Electronic smart-hub based intervention during COVID-19 in a rural Psychiatry of Old Age service in North-West Ireland.

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Introduction

The COVID-19 pandemic caused significant disruptions in services and necessitated innovation to continue care provision to the vulnerable population of older adults with psychiatric needs. Communication and assistive technology offered a potential solution to the challenges posed by isolation in this population.

Objective

The objective of this study was to examine the experiences of staff and patients using a hands-free electronic smart-hub (eSMART hub) intervention to keep patients connected with Psychiatry of Old Age following COVID-19 restrictions.

Methods

A risk stratification register was created of all patients known to the Psychiatry of Old Age service in the North-West of Ireland in March 2020. Those at highest risk of deterioration due to Covid-19 restrictions were identified and offered a smart-hub with video and personal assistant technology in their homes. Smart-hubs were also installed in the team base and day hospital to facilitate direct device to device communication. Ethical approval was obtained from the Sligo Research Ethics Committee.

Semi-structured qualitative interviews were conducted with 10 staff members and 15 patients at 6-12 months following the installation of the smart-hubs for thematic analysis. Preliminary data is reported here.

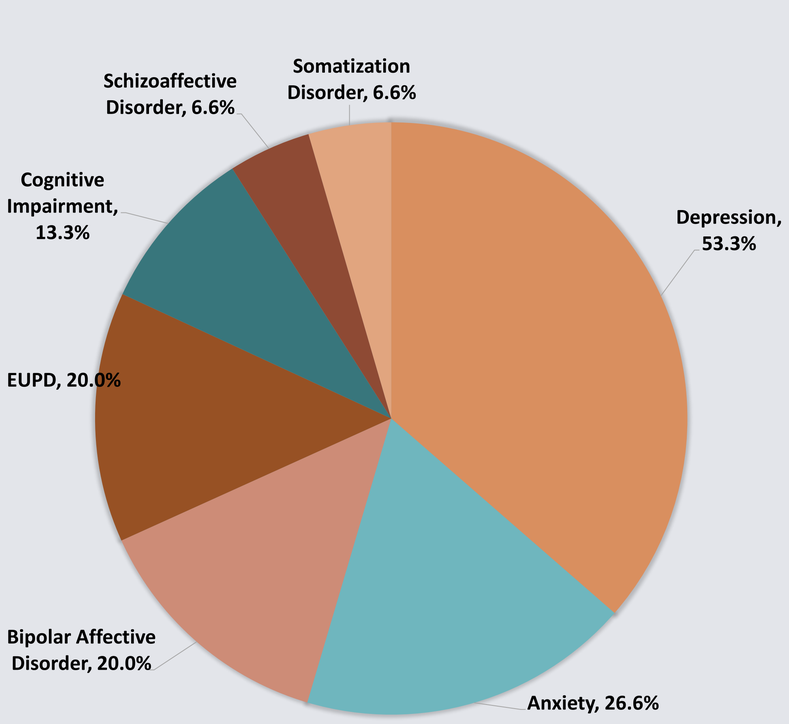
Results

Patient Demographics

N=12 Female, N=3 Male

Age Range 69yr to 88yr (mean age 75.3years)

Figure 1. Psychiatric diagnoses in patients assigned the smart-hub (N=15)



The response to the smart-hubs was overall positive. Patients reported using them for personal interests such as radio, accessing recipes, knitting, reminders and engaging with family. Staff found them to be useful adjunctive tools to routine care.

Positive Feedback

Companionship

Patients commented on the ability to communicate with the virtual assistant technology.

"Well I'm not on my own, am I, when I've got somebody that answers what's on my mind, you know?"

Access to services

Patients were appreciative of the ability to remain connected to the service.

"I see the nurse, and I see my own nurse that's allotted to me on it, you know. They can pick up if I'm not well or not."

Willingness for future use

Both patients and staff were willing to use the smart-hub as an adjunct to routine face to face interactions.

"I would be happy enough going forward to have a combination of not every appointment, at least have some face to face and some online."

Barriers to use

Training

The smart-hubs were implemented as a rapid response to the pandemic. Staff wished for further training in order to train the patients.

"I might have done with a masterclass probably myself. That has a kind of a learning together type of thing with the person as well, so I can say well actually I'm not that familiar with this, we'll try it, can't be that hard, do you know."

Narrow Scope

There was difficulty accessing all functions of the smart-hub due to the need to maintain privacy. Communication was limited to between devices.

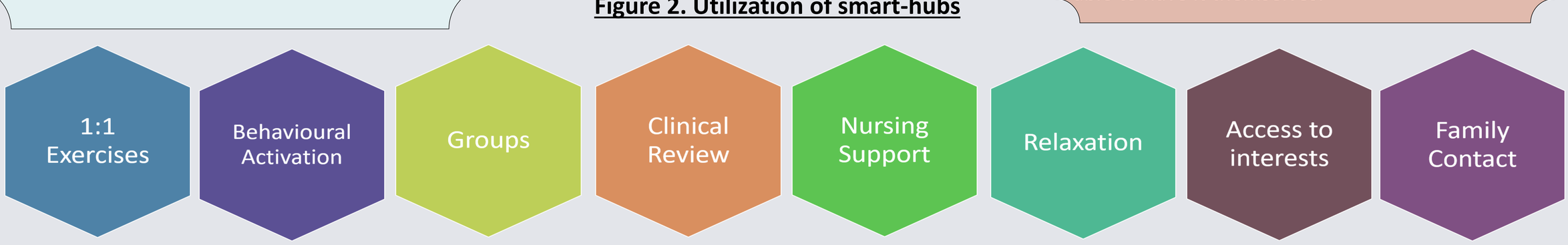
"I want to be able to use all of it and not say well I have something there but I can't do that, and that's all I can to on it."

Connectivity and Costs

Concerns were raised about the costs of connection and access.

"When I asked her to play a song, she says you have to pay for that."
"They must have the Wi-Fi and would they be able to have it themselves."

Figure 2. Utilization of smart-hubs



Conclusion

Very few studies have examined the use of smart-hubs with voice assistant technology in supporting older persons in the community.[1] Loneliness and isolation can have a significant impact on mental health and older persons were particularly vulnerable to this secondary to Covid-19.[2] Smart-hubs may be useful as an adjunctive tool to remotely support an older population in mental health settings. Our study offers a roadmap for utilization of smart technology with video and voice assistive features to support vulnerable and isolated older persons through multiple avenues.

References:

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