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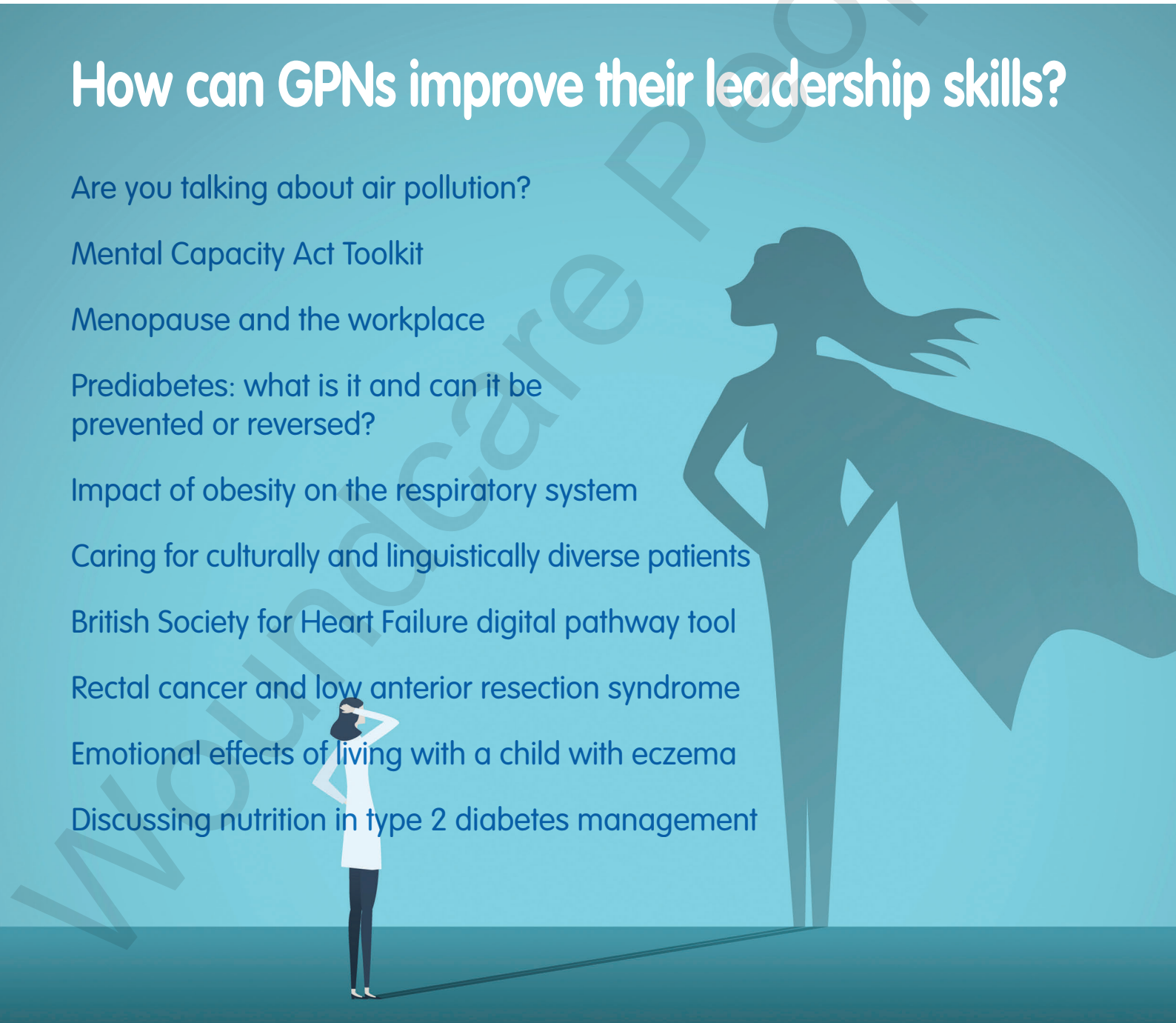
How can GPNs improve their leadership skills?



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Let's advocate for general practice nursing

I enjoyed reading and reflecting upon the leadership topic covered in this issue's 'practice matters' piece. For me, it is timely, as I feel it's an important time for general practice nurses to lead in advocating for the value and importance of our role and proactively promote our work within the general practice team. While urgent care has driven general practice recently and attracted resources, long-term conditions are equally important and if not adequately resourced and managed will just continue to drive up the demand for urgent care.

We should lead the way for enough resource and suitable skill mix to catch up with long-term conditions and get ahead with proactive, preventative care. This can be part of the solution for reducing the supply and demand mismatch in primary care. General practice nursing can no longer be the poor cousin to acute advanced practice nursing.

How do we change this? We need GPNs to lead the way in education, management, quality improvement and clinical care for our areas of expertise. I know ANP work in the acute setting can be challenging, but I remain unconvinced that diagnosing and managing acid reflux, lower back pain or tonsillitis requires a higher level of practice than doing a medication review for someone with type 2 diabetes mellitus, who also has hypertension and chronic kidney disease, an HbA1c of 75, and is already on three medicines for managing their diabetes. I am not convinced that teasing out that the patient with uncontrolled asthma has chronic obstructive pulmonary disease (COPD) or potentially lung cancer requires a lesser skill set or has less value. Gone are the days where we just collect data for long-term conditions — we are central to decision-making around correct diagnosis and appropriate management.

My career in nursing spans three decades. I've done the handmaiden bit and the stories I have to tell my children are at times beyond comprehension today. I've developed beyond my wildest dreams and have a fulfilling, if at times, overwhelming job. I love it — most days. My patients also give me some extremely encouraging feedback about the difference I make to their lives (except when I've run over 30 minutes behind, and they are frustrated with the wait). I want to express that in the sunset years of my career, I feel intensely passionate about general practice nursing.

Other articles in this issue bear witness to the complex, varied and valuable work we deliver — diabetes, eczema, continence, heart failure, obesity, etc. We need to stand up and find more opportunities to lead, showcase and advocate for our vital role. Our voice must be heard within national priorities so that enough resource is directed into our work to help us thrive.

Jaqui Walker, editor-in-chief

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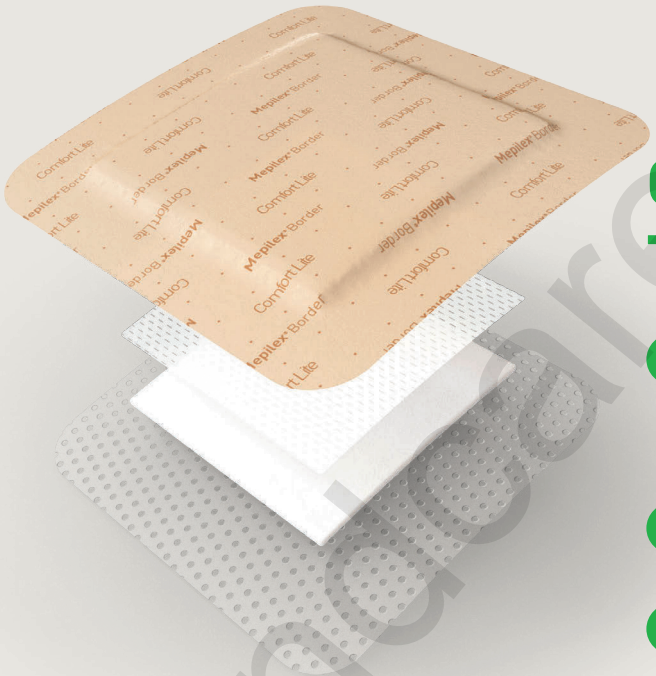

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My passion for education has given me such an amazing general practice nursing career. To be invited to become a member of the editorial team for the *Journal of General Practice Nursing* provides the opportunity to contribute to a journal with high standards and vision. This comes at a particularly challenging time for all staff working in primary care; embracing new ways of working in response to the Covid-19 pandemic. Education is what drives good clinical practice; the characteristic adaptability and resilience demonstrated by staff is founded on sound principles. It is a privilege to be part of the editorial board, contributing to the strategic commitment of enabling access to educational material, which is contemporary, relevant and valued.

Julie Lennon

I am thrilled to be part of the editorial board. To contribute to the content and review work by inspiring authors is an exciting opportunity. Most of my nursing career has been within primary care. I have worked with many GPN colleagues to assist in providing education, training and service improvement projects within the field of wound care. At present, the challenges that GPNs face are immense and this journal is a fantastic arena to offer support, education and share experiences and best practice.

Kirsten Mahoney

I am delighted to have been invited to represent the *Journal of General Practice Nursing* editorial board. It is a privilege to review and contribute to the work of our incredible colleagues and authors. As a primary care pharmacist, I work closely and collaboratively with experienced general practice nurses (GPNs) and understand and appreciate the dedication, compassion and diverse skill mix GPNs bring to the multidisciplinary team. In these uncertain times, when the challenges and pressures faced in primary care and the health service as a whole are unprecedented, it has never been more imperative for us to keep up to date with current best practice and to be proactive in developing interprofessional relationships to support the delivery of high-quality patient care. I feel the journal is an excellent resource to promote evidence-based, person-centred care across the multidisciplinary team, and I look forward to supporting the up and coming content.

Caroline McIntyre

I am thrilled to join the editorial board. I am passionate about improving quality of care across primary care. I enjoy acting as a change agent in general practice to improve patients' experiences and always strive to ensure that high quality, person-centred care is achieved. I am excited to be able to share ideas and discuss topics imperative to our role with like-minded healthcare professionals.

Cheryl Crawford

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How can GPNs improve their leadership skills?

There have been many renowned leaders throughout history. Alexander the Great. Cleopatra. Winston Churchill. Liz Truss… OK, maybe the last one is a bit of a stretch, but many civilizations have been defined by a single inspirational leader who was able to bend circumstances to their will.

To a much lesser extent, the same is true in any workplace. Someone has to make decisions and drive strategies or ideas, otherwise nothing would get done. But what is it that makes a great leader? What qualities make people follow one person and not another?

In terms of healthcare where snap clinical decisions can often mean life or death, the ability to lead others is crucial. However, not all leadership comes from the top, and achieving goals can also be about inspiring others, not necessarily giving out orders.

You may be a leader of a community team; you may work in a GP surgery; or you might be a district nurse who wants to mentor students or newly qualified colleagues. All of these roles require leadership skills.

But apart from remembering your colleagues' birthdays and offering to organise the off-duty rota, what are the characteristics that are going to enable you to reach your goals and those of your team?

Historically, it has been difficult for nurses to be able to play a steady leadership role in the working world. As this article accurately describes, in times gone by we were often thought of as 'doctors' handmaidens'. This is something, unfortunately, even now colleagues and myself still come across in certain places. Although I must admit in recent years I have seen a shift in this for the better, which is a promising sign for nurses of the future to be able to grow and lead within their roles and be encouraged to do so. Nurses are being acknowledged for their skills and high levels of experience and extended training, with more opportunities coming available to advance further in our careers than ever before.

I am lucky in my current practice as the nursing team are encouraged to develop leadership as part of their role — taking on more highly skilled levels of work and completing more training to enhance skill sets. However, I have experienced work environments where I haven't felt seen as a clinician and, with a wide variety of experience and training, at times felt very frustrated feeling that my thoughts/ideas were often brushed off, which can be very disheartening. My advice to anyone feeling this way is not to be afraid to explore other opportunities — nurses are in short supply all over the country (and even worldwide).

One of the keys to leadership in practice is good communication between all members of the team, and being mindful to maintain positive relationships with members of the whole team — this makes such a difference when in a leadership role. Indeed, being approachable and compassionate with team members and not just with patients is imperative.

Cheryl Crawford
Practice sister, Braehead Medical Practice, Renfrew

IT'S JUST THE WAY WE DO THINGS…

Traditionally in the NHS, leadership was in the hands of a select few, usually medical consultants and to a lesser extent matrons and charge nurses. Most staff nurses and even junior doctors were not expected to express clinical opinions, much less act on their own initiative. Decisions about care were handed down from on high, often with little more justification than because 'that is the way it's always been done', or because a consultant had once decided that they preferred a particular type of medication, or a matron liked the patients to be up and dressed by an appointed time in the morning.

As recently as 2001, there were still ongoing power struggles between doctors and nurses, with research suggesting that nurses could perform many clinical tasks just as well as their medical colleagues, but that a lower value was placed on any task they performed ('Doctor and nurse rivalries undermine NHS reform' — www.the guardian.com).

Historically, gender has also played a part in how leadership was apportioned in the NHS, with nurses often derogatorily referred to as 'doctors' handmaidens'. Writing in the *British Medical Journal*, Braithwaite et al note how 'gender divides existed within healthcare roles, with male doctors being hierarchically dominant compared with the traditionally submissive nature of female nurses' ('The basis of clinical tribalism, hierarchy and stereotyping: a laboratory controlled teamwork experiment' — bmj.com).

This resulted in power imbalances, which meant that nurses and doctors were often working against each other, rather than for the benefit of patients. Not to mention that the expertise of nurses was disregarded.

Another issue with clear leadership in any healthcare organisation is the range of specialties that exist, even within demarked professional groups. Take a typical patient with a chronic diabetic foot ulcer. At any one time, they may be under the care of a wound care specialist, general practice nurse, visiting community nurse, carers, a GP, podiatrist, and in the worst-case scenario, a surgeon. Each one of these may have their own ideas and preferred way of doing things, which can cloud decision-making and make treatment goals harder to achieve.

LEADING US INTO DANGER

The historical interprofessional issues that had dogged the NHS came to a head a decade ago, when various scandals highlighted the role of leadership, or lack of it, in multiple care failures.

In 2013, the Francis Report detailed widespread abuse at Mid Staffordshire NHS Foundation Trust. Patients were subjected to shocking treatment, such as being left in soiled bed linen, denied food and water, and not administered prescribed medicines. The report blamed poor nursing care, fuelled by an overly confident leadership obsessed with meeting government targets ('Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry?' — assets.publishing.service.gov.uk).

Leadership in practice takes many formats dependent upon a number of variables, including the working environment, individual nurse leaders themselves, their team content and skill mix, and the patient populations they are caring for. Due to multiple complexities, including the competing needs of different patient populations and vagaries of working in the community and primary care settings, nursing leaders need to be adaptable, with their leadership styles taking a variety of configurations, including, but not exclusively, being compassionate, relational and collective leaders in differing compositions dependent upon the context in which they are working.

Nurse leaders also need to be role models, providing and supporting person-centred, integrated quality care with the individual at the heart of everything. Furthermore, they should be able to see the wider picture, being aware of patient needs, team needs, as well as the social and political context, with a view to moving forward in an increasingly complex world. A nurse leader not only leads, but is also part of their team, which is a fine balancing act — being too autocratic is rigid but too little may be 'laissez faire' and can lead to a lack of direction for the team and compromised care for individuals.

Leadership is not just at a certain grade or level, as primary care practitioners by the very essence of their work lead on care and lead teams, and colleagues demonstrate this by, for instance, taking a lead with particular groups of patients or on particular projects. This is increasingly happening in the larger teams, which are being formed due to the integrated care agenda.

Student nurses on placement in general practice have the chance to lead on particular topics and learn about a variety of conditions. The setting provides a plethora of learning opportunities, with the support and supervision of experienced GPN colleagues.

Leadership in general practice has undoubted challenges, some obviously exclusive to the primary care setting itself. But, there are unique opportunities for leadership in a variety of guises and areas. Support and time are valuable commodities in today's nursing world but are required to enhance leaders. Developmental opportunities and resources for current and future leaders are vital, not only to encourage recruitment and retention, but also to promote excellent standards of care, improve patient outcomes and enhance the service offered to patients — all of which are the undoubted aims of practitioners. Appropriate nursing leadership clearly supports these aims.

Teresa Burdett
Principal academic, Bournemouth University

Another 2015 report into the care at the University Hospitals of Morecambe Bay NHS Foundation Trust, found serious failures of care in a maternity unit that ultimately led to unnecessary deaths. Again, poor leadership was found to have a significant role ('The Report of the Morecambe Bay Investigation' — assets.publishing.service.gov.uk).

While individual nurses and doctors were to blame for some of the poor care seen in both cases, the lack of clear leadership and clinical direction was cited as a significant contributing factor.

Writing about the care failures in the Francis report, the King's Fund noted that 'it is essential that leadership in clinical teams, NHS boards and national organisations is aligned around meeting the needs of patients, and quality and safety of care' ('Patient-centred leadership: rediscovering our purpose' — www.kingsfund.org.uk).

GPNs are often the first point of access for patients and, as such, need appropriate leadership skills to support patient decision-making and that of other staff. I think this feature accurately develops the concepts of empowering GPNs to feel more confident in their leadership abilities, and understanding individual leadership styles to help shape and guide best practice. Any change can be difficult to manage and the 'it's just the way we do things' mentality can cause challenges. However, through appropriate communication and collaboration using evidence-based practice, GPNs are pivotal in leading best standards of care across a variety of clinical settings. With ever-increasing pressures faced in primary care, having the ability to lead not only yourself but others to voice concerns and support clinical development will help each patient and their families. As mentioned, leadership is much more than a title and managing off-duty rotas, it is about encouraging others to think creatively and supporting development across multiple different clinical areas. These concepts demonstrate why GPNs should aim to improve their leadership skills and seek regular feedback from seniors and peers to shape their leadership style.

Callum Metcalf-O'Shea
Advanced nurse practitioner (diabetes specialist), Thorpewood Medical Group

STYLING IT OUT…

Talking about leadership is one thing, actually putting it into practice is another. What does good leadership actually look like?

Historically in the NHS, leaders often operated with autocratic or transactional leadership styles. An autocratic style typically involved one leader, often a doctor, who made all the decisions with limited input from other members of the team. While this could be demotivating for nurses, it did have some positive implications for patient care, for example where clear decisions were required in an emergency ('Leadership styles in healthcare' — www.ijsrp.org).

With the transactional style, leadership was again top-down and task-focused, with staff being rewarded for good performance with bonuses or promotion. Again, it is possible to see how this leadership style flourished in the past, where care was often measured by targets, such as the number of free beds rather than the quality of patient experience ('Leadership styles and leadership outcomes in nursing homes' — biomedcentral.com).

Since the Francis report, however, these traditional styles of leadership have begun to fall out of fashion and instead, what's known as relational leadership styles, such as transformational and compassionate leadership, have come to the fore.

Transformational leadership focuses on the leader's ability to motivate and empower team members, with its core themes including:

- Inspirational motivation
- Intellectual stimulation
- Individualised consideration

('Transformational leadership, knowledge sharing and reflection, and work teams' performance' — onlinelibrary.wiley.com).

Transformational leadership seeks to promote teamwork and collaboration between staff members through techniques such as developing rapport and treating staff with respect to create a sense of 'working together' ('Supporting newly qualified nurses to develop their leadership skills' — rcni.com).

Similarly, compassionate leadership involves the leader focusing on relationships between team members with an emphasis on empathy and mutual support, thereby enabling colleagues to reach their full potential. According to the King's Fund, the compassionate leader attempts to understand the challenges their team members face and is committed to supporting them to cope with work challenges. Crucially, the compassionate leader does not pretend to 'have all the answers', but rather seeks to collaborate with colleagues to arrive at shared decisions ('What is compassionate leadership?' — www.kingsfund.org).

LEADING IN PRACTICE

All these theories may look good on paper, but when it comes to leading a team of nurses working in primary care, what are the key skills required?

According to Felicia Sadler writing in Nurse.com, nurse leaders can nurture both resilience and emotional well-being in their staff by mixing so called 'hard' and 'soft' skills. Hard skills include clinical knowledge and expertise and are vital to being respected and trusted by your colleagues. However, these technical nursing skills are of little use if your

An understanding of what leadership is and what it is not can be a helpful starting point for GPNs as they reflect on their career opportunities. So often nurses fall into management roles, which often get blended with leadership with little understanding of the differences between the two (https://teambuilding.com/blog/management-vs-leadership). This often leads to frustration or conflict for those in such roles, those working alongside them, beneath them, or those aspiring to such roles. This is where mentoring and good career support can help to channel the right people into either management or leadership roles. I know that I am more of a leader than a manger. It is also helpful to have insight into one's own character and how we come across to others. Appreciating our own leadership style using the Insight colour model can be a useful way to understand how we are perceived by others (www.insights.com). The different colours of the model help identify your natural style and therefore how others see you. Being a leader requires clear thinking and the ability to inspire others to follow the path which the leader sets out. I remember some of my training which taught me how to succinctly outline a plan and 'sell' the concept to the people I hoped to influence.

Spotting and nurturing potential leaders can help nurses to have satisfying careers. The GP fellowship programme (www.england.nhs.uk/gp/the-best-place-to-work/gp-fellowship-programme/) or the care programme (www.england.nhs.uk/gp/the-best-place-to-work/gp-fellowship-programme/) can be a stepping-stone to many of the more formal leadership programmes, such as Mary Seacole, Rosalind Franklin, Queen's Nursing Institute (QNI) or the NHS leadership academy. Nurses on advanced clinical practice masters programmes also have the opportunity to develop their skills in research, management and leadership. This gives more nurses the skills and confidence to take on leadership roles in general practice.

Unfortunately, training is not the main issue for many GPNs, but rather the lack of opportunity to grow into leadership roles even if they have the right attributes.

Opportunities to take on nurse partnership or clinical director roles have been few and far between, despite there being many nurses who have the right skills. However, GPNs can help themselves by learning practical skills, such as writing a business case, learning how to use audit to demonstrate a quality improvement or putting themselves forward to leadership roles outside their practice. Having some of these skills puts GPNs in a better position to offer to take on leadership roles and demonstrate their worth. In my experience, you have to put yourself forward rather than waiting to be asked. In the words of Crystal Oldman of the QNI, 'if you are not at the table, you are not on the menu' — GPNs should try to position themselves in such a way that they can influence decision-making rather than having decisions made for them.

Training and insight are important, but often the main issue for GPNs is the lack of opportunity. It pays to be up to date with what is happening locally and nationally, as new funding streams may provide GPNs with opportunities to innovate. Unfortunately, nurses rarely get mentioned, for example in the recent general practice recovery plan (www.england.nhs.uk/wp-content/uploads/2023/05/PRN00283-delivery-plan-for-recovering-access-to-primary-care-may-2023.pdf). This does not mean that we give up and complain. By being aware we can use whatever connections we have to challenge omissions using our nursing voice. Being part of a nurse forum, reading or writing articles, listening to podcasts or attending conferences can stimulate useful ideas which GPNs can lead on within their practice or primary care network (PCN). Try and find a way to hone your leadership skills and use them to tell others about the things you achieve. This may encourage others to take on leadership roles and inspire current and future GPNs. I have been lucky enough to have various leadership roles at the Royal College of Nursing (RCN), Training Hub, Royal College of General Practitioners (RCGP) and in my own PCN where I lead on group consultations and resuscitation.

Jenny Aston
Advanced nurse practitioner; Royal College of General Practitioners (RCGP) AHP/nurse representative

Leadership comes from feeling powerful, sharing power, and giving others a platform even when we may feel insecure ourselves. Some years ago, when I was a specialist practitioner qualification (SPQ) student, I was told by my mentor that 'true power is the sharing of knowledge, not the hoarding of knowledge, and admitting when it's an area where we have no knowledge!' This simple sentence has resonated with me throughout my years in district and community nursing practice.

Historically within NHS leadership 'training' programmes, we have learned about leadership styles and been offered tool kits with attributes and behaviours that, as individuals, we must adopt to be effective leaders — but, while this makes us knowledgeable about styles of leadership and able to recognise styles being used around us, does it give us the ability to lead? Leadership comes from competence and confidence to speak out; knowing that we are competent in what we are talking about, perhaps a clinical issue or the need to challenge suboptimal health care, and confident that we are in an environment where we will be supported by our own leaders, peers and followers when we do put our head above the parapet.

