DWELL

Evaluation Study of the Diabetes and WELLbeing 12-week programme

REPORT 4: Workforce Training and Cost Effectiveness

Canterbury Christ Church University

Interreg 2 Seas Mers Zeeën
DWELL
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FOREWARD

The DWELL project was funded by the INTERREG 2 Seas Mers Zeeën Programme and ran between 2016 and March 2023. The overall aim of the project was to empower people living with Type 2 Diabetes Mellitus (T2DM) to enhance self-management of illness through a co-produced 12-week educational programme, and to improve targeted aspects of individual health and wellbeing. The project involved partners in the UK, France, Netherlands and Belgium.
Canterbury Christ Church University ('CCCU') led Work Package 4: Evaluation of the DWELL programme, which commenced delivery in 2018. The evaluation comprised four key areas: patient outcomes; system/process benefits of the programme; staff training; cost benefits of the programme.

For Output 4.1 of this Work Package, we present a set of four final project reports which relate to DWELL programme evaluation. These are as follows:

- **REPORT 1:** DWELL Evaluation Methodology
- **REPORT 2:** DWELL Participant Outcomes
- **REPORT 3:** DWELL Process Evaluation
- **REPORT 4:** DWELL Workforce training and Cost Effectiveness

Report 4 presents feedback on Workforce Training and results of the Cost Effectiveness analysis undertaken for the DWELL programme.The COVID-19 pandemic, which commenced in March 2020 while the project was still 'live', had an impact on the programme's delivery and evaluation activities; this impact is discussed where relevant throughout the reports.

We would like to acknowledge colleagues for their valuable contribution as researchers and advisors at earlier stages of the evaluation study: Dr Marlize De Vivo and Prof Kate Springett, Canterbury Christ Church University; and, Dr Katrina Taylor, University of Kent.

We are grateful to all DWELL programme participants in the four project countries for their significant contributions and support in evaluating the DWELL programme at all its stages.

We would like to thank all our project partners for their invaluable help in data collection and in particular:

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    - **Level 1: Reaction** – participants were overwhelmingly positive regarding the content and efficacy of the training,
    - **Level 2: Learning** – participants reported increased skills, attitudes and knowledge,
    - **Level 3: Behaviour** – participants reported the value of the training and increased confidence in applying their new skills to their role.
- In France, regular formal debrief meetings were set up between the DWELL team and ambassadors
- Otherwise, a piecemeal approach to training was undertaken, including mentoring and ad hoc support from DWELL teams, which was deemed very valuable by Ambassadors
- Some DWELL Ambassadors reported receiving no formal training

DWELL Staff Training

- DWELL staff in all countries received training as part of the core training programme and additional training, as required, since many DWELL staff were trained professionals who joined the project with relevant expertise and a comprehensive skillset
- Training was also delivered to healthcare professionals who could refer participants to the programme and students in training
- Formal evaluation of training only occurred in one instance in France regarding 'Understanding Diabetes', which was well received
- Interview data demonstrates that staff training was effective in terms of Kirkpatrick's (Kirkpatrick and Kirkpatrick, 2016) model at the following levels:
    - **Level 1: Reaction** – participants were positive regarding the content and efficacy of training
    - **Level 2: Learning** – participants reported increased skills, attitudes and knowledge, particularly in terms of motivational interviewing and diabetes education
    - **Level 3: Behaviour** – there were examples of staff receiving specific training which resulted in changed practice due to the application of new skills
- The DWELL competency framework, developed by Kent County Council, reflects existing skills of DWELL staff as well as identifies any gaps so that they can be addressed.

DWELL Cost Effectiveness Analysis

- The DWELL programme was delivered in different ways across the countries participating in the project, with some putting emphasis on the role of the facilitator (UK, Belgium, France) in all stages of the programme whilst others (Netherlands) relying more on clinical staff such as nurses, diabetes expert and specialist activity providers.
- Despite the diversity of staff involved in DWELL programme delivery and different intensity of sessions provided, interestingly, the total cost per participant on average did not vary substantially across the four countries, except for France where a lower cost may be due to the differences in workforce costs and mode of delivery of the programme.
- Any further conclusions should be tempered given the different health systems across all participating countries. The estimated intervention costs in each country, however, can be used as a base to determine detailed cost-effectiveness of the DWELL programme compared with standard/routine care in future studies.

1. Workforce Training

Project partners developed and delivered cross-border training for DWELL Ambassadors and site workforce staff in relation to the delivery of the DWELL programme. The aim was for them to gain new skills and increase their knowledge on understanding the best way to motivate patients with type 2 diabetes to be able to self-manage their condition. This would help to facilitate a shift from the traditional medical-led model of diabetes care to the holistic patient-led model which underpins DWELL.

The training delivered differed across sites since professionals from different disciplines were involved. Furthermore, some staff did not require specific training since their professional roles facilitated their competence in certain areas. Another activity of the project involved the development of a DWELL staff competency framework, which is discussed with reference to the evaluation in further detail later in this report.

1.1 DWELL Ambassador Training

DWELL Ambassadors had face-to-face training sessions across delivery sites. In addition, French Ambassadors were invited to monthly formal supervision (debriefing) meetings with programme staff; 11 meetings took place and had 2 hours duration each time. Belgium recruited one DWELL Ambassador, however they were unable to commence activities and training due to COVID-19 lockdown restrictions coming into force.

Table 1. DWELL Ambassadors Training across sites

Title of Training	Site of training	DWELL Ambassadors trained (N)
Listening to and supporting patients to maintain behaviour change	France	2
DWELL Approach, Resilience and Self Care	UK 1 UK 2	2 7
Listening Skills, Communication, Facilitation	UK 1 UK 2	2 7
Common Language	France	5
Relationship, Support and Listening	France	6
Facilitator Training	UK 1 Netherlands	2 5

As part of the process evaluation of the programme, interviews were conducted towards the end of the programme with 18 DWELL Ambassadors across sites to establish their experiences and views of their involvement in the programme (findings are presented in Report 3: Process Evaluation). During interviews, ambassadors were invited to share what training they received during DWELL and how effective they found it, including the impact on their role as ambassador.

It was agreed at the outset of the project that DWELL Ambassadors should be provided with the opportunity to undertake training in motivational interviewing and other programme-related topics, which could potentially enable them to take 'ownership' of the activities to and sustain the delivery of the programme. During initial recruitment discussions with site leads, those interested in the DWELL Ambassador role were provided with further information about the DWELL Approach and the ethos of the programme. However, other training took place in a 'piecemeal' approach across the four countries and tended to be set up according to the needs of individuals.

Most DWELL Ambassadors in the UK attended two core training sessions organised by the two delivery sites. As process evaluation interviews took place towards the end of the programme, a couple of years had elapsed since this training had taken place. Therefore, although the participants recalled that the training adding value to their role and

provided an opportunity to connect with other ambassadors, most were unable to recall the detail of the sessions during their interviews. However, their feedback was captured at the time of the training via evaluation forms, which are reported on in the next section.

Some ambassadors reported not having received any formal training. Nonetheless, all of them mentioned the valuable support and mentorship they received from the DWELL site leads and facilitators, as well as from each other, e.g. in France, ambassadors were invited to regular debrief sessions to discuss how the programme was working and any improvements required. In all sites, DWELL Ambassadors felt very supported in their roles, whatever activities they chose to be involved in.

1.1.1 DWELL Ambassador Training evaluation

The research team developed an evaluation form template to be used following DWELL ambassador and site workforce staff training, which aligned with Kirkpatrick's (Kirkpatrick and Kirkpatrick, 2016) four levels of training evaluation model.

In practice, this form was only used to evaluate two DWELL ambassador training sessions which were co-developed for UK ambassadors by UK 1 and UK 2 sites. Further details about the content of these sessions are below:

'DWELL Approach, Developing Resilience and Self-Care' was hosted by UK 2 and included:

- Background to DWELL project
- The DWELL programme, approach and philosophy
- DWELL evaluation and anticipated results
- Develop an understanding of resilience, its importance and reflect on aspects of the ambassador role and its impact
- Recognising signs and symptoms of stress, strategies for coping
- Reflecting on personal needs and planning next steps for self-care

'Listening Skills, Communication and Facilitation' was hosted by UK 1 and included:

- Information and tips about active listening so DWELL Ambassadors could understand the perspective of others (e.g. through observing body language, self-awareness, summarising, etc.) and blocks to listening
- Key presentation skills – communication, planning and structuring, adapting to the audience, confidence
- Accompanying – helping others find their own solutions and empowering them to follow their own advice and advocate for themselves

A summary of UK training feedback is presented.

