Maternal Cannabis Use and Childhood Development

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Problem

- Societal misconceptions surrounding gestational cannabis use is a growing concern throughout the obstetric population.
- Cannabis is commonly used for the alleviation of pregnancy-related symptoms.
- Perinatal cannabis use has been associated with adverse effects on childhood development.
- There is a noted gap in perinatal education on cannabis use.

Literature Review

Physiological Effects

- Delivery of low birth weight infants, small-for-gestational-age, and preterm delivery requiring intensive care admission.

Psychological Effects

- Development of psychological disorders such as depression, aggression, behavioral delinquency, short attention span, lower IQ, and sleep disturbances that hinder academic achievement.

Educational Barrier

- Parturients believe this behavior is relatively safe.
- 34-60% of users are likely to continue using throughout pregnancy.

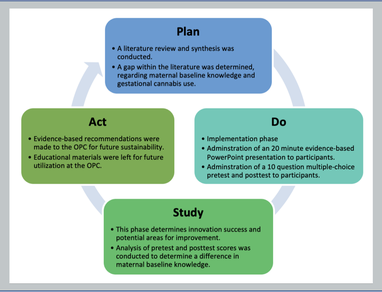
Methods

- The Plan-Do-Study-Act (PDSA) cycle was the framework utilized.
- Quantitative quasi-experimental design
- Four live education sessions were carried out via a PowerPoint presentation.
- Evidence-based education presented on adverse effects, anesthetic management, as well as alternatives for pregnancy-induced symptom management.
- A face-validated 10 question pretest and posttest was administered via Microsoft Forms to assess change in maternal baseline knowledge.
- The Wilcoxon signed-rank test was utilized for data analysis.

Results

- There was a total of 16 participants.
- Data analysis showed that the intervention elicited a statistically significant change in participant's knowledge (Z = -3.53, p < 0.001).
- The difference in correct answers from the pretest and posttest results of each participant rejected the null hypothesis (p-value 0.0002079; α = 0.05).
- It has been proven that after the completion of a 20-minute educational session, there is knowledge improvement.

PDSA Cycle



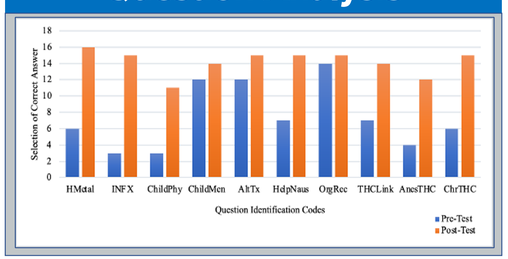
Descriptive Statistics

		n	Mean Rank	Sum of Ranks
PostScore - PreScore	Negative Ranks	0[a]	.00	.00
	Positive Ranks	16[b]	8.50	136.00
	Ties	0[c]		
	Total	16		

a. PostScore < PreScore, b. PostScore > PreScore, c. PostScore = PreScore

						Percentile		
	n	Mean	Std. Deviation	Minimum	Maximum	25th	50th (Median)	75th
PreScore	16	4.63	1.668	1	8	4.00	4.50	5.75
PostScore	16	8.87	1.628	4	10	9.00	9.00	10.00

Question Analysis



Discussion & Implications

- Findings obtained revealed a deficit in maternal baseline knowledge.
- Educational sessions enhanced maternal knowledge on childhood and anesthetic adverse effects.
- Promotes informed decision-making on perinatal cannabis use.
- Limitations: small sample size, single site, and participant recruitment.

Conclusions

- Achieved the intended purpose of educating parturients on the risks of cannabis use and demonstrated the efficacy of community-based education.
- Strengthens patient-provider relationships, which aids in disclosure during anesthesia encounters.
- Increases awareness to improve optimization for labor analgesia or surgical procedures.

Acknowledgements

Margaret Hennan, Director of OPC
Paul Thorne, MD, Board of Director for OPC
Sarah Snell, DNP, CRNA
Jason Hines, JD, MA, PhD
Tho Nguyen, MPH, Data Analyst

AdventHealth UNIVERSITY