

In this article...

- Potential consequences of dehydration among health professionals
- The six stages of behavioural change in the transtheoretical model
- How a student created a poster that prompts staff to drink more

Use of a poster to prompt healthcare staff to maintain their hydration

Key points

1 Many health professionals find it difficult to keep hydrated at work

2 Dehydration can be a trigger for many long-term illnesses such as arthritis, constipation, depression and insomnia, and can adversely affect mental performance

3 An investigation in the US highlighted thirst, hunger and tiredness as leading causes of drug prescribing errors

4 By drinking enough themselves, health professionals can act as role models for patients

5 More research is needed on the prevalence of dehydration among health professionals, and on the link between hydration and cognition

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Abstract Preventing dehydration in patients is emphasised in nursing curricula and in nurses' work settings. However, nurses themselves – and health professionals more widely – are often at risk of dehydration. Among other negative consequences, dehydration can reduce staff's mental performance, thereby potentially putting patients at risk. This article presents an initiative to promote adequate hydration among staff through a poster designed to be displayed in staff rest areas and on notice boards. The poster was rolled out by Southend University Hospital Foundation Trust and South Essex Partnership University Foundation Trust.

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The importance of adequate hydration for health and well-being is emphasised in nurse education. However, the principle does not only apply to patients – it is equally important for the staff caring for them. My first clinical placement as a student nurse was at Southend University Hospital; it was my first experience on a ward. Shadowing my mentor was hectic at times due to her workload, but she still found time to answer my questions and probe my knowledge.

On a typical day, I would start early in the morning, get patients ready for the day, attend ward rounds, spend time with nurse specialists, then go back to the patients to collect observations. I would also routinely help patients eat their lunch, as many required either assistance or encouragement. Going for a break afterwards, I often found that my head was aching and my lips were dry: I was dehydrated. What I was encouraging patients to avoid was happening to me!

Research using social media

Anglia Ruskin University students are taught the importance of keeping patients hydrated, the dos and don'ts, dehydration symptoms to look out for, and the potential consequences if patients' hydration needs are not met. But what about the needs of health professionals? When reflecting on this with my mentor, she told me that keeping hydrated was a constant battle, that she unconsciously kept thirst at bay and that drinking tended to take a back seat on her list of daily priorities.

I was interested in finding out about other people's experiences, so I posted



Nurses should stay hydrated to avoid their mental performance being reduced

messages on hydration in the workplace on the Royal College of Nursing members' Facebook page. Twelve people responded with a range of comments, that included:

- Referring me to the college's hydration toolkit (RCN and National Patient Safety Agency, 2007);
- Suggesting that, in many settings, nurses and doctors are fully aware of the problem but tend to put patients' needs first;
- Admitting not drinking during a shift as, more often than not, she would not get a chance to go to the toilet;
- Using breaks to complete paperwork;
- Stating that it is foolish not to drink water and nurses should keep hydrated or should not hold that role;
- Highlighting that some nurses were not allowed bottles of water in clinical areas.

Peers following my Facebook feed commented that they had similar experiences. This anecdotal data is confirmed by El-Sharkawy et al (2016) who found that 48% of the 88 hospital employees in their study finished their shift dehydrated. As such, I decided to develop a poster with the aim of prompting health professionals to drink.

Why is hydration so important?

Water is often described as the most important nutrient, as the human body can survive for weeks without food but only days without water. It is needed to:

- Maintain blood volume and facilitate the transport of essential nutrients, oxygen and waste products by the blood;
- Maintain cells' structural integrity;
- Regulate the body's temperature;
- Lubricate joints;
- Maintain homeostasis.

Dehydration influences mood – fatigue is greater and alertness lower (Benton et al, 2015). The Health and Safety Executive (2015) stresses the importance of maintaining hydration in hard-working conditions, placing the onus on employers to provide

suitable drinking facilities. It also stresses the importance of encouraging employees to drink fluid often. However, no legislation was found for workplaces more generally.

Dehydration can be a trigger for many long-term conditions, including:

- Arthritis;
- Constipation;
- Depression;
- Insomnia.