Experiences of Training

DWELL Ambassadors were asked to rate their experiences of the training in terms of whether:

- They understood learning objectives
- Training was delivered in the way they were expecting
- Training content was what they were expecting
- Content was relevant to the DWELL programme
- They were appropriately challenged
- They learnt something new
- They were confident to apply what they had learned to their DWELL ambassador role

Feedback was very positive for both training sessions - strongly agreed or agreed in all cases. There was just one participant who neither agreed/disagreed that the training was delivered in the way they expected. This was perhaps due to them not having any expectations at the outset. Figures 1 and 2 below show the answers of participants as percentages.

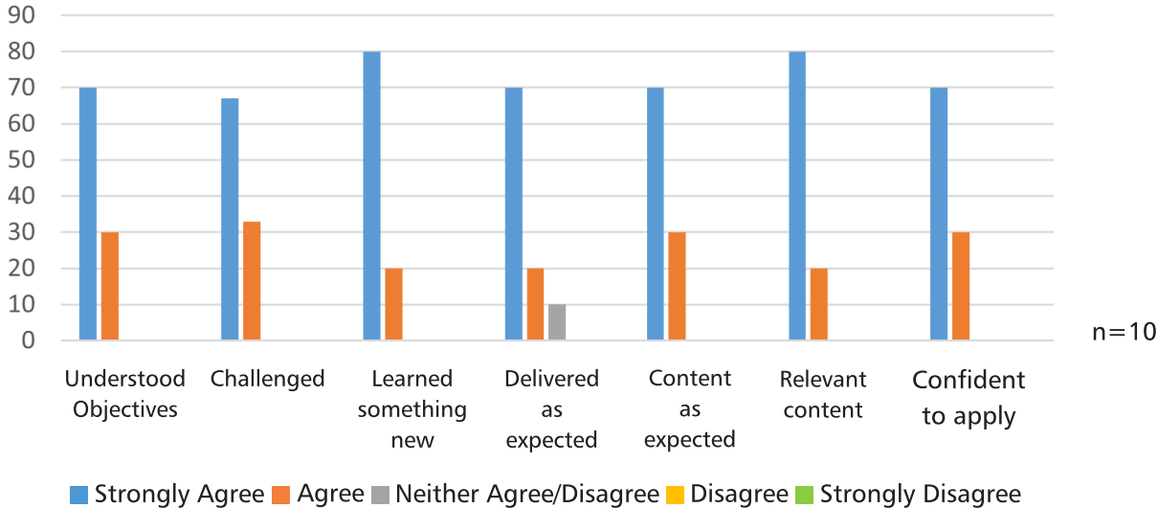


Figure 1. Experiences of DWELL Approach, Developing Resilience and Self-Care - UK

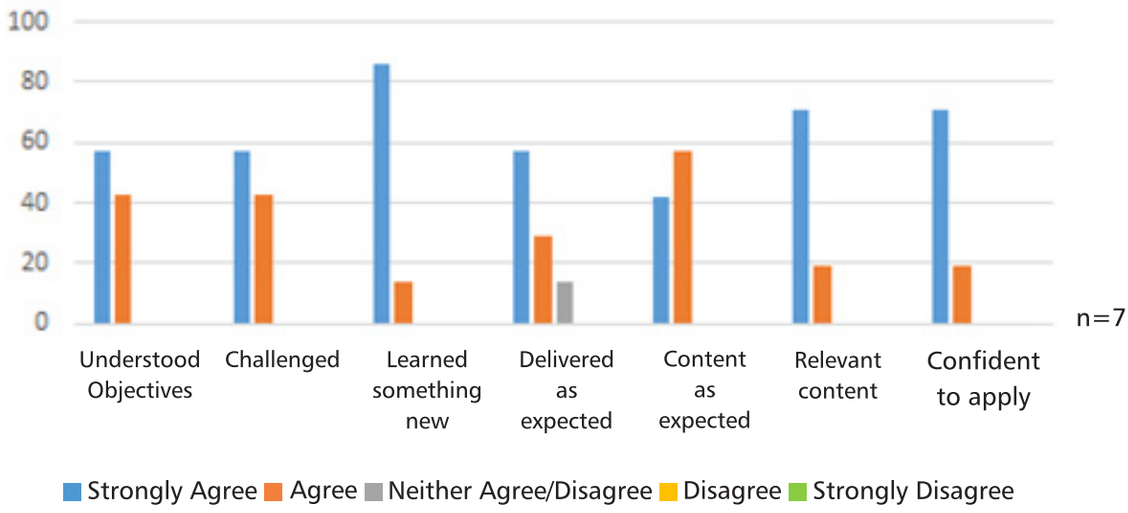


Figure 2. Experience of Listening Skills, Communication, Facilitation - UK

Views on Training Delivery and Presentation

DWELL Ambassadors were asked to rate their views of the training in terms of:

- Presentation
- Pace of delivery
- Quality of materials/handouts
- Knowledge of facilitator/trainer

Figures 3 and 4 below show the answers of participants as percentages. In the case of both sessions, all areas were rated as excellent or good.

Figure 3. Views of Training: DWELL Approach, Developing Resilience and Self-Care - UK

Figure 4. Views of Training: Listening Skills, Communication, Facilitation - UK

In a couple of cases, participants provided further explanation for their answers regarding the Listening Skills, Communication and Facilitation training, where they said the enjoyed the session and found it very informative.

Learning from the Training

Participants were asked to state the three most important things they learned from the training.

In the case of the DWELL Approach, Developing Resilience and Self-Care training, the most popular responses (44%) were with regards to participants learning self-care skills, including ensuring they made time for themselves, tools for being grounded and relaxed, and improving mental wellbeing. The next most common learning (40%) was around obtaining information and knowledge about the background of the DWELL programme and its approach. The third and final theme (16%) was learning detail about the ambassador role worked in practice, such as the support available, how to support others, and the flexibility of making the role their own.

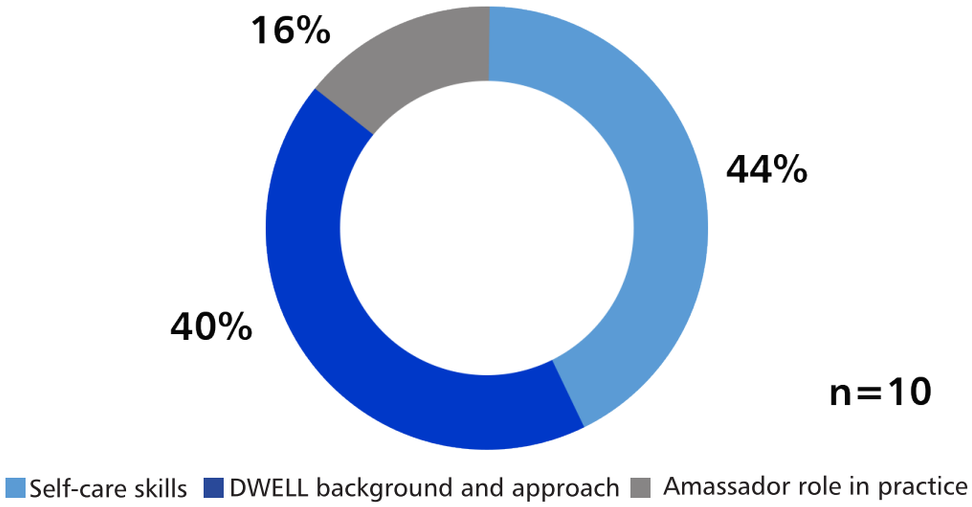


Figure 5. Learning from training: DWELL Approach, Developing Resilience and Self-Care - UK

In the case of the Listening Skills, Communication and Facilitation training, 43% of responses were around practical facilitation and communication skills, such as tips on presenting, keeping to time, delivery approach and running group exercises. The same amount of responses (43%) were around learning listening skills, including active listening, expressing understanding and empathy and being non-judgemental. A smaller proportion of responses (14%) where around participants practising self-care when supporting others, such as putting boundaries in place and not putting pressure on themselves to solve all the problems of others.

