Headaches inflict burden on quality of life, finances, employment, and overall health. Patients with severe headaches may be incapacitated from attending in-person neurology office appointments. Such patients are often redirected to the ED, where they receive temporary relief that can lead to medication overuse. Telemedicine is a safe and convenient alternative to provide clinical care services.

**BACKGROUND**

Telemedicine-Based Guideline Development for Headache Patients in an Outpatient Clinic

Kasalyn Thuvamontolrat, DNP, RN, AGACNP-BC; Jean O’Neil, DNP, RN, FNP-BC; Cinthya Sotelo, DNP, RN, FNP-C, ENP-C

**CONCEPTUAL FRAMEWORK**

- Kurt Lewin’s Change Theory
  - New system
  - Current system in balance
  - (3) Freezing—Stabilize change
  - (1) Unfreezing—Activate change
  - (2) Transition—Change occurs
  - Ease context
  - Constant communication
  - Empower those involved in the process to change and act

- Recognize need for change
- Gather leadership support
- Motivate key players
- Acknowledge concerns

**PURPOSE**

To develop a telemedicine-based, primary headache management guideline for patients to gain same-day access to neurology providers and reduce the burden of physically attending an office appointment.

**METHODS**

- Design: Evidence-based guideline
- 1. Assess patient headache disability, lifestyle, and telemedicine perception
- 2. Develop appointment algorithm for non-clinical staff to properly triage patients
- 3. Develop educational material regarding headache self-care and telemedicine use

**OUTCOME MEASURES**

Three author-generated surveys: open-ended (1) and three-point Likert scale (2, 3)

1. Patient demographics and clinical history
2. Lifestyle behaviors
3. Perceptions of telemedicine

**RESULTS**

**Patient Demographics and Clinical History**

- Average age, gender: 45 years old, female
- Average distance from clinic: 12.6 Miles
- Average # of ED visits last year: 0.6
- Average # of neuro office visits last year: 3.6
- (6) reported taking either triptan or OTC pain medication in the past month

**Lifestyle Behaviors**

- Overall health: Good
- Hours of sleep per night: Less Than 5
- Caffeine: Sometimes
- Alcohol, tobacco, other substances: Never
- Stress level: High

**Perceptions of Telemedicine**

- Likelihood of participating in telemedicine: Very Likely
- Level of experience with computer or phone apps: Plenty

**DISCUSSION**

- The most resistant phase was the second/change stage
- Anticipate appointment algorithm to slow down office workflow and/or lead to patient refusal of advice from non-medical staff
- Recommendations to increase buy-in from office staff and patients at the change stage

**FACILITATORS AND BARRIERS**

- COVID-19 shelter-at-home orders led to appointment cancellations but accelerated telemedicine implementation
- Providers and staff were adept in using telemedicine and scheduling software
- Slow recruitment led to small sample size
- Staff was preoccupied with new safety and cleaning protocols to aid in recruitment

**FUTURE IMPLICATIONS**

- This project was unique by incorporating office staff feedback and highlighting the need to sustain their participation
- Not generalizable due to small sample size
- The refreeze stage will occur beyond the DNP project timeframe, which will consist of testing the algorithm, booking more headache patients into telemedicine appointments, and distributing the patient handout