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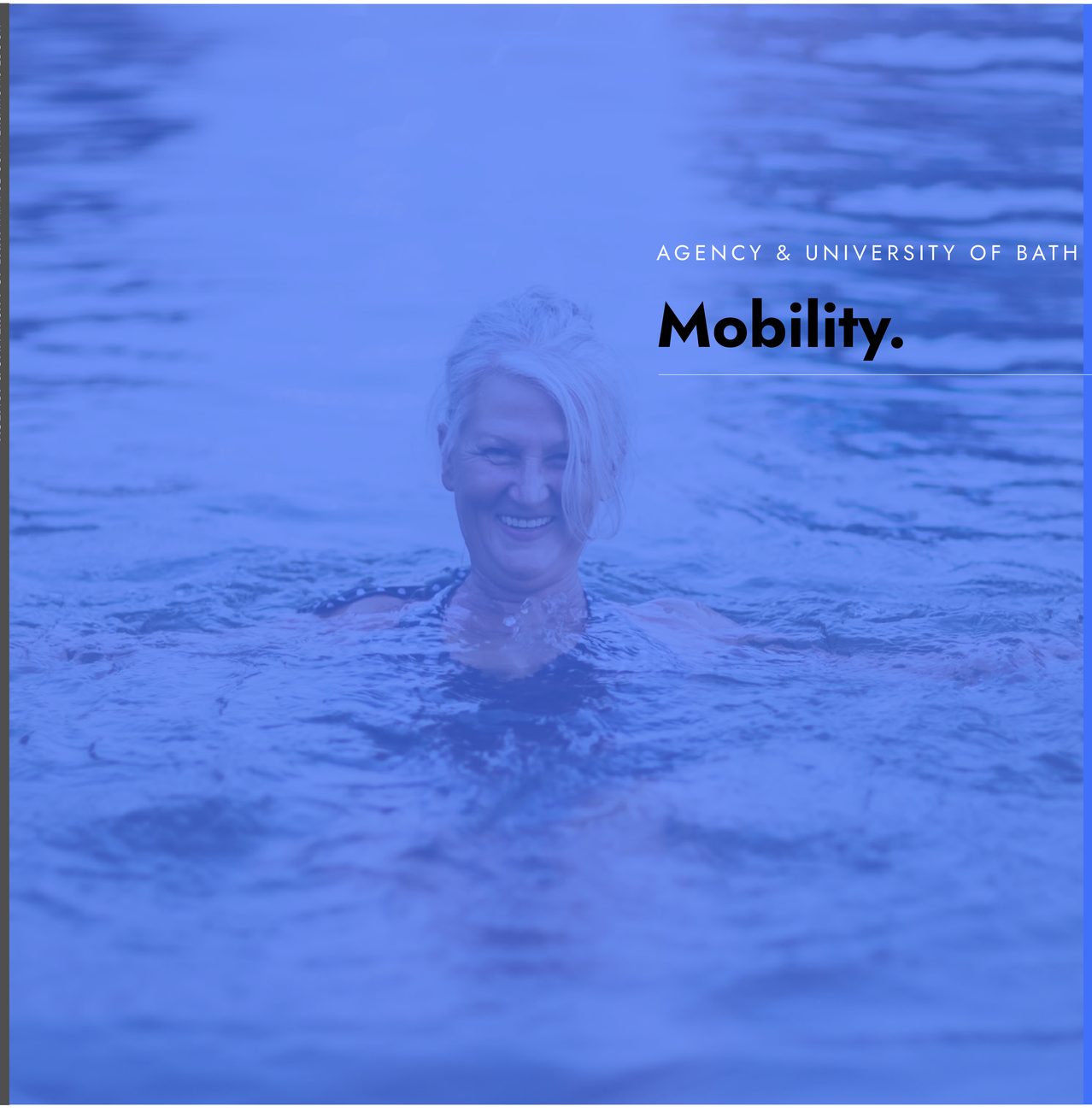
Painful *conversations:*

ENTER

Mobility.

Is improved healthcare communication the key to overcoming the paradox of pain?



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Mobility.

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INTRODUCTION

Mobility.

As a medical professional, are you concerned about the future of healthcare if we cannot empower people to move more?

You'll likely be aware that reduced mobility is strongly linked to an increased risk of developing co-morbidities such as cardiovascular disease, type II diabetes, and cancer, as well as the deterioration of musculoskeletal health [REF] [REF] [REF].

These co-morbidities highlight the cyclical nature of reduced mobility. When people aren't moving, they are more likely to become ill. This makes them less likely to move, which worsens their situation.

Such a scenario creates astonishing knock-on effects for patients, healthcare professionals and across society as general health declines, healthcare demand outstrips supply and treatment options become limited.