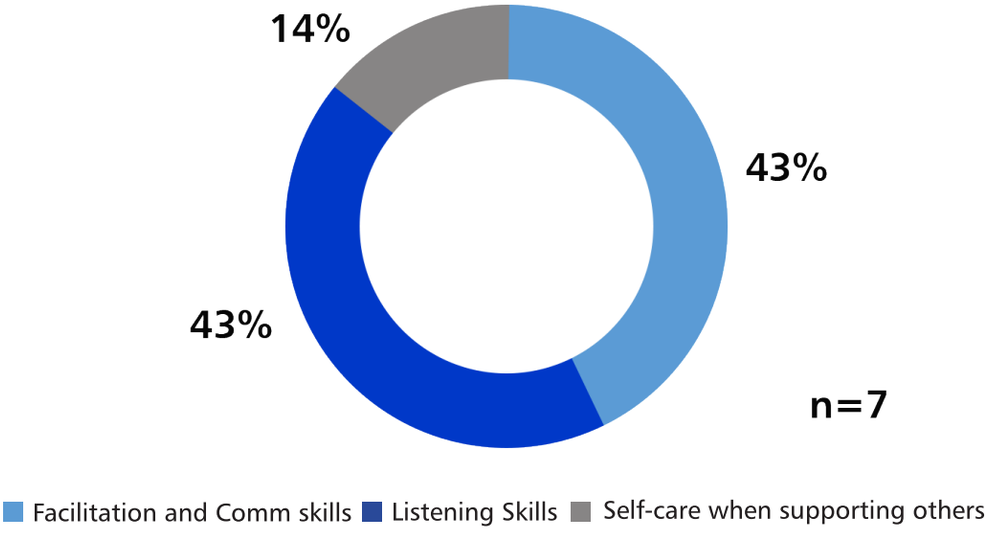


Figure 6. Learning from training: Listening Skills, Communication and Facilitation - UK

Impact of training on DWELL Ambassador role

In both sessions, participants reported that the training was both useful and valuable, and that after the training they felt more confident to apply their new skills to the DWELL patient ambassador role. They felt the training would help them to help others and increased their awareness, both in terms of themselves and others.

Key findings: DWELL Ambassador Training

- Formal training was developed and delivered to DWELL Ambassadors in the UK regarding the DWELL approach, self-care, listening and presentation skills. These sessions were received very well and feedback demonstrates the training was effective in terms of Kirkpatrick's (Kirkpatrick and Kirkpatrick, 2016) model at the following levels:
    - **Level 1: Reaction** – participants were overwhelmingly positive regarding the content and efficacy of the training
    - **Level 2: Learning** – participants reported increased skills, attitudes and knowledge
    - **Level 3: Behaviour** – participants reported the value of the training and increased confidence in applying their new skills to their role
- In France, regular formal debrief meetings were set up between the DWELL team and ambassadors
- Otherwise, a piecemeal approach to training was undertaken, including mentoring and ad hoc support from DWELL teams, which was deemed very valuable by ambassadors
- Some DWELL Ambassadors reported receiving no formal training

1.2 Workforce Training

As part of the DWELL project activities, a cross-border staff training programme was developed to enable staff to deliver the 12-week DWELL programme to people with type 2 diabetes, incorporating new ways of delivering diabetes care and moving away from the 'physician led' approach to supporting self-management by patients.

Most site staff members, who were recruited to design and deliver the programme, had a comprehensive understanding of type 2 diabetes, so partners co-developed lesson plans for a core staff training programme comprising elements that were directly relevant to DWELL. These sessions were developed as part of Work Package 1 of the project Development of Training Programme and are described below.

DWELL Approach

The purpose of the session was to provide the participant with a background and understanding of the DWELL programme. In terms of learning outcomes, by the end of the session participants will have:

- Understanding of the concept of the DWELL research project
- Awareness of the impact of type 2 diabetes on the lives of individuals
- Awareness of the different partners involved in the project and how the project is funded
- Understanding of what the DWELL programme for participants contains and how it will be delivered
- Understanding of the DWELL philosophy
- Awareness of the on-going support being developed for DWELL participants including the role of the DWELL Ambassador
- Understanding of the DWELL staff training programme
- Awareness of the expected outcomes of the DWELL project and how they will be measured

Understanding Diabetes

Although most staff joined DWELL with a background and understanding of type 2 diabetes, the purpose of this session was for those who may have had less knowledge to obtain knowledge regarding normal glucose metabolism and the changes that occur with diabetes, symptoms management and medications. The learning outcomes were:

- Awareness of the prevalence and financial impact of diabetes
- Understand normal glucose metabolism
- Understand the development of diabetes and the different types of diabetes

- Understand symptoms of diabetes related to high blood glucose
- Awareness of the complications of diabetes
- Awareness of management of diabetes

Facilitation Skills

The purpose of the session was to provide those involved in delivering the DWELL programme with the understanding and skills to facilitate groups. In terms of learning outcomes, by the end of the session, staff would have:

- Reached a basic understanding of what it means to facilitate
- Gained an understanding of how factors including personality types affect participant's behaviour within the group
- Have an awareness of their natural facilitation style
- Gained an understanding of the different ways in which adults learn
- Developed some key facilitation skills
- Gained confidence as a facilitator

Motivational Interviewing

The purpose of the session was to train staff to deliver motivational interviews with participants of the DWELL programme. By the end of the session, participants would:

- Understand the concept and principles of motivational interviewing and their application to diabetes
- Have learnt motivational interview skills and techniques and how to apply them to help DWELL participants evoke change

DWELL Evaluation Tools

The session was delivered by the evaluation partner to all delivery sites to:

- Introduce staff to the research study element of the DWELL programme
- Advise on research best practice and guidelines (including participant information, obtaining consent, etc.)
- Instruct staff on how and when to collate data via specific forms, including administering the DWELL Tool

Details of the core training delivered to DWELL staff across the five delivery sites are presented in Table 2.

Table 2. Core training for staff delivering DWELL programme across sites

m = minutes
h = hours
d = days

	DWELL APPROACH		UNDERSTANDING DIABETES		FACILITATION SKILLS	
	No. staff trained	Average duration	No. staff trained	Average duration	No. staff trained	Average duration
UK 1	5	1h	8	3h-4d	1	12d
UK 2	1	2h				
Belgium	4	45m				
France			17	13h-2d		
Netherlands	16	3h				

	MOTIVATIONAL INTERVIEWING		DWELL EVALUATION TOOLS		HBA1C LEVEL TESTING	
	No. staff trained	Average duration	No. staff trained	Average duration	No. staff trained	Average duration
UK 1	5	2d	4	3h	7	2h
UK 2	2	2d	3	3h	2	1.5h
Belgium			3	3h		
France	8	2d	1	3h		
Netherlands	6	4h	4	2h		

In addition to this, additional training was delivered as follows:

- How to conduct glycated haemoglobin (HbA1c) level tests using specific medical equipment – duration: 1.5-2 hours. In the UK, 9 staff undertook training/refresher sessions. In non-UK sites, participants visited their GP for HbA1c tests or had them at the hospital site, so this training was only relevant in UK, where HbA1c tests could take place on-site if required.
- Good Clinical Practice (GCP) Training – duration: 1 day. In the UK, GCP is the international ethical, scientific and practical standard to which all clinical research is conducted (NIHR, 2021). Although the DWELL project was not a clinical study, it was a requirement of the site that staff involved in research undertake this training. 2 staff received this training in site UK 2.
- DWELL Approach training was also delivered to healthcare professionals who could refer patients to the 12-week programme:
    - UK 2 – n = 40, duration: 1 hour
    - Belgium – n = 63 (including 23 diabetes educators), duration: 1 hour
    - Netherlands – n = 15, duration: 3 hours

- Motivational interview training was delivered to 2 healthcare professionals in the Netherlands who could refer patients to the 12-week programme – duration: 4 hours
- DWELL Training was delivered to students (e.g. nursing and other healthcare professions) at two sites. These individuals could potentially refer participants to the 12-week programme in future, thus they form part of the legacy of DWELL:
    - Belgium: DWELL Approach – n = 341, duration: 25 minutes
    - Netherlands: DWELL Approach and Motivational Interviewing – n = 79, duration: 3 hours per session.

1.2.1 Staff Training evaluation

The research team developed an evaluation form template to be used following staff training, which aligned with Kirkpatrick's (Kirkpatrick and Kirkpatrick, 2016) four levels of training evaluation model. However, in practice the form was not widely used since most staff involved in delivery of the 12-week programme were trained healthcare professionals who already possessed many of the skills required to deliver DWELL (see 'DWELL Staff Competency Framework' section). Much of the staff training was therefore ad hoc or delivered 'on the job' and was not routinely evaluated.

Evaluation of staff training was undertaken more formally in France, where feedback was obtained from 10 participants who attended the 'Understanding Diabetes' session. The feedback form incorporated learning reflections and whether participants found the training useful, although the standard evaluation form developed by the research team was not used in this instance. Additionally, two participants completed evaluation forms providing feedback about levels of satisfaction. Although the format of the feedback and numbers do not lend themselves to statistical analysis, analysis of training outcomes was conducted by comparing training feedback against set aims.

The purpose of the Understanding Diabetes session was to understand normal glucose metabolism and the changes that occur with diabetes, symptoms management and medications. The learning outcomes were:

- Awareness of the prevalence and financial impact of diabetes
- Understand normal glucose metabolism
- Understand the development of diabetes and the different types of diabetes
- Understand symptoms of diabetes related to high blood glucose
- Awareness of the complications of diabetes
- Awareness of management of diabetes

Overall, the training was well received by the participants, e.g. the topic was *"well covered"*, training was *"very in depth and enriching"* covering *"important aspects of diabetes"*. For those participants who answered via a scale, feedback was positive noting that training was *"overall very interesting"*.

