

Analysis of older adults' attitudes and perceptions towards remote patient monitoring assistive technology

Institution guide

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Organization guide

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Remote patient monitoring (RPM)

- Globally the proportion of elder people is increasing significantly, with rise in life expectancy at birth from 67.2 in 2000 to 73.4 years in 2019.
- Assistive technology enables and promotes inclusion and participation, especially of persons with disability, aging populations, and people with non-communicable diseases.
- RPM technology gathers patient's health vitals via sensor-based technology and enables monitoring of the data remotely on smartphones or tablets or monitoring computer system by using software application.



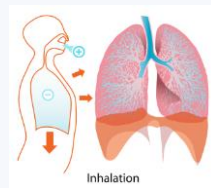
- Apollo Homecare provides elder care nursing services to patients who require nursing care services.
- . Under a pilot project conducted by Apollo Homecare to understand the need and acceptability of remote patient monitoring technology among patients, a remote monitoring device termed as RHEMOS device is provided to patients to monitor their vitals at home.



Blood glucose



SPO2



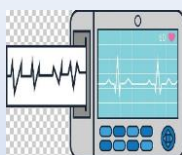
Respiratory rate



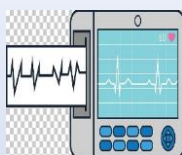
Heart rate



temperature



Blood pressure

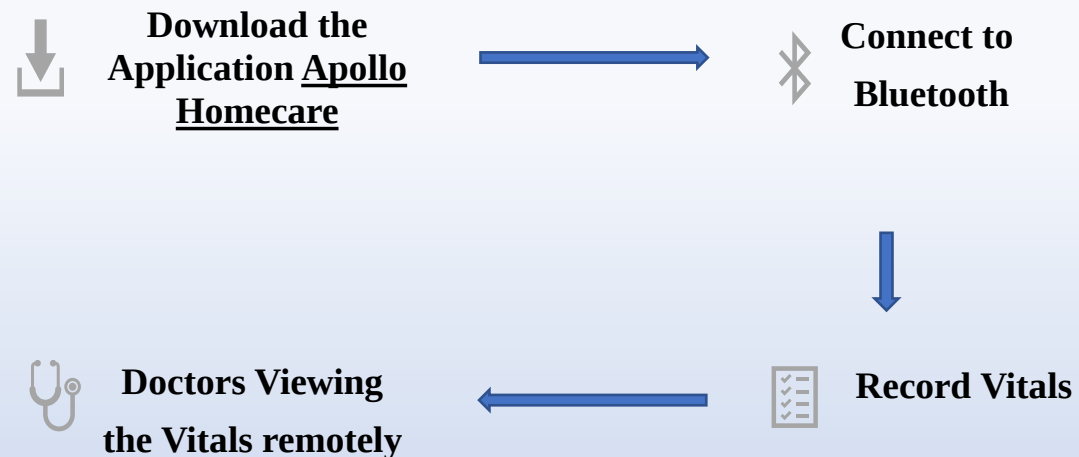


ECG

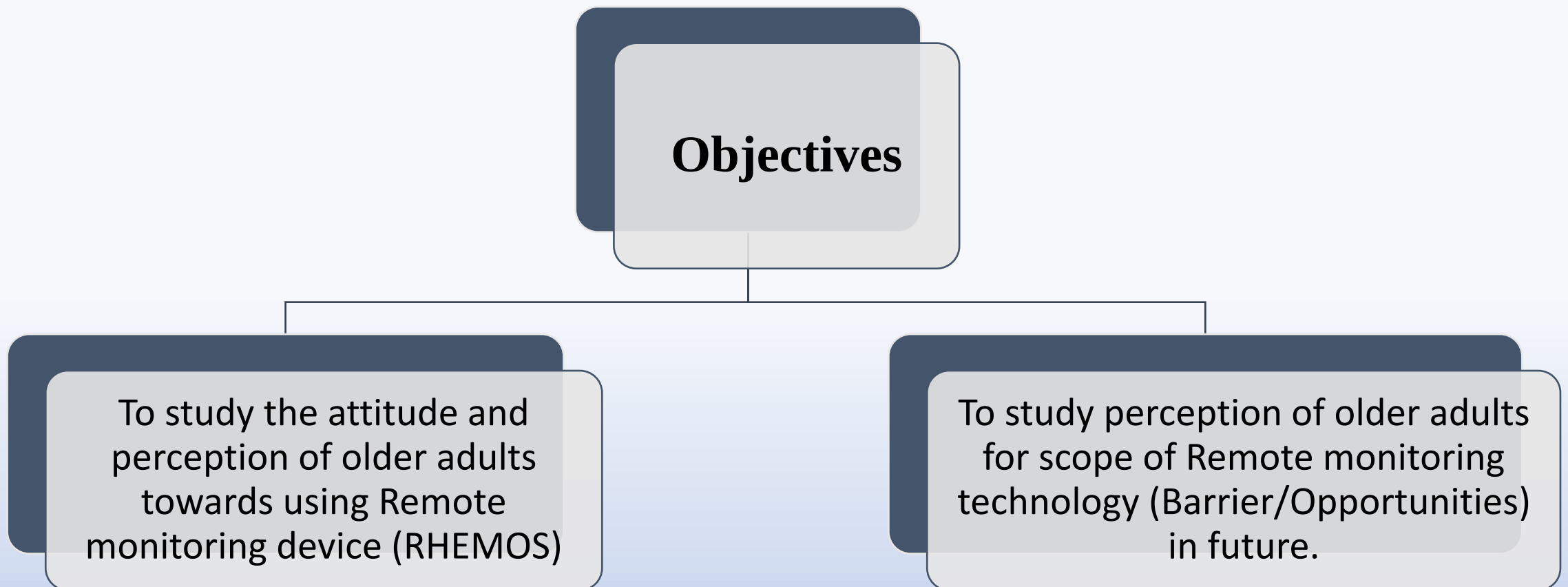
RHEMOS – Remote monitoring device

- It is a small portable, connected medical device which measures 7 vitals through self-administrated test
- And transmits the readings wirelessly to a Smartphone & to the cloud for doctors to view the readings remotely.

PROCESS



Research Question: What is the attitude and perception of older adults for remote monitoring health assistive device in Hyderabad ?