So, why is power important and, traditionally, have we felt afraid to embrace terms such as power and powerful? Perhaps there are negative connotations to the terms, and thus we have stuck with the softer terms of 'empower' and 'empowerment'? But, maybe the time has come for us to stop waiting to be empowered, perhaps it's time for district and community nurses to start to feel more powerful and recognise how we can use power to affect care for our community.

Power can be subdivided. Heimens and Timms (2014) first introduced the concepts of new power and old power some years ago. Recognising old and new power, the differences, and how each can be used to effect change is a powerful tool for community nursing practice. Old power is positional, linked to hierarchy and a top-down approach. A classic example of this is the current what 'band it is' I witness everyday in NHS practice and which seems to be a habit we have fallen into to describe each other, regardless of role, specialism, skills or abilities, leading to an over focusing on pay scales rather than the leadership that an individual brings to clinical practice. For example, 'I'm off to the 8a matrons meeting', or 'ask the band 5 to do it…'. In certain healthcare situations this is useful, for example in the resus department of ED there is little opportunity for discussion or debate and thus old power may be an effective way to direct the best care for the patient. But, aside from these types of situations, it's time to start to challenge the inappropriate use of old power.

New power is more useful for most. New power means the power of collaboration, it's made by many and shared — what better group of nurses than those working in district and community nursing could there be to share power. By working together as a collective voice we can cause change across the bigger systems. So, let's connect, collaborate and make each other feel competent, confident and ultimately powerful.

Georgina Ritchie
Director of education, Accelerate

team members are not listening to you. This is where soft skills will enable you to collaborate with other team members, and to 'bring them along' with you to achieve your goals ('How nurse leaders cultivate resilience with soft skills' — www.nurse.com).

Using soft skills does not simply mean inviting your colleagues to a pub quiz or letting them go off-shift early. Soft skills include demonstrating empathy, active listening, encouraging your team members to take responsibility and being honest. Being a relational leader does not mean demonstrating that you have all the answers; instead, showing that you can ask for others' opinions will encourage them to trust you.

Another review of leadership strategies for frontline nurses found that modelling shared values such as compassion for patients and ensuring nurses had access to formal education were key to 'getting the best out of' nursing colleagues. For all the research into leadership styles, the review found that overall, nursing leadership worked best when nurse leaders were accessible, used open communication, and took a personal interest in their staff ('Leadership strategies to promote frontline nursing staff engagement' — journals.lww.com).

Of course, we don't all possess the unique qualities of historical leaders like Florence Nightingale, Gandhi or Napoleon (although some of your managers may act like the latter). And in any practice it can be tough to manage the competing priorities of our multidisciplinary colleagues, whether they be GPs, pharmacists or physiotherapists. But, when it comes to leadership in general

Too many GPNs do not see themselves as leaders. However, there are many leadership skills that will be inherent in their day-to-day practice. Probably one of the most powerful leadership skills that a GPN will have is the ability to gain and build trust, as this is fundamental to good patient care. GPNs need to recognise the leadership skills they already possess and develop their confidence in transferring these skills to wider areas.

It's so important for nurses in general practice who are newly qualified or who have moved from other healthcare backgrounds to have the right support to grow and thrive in their new roles. Many practices are also undergoing change in the dynamics of their nursing teams, for example with healthcare assistants undergoing training to become nursing associates. This is all supporting the future of general practice nursing and requires good leadership from experienced GPNs as preceptors, mentors, supervisors, assessors and facilitators. Their knowledge, experience and leadership is invaluable.

Interprofessional and multidisciplinary team working in primary care has broadened rapidly in recent years with the introduction and expansion of the additional roles reimbursement scheme (ARRS). This is an exciting arena to be working in, but it's interesting to consider what, if any, impact this might be having on the professional identity of GPNs. It's important, therefore, that the voice of the GPN is loud, strong and engaging — leading the narrative to shape a future where GPNs are at the forefront of planning and decision-making in primary care.

Rhian Last
GPN facilitation lead, Leeds Community Healthcare NHS Trust; board member, RCGP Yorkshire Faculty; board member, Self Care Forum

The definition of leadership has divided many writers and theories of leadership have evolved over the years. More contemporary leadership theories, such as transformational leadership, recognise that effective leadership relies on the attributes of the leader, the situation and the team. Nurses as leaders and change agents are seen as effective role models, focused yet flexible, emotionally resilient and introspective. A good understanding of the theories that underpin effective leadership and change management are key to better prepare those nurses who are stepping up to champion innovation and lead in patient care advancement.

Sue Thomas
Specialist practitioner, Warwick

practice nursing, being able to listen to our peers is a strength rather than a weakness, and, whatever the challenges, it is important to remember that the team is always greater than the sum of its parts.

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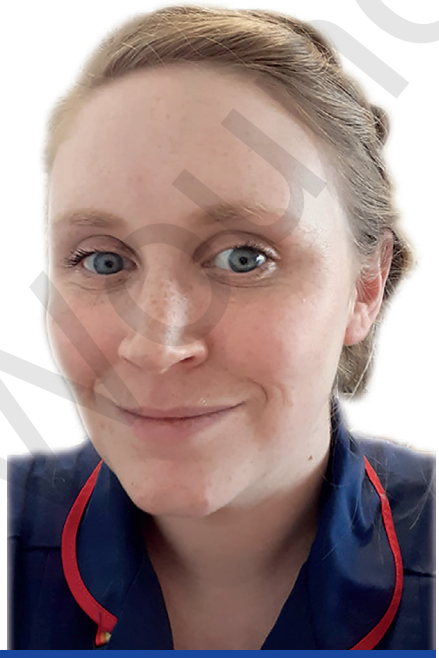
WOUND CARE TODAY

Impact of air pollution on children's health and embedding air quality conversation into consultations

How and are you talking about air pollution?

Evidence is increasingly showing us the negative impact of air pollution on conditions like asthma (Tiotiu, 2020). Air quality is such a pertinent issue that it has been included as a standalone topic in the national bundle for children and young people's asthma (NHS England, 2022a). This editorial uses asthma as an example when considering how the air quality conversation might be embedded in day-to-day patient work, but it should be noted that air quality impacts everyone, of all ages, and every part of the health spectrum.

Air quality has been front-page news for several years now, with the ongoing work of international organisations such as Global Action Plan (a charity focused on connecting global environmental issues with health) aligned with the Clean Air Hub. National organisations such as the Ella Roberta Foundation and Mums for Lungs are actively campaigning to improve air quality in the UK and to educate the wider public on the impact of our actions on the environment.



Laura King, senior asthma practitioner, North-East London

"... environmental issues are a real worry to parents, with feelings of anxiety, i.e: 'only one in four parents reported feeling optimistic about the world their child will grow up in... .

I am an asthma nurse specialist by trade, and lucky enough to be working with some forward-thinking colleagues in North-East London, namely the Tower Hamlets clean air leads who have worked on the Clean Air Hub resources (www.cleanairhub.org.uk/tower-hamlets).

It has been identified that environmental issues are a real worry to parents, with feelings of anxiety, i.e: 'only one in four parents reported feeling optimistic about the world their child will grow up in', according to a white paper by Global Action (2021). Thus, in the context of being trusted healthcare professionals, as said, air quality should be embedded in everyday consultations. However, how we give information and communicate with families needs to be carefully considered.

WHAT IS AIR POLLUTION?

The World Health Organization (WHO, 2023) defines air pollution as:

> *Contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere.*

Particulate matter describes any particles that are small enough to inhale — largely composed of sulphate, nitrates, ammonia, sodium chloride, black carbon, mineral dust or water (WHO, 2023). Because they can differ in size, they are generally categorised by their aerodynamic diameter, for example, PM2.5 or PM10.

Larger particles (those measured as between 2.5 and 10µm) are sometimes called coarse particles. These include things like pollen, sea spray, dust from agriculture, erosion, mining and roadways. The smallest and finer particles (i.e. PM2.5) can be from primary or secondary sources — primary meaning from combustible fuels and secondary from reactions between gases.

PM2.5 and PM10 are the best documented particles in terms of their evidenced impact on health. Short-term, PM can penetrate the lungs so deeply that it infiltrates the bloodstream with cardiovascular, cerebrovascular as well as the more obvious respiratory repercussions (WHO, 2023). Longer term exposure has been correlated with adverse perinatal outcomes and lung cancer (International Agency for Research on Cancer [IARC], 2023). The Department for Environment and Rural Affairs [DEFRA] proposed targets of PM2.5 as one of the most troublesome particle categories (DEFRA, 2022).

Outdoors, the main sources of air pollution vary depending on location, most often traffic and transportation, construction, industrial activity, power plants, waste burning and fields (WHO, 2023).

TOP TIPS TO REDUCE EXPOSURE TO AIR POLLUTION

The Clean Air Hub (2023) suggests five top tips to reduce exposure to air pollution:

- Avoid high-traffic roads, i.e. use side streets instead and if this is not possible, walking on the pavement side (as opposed to the road side) of a pathway can reduce the amount of particles a little
- Minimise car use
- Check air pollution levels
- Stop engines when stationary
- Check indoors for sources.

Leave the car behind

Consider using active transport, or public transport instead of driving. Air pollution can actually be higher inside the car than out. Perhaps a whole family can walk, cycle or scoot together.

Check the air quality forecast

There are air pollution alerts that patients and families can sign up to via Airtext.info.

Try not to let your engine idle

If you must drive, it is important to ensure the engine is turned off when the car is not moving, for example, at traffic lights or while waiting. If you are a passenger, and feel comfortable, ask the driver to switch off the engine when you are not moving.

Clean Air Day

This campaign, delivered across the UK, fell on 15 June 2023. To get involved still, a range of resources can be found at: www.actionforcleanair.org.uk/campaigns/clean-air-day

Indoor air needs to be clean too

Indoor air can be kept as clean as possible by using low-chemical or fragrance-free cleaning products. If you have an efficient, working extractor fan, this can help minimise particles from cooking, and opening windows away from busy roads can help ventilation inside.

The most significant source of indoor air pollution is via cooking and heating — namely, open combustion of fuels in spaces with poor ventilation or using inefficient devices (IARC, 2020). Other processes can also be responsible, such as preparing animal fodder or heating water for bathing or beverages (WHO, 2023).

Indoor air quality can be impacted by humidity, for example, drying washing indoors or when housing is problematic with regards to damp and/or mould.

As clinicians, we often forget about the air pollutants we, and our patients, choose — such as scented home fragrances (oil burners, incense, diffusers and room sprays).

SCHOOL STREETS

This is a more recent initiative to help minimise air pollution around schools at the times when children are most exposed to air pollution from surrounding traffic — pick-up and drop-off times. It also actively encourages active travel (i.e. walking, scooting, cycling), which in itself minimises air pollution, a factor supported by the 2004 Traffic Management Act which was updated in 2022 to support active travel. By July 2022, over 500 school streets were in place across London alone (Mums for Lungs, 2023).

STARTING THE CONVERSATION

When considering air quality conversations within limited consultation time, it is important to think about how to simply embed it in the questions already being asked.

For example, asthma triggers, we might ask about exercise or weather and give advice on trigger avoidance, which applies to air quality too. I often find myself asking about whether air pollution appeared to impact young patients, but do not necessarily know how to negate this problem or advise the family on avoiding pollution.

As said, simple changes such as walking on the inside of the pathway or taking secondary or quieter roads instead of main roads are practically possible most of the time. For some families, it is possible to walk, cycle or scoot — while for others, that is not going to work. However, it is important to inform patients/families so that they can make choices when possible.

If you do not already talk about

pollution in health reviews, now might be the time to add this — with practice, it will become easier to remember and certainly add to the narrative that it is everyone's business. Of course, in more urban areas it can be more pertinent, or an issue that is more evident in terms of trigger factors. We know that air pollution contributes to asthma attacks (Pfeffer et al, 2021) — it is time to start making it normal practice to ask about it.

WANT TO LEARN MORE?

'The wider environment and asthma' is included as capability 9 in every tier of the recommended NHS England accredited training (www.e-lfh.org.uk/programmes/children-and-young-peoples-asthma/).

CONCLUSION

This editorial has introduced the impact of air pollution on health, and the basic problematic particles. It has discussed some of the pertinent ways that the UK is trying to minimise pollution, such as ultra-low emission zones and school streets.

It explores top tips suggested by the Clean Air Hub and expands on these to suggest ways to confidently embed conversations around air pollution in everyday patient appointments. **GPN**

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Accessible resources regarding mental capacity and the Act for healthcare professionals

Introducing the Mental Capacity Act Toolkit

Healthcare professionals make important decisions every day. The ability to make decisions is central to human experience and something we often take for granted. Some decisions are of little consequence, such as what to have for breakfast, other decisions are of greater consequence, such as whether to sell one's house. For the most part, we make these decisions ourselves, perhaps in conjunction with another person and we act upon that decision. But what if we were unable to decide for ourselves and were reliant on other people deciding for us? How can we be sure that people making decisions about our lives are doing so in a correct way?

Enter the Mental Capacity Act 2005 (MCA or the Act). The primary purpose of the MCA is to enable decision-making. Coming into force in 2007, the Act specifies processes to follow and institutes mechanisms to use to protect individual autonomy as far as is reasonably practical.

The Act enables individuals to make decisions which will be legally binding even in the event of their losing decision-making capacity. Instruments such as Advance Decisions to Refuse Treatment and the appointment of a trusted individual to make decisions on one's behalf in the guise of Lasting Power of Attorney.

"But what if we were unable to decide for ourselves and were reliant on other people deciding for us? How can we be sure that people making decisions about our lives are doing so in a correct way?

Throughout much of the Act's 15-year life to date, there has been criticism of professionals' use of the Act. The House of Lords Select Committee on the MCA in 2014 accused healthcare staff of being 'paternalistic' and social care staff of being 'risk averse'. Judges in the Court of Protection have often commented about misuse and misunderstanding of the Act and in their annual 'State of Care' report, the Care Quality Commission (CQC) routinely comment on the Act's use. Both the House of Lords and CQC recommended continuous education and training for professional staff.

Mike Lyne (5th from left), senior lecturer in mental health social work; Sally Lee (2nd from left), senior lecturer, social work; Lee-Ann Fenge (6th from left), professor of social care; Emily Rosenorn-Lanng (4th from left), research project officer; Stevie Corbin-Clarke (3rd from left), research assistant, all at Bournemouth University. Also included, Deborah Slate (1st from left), who participated in the project.

It was against this background that the National Centre for Post Qualifying Social Work at Bournemouth University was approached by the Burdett Trust for Nursing to use its knowledge and expertise in this area to design and develop resources which could be used in education, primarily of student nurses.

As the project developed, we realised that although student nurses were an important target audience, there was a need for easily accessible resources regarding mental capacity and the Act within the wider professional community, including qualified nurses, social workers, occupational therapists and others.

DEVELOPMENT OF THE PROJECT

To ensure the project's relevance to healthcare professionals, the research team comprised nurses, social workers and team members with experience of publication design. Downloadable materials regarding specific areas, such as Advance care Planning, were published developing into a series of guidance, endorsed by organisations working in the sector, including the Office of the Public Guardian. These publications are available free of charge at: https://ncpqsw.com/downloads/

Further materials emerging from the project include the accessible textbook: *Demystifying Mental Capacity: a guide for health and social care professionals*. The book contains chapters written by the development team as well as by leading thinkers in the field such as Alex Ruck Keene, a practising barrister, and staff at the Office of the Public Guardian.

As valuable as these resources are, the team realised that it is not practicable to be flicking through a book or an A4 size pamphlet while in the community, surgery or on a ward and trying to provide care and support for people. Something more responsive was needed. The idea of an internet resource came into being.

THE TOOLKIT

Free to use and designed as a source of information as well as an educational resource, the toolkit is currently divided into nine separate and interlocking sections (*Figure 1*). There is an emphasis on human rights throughout the toolkit, which underpins the Act and should be continued into practice.

Each section is further broken down into specific topics. Most sections contain short videos of professionals discussing the use of value of the Act. As well as giving information, sections contain a reflective exercise, key learning points and a quiz, making them ideal for completing continuous professional development (CPD). Users can choose to work through the toolkit section by section or can'dip in'to relevant sections and topics as required.

By way of example, section 7 is entitled'MCA in clinical decisions for care and treatment'. Clicking on the red banner takes the user into the realm of informed consent, assessment of capacity in clinical practice and decision-making for those who cannot make their own decisions. Clicking on the white banners moves the user though the specific topics contained within the main area.

Key learning points act as a summation of the major information contained within the sections. The reflective exercises set out a short case study or scenario and ask a series of questions in relation to that case study. The user can type the reflective answer into the toolkit and can obtain an email copy of their answers for further learning and CPD purposes. Learning can be evaluated and consolidated via the use of that section's quiz.

FIGURE 1.
The toolkit.

To enable the use of the toolkit as an information source, there is a search function which will take the user to their specific area of interest.

FURTHER DEVELOPMENTS

The toolkit is a living instrument. By that we mean it is updated as required and has space for further sections to be added. Sections currently under development include information on diversity in capacity practice and the law as it relates to children and young people (CYP).

We are now developing an app form of the toolkit and believe that this will make it even more accessible to busy healthcare professionals who may find it easier to access an app on their phone during day-to-day consultations.

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'No decision about me, without me'

Placing patients at the heart of digital solutions to care

The patient's voice is central to health care. Patient and public involvement (PPI) is also important for an intervention, research, innovation, and education (R, I and E) project pathway which the author has developed (*Figure 1*). In the author's opinion, consulting and embedding PPI, for example in this cyclical intervention process (*Figure 1*), can allow for better engagement in an intervention, leading to better outcomes. If PPI is considered in the ideation of a particular intervention, such as digital applications (Apps) to treat skin conditions, patients and the public will be better placed to take ownership and become embedded in the various elements of the cycle. In the author's opinion, patients are experts in their care and can help shape R, I and E projects in line with the subject matter. Placing PPI at the heart of each stage in the cycle in *Figure 1* will only have the potential to better engage participants and promote better patient outcomes.

For patients to become compliant and concordant with their treatment and management, education, engagement, and empowerment are important elements (Hickmann et al, 2022). In the author's opinion, with these three elements in place, patients can take ownership of their treatment and management plans, leading to more holistic, patient-centred care and thus better outcomes.

As early as 2012, a Government White Paper was published titled 'Liberating the NHS — no decision about me without me'. This paper highlighted the importance of holistic practice and placing the patient at the heart of clinical decisions, thus leading to equity and excellence in patient clinical care. In line with this publication, PPI is central to better clinical outcomes, research, innovation and education. The National Institute for Health and Care Excellence (NICE, 2023) outlines two principles for PPI:

1. *That lay people, and organisations representing their interests, have opportunities to contribute to developing NICE guidance, advice and quality standards, and support their implementation.*
2. *That, because of this contribution, our guidance and other products have a greater focus and relevance for the people most directly affected by our recommendations.*

The National Institute for Health and Care Research (NIHR) also provides resources and support for those including PPI in research programmes (NIHR, 2023). Importantly, clinicians, researchers and educators need to consider patients at the heart of treatment, R, I and E programmes in accordance with such guidelines.

At HBSUK, patients are central to its vision — 'Making Health Better'. Patients' voices have been considered, as PPI is embedded in the development of its digital solutions and plays a central role, i.e. in the creation of Virtual Lucy (HBSUK's digital healthcare platform for virtual triage), and the suite of packages yet to come. With the support of insights from its patient cohort (i.e. service users of Virtual Lucy), HBSUK is stemming the flow of unnecessary patients at source, filtering and stratifying into the right location, thus helping healthcare providers to offer a more efficient and streamlined service that does not then clog up the downstream waiting list with patients who could have been dealt with through a digital clinical pathway. The package mentioned above has been developed with the patient central to the flow of clinical care and in line with the aforementioned Government White Paper, NICE and NHS NIHR guidelines.

Indeed, HBSUK considers patients central to the development of various digital solutions and in R, I and E projects (*Figure 1*). In essence, HBSUK models best practice in terms of being 'patient-centred', i.e:

- Focusing on what matters to people who want to access its services and those who use them
- Working with patients, carers, and the public as equal partners in the design and delivery of services (*Figure 1*).

PREMS AND NPS

Patient reported experience measures (PREMs) and net promoter scores (NPS) are important tools used in healthcare settings to assess patient experiences, satisfaction and loyalty. PREMs are questionnaires measuring the patient's perception of the experience while receiving care and are a valuable indicator of the quality of patient care. They have been embedded within the HBSUK, dermatology and musculoskeletal

Abdul Seckam, head of research and academia, Health Business Solutions

(MSK) health suites and focus on patients' experiences.

NPS is used to measure customer loyalty and satisfaction by determining how likely patients are to recommend a service (Goodey, 2022), i.e. recommending Virtual Lucy MSK or dermatology services to their friends and family. The rating is from 1–10 (allowing researchers to work out the ratio of promoters, e.g. those who score the service as 9 or 10, versus detractors, e.g. those who score the service 6 or less).

It is also important to mention that NPS can be influenced by a wide range of variables, i.e. age, condition/disease, intervention and cultural variation. Ttherefore, NPS should be interpreted with caution (Adams et al, 2022).

As said, HBSUK places patient experience, care and concerns at the heart of its technological solutions. By incorporating PREMS and NPS data within its suite of services, such as for MSK, it has been deduced that:

- 99% of patients say they had 'the opportunity to describe their condition'
- 97% of patients reported that they believed 'their clinician fully understood their condition'
- 97% of patients reported that they 'understood what was going to happen next'
- 95% of patients rated their overall experience as 'excellent'.

These PREMS and NPS scores highlight good clinical management provided by HBSUK clinicians for MSK services. These findings also complement the NHS quality improvement framework indicators (2022) in line with improving service delivery and quality of care and prudent care. GPN

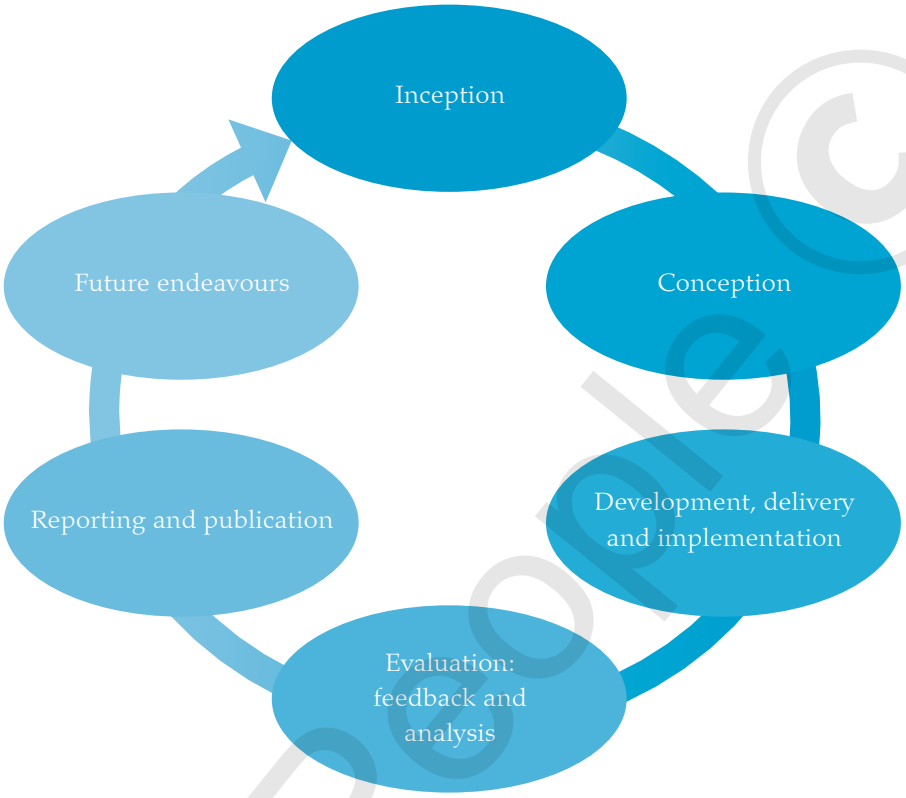

FIGURE 1.
Patient and public involvement throughout the intervention process at HBSUK.