The areas which elicited most response from the participants were food and diet and physical activity. The training offered was a *"detailed and precise"* insight into food and diet for people with diabetes, while another was given *"a whole different perspective on food"*.

As well as overall feedback, specific areas of learning were identified by those receiving the training, e.g., focus on carbohydrates, diet balance, food classification, differences between type 1 and type 2 diabetes, issues related to HbA1c measurement, regulating physical activity, diabetes diagnosis/risk factors/symptoms/treatment and use of insulin. Almost all also highlighted learning about communication with people with diabetes to provide help and support, including how to listen, advise, communicate and exchange ideas without judgment or imposing ideas.

As part of the Process Evaluation (Report 3: Process Evaluation), interviews were conducted with 10 DWELL site leads and 29 facilitators of the programme to establish their experiences and views of their involvement in DWELL. In the interviews, staff were invited to share what training they received as a result of DWELL and how effective they found it, including the impact on their working practice.

Most staff were healthcare and other professionals who came to DWELL having already gained a variety of skills, such as facilitating groups, or diabetes educators who had extensive expertise regarding the subject. Training, therefore, was mainly planned around individual's existing skills. Furthermore, training was often conducted 'on the job', such

as new team members being taken through the DWELL Approach and Evaluation Tools training on a one-to-one basis by another team member.

Most staff undertook motivational interview training in order to support participants in setting tailored goals to evoke behaviour changes. In some cases, even staff who had been trained in this area previously and attended as a 'refresher' found it very beneficial:

> *"Although I was practising MI* [prior to DWELL]*, I hadn't understood it to the same degree that I do now. It helped that we worked in small groups and got the opportunity to practice on each other in a supportive environment."* (DWELL team member, UK 2)

> "[Motivational interview] *training was a nice addition to the already existing knowledge of MI. Especially going over real-life cases was helpful, this way examples of real-life were discussed. It also provided some tools to get started."* (DWELL team member, Netherlands)

Two UK facilitators attended training delivered by the provider of an existing educational programme in the UK ('X-PERT') which type 2 diabetes patients are referred as part of standard care in order to help them make lifestyle choices to manage their blood glucose levels more effectively. The facilitators attended the training to gain further insight into the education element of DWELL, since they were new to working with people with type 2 diabetes. They reported finding the content of the five-day course challenging in places, but absolutely necessary in terms of being able to deliver their sessions effectively. However, another UK facilitator, who was a diabetes educator, did not gain as much from attending the X-PERT training since they felt they did not learn anything new. However, they did find it very valuable to shadow a local X-PERT trainer to observe how the sessions were facilitated in practice, and they were able to apply this learning to their facilitation of the DWELL programme.

Some facilitators reported that, prior to DWE LL, they had experience in working with individuals on a one-to-one basis, but had little or no experience of working with groups. To address this gap, one facilitator opted to attend an external Group Facilitation Skills course which took place one weekend per month for six months. They found the course reasonably helpful, but as it was more theory based than practical it was difficult to transfer their learning to DWELL. What this facilitator found invaluable and much more practical was sourcing a 'mentor' who they met with for peer support to ask specific questions in relation to DWELL. Together they worked out how best to approach issues. In a similar vein, all of the DWELL site leads and facilitators reported having regular team or one-to-one meetings for clinical/peer support, to solve problems, debrief, and share advice and ideas. This approach to training and support was felt to be beneficial, particularly for a programme such as DWELL where participants often required a high level of support:

> *"People are unwell. And there's a lot of fear and anxiety wrapped into that very often. A lot of difficult lives that make it difficult for people to make changes they need to make. So it felt like there was a lot there that needed quite skilful handling."* (DWELL team member, UK 1)

1.2.2 DWELL Staff Competency Framework

One of the DWELL project partners, Kent County Council, developed a DWELL Trainer Competency (Skills) Framework (Cochrane, 2021), which sets out measurable criteria required by those delivering the 12-week programme in key skills areas:

- Core skills including governance
- Equality and equity
- Diabetes subject knowledge
- Interpersonal skills

Since most DWELL staff (site leads and facilitators) came to the project with existing skills, they did not require certain training. The competency framework therefore reflects existing skills as well as identifies any gaps so that they can be addressed.

1.2.3 QISMET Accreditation

At the time of writing, the UK DWELL delivery sites were developing an application for Quality Institute for Self-Management Education and Training (QISMET) accreditation. QISMET is an independent not-for-profit body that supports self-management education providers and commissioners to achieve the highest possible quality service for people living with long-term health conditions.

QISMET provides accreditation (or certification) of self-management education interventions though testing providers against Quality Standards they have developed which define good practice in self-management education.

The Quality Standards cover management of the programme, clarify that programmes are evidence-based and suit the needs of participants, have a structured curriculum, are delivered by trained educators and incorporate performance management.

If QISMET accreditation is obtained, it will raise the profile of the DWELL programme amongst commissioners and stakeholders and help provide a legacy for implementation to continue.

Key findings: DWELL Staff Training

- DWELL staff in all countries received training as part of the core training programme and additional training, as required, since many DWELL staff were trained professionals who joined the project with relevant expertise and a comprehensive skillset
- Training was also delivered to professionals who could refer participants to the programme and students in training
- Formal evaluation of training only occurred in one instance in France regarding 'Understanding Diabetes', which was well received
- Interview data demonstrates that staff training was effective in terms of Kirkpatrick's (Kirkpatrick and Kirkpatrick, 2016) model at the following levels:
    - Level 1: Reaction – participants were positive regarding the content and efficacy of training
    - Level 2: Learning – participants reported increased skills, attitudes and knowledge, particularly in terms of motivational interviewing and diabetes education
    - Level 3: Behaviour – there were examples of staff receiving specific training which resulted in changed practice due to the application of new skills
- The DWELL competency framework developed by Kent County Council reflects existing skills of DWELL staf as well as identifies any gaps so that they can be addressed, and should be read in conjunction with this report

2. Cost Effectiveness of the DWELL Programme

About 32.3 million adults were diagnosed with diabetes in the European Union in 2019, up from an estimated 16.8 million adults in 2000. An additional 24.2 million people in Europe were estimated to have diabetes but be undiagnosed in 2019 (IDF, 2019). With prevalence of diabetes increasing in all ages across the 2 Seas region, health services will be overwhelmed by cere demands to manage diabetes and complications if holistic and inclusive strategies are not put in place. According to the International Diabetes Federation, countries need a stronger strategic approach, especially in cases where there is no national diabetes plan (e.g. Belgium and France).

The economic burden of diabetes is substantial. The health expenditure allocated to treat diabetes and prevent complications are estimated at about EUR 150 billion in 2019 in the EU, with the average expenditure per diabetic adult estimated at about EUR 3 000 per year (IDF, 2019). Whilst people with diabetes could potentially be heavy users of health care resources, as the condition is long-term and life-changing, there is also a strong expectation of diabetes self-management on daily basis by state healthcare service providers.

The cost of long-term conditions will become unsustainable across Europe unless new ways of working are introduced, with patients as partners, encouraging self-management and empowering patients to educate and help each other in a responsible way. DWELL aimed to provide a more efficient and effective healthcare provision for people with type 2 diabetes leading to reduced costs as patients will have fewer disease related complications (amputations, heart attacks, strokes, blindness) and need to access services less frequently.

As part of the DWELL Evaluation study, a cost benefit analysis was undertaken in each country to assess the outcomes from a cost analysis perspective. Results are reported at country-specific level due to differences in healthcare delivery systems. Details on the cost-effectiveness methodological approach are presented in Report 1: Methodology.

2.1 DWELL intervention costs – UK

Several health professionals were involved in the DWELL delivery in the UK, with small staff differences across the two sites (UK1 and UK2). In UK1, a mix of experts, research and admin staff (including expert trainers, motivational interviewers, chefs, a resource group leader and finance officer) were at the forefront of the programme delivery (see Table 3 for more details). The role of motivational interviewers was key in the delivery of DWELL, with them taking part in 40 sessions in total lasting 1.75 hours each. Resource group leaders were the least involved, being present in 6 sessions lasting 4 hours each. All staff were supervised during the programme by several senior clinical and research staff, such as the clinical lead and the project co-ordinator. Supervision time depended on the seniority of the supervisor as well as the role of supervisees and was considered when costing the programme. All costs are reported in 2019 prices. The total cost of supervision in UK1 was estimated to £887.48 per programme. Additional costs incurred were the cost of special equipment and educational material – specifically, cooking ingredients (£450 per week) and one-off costs for a HbA1c machine (£509.10) and expert books (£130).