Study Design

Descriptive cross-sectional study

Analysis: QDA miner
lite software

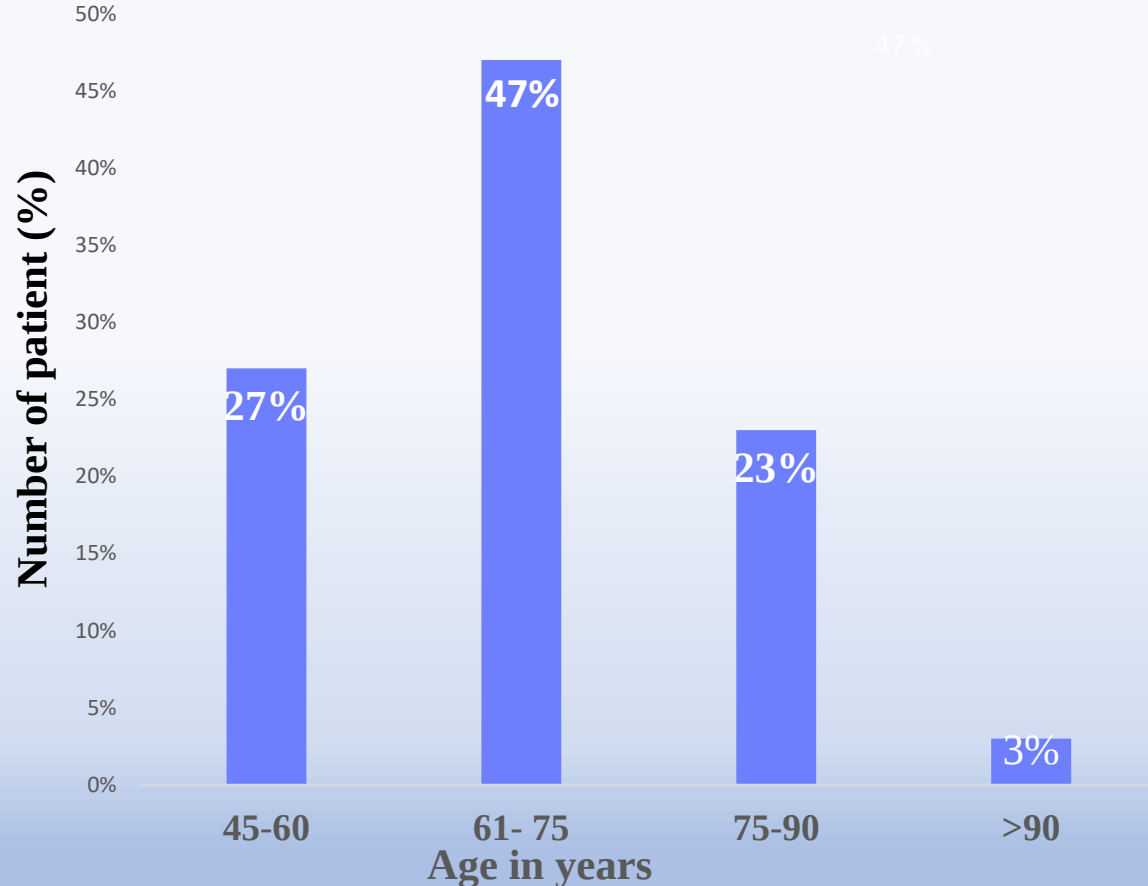


Study approach: Mixed method
Data Collected: Primary data