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Providing accessible patient information

'In This Together': a new website for patients

In This Together (ITT) is an informative magazine, now in its sixth year, for people with conditions that require long-term management with compression therapy. We are excited to also launch the *In This Together* website so that we can offer more frequent education, resources and updates in between issues of the magazine.

IN THIS TOGETHER

In This Together as a brand has always been dedicated to enabling people with conditions such as venous leg ulcers and lymphoedema to understand more about their condition, the products available to them — including prescription delivery services — and to access communities that can provide ongoing support. Healthly lifestyle advice that encompasses the psychosocial impact of living with a long-term condition is also featured to help people who wear compression to live life to the fullest.

DIFFICULTIES WITH COMPRESSION THERAPY

Compression therapy is well established as the gold standard therapy for the treatment of venous and lymphatic conditions (Wounds UK, 2016; Wound Care People, 2019). It is also known, however, that there are numerous reasons why people fail to wear their compression garments long term (Moffatt et al, 2007; Wounds UK, 2016; Wound Care People, 2019). Although this is a complex area with no 'on size fits all' explanation, key factors include pain and a lack of understanding of the role that compression plays in improving the underlying lymphovenous disease that results in signs and symptoms, such as swelling and ulceration (Moffatt et al, 2007; Wounds UK, 2016; Wound Care People, 2019).

From a psychosocial perspective, people with lymphovenous disease use different coping strategies influenced by their personality, degree of illness and support system, to live with their situation (Moffatt et al, 2007). Social isolation and no or little support is known to contribute to delayed healing (Moffatt et al, 2007).

Empowering patients with appropriate understanding of their condition and support can help them to live more successfully with their long-term condition, including the adoption of self-care strategies (Wounds UK, 2016; Wound Care People, 2019).

PATIENT EDUCATION AND SUPPORT

Both the ITT magazine and website are produced by the experienced team behind the JCN and GPN to provide patient information in an accessible way, while making sure it is line with current national guidelines. To do this, we engage with practicing clinicans to ensure our content is accurate, and with patients to make sure our content is pitched at a level that is easy to understand and contains information of value.

Nicola Rusling, editor, In This Together, and director, Wound Care People

We produce the magazine in association with Daylong Direct, who distribute it to all their customers.

Both the magazine and website are free to access, which would not be possible without support from our industry partners JOBST and L&R Medical UK, who are both committed to providing products and resources for people living with lymphovenous disease to improve their lives. JOBST provide LymphConnect, a free online resource for people with lyphoedema and lipoedema. L&R Medical UK have Club Squeeze In for people with lower-limb conditions, such as venous leg ulcers.

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Implementing policies and practices to support women going through the menopause

Menopause and the workplace

This clinical skills series — **Think menopause** — looks at menopause-related issues to help general practice nurses (GPNs) identify, assess and manage women whose day-to-day lives may be detrimentally affected by this stage in their life. Here, Sue Thomas, advanced nurse practitioner (ANP) based in Leamington Spa, looks at managing the menopause in the workplace.

Perimenopausal and menopausal symptoms are common and can, for some, have a devastating impact on both home and work lives. Peri/menopause normally happens in our 40s or 50s but can happen to anyone at any age. It can affect men undergoing certain cancer treatments and those going through gender affirmation or any other significant hormonal treatment. This can be particularly difficult for nurses working on the frontline in often high-pressured and demanding work environments. The most common symptoms reported that impact individuals at work are anxiety, brain fog and fatigue, often leading to lack of confidence and self-esteem in both personal and professional lives (Griffiths et al, 2013). Other physical symptoms, such as hot flushes, heavy and unexpected periods, and the need to urinate frequently and urgently can be embarrassing and inconvenient and women may feel unable to disclose their issues for fear of being stigmatised for being menopausal (British Menopause Society [BMS], 2022; Health Economics Unit and Health Strategy Unit, 2022).

Troublesome symptoms can often lead to difficulties coping with normal everyday work challenges. Organisational skills can be impaired by memory lapses, leading to a lack of confidence and feeling suddenly overwhelmed and intimidated. Night sweats, sleeping problems and fatigue can have a huge impact on punctuality, performance and stamina at work (Trades Union Congress, 2017; British Standards Institution, 2023). In addition, many women do not realise that they are going through the perimenopause, particularly if their periods have not changed and so they may not understand what is happening (Thomas, 2022). This can be a huge barrier to accessing support and many suffer in silence.

The NHS employs over 1.3 million people and around one million of these are women, with one in five going through perimenopause or menopause. A fifth of all English NHS employees and a quarter of general practice employees are women of menopausal age. Six out of every 10 women in the NHS experiencing menopausal symptoms say it has a negative impact on their work. Frontline clinicians face specific challenges related to feminine hygiene, as access to facilities may be limited due to the demanding nature of their work or if they have to wear heavy duty uniforms, which can be restrictive and uncomfortable for long periods of time (Health Economics Unit and Health Strategy Unit, 2022).

A wider workplace survey of 3,809 women revealed that 99% found their peri/menopause had a negative impact on their work, 59% had taken time off work due to their symptoms, and 18% had taken more than eight weeks off work (Newson Health, 2021). The survey also revealed that 21% of respondents did not go for a promotion because of their symptoms, 18% reduced their hours and 12% resigned from their role because of the negative impact that their menopause was having. Sadly, workplaces offered no support for 59% of those that completed the survey.

For far too long, the perimenopause and menopause have been shrouded in taboo and as a consequence many women are left struggling with debilitating symptoms on their own (NHS England, 2022). This was highlighted in a British Medical Association (BMA, 2020) survey of 2,000 female GPs, where 38% respondents reported menopause symptoms had a significant impact on their working lives and yet only 16% had discussed them with their manager.

Although menopause-related sickness is likely to be under-reported, it has been estimated that one in 12 NHS employees experience severe menopausal symptoms, which may well be responsible for one in 85 leaving their roles and one in 48 reducing their working hours (Health Economics Unit and Health Strategy Unit, 2022). In a survey of NHS employees who carry on working despite the severity of their symptoms, some women were found to demote themselves or not try to advance their careers due to perceived feelings of incompetence. Others were thinking of early retirement, even though their preference was not to, and overall estimated costs to the NHS as an employer were between £89 and £129 million (Health Economics Unit and Health Strategy Unit, 2022). Research from Bupa has shown that almost one million women have left their job because of menopausal symptoms, while others are forced to take long-term absence from work to manage symptoms (CIPD, 2021).

The findings of the anonymous online survey by Newson Health presented at the International Menopause Society's (IMS) World Congress on Menopause in 2022 of over 1,000 women working in the NHS and independent healthcare sector found that only 18% of NHS staff had been able to make changes to current work arrangements because of their symptoms, compared to 53% in the private sector. Overall, a third (34%) felt unable to raise these issues with their managers, while 80% said that they had not received any formal

education about the menopause. This hidden menopause status and inability to participate in the workforce differently results in widespread presenteeism among women with menopausal symptoms, as they may come to work despite feeling unwell (Health Economics Unit and Health Strategy Unit, 2022).

THE LAW AND MENOPAUSE

While menopause is not a specific protected characteristic under the Equality Act 2010, in accordance with the Advisory, Conciliation and Arbitration Service (ACAS), 'if an employee is disadvantaged and treated less favourably in any way because of their menopause symptoms this could be viewed as discrimination if related to a protected characteristic, for example, age, disability, gender reassignment or sex' (ACAS, 2023). According to Henpicked, a national leader in menopause workplace training, many tribunal cases related to the menopause may well be brought under this disability strand. An example of a disability may be poor concentration, where it may take the individual longer than normal to complete a daily routine work task.

It is also important to note that employees have a legal right to request flexible working arrangements (Department for Business, Energy and Industrial Strategy, 2021). From 13 September 2021, all NHS employees in England and Wales from their first day of employment have the right to request flexible working (NHS Employers, 2021). Perhaps more importantly for some, requests can be made regardless of the reason and without having to justify requests and employers are encouraged to support this (NHS England, 2022).

The menopause is currently the subject of a Parliamentary inquiry entitled 'An invisible cohort: Why are workplaces failing women going through menopause?'. Led by the Women and Equality Committee and chaired by Caroline Noakes MP, the inquiry is scrutinising existing legislation and workplace practices, asking whether they adequately protect employees impacted by the menopause.

The following legislation is key to note:

- Equality Act 2010: legally protects people from discrimination in the workplace and in wider society
- Health and Safety at Work Act 1974: which states, 'An employer must, where reasonably practical, ensure everyone's health, safety and welfare at work'.

Further information regarding menopause and the law can be found on the ACAS website: www.acas.org.uk/menopause-at-work/menopause-and-the-law.

In the same month as the Health Economics Unit and Health Strategy Unit released its report on how the menopause is impacting the NHS workforce, NHS England published its own guidance for NHS line managers and employees on 22 November 2022. In this report, line managers and leaders supporting those experiencing symptoms of the menopause are encouraged to normalise and signpost staff to relevant wellbeing services, including supporting reasonable work adjustments to enable colleagues to continue working (NHS England, 2022). There is also now accreditation and awards that employers can apply for to demonstrate their commitment to being a menopause friendly employer to both attract and retain their workforces (The Menopause Friendly Accreditation, 2023).

One of the key findings from the Health Economics Unit was that the NHS should place more emphasis on collecting more data related to menopause in the workplace, which can then be used to inform national guidance and organisational menopause policies. There is now guidance available on recording menopause-related absence. However, in primary care a different approach may be required if not using electronic staff records (ESR) to capture the recording of menopause-related absence when reviewing practice-based sickness levels.

Key suggestions within general practice are:

- To develop/review an inhouse menopause policy and ensure that it is reviewed regularly
- Encourage an open and receptive culture around the menopause
- Support training for both clinical and non-clinical colleagues and encourage manager and employer awareness
- Encourage local occupational health support (if available)
- Ensure menopause-friendly uniform/workwear or adaptations are available for yourself and colleagues
- Encourage in-house menopause friendly facilities, such as appropriate workplace temperatures, or request access to desk fans and easy access to cold water, washrooms and toilets
- Suggest appropriate breakout spaces, particularly for staff that are patient/customer-facing.

The UK menopause taskforce included recommendations to the Government to improve menopause healthcare support including access to hormone replacement therapy (HRT) and to raise awareness among women, the general population and employers to improve workplace support and to boost research and evidence. One of the Government's 10-year ambitions is that women are supported to remain in the workplace and that employers are well-equipped to support their workforce during the menopause, including evidence-based workplace support and appropriate menopause policies (House of Commons Women and Equalities Committee, 2023).

According to the Royal College of Nursing (RCN, 2022), nurses in the UK are not only leaving in significant numbers, but they are also leaving years before retirement age. While the actual figure of those leaving work due to the menopause is unknown, the NHS cannot afford to lose clinical expertise and talent, particularly in primary care. The cost of the menopause to the NHS is already huge, but in addition the legal costs that are starting to emerge in tribunals citing menopause should be considered. At the other end of the spectrum, the NHS needs to attract and recruit new employees and jobhunters are now looking beyond salary to things like inclusion and wellbeing — putting menopause

centre stage can surely be a great incentive to join an organisation for the longer term.

The British Standards Institute (BSI) in their recently published 40-page document recognises the urgent need to put in place measures to improve the welfare of workers affected by both menstrual and peri/menopausal health (BSI, 2023). This document has been heralded as a massive step forward designed to educate employers and organisations to proactively make changes to protect the welfare of employees in the workplace and ultimately retain good staff by making the work environment current and more suitable for everyone.

Under the protected characteristic relating to 'sex and pregnancy and maternity', NHS organisations are now being actively encouraged to adapt NHS England's policy on menopause awareness to include measures like flexible working to improve work/life balance to allow staff to work 'for as long as they wish to contribute' (NHS England, 2023).

CONCLUSION

It is clear that the menopause should be looked at in the same way as any other health condition, as it is an area of workplace wellbeing which urgently needs to be addressed. Measures should be put in place to help those who are struggling so that they can do their jobs to the best of their ability and stay in the NHS. In the same way that awareness and support for mental health has rightly increased over recent years, the peri/menopause (which can also affect mental health) should become a part of everyday conversations in the workplace between colleagues, managers, employers and through organisational, political and cultural change. GPN

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Continence issues: an overview

Continence is not a life-threatening condition, but does affect an individual's quality of life and the lives of their family and carers. This article explores the most common types of bladder and bowel problems and how to improve patient care. It looks at the prevalence of conditions, different types of continence issues, how they can affect quality of life and the complications that can occur when poorly managed.

KEY WORDS:

- Continence
- Bladder
- Bowel
- Quality of life

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Continence is how the bladder and bowel work, however there are a number of influences that can affect this. These can impact on continence and cause incontinence or leakage of either the bladder and/or bowel. It is a 'taboo' subject and for this reason individuals are often reluctant to seek help (Bedoya-Ronga and Currie, 2014). Indeed, continence is not discussed openly as a condition, so it is crucial that both sufferers of this condition, carers and healthcare professionals understand the impact that continence issues can have on everyday lives.

This article identifies continence problems that affect individuals. It looks at definitions of bladder and bowel continence problems, outlines the prevalence of the condition, and discusses the different types of incontinence from which individuals can suffer. It also identifies associated complications that can occur and the effects these can have on patient quality of life.

DEFINITIONS

It is important that healthcare professionals understand what 'incontinence' means and how there are different definitions for each type of problem. Here, only the most common types of bladder and bowel problems are defined.

"Continence is not discussed openly as a condition, so it is crucial that both sufferers of this condition, carers and healthcare professionals understand the impact that continence issues can have on everyday lives.

Bladder

Urinary incontinence (UI) has a broad generic definition identified by the International Continence Society (ICS) as 'any involuntary leakage of urine' (Abrams et al, 2002; Haylen et al, 2010).

This is then subdivided into specific types of UI, namely:

- Stress urinary incontinence (SUI) — defined by the ICS as 'the complaint of any involuntary loss of urine on effort or physical exertion (e.g. sporting activities), or on sneezing or coughing' (Haylen et al, 2010)
- Urge incontinence (overactive bladder) — when urine leaks as you feel a sudden, intense urge to pass urine, or soon afterwards (NHS Urinary Incontinence, 2019)
- Overflow incontinence (chronic urinary retention or obstructive incontinence) — when the patient is unable to fully empty their bladder, causing frequent leakage (NHS Urinary Incontinence, 2019)
- Functional incontinence — sometimes known as disability-associated urinary incontinence. It occurs when the person's bladder and/or bowel is working normally but they are unable to access the toilet. This may be due to a physical or cognitive condition, i.e. arthritis or dementia (Continence Foundation of Australia, 2020).

Bowel

Unlike the bladder, bowel problems do not have an overarching generic definition, but rather a multitude of definitions according to presentation of symptoms. The Royal College of Nursing (RCN, 2019) has identified:

- Faecal incontinence (FI) — involuntary loss of liquid or solid stool that is a social or hygienic problem
- Anal incontinence (AI) — involuntary loss of flatus, liquid or solid stool which is a social or hygienic problem (Bliss et al, 2017)
- Passive soiling (liquid or solid) — this occurs when an individual is unaware of liquid or solid stool leaking from the anus; this may be after a bowel movement, or at any time.

However, leakage is not the only (or most common) problem associated with the bowels. Constipation is far more prevalent and the Rome IV criteria (Drossman et al, 2017) categorises disorders of chronic constipation into four subtypes:

- Functional constipation
- Irritable bowel syndrome with constipation
- Opioid-induced constipation
- Functional defaecation disorders, including obstructive defaecation or anismus (inappropriate tightening of, or inability to relax the muscles in the back passage and pelvic floor, making it difficult to open bowels and pass stools) (Aziz et al, 2020).

PREVALENCE

The prevalence of incontinence is variable and potentially unknown. This is mainly due to the embarrassing nature of the condition and reluctance of sufferers to discuss or come forward with the problem (Bedoya-Ronga and Currie, 2014). It could also be caused by the multitude of different definitions given for the different types of problems and what definition is used when data/information is collected with regards to bladder/bowel problems. However, what is known is that it is a common problem and, while often associated with ageing, it is not an inevitable part of the ageing process (Day et al, 2014; Yates, 2019).

Prevalence factors are sometimes identified in, but are not exclusive to, specific groups of individuals, e.g. those living in long-term care facilities, women who are pregnant and postpartum, the elderly, obese individuals, post-surgical interventions (hysterectomy, radical prostectomy), and those with cognitive and physical impairment (Bliss et al, 2017).

Urinary incontinence

Within the UK, an estimated 14 million individuals are affected by UI (NHS England, 2018), with 61% of the general population of men experiencing lower urinary tract symptoms (LUTS) and 34% of women living with UI (NHS England, 2018). Stress urinary incontinence accounts for approximately half of all UI (Milson et al, 2017), with most studies reporting 10–39% prevalence (Hannestad et al, 2000; Abrams and Artibani, 2004).

Mixed incontinence (a combination of stress and urge incontinence) is found to be the next most common, with most studies reporting 7.5–25% prevalence (Milson et al, 2017). Urgency incontinence on its own has a prevalence of 1–7%, and other causes of incontinence approximately 0.5–1% prevalence (Milson et al, 2017). Approximately 10% of all adult women report leakage at least weekly. Occasional leakage is much more common, affecting 25–45% of all adult women. Hunskaar et al (2005) estimated that 4–7% of women under and 4–17% over the age of 60 have daily episodes of UI. These figures increase with age, with one-fifth of over 85 year olds suffering with 'severe or profound' UI (Collerton et al, 2009).

Prevalence studies on UI in community-dwelling men show prevalence rates from 4.81–32.17%, with prevalence increasing with age (Milson et al, 2017). The prevalence of UI in men has not been investigated to the same extent as for females, and it appears that UI is at least twice as prevalent in women compared with men (Milson et al, 2017). While SUI is more prevalent in women, the increasing prevalence of any UI by age in men is largely due to the contribution of urgency UI rather than SUI (Milson et al, 2017). Post-surgical UI after radical prostatectomy is frequent, ranging from 7–57% (Daugherty et al, 2017; Hislop et al, 2020).

Bowel incontinence

Over 6.5 million adults suffer with bowel control problems, with one in 10 affected by faecal incontinence (Yates, 2017; NHS England, 2018). Approximately half a million adults suffer with faecal incontinence that has a negative impact on their quality of life (National Institute for Health and Care Excellence [NICE], 2015; NHS England, 2018).

The prevalence of anal incontinence increases with age, but is present in all age groups in both genders, varying from 1.5% in children to more than 50% in nursing home residents (Milson et al, 2017). It is almost as common in men as in women.

Nearly two-thirds of people with faecal incontinence also have urinary incontinence — 'double incontinence' (NICE, 2014). As said, faecal incontinence is closely associated with age and is prevalent in residential/nursing homes, with one in three suffering in residential homes and two in three in nursing homes (NICE, 2014; NHS England, 2018).

In later life, the majority of bowel problems are related to constipation (Heath, 2009; Yates, 2017).

TYPES OF INCONTINENCE

Continence problems present in many different ways, with varying symptoms and causes. With regards to the bladder, the most common issues are stress, urge, mixed, overflow and functional urinary incontinence (*Table 1*).

Stress urinary incontinence

This is associated with a weak pelvic floor and is the most common type of incontinence found in women (due to childbirth), although men can suffer with this type after prostate surgery (Milson et al, 2017). It is associated with leakage after coughing, sneezing, laughing, exertion/exercise and is usually a small amount of leakage (Yates, 2016).

Urge urinary incontinence

This is caused by unstable bladder contractions when the detrusor muscle (the smooth muscle found in

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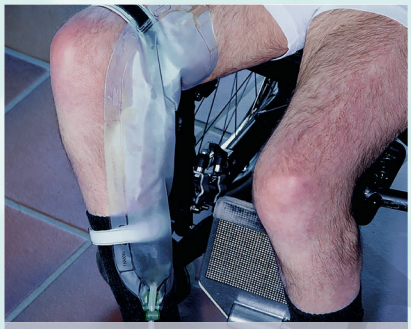

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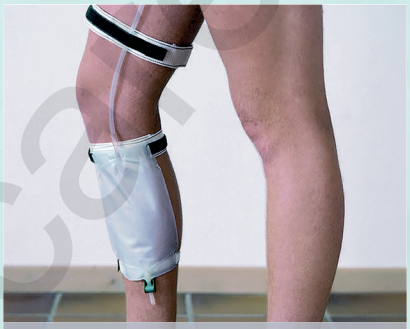

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Table 1: Types of bladder problems (adapted from Yates, 2017, 2018)

Type of problem	Symptoms	Causes
Stress urinary incontinence	Involuntary urine loss on physical exertion or sneezing or coughing. There is normally a small leakage of urine	▪ Abnormal descent of bladder neck and urethra, usually associated with poor muscle support from pelvic floor due to pregnancy, oestrogen deficiency, surgery, or trauma
Overactive bladder/ urge incontinence	Urgency, with or without incontinence, usually associated with frequency, urgency and nocturia. If incontinence occurs, this is usually a medium or large loss of urine	▪ Bladder contractions occurring while the bladder is filling. These may be associated with fluid intake, medical condition, e.g. stroke, diabetes, medication or idiopathic
Mixed incontinence	Has symptoms of both stress and over activity	▪ The complaint of involuntary leakage, associated with urgency and also with exertion, effort, sneezing or coughing
Overflow/obstructive incontinence	Dribbling urine, feeling of bladder fullness, frequency, prone to urinary tract infections. Hesitancy, stop/ start flow. There is normally a small leakage of urine	▪ Chronic urinary retention due to strictures, enlarged prostate, neuropathic illnesses, prolapse, unresolved constipation
Functional incontinence/ disability-associated incontinence	Amount of leakage varies from small to large according to degree of functional ability	▪ Factors that can affect functional incontinence include sex, age, cognitive function, dementia, CVA, Parkinson's disease, diabetes, mobility, dexterity, failing eyesight, poorly fitting footwear ▪ Long toenails and breathlessness can also be contributory factors for using the toilet, as can environmental factors

Table 2: Types of bowel problems (adapted from Yates, 2017, 2018)

Type of problem	Symptoms	Causes
Faecal leakage	Involuntary loss of faeces on physical exertion or sneezing or coughing	▪ Anal sphincter or pelvic floor damage. Anal sphincter damage due to degeneration, childbirth (especially first baby, instrumental deliveries, weight over 4kgs, midline episiotomy, more than 3–4 births, abnormal presentation) ▪ Gut motility affected by infection, inflammation, radiation, emotions, stool consistency, diet, motility, anxiety can all result in frequent, loose stools
Faecal urgency	Frequency of defaecation (usually more than three times daily), with severe urgency and usually loose stools	▪ Anal sphincter or pelvic floor damage ▪ Gut motility/stool consistency. Results in frequent, loose stools with urgency to pass ▪ Local pathology — prolapse, piles,fistula, anal tear
Constipation	Hard faeces, infrequent passing of stool (less than once every three days)	▪ Immobility, poor diet, elderly, neuropathic conditions, medication, poor toilet facilities
Faecal impaction	Hard faeces causing impaction (with liquid faeces overflow)	▪ Constipation, immobility, poor diet, elderly, neuropathic conditions, medication, poor toilet facilities

the bladder wall) contracts on filling and is defined as the complaint of 'involuntary leakage accompanied by, or immediately preceeded by urgency' (Abrams et al, 2002; Meng et al, 2012). Leakage can vary from a small/moderate amount to a full bladder. Symptoms can include frequency of micturition (over eight times in 24 hours), urgency, nocturia, and leakage.

