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Blog-1

Type 2 Diabetes and Wearable Technology: Strengths and Challenges to Overcome

T2D: A global epidemic that is not transmitted through humans

Type 2 diabetes is a medical disorder in which the body's insulin hormone does not function properly. As a result, the amount of glucose in the blood rises, and if left untreated for a long period, heart attacks, strokes, kidney failure, and even blindness can ensue. Diabetes is classified into three categories, with type 2 accounting for 95% of cases. In 1990, there were 200 T2D patients globally; by 2022, the number had risen to 830 million, with a prevalence rate of 7% in the UK alone (World Health Organisation, 2024).

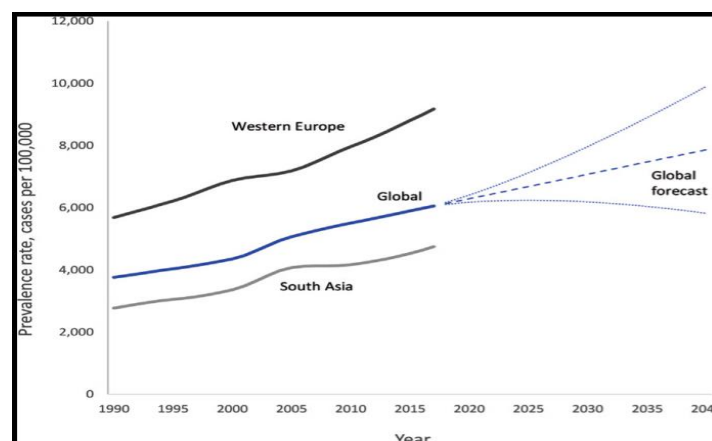


Figure 1: Trends in the prevalence of type 2 diabetes (Khan et al., 2020).

The World Health Organisation has classified this as a global epidemic, indicating how serious the situation is.

Wearable technology for T2D prevention



Fitbit wearable device



For more details, visit: www.nhs.uk/healthier-you-diabetes-prevention

Wearable technology refers to devices that people wear, such as glasses, smartwatches, and wristbands. These are powered by digital technology and constantly collect and provide internal body information to the user. It is hardware that is linked to a smartphone application. As a result, consumers can obtain real-time information about how many steps they've taken and calories they've burnt. If the user fails to meet the objective, encouraging messages are automatically sent; when the goal is attained, complementary feedback is given.

Evidence on how effective wearables are

A meta-analysis shows that when cares are provided with wearables compared to general health care, physical activity and step counts are increased by, respectively:

- SMD=0.28
- SMD=0.58

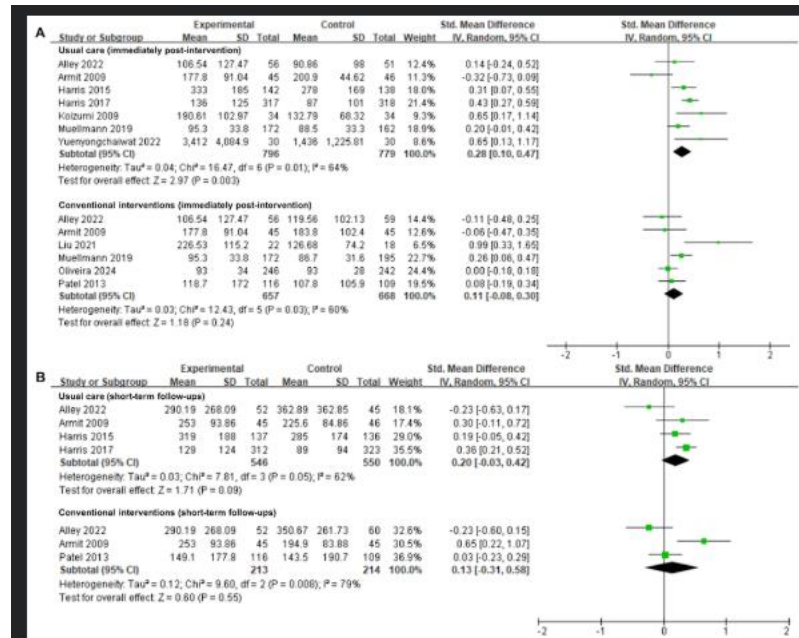


Figure 2: Wearable activity tracker-based interventions compared with usual care and conventional interventions in physical activity time at (A) immediately after intervention and (B) short-term follow-ups (Li et al., 2025).