Study population: LTC patients

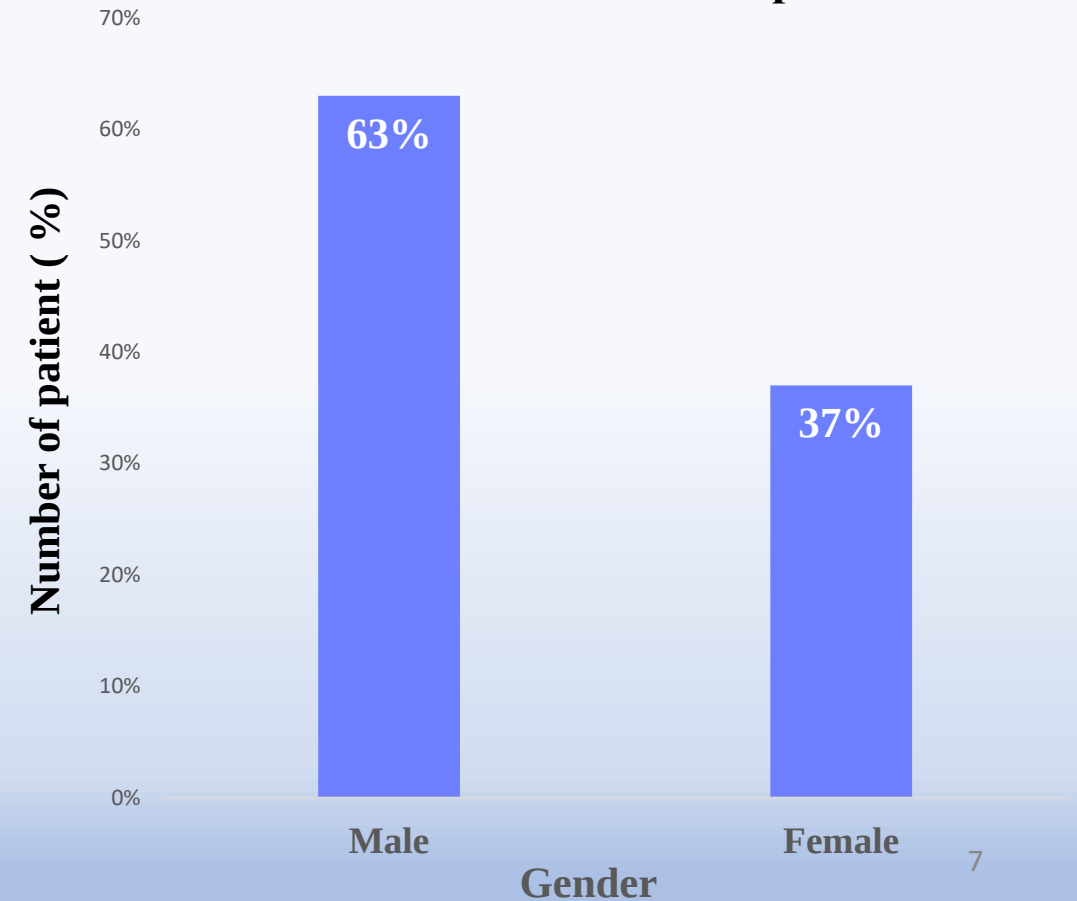
Sampling technique: Purposive method
Data collection tool : Interview questions
Sample size : 30

