



ANNUAL REPORT 2023

HIP AND KNEE OSTEOARTHRITIS



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EDITORIAL

Welcome to the GLA:D® Ireland Annual Report for 2023! The GLA:D® Ireland non-profit initiative was set up in 2021 to improve outcomes for people with hip and knee osteoarthritis in Ireland, with involvement of those with lived experience and clinicians treating these conditions.

GLA:D® aims to accelerate implementation of clinical guidelines into practice, with an overall objective to ensure that: **1.** All people with osteoarthritis have equal access to evidence-based treatment irrespective of place of residence or financial situation; and **2.** Surgery is considered only when non-surgical treatment measures have not led to satisfactory outcomes

GLA:D IRELAND TEAM



Clodagh Toomey PhD

Research Lead GLA:D Ireland
Primary Investigator IMPACT Project



Avantika Bhardwaj

PhD Student



Peter Hempenstall

Research Assistant / MSc Student

HOW DID GLA:D® IRELAND GET STARTED?

The GLA:D® Ireland initiative came to fruition through a **Health Research Board** Emerging Investigator Award to fund the **IMPACT (Implementation of osteoarthritis clinical guidelines together) project**. The co-applicant team and steering committee are made up of a diverse group of stakeholders and have oversight of the research and co-design strategies to implement GLA:D® in Ireland.

IMPACT



Implementation of osteoArthritis Clinical Guidelines Together

IMPACT Research Project Co-Applicants/Collaborators: Dr. Clodagh Toomey (PI, University of Limerick (UL)), Prof Norelee Kennedy (UL), Prof Anne MacFarlane (UL), Prof Liam Glynn (UL), Prof John Forbes (UL), Prof Ewa Roos (University of Southern Denmark (SDU)), Prof Soren Skou (SDU).

IMPACT Project Steering Committee:

Jacqui Browne (Patient representative)
Martina Blake (Arthritis Ireland)
Adrian Cassar-Gheiti (Orthopaedic Consultant)
Ian Dowling (Clinical Physiotherapist)
Helen French (RCSI, Physiotherapist Academic)
Stacey Grealis (Patient representative)
Peter Hayes (UL, GP and Academic)

Norelee Kennedy (UL, Physiotherapist Academic)
Darragh Maguire (Clinical Physiotherapist)
Brenda Monaghan (TCD, Clinical Physiotherapist)
John O'Hora (CHN Manager Sligo/South Donegal)
Clodagh Toomey (UL, Physiotherapist Academic)
James Young (GLA:D International Network)



WHAT IS GLA:D®?

GLA:D® is an **education and exercise programme** that has helped over 100,000 people with hip and knee osteoarthritis (OA) manage their symptoms of pain and loss of function.

GLA:D® stands for Good Life with osteoArthritis from Denmark and was first developed in Denmark in 2013, before expanding to 10 other countries around the world.

The programme reflects the latest research and has been developed and adapted based on feedback from people with OA, as well as healthcare professionals who provide care to individuals with mild to severe symptoms in Ireland. GLA:D® therefore provides **an evidence-based approach that works in the real world.**



THREE PARTS OF GLA:D®

1 Course for Physiotherapists

2-Day (hybrid) continuous professional development course for physiotherapists with theory and interactive practical and discussion sessions



2 GLA:D® Group Exercise & Education Programme Delivery

The 8-week GLA:D® programme is delivered by certified physiotherapists to people with hip and knee OA in clinics and hospitals around Ireland. Group sessions that are tailored to each patient's needs and goals consists of:

- 2 (or 3) education sessions
- 12 supervised education sessions (held twice weekly)



3 GLA:D® National Registry for Patient Outcomes

Patient questionnaires are completed with consent, before and after the programme, to monitor how GLA:D® affects patient outcomes like pain, function and quality of life in Ireland.



TRAINING OF PHYSIOTHERAPISTS

The first GLA:D® Ireland Course for Physiotherapists was held at the University of Limerick in October 2021. Danish programme co-developer Ewa Roos and trainer Sarah Kroman provided training on the GLA:D® concept. The programme was then adapted to the Irish setting by the project steering committee and has now been running for two years.

From October 2021 to December 2023, six courses were held in Ireland, with 130 physiotherapists certified to deliver GLA:D®

79% of physiotherapists were employed by the public sector and 21% were in the private sector.



Wexford Primary Care Team receiving their GLA:D training in Enniscorthy in October 2023.