Even after completing these wearable courses, many people continue to practice for a long time. In the NHS "Healthier You" programme, one-third of individuals were able to considerably lower their risk of T2D.

Advantages and disadvantages of wearables

Advantages:

- Wearables users do not need to rely solely on their doctors. They can monitor their own bodies. As a result, patients are encouraged to develop personal goals and motivated to attain them.
- It is possible to reach a larger number of patients at a low cost with these devices if a doctor has a limited ability to see patients.

Watch the [video](#) for in-depth knowledge.

Disadvantages:

- The main issue with wearables is that people lose interest within a year. As a result, it rarely reaches its full potential (Clark et al., 2025).
- People with disadvantaged and low-income backgrounds are more likely to develop type 2 diabetes. However, they are unable to afford a wearable device (NHSBSA, 2024).
- Wearables can help people walk more; however, T2D cannot be treated just by walking or exercise unless eating habits change. This cannot be accomplished solely through wearables.

What to do to address the challenges

1. Gamification should be included in the app to keep users engaged for longer periods of time. Motivational messages and appreciation alone will not suffice. When consumers meet obstacles, they are motivated to overcome them and preserve their position.
2. Because wearables will be mostly used by low-income individuals, they should not be overly opulent in design, but rather built to retain quality at the lowest possible cost. This will allow us to lower the device's selling price.
3. It cannot be left to the wearable alone; rather, a doctor will suggest a proper diet based on this information.

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Blog-2

Can digital technology make people healthier? Deep look inside FitLife+ and innovation

Introduction

People nowadays are easily prone to sickness, and the major cause is physical inactivity. According to global health reports, among 5 people, there is not even a single adult who meets all the physical activity requirements (World Health Organisation, 2003). This causes the risk of

- Increased heart disease
- Number of obese people
- Type 2 diabetes



FitLife+ mobile app: My designed technology

This mobile app, aimed at teenagers, has the potential to be the most effective component because it promotes physical activity through fun games and personalised workout plans.

This app is motivated by the FitLife fitness app

Check on: <https://fitlifefitness.net/>

Key feature



- It features an AI-powered system that allows users to tailor their fitness plans.

- This app is specifically created for teenagers and features a gaming system in which users earn points or incentives after completing a task.
- They can share their experience with their pals and finish the tasks together.

FitLife+ in health promotion

People used digital technology to engage in daily activities by participating in exciting challenges with their pals. It improves blood circulation and reduces the incidence of early diabetes and obesity (Warburton et al., 2006). Furthermore, it fosters a habit of physical activity, which benefits their mental health.

Motivational fitness audio clip

 [Listen / Preview Audio Clip](#)

It's a very energetic audio clip that will boost motivation among teenagers.

Advantage

- One of the major reasons that people are not able to continue their physical activity is that they forget to take time for themselves in their busy life schedule. The FitLife+ app is accessible anytime and anywhere, so whenever people get time, this app is there to help.
- This software stimulates people since it creates fitness goals that everybody may strive for.
- To inspire users, this app employs a reward strategy.
- The most intriguing feature is that users may invite their friends and work out together.

Disadvantages

- In order to use this app, the user must have a smartphone, which creates a digital divide because not everyone has a smartphone or Internet (Van Dijk and Hacker, 2003).
- Despite many facilities, the users often stop using the app.
- The users may over-rely on FitLife+, never trying to build their good habits on their own.
- It is risky to share personal data online, especially about one's health conditions.

Strategies to improve the FitLife+

- It needs to improve the data privacy regulations.
- Offline mode can be added for more accessibility.
- Daily activity is good and enough when done for 2-3 hours per day. Including the feature of a screen time limit can prevent excessive use (Riegler et al., 2017).

Conclusion

FitLife Plus is a great software for beginners that shows how new digital technology can help people work out. It allows people to focus on their health, but it needs to strengthen data privacy features, limit screen time, and make it more accessible to everyone.

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