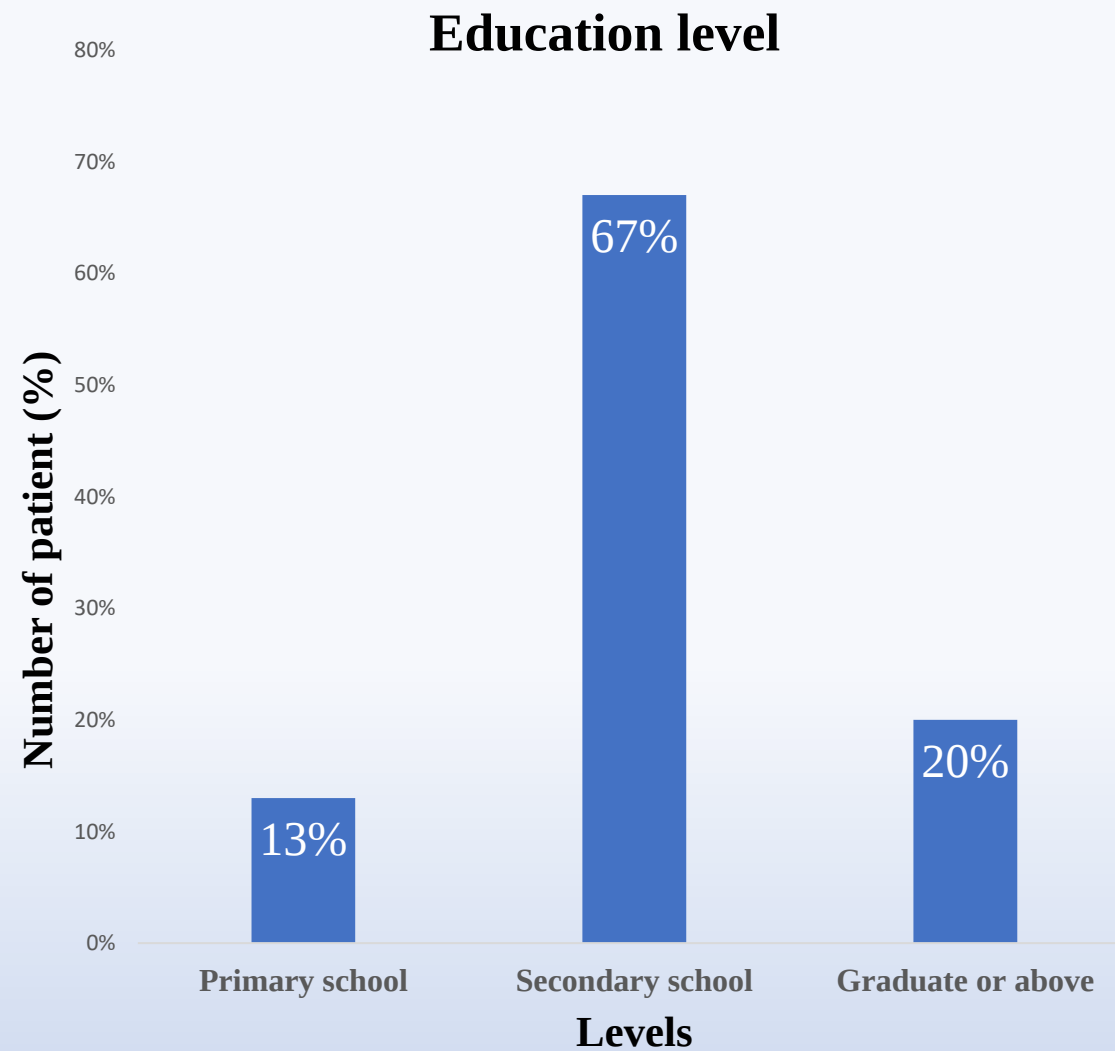
