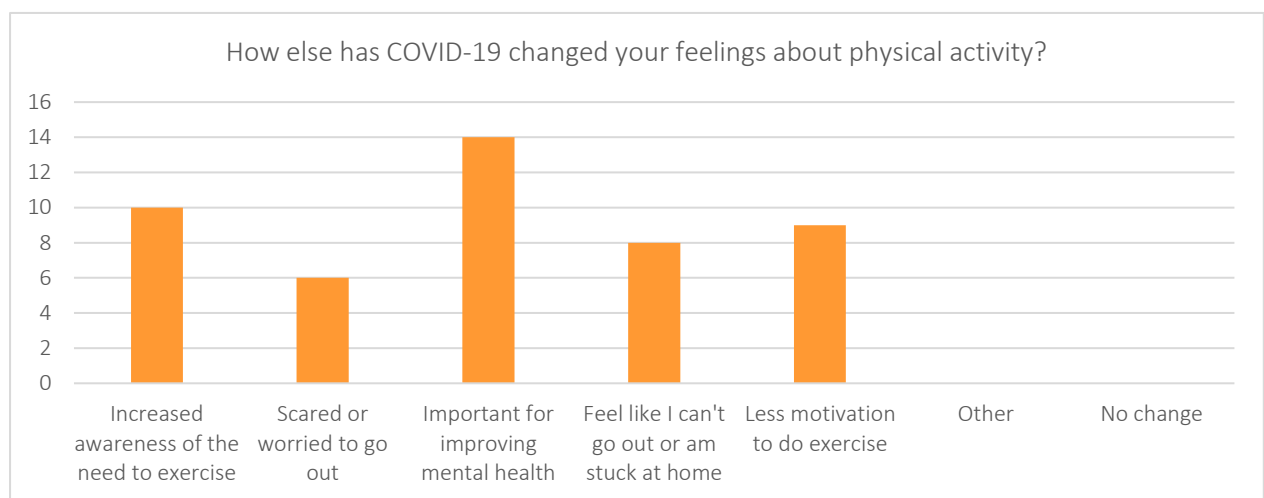


FEELINGS AROUND PHYSICAL ACTIVITY

Feelings around physical activity as a result of COVID-19 were varied (figure 5). Most people felt that it was more important to be active during lockdown (81%). For some, spending more time in the house motivated them to go

out “I wanted time to get out of the house after classes finished, being cooped up at home motivated me to get out”, where as others felt the opposite “Lockdown has made me lazy, I can’t be arsed and have no motivation” “I can’t go to the gym and I don’t want to do it outside so its easy to just stay in”. The mental health benefits of physical activity were particularly important, with two-thirds of participants selecting this answer “I recently started going back to the gym again...I’ve started eating better and feeling better too. My mum’s supportive as well. There’s talk of the gyms closing again, I really hope they don’t, it would be hard for me, for my mental health” “I walked to reduce depression from sitting at home all day. The same four walls do your head in” “If you sit on your arse all day your mind gets mashed, it’s good to get out just to do something”. While a small proportion of participants felt scared or worried to go out, comments showed that it did affect their activity levels “It was hard when children’s play areas were shut, then when they opened they were too busy and I was worried about catching COVID” “I was scared to go out in the beginning. I work in the NHS so I saw people dying from it” “where we walk is near to a mosque that had a few people test positive which made me feel anxious having my child play there”.

Figure 5: feelings about physical activity



Ramadan fell into the period of lockdown and of those who fasted (n=14) 86% felt that it impacted their physical activity. Intensity and time spent being active was reduced however the majority still completed some kind of physical activity as opposed to desisting completely for the month.