Mixed incontinence

This is where both stress and urge symptoms occur together. Defined as 'the complaint of involuntary leakage, associated with urgency and also with exertion, effort, sneezing or coughing' (Abrams et al, 2002; Haylen, 2010).

Overflow incontinence

This type of incontinence happens when the bladder does not empty completely. It is usually associated with: prostate enlargement (benign prostatic hyperplasia [BPH]) in men; prolapse in women; urethral strictures; underlying neuropathic conditions, i.e. spina bifida, Parkinson's or multiple sclerosis, diabetes, cerebrovascular accident (CVA), spinal cord or brain injury; or can be due to chronic constipation (Yates, 2016).

Functional incontinence

Factors that can affect functional incontinence include:

- Cognitive function, i.e. dementia, CVA, Parkinson's, etc
- Physical function, such as mobility to get to the toilet in time, poor dexterity to adjust clothing in time, or anything that affects ability to be independent, e.g. failing eye sight, overgrown toenails, breathlessness (Yates, 2017).

Bowel problems can present with either storage issues, causing faecal incontinence or faecal urgency, or expulsion issues, resulting in constipation or faecal impaction (*Table 2*). In the majority of cases, these symptoms can be improved or cured by identifying and treating the underlying causes, based on a correct initial assessment (NHS England, 2018; Yates, 2018).

To maintain bowel continence, individuals will be dependent on several major factors:

- An effective barrier to outflow provided by an acute anorectal angle and anal sphincters
- Intact internal anal sphincter to ensure no passive leakage of stool
- Intact external anal sphincter to be able to defer defaecation and reduce bowel urgency
- Intact rectal and anal sensation
- Compliant, distensible and evacuable reservoir (rectum)
- Intact central nervous system
- Bulky and formed faeces (Norton

and Chelvanayagam, 2004; Yates, 2017).

For some people, there will be a single cause why these systems do not work with regards to faecal incontinence, while for others it will be multifactorial. Risk factors are identified in *Table 2*.

COMPLICATIONS AND QUALITY OF LIFE

Although continence problems are not regarded as life-threatening, they can significantly affect quality of life for patients and their families. NHS England (2018) states that 'incontinence produces marked loss of self-esteem, depression, loss of independence, and can affect relationships and employment prospects'. It also says, 'it is an important component in a person's health and wellbeing at any stage of life'.

Other complications associated with incontinence, which can occur and increase loss of independence, are bacterial infections, fungal infections, as well as cellulitis (Beeckman et al, 2015; Yates, 2020). Psychological effects which can impact on patient quality of life can be sexual dysfunction, loss of respect and self-confidence, shame, avoidance of social events, reduced personal activities and maintenance of relationships, social insularity and isolation, loss of independence, occupational aspects and increasing financial costs to cover management, i.e. extra washing, purchasing equipment (NHS England, 2018).

While psychological complications associated with continence issues are highlighted, physical harm relating to continence problems is also common. The most common complications can include skin damage, falls or fractures, and urinary tract infections (UTIs) (NICE, 2015; Soliman et al, 2016; Yates, 2018).

Skin damage

Poor continence care is a contributory factor for incontinence-associated dermatitis (IAD) (or moisture-associated skin damage [MASD]) and pressure ulcers. IAD has been described as a type of 'irritant contact dermatitis' (Beeckman et al, 2015). It may be associated with infection and can occur on intact or damaged skin (Iblasi et al, 2019). IAD occurs in people who are incontinent of urine and/or faeces (Beeckman et al, 2015) and is one of the most common skin problems in this group (Iblasi et al, 2019). Contributory causes for IAD include:

- Incontinence
- Prolonged exposure of skin to urine and/or faeces — this may not necessarily be due to incontinence but for those who need assistance to maintain hygiene, which may not be available when needed
- Poor assessment of incontinence
- Inappropriate use of continence aids/pads
- Inappropriate cleansing regimens (Gray and Giuliano, 2018; Yates, 2020).

It can be improved by addressing these issues.

Falls

Falls have a significant impact on individuals, their families and the health service. Considerable effort has gone into identifying predisposing factors for falls, injurious falls and fractures, and patients with incontinence are 26% more likely to fall and 34% more likely to fracture (Soliman et al, 2016). Indeed, it has been identified that falls are one of the leading causes of injury-related visits to accident and emergency departments and one of the causes of accidental deaths in over 65s (Soliman et al, 2016).

Falls are an indicator of declining health and deteriorating motor function, and the mortality rate associated with falls dramatically increases in the over 75s (Soliman et al, 2016).

People do not just fall due to age; there are often contributory risk factors and incontinence has been shown to be one, alongside medical conditions, i.e. prostate problems, arithritis, safety hazards (poor lighting, loose rugs, poorly fitting footwear), and medication (Soliman et al, 2016; Yates, 2017).

Prevention of falls could be partly accomplished by assessing continence needs required on a holistic basis with a multidisciplinary team involved. It has also been identified that an overactive bladder is an important risk factor for falls due to rushing to the toilet (Yates, 2017; NHS England, 2018).

Urinary tract infections (UTIs)

Urinary tract infections (UTIs) can either cause continence problems on a transient basis, or can be a contributory factor to long-term continence issues. UTIs are more common in women, with 10–20% experiencing a symptomatic UTI at some point in their lifetime. UTIs increase in prevalence with age in both sexes, with an estimated 10% of men and 20% of women aged over 65 years having symptomatic bacteriuria (NICE, 2015).

Urinary infections are known to cause frequency of voiding, pain, urgency and, in the elderly, can cause confusion, agitation, behavioural changes and can be associated with falls (Yates, 2015). They can also be associated with sepsis if not identified and interventions put in place (Department of Health [DH], 2016; NHS England, 2018). This can be assisted by undertaking a good continence assessment.

CONCLUSION

Although not a life-threatening condition, continence does have a major impact on an individual's quality of life and the lives of their family and carers. Prevalence is high and the condition can affect anyone regardless of age, gender or ethnicity. However, continence issues do have an affinity for certain groups of individuals. Different types of continence problems vary, so it is important that healthcare professionals can distinguish between them. Complications that arise from incontinence are also variable and can have drastic effects, which can be costly both to the individual and health service. These can be addressed by better assessment and initial investigations. GPN

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Key points

- Although continence problems are not regarded as life-threatening, they can significantly affect quality of life for patients and their families.
- Continence is a common problem and while often associated with ageing, it is not an inevitable part of the ageing process.
- With regards to the bladder, the most common issues are stress, urge, mixed, overflow and functional urinary incontinence.

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Prediabetes: what is it and can it be prevented or reversed?

Like type 2 diabetes, developing prediabetes is a growing and concerning trend; affecting around 15% of the population. If not kept in check, it commonly progresses to type 2 diabetes. Certain population groups are at risk, such as African-Caribbean, as are those who experience certain medical conditions, such as gestational diabetes. Although blood sugar levels do not reach the level of type 2 diabetes, living with prediabetes does increase the risk of diabetes complications. Yet, individuals often do not realise that they have the condition. Insulin resistance is present in prediabetes so preventing this from developing means preventing insulin resistance from occurring. Diet and lifestyle can halt the progress of this disease and it can be reversed. Weight loss is key, as is eating a healthy diet, such as the Mediterranean diet. Physical activity can also help to offset prediabetes and this should include resistance training as well as aerobic exercise. It is a growing trend in younger adults not normally associated with developing this condition, and so it is important that prediabetes is identified to prevent the longer term health consequences.

KEY WORDS:

- Prediabetes
- Type 2 diabetes
- Prevention
- Education and training

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Photograph: Tarik Vision/Shutterstock

According to Diabetes UK (Diabetes UK, 2022a), a person is classed as prediabetic if their blood sugar levels are running higher than usual but not high enough to be given a diagnosis of type 2 diabetes. In other words, prediabetes is the intermediate state between normal glucose homeostasis and diabetes (Jadhav et al, 2017). In the US, nearly one in three adults has prediabetes (UCLA Health, 2021). Back in 2009, Diabetes UK issued a press release stating that an estimated seven million people in the UK had prediabetes — around 15% of the population (Diabetes UK, 2009).

People with prediabetes are unlikely to have any symptoms and so this means that they can often live with it for years, not taking any action as they feel fine (Diabetes UK, 2009). However, at this prediabetes stage, the raised blood sugar level is probably already causing long-term damage to the body, especially the heart and circulatory system (Diabetes UK, 2009). However, we now know that there are things that can be done at an early stage to reduce the risk of getting 'full blown' type 2 diabetes (Diabetes UK, 2009), alluded to later.

Medical news has recently been reporting an acceleration of type 2 diabetes in under 40s — people who would have had prediabetes beforehand (Gregory, 2022). This is a cause for concern, as it used to be fairly rare at such an early age and means that people will be at risk of developing complications of type 2 diabetes at an earlier age (Hicks, 2022). Currently, around 13.6 million people are at an increased risk of developing type 2 diabetes and are on their way to developing prediabetes or already have it (Diabetes UK, 2022a). Although a shocking statistic, the good news is that with the right support, up to 50% of these cases can be prevented or delayed from developing into 'full blown' diabetes (Centers for Disease Control and Prevention [CDC], 2022a).

WHAT IS THE MECHANISM BEHIND PREDIABETES?

The mechanism for developing prediabetes is the same as for type 2 diabetes, but at a lower blood sugar level and before symptoms occur. Effectively, it is an early stage of insulin resistance where the insulin produced by the body starts not to work so well at reducing blood sugars, resulting in more and more insulin being pumped out to try and achieve the desired effect. A vicious circle is set up too, as when insulin levels are elevated, it is easier to gain weight, yet weight gain can predispose someone to prediabetes and eventually 'full-blown' diabetes (Kolb et al, 2018).

WHAT ARE THE SYMPTOMS?

Prediabetes has no symptoms, but if a person is showing signs, such as extreme thirst, weight loss without trying, feeling more tired than usual, going to the toilet more often, they probably have developed type 2 diabetes already. Knowing the risk factors of prediabetes is therefore essential to avoid developing it. The development of type 2 diabetes can be slow and insidious, typically not beginning to develop until over the age of 40, and then only really coming to light 10 years later (Diabetes UK, 2023c). However, it is now being seen in obese teenagers and more frequently in younger adults (see below)

DETECTING PREDIABETES

The only real way of telling whether prediabetes is present is by doing blood tests — the most common being haemoglobin A1c (HbA1c), which can give rapid, almost immediate results by providing average blood sugar levels over the last two to three months. A result of between 42mmol/mol and 47mmol/mol indicates a higher level than normal, thus posing a risk of developing type 2 diabetes (Diabetes UK, 2022a).

Other blood tests that can detect prediabetes blood sugar levels include:

- Impaired fasting glucose (IFG)
- Impaired glucose tolerance (IGT)
- Impaired glucose regulation (IGR)
- Non-diabetic hyperglycemia

(Diabetes UK 2022a).

WHO IS AT RISK?

Some individuals are at higher risk of developing diabetes, and hence prediabetes, namely:

- Being white and over 40
- Being African-Caribbean/Black African/South Asian and over 25
- Having a parent, sibling or child with diabetes
- Having high blood pressure
- Having had a heart attack or stroke
- Carrying extra weight, especially round the middle (a waist measurement of more than 31.5 inches for women, 37 inches for men and 35 inches or over for South Asian men)
- High cholesterol
- Women with polycystic ovary syndrome and who are overweight
- Having had gestational diabetes

(Shen et al, 2018).

The more risk factors present, the greater the risk of developing prediabetes. Diabetes UK suggest you see your GP if the results show you are at a moderate to high risk.

An unhealthy diet and lifestyle in general can increase the risk, but in particular eating:

- Sugar-sweetened drinks
- Red and processed meats
- Refined carbohydrates, such as sugary snacks, white flour products including bread, sugary cereals
- Chips/French fries

(Very well health, 2022).

SOCIAL DEPRIVATION

Social deprivation and the risk of developing prediabetes and type 2 diabetes has recently come to light, in particular affecting the under 40 age group (Hicks, 2022). There are now 148,000 people under 40 registered with type 2 diabetes in the UK. This has risen by 23% in the last five years, compared with 17% for all age groups according to Diabetes UK. This trajectory means that 200,000 18–39 year olds could be living with type 2 diabetes in the UK by 2027 (Hicks, 2022). Diabetes UK looked at some data on type 2 diabetes (work done in 2022 in conjunction with Tesco) and showed that, in general, people have deprioritised their health and are putting off health checks in today's climate, and thus are less likely to be picked up as being at-risk of getting diabetes.

Practice point

There is a 'know your risk' online tool that can be found on the Diabetes UK website: https://riskscore.diabetes.org.uk/start

Red Flag **Gallstones**

In the US, gallstone disease has doubled over the last 30 years. It is associated with prediabetes and diabetes and so they probably have some common root causes (Unalp-Arida and Ruhl, 2023).

GESTATIONAL DIABETES

If a woman develops gestational diabetes, she will probably revert to not being diabetic once she has had the baby. However, she will now be at greater risk of developing prediabetes and then type 2 diabetes later in life (CDC, 2022b). An article in the *British Medical Journal* (Dagogo-Jack et al, 2020) has shown that this risk can be reduced if women adopt healthy lifestyles. Adhering to the following five key lifestyle factors reduced the risk by a massive 90%:

- Being a healthy weight
- Following a high-quality diet
- Regular physical activity
- Moderate alcohol consumption
- Not smoking.

As part of the Nurses' Health Study II (https://nurseshealthstudy.org), women who had had gestational diabetes had repeated measurement of weight and lifestyle for over 28 years. Those who had done all five of the points above had a 92% reduced risk of getting prediabetes compared to those who had not. The study concluded that this 'highlights the important public health message opportunity for the prevention of type 2 diabetes in this high-risk population' (Yang et al, 2022).

WORRYING TREND IN THE YOUNG

A recent estimate in the US found that nearly one in three adolescents and teens had prediabetes and youth who live in poverty were more likely to have the condition (American Diabetes Assocation, 2023). Adolescents and young adults with prediabetes present an unfavourable cardiometabolic risk profile, putting them both at increased risk of type 2 diabetes and cardiovascular diseases. (Andes et al, 2020). It can be assumed

that the UK tracks the same as the US for younger age groups developing prediabetes, as the rate of type 2 diabetes is rising for children and young adults (Diabetes UK, 2018).

WEIGHT LOSS

It is important to lose visceral fat to prevent/reverse prediabetes. This is because fat stored here, around the belly, increases the risk of becoming insulin resistant, so losing just 5% of body weight can significantly reduce the risk (Healthline, 2021). There are many ways of losing weight, but it is often helpful to have support. This could be through a weight loss group, such as Weight Watchers or Sliming World, and most areas have a dietitian-led weight loss group to which a GP can refer people (Healthline, 2022a and b).

It should be noted that in some studies, physical activity did not lead to weight loss and yet there were favourable results on reduction in prediabetes. This was believed to be because what is clinically important is subcutaneous and visceral fat loss, which increasing physical activity can lead to (Jadhav et al, 2017).

DIETARY FACTORS ASSOCIATED WITH REDUCING PREDIABETES

As well as losing weight, risks can be reduced by eating a healthy diet. Some approaches that have been shown to reduce the risk of developing diabetes (many of which have certain healthy elements in common, such as being lower in saturated fats and sugar and high in vegetables) include:

- Low glycaemic index diet
- Mediterranean diet
- Dietary approach to stop hypertension (DASH)
- Nordic diet
- Moderately cutting down on carbohydrates.

The best type of diets are those associated with an overall balance of healthier foods (Harvard, 2023).

Low glycaemic index diet

The glycaemic index (GI) of a food is a figure representing the relative ability of a carbohydrate containing food to increase the level of glucose in the blood. Research has shown that low-GI diets can be useful for glycaemic control (Diabetes UK, 2023a) and may reduce body weight in people with prediabetes or diabetes (Zafar et al, 2019). This improved glycaemia may help prevent prediabetes from developing and, if prediabetes is present, it may help prevent it from developing into 'full blown' diabetes (GI Foundation, 2023). Diabetes UK caution that just following a low GI diet does not necessarily mean that the overall diet is healthy and that the overall balance of the diet should also be considered (Diabetes UK, 2023a).

Mediterranean diet/DASH/ Nordic diet

A recent study looked at a cohort of 8,363 adults with prediabetes and investigated the type of diet they ate (scored for degree of healthiness based on how close they came to some of the diets outlined below) (Li et al, 2023). Their cardiometabolic biomarkers were measured at recruitment, which included blood glucose, insulin, HbA1c, C-reactive protein and lipids, and mortality status was also noted. Diets with higher dietary scores for healthiness were associated with improved cardiometabolic markers and lower all-cause mortality among individuals with prediabetes. The findings suggested that multiple healthy dietary patterns, rather than a 'one-size fits all' dietary plan, might be beneficial and acceptable for individuals with prediabetes (Li et al, 2023).

Diets with high dietary scores include:

- Mediterranean diet — a traditional style of eating by people from the Mediterranean regions based on plants and using healthy fats. It has been shown to be one of the healthiest forms of diets with the ability to deter many, so-called, Western diseases (Bussell, 2022)
- DASH diet — a dietary pattern promoted by the US-based National Heart, Lung, and Blood Institute to prevent and control hypertension. The diet is rich in fruits, vegetables, whole grains, and low-fat dairy foods (Wikipedia, 2015)
- Nordic diet — this emphasises the foods of the Nordic countries. It is similar to the Mediterranean diet, but incorporates foods commonly eaten by people in Nordic countries and heavily emphasises plant foods and seafoods. It also emphasises canola oil instead of extra virgin olive oil (Healthline, 2019). It is known to help prevent obesity and reduce the risk of serious illness, including prediabetes without even any weight loss (Diabetes UK, 2022b).

Low carbohydrate diets

In a recent six-month randomised clinical trial, a low-carbohydrate diet intervention led to larger reductions in HbA1c than usual diets among adults with elevated but untreated HbA1c (Diabetes UK, 2023b). The study was unable to evaluate its effects independently of weight loss. This dietary approach may be an option for people with prediabetes, and so at high risk of type 2 diabetes, to improve glycaemic and other markers. The authors concluded that this should be studied further and over longer time periods in other populations and settings. To note, the carbohydrates in this trial were quite strictly cut back to less than 40g a day initially, and then rising to 60g. (Kirsten et al, 2022).

VITAMIN D

A recent trial found that vitamin D was beneficial in decreasing the risk of type 2 diabetes and increasing the likelihood of regression to normal glucose regulation in individuals with prediabetes (Pittas et al, 2023). New-onset diabetes occurred in 22.7% of participants in the vitamin D group and 25% in the placebo group; achieving a higher serum level of 25-hydroxyvitamin D levels was linked to lower risk of diabetes. The authors of the trial noted that: 'Beyond delaying progression to diabetes, regression to normal glucose regulation is also important because euglycemia is associated with a lower prevalence of microvascular disease, nephropathy,

and retinopathy compared with prediabetes, primarily due to lower glycaemic exposure over time' (Pittas, 2023). However, the trial was not conducted on a general population and included those at high risk of diabetes.

It is the author's opinion that since a low vitamin D status has been associated with being advantageous for many diseases, it is reasonable to assume that it might play a role in decreasing the risk of prediabetes and diabetes.

ACTIVITY LEVELS

In prediabetes, exercise benefits:

- The liver
- The pancreas
- Skeletal muscle
- Cholesterol levels
- Blood sugar levels
- Weight loss
- Insulin sensitivity for up to four hours after exercise. Walking 30 minutess after the highest carbohydrate meal of the day can result in a steadier blood sugar level and possibly offset prediabetes

(Eating well, 2022).

Activity can also help slow down the progression of prediabetes and thus reduce the morbidity and mortality associated with type 2 diabetes (Jadhav et al, 2017).

With regards to how much activity is needed, the World Health Organization (WHO) recommends:

- 150 minutes of moderate-intensity aerobic activity, or 75 minutes per week of vigorous aerobic activity
- Two or more days of moderate-intensity resistance training

(WHO, 2022).

People with prediabetes may struggle with aerobic exercise but recent studies seem to show that resistance training, in particular, can reduce blood sugars, especially if done one hour pre-meal in middle-aged obese men (Walsh, 2022). This is because insulin sensitivity is increased and the rate at which glucose enters the bloodstream is reduced after eating (UCLA Health, 2021).

REVERSING PREDIABETES

It is always best if prediabetes can be prevented, but if it is diagnosed, action is needed immediately to prevent it from going into type 2 diabetes and starting to affect long-term health. Diabetes UK claim that the risk of developing type 2 diabetes can be reduced by 60% by:

- Making changes to the diet
- Increasing physical activity
- Losing weight

(Diabetes UK, 2023c).

It is known that intensive lifestyle interventions prevent progression from prediabetes to type 2 diabetes, but reversal of prediabetes has been less well studied. However, a study showed that over the course of five years, a lifestyle intervention strategy could reverse prediabetes. This study incorporated fewer clinic visits but a more intensive exercise target than previous studies, and used a weight-based calorie restriction approach (Dagogo-Jack et al, 2020). The researchers concluded that more emphasis was needed on identifying individuals with prediabetes so that their blood sugar levels could be addressed and reduced before they are high enough to cause damage. Prevention or delay of type 2 diabetes among prediabetic individuals is associated with decreased mortality and vascular complications (Gong et al, 2019). These findings argue strongly in favour of restoration of a normal glucose range as a primary goal in people with prediabetes.

CONCLUSION

Prediabetes is yet another disease which tracks with obesity and hits the same barriers for prevention and treatment. As with obesity, it is the author's belief that current nationwide trends are acting against resolving the increase in numbers getting this disease, with the younger population succumbing more, thereby increasing the burden on NHS finite resources.

There is, however, hope. The prevalence, cause and metabolic profile of those likely to get prediabetes are known, as well as treatments and even how to reverse it. It is vital that nurses continue to develop strategies to enable and encourage individuals to adopt healthier lifestyles. GPN

Getting help...

Through their GP or general practice nurse (GPN), individuals who are at risk of developing type 2 diabetes may be eligible for a place on 'Healthier You: NHS Diabetes Prevention Programme' (NHS, 2022), (England only) or for a free NHS Health Check, which also covers other potential health conditions (NHS, 2019).

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Impact of obesity on the respiratory system and disease diagnosis

Awareness of the detrimental effects of smoking, environmental factors and pollution on lung health are well established. There is also awareness of the impact of obesity on the cardiovascular system with, for example, the development of diabetes, raised cholesterol levels and hypertension, but less attention is given to obesity and the association with respiratory symptoms, particularly breathlessness (both exertional and at rest) and cough, with the potential to cause either under or over diagnoses of respiratory conditions. The relationship between obesity and respiratory diseases is complex, as it is not simply related to the physical and mechanical impact of obesity, but also associated with inflammatory cellular function and mediator activity. This article explores the evidence for the impact of obesity on lung health.