So ultimately, getting people to move more can prevent many adverse outcomes.

Based on work by Professor Richie Gill, this article outlines how you can significantly reduce the burden of chronic diseases and associated healthcare costs in the UK by encouraging the public to prioritise mobilisation as a critical component of care.

In doing so, you can help improve the general population's health and well-being and contribute to a more sustainable healthcare system for the future.

Throughout this article, we'll cover:

- The impact mobilisation has on reducing the risk of co-morbidities in the general population.
- How mobilisation can lessen the burden on the healthcare system.
- The role you have in promoting mobilisation as a preventative measure.
- How you can encourage and support individuals in maintaining regular physical activity.

The true impact *of reduced mobility.*

THE PHYSICAL SYMPTOMS:

Reduced mobility has been consistently linked to an increased risk of developing co-morbidities, leading to a cascade of health issues.

A study published in The Journals of Gerontology found that mobility disability predicts subsequent difficulty in the instrumental activities of daily living (IADLs) and activities of daily living (ADLs), and difficulty in these tasks is predictive of future dependency on outside help [REF].

The study also found that disability (defined as difficulty in these tasks), independent of its causes, is associated with an increased risk for:

- Mortality.
- Hospitalisation.
- High healthcare costs.
- Need for long-term care.
- Higher health care expenditures [REF].

Frailty and co-morbidities can exacerbate mobility disability and disability in general [REF].

Hence, once individuals experience conditions that cause pain, stiffness, or general ill health, they tend to avoid movement, exacerbating their health problems and making them more susceptible to additional conditions.

Osteoarthritis (OA) is a prime example. OA, characterised by excessive wear of cartilage, joint degeneration and chronic pain, often leaves people hesitant to engage in physical activity, further contributing to their sedentary lifestyle [REF].

Managing OA becomes challenging due to limited early treatment options, resulting in delayed interventions.

Approximately a third of people aged 45 years and over in the UK (8.75 million people) have sought treatment for OA, with the number of people in the UK consulting a HCP about OA set to rise from 4.7 million in 2010 to 8.3 million by 2035 due to the effects of obesity and the ageing of the population [REF] [REF].

The current demand for later treatment options, such as total knee arthroplasty (TKA) as a first-line procedure, has started to surpass the available supply [REF].

TKA procedures are becoming increasingly common in young adults globally. Still, they are not a guaranteed solution, with reports of new or persistent pain post-operation in 1 out of 8 patients [REF] [REF].

There are many other treatments for OA besides surgery, and an active lifestyle can not only prevent co-morbidities but can also reduce the burden on the National Health Service (NHS) by increasing population healthcare independence.

However, it is crucial to recognise that many cases of OA could have been avoided if individuals had engaged in regular physical activity and maintained mobility from the outset [REF]. Therefore, keeping people mobile could significantly improve current and future demand on the NHS and the broader healthcare system.

THE CURRENT STATE OF THE NHS:

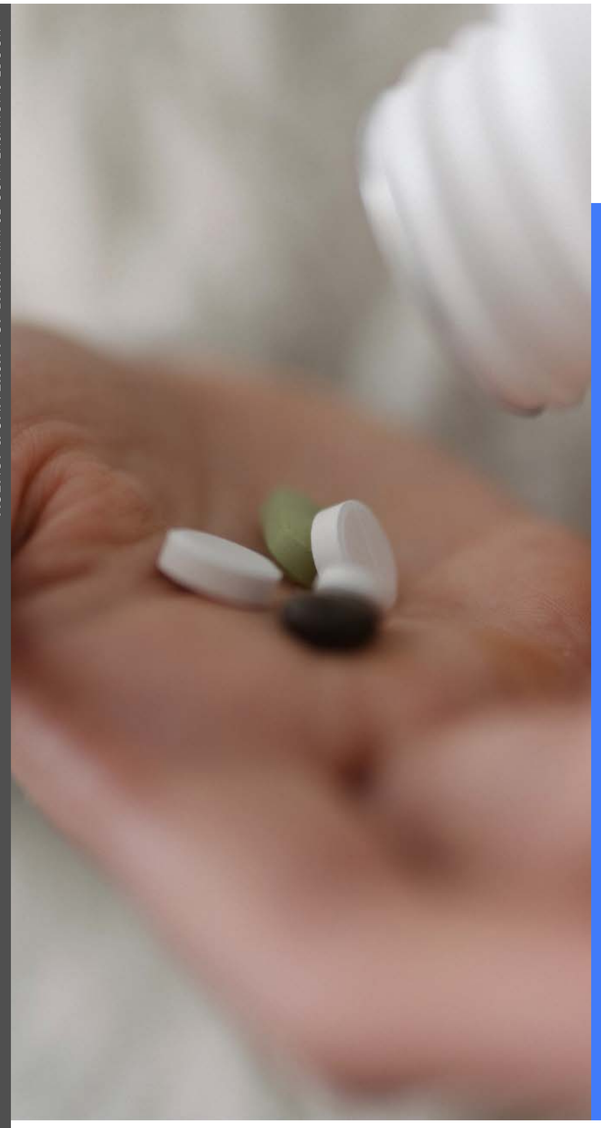
The current state of the NHS presents a significant challenge regarding patient flow and the ability to handle the growing numbers within the system.