Table 3. Staff involved in the DWELL delivery and associated salaries - UK1

Staff role	Sessions	Duration (per session)	Salary (per year)	Salary source
Expert trainer	12	3 hours	£25,692	DWELL team
Motivational interviewer	40	1.75 hours	£25,692	DWELL team
Chef (x2)	12	5 hours	£23,656	DWELL team
Resource group leader	6	4 hours	£35,208	DWELL team
Finance officer	12	3 hours	£28,547	DWELL team
Supervisor (1) – CEO	n/a	8 hours[a]	£39,794	DWELL team
Supervisor (2) – Project manager	n/a	18 hours[a]	£36,844	DWELL team
Supervisor (3) – Clinical lead	n/a	3.75 hours[a]	£36,711	DWELL team
Supervisor (4) – Project coordinator	n/a	22 hours[a]	£25,692	DWELL team

In UK2, the DWELL programme was delivered mainly by facilitators with some direct involvement of the DWELL programme lead (see Table 4 for more details). The facilitators were supervised by the programme lead, clinical director or research lead, with supervision time varying by supervisory staff. Indicatively, the research lead was involved in 20 hours of supervision while the clinical director in 10 hours, bringing the total cost of supervision to £2,668.20 per programme. Additional costs incurred involved cooking ingredients (£50 per cohort), exercise bands (£87.76 per cohort), room hire for the motivational interviews (£1,325 per cohort), exercise and mindfulness sessions (£50 and £68.85 respectively per cohort), and one-off costs for a HbA1c machine (£509.10), expert books (£919.20) and metabolic scales (£2,090).

Table 4. Staff involved in the DWELL delivery and associated salaries – UK2

Staff role	Sessions	Duration (per session)	Salary (per year)	Salary source[d]
DWELL programme Lead	42	3.30 hours[b]	£49,969	NHS Agenda for Change 2018-19
DWELL facilitator (1)	130	3.30 hours[b]	£43,041	NHS Agenda for Change 2018-19
DWELL facilitator (2)	109	3 hours[b]	£43,041	NHS Agenda for Change 2018-19
Expert facilitator[a]	n/a	3 hours	£29,608	NHS Agenda for Change 2018-19
Diabetes dietitian[a]	n/a	3 hours	£43,041	NHS Agenda for Change 2018-19
Supervisor (1) – DWELL programme lead	n/a	60 hours[c]	£49,969	NHS Agenda for Change 2018-19
Supervisor (2) – Clinical Director	n/a	10 hours[c]	£85,333	NHS Agenda for Change 2018-19
Supervisor (3) – Research Lead	n/a	20 hours[c]	£59,964	NHS Agenda for Change 2018-19

aAt pilot stage.

bThis includes 30 minutes of preparation before and after each session.

cTotal hours of supervision.

dhttps://www.nhsemployers.org/pay-pensions-and-reward/nhs-terms-and-conditions-of-service---agenda-for-change/pay-scales-1819/annual-1819

The total cost of delivering DWELL in the UK comprises the cost of all sessions delivered by several staff (including supervision) and any one-off equipment, education-related or other associated costs, summing up to £4,636.81 for UK1 and £4,600.73 for UK2. This is equivalent to £463.68 and £460.07 per participant for UK1 and UK2 respectively for a group of 10 participants per programme on average.

To be able to conduct a cost-effectiveness analysis we need to consider non-missing health-related quality of life and health resource use in all time points of the study (i.e., T0-T3). In the UK, we identified 10 participants from the control group and 21 from the intervention group fulfilling these criteria. All 10 participants in the control group were from UK2 while in the intervention group 10 were from UK1 and 11 from UK2. On average, participants were aged over 60 years, with two thirds (70%) in the control group and about half (52%) in the intervention group being male. Looking at gender differences across the two UK sites in the intervention group, 60% and 46% were male in UK1 and UK2 respectively. Responses to the health-related quality of life questionnaire were converted into scores (as described in Report 1: Methodology), and variations over time are shown in Figure 7. We do not have information about health-related quality of life in T0 and T1 for the control group, as recruitment began later. However, we can see that for the intervention group, health-related quality of life remained relatively stable over the duration of the study, with a small increase in T3.

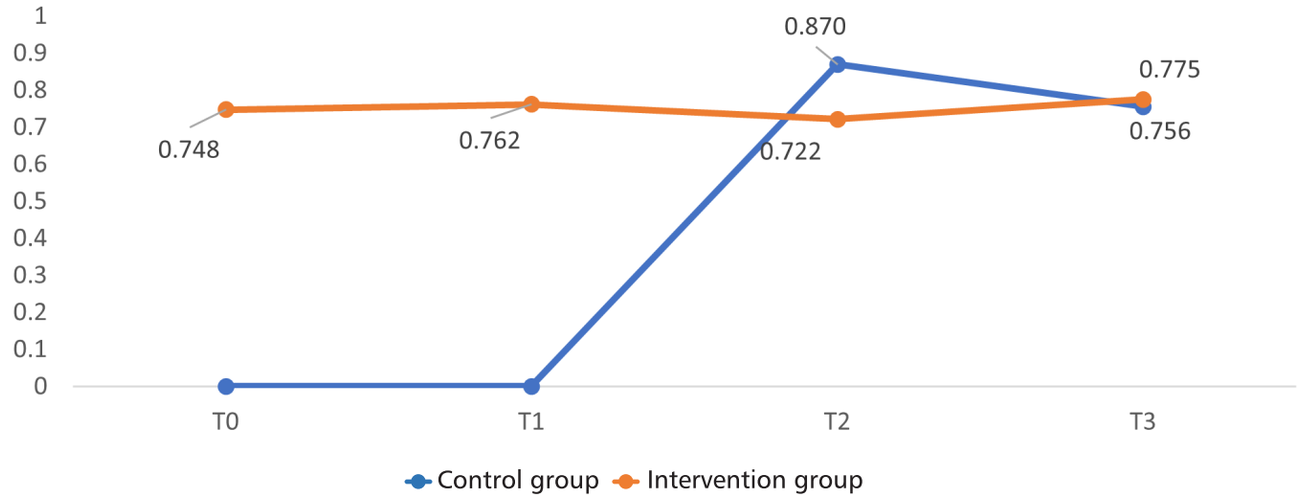


Figure 7. Health-related quality of life in the UK

The participants reported using a range of health and hospital services (see Figure 8). The most frequently used were pharmacist, GP and psychologist, irrespective of the study group. Indicatively, control participants reported on average 2.6 visits to a pharmacist in T2 and 4.3 in T3. For the intervention group, this was 1.3 and 0.8 visits respectively. Changes over time vary highly by service type, for example, more GP visits were reported in T3 than T2 in either control or intervention groups. Participants reported almost no hospital inpatient stays and Accident and Emergency visits. Finally, participants were asked to report whether they had used the diabetic screening service, with over two thirds responding negatively in the intervention group in either T2 (71%) or T3 (81%). The picture was mixed for the control group – two thirds (70%) responded positively in T2 and half (50%) in T3. Among the specialists reported providing this service, optometrist was the most common followed by diabetologist and retinal scan technician. Resource use can be combined with national unit costs (see Appendix, Table A1 for more details) to obtain a total cost for each service across all participants. However, given the small sample size and the possibility of outliers driving the overall costs, this exercise was not conducted as part of the UK analysis.