KEY WORDS:

- Obesity
- Lung health
- Breathlessness
- Management

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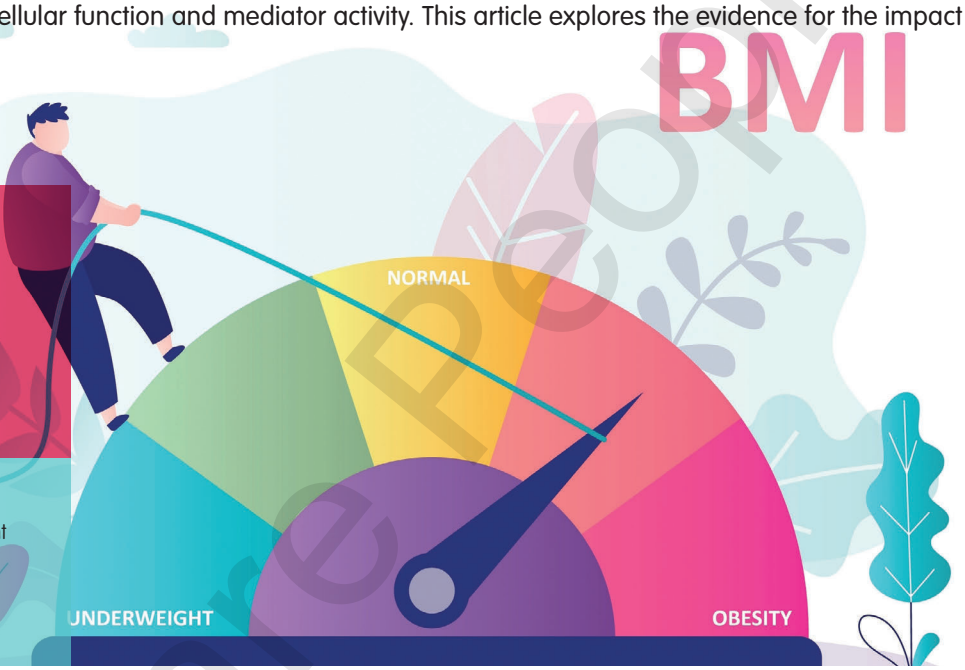

The World Health Organization (WHO, 2021) defines obesity as a body mass index (BMI) greater than or equal to 30kg/m^2 in adults. For children and adolescents up to the age of 19, obesity is greater than two standard deviations above the WHO Growth Reference median. For children under the age of five years, obesity is weight-for-height greater than three standard deviations above the WHO Child Growth Standards median.

The National Institute for Health and Care Excellence (NICE, 2023) further classifies obesity in adults by the degree of obesity and states a lower threshold of obesity for people with South Asian, Chinese, other Asian, Middle Eastern, Black African or African-Caribbean family background (*Box* 1). Being overweight contributes to the burden of disease and chronic conditions (WHO, 2021). Interestingly, WHO (2021) lists the risks of non-communicable diseases associated with obesity, such as cardiovascular diseases, musculoskeletal disorders and some cancers, but there is limited mention of respiratory conditions apart from stating that obese children experience breathing difficulties.

Awareness of obesity has increased along with an understanding that this feature is more than a BMI measurement (an index of weight for height ratio) and should include fat distribution. Indeed, a BMI below 35kg/m^2 waist-to-height ratio provides an estimate of central or android adiposity (NICE, 2023) ('apple' shape distribution of fat), where the adipose/fat distribution or mass loading is around the chest wall and abdomen. This may impact on mechanical factors associated with breathing (Dixon and Peters, 2018). Increased adipose tissue around the anterior abdomen and chest wall lowers chest wall compliance and respiratory muscle endurance, resulting in an increase in the work of breathing and airway resistance (McClean et al, 2008). The android excess type of adipose tissue distribution increases respiratory symptoms, particularly breathlessness with exertion. This can be frightening and distressing and may lead to a more sedentary lifestyle. As the intra-abdominal adipose tissue builds up, the diaphragm is pushed upwards and diaphragmatic movement is compromised, resulting in reduced basal lung expansion (Dixon and Peters, 2018).

The supine position may place additional burden on ventilation and compression of the airways and also complicate and increase risks associated with intubation and general anaesthesia (Salome et al, 2010). Kress et al (1999) calculated that obese people have a 16%

Box 1 Degrees of being overweight/obese

- Healthy weight: BMI of 18.5–24.9kg/m^2
- Overweight: BMI of 25–29.9kg/m^2
- Obesity class 1: BMI of 30–34.9kg/m^2
- Obesity class 2: BMI of 35–39.9kg/m^2
- Obesity class 3: BMI of 40kg/m^2 or more

South Asian, Chinese, other Asian, Middle Eastern, Black African or African-Caribbean family background:

- Overweight: BMI of 23–27.4kg/m^2
- Obesity: BMI of 27.5kg/m^2 or above
- Obesity classes 2 and 3: reduce the BMI thresholds by 2.5kg/m^2

(NICE, 2023)

increase in respiratory work and oxygen demand at rest, and Babb et al (2008) observed a 70% increase in oxygen demand in those people with obesity-related exertional breathlessness.

Being overweight or obese has been researched over a 20-year period in a population of 22–44 year olds, and confirmed that there is an accelerated decline in lung function which can be reversed with weight loss (Peralta et al, 2020).

The autonomic nervous system (ANS) is the pathway for communication between the central nervous system and the gastrointestinal system and has an important role in the integrated regulation of food intake, including engorgement signals and energy expenditure (Guarino et al, 2017). Autonomic dysregulation can occur when there is an imbalance between the parasympathetic and sympathetic nervous systems, partly as a result of the limitations obesity produces on the thoracic diaphragm with autonomic dysregulation favouring weight gain (Peppard et al, 2013). The vagus nerve (main nerve for the parasympathetic nervous system) plays a significant role in the respiratory cycle (Waxenbaum et al, 2023). In a normal state, parasympathetic nerves fire during inspiration cause contraction and stiffening in the airways to prevent collapse. If this normal pathway becomes dysfunctional, there is over-stimulation of the sympathetic system, which causes many systemic symptoms one of which is breathlessness (Waxenbaum et al, 2023).

Breathing at a lower functional level may also increase airway reactivity/sensitivity, resulting in airway narrowing (Chapman et al, 2008). Lung function may be compromised with reduced expiratory flow and a decrease in lung volumes, which would be displayed as a restrictive rather than obstructive pattern on spirometry (Dixon and Peters, 2018). A combination of android obesity and reduced lung function along with autonomic dysregulation leads to a low-grade inflammatory state and is thought to be linked to metabolic disease (Kwon et al, 2017; *Box 2*). Over time, respiratory muscle strength may continue to deteriorate and the obesity may cause ventilation-perfusion abnormality associated with poor lung expansion and may result in hypoxaemia (Salome et al, 2010).

OBSTRUCTIVE SLEEP APNOEA

Obesity is a recognised risk factor for obstructive sleep apnoea (OSA) where the upper airways collapse while asleep, causing apnoea, a temporary cessation of breathing, resulting in nocturnal oxygen desaturation, poor sleep pattern and excessive sleepiness during the day (Peppard et al, 2013). OSA is thought to be more prevalent in men due to upper airway anatomy (greater neck circumference), pharyngeal airway length, and differences in obesity (Jordan et al, 2014). Males are also thought to be more likely to have android obesity, although increased android distribution in some postmenopausal women and the aging process for both sexes may also factor into increased weight (Jordan et al, 2014). If not managed effectively, OSA has the potential to cause a number of conditions including:

- Pulmonary — chronic thromboembolic disease, chronic thromboembolic pulmonary hypertension
- Cardiovascular — pulmonary arterial hypertension, heart failure, acute coronary syndromes, atrial fibrillation, arrhythmias
- Neuromuscular — stroke, neurobehavioral disorders, depression
- Renal — chronic kidney disease
- Diabetes — type 2 diabetes and insulin resistance

(Abbasi, 2021; McNicholas and Pevernagie, 2022).

OSA is confirmed by overnight polysomnography (sleep study). Management aims to ensure patency of the airway to maintain adequate ventilation, this includes the use of continuous positive airway pressure (CPAP) or bi-level positive airway pressure (BiPAP) devices during sleep. Depending on the cause of the OSA, other management options may include mandibular devices or surgical procedures. If obesity is thought to be the primary cause of OSA, weight reduction guidance should also be provided (NICE, 2022).

Box 2 NCEP ATP III criteria for metabolic syndrome

Note: there are slight variations in levels depending on which guidance is used.

- Abdominal obesity: waist circumference ≥102cm in men and ≥88cm in women
- Hypertriglyceridemia ≥150mg/dl (1.695 mmol/L)
- Low HDL-C <40mg/dL (1.04 mmol/dL) in men
- <50mg/dL (1.30mmol/dL) in women
- High blood pressure (BP) >130/85mmHg
- High fasting glucose >110mgdl (6.1mmol/L)

Any three of the five above criteria.

(Huang, 2009)

CPAP, BiPap, NIV...

- Continuous positive airway pressure (CPAP) delivers a constant level of air to maintain patency of the airways
- Bilevel positive airway pressure (BiPap) provides one level of air pressure for inhalation and one level of pressure for exhalation
- Non-invasive ventilation (NIV) provides a timed, pressure specific inspiratory flow via a nose/face mask.

OBESITY HYPOVENTILATION SYNDROME

Obesity hypoventilation syndrome (OHS) is confirmed when there is a BMI in excess of 30, more often as a consequence of morbid obesity where the BMI is 40+ (Masa et al, 2019). As a consequence, a complex interaction occurs related to impaired respiratory function, including the mechanics of breathing due to:

- Impaired use of the chest wall and muscles including the diaphragm
- Changes or resetting of the central respiratory/ventilatory drive
- Atelectasis (complete or partial collapse) of the lower lung lobes
- Obstructive sleep disorder (Masa et al, 2019).

Other symptoms include waking headache, peripheral oedema, oxygen saturations of less than 94% on air and unexplained polycythaemia (NICE, 2021). Alveolar hypoventilation occurs both during sleep and when the individual is awake. A diagnosis is confirmed by measurement of the obesity and daytime hypercapnia (carbon dioxide retention), which is confirmed by arterial blood test levels of CO2 greater than 6kPa (Shetty and Parthasarathy, 2015). Management is with non-invasive ventilation to reduce the CO2 retention, thereby reducing the level of hypercapnia and hypoxia. OHS morbidity includes a higher risk of developing right-sided heart failure, cor pulmonale and pulmonary hypertension (Teichtahl, 2001). Mortality is much higher than with OSA (Masa et al, 2019).

ASTHMA

Obesity and asthma can be divided into asthma complicated by obesity and asthma as a consequence of obesity (Beuther and Sutherland, 2007). Where asthma is complicated by obesity, the underlying asthma phenotype can be more readily recognised. For example, atopic asthma, which has an early onset usually in childhood and is eosinophilic and serum IgE-driven inflammation and airway hyperresponsiveness (Dixon and Nyenhuis 2023). Asthma as a consequence of obesity does not appear to increase factors which are typically correlated with asthma, such as inflammation with low exhaled nitric oxide levels (Schachter et al, 2001; Sin and Sutherland, 2008).

Therefore, does obesity produce a distinct asthma phenotype? It has been hypothesised that the mechanical aspect of ventilation is compromised by obesity, with the potential for airway wall structural differences in stiffness and thickness in some individuals (Al-Alwan et al, 2014). More recently, mice with asthma studies have demonstrated a direct link between:

- Adipose tissue increasing airway wall thickness caused by localised adipose tissue inflammation
- Airway remodelling due to excessive fat build up
- Infiltration of inflammatory mediators (Liu et al, 2021).

Elevated inflammatory mediators, for example, circulating cytokines IL-6 and TNF-alpha, increase oxidative stress and adiponectin, leptin and resistin, resulting in repeated airway stimulation and injury, and are associated with poor asthma control (McLachlan et al, 2007; Lugogo et al, 2010).

There is the possibility of over diagnosis of asthma where symptoms of breathlessness and wheeze may be influenced by obesity (Cetlin et al, 2012). Beuther and Sutherland (2007) in a review of data bases for studies evaluating BMI and incidents of asthma in adults, which included 102 subjects, found no difference between genders, but found that the incidence of asthma was 38% higher in overweight individuals (BMI 25–29.9), and 92% higher in obese individuals (BMI ≥30). It is known that there is less clinical response to inhaled corticosteroids if the airway inflammation is not eosinophilic (Farzan et al, 2022). This population are at increased risk of acute attacks with more frequent hospital attendances and extended inpatient admissions (Pradeepan et al, 2013). Careful history-taking, physical examination, full lung function tests along with bronchoprovocation testing may be required to determine a diagnosis of asthma in an obese person. Where there is a diagnosis of asthma and obesity, gaining effective asthma control can be challenging due to the complex interrelationship between asthma and obesity. However, weight loss can improve asthma severity and symptoms (Juel et al, 2012).

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Chronic obstructive pulmonary disease (COPD) is characterised by exposure to inhaled noxious substances over time (predominately tobacco smoking) causing progressive irreversible airflow obstruction and hyperinflated lungs (Global Initiative for Chronic Obstructive Lung Disease [GOLD], 2023). COPD is known to produce systemic low-grade inflammation with an unclear mechanism (van den Borst et al, 2011). As a consequence of breathlessness with exertion, physical activity/exercise may be reduced, resulting in skeletal muscle deconditioning and a change in muscle fibre from type 1 slow twitch, which is relatively fatigue resistant, to type 2 muscle fibre, which is less fatigue resistant (Franssen et al, 2008). Over time, there is also a loss of fat free mass (FFM), i.e. muscle mass (Verberne et al, 2017). Obesity, as described above, also causes systemic inflammation. The combination of these conditions increases the risks of deteriorating lung function and hypoxia, resulting in an increase in morbidity and mortality (Wouters, 2017).

Obesity is increasing in the general population and one cross-sectional study identified 65% of individuals with COPD as being overweight or obese, particularly those with early/mild COPD (Verberne et al, 2017). Paradoxically, obesity is less commonly seen in those with severe COPD, where a low BMI and COPD increases the risk of exacerbations and all-cause mortality rates (Wang et al, 2023).

The combination of hyperinflated lungs caused by COPD and fat deposition of the android obesity pattern reduces effective respiratory cycles, with a greater risk of chest infections and carbon dioxide retention leading to type 2 respiratory failure (Franssen et al, 2008). The interaction between the physiological and pathogenesis (physiopathological) aspect of COPD and obesity appears to be complex, increasing both morbidity and mortality (Wang et al, 2023). In addition, if there is a combination of COPD and OSA, the factors associated with COPD and obesity increase the risks of hypoxia and hypercapnia (carbon dioxide retention) not just during the night, but also during the day. This increases the risks of respiratory failure, pulmonary hypertension and cor pulmonale (Sin and Sutherland, 2008).

Together with obesity-related over activation of the sympathetic nervous system not only affecting the respiratory cycle, there is also a greater risk of cardiovascular problems and metabolic morbidity and mortality (Franssen et al, 2008). COPD-OSA overlap is under recognised (Brennan et al, 2022). Screening for OSA in the COPD population may optimise management with earlier initiation of CPAP (Brennan et al, 2022).

VENOUS THROMBOEMBOLISM

Venous thromboembolism (VTE) comprises deep venous thrombosis (DVT) and pulmonary embolism (PE). Although VTE is associated with the cardiovascular system, the author has included a short section in this article as the presenting symptom includes shortness of breath, chest pain, cough, possible haemoptysis and faintness. PE is not only life threatening, but also has the potential to cause lung and cardiac damage (Tarbox and Swaroop, 2013). VTE may occur as a result of the interaction between multiple risk factors, including obesity, with the incidence increasing if there is at least one other risk factor present, including being over the age of 50 (Hotoleano, 2020). The physiopathological inflammation associated with obesity is also considered an independent risk factor for PE, with weight reduction reducing the risk (Movahed et al, 2019).

REFLUX DISEASE

Reflux disease includes gastro-oesophageal reflux (GOR), gastro-oesophageal reflux disease (GORD) and extra-oesophageal reflux disease (EORD) (McDonnell et al, 2020). There are often multiple factors influencing these conditions, with obesity being one of them. Any disease causing reflux has the potential to cause lung/airway damage and acute and chronic respiratory infections and is associated with driving respiratory diseases (McDonnell et al, 2020). Such conditions also increase exacerbations in chronic lung diseases. Furthermore, chronic respiratory disease can precipitate reflux diseases (Gunnbjörnsdóttir et al, 2004). Management focusing on weight loss can resolve or reduce reflux symptoms (Singh et al, 2013).

CONCLUSION

Obesity is a risk factor for lung diseases and a disease modifier for conditions such as OSA, OHS, asthma, COPD and pulmonary hypertension. Complications, such as respiratory infections and hospitalisation rates, can be reduced by weight loss, resulting in improvements in lung function and also reducing symptoms of breathlessness. Management should include addressing the issue of obesity and weight loss, which should be discussed in a non-judgemental and sensitive manner highlighting the impact of these issues on the individual's health. GPN

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Caring for culturally and linguistically diverse patients: a review

General practice nurses (GPNs) play a critical role in supporting the health and well-being of culturally and linguistically diverse patients. This paper reports on a review and synthesis of qualitative research exploring the experiences and perspectives of GPNs caring for culturally and linguistically diverse patients. Three electronic databases were systematically and comprehensively searched. Searches were limited to articles published in English language between 2012 and 2022. The title/abstract and full text articles were independently double screened. Qualitative findings are presented in themes and reported narratively. Eight studies met the inclusion criteria reporting perspectives of 60 GPNs working across seven different countries. Three themes were generated; experiencing uncertainties, developing cross-cultural communication skills and limitations in cultural knowledge. The findings of this review highlight the intricacies of adapting nursing practices to meet the needs of culturally and linguistically diverse patients. Strengthening the commitment to providing culturally responsive care at both individual and organisational levels is paramount.

KEY WORDS:

- General practice nurses
- Culturally and linguistically diverse patients
- Culturally responsive care

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In 2021, 14.5% of the recorded population living in the United Kingdom and 12.9% of the recorded population living in Ireland were born outside of the country (Central Statistics Office, 2021; Migration observatory, 2022). Consequently, healthcare services and professionals working within these services are challenged with providing quality care that meets the needs of culturally and linguistically diverse patients. Cultural and linguistic diversity is a term used to describe the diversity of the patient population in relation to:

- Languages spoken
- Cultural norms
- Religious beliefs
- Social values
- Ethnic backgrounds
- Migration experiences

(Pham et al, 2021).

There are multiple concepts and terms employed in the health field to describe approaches to care delivery (e.g. cultural competence, cultural humility, cultural safety, cultural responsiveness). For the purposes of this paper, culturally responsive care is the term used, which is defined as quality care that acknowledges cultural difference and respects care preferences informed by cultural beliefs and norms (Gill and Babacan, 2012).

Culturally and linguistically diverse patients, including refugee and migrant populations, experience difficulties understanding new healthcare systems and encounter

a range of language and cultural barriers when engaging with healthcare services (Chiarenza et al, 2019; Kuan et al, 2020). Despite the increased emphasis on equality in health care, reports of unmet care needs and deficiencies in standards of care among culturally and linguistically diverse patients continue (van den Muijsenbergh et al, 2014; Al Shamsi et al, 2020; Lebano et al, 2020).

In the authors' opinion, it is imperative that healthcare services and professionals working within these services respond appropriately to the health needs of a widening culturally and linguistically diverse patient population. Indeed, healthcare services that acknowledge, respect and respond appropriately to the unique needs of a culturally and linguistically diverse patient population:

- Improve health outcomes
- Increase efficiency of clinical staff
- Ensure greater patient satisfaction and patient safety

(White et al, 2019; Chauhan et al, 2020).

Primary care settings are often the first point of access to healthcare services for culturally and linguistically diverse patients. Although these patients value primary care services (Scott et al, 2022), there are also a range of challenges experienced when accessing them. Language barriers (Cheng et al, 2015) and difficulties with navigating primary care services (Kang et al, 2019), accessing general practice care (McKinlay et al, 2015) are commonly reported difficulties experienced. Collectively, this evidence highlights the need to take urgent measures in ensuring primary care is easily accessible and responsive to the healthcare needs of culturally and linguistically diverse patients.

General practice is a central element of primary care. General practice nurses (GPNs) play a critical role in supporting the health needs of culturally and linguistically diverse patients. These patients value opportunities to engage with GPNs, but call for a more culturally responsive approach to caring encounters (Napier et al, 2014; Kruger et al, 2015). Although there is growing evidence reporting on culturally and linguistically diverse patients' perceptions of utilising general practice services, perceptions and experiences of GPNs as care providers has received limited attention. In addressing this gap, this paper reports on a review of qualitative research exploring the experiences and perspectives of GPNs caring for culturally and linguistically diverse patients.

"GPNs play a critical role in supporting the health needs of culturally and linguistically diverse patients. These patients value opportunities to engage with GPNs, but call for a more culturally responsive approach to caring encounters."

SOURCING AND SELECTING QUALITATIVE RESEARCH

This review of evidence aimed to synthesise qualitative peer-reviewed research studies on GPNs' experiences of caring for patients from culturally and linguistically diverse backgrounds. Three databases (Embase, Medline and CINAHL) were systematically and comprehensively searched. The search strategy was devised using the SPIDER framework (Cooke et al, 2012). The authors designed and optimised a single line search syntax (Sample AND Design OR Evaluation OR Research type AND Phenomenon of Interest) in EMBASE using free text terms and Emtree headings and synonyms before translating for Medline and CINAHL.

The general eligibility criteria for study selection included: GPNs' experiences of caring for culturally and linguistically diverse patients, peer-reviewed published journal articles reporting qualitative study designs, including primary qualitative studies, studies that employ secondary analysis of qualitative data, and a qualitative study as part of a mixed methods study. The study selection was limited to studies published in English between January 2012 and June 2022. Initially, the search produced 14,312 articles. Following removal of 2,694 duplicates, 11,618 articles were independently screened by title and abstract. Following independent double screening of title/abstract and full texts of journal articles retrieved, eight papers met the inclusion criteria and were quality appraised using the Critical Appraisal Skills Programme (CASP). Qualitative data from these eight studies were extracted to a pre-prepared data extraction table and qualitative findings were themed and reported narratively based on principles from Popay et al (2006).

DESCRIPTIVE CHARACTERISTICS OF INCLUDED STUDIES

Qualitative data collection methods used across the eight studies reviewed included individual interviews (n=6) and a combination of interviews and focus groups (n=2). This review reports on a total GPN sample size of 60 and the sample size ranged between two and 15 per study. Thematic analysis approaches were used in all studies reviewed (n=8). The studies were conducted across seven countries: New Zealand (n=2), Australia (n=1), Norway (n=1), Finland (n=1), Lebanon (n=1), Chile (n=1) and United Kingdom (n=1).

FINDINGS

Three themes were generated from the synthesis of data on GPNs' perspectives and experiences of caring for culturally and linguistically diverse patients, namely:

- Experiencing uncertainties
- Developing cross-cultural communication skills
- Limitations in cultural knowledge.

Experiencing uncertainties

Six papers contributed to the generation of this theme. Although GPNs valued their role in supporting the health needs of culturally and

linguistically diverse patients, feelings of uncertainty were consistently expressed across six of the eight studies reviewed (Debesay et al, 2014; Farley et al, 2014; Lindenmeyer et al, 2016; Dumit and Honein-AbouHaidar, 2019; Richard et al, 2019; Cofré González and Sepúlveda, 2021).

