The handheld fan in clinical practice; a survey of clinicians' experience of implementation and barriers to use.

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Background:

- Cool facial airflow from the hand-held fan help >80% people with chronic breathlessness (1).
- Despite this evidence to support its use, little is known about how, or indeed if, the fan has been implemented in clinical practice.
- We do not know how, where and when clinicians use the fan, and what, if any, barriers, exist regarding clinical use of the fan.

Aims: To gather preliminary data on the pre-COVID 19 clinical implementation of the fan and the barriers to fan use with breathless patients.

Methods:

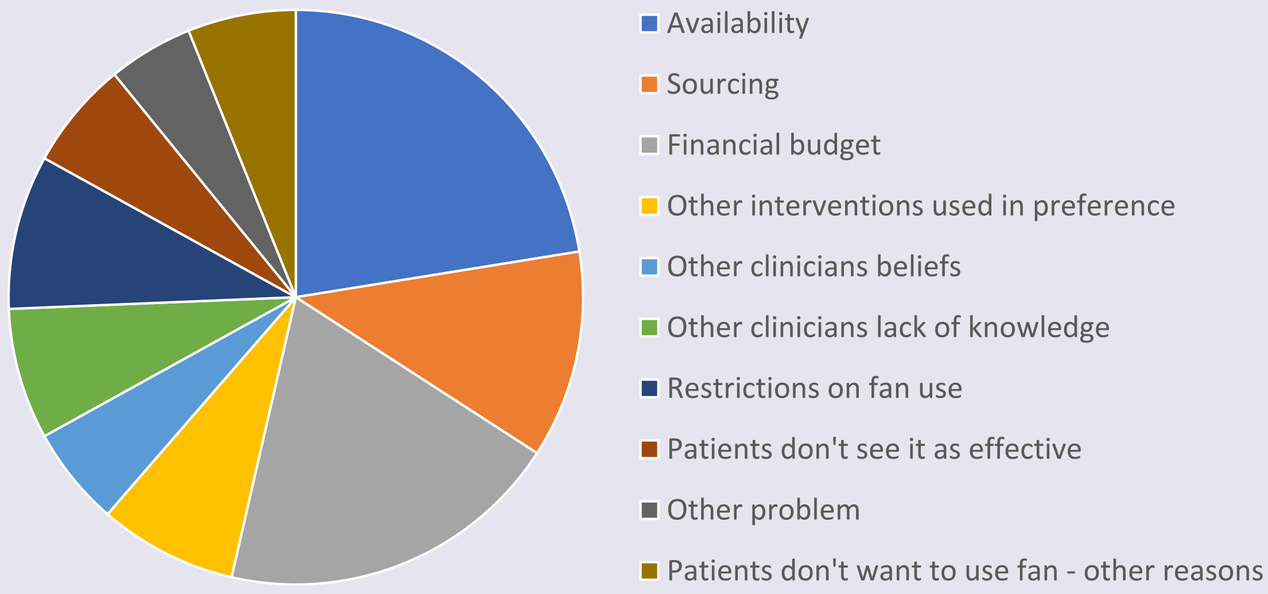
- An online, cross-sectional survey of clinicians working with breathless patients to collect data on the pre-COVID implementation of fans.
- Two versions were sent out: one in English, and one in Dutch, publicised via professional groups and social media.
- All clinicians working with breathless patients, were eligible to participate.
- The survey consisted of 12 multiple choice questions about their experience of fan implementation in clinical practice with some allowance for free text comments:
  - barriers for clinicians when implementing fan use,
  - how clinicians deliver the fan to patients
  - specifications of the fan model used by clinicians

Results:

- 31/302 [10%] UK-based group were from outside the UK (mostly United States, Ireland and India); 117/125 [94%] of the Dutch respondents practiced in the Netherlands.
- Overall, 301/484 [62.2%] respondents (11% male; 89% women, 0.5% declined; 87% >5 years' experience) used a fan "some" or "a lot of the time"; more common in the "UK" (256/302 [84.8%] vs 45/182 [24.7%]).
- More UK-based respondents were physiotherapists (UK 75/262 [28.6%] vs Dutch 5/125 [4.0%]), but ~equal proportions of nurses and doctors.
- Palliative care was equally represented, but respiratory clinicians were more common in the UK-based group (153/261 [58.6%] vs36/124 [29%]), and elderly care in the Dutch group (22/124 [17.7%] vs 1/261 [0.4%]).
- The two most common barriers to fan-use were poor availability (52/231 [22.5%] and lack of funds to buy fans ([45/231 [19.5%]); one-third asking the patient to buy one for themselves.
- In the Dutch group only, lack of belief of effectiveness and a preference for other interventions (inhalers or oxygen) also acted as barriers.

Clinical professions of respondents represented for the English and Dutch groups.

	English N (%)	Dutch N (%)	Total N (%)
Physiotherapy	75 (28.6)	5 (4.0)	80 (20.7)
Nursing	112 (42.8)	66 (52.8)	178 (46.0)
Occupational Therapy	9 (3.4)	5 (4.0)	14 (3.6)
Doctor	53 (20.2)	36 (28.8)	89 (23.0)
Other	13 (5.0)	13 (10.4)	26 (6.7)
	262	**125**	**387**



A pie chart showing the combined proportions of the types of problems experienced when implementing the use of handheld fans for breathless patients in both groups.

Conclusion: This survey provides an insight into the experience of clinicians of using fans for breathlessness.

Most UK-based respondents recommended the use of the fan to patients, compared with a minority of Dutch. This may reflect that most research in this field has been conducted by English-speaking researchers. Barriers to fan use include lack of availability and lack of money to buy them. In the Dutch-speaking group there was also a barrier with respect to belief in effectiveness.

In order to improve patient access to fans we recommend that a budget be made available to clinicians to buy them. The proportion of physiotherapist respondents in the Dutch group was notably smaller – professionals likely to recommend a non-pharmacological intervention. Physiotherapists may be important in driving implementation in the UK.

References

1. Luckett T, Johnson MJ, Farquhar M, Swan F, Assen T, Bhattarai P, Booth S. Contributions of a hand-held fan to self-management of chronic breathlessness. European Respiratory Journal. 2017;50(1700262).