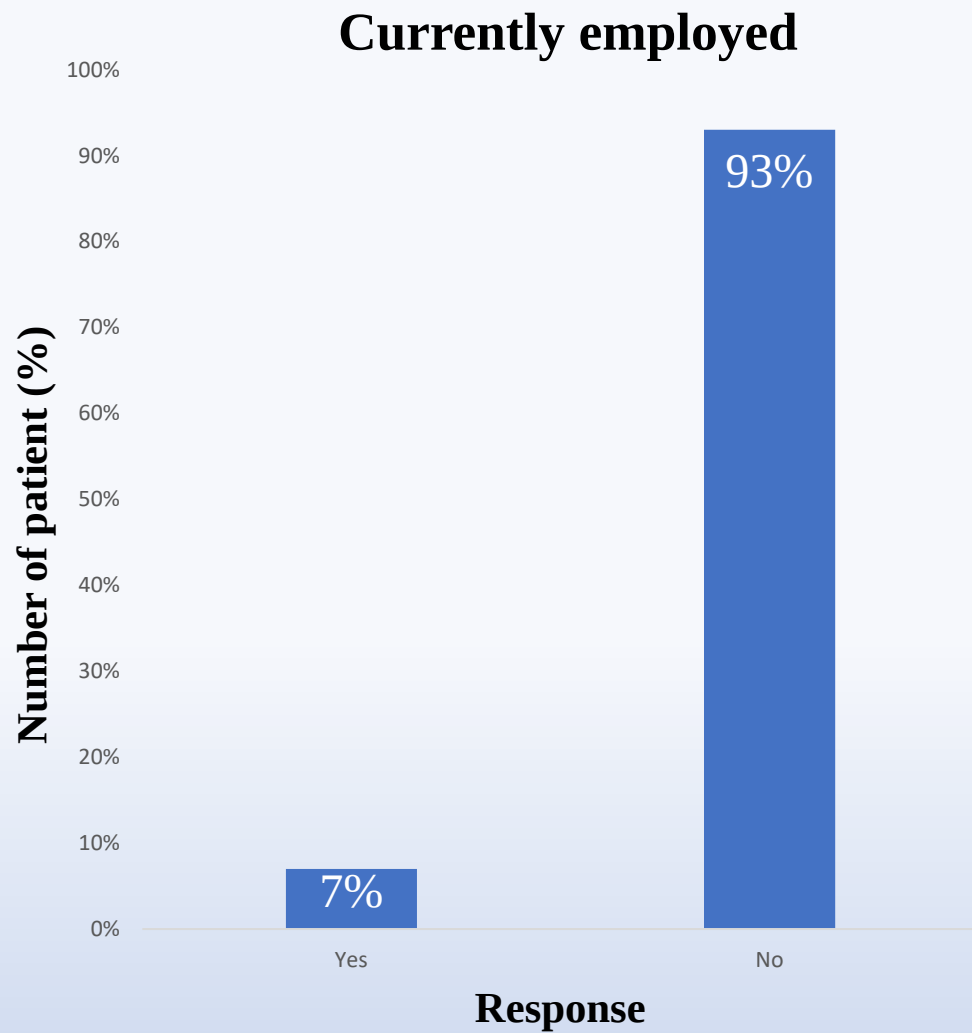
Findings: Demographic Profile