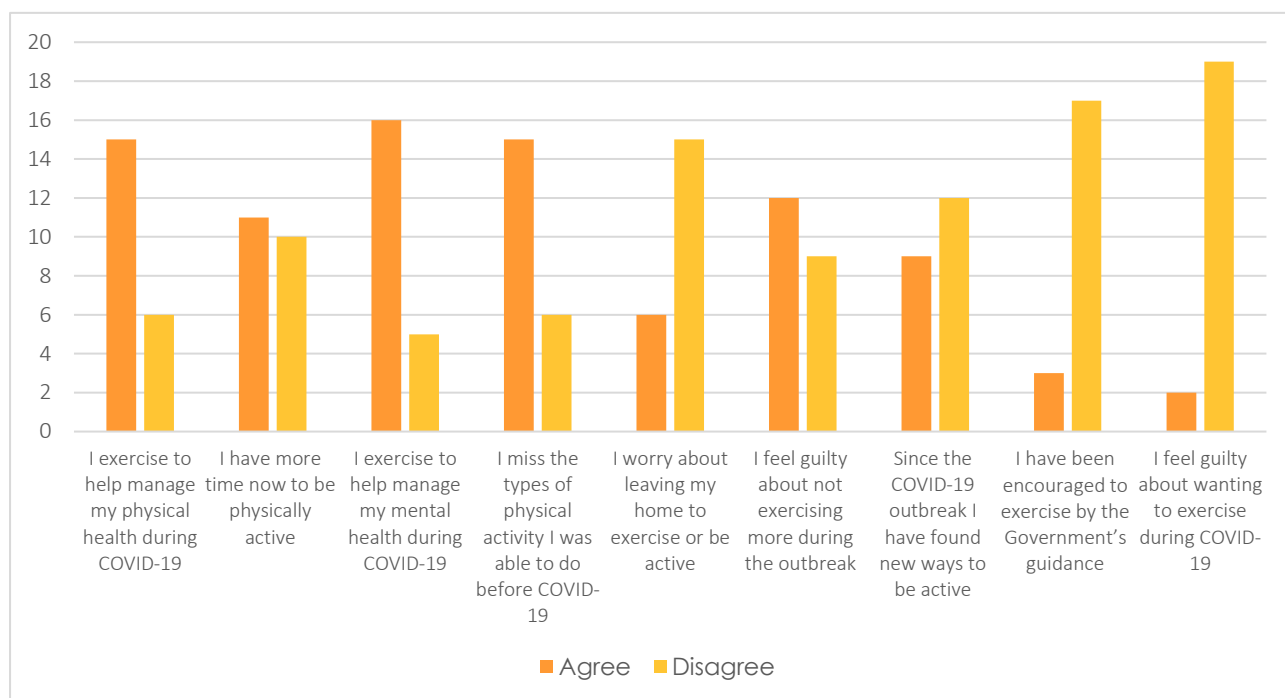
Ramadan made me less active but I still wanted to get some steps in so I walked instead of jogging

Figure 6 shows that participants experienced a variety of feelings around being active during COVID-19. Many exercised to manage both their physical and mental health (71% and 76% respectively) while feelings of guilt around wanting to exercise were generally low. More than two-thirds of people missed the types of physical activity they were able to do before COVID-19 “I missed doing the gym and netball. Especially netball as you’re part of a team, it gets you out for an hour for a girlie social. As a mother you do things for other people all the time, so it’s good to get out and do something for yourself” “I really missed going to the gym, and swimming too”.

Time available for exercise was evenly split between those reporting less time and those reporting more “I had more time to play with my kids, we went to the park and played netball and rounders together” “My biggest challenge at the moment is trying to balance home life with 4 kids and trying to squeeze exercise time in”.

Few participants felt encouraged to exercise by government guidance, with one person saying it discouraged her “Government advice discouraged me from exercising initially because of the emphasis on social distancing and it only being 1 hour, at first it was confusing”.

Figure 6: feelings around being active



DIGITAL USE

10 people continued to use their Fitbit during lockdown, 8 sometimes used it and 3 stopped all together “the meetings stopped so I just took the Fitbit off” “there was no point wearing it as I wasn’t going out”.

