

# How Behavioural Science can make desired new health behaviour a little more sticky

Crawford Hollingworth and Liz Barker

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Focuses on how helping patients to make a plan can help them start and maintain new health habits and medication regimes.

- There are many obstacles that keep even well-intentioned patients from adhering to treatment programs, ranging from the off-putting side effects of medication, to the sometimes daily demands of staying on point with a physical therapy program.
- One of the most effective, evidence-based strategies in behavioural science is 'making a plan', also known as implementation intentions, which helps patients work to specific guidelines concerning when, where and how they are going to perform a behaviour.
- This can greatly increase the likelihood that patients will successfully adopt long-term behaviour changes.

## Why it matters

Non-adherence to medication and health-related lifestyle changes have a major detrimental impact not only on patients themselves, but on the cost and provision of healthcare worldwide. For example, the fact that only 50% of type 2 diabetes patients adhere to their treatment plan has estimated direct and indirect costs of as much as \$300 billion annually in the US alone.

## Takeaways

- Whilst most people intend to adhere to medication and treatment programmes, people often struggle to adhere in full, or even at all, due to a range of psychological and even physical barriers; behavioural scientists call this the intention-action gap or intention-behaviour gap.

- The reasons for non-adherence are many, including the lack of immediate positive feedback; the tendency to focus on the present, rather than the future; the sway of social norms and acceptance; and the burden of trying to build new habits.
- However, making a concrete plan for how to adhere makes the desired action mentally more available, salient in our minds and cognitively easier to execute.
- A pilot intervention with type 2 diabetes patients which drew on the concept of making a plan, and committing to it, increased adherence noticeably.
- The intervention resulted in the share of those adhering to a healthy diet increasing by 45%, and to physical activity 51%, whilst 70% of patients improved adherence to their medication.

When looking after their health, people are often asked to perform a wide variety of different behaviours; ranging from new temporary habits such as taking daily medication or doing physical therapy; to regular habit or preventative behaviours for managing health conditions.

Unfortunately, this spectrum of different behaviours is not always easy to encourage, even though most people intend to comply. This is often called the intention-action gap or intention-behaviour gap, and behavioural science can help in closing it, offering a valuable framework for helping patients build new habits and improve adherence to lifestyle changes and treatments.

In this article, which follows [on from an article published earlier this year on WARC](#) about how carefully chosen defaults can improve patient outcomes, we look at how behavioural science can help patients adhere to desired new behaviours. It explores how behavioural science can improve patient healthcare by helping patients plan and feel committed to a treatment or new lifestyle.

## Using behavioural science to make desired new behaviours more *sticky*

There are many obstacles that keep well-intentioned patients from adhering; they range from the off-putting side effects of strong medication; to having to remember to take or administer many different pills, often at different times of the day; or remembering to monitor indicators such as blood glucose; to struggling to make big lifestyle changes in terms of diet, physical activity levels, or time-consuming rehabilitation.

Analysing these barriers through a behavioural science lens can help to clarify why they prevent adherence. For example, let's take a specific and common problem – that of adherence to diabetes medication. Diabetes is a huge problem all over the world. In the UK in 2019 there were 4.8 million people with diabetes – that's over 7% of the population. Globally, there are estimated to be over 415 million people who suffer from this condition ([with many not yet diagnosed](#)). In the last year and a half, we've also discovered that those with diabetes are more vulnerable to COVID-19 too, making it all the more crucial for diabetes patients to improve their health.

Taking medication, following a diet, and/or executing lifestyle changes are effective ways for type 2 diabetes patients to manage their condition and improve their health. However, patient adherence is estimated at 50% or less and the health and economic burden of type 2 diabetes is huge and increasing. According to Capgemini Consulting the direct and indirect cost of non-adherence in the US alone [has been estimated at \\$300 billion per year](#).

When The Behavioural Architects conducted research into the reasons behind poor adherence to diabetes treatment, we found several revealing behavioural insights which were creating barriers:

- **The lack of immediate positive feedback hurts.** Receiving feedback, especially in real time, can help us stay motivated towards a goal and stick with the course. Ideally, we want the medication we take to deliver a benefit either immediately or at least after a few days, and it's the improvement we feel that helps us to keep taking our medicine – positive feedback in action. Yet diabetes symptoms are mostly silent, especially early on, so patients are unaware that the medication is working. Instead, immediate unpleasant side effects like nausea and flatulence offer negative 'feedback' that can put patients off taking medication.
- **'Present' bias – where we value pleasure today over pleasure tomorrow – prevails.** Experiencing the side effects of medication, as well as making difficult diet and lifestyle changes today, means patients often prefer to give in to high sugar foods or put off their daily exercise, enjoying 'today' rather than working towards a healthier 'tomorrow'. Present bias also means that patients lose sight of the risk of some of the debilitating long-term impacts of diabetes such as blindness and limb amputation.
- **The sway of social norms and acceptance.** Patients sense there is a perception in society that someone with type 2 diabetes is judged by other people as 'only having themselves to blame'. This makes it hard to adhere to regimens in public situations – e.g. at a work lunch or a family event.
- **The burdensome feeling about taking on new habits.** Making diet and physical activity changes as well as adopting new medication is a lot to take on, particularly if someone already has a busy lifestyle. People prefer to stick to the status quo; it's much easier to follow ingrained routines. Research finds that people tend to do better focusing on a single goal rather than multiple goals. So, making many changes at once can be overwhelming.