There were uncertainties about the acceptability of practices in different cross-cultural encounters as exemplified by the following: 'I may feel uncertain about whether he thinks it's okay that I wash his beard... How does he really feel about the things I do?' (Debesay et al, 2014). There were also reports of being fearful of 'making mistakes' or 'doing something that is completely inappropriate' (Debesay et al, 2014; Richard et al, 2019). A lack of exposure with culturally and linguistically diverse patients and limited experiences of working cross-culturally contributed to the uncertainties experienced (Debesay et al, 2014; Cofré González and Sepúlveda, 2021). 'As a nurse, I have had little experience with the migrant population' (Cofré González and Sepúlveda, 2021).

These uncertainties resulted in a sense of hesitation in providing care for some GPNs, as exemplified by the following interview extract: 'my heart would just sink when I saw them on my list... it's really frustrating...' (Debesay et al, 2014). In other cases, uncertainties encouraged opportunities to carry out culturally informed nursing assessments as a means of understanding care preferences informed by culture and migration experiences, e.g. 'We ask them questions ranging from physical health problems, mental health problems and experiences of torture' (Lindenmeyer et al, 2016).

Developing cross-cultural communication skills

Seven papers contributed to the generation of this theme. GPNs across the majority of studies reported an awareness of the importance of effective cross-cultural communication (Seers et al, 2013; Eklöf et al, 2014; Debesay et al, 2014; Farley et al, 2014; Lindenmeyer et al, 2016; Richard et al, 2019; Cofré González and Sepúlveda, 2021). Empathising and understanding the vulnerabilities of migration experiences before, during and after migration is important in building nurse-patient relationships (Richard et al, 2019; Cofré González and Sepúlveda, 2021): 'I think that one should be empathetic, always try to place oneself as always in the place of the external user who comes from an unknown place, with a different root or culture' (Richard et al, 2019). This requires 'spending time' with the patient as a means of learning about culturally and linguistically diverse patients' experiences and care preferences (Lindenmeyer et al, 2016; Richard et al, 2019).

"Reports of culturally insensitive nurse-led health promotion interventions (Napier et al, 2014; Kruger et al, 2015) and unrecognised care needs among culturally and linguistically diverse patients (Khanom et al, 2021) illuminate the need to review organisational structures and processes underpinning care delivery.

However, the complexities of providing quality care when there were language barriers was reported across all eight studies, as illustrated by this GPN quote example, '... it limits me a lot the issue of language to be able to care comprehensively' (Richard et al, 2019). The value of engaging with professionally trained interpreters was acknowledged across the majority of studies (Seers et al, 2013; Debesay et al, 2014; Farley et al, 2014; Lindenmeyer et al, 2016; Richard et al, 2019; Cofré González and Sepúlveda, 2021). However, the reported challenges with accessing professionally trained interpreters is concerning (Seers et al, 2013; Eklof et al, 2014; Farley et al, 2014). There were also shortcomings in interpreting services reported in some studies (Eklof et al, 2014; Farley et al, 2014), for example, inappropriately interpreting 'not what you say and they give their own opinion' (Farley et al, 2014).

Limitations in cultural knowledge

Seven papers contributed to the generation of this theme. The limitations in cultural awareness and cultural knowledge were consistently reported across the majority of studies (Debesay et al, 2014; Farley et al, 2014; Lindenmeyer et al, 2016; Dumit and Honein-AbouHaidar, 2019; Cofré González and Sepúlveda, 2021). The following interview extracts from two studies reviewed illuminate the acknowledgements of cultural knowledge deficits; 'unfamiliarity with cultural norms or religious beliefs and knowing very little about the other side' (Debesay et al, 2014) and 'you have to have knowledge of their language and culture' (Cofré González and Sepúlveda, 2021).

Debesay et al (2014) and Lindenmeyer et al (2016) draw attention to the complexities of providing care when there are differing healthcare expectations and conflicting health beliefs. Although the majority of studies recommended the need for further education and training as a means of preparing nurses to provide culturally appropriate care, only one study reported the implementation of such training sessions (Dumit and Honein-AbouHaidar, 2019).

DISCUSSION

This review of qualitative research highlights the complex experiences that GPNs have in supporting the health and wellbeing of patients from culturally and linguistically diverse backgrounds. Reports of culturally insensitive nurse-led health promotion interventions (Napier et al, 2014; Kruger et al, 2015) and unrecognised care needs among culturally and linguistically diverse patients (Khanom et al, 2021) illuminate the need to review organisational structures and processes underpinning care delivery.

At organisational level, cultural responsiveness needs to be reflected in mission statements and policies as a means of fostering individual and collective culturally responsive attitudes, behaviours and practices. General practice managers need to provide education and training opportunities that encourage the ongoing development of cultural awareness and knowledge. Furthermore, the findings illuminate the need for easily accessible support and resources in cultivating culturally responsive care. For example, system level changes with accessing and using professionally trained interpreters is required. This recommendation is also reported elsewhere (Puthoopparambil et al, 2021).

Communicating effectively and sensitively during cross-cultural encounters is essential in reducing cultural misunderstanding and the risks of compromising the quality of care provided. GPNs acknowledged the importance of connecting with, empathising and understanding culturally and linguistically diverse patients and their experiences, healthcare expectations and care preferences. However, language barriers, lack of resources and time limiting consultations, were commonly reported challenges that compromised effective communication. Despite acknowledging the value of engaging professionally trained interpreters when there were language barriers, the complexities with using them was a consistent finding across the majority of studies. There was a lack of availability of professionally trained interpreters (Seers et al, 2013), perceived time constraints and added burden when organising them (Eklof et al, 2014; Richard et al, 2019), and inaccurate and substandard translations (Farley et al, 2014). Similar findings are reported elsewhere in the wider healthcare literature (MacFarlane et al, 2020; Puthoopparambil et al, 2021).

Although the commitment and motivation to provide culturally responsive care is evident, the intricacies with adapting nursing practices to respond to the needs of culturally and linguistically diverse patients can be challenging. Experiencing uncertainties and feeling ill prepared to care for culturally and linguistically diverse patients was a consistent finding reported by GPNs across the majority of studies (Debesay et al, 2014; Farley et al, 2014; Lindenmeyer et al, 2016; Dumit and Honein-AbouHaidar, 2019; Richard et al, 2019; Cofré González and Sepúlveda, 2021). These findings resonate with the wider nursing literature that also reports similar uncertainties during cross-cultural caring encounters (Markey et al, 2018; Scott et al, 2022).

The way cultural difference is classified has a role to play in exacerbating uncertainties. Clearly, if nurses feel ill prepared to care for culturally and linguistically diverse patients, feelings of discomfort arise which negatively impact on interactions and relationships with patients. Further, risks of cross-cultural misunderstandings and culturally insensitive practice increase.

In the authors' opinion, there is a need to stop being preoccupied with cultural difference and the quest for encyclopaedic knowledge of multiple cultures and ethno-linguistic groups, but rather to recognise that, although cultural differences exist, nurses have a wealth of transferable skills that can be applied to any caring encounter. Developing the curiosity and motivation to proactively seek answers, solutions and resources when unsure during cross-cultural caring encounters is paramount. This is in line with person-centred consultations, whereby GPNs engage in dialogue with patients to learn from them about their experiences and perspectives of their health and cultural influences (Lindenmeyer et al, 2016).

CONCLUSION

As the cultural and linguistic landscape of our general practice settings continues to diversify, the need for easily accessible, equitable and culturally responsive care is essential. There is a dearth of qualitative research available in the literature reporting on the experiences of GPNs in caring for culturally and linguistically diverse patients, highlighting the need for further research in this area. The available evidence resonates with findings from other healthcare settings about health system inadequacies, highlighting the need for comparative research and co-ordinated policy action. GPN

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Revalidation Alert

Having read this article, reflect on:

- Your experience of caring for culturally and linguistically diverse patients
- The accessibility of professionally trained interpreters in your area
- Changes you might make to provide culturally responsive care.

Then, upload the article to the free GPN revalidation e-portfolio as evidence of your continued learning: www.gpnursing.com/revalidation

Key points

- GPNs play a critical role in supporting the health and well-being of culturally and linguistically diverse patients.
- The findings of this review highlight the intricacies of adapting nursing practices to meet the needs of culturally and linguistically diverse patients.
- Strengthening the commitment to providing culturally responsive care at both individual and organisational level is paramount.
- This is in line with person-centred consultations, whereby GPNs engage in dialogue with patients to learn from them.

British Society for Heart Failure digital pathway tool

Heart failure (HF) is a complex clinical syndrome which arises when the heart is unable to pump blood adequately around the body, leading to a range of symptoms from shortness of breath and fatigue to fluid retention. HF care is complex, multifaceted, and is often delivered in varied settings by a range of healthcare workers depending on local resources and services. To this end, the British Society for Heart Failure (BSH), using Delphi methodology (Barrett and Heale, 2020), has collaborated with cardiologists, specialist nurses, pharmacists, leads from primary and secondary care, as well as those from the wider multidisciplinary team (MDT), to develop an online resource with the aim of supporting this complex management, clinician competence and confidence, and increasing guideline-directed care. This article encourages use of this pathway and raises the importance of HF management from detection to palliative care (Karauzum et al, 2018).

WORDS:

- Heart failure (HF)
- BSH heart failure pathway
- Diagnosis
- Management

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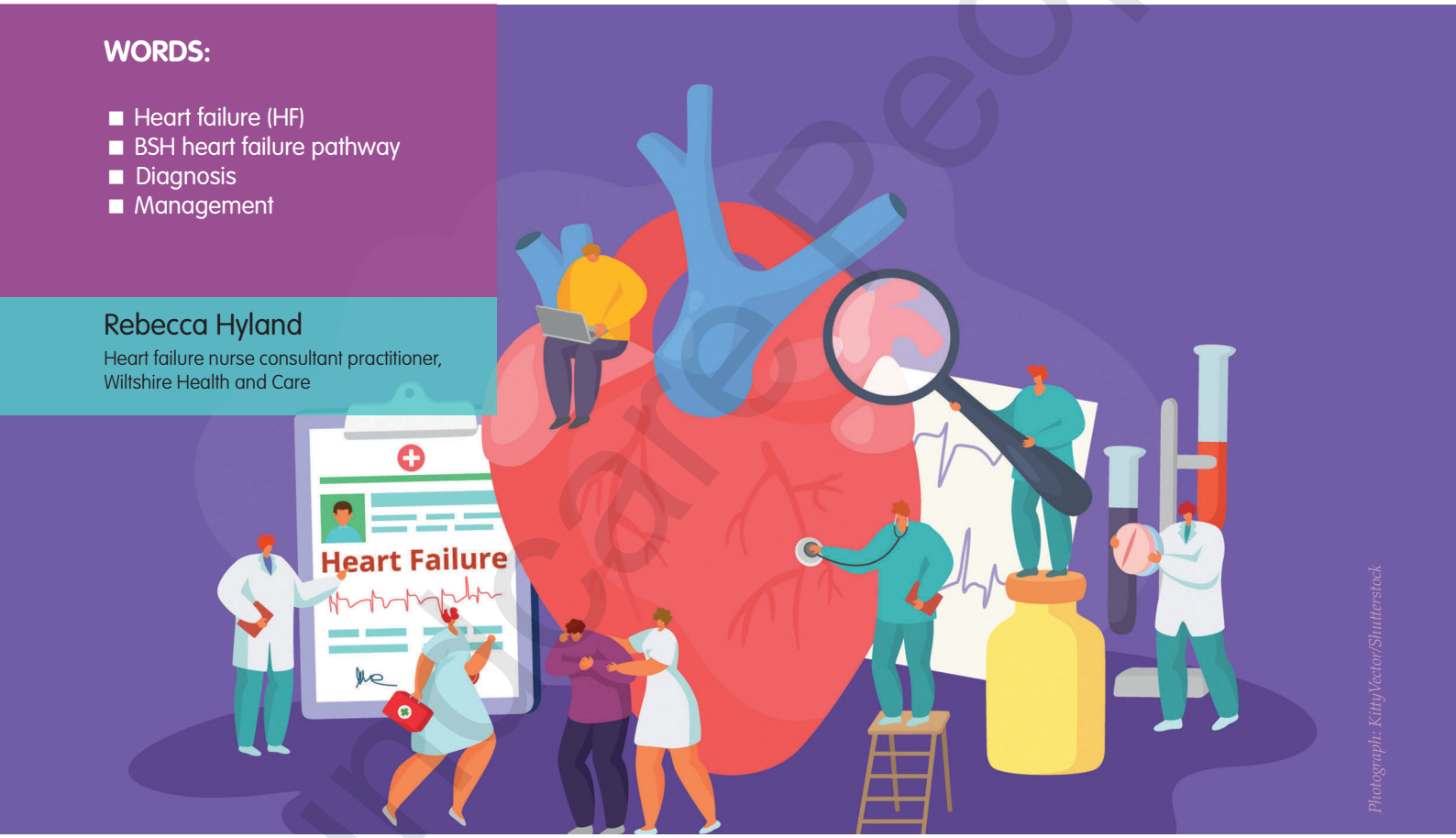

Photograph: KittyVector/Shutterstock

Approximately one million people in the UK have heart failure (HF), with increasing rates expected due to a combination of an ageing population, more effective treatments, and improved survival from other cardiovascular conditions (National Institute for Cardiovascular Outcomes Research [NICOR]). HF is significantly burdensome on the NHS, accounting for one million bed days per year, 2% of the NHS total, and 5% of all emergency admissions to hospital [NICOR; Stewart et al, 2002). Furthermore, 80% of people are diagnosed with HF during an acute admission, despite 40% of this cohort having shown signs and symptoms in the weeks before their admission (Bottle et al, 2018).

Heart failure shares symptoms with a variety of other conditions, such as coronary artery disease, chronic obstructive pulmonary disease (COPD), arrhythmias (in particular, atrial fibrillation), hypertension, and obstructive sleep apnoea (*Table 1*), and so should be a key consideration of the differential diagnosis process (McDonagh et al, 2021).

DIAGNOSIS

The European Society of Cardiology (ESC) recommended diagnostic pathway involves taking a comprehensive history and clinical examination, alongside blood tests, including NT-proBNP, renal, thyroid and liver function, lipid profile,

Table 1: Signs and symptoms of heart failure

	Signs		Symptoms
Typical	Breathlessness Orthopnoea Paroxysmal nocturnal dyspnoea Reduced exercise tolerance Fatigue or tiredness Increased time to recover after exercise Ankle swelling	More specific	Elevated jugular venous pressure Hepatojugular reflux Third heart sound Laterally displaced apical impulse
Less typical	Nocturnal cough Wheezing bloated feeling Loss of appetite Confusion Depression Palpitation Dizziness Syncope tachycardia Bendopnea*	Less typical	Weight gain (>2 kg/week) Weight loss (in advanced HF) Tissue wasting (cachexia) Cardiac murmur Peripheral oedema Pulmonary crepitations Pleural effusion Tachycardia Irregular pulse Tachypnoea Cheyne-Stokes respiration Hepatomegaly Ascites Cold extremities Oliguria Narrow pulse pressure

*Bendopnea: a relatively recently reported symptom in patients with HF defined as shortness of breath when bending forward (Karauzum et al, 2018)

haemoglobin A1C (HbA1c) and full blood count (FBC) (McDonagh et al, 2021). It should be noted that a condition such as obesity, being of ethnicities such as African or African-Caribbean family background, and use of diuretics and other cardiac medications may reduce levels of NT-proBNP and affect test results accordingly (McDonagh et al, 2021). Conversely, age over 70 years, ischaemia, tachycardia, renal dysfunction, COPD, diabetes, and cirrhosis of the liver lead to increases of NT-proBNP, which also affects test results. In cases with sufficient symptomatic indication of HF (such as fighting for breath, fatigue, fluid retention) and raised levels of NTproBNP, confirmation of heart failure can be sought through echocardiography.

The National Institute for Health and Care Excellence (NICE) provides guidance regarding the timelines for referral to specialist HF services (NICE, 2021), as shown in *Figure 1*.

The British Society for Heart Failure (BSH) pathway has additional resources to guide clinicians

"This digital pathway is displayed in a systematic manner, starting with detection and diagnosis, to acute and chronic heart failure management through to discharge and follow-up and finally palliative and psychosocial care.

regarding HF codes used in primary and secondary care, which help to identify patients who require review, assessment and planning of care (BSH, 2023). This digital pathway is displayed in a systematic manner, starting with detection and diagnosis, to acute and chronic heart failure management through to discharge and follow-up and finally palliative and psychosocial care. Within each section, the user is able to click in to find further information, guidance and links for additional reading. The aim of this functionality is to enable any clinician to find up to date and appropriate evidence-based information regarding the management of people with heart failure.

ACUTE HF

The section on acute heart failure (AHF) is subdivided into information for primary and secondary care. Within these sections are extensive resources to assist practitioners in managing AHF, from national and international guidelines, getting it right first time (GIRFT) and National Confidentiality Enquiry into Patient Outcome and Death (NCEPOD) recommendations and patient education resources.

To assist in the guidance of assessment, investigation, and management of AHF within primary care, identifiable causes can follow the CHAMPIT mnemonic:

C Acute coronary syndrome
H Hypertension
A Arrhythmia
M Mechanical cause
P Pulmonary embolism
I Infections
T Tamponade

(McDonagh et al, 2021).

Compliance issues, new medications, thyroid dysfunction and anaemia should also be considered within possible causes for AHF. Patients with these criteria should be referred to their local HF nursing team, if not already known to them. *Table 2* highlights reasons for consideration for admission for level two care, such as requiring close cardiovascular monitoring.

Within secondary care, AHF is a leading cause of hospitalisation in subjects aged over 65 years

Table 2: Factors which might warrant admission

▪ New syncope of blackout
▪ Possible CHAMPIT cause of AHF
▪ Heart rate >130bpm
▪ New systolic blood pressure (SBP) <90mmHg or new oxygen saturation (Sp02) <90% (refer to patient's normal baseline)
▪ Pulmonary oedema
▪ No access to ambulatory or home intravenous (IV) diuretic therapy

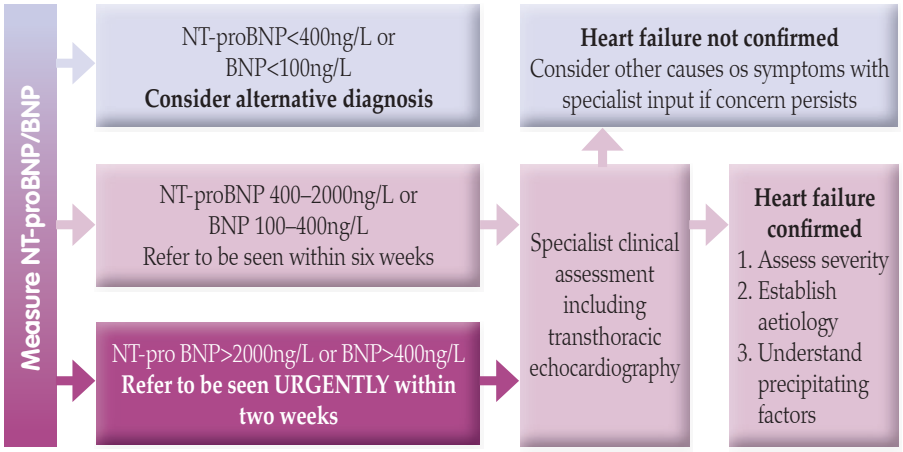

FIGURE 1.
NT-proBNP pathway.

and is associated with high rehospitalisation rates and mortality (4–10%) (NICOR). Within this sub-section of the pathway tool are details on areas such as cardiogenic shock, pulmonary oedema, and advanced heart failure management.

The pathway clearly illustrates the role of heart failure nurses, cardiologists, pharmacists and the primary care team and how those in these roles should collaborate to optimise care provided to patients.

CHRONIC HF

Management of chronic heart failure (CHF) is further subdivided according to diagnosis:

- HF with reduced ejection fraction (HFrEF)
- HF with mildly reduced ejection fraction (HFmrEF)
- HF with preserved ejection fraction (HFpEF).

For each diagnosis, advice and guidance in the pathway follows the structured format to follow specific evidence-based care (NICE, 2018; McDonagh et al, 2021), namely:

- Medication
- Clinical review
- Advanced therapy, such as mechanical support and transplant suitability assessment
- Exercise and cardiac rehabilitation
- Empowering patients to self-care
- Psychosocial support
- Managing risk.

Access to NICE Quality standards, (newly published NICE Quality Standard 9 for chronic heart failure in adults: www.nice.org.uk/guidance/qs9), recommendations for cardiac rehabilitation, and educational resources for healthcare professionals can also be found here.

“All materials have been designed with the aim of increasing the confidence of healthcare professionals when caring for patients living and dying with advanced heart failure. Ultimately, they ensure that meaningful conversations are had with patients.

DISCHARGE AND FOLLOW-UP

Following hospitalisation due to HF, key messages should be communicated to community and primary care teams to ensure seamless care (NICE, 2021). The pathway advocates for the use of:

- A checklist for safe discharge
- A minimum data set for discharge summaries
- Personalised clinical management plans.

Indeed, a discharge summary of high quality may be associated with lower 30-day readmission rates (Brodagh and Farooqui, 2017).

Following HF admission, patients should have a follow-up within two weeks for ongoing care and management (NICE, 2018). The BSH has published guidance for discharging a patient from a HF service linked to this pathway, as well as national guidance regarding patient-initiated follow-up (PIFU). PIFU is a patient empowerment initiative allowing patients to take control of their care and enabling choice and flexibility around when they access care. For healthcare professionals, it can enable effective management of caseloads, freeing-up time to support those patients who are in most need (NHS England, 2022).

PALLIATIVE AND PSYCHOLOGICAL CARE

The section on palliative and psychological care advocates for the seamless integration of supportive patient-centred and palliative care principles, alongside evidence-based HF and comorbidity therapies from diagnosis onwards (Rucarean, 2023). The key message is that one does not stop for the other to start. Many patients with HF derive benefit from early integration of a palliative and supportive approach within the care provided by all members of the HF multidisciplinary team. It has been shown to reduce hospitalisations, as well as having some positive effects on quality of life and alleviating symptom burden, such as breathlessness, anxiety, and fatigue (McDonagh et al, 2021).

Palliative care guidance resources for professionals, a ‘what matters’ conversation plan for patients, carers and professionals, and an information booklet published by Pumping Marvellous (which are all linked in this section) have been developed. All materials have been designed with the aim of increasing the confidence of healthcare professionals when caring for patients living and dying with advanced heart failure. Ultimately, they ensure that meaningful conversations are had with patients.