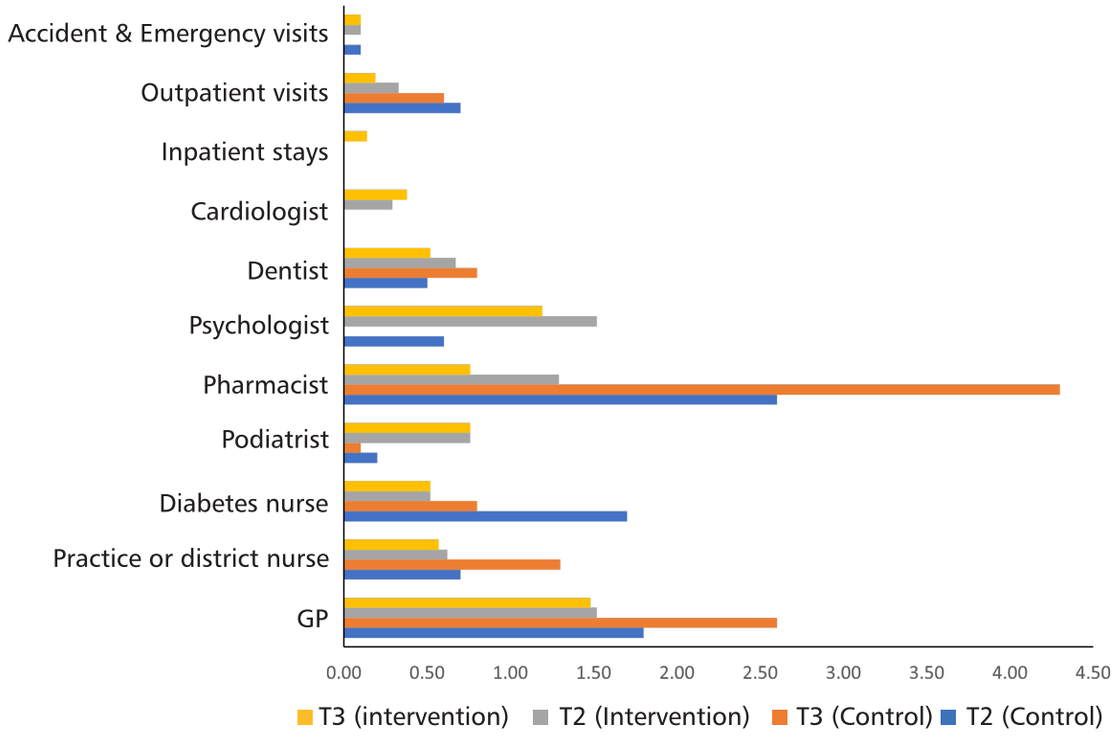
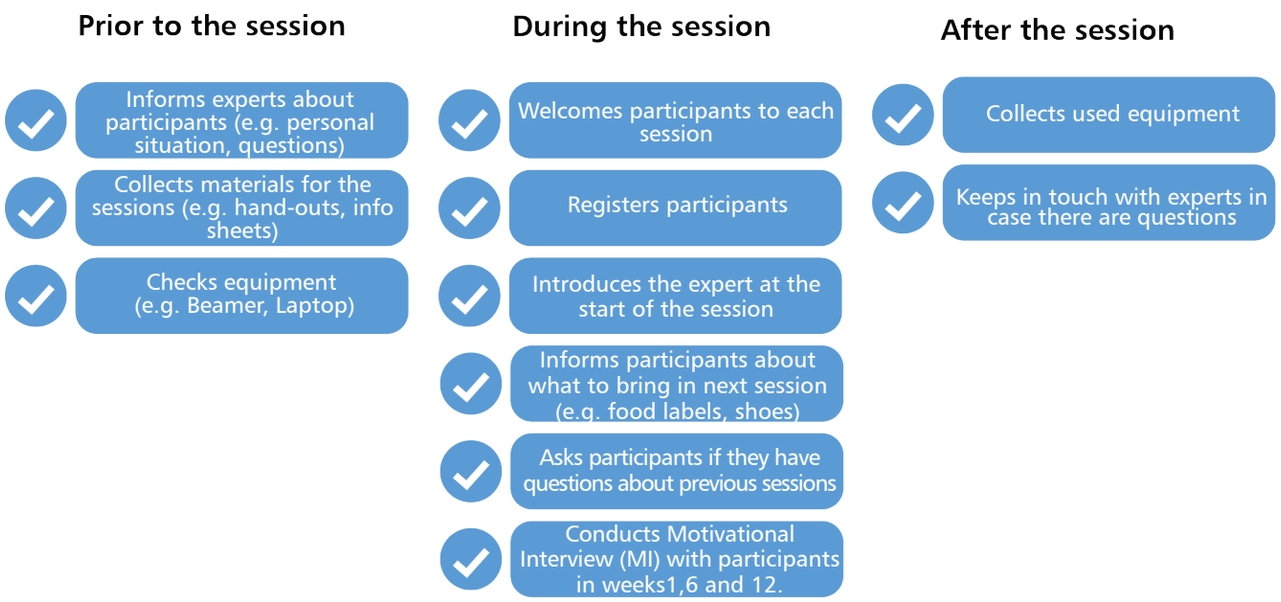


Figure 8. Health resource use in the UK

2.2 DWELL intervention costs – Belgium

Each session of the 12-week DWELL programme in Belgium was delivered by a facilitator (with support from a coach or supervisor, where required) and an expert in the respective theme (nutrition, physical activity, education, wellbeing). For cohorts 1-3, the role of the facilitator involved several activities prior to, during and after each session of the programme whilst also being the main point of contact for the participants. The facilitator responsibilities are listed in detail in Table 5, and included for example, preparing the necessary material and equipment prior to the sessions, as well as responding to questions of the experts after the end of the session. For cohorts 4 -5, the facilitator had more of a coach role and followed all the sessions, i.e. not just to introduce the expert during the session, which has implications for the total cost of the DWELL programme delivery. On the other hand, the expert in each theme was responsible for preparing the content of each session and handing the relevant documents (e.g. info sheets, slides) to the facilitators.

Table 5. Facilitator responsibilities in the DWELL delivery in Belgium



In the absence of a detailed record of staff costs for all involved in the programme delivery, the costs reported are based on two (staff) cost scenarios: (a) 65 Euros per hour based on the Artevelde University of Health Sciences rate; (b) 33 Euros per hour with 10 years of working experience on average based on national legal pay scales 'Loonbarema Paritair Comité 330'.[1] However, acknowledging potential variation in staff experience for each cohort, we further considered several additional analyses where the working staff experience varied from 0 years to 25 years. All costs are reported in 2020 prices.

Table 6 reports the number of staff involved and the time spent in delivering the programme, separately for each session. Facilitators spent on average three quarters of an hour preparing for each session for either participant cohort. However, their actual contact time, on average, differed by cohort – over an hour for cohorts 1-3, and 3 hours for cohorts 4-5, which is related to the increased presence of the facilitator in cohorts 4-5. At the same time, the number of facilitators involved over the twelve weeks of the programme did not differ by participant cohort, with one facilitator per session except for those sessions with motivational interviews, in which case 3 facilitators were involved. Additional costs incurred during that time included the production of relevant material (e.g. handouts) and catering. Specifically, 265 Euros were spent in printing material and 110 Euros in catering over the duration of the programme.

1 Nurse, health promotor, diabetes educator, physiotherapist, dietitian (Scale 1.55-1.61-1.77).

Table 6. Staff involved in the DWELL delivery in Belgium

Cohorts 1-3	Facilitators			Experts		
Session	Preparation (hours)	Contact (hours)	Staff involved	Preparation (hours)	Contact (hours)	Staff involved
Intro and MI	0.75	3	3	0	0	0
Nutrition 1	0.75	0.5	1	1.5	3	1
Nutrition 2	0.75	0.5	1	1.5	3	1
Physical Activity 1	0.75	0.5	1	1.5	3	1
Physical Activity 2	0.75	0.5	1	1.5	3	1
MI	0.75	3	3	0	0	0
Education 1	0.75	0.5	1	1.5	3	1
Education 2	0.75	0.5	1	1.5	3	1
Wellbeing 1	0.75	0.5	1	1.5	3	1
Wellbeing 2	0.75	0.5	1	1.5	3	1
Cooking workshop	0.75	0.5	1	1.5	4	1
Closing and MI	0.75	3	3	0	0	0

Cohorts 4-5	Facilitators			Experts		
Session	Preparation (hours)	Contact (hours)	Staff involved	Preparation (hours)	Contact (hours)	Staff involved
Intro and MI	0.75	3	3	0	0	0
Nutrition 1	0.75	3	1	1.5	3	1
Nutrition 2	0.75	3	1	1.5	3	1
Physical Activity 1	0.75	3	1	1.5	3	1
Physical Activity 2	0.75	3	1	1.5	3	1
MI	0.75	3	3	0	0	0
Education 1	0.75	3	1	1.5	3	1
Education 2	0.75	3	1	1.5	3	1
Wellbeing 1	0.75	3	1	1.5	3	1
Wellbeing 2	0.75	3	1	1.5	3	1
Cooking workshop	0.75	3	1	1.5	4	1
Closing and MI	0.75	3	3	0	0	0

The total cost of delivering DWELL in Belgium for each staff cost scenario is: (a) 5.997,50 Euros for Cohorts 1-3 and 7.460 Euros for Cohorts 4-5; (b) 3.264,89 Euros for Cohorts 1-3 and 4.016,59 Euros for Cohorts 4-5. For a group of 12 participants, these would be equivalent to: (a) 499,79 to 621,67 Euros; (b) 272,07 to 334,72 Euros per participant for Cohorts 1-3 and 4-5 respectively. For other scenarios, where we consider fewer or more than 10 years of working experience, the total cost would range from 2.563,32 to 5.025,52 Euros depending also on the extent of the facilitator's involvement – for a group of 12 participants per programme on average, this would be equivalent to a minimum of 213,61 Euros and a maximum of 418,79 Euros per participant (see Table7 for more details).

These cost estimates can inform future studies aiming to determine the cost-effectiveness of the DWELL programme compared with standard care.

