

Comparing medication palatability and flavoring knowledge of healthcare professional students

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Background/objectives: Medication palatability is a significant factor impacting medication adherence in children. Studies suggest that 79% of children complain about poor tasting medication, leading to difficulty with administration in these patients. Appropriate medication flavoring for children may increase compliance from 53% to over 90%. Currently, there is no data documenting healthcare professional and students' knowledge of medication palatability. The primary objective of this study is to compare medication palatability and flavoring knowledge of different healthcare professional students. Secondary objectives seek to determine if current curriculums devote appropriate time covering these topics and to compare the confidence level of students in making recommendations.

Methods: Pharmacy, medical, dental, and graduate nursing students in the final year of their programs completed online surveys with questions about medication taste, knowledge of flavoring options, content hours in curriculums, and confidence in suggesting medication flavoring. Participants were asked to rate the taste of twelve medications as "good," "bad," or "I don't know" and a Likert-type scale was utilized for questions concerning flavoring familiarity and confidence (1 indicating no familiarity/confidence and 5 indicating extremely familiar/confident). Results were compared between different healthcare professional students.

Results: Fifty-two students completed the survey (21 pharmacy, 11 medicine, 14 dental, and 6 graduate nursing). 55% and 60% of responders reported no lecture hours in their required and elective curriculums regarding medication palatability, respectively. 41% reported primarily acquiring their knowledge from work experience. The mean Likert-type scale score was 2.20 for medication palatability familiarity and 1.93 for confidence in suggesting flavoring.

33.4% of questions concerning specific medication palatability were correctly answered with the remainder of responses either incorrect or "I don't know." Pharmacy, medical, dental, and nursing students answered 40.2%, 37.8%, 11.8%, and 52.9% correctly, respectively. A chi-square test of independence was performed and revealed a significant relationship between field of study and correct taste identification, $\chi^2 (6, N = 44) = 18.54, p < 0.01$. Nursing students were most likely to correctly identify the taste of a medication. The correct identification of the best and worst tasting medications were as follows: 55.6% and 50% for pharmacy, 28.6% and 14.3% for medical, 30.8% and 15.4% for dental, and 66.7% and 16.7% for nursing.

Conclusion: Graduate nursing students performed best on identifying the palatability of individual medications, while pharmacy students performed best on determining the best and worst tasting medications. Pharmacy and nursing students were also more aware of flavoring options and displayed the most confidence in making recommendations related to flavoring. This may be due to the fact that nurses have experience administering medications and pharmacists specialize in medication knowledge. A significant correlation was found between field of study and correct answers for the more commonly used medications. All health professional schools

should consider providing more lecture time on adherence topics including medication palatability.