It can also adversely affect mental performance (Ruxton, 2012). The RCN and NPSA's (2007) hydration toolkit explores the link between dehydration and cognitive impairment, pointing out that, by the time thirst is felt, mental function may be affected by as much as 10%, and that mental performance deteriorates progressively as dehydration increases.

Box 1 shows the recommended daily fluid intakes for men and women. Common symptoms of dehydration are listed in Box 2.

"I thought a poster would be a concise and inexpensive way to give staff a quick overview and, above all, prompt them to drink"

Creating the poster

The RCN and NPSA's (2007) hydration toolkit offers practical solutions to improve the provision of water to hospital patients to combat dehydration. Although predominately designed for patients, it does also mention staff; it includes a section on water in the workplace but uses generic information relating to the workforce as a whole, rather than specifically to healthcare. However, the toolkit makes the valid point that:

"in a busy working environment it is easy to overlook the importance of good hydration for our daily health".

I thought a poster would be a concise and relatively inexpensive way to:

- Give staff a quick overview of hydration;
- Highlight key facts;
- Prompt them to drink.

The idea was to have it displayed in staff rest areas and on notice boards in health-care settings, where it would be viewed by the target audience – all health professionals working in that setting – in their own time. The poster's key message is the link between dehydration and impaired cognitive function (Masento et al, 2014) and that staff who do not drink enough

Box 2. Common symptoms of dehydration

- Change in mental status
- Delayed capillary refill
- Dry mucous membranes
- Decreased saliva and dry tongue
- Fever or urinary tract infection and oliguria
- Hypotension with orthostatic changes
- Lethargy
- Dizziness
- Lightheadedness or postural hypotension
- Nausea
- Acute loss of weight

Source: Adapted from Collins and Claros (2011)

fluid can, therefore, pose a risk to their patients.

Using the transtheoretical model

I wanted the poster to promote behavioural change, so I used Prochaska and DiClemente's (1982) transtheoretical model, which focuses on dimensions of change, rather than theories about social or biological influences. This model suggests people go through six stages when modifying behaviour:

- Pre-contemplation (not ready to make changes);
- Contemplation (getting ready to make changes in the next six months);
- Determination or 'ready' (individuals start making the change);
- Active (have made behavioural changes over the previous six months);
- Maintenance (working hard towards preventing relapse);
- Termination (no longer feeling the urge to return to previous unhealthy habit).

I identified that most people in my target group would be in the pre-contemplation, contemplation or determination stages. They would be aware of the importance of hydration, linking it to human homeostasis and survival. The aim of the poster was to challenge them to change their behaviour and control their actions, as follows:

- Pre-contemplation stage – people think they drink enough water and do not recognise the need for change so the poster alerts them to the issue of dehydration by displaying a few strong evidence-based facts;
- Contemplation stage – people are aware of the issue of dehydration and the need to drink more, but have not yet taken action. The poster, which lists symptoms such as dry lips or headache,

Box 1. Recommended daily fluid intake

The British Nutrition Foundation, NHS and European Food Safety Authority all recommend the following daily oral fluid intakes:

- Women: 8x200ml
- Men: 10x200ml

These exclude alcohol and are on top of any fluid contained in food.

Source: NHS Choices (2015)

reminds them of the need to hydrate and prompts them to do so;

- In the determination stage, people are ready to make changes – the poster reinforces the message that the decision is theirs to make, engaging them to take action now.

Encouraging role modelling

I also wanted the poster to stress the importance of being a role model. Nurses are expected to encourage health promotion through education, role modelling and effective communication (Nursing and Midwifery Council, 2015). All health professionals should act as role models for patients by improving their own health and wellbeing. According to the NHS Future Forum (2012): “patients and the public find it harder to accept messages from NHS staff if it is clear they do not follow these messages for their own health”.

By drinking enough themselves, health professionals make themselves more credible, and do not risk appearing hypocritical, when advising patients to keep hydrated.