Patient traffic is already overwhelming. In 2022, the total number of patients on the NHS waiting list for knee replacement surgery reached six million; of these, over 18,500 had been waiting for more than two years for surgery [REF].

Heightening this problem is the fact that the population is both increasing and ageing, leading to a greater demand for healthcare resources. To alleviate the strain on the NHS, it becomes crucial to focus on preventive measures that can keep people healthy for longer periods.

Encouraging individuals to engage in regular physical activity and adopt healthier lifestyles is essential. As HCPs, we are responsible for empowering people and providing them with the necessary support and guidance to lead active and healthy lives. Promoting movement and preventive care can lessen the burden on the NHS and improve people's outcomes in the long run.

Addressing this issue and finding effective solutions to reduce the backlog and ensure timely access to healthcare services is crucial.



THE RUSHED SOLUTION:

The current healthcare landscape presents a pressing concern as the demand for treatments outweighs the available supply. This situation is particularly evident in the case of TKA, as the estimated increase for TKA is projected to be 139% by 2040 and 469% by 2060 [REF].

As the number of people requiring TKA continues to rise, there is a risk of running out of implants, leading to prolonged periods of pain and limited treatment options.

As a medical professional, you are compelled to address peoples' pain and discomfort. In such circumstances, prescribing opioid pain relief becomes a common solution.

Opioid-related deaths in England and Wales have reached an all-time high, with opioid prescriptions increasing by 127% since 1983 [REF]. In the USA, opioid-involved overdose deaths rose from 21,089 in 2010 to 47,600 in 2017, followed by a significant increase in 2020 with 68,630 reported deaths and again in 2021 with 80,411 reported overdose deaths [REF].

The potential for an escalating reliance on opioids poses a severe threat to individuals and the healthcare system as a whole. Without an adequate supply of alternative treatments and interventions, the UK may follow similar trends observed in the USA and enter a catastrophic opioid epidemic [REF].

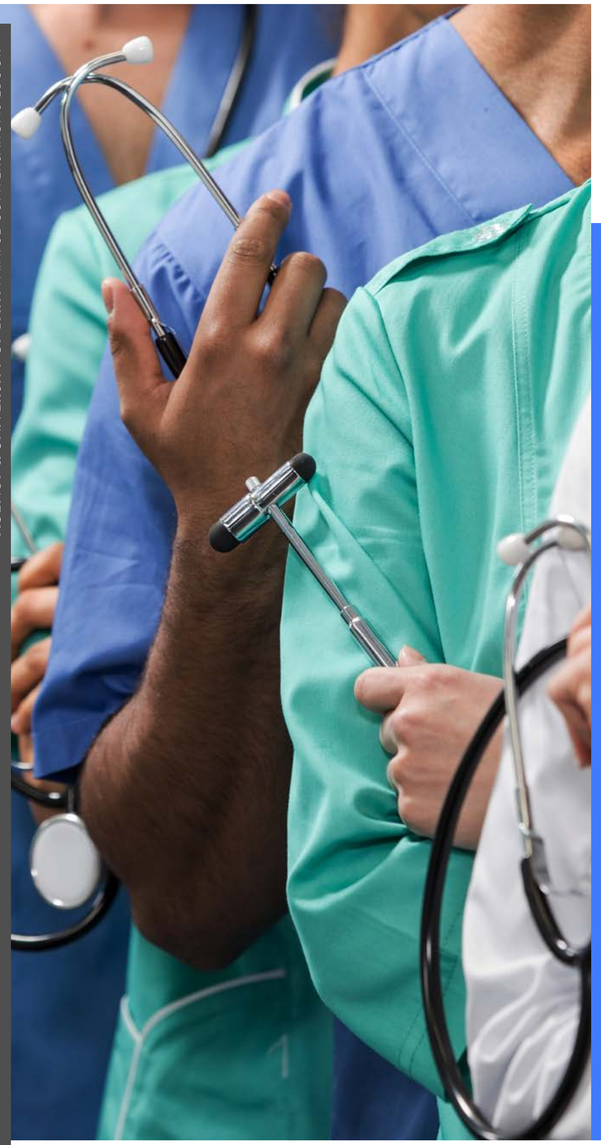
The adverse outcomes are plain to see from the stats alone and hit even harder when you hear directly from someone recovering from addiction:

"You can become addicted to prescription opioids and not even realise you have a problem till it's too late. In the haze of the high and loved ones saying they're worried about you, you lie to yourself and them and say you need the pills, that you need them, or the pain will be unbearable. Not realising you are not just taking the medicine for pain - you now need it daily to just to get out of bed. Without it, you're physically sick. Your whole body hurts, and you know the answer to fix it all is the opioids."