I think it gave patients a love for exercise and it showed them the benefits and gave them the tools to continue after the course, which was nice.
GLA:D trained Primary Care Physiotherapist

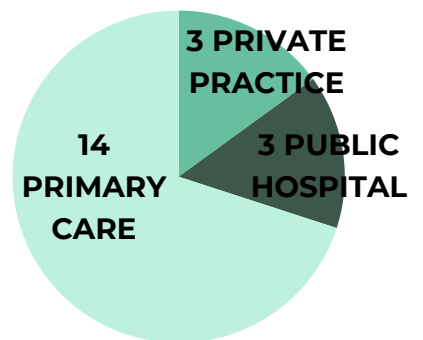


100% of physiotherapists agreed or strongly agreed that they were **satisfied** with the course.



In 2023, 20 sites offered GLA:D® across all four provinces in Ireland.

Up-to-date lists of sites offering GLA:D® can be found on the [website](#).



Interested in becoming a GLA:D® certified physiotherapist? Details on upcoming courses are found [here](#)

GLA:D® IRELAND PARTICIPANTS

Between October 2021 and December 2023, at least 297 people with hip or knee osteoarthritis took part in the GLA:D® programme in Ireland. Participants were asked to complete a set of questionnaires before and after the programme, and again 12 months later. There were 127 participants who completed baseline and follow-up questionnaires.



MOST COMMONLY AFFECTED JOINT

69% had pain in more than one joint



75% of those who participated in GLA:D® were **women**.



The **average age was 64 years**. The youngest participant was in their 40's, while the oldest participant was in their 80's.



The average **Body Mass Index (BMI)** of participants was **29.9**. There were 84% of knee participants and 67% of hip participants who were **overweight or obese**.

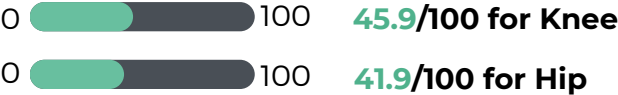


Most were referred to GLA:D by their **GP or other physician (42%)**. Other sources of referral included clinic waitlists, advanced practice physiotherapist, orthopaedic consultant or self-referral.



Symptoms before starting GLA:D®

Average pain on Visual Analog Scale (VAS)



Joint stiffness in the morning



Reduced movement in the joint

Painkiller Use

73% of **knee** participants and 72% of **hip** participants reported taking painkillers in the previous 2 weeks.

Previous Surgery

24% of **knee** participants and 11% of **hip** participants had undergone joint surgery before starting in GLA:D®.

Other Health Conditions

90% of all participants reported having another health condition. The most common conditions reported were high blood pressure (37%), back pain (34%) and high cholesterol (31%).

GLA:D®: FOLLOW-UP RESULTS

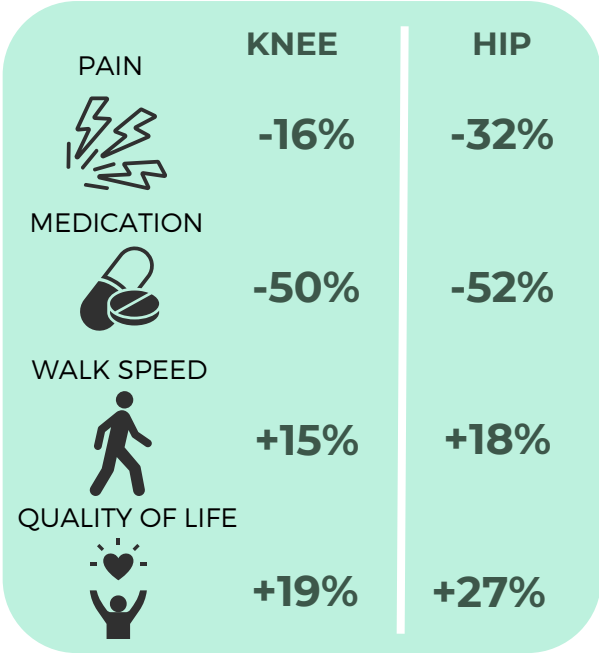
The immediate changes in patient outcomes after participation in a 7-8 week GLA:D® Ireland programme are presented below.

LESS PAIN

After GLA:D®, the **average pain reduced** by **16%** (from 48 to 40 mm on VAS (visual analogue scale) 0-100) for **knee** participants and **32%** (from 46 to 31 on VAS 0-100) for **hip** participants.

LESS PAIN MEDICATION

After GLA:D®, **50% of knee** participants and **52% of hip** participants reported that they were using **less or much less medication**, such as paracetamol, NSAIDs (non-steroidal anti-inflammatory drugs) or opioids.



“Before this programme, I was frightened, I was in pain. Now, I know I am better if I move and have an exercise plan everyday. I feel better, this programme has opened my eyes.”

