

Development of an Online App for Holistic Health Assessment

Claire Madzura, Faculty of Medicine, Imperial College London
Supervised by Dr Frank Brueck, Leonardo Centre for Business on Society, Imperial College London

Introduction

In 2015, the United Nations identified 17 interconnected global goals, known as the Sustainable Development Goals (SDGs), to unite member nations on a path to improve life for people and the planet. SDG 3 is **Good Health and Wellbeing**, calling for the promotion of health and reduction of inequalities in healthcare. Health is no longer simply regarded as the absence of disease. The World Health Organization regards health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." This means that even if someone does not have a diagnosed disease, being chronically lonely, emotionally overwhelmed, or unable to cope with daily life can also be understood as poor health.

Despite this, health is still often approached in a narrow and reactive way. In many healthcare settings, there is a strong focus on physical symptoms, diagnosis and treatment. Physical problems are often easier to measure and quantify, and so they are easier to know when to treat. Blood tests, scans, physical examination and medication all provide clear medical pathways for managing disease. However, this does not always account for the wider aspects of living well, such as purpose, belonging, resilience, relationships or social conditions. A person may be clinically stable and still not be well.

The National Health Service (NHS) is facing an increased burden of non-communicable disease, such as diabetes and coronary heart disease. These non-infectious conditions are not simply treated with medication or surgery alone. They require a holistic approach to health - for example, regular exercise, access to a warm and safe home, eating a well-balanced diet - sustained interventions outside of an annual diabetes check. The NHS recognises that there is a greater need for the public to take more ownership over their health as well as access to individualised support for their needs². Rather than only treating disease, healthcare services are exploring the question:

How can we equip individuals with the tools they need to live a happy and healthy life?

Methods

A conceptual development approach was used to design the online assessment. The first stage involved identifying a working framework for holistic health. This was informed by public health literature, health policy, and wider discussion around wellbeing, prevention and self-management. Core sources included the World Health Organization, NHS guidance, literature on ikigai, work on blue zones and longevity, research into chronic disease, loneliness, social prescribing and spirituality in healthcare. From this, four main domains were identified: **Body, Mind, Spirit and Connection**

The second stage involved breaking down each domain into more specific subcategories. For example, within the Body domain, physical health was not only thought of in terms of diagnosis, but also in terms of whether the body feels strong enough, rested enough and comfortable enough to support daily life. Within the Spirit domain, spirituality was understood broadly and not limited to religion. It included purpose, values, inner peace and a sense of what makes life worth living.

The third stage involved developing a list of short first-person statements for each subcategory so that the content could be translated into an online self-assessment format. These were designed to be clear, reflective and accessible. Examples included statements such as:

- *I usually make healthy food choices.*
- *I handle stress in ways that support my wellbeing.*
- *I believe that my life has direction.*
- *I feel accepted by the people around me.*

The aim was not to create a diagnostic test, but a reflective tool that would help users think about different aspects of their health and identify areas of strength as well as areas that may need further support.

The final stage involved organising these statements into an app structure. Users would complete the assessment and receive a visual and descriptive overview of their wellbeing across the four domains. This would then support reflection, conversation, or future signposting to relevant resources.

Results

The outcome of this project was the development of a framework for an **online holistic health assessment app** based on the four domains of Body, Mind, Spirit and Connection. The framework translated broad ideas about holistic health into practical subcategories and 40 user-friendly statements with a Likert scale.

Body

The body domain focused on how the body feels and performs in everyday life. This domain reflected the idea that physical health is about more than the absence of disease. It is also about whether the body allows a person to move, function, rest, recover and participate in daily life with some degree of comfort, strength and independence.

Physical health, physical strength, movement, pain, fatigue, sleep, breathing, nutrition, comfort and daily functioning.

Mind

The mind domain focused on both emotional and mental wellbeing. This domain reflected the idea that a healthy mind is not simply the absence of mental illness. It also includes flexibility, resilience, self-awareness, and the ability to respond to stress and adversity in ways that support wellbeing.

Emotional wellbeing, coping, concentration, memory, resilience, mood, self-belief, anxiety, depression, trauma and harmful coping.

Spirit

The spirit domain focused on purpose, values, and the aspects of life that give it meaning. This domain was intentionally broader than religion. It reflected spirituality in a holistic sense, including what gives a person direction, what helps them stay grounded, and how they make sense of themselves and their life.

Purpose, meaning, values, hope, inner peace, identity, forgiveness, reflection, acceptance, agency and presence.

Connection

The connection domain focused on relationships, belonging and environment. This domain reflected the understanding that health is shaped not only by the individual, but by the people and social environment around them. It included both interpersonal relationships and wider conditions such as safety and housing stability.

Belonging, contribution, empathy, relationship quality, loneliness, support, trust, conflict resolution, safety, housing security and connection to nature.

Overall, the assessment framework showed that holistic health can be translated into a structured digital tool. Rather than asking only whether someone is ill, the assessment explored whether they feel physically able, mentally supported, spiritually grounded and socially connected. The app went live and users have been using this reflective tool to look at their health more holistically.

I usually feel good about myself.

☐	☐	☐	☐	☐	☐
Totally Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Totally Disagree

Discussion

This project suggests that there is value in developing an online app for holistic health assessment that moves beyond a narrow biomedical view of health. The framework developed here reflects the idea that health is multidimensional and that people do not experience wellbeing in separate compartments. Physical pain can affect mood, loneliness can reduce motivation, chronic illness can challenge a person's identity, and a strong sense of purpose can improve resilience and coping. Looking at health through the domains of **Body, Mind, Spirit and Connection** therefore creates a more realistic picture of how health is lived.

One of the strengths of this approach is that it gives equal weight to areas of life that are often overlooked in routine health assessment. Physical health is usually the main priority in clinical settings because it is easier to see, measure and diagnose. However, the wider burden of non-communicable disease, mental distress, loneliness and social inequality shows that good health depends on more than treatment alone. It depends on whether people are able to care for themselves, maintain relationships, cope with stress, find meaning in life, and live in environments that are safe and supportive. This is also relevant to prevention and self-management, both of which are increasingly important in healthcare².

A further strength of the framework is that the four domains are both distinct and interconnected. The body domain focuses on physical function and comfort. The mind domain focuses on coping, emotion and mental wellbeing. The spirit domain focuses on meaning, values and purpose. The connection domain focuses on belonging, support and environment. Keeping the domains separate helps users understand the different aspects of health more clearly. At the same time, the overlap between them reflects real life. For example, deconditioning after hospitalisation may reduce mobility in the body domain, confidence in the mind domain, independence in the connection domain, and identity in the spirit domain.

However, some areas were easier to support with literature than others, with stronger evidence available for chronic disease, loneliness, spirituality in palliative care, and addiction than for some more specific subcategories.

Future work could involve testing whether the questions feel clear and distinct. There is also scope to explore whether such a tool could be used in healthcare settings for health promotion, self-reflection, education, lifestyle medicine, or social prescribing. Overall, this project demonstrates that a broader understanding of health can be translated into a digital format, and that holistic health assessment may offer a useful way to support people in thinking not only about illness, but about how they live well.