Age Distribution of patient's

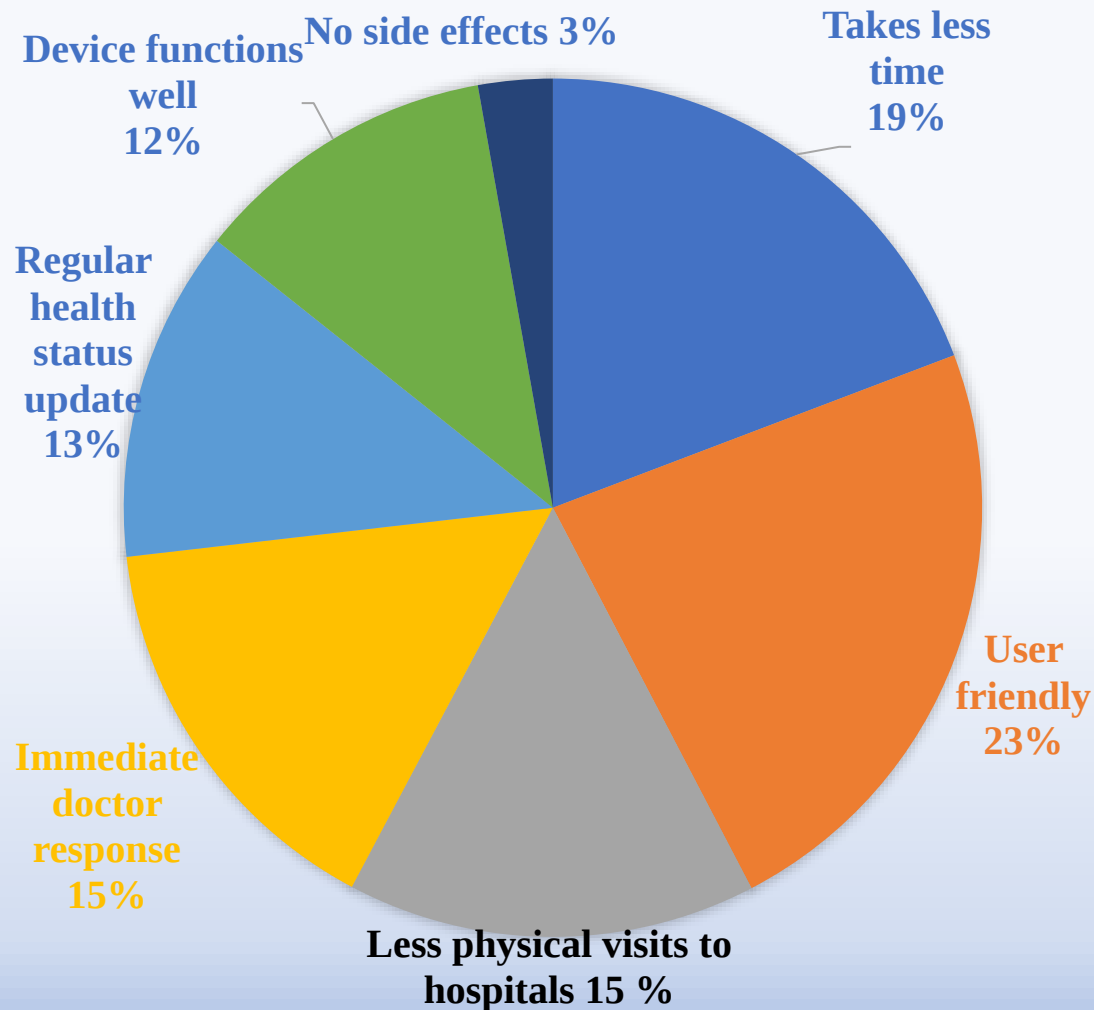
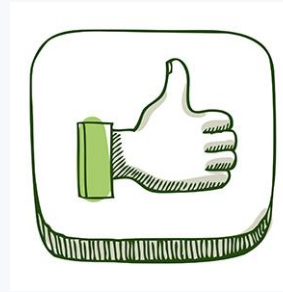