67 year-old participant with knee pain

BETTER PHYSICAL FUNCTION

After GLA:D®, the **number of sit to stands** in 30 seconds increased by **34%** (from 10 to 13 repetitions) for knee participants and increased by **27%** (from 10 to 13 repetitions) for hip participants.

The average **walking speed increased** by **15%** (from 1.4 m/sec to 1.6 m/sec) for knee participants and **18%** (from 1.3 m/sec to 1.6 m/sec) for hip participants.

HIGHER QUALITY OF LIFE

Average **joint-related quality of life increased** by **19%** (Knee injury and Osteoarthritis Outcome Score QoL from 41 to 49) and **27%** (Hip disability and Osteoarthritis Outcome Score QoL from 44 to 56) respectively.



GLA:D®: FOLLOW-UP RESULTS

HIGH ATTENDANCE AND SATISFACTION



9 IN 10 PARTICIPANTS ATTENDED
ALMOST ALL (12/14) OF THE SESSIONS



92% of the participants
use what they have
learned in GLA:D® **at
least once a week.**

94% of the
participants
were **satisfied
or very
satisfied** with
GLA:D®.



4 IN 5 PARTICIPANTS RATED
THEIR JOINT PROBLEM AS
**SOMEWHAT BETTER, BETTER
OR MUCH BETTER** AFTER GLA:D.

RESULTS ONE YEAR AFTER GLA:D®

To measure the long-term effect of GLA:D®, participants were asked to complete a health questionnaire one year later. Results were as follows:

LESS PAIN



GLA:D® participants maintained a meaningful reduction in pain one year later, **Average pain was reduced by 21%** (from 45 to 36 mm on VAS (visual analogue scale) 0-100) compared with before GLA:D®.

LESS MEDICATION



One year after GLA:D®, **56%** of participants reported that they were still using **less or much less medication**, such as paracetamol, NSAIDs (non-steroidal anti-inflammatory drugs) or opioids.

HIGHER QUALITY OF LIFE



Average **joint-related quality of life increased by 20%** (Knee injury and Osteoarthritis Outcome Score QoL from 46 to 55), one year after GLA:D®

FEWER ON SICK LEAVE



The proportion of people reporting taking **sick leave** due to their hip or knee pain in the past year **reduced from 21% to 10%.**

LESS DESIRE FOR SURGERY



Of those who wanted to undergo joint replacement surgery prior to GLA:D®, **57% no longer desired surgery** one year after the programme.

LATEST GLA:D® RESEARCH

Data collected from GLA:D® participants is anonymised (meaning participants cannot be identified) and used to provide summaries and conduct analyses to inform our understanding of treatments that help to manage osteoarthritis. This is used to improve decision-making in healthcare policy and practice.

GLA:D® has now been around for 10 years, in 10 different countries with over 100,000 participants. Some of the latest published research results from Ireland and other countries are presented below with links to the original research papers. References can also be found on www.gladireland.ie/research

Barriers and facilitators to implementing GLA:D® in Ireland identified

Interviews with GLA:D® physiotherapists and participants in **Ireland** were carried out in the first year of the programme to understand what worked well and what did not. All barriers were related to the need for **adequate clinic space and personnel** to run the programme. Physiotherapists reported that the programme offered a structured, evidence-based package, met the needs of their patients and **shortened waiting lists**. People with osteoarthritis reported positively about their learnings and enjoyed the level of **supervision, social support and adaptability** of the programme. [Link to Bhardwaj et al 2024](#) for full paper.



Increase in physical activity after GLA:D® is not dependent on pain

An analysis of data from over 17,000 participants from GLA:D® in **Denmark** found that **1 in 4** of all participants **increased their physical activity following GLA:D®**, and two thirds (69%) maintained at least a **moderate** physical activity level from immediately after to 12 months after the program. In those with low activity at baseline, 55% improved to a moderate level after the programme (37% maintained this at 12 months). The improvement in physical activity was not dependent on a pain reduction, suggesting that **pain need not be a barrier to physical activity**. This is in line with learnings from GLA:D education, where participants learn that it is safe to exercise with a small amount of pain. [Link to Baumbach et al 2022](#) for full paper.



GLA:D® delivered via Telehelath is also effective

A study conducted in **Australia** has shown that GLA:D® delivered **via telehealth is effective, has high patient satisfaction, and is perceived positively** by physiotherapists ([Ezzat et al 2023](#)). In **Denmark**, the improvement in patient outcomes after GLA:D® was comparable whether delivered in-person, or via telehealth ([Holm et al 2023](#)).



Need more information?
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