- An individual from Toledo, Ohio, who has overcome addiction [REF].

It is crucial to recognise this potential trajectory occurring in the UK. Therefore, becoming mobile and engaging in regular physical activity emerges as a vital solution to mitigate the demand for treatments and the reliance on more potent painkillers.

By encouraging people to prioritise movement and an active lifestyle, you can play a pivotal role in preventing the development of co-morbidities that require intensive treatments.



RISE IN WORKFORCE PRESSURES:

Public satisfaction with the NHS has fallen to its lowest level since 1997, with just 36% of people stating they are content with the way the health service is run and performing [REF].

If the healthcare system cannot provide effective solutions, public trust in the entire system will further falter. HCPs like yourself already work tirelessly to support the public, and if nothing changes, you may start to feel taken for granted.

You are fundamental in keeping the general population healthy and out of hospitals. As the demand for healthcare rises, people will increasingly require hospital care. Still, the inability to provide this care may result in friction with hospital staff and people losing trust in the system. This can cause a rise in stress levels for both the public and you, leading to a vicious cycle where HCPs leave the practice and relationships with hospitals become strained.

"The NHS workforce in England is in crisis: urgent action is required to tackle a vicious cycle of shortages and increased pressures on staff."

The King's Fund [REF].

The number of permanent qualified GPs working in England fell from 27,064 in December 2021 to 26,706 in December 2022 [REF]. In contrast, across England, the number of patients per fully-qualified GP has risen over recent years, from 2,100 to 2,300 between October 2018 and October 2022 [REF].

According to recent reports, a third of GPs in England plan to leave direct patient care in the next five years [REF], and a quarter of GP practices could close as a result of workload pressures [REF].

The existing strain on patient flow and the projected rise in an ageing population during an ongoing shortage of GPs highlights the urgency to address the widening gap between healthcare demand and available resources.

Encouraging individuals to prioritise physical activity and adopt an active lifestyle not only reduces the risk of the onset of chronic conditions but also lessens the pressure and stress on the healthcare workforce by keeping more people out of hospitals and reducing the demand for extensive treatments.

By promoting mobility as a means of maintaining good health and preventing disease, you, as HCPs, can contribute to a more sustainable healthcare system, enhancing individual outcomes and rebuilding public trust in the NHS.

THE MENTAL, PHYSICAL AND EMOTIONAL IMPACTS:

As an HCP, you are likely aware of the increasing pressures within the healthcare system and the personal toll it can take.

While you likely entered the healthcare profession with a desire to help people, you may be experiencing chronic excessive workloads and insufficient resources. This has been associated with feeling overwhelmed, stressed and out of control. These factors have been linked to potential negative impacts on patient care quality, medical errors and patient dissatisfaction [REF].

The high levels of stress endured by HCPs as a result of staff shortages and excessive workload have also been associated with various illnesses, including cardiovascular disease, addictions, cancers, diabetes, depression and early mortality [REF].

Common symptoms reported by NHS staff as a result of increased workforce pressures [REF]:

- Burnout (tiredness).
- Anxiety.
- Depression.
- Panic attacks.
- Post-traumatic stress disorder (PTSD).
- Self-doubt.
- Isolating from others.
- Lowered immunity.

Additionally, the emotional stress of this situation can affect your personal life and relationships, leading to interpersonal conflicts and disturbed sleep patterns [REF]. This lack of quality sleep worsens stress levels, creating a cyclical pattern of stress and sleep disturbance.

How can we overcome *the challenges?*

A SHIFT IN FOCUS:

As a HCP, the desire to help people is embedded in the firm belief that good can be done by improving the health and well-being of others. However, it's essential to consider whether the current approach of encouraging people to rely so heavily on your profession is beneficial.

A shift in emphasis is needed that focuses on empowering the general public to take control of their own health and well-being. By emphasising the power and control that people have over their own lives, you can help illustrate how individuals can be the heroes of their own stories and make a positive difference in their own lives.

This shift in focus is as rewarding and fulfilling for you as it is for the general public, as it enables you to offer education and insight to encourage people to make a change.

