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## Artificial Intelligence in Telemedicine: Making Practice a Little Closer to Perfect?

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### Making Practice a Little Closer to Perfect?

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When using the literal definition of telemedicine, medicine at a distance, this type of medical care has been around since the Middle Ages [4]. However, telemedicine with the use of information technology began in the 1900's and its use has grown with the expansion of technology. During the 2020 COVID-19 pandemic, the use of telemedicine exploded [2] along with the increase of facility closures to non-COVID patients and the rise of mental illnesses among those who were sheltering at home and/or affected by the pandemic personally. The US department of Health & Human Services reported an increase in Medicare telehealth utilization of almost 63 times its usage in 2019 from 840,000 to 52.7 million in 2020 [1]. With the growth in this type of medical services came the question of how accurate were the patient diagnosis? Are doctors able to recognize signs of possible behavioral issues when using virtual meetings for telemedicine appointments? Finally, are doctors more likely to prescribe the medicine desired vs. needed by a patient. This curiosity resulted in the question "Can Artificial Intelligence used with Telemedicine help doctors provide a more accurate diagnosis?" In 2019, Kim et al. [3] proposed a hierarchical deep neural network structure for facial expression recognition (FER). This new algorithm had test accuracy results at 91%. This proposed study would investigate the issues surrounding telemedicine misdiagnosis and the possible use of FER with telemedicine for patient diagnosis accuracy.

## References

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