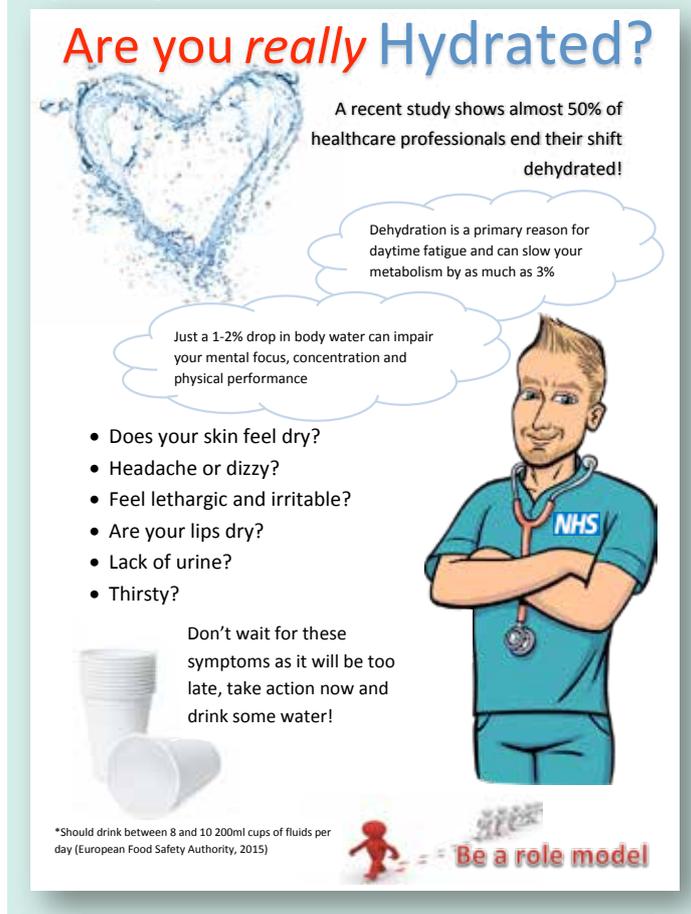
Displaying the poster

I designed and provided all materials for an initial run of 10 A2- and 20 A3-size posters, which were used during presentations; this cost approximately £130. The artwork was designed to print easily on most printers but the poster had to be laminated to conform to infection prevention and control standards.

My university was extremely supportive and was the first to acknowledge my poster by displaying it in the faculty foyer; it was well received by my peers and lecturers. Managers at both Southend University Hospital and South Essex Partnership University Foundation Trust, where I was doing placements, were also receptive and displayed the poster in a prominent position in staff rooms. It was universally well received.

My mentor at one placement, who was also the ward manager, suggested I present the poster to a team of matrons to see whether it could be used on a wider scale. The matrons were impressed and requested a copy to present to the board of Southend

Fig 1. The poster



University Hospital Foundation Trust. It was adopted across the trust – the chief nurse said it was an excellent example of encouraging staff to look after their wellbeing.

What next?

Reflecting on the poster, I could have added a QR code to allow reader interaction and provide a link to further information, which could have included an app periodically reminding people to drink.

I deliberately chose a picture of a male health professional to avoid relaying the assumption that all are female, but using images of both sexes may have been more inclusive. To evaluate the effectiveness of the poster, I plan to post an online survey onto Southend University Hospital Foundation Trust’s intranet, asking for anonymous feedback; this will be incorporated in the trust’s annual hydration focus in March.

More research into the prevalence of dehydration among health professionals is needed. El-Sharkawy et al’s (2016) study – one of few on the subject – investigated just 88 doctors and nurses, over a single 24-hour period. Research covering larger and more comprehensive groups is needed along

with studies linking dehydration, cognitive function and the 64,000 medication errors occurring biannually (National Reporting and Learning System, 2015).

Encouraging a more widespread distribution of the poster is still in its early days but has been wholly positive. Following a series of meetings, other trusts are keen to adopt the poster; minor adjustments may be made, including adapting it to represent their uniform.

Further enhancements were discussed, such as a QR code to provide more information but this would need developing as, at present, there is no website providing information applicable to clinicians in practice. **NT**

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For more on this topic go online...

- The nurse's role in patient nutrition and hydration
Bit.ly/NTPatientNutritionHydration