Anxiety and depression are commonly experienced in people who have HF. However, only a few people have their psychological problems formally recognised and fewer still receive appropriate

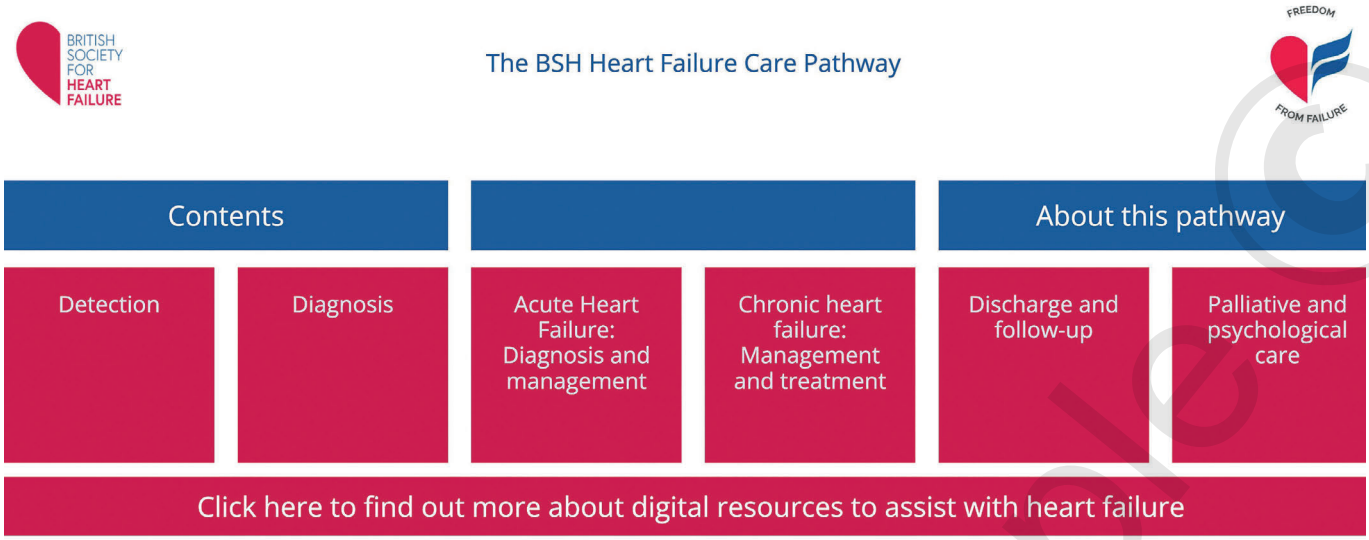

FIGURE 2.
BSH heart failure care pathway.

intervention (Sharp and McCowat, 2019). Therefore, it is vital that screening and routine monitoring of psychological wellbeing is part of person-centred care for people living with HF. Within this section is guidance regarding screening tools, and signposting for appropriate onward support for patients.

DIGITAL SUPPORT

Modern healthcare systems are utilising digital strategies to improve efficiency, outcomes and care provided to patients. This section provides an insight as to the range of available services, such as remote monitoring, virtual wards, self-care and psychological support apps, when considering digital solutions to support effectiveness and efficiency in HF care.

CONCLUSION

As the number of patients with HF continues to grow, HF care is constantly improving. With new therapies being developed and increasing expertise and understanding in diagnosis, treatment and management, collaboration between the HF MDT, community and primary care is crucial to ensure that patients receive evidenced-based care from diagnosis to end of life.

This pathway, developed by the BSH, is a comprehensive tool with extensive information, providing national and international guidance, evidence and links for further information, and practical advice for clinicians with the aim of increasing clinical competency and confidence when managing patients with HF. GPN

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Revalidation Alert

Having read this article, reflect on:

- Why heart failure management is important
- How you can use this BSH heart failure care pathway.

Then, upload the article to the free GPN revalidation e-portfolio as evidence of CPD: www.gpnursing.com/revalidation

Rectal cancer and low anterior resection syndrome

Rectal cancer is common in the UK, affecting about 12,000 people each year. The common treatment for rectal cancer is surgery, such as an anterior resection which may also be combined with chemoradiation. Treatment for rectal cancer, however, is likely to cause subsequent problems with bowel function. Changes to the bowel can present with faecal incontinence and the need to rush to the toilet. Nurses can assist with some simple interventions, such as medication to bulk up the bowel motion or changes to the diet to thicken the bowel motion. If symptoms are severe and are not resolved using these methods, there are other interventions that can be tried, such as sacral nerve modulation which will require referral to a specialist.

KEY WORDS:

- Rectal cancer
- Anterior resection syndrome
- LARS
- Symptom management

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Photograph: wavebreakmedia/Shutterstock

Rectal cancer is often included under the term colorectal cancer, whereas patients may use the term bowel cancer instead. The rectum is the last part of the digestive system and each year in the UK about 12,000 people in the UK will be diagnosed with a cancer within their rectum (Office for National Statistics [ONS], 2019).

Rectal cancer can present with fresh, red blood being passed from the anus or a change in bowel habit. The most common treatment for rectal cancer is surgery and this can be in conjunction with chemotherapy and/or radiotherapy. Historically, the operation of choice for a rectal cancer was removal of the rectum as well as the anus, which resulted in a permanent colostomy and was termed an abdominoperineal resection of the rectum. Advances in surgery mean that a permanent stoma can be avoided in many cases. The rectum is still partially or completely removed, but the remaining ends of the bowel are rejoined (anastomosed). This operation is termed an anterior resection. There are variations of the operations, such as a low or ultra-low anterior resection for cancers that are in the lower portion of the rectum. Another variation of an anterior resection is a total mesorectal excision (TME). A TME is undertaken for people with a low rectal cancer and includes removal of not simply the rectum, but also the surrounding tissues which contain the blood supply and lymphatic system (Bunni and Moran, 2019). Excision of the mesorectum means that the tissues that are nearest to the cancer, which might have microscopic spread into either the veins or lymphatics, are also removed, reducing the risk of rectal cancer recurrence (Bunni and Moran, 2019).

LOW ANTERIOR RESECTION SYNDROME (LARS)

Surgery, while being an excellent way to physically remove a cancer, is not without subsequent consequences which nurses, including general practice nurses (GPNs), may be asked to help with. There can be problems with urinary, sexual and bowel function. Changes in bowel function are common, occurring in up to 80% of people after an anterior resection (Martellucci, 2016) and are collectively termed low anterior resection syndrome or LARS, the focus of this article.

WHO IS AT RISK OF LARS?

There are several potential risk factors that may result in LARS. The most common are thought to be:

- Radiotherapy
- Low rectal tumours
- Having a temporary ileostomy (Ye et al, 2021).

Women are thought to be more at risk (Battersby et al, 2018) due to having a physically shorter anal canal. Radiotherapy is thought to cause nerve damage, in addition to the nerve damage caused by having surgery. Radiotherapy also makes the tissues within the rectal wall less flexible due to fibrosis (Ye et al, 2021). Low rectal cancers result in a physically reduced storage capacity for faeces, as most of the rectum is removed (Ye et al, 2021). The reasons behind a stoma formation potentially causing more problems include a stoma being formed for lower cancers as well as the duration being increased if a complication occurs for example (Vogel et al, 2021). A temporary stoma might also result in changes in the bacteria within the colon and rectum. Understanding these risks will enable nurses to have a greater understanding of who is more likely to encounter problems after their anterior resection.

BOWEL SYMPTOMS AFTER RECTAL CANCER TREATMENT

The number of potential bowel symptoms that occur after an anterior resection are broad. When assessing bowel symptoms, it is important to exclude red flag symptoms that might indicate that the cancer has recurred, such as rectal bleeding. There are eight common bowel changes that occur after an anterior resection (Keane et al, 2020):

- Variable, unpredictable bowel function
- Difficulty emptying the bowels
- Altered consistency of faeces
- Bowel urgency
- Bowel frequency
- Anal, flatus or faecal incontinence
- Repeated painful stools
- Soiling.

These bowel symptoms might also occur at night. Additionally, patients may not be able to determine the difference between flatus and faeces. What is important to realise is that patients may not discuss these bowel changes due to embarrassment, or because they think that these are consequences of having their cancer removed (Taylor and Morgan, 2011). Thus, GPNs need to actively enquire about bowel dysfunction.

CONSEQUENCES OF LARS

Bowel symptoms can be severe for up to two-thirds of people (Pape et al, 2021). Bowel problems can result in reduced quality of life due to patients becoming dependent upon knowing where the toilet is. It is hard to function physically, particularly if people have severe bowel symptoms. Patients with urgency may only have a very short time to get to the toilet once they get the sensation to defecate, sometimes this can be seconds rather than minutes, meaning leaving the house can be difficult. Other patients report that they are unhappy with their bowel function and are preoccupied with their problems, and that they are constantly thinking of ways to manage day-to-day activities, for example. Patients also report that they need to take drugs such as loperamide to give them more confidence to leave their house: 'When I go outside, I usually take some medicines' (Tsui and Huang, 2021).

It is not uncommon for patients to report that they go to the toilet so often that their perianal skin is painful and bleeding, particularly in the first few weeks after surgery. In the author's clinical experience, simple skin care and barrier creams are usually effective to ameliorate perianal skin damage.

Other effects of bowel dysfunction include a negative impact on emotional wellbeing. Patients report that they have needed to make changes to their daily lives — be that work, in their relationships, their occupations or with their partner (Burch et al, 2023). To travel to work some people do not eat for fear of needing to use the toilet while travelling (Landers et al, 2012). Thus, bowel dysfunction can have many negative consequences and impacts on patients' lives. It is important, therefore, for GPNs to understand potential problems so that they can help patients find coping strategies to have a good quality of life.

ASSESSMENT

When undertaking a nursing assessment, it may be noticed that the patient has not left the house since their operation. Discussion can establish the reasons behind this. Additionally, the nurse can assess the patient's bowel function. This might include questions about how their bowels are functioning, for example, has their bowel function improved since surgery and how the changed bowel function is affecting them. It is important to establish not only what is the worse bowel symptom, but also what is the patient's goal. Although this article is only focusing on bowel, it is of course important to undertake holistic assessment to determine if patients have other issues, such as urinary dysfunction, after their rectal cancer treatment.

It is vital to recognise that many patients do not understand the mechanisms behind their bowel changes. This can be an important place to start, i.e. explaining:

- To the patient about the storage role that the rectum undertook
- That storage is no longer possible now the rectum has been removed
- That reduced storage facilities for faeces can result in needing to go to the toilet more often to pass small amounts of faeces.

Understanding why changes happen is often important to patients (Burch et al, 2023). It is normal for improvements in bowel function to occur in the first three months after surgery. After which time smaller, gradual improvements can occur, most within the first two years after surgery. However, patients often need nursing or

medical intervention to try and resolve or improve bowel issues.

INTERVENTIONS

Interventions will depend upon the bowel symptoms reported. Nurses are experienced in medications that might be useful, for example, anti-motility drugs. People passing frequent loose motions may benefit from thickening the stool with medications such as loperamide, with or without bulking agents (Christensen et al, 2021). Loperamide can also help reduce faecal incontinence. For people who pass small frequent stools, especially when the bowel movements cluster in the morning for example, bulking agents can be useful (Bradshaw, 2022).

Practice point

It is important to recognise that without intervention some bowel dysfunction will improve within three months. However, for many patients, even with interventions, their symptoms might persist in the long term. GPNs should ask about bowel dysfunction and how it is affecting the patient. This is because patients will often not volunteer information without being asked, out of embarrassment or not wanting to be a burden to their family or healthcare professionals (Pape et al, 2022b). The LARS score is a simple five-question questionnaire that can guide nurses (Emmertsen and Laurberg, 2012). Questions cover:

- Flatus incontinence
- Liquid stool incontinence
- Stools passed in 24-hours
- Stool clustering
- Urgency.

There are a number of given responses and these are weighted and scores categorised into three groups: no LARS (0–20), minor LARS (21–29), and major LARS (30–42). For patients scoring the highest score, most will need specialist intervention. However, nurses can offer initial advice, such as about diet, exercise and medication.

Another intervention is to alter the diet to include more foods that are low in fibre. This can include changing wholemeal versions of bread and cereal for plain versions.

Caution is needed to ensure that the patient does not miss out on any important food groups and if they have additional needs, such as diabetes, it is important to involve a dietitian. Patients often want to have an information sheet to serve as a reminder, which may be available from the local dietitian. Patients who have difficulty evacuating their bowel motion may benefit from some toilet training, such as the correct position to adopt when using the toilet, which is knees higher than hips (using a small stool if needed), being relaxed, leaning forwards with elbows on knees and bulging out the abdomen, as this helps to position the rectum for defecation. Pelvic floor exercises are also potentially useful for all patients to undertake (Vogel et al, 2022).

As said, people who are going to the toilet frequently might quickly have perianal skin damage. There are several measures that might be useful. Skin can be protected using a cream such as a barrier cream. If pain is an issue, sitting in a shallow warm bath can help soothe the skin damage. Using soft or moist tissue can help prevent skin damage. There are some simple interventions that nurses can suggest. Sometimes people will try without healthcare professional assistance to introduce interventions such as loperamide. However, they might need guidance on how best to take medication for greatest efficacy (Pape et al, 2022a). For optimal effect if used regularly for someone with LARS, it can be ideal to take loperamide 30–60 minutes before meals and/or bed to slow the bowels rather than wait for an episode of loose stool. Nurses are in an invaluable position to be able to help with some of these management strategies.

Further interventions

If these interventions are not working to the satisfaction of the patient, onward referral might be necessary. In the author's clinical experience, for additional dietary needs a dietitian is invaluable — one with an interest in bowels is advantageous. For exercises and mechanisms to assist with bowel control biofeedback or pelvic floor, specialists are useful. Other treatments, such as transanal irrigation, may also be offered. There is growing evidence that interventions for faecal incontinence and constipation are also beneficial for people with LARS, including percutaneous tibial nerve stimulation (PTNS) (van der Heijden et al, 2022).

For more complex medication, gastroenterologists might undertake additional tests looking for a differential diagnosis such as small intestinal bacterial overgrowth (SIBO) or bile salt malabsorption (Christensen et al, 2021). There are also surgical options to improve bowel function, such as antegrade irrigation via an ACE (antegrade continent enema). Another alternative is sacral neuromodulation, also termed sacral nerve stimulation, to try and stimulate nerves that may have been damaged to improve bowel function. It is also possible to have a stoma formation, a permanent colostomy, if problems are not resolved with other strategies (Christensen et al, 2021).

CONCLUSION

Treatment for rectal cancer can result in bowel dysfunction. GPNs need to ask about symptoms and what is most bothersome for the patient. This assessment can guide simple interventions, such as medication to slow the bowel, and improve faecal incontinence. Perianal skin damage can be prevented using a barrier cream, or pain improved by sitting in a warm bath. If the nurse is not able to resolve problems, referral to a specialist may be needed. The appropriate specialist will need to be carefully considered and will depend on individual assessment. GPN

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Revalidation Alert

Having read this article, reflect on:

- Bowel symptoms that can occur after an anterior resection and how they can impact on patient quality of life
- How you assess a person's bowel functions and gain an understanding of the most bothersome symptoms
- Your knowledge of interventions and treatments
- When referral to an appropriate specialist might be needed.

Then, upload the article to the free GPN revalidation e-portfolio as evidence of your continued learning: www.gpnursing.com/revalidation

Key points

- The common treatment for rectal cancer is surgery, such as an anterior resection which may also be combined with chemoradiation. Treatment for rectal cancer, however, is likely to cause subsequent problems with bowel function.
- Changes in bowel function are common, occurring in up to 80% of people after an anterior resection (Martellucci, 2016) and are collectively termed low anterior resection syndrome or LARS.
- Bowel problems can result in reduced quality of life.
- It is important for GPNs to understand potential problems so that they can help patients find coping strategies to have a good quality of life.
- It is vital to recognise that many patients do not understand the mechanisms behind their bowel changes.
- If the nurse is not able to resolve problems, referral to a specialist may be needed.

Emotional effects of living with a child with eczema

Childhood eczema, also known as atopic dermatitis, is a chronic skin condition that affects millions of children worldwide. The condition is characterised by dry, itchy, and inflamed patches of skin that can appear anywhere on the body. While the physical symptoms of eczema are often the focus of treatment, the condition can also have a significant impact on a child's emotional wellbeing. Added to this, the strain that it can put on families in terms of loss of sleep, time off work, financial and time of managing a chronic condition, and sibling jealousy of attention given to the child with eczema can mean that the stresses of eczema are shared by the whole family, not just the affected child. This article examines these issues further with recommendations for how the emotional impact of eczema may be more effectively managed.

KEY WORDS:

- Childhood eczema
- Impact
- Parents' experiences
- Emotional wellbeing
- Management

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Atopic eczema (AE) is a common condition that affects up to one in five children in developed countries (Herbert and Galindo, 2022). It usually starts in early childhood, with the majority of cases developing before the age of five and has a remitting and relapsing course (Kochlar, 2021). It is commonly encountered in general practice and is characterised by chronically itchy and inflamed skin. The prevalence of AE varies between different countries and ethnic groups, with higher rates observed in developed countries and in certain ethnic groups such as those of African and Indian origin (de Lusignan et al, 2021).

Several risk factors have been identified for the development of AE in children (Baron et al, 2012), including:

- Family history: genetic studies have shown that AE has a genetic component. Children with a family history of AE, asthma or allergic rhinitis are at a higher risk of developing the condition
- Environmental factors: allergens, irritants, climate and infections also play a role in the development of AE. Exposure to allergens such as dust mite, pollen and animal dander can trigger an immune response leading to AE. Irritants such as detergents, soaps and solvents can also cause inflammation of the skin, thereby worsening the condition
- Immunological factors: the immune system plays an important role in the development of AE. In atopic individuals, the immune system overreacts to allergens and other triggers, leading to inflammation and the characteristic symptoms of AE
- Gender: AE is more common in girls than boys (Katebi et al, 2018)
- Climate: children living in colder climates or low humidity are at higher risk of developing AE
- Race/ethnicity: as stated above, darker skin types are more prone to developing AE.

While the exact cause of AE is not fully understood, it is believed to be a combination of these genetic, environmental and immunological factors, which should all be taken into account in assessment and treatment of the condition. Diagnosis is primarily based on the characteristics of itchy, inflamed skin with poorly defined erythema and some thickening of the skin (lichenification) as the disease progresses (Archer, 2013), but with at least three of the following present:

- Flexural skin involvement
- Personal or family history of atopy within the preceeding year
- Onset under the age of two if the child is over four years
- Visible flexural dermatitis

(Archer 2013).

Children with eczema are more likely to experience feelings of sadness, hopelessness and despair than those without the condition (Van Onselen, 2018). This can be due to the physical discomfort of the condition, as well as the social and emotional isolation it can cause.

It commonly presents in babies on the cheeks initially, but may subsequently develop in other areas such as flexural sites and neck folds and also more generally over the trunk. Weaning is a common time for eczema to present due to babies exploring new foods which may irritate the skin.

EMOTIONAL IMPACT OF LIVING WITH ECZEMA

Although much of the focus of managing AE is on the physical side of controlling the itching and inflammation, an important aspect which should not be overlooked is the emotional impact of living with the condition. Lewis-Jones (2006) states that:

> *The misery of living with atopic eczema (syn. dermatitis, AD) cannot be overstated for it may have a profoundly negative effect on the health-related quality of life (HRQoL) of children and their family unit in many cases.*

Eczematous skin is extremely uncomfortable, being dry and itchy and creating a vicious itch-scratch cycle which can be very distressing. The constant itching and discomfort of eczema can affect concentration in school and ability to sleep. Sleep disturbance is seen in 60% of children with AE (Archer, 2013) and can contribute to poor weight gain in infants, in part due to the constant movement from being itchy, and poor social interactions (Nicholas et al, 2022). A further report from Allergy UK (2022) confirms that severe eczema continues to be a source of considerable and relentless distress to those who live with the condition — distress that is both physical and psychological.

One of the most common emotional effects of childhood eczema is anxiety. Children with eczema often feel self-conscious about the appearance of their skin, which can lead to social isolation and reduced self-esteem (Viva and Kruse, 2017: Young Minds, 2023). They may also worry about others noticing their skin condition, which can make them reluctant to engage in activities such as swimming, sports, or sleepovers. For some children, it may even lead to depression (Muzzolon et al, 2021).

Children with eczema are more likely to experience feelings of sadness, hopelessness and despair than those without the condition (Van Onselen, 2018). This can be due to the physical discomfort of the condition, as well as the social and emotional isolation it can cause. For some children, the frustration and stress of living with eczema may also lead to a decreased interest in activities and relationships that they previously enjoyed.

The impact is often felt by the wider family too; caring for a child with eczema is not only time-consuming due to the laborious regimen of applying creams several times a day, but there are also cost implications due to often needing to

buy special clothing or bedding, or taking time off work to take the child to medical appointments (Su et al, 1997).

Children with eczema may also encounter feelings of anger and frustration. These emotions can arise from the daily challenges of managing a chronic condition, such as:

- Needing to apply creams and ointments multiple times a day
- Having to avoid certain foods or allergens
- Coping with disrupted sleep patterns

(Chamlin and Chren, 2010).

Children may feel angry at their bodies for not functioning the way they want them to, frustrated with doctors for not providing a cure, or resentful of the modifications to their daily routines that eczema necessitates. The resentment may also be felt by siblings of children with eczema due to the time needed to be spent with the child with eczema and at times periods of separation if the child is admitted to hospital.

FREYA'S STORY

The author has seen first hand the emotional impact of having a child with severe eczema, having a close relative whose daughter suffered with severe eczema as a baby. In her word, the 'sleep deprivation and the distress her condition caused her (and us) at times felt unbearable'. The author spoke to the relative to find out about her experience and this is outlined in the following patient story.

Freya (name changed for confidentiality; Nursing and Midwifery Council [NMC], 2018]) started developing itchy patches at around two months old, and as there was a family history of eczema it was quickly identified. However, whereas Freya's sister had been effectively treated in primary care with emollients and steroids, Freya's eczema quickly got out of hand and spread over 90% of her body, becoming infected in several areas.

Not only was this incredibly distressing for Freya and her parents, but she also dropped off the centiles down to the second centile due to using up so much energy squirming around trying to soothe the itching. It became a constant battle to try and prevent the scratching, which would cause damage to the skin and lead to infection, with Freya having to be held for most of the day to do this.

Freya's mother also felt a sense of embarrassment when out on walks, stating: 'I often felt people were judging me when they saw me push my itchy, red, writhing child… with her hands held down under the straps'. This led to social isolation, and fuelled guilt that somehow something she had done or eaten had caused the condition. Despite breastfeeding, later tests revealed that Freya had a severe dairy, egg and peanut allergy and eventually needed to switch to Neocate — a hypoallergenic formula. This can be an area of guilt for many parents who would prefer to be able to breastfeed their babies.

Night times were even harder for Freya's family, with both parents taking it in turns to stay awake and soothe Freya while she cried out and rubbed herself in discomfort. The ensuing lethargy resulted in resentment from Freya's older sister who was jealous of the time her parents spent with Freya.

A turning point in the management of Freya's condition came when a friend suggested pure cotton clothing designed for babies with eczema with integral mittens to prevent damage from scratching. The lack of irritation from the pure, organic cotton, which was soft and breathable and had no chemicals, allowed Freya to finally sleep better, and as a result, so did her parents. Freya's mother is in no doubt 'they changed our lives'.