## Employing the power of making a plan, or “implementation intentions”

To tackle these barriers, The Behavioural Architects zero-ed in on one of the most effective, evidence-based strategies in behavioural science: 'Making a plan'. This has consistently been found to have significant, positive effects on behaviour. It is also known as “implementation intentions”, a concept first developed by Peter Gollwitzer in 1999. Specifically, people often feel more committed to a goal once they have established a plan. Gollwitzer's research found that making a concrete plan and anticipating what to do in certain situations makes the desired action more mentally available and salient in our minds.

It is a type of action planning, and it works. Specifying when, where and how someone is going to perform a behaviour, or work towards a goal, makes that person more likely to do it. A simple example might be asking someone to think about and complete the sentence: “Each day this week, I will do [EXERCISE X] for at least 20 minutes at [TIME OF DAY] at [PLACE]”. For even stronger impacts, it is also often paired with 'coping planning' – asking people to anticipate and plan how they will manage any setbacks or barriers.

In the [review](#) of 308 behaviour change interventions we mentioned in our previous article, whilst default-based concepts had the largest impact (50% uplift), implementation intentions weren't far behind (39%). In another [review](#) of 39 types of behaviour change interventions to increase physical activity, implementation intentions had the strongest effect on physical activity levels. It is also one of the intervention types recommended by the UK's National Institute for Health and Care Excellence ([NICE](#)) to increase physical activity.

In a pilot intervention with type 2 diabetes patients, we drew on this concept by asking patients to make and sign what we called a 'promise contract' to help them plan what specific behaviours they would undertake relating to medication, diet and exercise, and to enable them to feel committed to it (see image below).

Not only did we incorporate an action planning element; we also included a social contract too, to further increase the feeling of commitment, asking patients to make an adherence promise to someone close to them – such as their daughter or spouse – and to include a photo of that person on the contract. The promise contract was designed as a poster to be put up somewhere visible in their house. Feedback stickers on the poster also enabled them to track their daily progress – publicly!

The poster is titled "MEDICATION" and "HEALTHY LIFESTYLE". Each section has a grid for two weeks, with days of the week (Monday to Sunday) and smiley face icons for tracking progress.

**MEDICATION**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
WEEK 1	😊	😊	😊	😊	😊	😊	😊
WEEK 2	😊	😊	😊	😊	😊	😊	😊

**HEALTHY LIFESTYLE**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
WEEK 1	😊	😊	😊	😊	😊	😊	😊
WEEK 2	😊	😊	😊	😊	😊	😊	😊

**PROMISE CONTRACT**

I \_\_\_\_\_ promise to \_\_\_\_\_ that I will:

 1 Take my medication at the times agreed with my doctor each day

2 Be healthy each day by:

\_\_\_\_\_ and \_\_\_\_\_ and not \_\_\_\_\_ and \_\_\_\_\_

Signed: \_\_\_\_\_ Supporter: \_\_\_\_\_

There was a positive uplift from the promise contract posters for all elements of adherence;

- Those adhering to a healthy diet increased by 45%
- Those adhering to an increase in physical activity increased by 51%
- 70% of patients' adherence improved; 56% actually reached full adherence

This pilot shows the potentially transformative power of a simple plan and a promise contract in allowing good habits to stick.

# The right tools can make adherence to behavioural changes a little bit easier and the new behaviour a little more ‘sticky’

As we saw with defaults, simple behavioural science-based tools can achieve significant patient health outcomes when they help patients adhere to better behaviours. In this article, we have shown how behavioural science can help us look at the behaviour intention gap in a deeper, more inspirational way. And then critically turn it around to become the implementation intention plan. This insight to action approach makes the desired action more mentally available, more salient and easier to execute, leading to a greater likelihood of long-term behaviour change.

## Further reading

WARC Exclusive: [How behavioural science can help the medicine go down](#)

WARC Exclusive: [Consumer perceptions of the COVID-19 vaccine, vaccine hesitancy, and the implications for marketers](#)

WARC Exclusive: [Beyond the COVID-19 curve, health will remain at the center of consumer decision-making](#)

## About the authors

Crawford Hollingworth

Co-Founder, The Behavioural Architects

Crawford Hollingworth is co-Founder of The Behavioural Architects, which he launched in 2011 with co-Founders Sian Davies and Sarah Davies. He was also founder of HeadlightVision in London and New York, a behavioural trends research consultancy. HeadlightVision was acquired by WPP in 2003. He has written and spoken widely on the subject of behavioural economics for various institutions and publications, including the Market Research Society, Marketing Society, Market Leader, Aura, AQR, London Business School and Impact magazine. Crawford is a Fellow of The Marketing Society and Royal Society of Arts.

Liz Barker

Global Head of BE Intelligence & Networks, The Behavioural Architects

Liz Barker is Global Head of BE Intelligence & Networks at The Behavioural Architects, advancing the application of behavioural science by bridging the worlds of academia and business. Her background is in Economics, particularly the application of behavioural economics across a wide range of fields, from global business and finance to international development. Liz has a BA and MSc in Economics from Cambridge and Oxford.

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Americas: 229 West 43rd Street, 7th Floor, New York, NY 10036, United States - Tel: +1 212 201 2800

APAC: 5 Shenton Way, UIC Building #10-01, Singapore 068808 - Tel: +65 3157 6200

EMEA: 33 Kingsway, London, WC2B 6UF, United Kingdom - Tel: +44 (0)20 7467 8100

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