So far in this article, we have highlighted the problems associated with reduced mobility among the general population and the adverse effects on you and the healthcare system. We will now discuss how you can help encourage the public to take ownership of their health and proactively seek solutions that will save them and healthcare services in the long run.

What needs *to change?*

To guarantee a more sustainable healthcare system, there needs to be a significant shift in how the public approaches their health.

With the NHS on the brink of collapse, the only viable option is for the general population to take ownership of their health and well-being.

We understand that, as HCPs, you have been advocating for patient empowerment for years. This is not a new concept. However, the reality is that achieving widespread behaviour change on a societal level is a complex and multifaceted task.

In the following sections, we will explore strategies and approaches that you can adopt to reframe the solution and effectively empower people to become active participants in their health and well-being.

By understanding the barriers and implementing targeted interventions, you can pave the way for meaningful progress in promoting a culture of self-care and personal responsibility.

So what does change look like?

GETTING PEOPLE TO MANAGE THEIR LIFESTYLE:

Several studies have indicated a direct correlation between reduced mobility and the incidence of OA due to insufficient joint lubrication leading to the continuous wear of cartilage due to physical inactivity [REF][REF][REF][REF]. The key to maintaining musculoskeletal health and stabilising joints is balancing reducing weight and improving muscle strength.

The general population needs to be educated on the idea that exercise is a form of preventative care and should be regarded as the primary treatment option rather than surgery. With your insight, the public can evaluate the most appropriate and effective exercise regimen for them. This can range from aerobic exercise (i.e., walking) to stretch work, strength training and balance training [REF][REF].

However, to prevent hospital overcapacity, additional measures to ensure a healthy, active lifestyle is maintained must be implemented.

To support the population, you and your colleagues need to promote schemes such as:

- Group exercises.
- Training sessions.
- Reward schemes.
- Free gyms.
- Physiotherapy sessions.

All can help maintain the public interest in participating in regular physical activities.

Furthermore, recent technological advancements, such as wearable technology, virtual reality (VR) and augmented reality (AR), have been shown to drive compliance with exercise routines and, therefore, offer a solution to tackle reduced mobility [REF].

Adopting an active lifestyle has large-scale benefits on a person's overall health and well-being, as being active and mobile can reduce the risk of developing co-morbidities [REF].

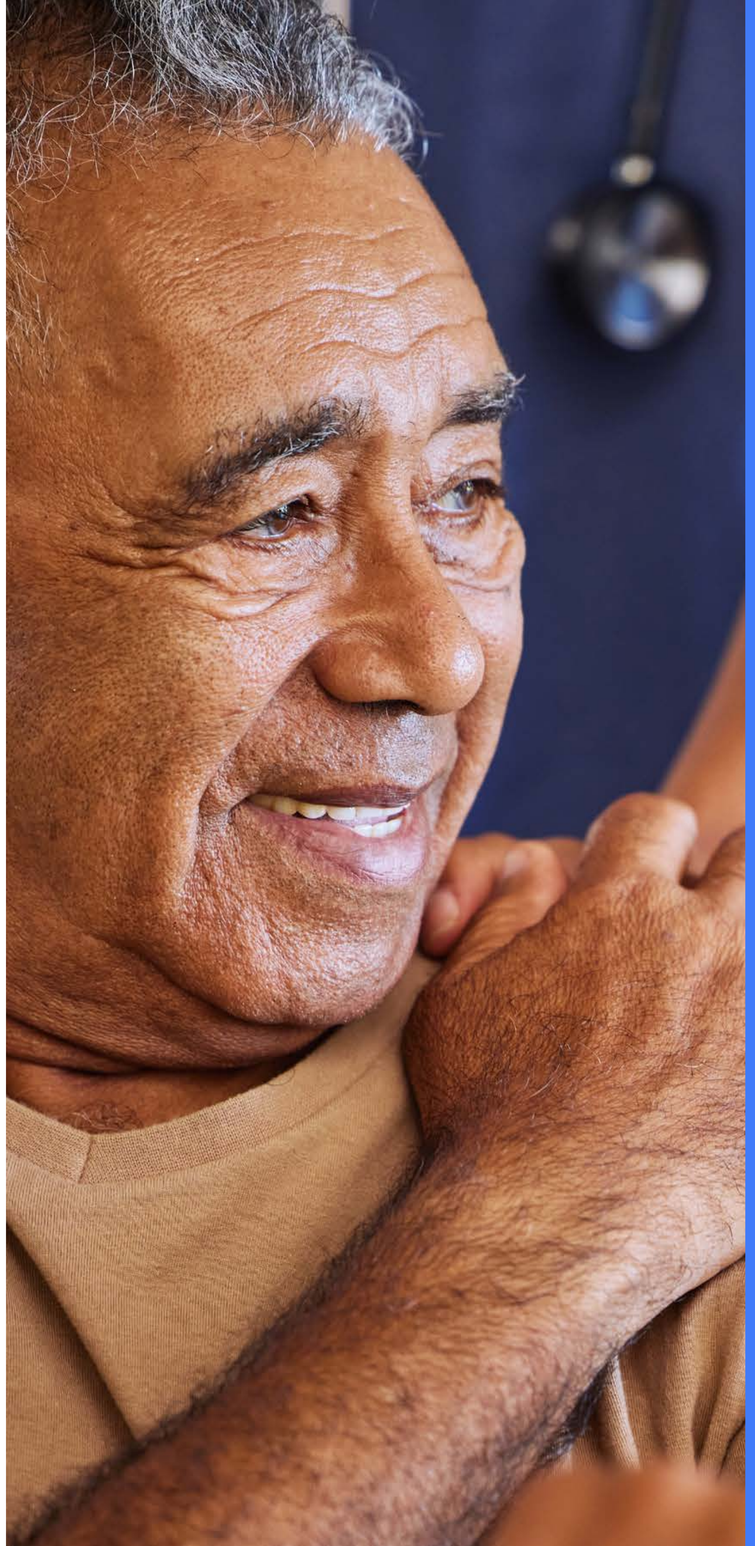
For example, physical activity has been shown to improve cognitive function and reduce the risk of developing Alzheimer's disease by 45% and dementia by approximately 30% [REF][REF].