Gender Distribution of patient's





Advantages



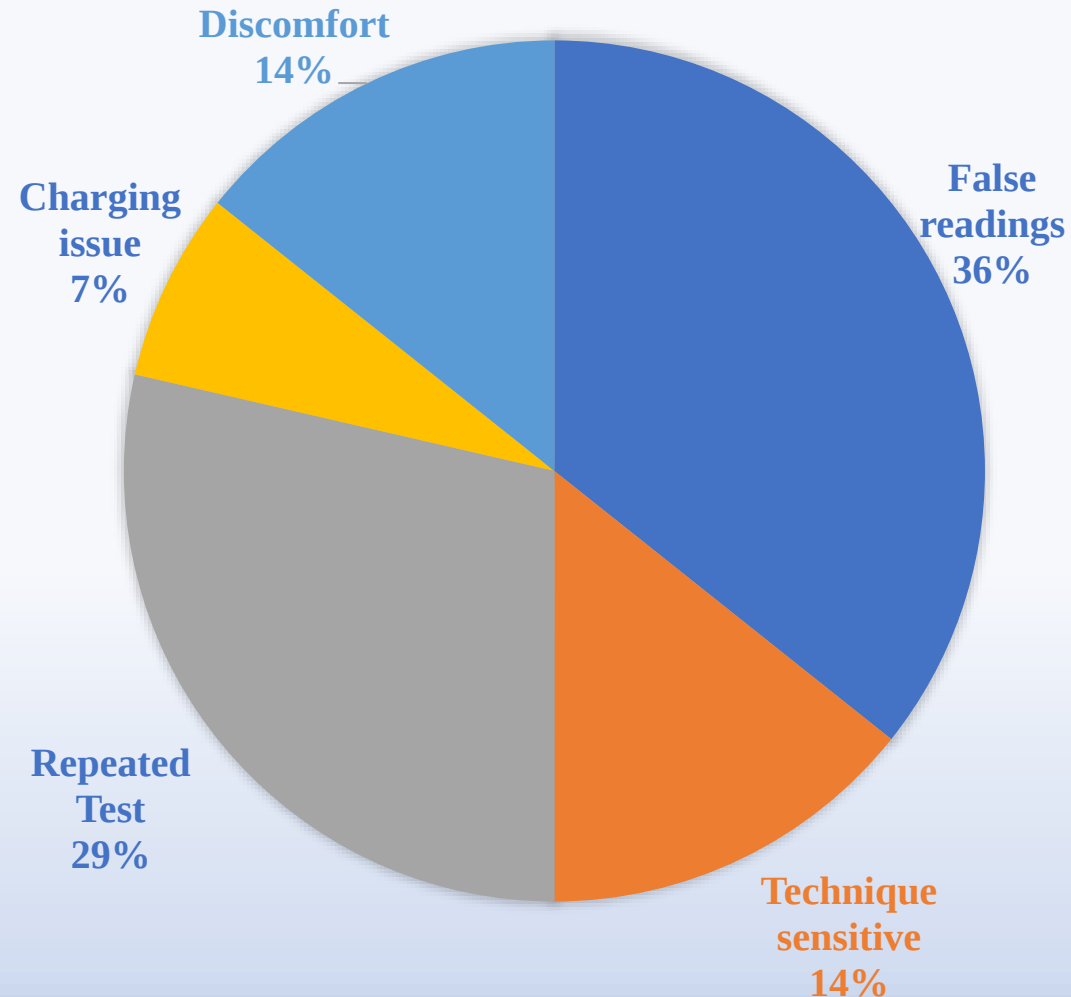
The core benefits of remote patient monitoring

- It is a “contact-less” testing of health parameters
- Lower readmission rates emergency wards
- Saves patients energy and time.
- It is a cost effective
- It provides timely interventions which results in positive patient outcome