I was more active wearing a Fitbit before the lockdown. I sometimes don't even remember to put it on now

Of those who reported to use it or sometimes used it 83% (n=15) said it gave them a bit or a lot more motivation “Having the Fitbit was really motivating, it’s amazing how many steps you do in a day. It definitely made me walk more” “I don’t stop until I have 10,000 steps for one day because then I feel happy that I have achieved my goal for the day which also helps my mental wellbeing” “The Fitbit has really helped motivate me, I make sure

I get to 10,000 steps each day and if it looks like I won’t meet my target I try to go for a walk. At the beginning of the project it was hard to get to 6,000 steps but now my lifestyle is more active it’s not too hard to get to 10,000”.

I like the Fitbit, it pushes me to go further, if I’m at 9,000 I try to get to 10

SUMMARY

While numerical data is not available to indicate increased number of steps taken as a result of the Buzzin Bees project, anecdotal evidence indicates that the use of Fitbits was highly motivating and caused an increase in activity in phase 1. The phase 2 questionnaire responses show that the frequency of physical activity undertaken during the first 6 months of lockdown compared to phase 1 varied widely between participants, as did their feelings around being active in the new COVID-19 environment. Some participants demonstrated good resilience to the changes and adapted their lifestyles to continue to include physical activity into their daily and weekly routines while others found this far more difficult. Despite problems with the technology used the evidence suggests that the use of wearables did, for the majority of participants, increase physical activity, though to a lesser extent through the lockdown conditions.

APPENDICES

APPENDIX 1

May 2020 Evaluation Questions

Were the sessions helpful? Why/ why not?

Do you think using the Fitbit has helped you be more active? Why/ why not?

Did using the Fitbit make you think more about the food you ate? In what way?

Has the project as a whole helped you make any lifestyle changes? What and why?

What, if any, challenges did you face using the Fitbit?

For you, what were the main benefits to being part of the project?

APPENDIX 2

Basic Information

Gender (please highlight one)

Male Female Other Prefer not to say

Age (please highlight one)

16-34 35-54 55+

Ethnicity (please highlight one)

White British Asian British Black British Other

Employment status (please highlight one)

Employed Unemployed Furloughed Self-employed Other

Do you have a long-term health condition? (please highlight one)

Yes No

If yes, have you been shielding during Covid-19? (please highlight one)

Yes No

Do you have children living with you in the house? (please highlight one)

Yes No

If yes:

Number of children in the house

Age of children in the house

Do you have home schooling responsibilities? (please highlight one)

Yes No Not applicable

Do you have other caring responsibilities at home? (please highlight one)

Yes No

Housing

Do you have a spare bedroom at home? (please highlight one)

Yes No

Do you have private outdoor space at home? e.g. back yard, garden (please highlight one)

Yes No

Digital Access

Do you have access to IT equipment at home? (please highlight one)

Yes No

If **yes** is this shared with other members of the household? (please highlight one)

Yes No

Can you access WiFi at home? (please highlight one)

Yes No

Prior to COVID-19 did you use digital platforms for physical activity (please highlight all that apply)

App based exercise Pre-recorded online classes Live online classes Other None

Physical Activity Behaviours

In the last 7 days, on how many days did you complete 30 minutes or more physical activity? (please highlight one)

0 days 1 day 2 days 3 days 4 days 5 days 6 days 7 days

Is this more or less than usual? (please highlight one)

A lot more than usual

A bit more than usual

Neither more or less than usual

A bit less than usual

A lot less than usual

What type of activities did you participate in during the last week? (please highlight all that apply)

Walking for pleasure

Walking for fitness

Walking instead of using transport

Cycling for pleasure

Cycling for fitness

Cycling instead of using transport

Jogging/running

Home online activity

Home offline activity

Exercise class

Informal play with children

Other

None

Feelings around Activity During COVID-19

Do you feel it is more or less important to be active at the moment? (please highlight one)