Similarly, maintaining adequate levels of physical activity and a healthy diet reduced the risk of cardiovascular disease, several types of cancer and mortality [REF][REF].

It needs to be emphasised that the general population are the heroes of their own stories, with the power to become active, maintain physical activity, reduce their risks of co-morbidities and lessen the strain on the healthcare system.

Being active should not only be encouraged to lower the likelihood of developing OA and comorbidities but also be seen as a strategy to enhance recovery after surgery.

It has been demonstrated that prioritising mobility in the recovery process post-operation reduces pain and the risk of postoperative complications [REF]. This effectively enables people to return to being mobile and independent, thus reducing care costs, the length of stay in hospital and bed blocking [REF].



HOW DO WE DRIVE THIS CHANGE IN PEOPLE'S BEHAVIOUR?:

As HCPs, building trust with the public is crucial for facilitating behavioural change and empowering them to take control of their health.

To establish this trust, it is essential to first listen to people, recognise their pain and genuinely understand its impact on their lives.

By actively engaging in consultations and sharing stories of how certain conditions can affect individuals, you demonstrate empathy and establish a foundation of mutual understanding.

Once the individual feels heard and understood, it becomes crucial to explain the limitations and challenges of current options (i.e., TKA, opioids).

You could discuss the reasons behind these limitations, such as the scarcity of implants, the risks associated with opioids as a long-term solution and the presence of co-morbidities.

By providing transparent explanations, you could help people understand that you are striving to find the best solution within the existing constraints. And let them know what the risks are if they don't attempt to help themselves.

With this understanding in place, it is time to introduce the real solution: Mobility.

The real solution: *Mobility.*

Your talks with patients could attempt to frame mobility as a way for people to actively improve their condition and enhance their well-being. By doing this, you'll empower them to take charge of their health by highlighting the positive impact increased activity can have on their pain and overall quality of life.

As movement is the ultimate solution to reducing the problems OA can cause [REF][REF][REF], you could help empower the public to seek out solutions proactively by guiding them to the realisation and possible ways to become mobile rather than relying on surgery as the option to correct their pain.

By positioning movement as a self-led solution, people will feel a sense of empowerment and ownership over their health journey.

Therefore, conversations highlighting mobilisation as a preventative measure need to be initiated.

As a larger number of the population will live longer than previous generations, the public should want a longer life to be associated with good health rather than spending a fraction of it hospitalised, immobile and suffering from co-morbidities.

People need to be encouraged to be more preventative. On a personal level, they need to change their mindset to increase their activity in a timely manner, so issues that are creating barriers to their mobility are addressed.

Provide a call to action that encourages people and emphasises that by taking proactive steps to improve their mobility and overall health, they not only help themselves but also contribute to lessening the burden on the NHS.

Through simple educational strategies, you and your colleagues have the ability to offer advice and assist people in implementing change in their lives.

For OA, the most effective action is to reduce body weight through moderate exercise and a healthy diet in order to reduce compressive stress on the joints and delay disease progression [REF][REF].

Finally, you could draw parallels to the public's response during the COVID-19 pandemic, where they were encouraged to stay home and protect the NHS.

Utilise various channels such as face-to-face appointments, telephone consultations, informative leaflets, engaging posters and accessible eBooks to deliver these messages effectively.

