Supporting improvement through the development of an innovative hydration monitoring solution for care home settings

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Dr Alison Steven
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## Hydr8

### View Patients

<table>
<thead>
<tr>
<th>Order By</th>
<th>Patient Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.A.G.</td>
<td>All</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kristian Considine</td>
<td>0%</td>
</tr>
<tr>
<td>Graham Innes</td>
<td>0%</td>
</tr>
<tr>
<td>Marc Rice</td>
<td>0%</td>
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<tr>
<td>Teresa Davis</td>
<td>0%</td>
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<tr>
<td>Wally Charlton</td>
<td>0%</td>
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<tr>
<td>Gemma Wilson</td>
<td>0%</td>
</tr>
<tr>
<td>Gary Charlton</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Patient Notes**: David will need water at 8am, 1pm and 8pm alongside his medication.

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**Last hydrated**: 06/07/2015 10:11

**Last hydrated**: 02/07/2015 14:31

**Last hydrated**: 02/07/2015 09:34

**Last hydrated**: 02/07/2015 15:16

**Last hydrated**: 02/07/2015 12:14

**Last hydrated**: 28/05/2015 12:13

**Last hydrated**: 03/07/2015 16:03
Aim

To explore and evaluate the implementation of the Hydr8 system within one CCG area in the North of England

Specifically, the study focused on:

- The use and usability of the system
- The normalisation of the system as part of everyday practice
- The impact on care provision
Sample

- The app was piloted in 5 care homes within a CCG locality in the North of England

- Two case study sites and three interview-only sites:
  - Case studies - Observations and interviews at three time points
  - Interview only - One-off interview

- A total of twenty-eight participants were interviewed:
  - 21 care staff
  - 7 other staff (management/administration/nurses)
Data analysis

- This study drew on Realistic Evaluation\(^1\) and Normalisation Process Theory\(^2\)

- A Thematic Analysis\(^3\) was conducted on the transcribed verbatim interviews and the observation notes

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Findings
Care

- Knowledge of hydration

- Time management

- Fitting into established systems of care

“It has got the outline of the body and it has got the amounts and it colours in the body as you go. So it is really good. Helpful” [P025/Care assistant]

“It frightened me because I think it was 200%” [P002/Care assistant]
Care

- Knowledge of hydration
- Time management
- Fitting into established systems of care

’Soo what we do, I mean I have got it all here, we carry like a little notebook and as we go we write it all on so that we know exactly what they’ve had’ [P010/Care assistant]

“They’ve still expected us to write it down on paper, so it’s double the work” [P019/Care assistant]
Care

- Knowledge of hydration

“The way our fluid charts work is that they have the food intake on the other side as well. So the sheets we use, even if we’re not to use the fluid side, you’ve still got to go to them every meal time” [P004/Assistant Manager]

- Time management

“Trying to get the staff to understand that you can’t save it all up to the end of the shift and put all of the fluids in, you need to do it as you go along” [P014/Care assistant]

- Fitting into established systems of care

“Some people are forgetting to put it on charge. I’ve just noticed there-battery low” [P023/Assistant Manager]
Trust

- Lack of trust in technology

- Technology as precious

- Surveillance

“I have said [to the care staff] you must keep it documented and keep proof because we can’t rely on computers” [P011/Care assistant]

’I would worry that we stopped the paperwork because if the inspectors came in and asked for evidence, it wouldn’t be there at the moment” [P003/Manager]
Trust

- Lack of trust in technology

- Technology as precious

- Surveillance

’It is safe [in the office]. And they are not cheap to buy, you know what I mean, so it is best to just keep it where it is safe” [P010/Care assistant]

“If it gets stolen or broken or anything, we are going to get it in the neck” [P011/Care assistant]

“We can leave it in the lounge, or we can take it to the dining room but upstairs can’t [as someone may take it]. So you have to keep putting it away, keep locking it away, and then you’ve got to go and get it out” [P008/Care assistant]
Trust

- Lack of trust in technology
- Technology as precious
- Surveillance

“I wonder how much CQC understand about it, and the local authority” [P003/Manager]

 “[The manager] can keep an eye on it as well. So if, like, someone has missed a drink or something...he can come up straightaway and say, ‘look, why hasn’t this one had a drink for 3, 4 hours?’” [P026/Care assistant]

“Having that accountability is important” [P003/MANAGER]
Conditions for long-term use

- **Technical issues**
  
  “It freezes, it skips, it jumps, it doesn’t load. The Wi-Fi connection keeps coming off and doesn’t connect back up to the Wi-Fi” [P011/Care assistant]

- **Work-arounds**
  
  “I sat up here and it took me 20 minutes to put two people in because it was flicking, it was terrible, and I was sitting watching the thing going round and round and round and round” [P011/Care assistant]

- **Future gazing**
  
  “Well, at first it was great but then the tablet started to freeze” [P026/Care assistant]
Conditions for long-term use

- **Technical issues**
  “What we found we had to do was come off the Wi-Fi and then go back into the Wi-Fi once the information had been put into the app so we could re-boot” [Poo3/Manager]

- **Work-arounds**
  “It’s an extra step isn’t it? It’s just something else more complicated to do” [Poo4/Assistant manager]

- **Future gazing**
Conditions for long-term use

• Technical issues
  “I can see it coming, we are going to end up computerised, I can see it coming”
  [Po14/Care assistant]

• Work-arounds
  “I just think it is a brilliant idea if it all runs smoothly and works” [Po16/Manager]

• Future gazing
  “Food and fluid would be ideal. And I think they would benefit from it because a lot of them are on food and fluid charts. So even though you’re getting rid of the fluids, they’ve still got to go to that chart and do the food.”
  [Po23/Assistant Manager]
Conclusion

• Initial expectations of Hydr8 varied with some individuals feeling enthusiastic about its implementation and others anxious

• The normalisation of the app into daily care was hindered due to already established routines of care, lack of trust in the technology and technical drawbacks

• Individuals were enthusiastic about the future use of the technology in as part of daily care, based on changes being made

• Taking into account the findings from the evaluation, the app will be developed and disseminated for further evaluation
Conclusion

- This study highlighted:
  - The importance of involving the users in the design and implementation of the solution
  - The need for change in infrastructure in the care home setting in order to implement technical solutions and changes to care
Thank you for listening!

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