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Implementation of the handheld fan in clinical practice; qualitative interviews of clinicians' experience and perceptions of use, barriers and facilitators

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Introduction

- Chronic breathlessness is common
 - Evidence has been shown that the use of a handheld fan (fan) is beneficial (1).
 - Works by stimulating the trigeminal nerve, nasal mucosa and upper airway flow receptors (2,3).
 - Fan benefits include faster recovery time following exertion, low cost, portability and ease of use (2,4).
 - The fan is being used more in clinical practice, but not consistently.
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Aims

- To gather data on how clinicians implement the fan, the barriers and facilitators to fan use, and clinicians current views and experiences of using the fan in the COVID-19 pandemic.

Design

- Mixed methods study
 - Clinicians were recruited following completion of an national online survey sent to professional groups
 - In-depth interviews with a purposively sampled subgroup
 - We will present the qualitative data only in this presentation
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Demographics

	Clinicians n=12
Clinicians role	Doctors n=4 Nurses n=4 including Advanced Clinical Practitioner Allied Health professionals n=4 including Physiotherapist, Occupational Therapist and Paramedic
Gender	Male =2 Female =10
Fan User	Yes =11 No =1
Work setting	Community n=2 Secondary care n=5 Special Palliative Care Unit (SPCU) n=1 Community and secondary care n=3 Community, secondary and SPCU n=1
Clinician speciality	Palliative care n=6 Respiratory n=5 Emergency care n=1

Findings

- 4 key themes were generated:
 - Resources
 - Knowledge, Skills and Education
 - Beliefs
 - Environmental context

Resources

- Most clinicians had very limited or no access to a supply of fans to give to patients.
 - The majority of fans provided to patients were sourced through charitable funding, most commonly in palliative care settings.
 - Some services mentioned that fans were self-sourced by patients following clinician recommendations
 - Many believed that fans should be routinely funded for and provided to the patients.
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Key Quotes – Resources



“I think in terms of provision, I don’t really understand why there wouldn’t be the provision of a {Fan}, if you provide a stick for £2 that costs £2, why wouldn’t you provide a fan if it’s considered a clinical intervention why aren’t these things provided?”- Interview 1 (occupational therapy-palliative care)

“We haven’t got a budget within the NHS to buy fans so the equipment we give to patients, such as the fan and the CD’s and stuff, that doesn’t come from the NHS budget we have um X charity fund I think it’s now this research fund.” Interview 6 (palliative care physiotherapist)

Knowledge, Skills and Education

- Fans were found to be rarely used outside of specialist respiratory or palliative care settings, mainly due to the lack of staff knowledge and the preference to use oxygen or pharmacological interventions
 - Use of research evidence or connection to a fan researcher facilitated the use of the fan, and helped to provide credence as an intervention.
 - The majority of clinicians interviewed delivered the fan as a complex intervention in conjunction with breathlessness management techniques
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Key Quotes – Knowledge, Skills and Education

“I worked it was quite a specialist respiratory ward, so all the nursing staff and healthcare assistants were... knowledgeable...about respiratory conditions and knew the benefit of the fan. Whereas if they had sort of gone to a general medicine ward... it probably wouldn't have been so available.” Interview 2 (respiratory physiotherapist)

“I think the patients I've worked with that haven't had that complex intervention might not have used the fan appropriately or have not much faith in the fan.” – Interview 5 (advanced care practitioner- palliative care)



Beliefs

- Most clinicians stated that patients regularly had a lack of belief in the fan until it was demonstrated to them.
 - The self sourcing of the fan also influenced the patients belief in it as a medical device.
 - Some clinicians with little exposure to the fan have thought the fan too simple to be a credible intervention.
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Key Quotes – Beliefs

“When we were in a meeting with a whole load of experts talking about breathlessness, and this was an NHSE meeting, we were talking about diagnosis, a couple of the experts there were really sceptical about managing breathlessness in its own right and they actually said well that’s all very nice as a little add on, all very cuddly, soft you know what I mean.” – Interview 9 (respiratory medicine)



“It was so frustrating before because we’d keep advising it and advising it, but people didn’t have the belief to literally go and buy it.”
Interview 10 (respiratory nurse specialist)

Environmental Context

- COVID-19 was shown to be a large barrier to fan use.
 - Guidelines restricted the use of the fan in all acute settings due to infection control risks.
 - Some clinicians with fan experience state however they were willing to undertake their own risk assessments to allow fan use.
 - Some are worried about how infection control guidelines will influence fan implementation in the future.
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Key Quotes – Environmental Context

“I worry about the impact it’ll have going forward because it seems like we’ve thrown all the fans out with the bathwater and working to get them back in will take some doing.” Interview 5 (palliative care - Advanced Clinical Practitioner nurse)

“And sadly, when the word fan in the current climate is a little bit like a swear word with infection control. So, there is people who get worried about infections getting blown around. So, there’s lots of other barriers, environmental barriers getting in the way of that. So, the environmental barriers probably stop the financial barriers, you know you shouldn’t be paying for those things because you’re making infection control worse.” – Interview 13 (specialist palliative care nurse)



Conclusions

- Lack of resources and lack of beliefs are key challenges for clinicians' implementing the fan.
 - The recommendation to buy the fan without giving the device may undermine credibility.
 - COVID-19 restrictions on fan use represent a further problem.
 - Adequate funding is needed alongside appropriate education.
 - Future research about the infection risk is also warranted.
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Thank you for listening

Any Questions?