What will happen *if nothing changes?*

Failure to address the situation and adopt an active lifestyle will lead to a decline in musculoskeletal health among the population, coupled with an increased incidence of co-morbidities [REF][REF].

The recent surge in demand for TKA among younger individuals is illustrative of the lack of awareness among HCPs and the public regarding other preventative measures and non-operative strategies for OA [REF]. As the total number of patients on the waiting list for knee replacement exceeds six million [REF], the sudden rise in demand for TKAs is unwarranted in a healthcare system that has reached capacity.

With a higher percentage of the population suffering from co-morbidities due to immobility and adding to the waiting list, more people now suffer from chronic pain with limited solutions offered, augmenting an already fractured relationship with the NHS.

With job satisfaction at an all-time low among HCPs, [REF], leaving the healthcare system seems to be the only viable option to avoid workforce pressures and burnout. However, the remaining HCPs are left to face the consequences.

The current state of the NHS has made headway for the development of a vicious cycle, where increased workload, increased stress and friction within the workplace results in staff shortages [REF].

Workforce burnout has also been shown to impact the quality of patient care [REF]. A report by the Health and Social Care Committee highlights how elevated stress among HCPs contributes to medical errors, inadequate care quality and dissatisfaction among patients [REF]. If no action is taken, the burden will only heighten.

Additionally, reduced mobility, co-morbidities and leaving employment due to burnout can result in socioeconomic problems such as poverty and reduced household income. [REF] People suffering from chronic pain will have to give up work and depend on a carer who may also have to leave full-time work in order to care for this person [REF].

In a time of insufficient benefits and a rising cost of living, leaving work and lessening household income, whether from reduced mobility and the associated co-morbidities or burnout, is not plausible.

The *future.*

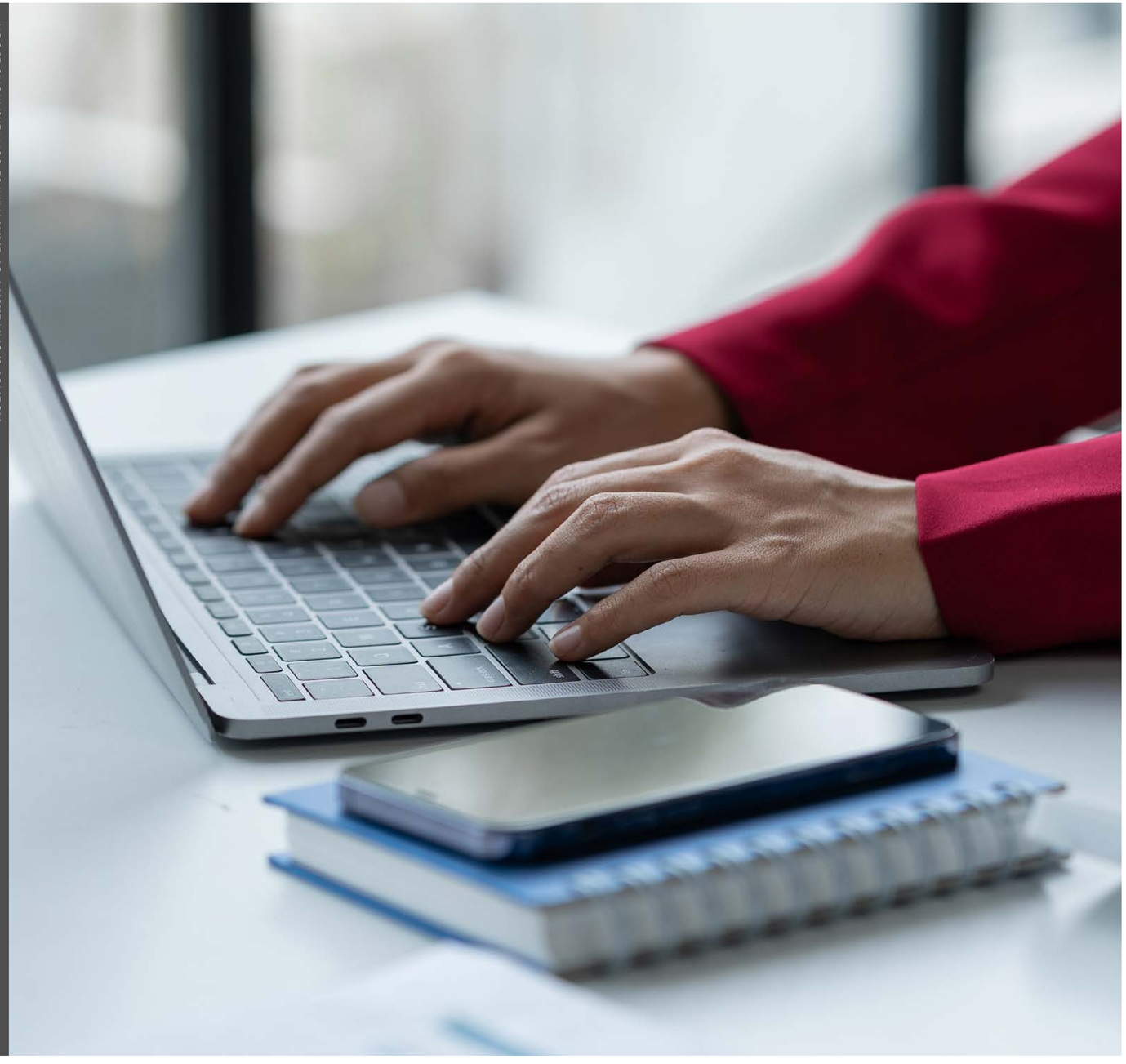
If you use your authority as a HCP to demonstrate empathy, educate and raise public awareness on the importance of mobility in guaranteeing quality of life, you'll help to build trust between your treatment pathways and the public so you can make the recommendations that will help the healthcare system to successfully regulate supply and demand.

