Arthritis New Zealand Summer Scholarships Reporting Template

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Project Title

The experience of people with gout on the impact of gout flare triggers

Statement Regarding Arthritis New Zealand Sponsorship

I would like to thank Arthritis New Zealand for the opportunity to expand my knowledge into the impact of gout flare triggers on people's lives. I am very honoured and grateful to have received this Scholarship.

Student's Personal Comment About Study/Experience

The study was very eye-opening in terms of discovering the impacts people with gout face as a result of their triggers. Prior to this study, I only had knowledge of the physiological processes of gout, with little thought or knowledge into how gout flare triggers would affect people's daily lives. The study has made me see that there is a very complex cycle in the way people manage their gout individually and I have gained an insight into the negative impact this can have on people's mental health. Another thing I found while transcribing the audio recordings and coding the data, was that there seemed to be a lot of misinformation and lack of understanding about the causes and management of gout, from not only the patient's perspective, but also their health care providers. This knowledge has re-affirmed the importance for me as a future healthcare professional to ensure that I can centre my approach around each individual patient and not the disease itself, as everyone is different. I loved working in the research team because it was very collaborative, and I found it interesting hearing other people's perspectives on the same topic. Overall, the study was very enjoyable, and I gained a lot of knowledge and appreciation for research, I also can now see how research is so important for gaining more understanding over health conditions, like gout, and how to best manage them.

Summary of the Project

a) Aims: To explore the experience of gout flare triggers and how they impact the lives of people with gout.

b) Key results: Thirteen people with gout participated in individual interviews. Participants were asked questions related to their gout flares, perceived gout flare triggers and the impact of gout flare triggers on their lives. Interviews were audio recorded and transcribed verbatim. Thematic analysis was used to construct themes that represented meaningful and distinct interpretations of the data.

Participants were predominantly male (n=11, 85%) with a mean age of 59 years and a mean gout disease duration of 10 years. The majority were European (n=9, 69%), followed by Māori (n= 2, 15%) and Asian (n=2, 15%). All participants could identify at least one trigger that they thought caused their gout flares. The most common triggers among the participants were seafood and alcohol (**Table 1**). Three themes were constructed from the data (**Figure 1**). Illustrative participant quotes are displayed in **Table 2**.

Table 1. Self-identified gout flare triggers

Trigger	N (%)
Seafood	7 (54%)
Alcohol	5 (38%)
Sugar/sugar-sweetened beverages	4 (31%)
Tomatoes	4 (31%)
Injury	3 (23%)
Red meat	3 (23%)
Asparagus	2 (15%)
Dehydration	2 (15%)
Stress	2 (15%)
Urate lowering therapy	2 (15%)
Air travel	1 (8%)
Beetroot	1 (8%)
Covid vaccine	1 (8%)
Diuretic	1 (8%)
Durian	1 (8%)
Mushrooms	1 (8%)
Offal	1 (8%)
Physical activity	1 (8%)
Potatoes/kūmura (sweet potatoes)	1 (8%)