Freya's mother reflects on the experience of having a child with severe eczema. She describes how the stress had a massive toll on her and her husband's relationship, leading to them having marriage counselling to navigate the pressures that it had placed on them. Moreover, lack of sleep from the

Table 1: Controlling house dust mite allergy (Allergy UK, 2023)

Most efforts at controlling dust mites should be aimed at areas of the home where most time is spent and where dust mite load is greatest, i.e. bedrooms and living areas.
▪ Use allergen-proof barrier covers on all mattresses, duvets and pillows
▪ Wash all bedding that is not encased in barrier covers (e.g. sheets, blankets) every week at 60 degrees
▪ Allergic children should not sleep in the bottom bunk bed where allergen can fall onto them
▪ If possible, remove all carpeting in the bedroom. Vacuum hard floors regularly with a high-filtration vacuum cleaner (see below)
▪ Remove all carpeting from concrete floors. Seal the floor with a vapour barrier, and then cover it with a washable surface such as vinyl or linoleum
▪ Where carpets cannot be removed, vacuum regularly with a high-filtration vacuum cleaner. Use a high-temperature steam-cleaner to kill mites effectively
▪ Use a high-filtration vacuum cleaner with filters capable of retaining a high proportion of the smallest particles (HEPA filter, S-class filter or similar). Details of suitable vacuum cleaners are available from Allergy UK
▪ Damp-wipe all surfaces each week (pelmet tops, window sills, tops of cupboards, and so forth)
▪ Use light washable cotton curtains, and wash them frequently. Reduce unnecessary soft furnishings
▪ Vacuum all surfaces of upholstered furniture at least twice a week
▪ Washable stuffed toys should be washed as frequently and at the same temperature as bedding. Alternatively, if the toy cannot be washed at 60 degrees, place it in a plastic bag in the freezer for at least 12 hours once a month and then wash at the recommended temperature
▪ Reduce humidity by increasing ventilation. If necessary, use a dehumidifier to keep indoor humidity under 50% (but over 30%)
▪ Apply an effective allergen barrier balm around the edge of each nostril to trap or block pollens and other allergens and help prevent a reaction

Table 2: Freya's bespoke treatment regimen (Greenslade, 2022)

■ Antibiotics to get the infection under control
■ Three lukewarm baths a day
■ Putting oats in a pop sock hung over the hot tap, or a capful of Oilatum
■ Cutting out shampoo and soap. Use only aqueous cream if needed
■ Avoiding sudden changes of temperature in the bathroom which could trigger itching
■ Only plastic toys allowed in the bath (no rubber) which can be cleaned at 60 degrees
■ Patting the skin dry — no rubbing
■ Having a dedicated area to put creams on after bath with a favourite TV programme on to make it more fun
■ Strong steroid cream (Synalar 1 in 4) to angry areas, the aim being to use a strong cream to get on top of the flare-up quickly, rather than prolonged use of a weaker cream
■ Slathering emollient cream (Freya used Diprobase®, but creams are very specific to what suits each child) all over the body after baths (allowing time for steroid to be absorbed first when used)
■ Dressing in 100% organic cotton clothes after bath, ideally a sleepsuit with integral mittens which can be washed at 60 degrees
■ Giving antihistamines at night to help with sleep

constant itching-scratching cycle and seeing Freya in such pain and distress with weeping, infected eczema meant that the family were exhausted and desperate for solutions.

In the search for an answer, Freya's mother sought the help of Professor John Harper, an authority on infantile eczema at Great Ormond Street Hospital. He provided a tailored regimen for Freya to address the physical and psychological support she needed, which eventually got Freya's eczema under control (*Table* 2). This included a time-consuming regimen of three baths a day. However, the effort was worth it, as Freya's skin drastically improved after only one month, and several months later was almost clear, although still with flare-ups from time to time.

As Freya got older, although the eczema was much better controlled, the battles to keep on top of it and the allergies continued. The emotional impact of constantly looking at food labels meant Freya had to grow up fast and be particularly careful at social occasions, such as parties, and at school. On several occasions she would have severe reactions and flare-ups due to inadvertently touching a utensil at a friend's house that had been used for dairy, or touching a surface that had an allergen on it. The fear of having a severe reaction even prompted Freya to once ask 'am I going to die mummy?'.

Freya has now reached adulthood and is about to leave school. Thankfully, life is a great deal easier, as she is well practised in knowing what to avoid and how to manage her condition.

MANAGING THE EMOTIONAL ASPECTS OF CHILDHOOD ECZEMA

Despite the many emotional challenges associated with childhood eczema, there are ways to help children manage their feelings and enjoy a healthy, happy childhood. In the author's clinical experience, one important step is to provide emotional support and encouragement for children with eczema. This can involve talking openly with them about their feelings and providing reassurance that their appearance and self-worth are not defined by their skin condition. It can also mean helping them find practical strategies for managing stress, such as mindfulness practices, breathing exercises, or talking to a trusted friend or adult. Freya's mother has documented her own mental health tips on an eczema blog (https://eczemaclothing.com/blogs/itchy-skin-matters/eczema-the-mental-health-toll), which are as follows:

- Get enough sleep — create an evening routine and stick to it. Make time for a shower or bath and applying any creams in front of a favourite TV programme
- Lean on your support networks — talk to family and friends. Be open and help them understand the issues, do not assume they do or that they should do
- Write a list of your/your child's positive attributes, your skin does not define who you are
- Identify some practical measures to take — remove or clean carpets, soft furnishings or toys that attract dust mites, pollen and other allergens. Minimise cleaning chemicals
- Use 100% organic cotton clothing (especially nightwear) and bedding. Wash it at 60 degrees (with non-biological products) to remove creams, dead skin and allergens
- Give children responsibility — allow them to take charge of aspects of their routine and carry their own medication. Enabling them to be more independent will help both the carer and child.

In the author's opinion, another important step is to help children with eczema maintain a healthy lifestyle. This may involve encouraging them to eat a balanced diet, engage in regular physical activity, and get enough sleep each night, using clothing that is comfortable for the child to maintain comfort and reduce the itching that can affect sleep. It may also involve working with a dermatologist to find an effective treatment plan, as described in the patient story, that minimises physical symptoms and allows children to live as comfortably as possible.

CONCLUSION

Childhood eczema can have a profound impact on a child's emotional wellbeing. The condition can cause feelings of anxiety, depression, anger and frustration, as well as social and emotional isolation. However, with the right emotional support, practical strategies for managing stress, and effective treatment, children with eczema can lead fulfilling and happy lives. It is essential for parents, doctors, and caregivers to recognise the important role that emotional health plays in managing eczema, and to work together to create a supportive and nurturing environment for children living with this condition. GPN

Managing the emotional burden of eczema

- Seek support from an eczema support group: connecting with others who are going through similar experiences can provide children and their families with a sense of belonging and understanding. Eczema support groups offer a platform for sharing experiences, tips, and emotional support. The National Eczema Society has a list of local support groups: https://eczema.org/information-and-advice/local-eczema-support-groups/
- Utilise exercise to combat stress: engaging in regular physical activity can help reduce stress and improve mental wellbeing. Exercise has been shown to increase endorphin levels, which are natural mood enhancers. Encourage children to participate in activities they enjoy, such as swimming, cycling, or dancing. Always ensure that the skin is protected during exercise to prevent excessive sweating and irritation
- Manage diet and allergies: certain foods and allergies can trigger eczema flare-ups in some individuals. Identifying and avoiding potential triggers can help manage symptoms and improve overall well-being
- Emphasise the importance of sleep and relaxation: adequate sleep is crucial for maintaining good physical and mental health. Establishing a regular sleep routine and creating a relaxing bedtime environment can promote better sleep quality. Practices such as deep breathing exercises, meditation, or listening to calming music before bed can also help children relax and reduce anxiety (Demirtas et al, 2020)
- Establish a routine for applying treatments: consistency in applying prescribed treatments, such as emollients and topical medications, is vital for managing eczema effectively. Establishing a daily skincare routine can provide structure and a sense of control over the condition. Involving children in the process can help them feel empowered and more engaged in their own care (Sidbury et al, 2014)
- Encourage open communication: encourage children to express their feelings and concerns about their eczema openly. Providing a safe space for open communication can help them manage any emotional distress or frustration they may experience. Validate their emotions and assure them that their feelings are normal. This support can be pivotal in reducing the emotional burden of eczema (Bewley et al, 2013).

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Diabetes digest: discussing nutrition in type 2 diabetes management

Here, Callum Metcalfe-O'Shea, advanced nurse practitioner diabetes specialist and co-chair for the Practice Nurse Diabetes Forum for Norfolk, looks at how general practice nurses (GPN) can discuss nutrition with patients newly diagnosed with type 2 diabetes to ensure that they feel motivated and engaged in their healthcare journey. This article, the second part in our diabetes digest series, focuses on the initial consultation when patients are still coming to terms with their diagnosis. While individual diet plans are not discussed, a review of carbohydrates and their role in diabetes management, alongside medication considerations, are explored.

Any diagnosis, particularly that of type 2 diabetes mellitus, can be daunting and patients often feel concerned about their diet and lifestyle, questioning what they should and should not eat to help their diabetes. Both diet and lifestyle are modifiable risk factors, which should be taken seriously as part of self-management for type 2 diabetes to prevent long-term complications (Forouhi, 2023). It is essential that patients feel supported with nutritional requirements, as evidence shows the efficacy and cost-effectiveness of using nutrition as a component of good quality care (Evert et al, 2019). However, general practice nurses (GPNs) need to be aware that a 'one-size fits all' approach is not practical, as every patient has different biopsychosocial factors and needs an individual nutrition plan tailored to support their needs (Evert, et al, 2019).

Diabetes UK (2018) goes further to identify how individualised nutrition management, through the support of registered dieticians where required, helps patients achieve their treatment goals for risk factors, such as:

- Hyperglycaemia
- Hyperlipidaemia
- Hypertension.

With the ever-increasing burden of type 2 diabetes management in primary care, it is essential that goal setting takes place to support and motivate patients (Gray and Threlkeld, 2019). This article looks at how to approach a first consultation, major food groups to support diabetes management, and methods to keep patients motivated and engaged with their care. Individual diets will not be discussed, but general healthier substitutes and guidance will be considered to support GPNs in their decision-making. Indeed, good nutritional management is vital for successful diabetes care, with evidence demonstrating that long-term complications can be reduced by up to 50% through lifestyle interventions (Diabetes UK, 2018).

INITIAL DIAGNOSIS

Being diagnosed with type 2 diabetes often leads to patient concerns around the need to change lifestyle immediately, as well as complications that may occur in the future — factors that impact on patient ability to absorb fully all the information provided in a first consultation (Pikkemaat et al, 2019). However, it is imperative that patients are provided with good nutritional support when diagnosed (Diabetes UK, 2018), particularly as evidence shows that on average patients spend just three hours a year with healthcare professionals (Diabetes UK, 2018). GPNs are pivotal in providing initial consultations for newly diagnosed patients, and, as such, need a range of resources to help support patients in consolidating the advice given around diet and lifestyle (Khunti et al, 2019).

For many patients, general health education around type 2 diabetes focuses on high sugar content foods such as chocolates, cakes and biscuits and they are often unaware of the hidden sugar content in many items and the need to consider carbohydrates in their daily intake (Mozaffarian, 2020). This is essential to consider and discuss in the first consultation, as refined starches and sugars represent a large proportion of daily diets (found in, for example, white bread, white rice, potatoes, chips and fizzy drinks) and are linked to increased obesity rates and hyperglycaemia (Mozaffarian et al, 2011). For many patients in the UK, these items contribute to daily meals and so education around healthier alternatives need to be considered (Diabetes UK, 2018).

The key to ensuring success in delivering successful nutritional education relies on GPNs using structured approaches to guide and shape individualised care plans (Carpenter et al, 2019). The British Dietetic Association (BDA, 2023) guidance on glucose management in type 2 diabetes can help to shape this approach and ensure that patients are aware of daily recommendations to help support everyday living, such as:

- Reducing salt intake (less than 6g) a day
- Eating two portions of oily fish per week
- Eating more wholegrains, fruit

Practice point

What resources do you use to guide your first consultations with patients with diabetes? Think about the information you need to give to support patients with a new diagnosis of type 2 diabetes.

and vegetables, fish, nuts and legumes (pulses)
- Eating less red and processed meats
- Eating less refined carbohydrates and sugar-sweetened beverages
- Replacing saturated with unsaturated fats and limiting intake of trans fats
- Enjoying alcohol, but limiting it to less than 14 units per week

(BDA, 2023).

Although obvious, these recommendations will help patients absorb the information and apply it to their daily food choices, so that they actively engage in self-management measures to reach goals of improving behaviours and relationships with food (Carpenter et al, 2019).

Such guidance follows the traditions of a Mediterranean diet, which is characterised by cooking local and seasonal products in combination with low carbohydrate foods (Guash-Ferre and Willett, 2021; Bussell, 2022). While this article does not promote the use of diets such as Keto, DASH etc, the components of good quality food with less refined carbohydrates and sugars should be the basis of all recommendations for nutritional guidance (Diabetes UK, 2018).

Therefore, the initial consultation should allow time for exploring relationships with food, assessing patient understanding and promoting the choice of healthier options (Daly et al, 2019). Evidence demonstrates that patients often feel overwhelmed at their first appointment, and so 'bite-sized' pertinent information needs to be provided that reflects their individual needs, reinforced with written guidance (Pikkemaat et al, 2019). An approach GPNs can use is as follows:

- Discuss the origins of sugar in foods, particularly explaining how carbohydrates work and their role in glycaemic management
- Assess the patient's understanding of daily quantities and food labels. Diabetes UK (2018) recommends a maximum of 30g for an adult's sugar intake per day (approximately seven teaspoons), with low sugar items coming in at less than 5g per 100g on the back of food labels
- Work through a daily meal routine with the patient assessing what they have at mealtimes — do not forget to include snacks and drinks, as often this can be where high sources of sugar are found in their diet
- Finally, work through healthier alternatives, improving the mindset of not forbidding foods but developing a healthier lifestyle through moderation

(Diabetes UK, 2018; BDA, 2023).

Overall, the first consultation is vital for ensuring that patients are given adequate support and advice to help motivate them to choose healthier alternatives (Pikkemaat et al, 2019).

CARBOHYDRATES AND MEDICATIONS

As said, discussing nutrition and lifestyle are key during initial consultations with patients newly diagnosed with type 2 diabetes (Mozaffarian, 2020). Carbohydrate intake is a conversation that is largely required for type 2 diabetes management, and will need to be considered alongside medications and regimens, i.e. insulin therapy (Unwin et al, 2020). Carbohydrates play a particularly important role in diabetes management due to the rapid digestion and production of high-dose dependent glycaemic effects resulting in increased haemoglobin A1C (HbA1c) (Mozaffarian, 2020). Unwin et al (2020) support the notion of using low carbohydrate diets for individuals with type 2 diabetes who are not meeting glycaemic targets, or for whom reducing glucose-lowering drugs is a priority. Indeed, reducing overall carbohydrate intake with a low-carbohydrate or a very-low-carbohydrate eating pattern is a viable option to support healthy lifestyles (Unwin, et al, 2020). While the National Institute for Health and Care Exellence (NICE, 2022) recommends the use of low glycaemic index (GI) foods, it also states that reducing carbohydrate intake not only improves glycaemic control, but also reduces central obesity, hyperlipidaemia and non-alcoholic fatty liver disease (Unwin et al, 2020).

In the author's clinical experience, the question many patients ask at this stage is how many carbohydrates can they have and what are the healthiest options. Diabetes UK (2018) indicates that a low carbohydrate diet is less than 130g total carbohydrates per day, compared to the daily recommended amount of 260g. As said, evidence for low-carbohydrate diets supports an improved response to reducing metabolic syndromes and hyperglycaemia (Unwin et al,

Practice point

Think about your last patient with whom you had a consultation to diagnose type 2 diabetes — could this have been more structured? How did you approach nutrition? Think about what would help to motivate patients.

Patient story

Patient X (49-year-old female with a body mass index [BMI] of >35, and an HbA1c level of 50mmol/mol) attended the author's clinic for a consultation about her new diagnosis of diabetes. During the initial conversation, the patient said how she was ready 'to be told off and told what not to eat', adding that if told 'what not to eat, then I might as well not bother'. These initial barriers demonstrated her underlying concerns with long-term complications.

From discussing and exploring individual factors, it was discovered that the patient's mother had lost a toe due to poorly controlled diabetes and that she felt it was inevitably going to happen to her, no matter what measures were tried.

However, after reviewing healthier alternatives and implementing lower carbohydrate options in her diet, after three months with regular phone support the patient lost 5kg, reduced her BMI to 30 and HbA1c to 46mmol/mol accordingly.

2020). However, if a patient has been commenced on insulin therapy, it is important that they are educated on carbohydrate counting to adjust doses accordingly (Evert, 2020). It is important that GPNs are aware of the need for carbohydrate monitoring in insulin therapy, as often long-standing type 2 diabetes results in a requirement for exogenous insulin as beta cell function declines to levels insufficient to manage glucose (Evert, 2020). Therefore, if recommending low carbohydrate diets, GPNs should discuss hypoglycaemic management and ensure that patients are motivated to monitor sugar intake as required and know when and where to seek support (Murdoch et al, 2019). Guidance indicates it can be appropriate to reduce insulin daily dosage up to 50% if starting a lower carbohydrate diet, but if elevated HbA1c levels this can initially start at 30%, titrating with support accordingly (Murdoch, et al, 2019).

It is not just insulin alone that needs to be considered when discussing low carbohydrate diets, other medications include:

- Sulphonyureas and meglitinides — these will need to be reduced or even stopped depending on the dosage, patient ability to monitor their blood sugar and glycaemic targets. Usually, an initial reduction of 50% is appropriate with the patient being aware of when to seek review if hypoglycaemia occurs
- Sodium glucose co-transporter 2 inhibitors (SGTL-2i) — this class of medications carries the risk of ketoacidosis even at a normal blood glucose level. Thus, when starting a lower carbohydrate diet, these need to be reviewed. Often these medications can be stopped and replaced with other oral therapies that carry lower risk of complications, such as DDP-4 inhibitors
- Metformin, DDP-4 inhibitors and GLP-1 agonists — these are safe to continue and should not cause any harmful effects for the patient if switching to a lower carbohydrate diet

(Murdoch et al, 2019).

GPNs should discuss management of low carbohydrate diets while assessing medications to reduce risk of hypoglycaemic and unwanted side-effects (Murdoch, et al, 2019). These measures will support reduction in hyperglycaemia and help patients to feel motivated to improve their lifestyle (Mozaffarian, 2020).

MOTIVATION AND SUPPORT

Individual beliefs and preconceptions affect not only initiation but also maintenance of healthy behaviours, and so providing education and advice alone is unlikely to be sufficient to promote behaviour change (Hood et al, 2015). After a diagnosis of type 2 diabetes, understanding the motivation processes of patients is crucial for their long-term management and overall well-being. While motivation can vary among individuals, there are common themes that often relate to patients with type 2 diabetes (Rigby, et al, 2022).

Rigby et al (2022) found in telephone interviews of over 21 individuals diagnosed with type 2 diabetes in a 12-month period that common themes impacting on motivation included:

- Fear of changing diet
- Reduced enjoyment of activities related to nutrition
- Ability to pick 'self-up' if 'falling off the wagon'.

These are common issues that GPNs might see in general practice. Providing appropriate support at regular intervals or signposting to resources can improve patient engagement (Morris et al, 2018). Ways to support these behaviours include:

- Fear of changing diet: patients need to be encouraged to consider what is an active healthy lifestyle and how this can be achieved in their daily routines. This could be through encouraging activity in small intervals, i.e. walking 15 minutes twice a day and choosing healthier alternatives, such as making lunch instead of purchasing high salt, sugar and fat options. These methods will encourage active patient participation and ensure that they are aware of how they can make positive changes without restrictions
- Reduced enjoyment of activities related to nutrition: many patients have immediate concerns after diagnosis with regards to what meals to have if eating outside of the home. This relates particularly to

Practice point

Consider your patient population and how appropriate a low carbohydrate diet may be, what factors would you need to take into account?

restaurants and social events, including alcohol intake. Patients should be supported to lead a healthy balanced lifestyle, not being fearful of having foods they enjoy but considering healthier alternatives, i.e. side orders of salad instead of high carbohydrate items
- 'Falling off the wagon': patients need to be encouraged to understand that every day is different, and that there will be days when diets may change. Again, being aware of glycaemic peaks/troughs throughout the day will help patients realise that a few treats should not spike sugar levels consistently. Exploring factors that could impact this is vital for GPNs to improve patient motivation and engagement (Rigby et al, 2022).

Key to successful motivation and engagement is appropriate communication between GPNs and patients, exploring individual concerns and how support can be provided (Morris et al, 2018). GPNs should be aware of patient mindset and consider how change can be initiated and maintained during every consultation.

CONCLUSION

Nutrition plays a crucial role in the management of type 2 diabetes. Making appropriate dietary choices can help control blood sugar levels, manage weight, and reduce the risk of complications associated with diabetes. In this context, GPNs can be instrumental in supporting and maintaining behaviour change in individuals with type 2 diabetes (Rigby et al, 2022). Sharing education about the relationship between diet and diabetes at initial diagnosis can help to support good patient outcomes. Furthermore, if promoting a particular nutritional method, such as a low carbohydrate intake, medications and patient attitudes should be considered (Murdoch et al, 2019).

GPNs provide a vital service for patients with type 2 diabetes and are well placed to initiate discussions around nutrition for glycaemic control. Providing resources to support and encourage patients to maintain engagement throughout the healthcare journey, while respecting individual preferences, can empower them and improve outcomes. GPN

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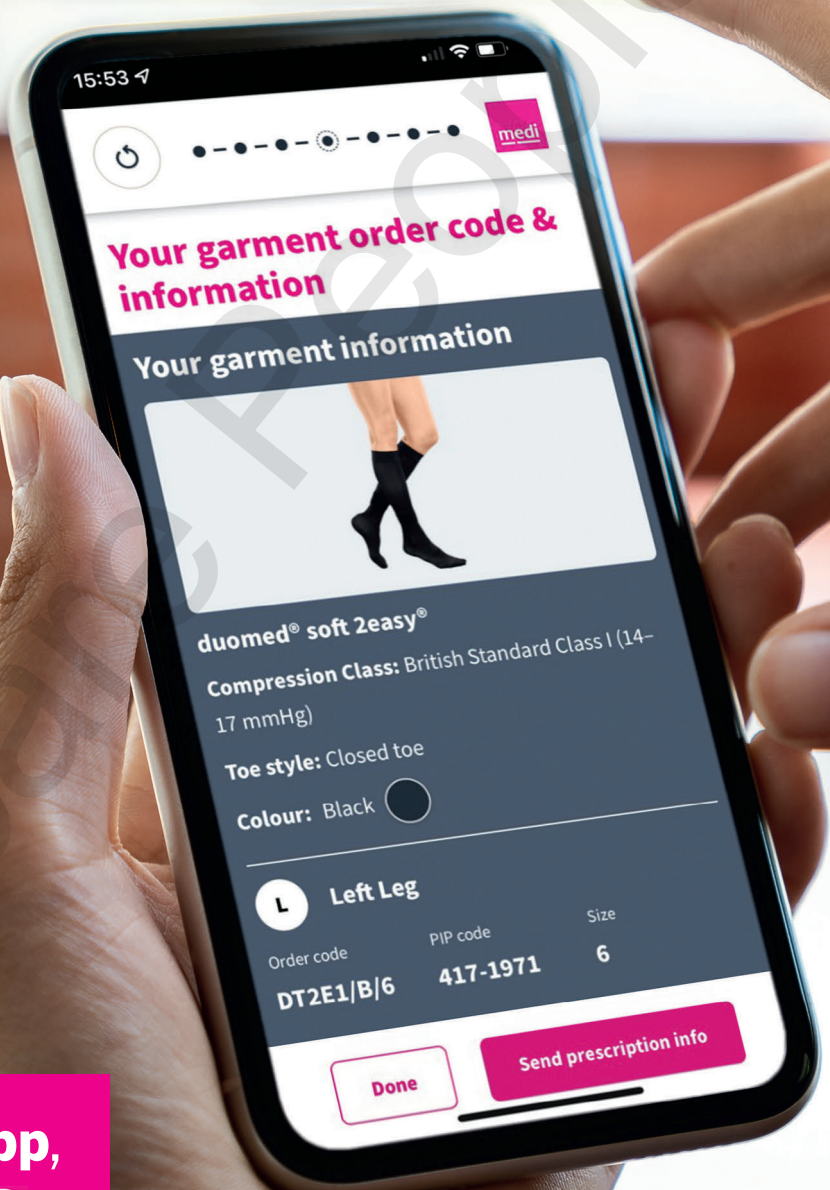

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