By empowering the general population to take control of their own health, you can assist the public in preventing the development of co-morbidities that put a strain on the healthcare system.

With you and your colleagues working together as a functional unit due to relieved pressures, there will be a better flow of patients through the system, reducing waiting times and allowing people to receive timely and appropriate care. As a result, you will feel in control of your workload and be able to provide better care to the public.

By establishing the right boundaries with the general population and ensuring that they have access to sufficient care when they really need it, you can build strong, long-term relationships with them, resulting in better outcomes and a healthier population.

A future where people are encouraged to take responsibility for their own health by becoming more mobile is one where the healthcare system is more efficient, effective, patient-centred and trusted.



Your *next steps.*

If you would like to hear more on the topic of mobility as a treatment, then consider reading more work from Professor Richie Gill.

Need help affecting behavioural change within a healthcare space? Get in touch with AGENCY to see how we can help you to empower healthcare decision-making through marketing.

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Professor Richie Gill

PROFESSOR RICHIE GILL - BIOGRAPHY:

Professor Richie Gill's journey in academia and healthcare engineering began with his pursuit of Aeronautical Engineering at the University of Bristol. He earned his Bachelor of Engineering in Aeronautical Engineering in 1989, marking the start of his passion for the intricacies of engineering.

Continuing his academic journey, Richie Gill pursued a Doctor of Philosophy in Engineering Science at the University of Oxford. His doctoral research delved into "The Mechanics of Heelstrike During Level Walking," showcasing an early interest in biomechanics. This work, completed in 1996, laid the foundation for his future contributions to the field.

Eager to expand his impact on healthcare, Professor Gill pursued further studies in Medical Engineering. His pursuit culminated in a Doctor of Science degree from the University of Bath in 2022, where he focused on "Optimising Treatment for Osteoarthritis of the Hip and Knee."

Currently holding the prestigious position of Professor of Healthcare Engineering in the Department of Mechanical Engineering at the University of Bath, Professor Richie Gill has become a leading figure in the field. With over 30 years of academic experience, he specialises in biomechanics, musculoskeletal mechanics, and orthopaedic devices.

Professor Gill has held key leadership roles in various professional societies. Notably, he served as the President of the British Orthopaedic Research Society from 2018 to 2020 and as Vice-President of the European Orthopaedic Research Society from 2016 to 2018. His commitment to advancing orthopaedic research is further exemplified by his roles as Chair and Past Chair of Trustees for the British Orthopaedic Research Society.

Professor Gill has left a lasting impact on the field with more than 230 published papers, two patents, and a focus on orthopaedic engineering, hip and knee joint function, implant functionality, biological systems modelling, healthcare engineering, and medical imaging. His dedication is reflected in his role as Co-Vice Chair of the Centre for Therapeutic Innovation (CTI) and theme lead for Medical Devices and Imaging.

In his ongoing fellowship for the Institute for Mathematical Innovation (IMI), Professor Richie Gill is leading efforts to predict the risk of osteoarthritis from medical imaging data through advanced shape analysis—an initiative poised to revolutionise the understanding and treatment of this prevalent condition.

Professor Gill's impact extends beyond academia, as demonstrated by his roles as Track Chair for the European Society of Biomechanics and his term as President of the British Orthopaedic Research Society (2018-2021).

Professor Richie Gill's legacy is one of relentless dedication to advancing healthcare engineering, biomechanics, and orthopaedic research. His multifaceted contributions continue to shape the future of medical innovation, ensuring a lasting impact on both academia and healthcare.

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