A lot more important

A bit more important

Neither more or less important

A bit less important

A lot less important



How else has COVID-19 changed your feelings about physical activity? (please highlight all that apply)

Increased awareness of need to exercise

Scared or worried to go out

Important for improving mental health

I feel like I can't go out or am stuck at home

Less motivation to do exercise

Other

No change to feelings

Did Ramadan have an impact on your physical activity (please highlight one)

Yes No Not applicable

Do you agree or disagree with the following statements? (please highlight one per statement)

I exercise to help manage my physical health during COVID-19 Agree Disagree

I have more time now to be physically active Agree Disagree

I exercise to help manage my mental health during COVID-19 Agree Disagree

I miss the types of physical activity I was able to do before COVID-19 Agree Disagree

I worry about leaving my home to exercise or be active Agree Disagree

I feel guilty about not exercising more during COVID-19 Agree Disagree

Since the COVID-19 outbreak I have found new ways to be active Agree Disagree

I have been encouraged to exercise by the Government's guidance Agree Disagree

I feel guilty about wanting to exercise during the COVID-19 Agree Disagree

Digital Use

Have you continued to use your FitBit throughout lockdown? (please highlight one)

Yes No Sometimes

If yes or sometimes, has it motivated you to do more physical activity? (please highlight one)

A lot more
motivation

A bit more
motivation

Neither more or
less motivation

A bit less
motivation

A lot less
motivation

Did being part of the Buzzin Bees project affect your choices and actions during lockdown? (please highlight all that apply)

I made healthier food choices

I tried out new recipes

I felt more confident to do physical activity

I felt able to try other ways of being physically active using digital technology or the internet

My mental health was better

None of the above

Other

Other comments...

APPENDIX 3

Case Study A

I loved the Fitbit programme, I liked that I could track myself and aimed for 10,000 steps a day. Having a target gave me a focus. I changed some bits about my day to get more steps in like parking my car about 10 minutes from the office and walking to pick up my daughter and things.

[When lockdown happened] oh my god it was hell, I was indoors all the time and couldn't go out as much as I wanted. I went out after dinner each day with my daughter at 7pm for about 30 minutes, but where we walk is near to a mosque that had a few people test positive which made me feel anxious having my child play there. She's got asthma so she's more vulnerable. My husband was still going to work in a factory which added to my anxiety of him bringing the virus home. I knew I couldn't get to the 10,000 steps while I could only go out once a day for exercise as my daughter's too small to walk that far. I took the [Fitbit] watch off for a while and I got out of the habit of wearing it.

At home I hated it. I didn't know what to do with myself and didn't have a routine anymore, I didn't realise how important that routine was. I put so much weight on, my clothes stopped fitting and I could feel depression. I was working from home which I hate, I think working from home was the biggest thing for me. I binge ate because of boredom which made me put the weight on. I found it really difficult to juggle working from home and looking after my child. Once I was able to form a support bubble with my mum life was easier.

I recently started going back to the gym again, I feel like I can't walk well and because my clothes are too small, I look ridiculous. Sophie [project facilitator] motivated me to get back into the exercise when the [Buzzin Bee's] group was active on WhatsApp. I've started eating better and feeling better too. My mum's supportive as well.

There's talk of the gyms closing again, I really hope they don't, it would be hard for me, for my mental health. I put my watch back on to help motivate myself and recently did 10,000 steps in a day and I was over the moon. The Fitbit's really helping because I can see the number of steps, it's given me something to aim for again.

APPENDIX 4

Case Study B

At the beginning everything stopped so quickly and I felt like I was stuck at home, but very quickly I realised me and my family needed to start being more active. I've got 4 children aged between 3 and 11, one of them is overweight. The government guidance about exercise at the beginning of lockdown was helpful, only having an hour made me utilise the time well, it's good that we can do more than an hour now though. I'm a lot more active now compared to before lockdown in March, I'm more active with having the kids at home because I try to use physical activity and active play to keep them occupied as well as doing cooking and baking together to minimise time spent sitting watching TV. I was less active in Ramadan but this would have happened without coronavirus. I feel like it's more important to be more active now as I can't rely on the kids being active at school, also if I'm fitter I can fight off coronavirus better. We go for walks along the canal 2 or 3 days a week, the kids and my husband cycle but I walk as I can't ride a bike.