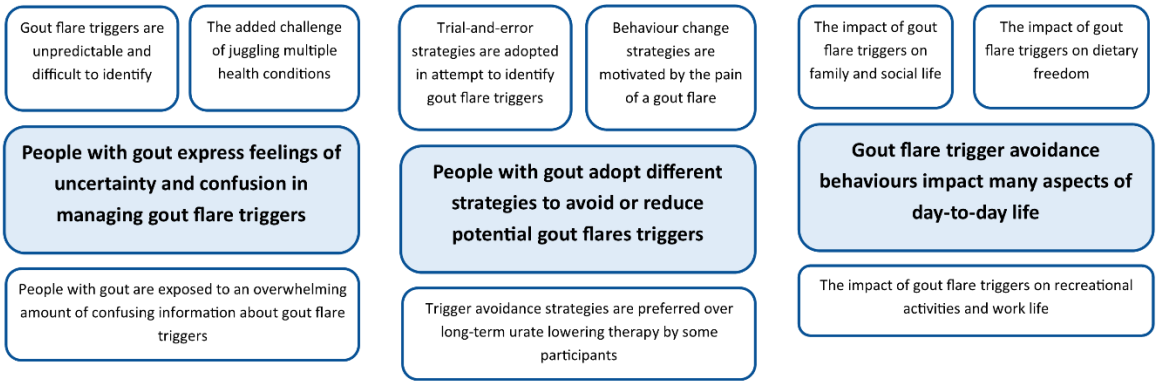

Figure 1. *Mind map showing themes*

c) Discussion: Intermittent painful gout flares are the most characteristic feature of gout and occur in the presence of sustained hyperuricemia [1]. Although previous research has explored the impact gout flares have on people's lives [2], this is the first study to explore the impact of the triggers that cause them. People with gout report a wide range of gout flare triggers [3], and the results in this study highlight the emphasis that people with gout place on those related to diet. This likely stems from the historical misconception that poor lifestyle and dietary factors are the primary cause of gout [4]. As a result, many people with gout in the current study adopted trigger avoidance strategies, rather than use long term urate lowering therapy which is the gold standard treatment for preventing and reducing gout flares [5]. For most people with gout, being able to identify their triggers was extremely difficult and involved in-depth thought and analysis of the time preceding flares in the hope that one could identify patterns or commonalities that could give them clues to what had caused them. Confusion and uncertainty developed when unknown triggers were combined with misinformation found on search engines and advice given by healthcare professionals, friends and whanau. Despite a high rate of gout flares among some participants, very few received information about regular

urate lowering therapy, and as a consequence some participants chose trigger avoidance over urate lowering therapy in the management of their gout flares. Urate lowering therapy was even perceived by some to be a trigger for gout flares which was a disincentive for some participants. Participants also reported a range of different strategies that they adopted to reduce potential gout flares, but these were mostly centred around trial-and error experiments used in attempt to identify triggers. This study has also shown that trigger avoidance behaviours have an impact in almost all domains of a person's life, as well as their whanau, including partners keeping track of triggers and limiting certain foods in the household. The impact of gout flare triggers also extended to social, work and recreational activities.

Table 2. Illustrative quotes

People with gout express feelings of uncertainty and confusion in managing gout flare triggers	Gout flare triggers are unpredictable and difficult to identify	*""Oh, if I eat that will I get it?" you know.? Um, yeah just a bit anxious and see-, yeah, … I don't get it constant, so, yeah, I think I do think, "Oh, if I have that, will I get gout?""* (P010)
	People with gout are exposed to an overwhelming amount of confusing information about gout flare triggers	*"I did google to find out, but I remember from friends who have it, the first thing is not to eat nuts and yep, and so seafood is another big item that you don't touch, seafood."* (P013)
	The added challenge of juggling multiple health conditions	*"I have a few other dietary problems as well *laughs* so it can get a bit confusing sometimes with which one I'm dealing with"* (P001)
People with gout adopt different strategies to avoid or reduce potential gout flares triggers	Trial-and-error strategies are adopted in attempt to identify gout flare triggers	*"Normally if I'm thinking about it, and kind of draw it-, you know, connect the dots, and go "oh yeah, I know what's goin' on" and sort out what I'm eating and drinking and, you know, sort out how much water I'm drinking and I'll probably go "oh yeah I shouldn't be eating that", everything kind of calms back down again and its usually fine"* (P001)
	Behaviour change strategies are motivated by the pain of a gout flare	*"I mean yeah they are things that I really like eating um, but like I say, like knowing that it has a higher likelihood of me getting um, gout I just stay away from them and that's pretty much how I do now yeah."* (P005)
	Trigger avoidance strategies are preferred over long-term urate lowering therapy by some participants	*"All my joints were seizing up and I just said no, I've had enough, I wiped myself off every pill they gave me and said "no I'm not taking any more", and I got better but reckon they were poisoning me, they were giving me so many pills I think they poisoned me."* (P007)
Gout flare trigger avoidance behaviours impact many aspects of day-to-day life	The impact of gout flare triggers on family and social life	*"It was easy because [wife's name] will cook me things that are non um- goutish"* (P003).
	The impact of gout flare triggers on recreational activities and work life	*"While COVID was around, you know, we-, It was pretty stressful for us because we had to close and things like that so um, yeah, mind-, I think, you know I did have, you know like a series of attacks in that period of time"* (P012)
	The impact of gout flare triggers on dietary freedom	*"One big steak, one slice of the backside of a venny, I get gout, one slice of tomato, "bang" I get gout. I said "what?!", man all the good stuff that I want"* (P011)

d) Conclusion: People with gout report many different triggers that impact all domains of life, and which can be overwhelming and confusing. In attempt to improve their quality-of-life people with gout develop various strategies to avoid or reduce these triggers. The lack of accurate information that people with gout receive about gout flare triggers may contribute to their negative attitudes and experiences towards urate lowering therapy which is the most effective treatment for reducing and preventing gout flares.

References

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