A user-centred approach to designing an eTool for gout management

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Background

The prevalence of gout in Australian men age 70 or older is 18.7% [1]

Gout is an episodic disease, causing severe pain in joints [2]

Occurs in the setting of persistent hyperuricaemia (SUA >0.42mmol/L)

Adherence to therapy is 15% [3]

Serum uric acid control achieve in 90% of patients using self-management strategies [4]

Typical therapy

- Patients adherant to urate lowering therapy
- Patients non-adherent to urate lowering therapy

Therapy with self management

- Patients reaching target urate control
- Patients not reaching target urate control
Research Questions

1. Do patients with gout believe they would benefit from the use of a self-management eTool?

2. What do patients with gout think this eTool should look like?
Method

4 semi-structured focus groups conducted

Recruitment
126 patients invited
Exclusion criteria:
  Cognitively impaired
  Not fluent in spoken English
Method

Participant group
13 participants
  11 men
  2 women

Age
  Range 37 – 79 years old
  Median = 63 years

Baseline use of basic technologies
  10 owned a smartphone
  10 used internet multiple times a day
  1 rarely used computers

Focus groups
4 focus groups
  3-4 participants in each
  1.5-2 hours

Data Analysis
Open coding technique [5]
  An iterative exploratory process

Ethics
UNSW Human Research Ethics Advisory Panel, reference number 2014-7-10
Findings

Openness to the use of eTools

“I don’t use any apps for health stuff at the moment but I’m very open to doing, to doing that if they can help.”
– Participant 7
Findings

Education
“This would have been great when I was having my first attack because I really didn’t know anything about it.” – Participant 7

“You want some images. Understand a lot of people prefer to see the image.” – Participant 3

Monitoring serum uric acid concentration
“If I had a continuous graph of my levels and I know that I can see that here I had a gout attack then I’d make sure I do something about that level.” – Participant 6

“It’s good to input all that information but then how do you assess it? How’s it then formatted and table-ised to then show you where you’re at, what you’ve got to get to?” – Participant 2
Findings

Monitoring serum uric acid concentration

“It’s good to input all that information but then how do you assess it? How’s it then formatted and table-ised to then show you where you’re at, what you’ve got to get to?”
– Participant 2
Findings

Medication reminder alerts

“It would be nice if there was a little, ‘Would you like a reminder? What time would you like a reminder?’ And then it automatically links up to your notifications of some sort and goes, ‘Hey, don’t forget to take your tablets’ and you go, ‘Ah, thanks mate.’”
– Participant 1

Record of acute gout attacks

“That would be good for a person having an initial gout attack because they don’t know how it affects them so they can write it down and take it to their doctor to work out the medication.”
– Participant 5
Findings

Storing contact information

“When you get to a hospital, as far as I know, they say, ‘Who’s your heart doctor? Who’s your this doctor? Who’s your that doctor?’ What’s his name again? I only saw his last week.”
– Participant 12

Updates on gout research

“If there’s an app that, I don’t know, once a month or once every three months or something, that brings out possible new measures to deal with gout, either medically or exercise or diet or whatever, that would be useful.”
– Participant 7
Findings

Need for an integrated tool

“If you had one for gout, one for this, one for all the conditions, I’d be up to 7 or 8 applications, I wouldn’t use them.” – Participant 5

Barriers to use

“I didn’t even know they exist.” – Participant 6

“I wouldn’t think of it.” – Participant 5

“I just don’t feel comfortable using technology.” – Participant 10
Discussion

Designing an eTool for gout self-management
This study was based on a user-centred approach
Usability testing and a randomised control trial will now be conducted

Designing other eTools
These results may be informative for the development of other chronic diseases
eTools should be created to manage multiple co-morbidities
Perhaps various eTools could be compatible or able to integrate

Describing user-centred design
This study answer the call in the literature to describe user-centred design approaches [5]
Discussion

Limitations
The study was limited by the small participant size n=13
  Theme saturation was achieved

Potential selection bias as patients invited reported lack of interest in technology as a reason for declining to participate
  Interest in eTool from patients who have gout may have been overstated
This should be studied further
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References


