

A POSITIVE FRAMED MESSAGE TO IMPROVE CPAP COMPLIANCE FOR PATIENTS WITH OSA

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Significance of the Problem

Obstructive sleep apnea (OSA) affects 24% of the US population; and untreated it causes many diseases and mortality (Pengo et al., 2018). Continuous positive airway pressure (CPAP) is the treatment for OSA; yet, 30-80% of OSA patients are noncompliant with CPAP within one year (DiNapoli, 2014).

PICOT Question

In newly diagnosed adult patients with OSA, will initiating a positive framed message protocol compared to the standard office protocol improve CPAP compliance over a 13-week period?

Review of the Literature

Key Terms: "obstructive sleep apnea" OR "sleep apnoea" OR OSA AND "continuous positive airway pressure" OR CPAP AND compliance OR adhere*

Limiters: January 2013 to June 2019, English Language, adults and peer-reviewed journals.

Inclusion criteria: Strategies that improved CPAP compliance.

Exclusion criteria: Studies that focused on diagnostic test other than PSG.

Databases Searched	Article Yielded	Duplicated Articles	Accepted Articles
Joann Briggs	4	0	0
Cochrane	4	0	1
CINAHL	260	5	0
Medline	399	8	4
PsycINFO	17	0	1
Google Search	30	2	0
Hand Search	3	0	3

Synthesis of Evidence

Level: Melnyk Fineout-Overholt (2015) evidence rating system.

Quality: John Hopkins Nursing Evidence-Based Practice research tool (Dang & Dearholt, 2018).

Evidence Level	Articles	Design of Evidence	Quality
Level I	2	Metal-analysis and Systemic review	A (1)
Level II	5	RCTs	A (3), B (2)
Level III	1	Quai-experiment	B (1)
Level VI	1	Clinical Practice Guideline	A (1)

Evidence-Based Recommendations

- Evidence supports implementing behavioral interventions such as positive framed messages to improve CPAP compliance.
- American Academy of Sleep Medicine recommends the use of behavioral interventions to improve CPAP adherence.

Decision to Change Practice

Current practice did not offer using a positive framed message protocol, nor did the site's policy address monitoring the patients' AHIs.

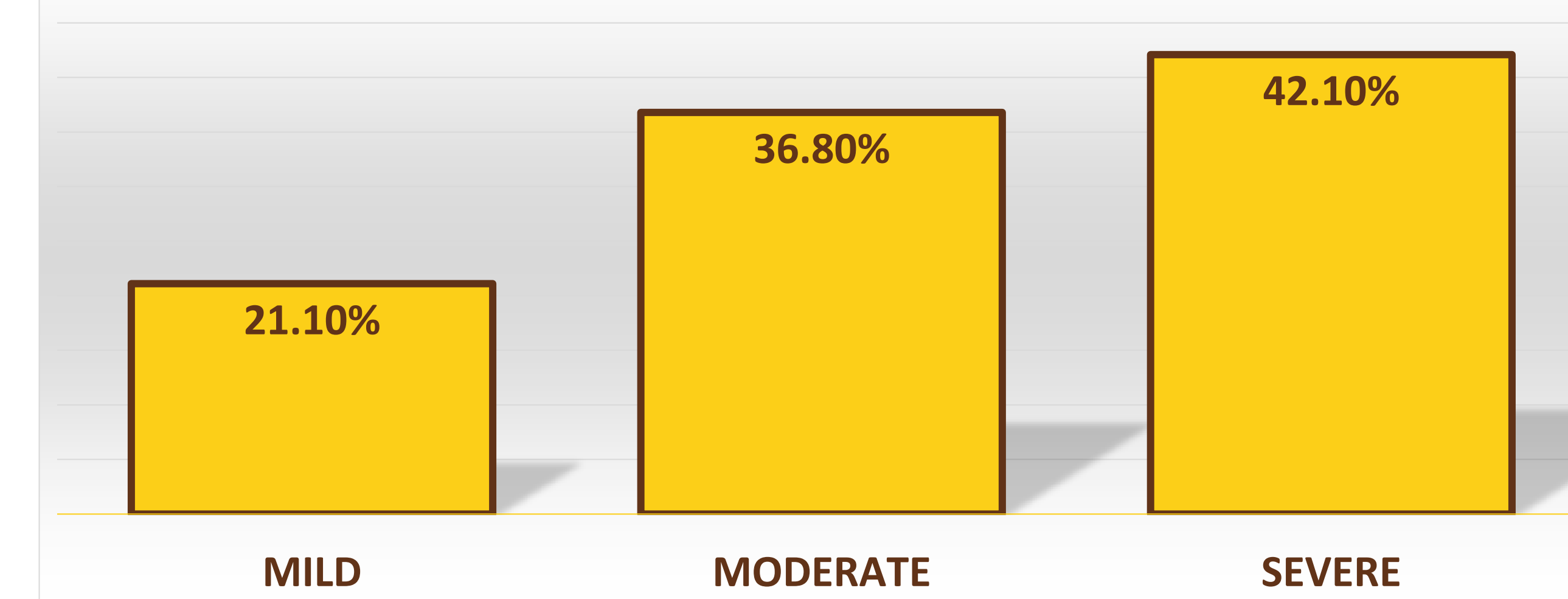
Education: for the staff about the importance of monitoring the patients' AHIs after CPAP set-up was needed.

Implementation

- Setting:** A pulmonary and sleep clinic in Northwest Indiana.
- Participants:** 19 Newly diagnosed OSA adult patients.
- Design:** Pre-and post-intervention, with-in group design.
- Intervention:** Implementation of a positive framed message to improve CPAP compliance.
- Timeline:** 13-week period.
- Evidence-Based Practice:** Iowa Model.

Evaluation

OSA Severity (by PSG)



Mean CPAP Compliance

Pre-intervention	<i>M</i>	<i>SD</i>
4-weeks	69.65	25.76
Post-intervention		
9-weeks	71.22	25.89
Reports only		
13-weeks	66.62	26.92

Primary Outcome: Repeated Measures ANOVA, N = 19

(F(2, 36) = .984, p > .05)

Conclusions & Recommendations

- Mean CPAP compliance rates improved at 9-weeks post-intervention.
- The ANOVA results for implementing a positive framed message protocol were not statistically significant.
- Recommendations were made to implement the positive framed message immediately upon diagnosis of OSA.
- Recommendations were made to educate the staff at the EBP site about the importance of monitoring the patients' AHIs.

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