The Fitbit has really helped motivate me, I make sure I get to 10,000 steps each day and if it looks like I won't meet my target I try to go for a walk. At the beginning of the project it was hard to get to 6,000 steps but now my lifestyle is more active it's not too hard to get to 10,000. For me, 2 hours of walking is about 10,000 steps. It's good when the Fitbit buzzes if I've been too still, it reminds me to get up and move and motivates me to be active throughout the day. I feel more confident in exercise so I might try an exercise class once they are back on. I like the accountability of the [Buzzin Bees] group, I find it motivating. I miss doing the gym, I had only just started getting into it using the free membership with the Fitbit project when it had to close.

The measurements taken at the start [of the Buzzin Bees programme] showed that my blood pressure was too high, I have a family history of it so I went to my GP. I didn't want to take medication so I have made a lot of changes to bring it down. I've lost about 10kg (though I don't think this has had much impact on my blood pressure) and I changed my diet a lot. I think changing my diet has been the most important thing to reducing my blood pressure. I like savoury snacks, so I have ones with less salt and I bake foods rather than frying them. I only have occasional desserts now and I tried a new recipe using oats in a soup with veg and chicken. I have a garden where I started to grow herbs and vegetables during lockdown, I use them with lemon juice instead of salt and have changed from canned veg to frozen to reduce my salt too. We talked about some of these ideas in the [Buzzin Bees] group while we were allowed to meet up. My husband and kids are happy with the change of food now. At first the kids didn't like it, they didn't want to eat veg but they love it now. I found that after the 10th time of trying something they eventually liked it! We used to have plain rice but now I mix veg into it. I use cous cous instead of rice sometimes and have smaller portions of rice, in our cooking we would have a whole plate of rice. I fill up on salad which helps me have a smaller portion of carbs.

I didn't realise healthy eating and exercise would make this much difference. Now I understand that to get toned I actually have to do something. My blood pressure is lower, I used to get headaches but I don't get them anymore now it's gone down. I feel like I've got more energy even though I'm more active, my family have noticed as well.

If the project was given to others I'd make it longer, maybe 1 year, 6 months is too short as it takes 3-4 months to get used to it.

APPENDIX 5

Case Study C

I already had a Fitbit before the Buzzin Bees project. I joined because I wanted accountability, someone to tell me to get out and move! It bugged me that the watch wouldn't connect to the system so I had to send Sophie [project facilitator] my weekly steps for her to give me a step challenge for the following week. The Fitbit does motivate me to be more active, I try to get to 60-70,000 steps a week, I have to get over 50,000, if I don't think I'll make that I make myself go for a walk around the block. When the numbers are low it makes you think "get off your arse". The Fitbit is motivating because you can see what you do. I think I'd walk more in the winter because I don't like being sweaty. I carried on working throughout lockdown which helped keep some normality. I had to self-isolate for 2 weeks which was really difficult, I wanted to go out more than I normally would just because I couldn't!

I knew most people in the [Buzzin Bees] group so it felt like all friends together, it would probably have been different if I didn't know anyone. I probably wouldn't have come. Most of the sessions were good, especially the one with the food groups, I learned where stuff went. I thought potatoes were fruit and veg not carbs. I enjoyed the home-exercise session too, it was good because it showed us the right way to do the exercises, you don't know if you're doing it wrong if there's no one to watch you do it. I tried to do it a few times after but then I lost motivation. I tried out new recipes during lockdown but they were all cakes and biscuits, I didn't think I could follow a recipe, but I managed to do them and they came out good. I feel a bit more confident to try other recipes, but I still don't think the group session about different recipes and flavours was very helpful for me. I don't like things like that, xxx is more into that stuff.

