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Elevation of cannabis knowledge: higher learning

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Abstract
Cannabis is the most commonly used federally illegal substance in the United States. There is a paucity of data on the outcomes of cannabis use in the context of mental health disorders, and the body of available evidence has contradictory results. Physicians and social workers are often asked to treat mental health diagnoses for patients who are currently using cannabis, though have limited education on how to assess patient use and discuss the resulting impacts on mental health. 32 residents, medical students, and care managers were polled to assess understanding of the available routes of cannabis use, confidence in discussing cannabis use with patients, and identifying accurate, data-based statements about cannabis use. Overall, those polled endorsed a significant knowledge gap on these topics, and low confidence in their ability to discuss these topics with patients. Utilizing peer reviewed data, we developed a 2-part didactic series and visual representation of a standard THC dose to help compare quantity of THC in commonly used cannabis products. Learners polled after viewing these materials reported higher levels of confidence in their knowledge of different routes of cannabis use, their ability to discuss cannabis use with patients, and were able to identify evidence-based statements about cannabis at an improved rate.

Principles of adult learning

The goals of this project fostered adult learning principles in the following ways:
• Experience: Throughout the presentation learners are asked to reference their own experience of cannabis use with patients
• Ownership: Learners are encouraged throughout the presentation to discuss cannabis use as a group, and how the data relates to their practice
• Relevance: Learners are actively engaged in discussing cannabis and mental health with patients, and polled on their understanding of the benefits and harms of cannabis
• Self-directed learning: The didactic materials have been distributed to learners to encourage further research outside of the presentation

Introduction

This project was conducted following the development of a SMART goal to facilitate specific and measurable results that are relevant to multidisciplinary teams within residency programs.

Methodology

The didactic presentation took place in either a single sitting (1.5 hours) or two 45 min lectures. The presentation was preceded by a pre-test, included a power point presentation, and followed by a post-test. During the presentation there were several parts at which the learners were encouraged to discuss the information presented in the context of how it will impact their practice.

Specific
The goal was to improve learner understanding of cannabis use and its effects on mental health. The development of a learning tool to accompany a 2-part didactic series. The didactic series addresses the mixed messages seen in current literature on the impact of cannabis use.

Measurable
Survey responses will be evaluated for improvement in confidence, and ability to select peer-reviewed data when presented with a mix of factual and misinformed conclusions.

Attainable
Given the opportunity to conduct the presentation this is an attainable goal. We worked with program coordinators to find time available for the presentation.

Relevant
Physicians and social workers are often asked to treat mental health diagnoses for patients who are currently using cannabis, though have limited education on how to assess patient use and discuss the resulting impacts on mental health.

Time-based
By 3/13/23 the presentation will be viewed by all psychiatry residents and social workers associated with the psychiatry residency of Spokane.

Results
In comparison with survey responses prior to the presentation, individuals polled after viewing the educational materials reported a higher level of confidence in knowledge of understanding of different routes of cannabis (question 1).

Methodology

A higher percentage of survey respondents were able to correctly identify evidence-based statements after viewing the presentation. See questions 3, 4, and 5 in the methodology section for full verbiage.

Conclusion
A presentation explaining routes of cannabis use, relative concentrations of THC via these routes, and data on cannabis impacts on mental health diagnoses has helped increase survey respondent confidence in both ability to talk about cannabis with patients and increased survey respondent knowledge of data-based cannabis information.

Limitations of this project include the lack of assessment of patient outcomes related to learners having viewed this material. It is unclear at this time if the positive outcomes measured correspond to any statistically significant improvements for patients.

Future directions will include cannabis impacts on diagnoses outside of mental health, patient information sources that incorporate data, and a didactic series available to multidisciplinary teams in both inpatient and outpatient settings. The patient information resource will be an adaptable learning platform meant to reflect the evolving nature of cannabis research outcomes. We propose a website with pages organized by DMS V based diagnoses that include the most up to date data concerning effects of cannabis on specific diagnoses. This will allow for health care providers, social workers and patients to collaborate and appreciate the complexity of the impact that cannabis has on a person’s health.

To measure helpfulness of the adaptable learning resource there will be a tracker to see how often the resource is accessed, and an optional brief survey about usefulness and relevance, as a way of gauging impact.

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Figure 1. Changes in the mean confidence of learners following the didactic and visual representation of THC dose

Figure 2. Table and pre/post comparing survey responses to question 1: “I feel confident I know the difference between ‘weed’, flower, elites concentrate and ‘dab’.” Measures are by percentage of pre and post test responses.

Figure 3. Table and graph displaying percentages of survey respondents who correctly identified cannabis as a dangerous drug and effects on mental health. See questions 6 & 7 for the methodology section for full verbiage.

Figure 4. Table and graph displaying percentages of survey respondents who correctly identified cannabis as a dangerous drug and effects on mental health. See questions 6 & 7 for the methodology section for full verbiage.

Figure 5. Pre and post mean visual representing response questions to question 6 I feel confident I know the difference between ‘weed’, flower, elites concentrate and ‘dab’.” Measures are by percentage of pre and post test responses.