Table 7. Total costs of DWELL delivery by years of staff experience in Belgium

Costs (Euros)	Working experience					
	0 years	5 years	10 years	15 years	20 years	25 years
Cohorts 1-3	2.563,32	2.811,41	3.264,89	3.474,77	3.855,66	4.065,55
Cohorts 4-5	3.132,54	3.445,16	4.016,59	4.281,06	4.761,04	5.025,52

2.3 DWELL intervention costs – France

DWELL was delivered by facilitators with different expertise, including diabetes, physical activity, and diet and wellbeing. Some facilitators were further involved in the conduction of motivational interviews as part of the programme. For instance, the diet and wellbeing facilitators were involved in 8-9 sessions over the duration of the programme, with each of them also conducting 6 motivational interviews. Each session lasted 2 hours whilst the motivational interviews lasted 1.5 hours each. Some facilitators were supervised by more senior staff responsible for the planning and implementation of the programme (see Table 8 for more details). Supervision time was considered when costing the programme. All costs are reported in 2019 prices. The total cost of supervision was 1.150,22 Euros.

Additional costs incurred were the cost of educational resources (109.10 Euros) and cooking ingredients (100 Euros). The total cost of delivering DWELL in France comprises the cost of all sessions delivered by the different facilitators and staff supervision as well as one-off costs of resources required for each session, summing up to 4.124,16 Euros – this is equivalent to 206,21 Euros per participant for a group of 20 participants per programme on average.

These cost estimates can inform future studies aiming to determine the cost-effectiveness of the DWELL programme compared with standard care.

Table 8. Staff involved in the DWELL delivery and associated salaries in France

Staff role	Sessions	Duration (per session)	Salary (per month)	Salary source
Diabetes expert & facilitator	3	2 hours	12.437,11 Euros	DWELL team
Diabetes facilitator	4	2 hours	4.875,49 Euros	DWELL team
Physical activity facilitator[a]	6	2 hours	2.850,33 Euros	DWELL team
Diet and wellbeing facilitator (1)[b]	9	2 hours	4.217,35 Euros	DWELL team
Diet and wellbeing facilitator (2)[c]	8	2 hours	4.089,40 Euros	DWELL team
Supervisor (1)	n/a	8 hours	5.157,55 Euros	DWELL team
Supervisor (2)	n/a	10 hours	12.437,11 Euros	DWELL team

n/a, not available.

[a]Also, conducted 8 motivational interviews lasting 1.5 hours each.

[b]Also, conducted 6 motivational interviews lasting 1.5 hours each.

[c]Also, conducted 6 motivational interviews lasting 1.5 hours each.

2.4 DWELL intervention costs – Netherlands

Several health professionals were involved in the DWELL delivery, including specialised nurses, activity providers, educators and group dynamics trainers. A detailed list of the different staff together with the number of sessions involved and duration is included in Table 9.

The role of nurses (specialised or not) was key in the delivery of the programme, with nurses being present in 150 sessions in total lasting 4 hours each, and diabetic nurses in 56 sessions lasting 40 minutes each. Some staff – nurses and educators – were supervised by project team members (including the Principal Investigator), with supervision time considered when costing the programme. All costs are reported in 2019 prices. A total of 50 hours were spent in staff supervision equivalent to 5.000 Euros. Additional costs incurred were the cost of equipment – specifically, 20 monitors at a cost of 100 Euros each – and promotional material at approximately 1.500 Euros.

The total cost of delivering DWELL in the Netherlands comprises the cost of all sessions delivered by several professionals (including supervision) and any one-off equipment or promotional costs, summing up to 19.556,59 Euros, which is equivalent to 488,91 Euros per participant for a group of 40 participants per programme on average.

Table 9. Staff involved in the DWELL delivery and associated salaries in Netherlands

Staff role	Sessions	Duration (per session)	Salary[a] (per month)	Salary source
Diabetic nurse	56	40 minutes	3.604,75 Euros[b]	CAO Ziekenhuizen
Nurse	150	30 minutes	3.174,82 Euros[b]	CAO Ziekenhuizen
Head nurse	20	30 minutes	3.738,55 Euros[b]	CAO Ziekenhuizen
Research nurse	50	240 minutes	3.943,19 Euros	CAO Ziekenhuizen
Activity provider	12	240 minutes	4.021,18 Euros	Project team
Educator	8	60 minutes	4.021,18 Euros	Project team
Assistant educator	30	60 minutes	3.688,37 Euros	Project team
Group dynamics trainer	12	240 minutes	400 Euros[c]	Project team

[a]It includes 8,3% holiday and 8,3% allowances/pension composition.

[b]Adjusted to 2019 prices using the CCEMG-EPPI Centre Cost Converter (https://eppi.ioe.ac.uk/costconversion/default.aspx).

[c]per day.

In order to be able to conduct a cost-effectiveness analysis we need to consider non-missing health-related quality of life and health resource use in all time points of the study (i.e. T0-T3). In the Netherlands, we identified 6 participants from the control group and 15 from the intervention group fulfilling these criteria. On average, participants aged over 50 years in the control group and over 60 years in the intervention group. Almost two thirds (67%) in either study group were male. Responses to the health-related quality of life questionnaire were converted into scores as described in Report 1 (Evaluation Methodology), and variations over time are shown in Figure 9. We can see that for the intervention group, health-related quality of life remained relatively stable over the duration of the study whereas for the control group it dropped significantly in T1, reaching almost T0 levels in T2 and T3.

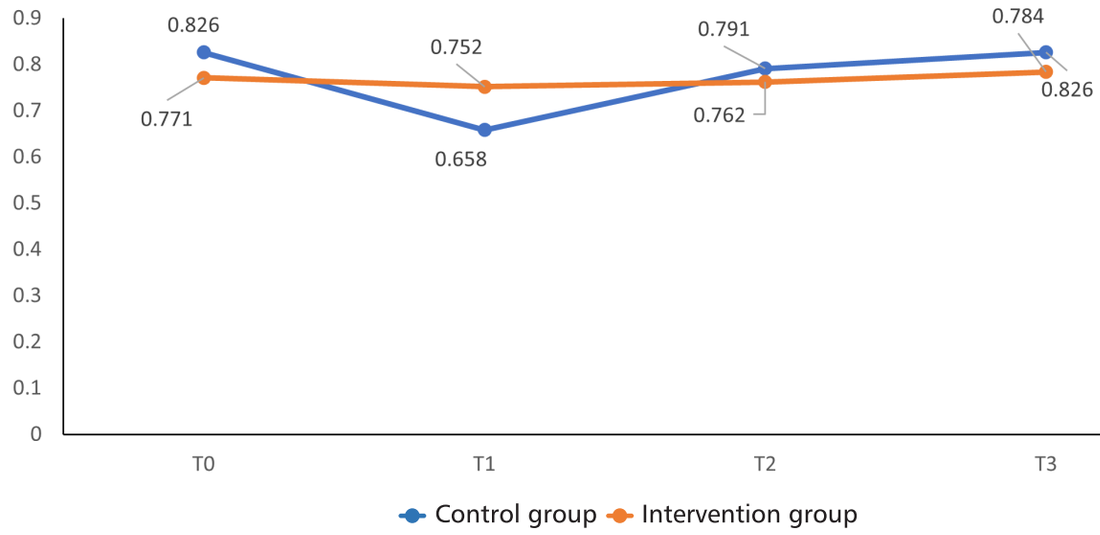


Figure 9. Health-related quality of life – Netherlands

The participants reported using a range of health and hospital services (see Figure 10). The most frequently used were physiotherapist and GP, irrespective of the study group. Indicatively, control participants reported on average 2.8 visits to a physiotherapist in T2 and 1.7 in T3. For the intervention group, this was 1.7 and 1.8 visits respectively. Changes over time vary highly by service type, for example, more GP visits were reported in T3 than T2 in the control group while the opposite happened in the intervention group. Participants in either study group reported almost no hospital inpatient stays. Resource use can be combined with national unit costs (see Appendix, Table A2 for more details) to obtain a total cost for each service across all participants. However, given the small sample size and the possibility of outliers driving the overall costs, this exercise was not conducted as part of the Dutch analysis.