Lockdown has made me lazy, I can't be arsed and have no motivation. I feel like an overweight blob and there's too much food in the house which I buy for the kids but can't help snacking on myself. I can't have a brew without biscuits!

APPENDIX 6

Case Study D

Before lockdown I walked a lot doing the school run and volunteering 4-5 days a week so I didn't do any structured physical activity due to lack of time. During lockdown there was less volunteering and the little I could do was all done on Zoom so my activity was a lot less as there was no walking to and from school or between volunteering sessions. At first, I was very scared of coronavirus so after a while I stopped watching online videos about it, it's hard to tell what's real, everyone thinks they're an expert or a doctor! Sometimes too much knowledge isn't a good thing.

At the beginning of lockdown, I was feeling quite depressed but after a month or so I started to be more active around the house and then do online exercise on YouTube as well as going for walks with my daughter. Now I do the YouTube exercise every day, it takes about 30 minutes. If I didn't have the Fitbit I wouldn't have started doing the YouTube exercise. When the kids were off school during lockdown it was harder to fit in the exercise, I didn't always manage to do it each day. Now my children have just gone back to school I walk to pick them up which is about 40 minutes as well as the online exercise. The 'Eat Out to Help Out' scheme helped me feel better about going out too.

If I check my steps and I haven't done many, it motivates me to go for a walk, even if it's just around the house. I can't take even one step without my Fitbit on my wrist, when I take it off for a shower I feel like something is missing! Having the watch on helps me remember prayer time too.

Getting together with the rest of the [Buzzin Bees] group was motivating, I felt a little bit of competition between us, so it was disappointing when we had to stop because of coronavirus. As a result of the sessions I am trying to use less oil and grill foods rather than frying and am interested in weight loss medication to help me lose weight alongside the healthy eating. I'd like to try a yoga class too.

APPENDIX 7

Case Study E

When we went into lockdown my job adapted and I was more active, I walked more and there was more lifting involved, I was more active outside of work as well, going for walks just to get out of the house. I didn't use my Fitbit all the time in lockdown, sometimes I forgot to put it back on in the morning but if I knew I was going out or having an especially active day I'd make sure I had it on so I could see how many steps I'd done.

I feel like it's a lot more important to be active now but sometimes I feel worried about going out and having too many people around me. I've started timing picking up my grandkids from school so that I am one of the last people there, I also walk there and back the long way around so I pass less people. I think it's good to do as much as you can because it really helps your mental health. If you sit on your arse all day your mind gets mashed, it's good to get out just to do something. When lockdown was being eased I sometimes felt unsure of going out, I'm not sure why, I think I'd just been inside for so long that I didn't want to go out.

I've done YouTube Zumba and aerobics dancey stuff before so I did this a few times in lockdown too. Doing the YouTube exercises was good, I could have a laugh even when I couldn't do it like they did on the TV. On my own I'm less motivated to do exercise but my daughter comes over and we do it together which helps. I found going for a walk with my husband and grandkids relaxing, it was fun doing scavenger hunts...seeing if we could spot a robin while we were walking in the woods or something. I wouldn't go walking in the woods or long walks on my own but that's for personal safety not COVID stuff.

I joined the Buzzin Bees project because I wanted to lose weight, I'd already started using 'my net diary' to keep track of what I was eating so I used the Fitbit to add exercise to that. I've always cooked healthily but I tried to make better choices with fats. At work I'm used to delivering sessions so it was nice to have someone else facilitate so I could focus on taking part. I especially liked the plastic foods session, it was a good recap for me. The Fitbit was good because it gave me a goal, you think "yeah, I can do this" and the weekly step challenge was helpful too. I want to get back to walking more so I'm going to try to do a charity step challenge to get me back into the routine of it.