Disadvantages

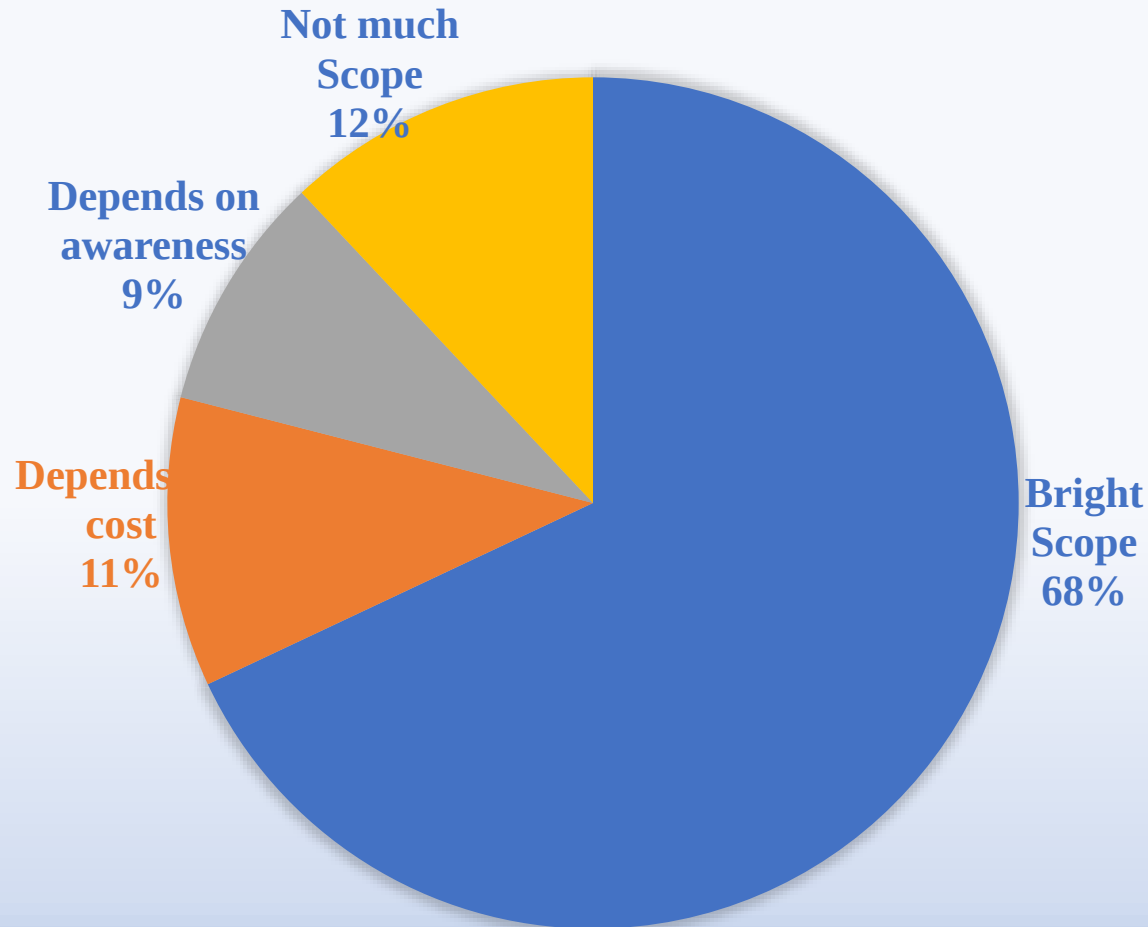


Disadvantages of remote patient monitoring



- It is a technique sensitive device
- Inaccurate readings
- ECG readings were nor reliable
- Device compatibility issue

Future Scope

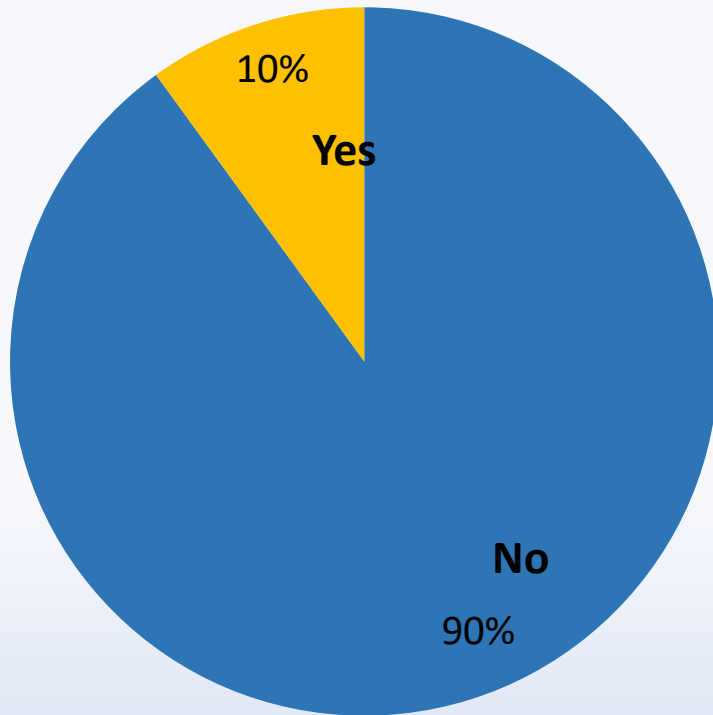


Scope of RPM technology

- 68 % of users agreed that technology will be used in future
- Technology awareness and price of such devices are two major factor which will decide the market of RPM devices.
- Traditional methods of doctor's physical visit is still preference of few patient.

Awareness

Awareness



Awareness about RPM technology or devices

- Most of the respondents were not aware about the technology before using it.
- Few knew about sensor based devices as smartwatches, pulse oximeter, digital thermometer.
- Respondents who were aware got the information from internet.

Conclusion

The COVID-19 pandemic has brought into sharp focus the need to harness and leverage digital tools and technology for remote patient monitoring (RPM)



Inaccurate readings, technique sensitivity, device functionality, repeated test are some of the issues with the device



Real time data transferring, user friendly system, reduction in physical visits to doctor, cost effectiveness, quick doctor response and regular health monitoring are some benefits of RPM



The acceptability of RPM technology among users mainly depends on accuracy, awareness and affordability





Accuracy- Devices used for remote monitoring of patients must be accurate for providing correct readings of patient's vitals

Reliable- device must provide real time data of patient vital to healthcare provider remotely.

Affordable – Any device using RPM technology must be within affordable range of general public

Education/Awareness – Promotion of awareness campaign or providing education to patients regarding remote patient monitoring technology is necessary

References

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Thank you