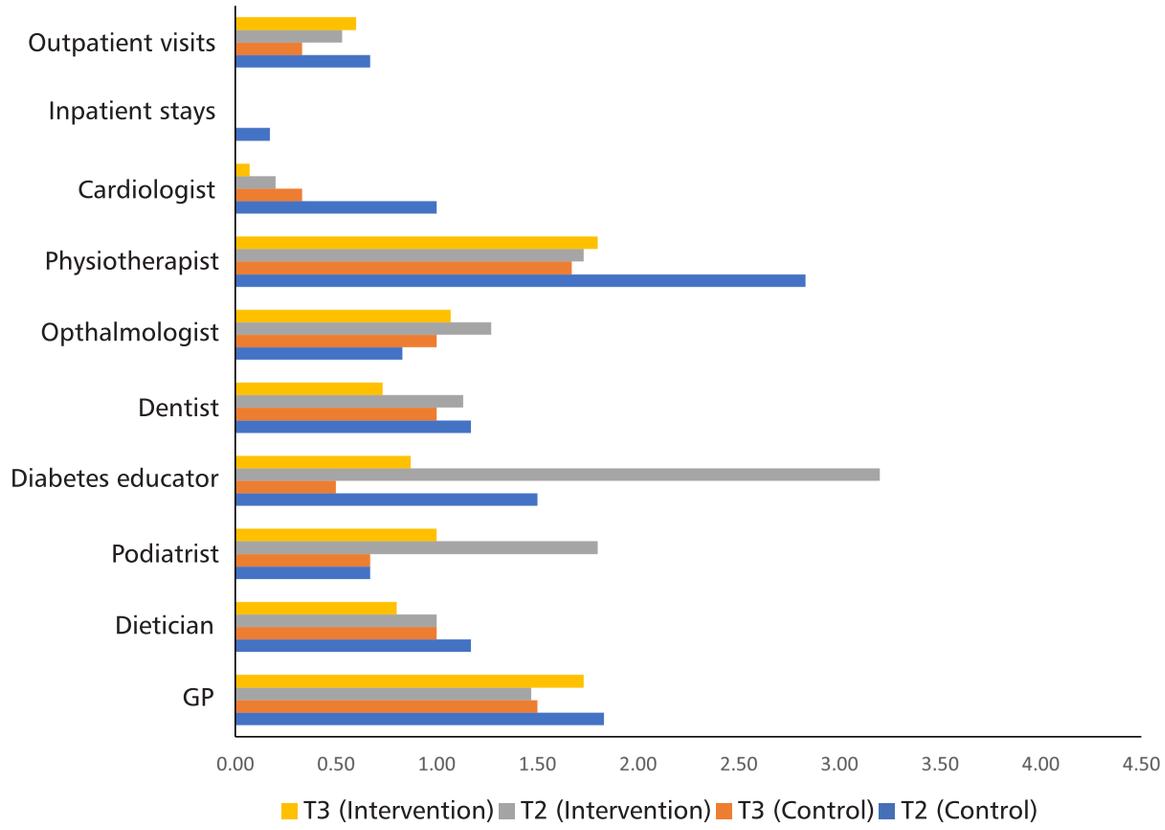


Figure 10. Health resource use – Netherlands

Key findings: Cost Effectiveness of the DWELL Programme

The DWELL programme was delivered in different ways across the countries participating in the project, with some putting emphasis on the role of the facilitator (UK, Belgium, France) in all stages of the programme whilst others (Netherlands) relying more on clinical staff such as nurses, diabetes expert and specialist activity providers.

Despite the diversity of staff involved in DWELL programme delivery and different intensity of sessions provided, interestingly, the total cost per participant on average did not vary substantially across the four countries, except for France where a lower cost may be due to the differences in workforce costs and mode of delivery of the programme. Any further conclusions should be tempered given the different health systems across all participating countries. The estimated intervention costs in each country, however, can be used as a base to determine detailed cost-effectiveness of the DWELL programme compared with standard/routine care in future studies.

Notably, for the UK and Netherlands, there was a large amount (>60%) of incomplete resource use and health-related quality of life data in T2 and T3, therefore multiple imputation was not considered appropriate given the high percentage of missingness. It is difficult to determine whether incomplete data were due to low or no participant engagement in the cost-effectiveness element of the evaluation study, as other factors (including the COVID-19 pandemic) beyond the research team's control may have also played a role. As a result, it was impossible to calculate Quality Adjusted Life Years (QALYs) and subsequently conduct a full cost-effectiveness analysis for these two countries.

On the other hand, France did not secure ethics approval for recruitment of control group participants, which meant that we could not observe the acceptability of the resource use questionnaire, make any comparisons between the intervention and control groups, as well as conduct a cost-effectiveness analysis for this country.

Finally, Belgium had not finished with follow-up recruitment by the end of the study, which also resulted in not reporting any health-related quality of life and resource use findings, both required for a cost-effectiveness analysis. More research is required to establish a clearer picture per country and evaluate further the cost benefits of these changes.

In relation to use of health services, although the results from the UK and Netherlands do not provide much detail (i.e. no differentiation between whether participants were using health services for diabetes or other matters), it can perhaps provide some idea of general trends between the intervention and control group participants. Further detail would also help determine whether such trends were positive or negative, for example are people more knowledgeable about their health/diabetes and therefore seeking the right help more frequently (a positive result) or is it because of a decline in health status (a negative result). Nonetheless, some interesting differences between the control and intervention groups suggest that DWELL participants may have changed the way they use health resources.

Despite the data quality issues mentioned above, it is worth highlighting several points that could be considered in future studies with regards to recruitment of control group participants, follow-up and resource use data. For example, if the DWELL programme delivery was shortened or lengthened, then the follow-up points will need to be reconsidered. In addition, if a blended approach is followed in the delivery of the programme, this should be recorded and considered when costing the intervention. In this study, in some countries due to mitigating circumstances, recruitment of the control group participants began after T1 had elapsed, which made it impossible to observe any differences in resource use at T0 and T1. In future studies, recruitment of both intervention and control groups should be concurrent. Finally, resource use data was based on self-report, which potentially puts a strain on participants (given the retrospective element of such questions) and can subsequently result in inaccurate or incomplete data. Alternative sources regarding the use of health services could be considered in the future, including for example, accessing patient records through GP practices, providing that the relevant approvals are obtained. Patient records can also be insightful in terms of the mode of delivery of primary care services (face-to-face, telephone), which can lead to more accurate costing of the different services.

References

Cochrane, S. (2021) *DWELL Trainer Competency (Skills) Framework 2021 (D3.1.3): DWELL Partners Training Competencies.* Kent County Council Public Health.

IDF (2019) *Diabetes Atlas(9th edition)*.International Diabetes Federation, Brussels.
Kirkpatrick, J.D. and Kirkpatrick, W.K. (2016) Kirkpatrick's Four Levels of Training Evaluation. Virginia: ATD Press

NIHR (2021) *National Institute for Health Research (NIHR): Good Clinical Practice.* [Online] https://www.nihr.ac.uk/health-and-care-professionals/learning-and-support/good-clinical-practice.htm

Appendix A

Table A1: Service user-reported health care use and associated unit costs – UK

Item	Unit cost (£)[a]	Source
Health Services		
GP	34	Unit Costs of Health and Social Care, Personal Social Services Research Unit (2019), pp. 120, per surgery consultation lasting 9.22 minutes (including direct care staff costs and qualifications)
Practice or district nurse	40	National Schedule of Reference Costs (2018/19), NHS trusts and NHS foundation trusts, Community Health Services-Nursing (face-to-dace), Code: N02AF
Diabetes nurse	72	National Schedule of Reference Costs (2018/19), NHS trusts and NHS foundation trusts, Community Health Services-Diabetic Nursing/Liaison (face-to-face), Code: N15AF
Podiatrist	47	Unit Costs of Health and Social Care, Personal Social Services Research Unit (2019), pp. 143, (Band 6, per hour)
Pharmacist	47	Unit Costs of Health and Social Care, Personal Social Services Research Unit (2019), pp. 143, (Band 6, per hour)
Psychologist	46	Unit Costs of Health and Social Care, Personal Social Services Research Unit (2019), pp. 143, (Band 6, per hour)
Dentist	133	Unit Costs of Health and Social Care, Personal Social Services Research Unit (2019), pp. 124, per hour of patient contact
Cardiologist	107	National Schedule of Reference Costs (2018/19), NHS trusts and NHS foundation trusts, Non Consultant Led (follow-up), Code: WF01A
Hospital services		
Inpatient stay	589	National Schedule of Reference Costs (2018/2019), NHS trusts and NHS foundation trusts, Non-elective Short Stay (National Average)
Outpatient visit	148	National Schedule of Reference Costs (2018/19), NHS trusts and NHS foundation trusts, Outpatient procedures (National Average)
Accident & Emergency visit	166	National Schedule of Reference Costs (2018/19), NHS trusts and NHS foundation trusts, Accident & Emergency (National Average)

Table A2: Service user-reported health care use and associated unit costs – Netherlands

Item	Unit cost (€)[a]	Source
Health Services		
GP	9,38	for less than 20 minutes, DWELL team
Dietitian	15,24	for 15 minutes, DWELL team
Podiatrist	81,23	standard consultation, DWELL team
Diabetes educator	25,40	per topic; standard consultation, DWELL team
Dentist	21,34	standard consultation, DWELL team
Ophthalmologist	139,46	per hospital visit, DWELL team
Physiotherapist	30,23	for minimum 21 minutes, DWELL team
Cardiologist	179,86	standard consultation, DWELL team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