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Introduction

- Medication errors frequently go unreported in psychiatric units [1][2][3].
- ODT medications, such as Risperidone M-Tabs[®], may take 60 seconds to dissolve, should be swallowed, and are absorbed through the GI tract [4].
- Mouth checks should be performed.
- Failure to administer ODT medications as directed may lead to:
 - Patients diverting their medication by “cheeking and spitting” [5].
 - Prescribers may believe that the medication is not working appropriately, when in reality the drug is not reaching the patient’s bloodstream.
 - There may be minor differences in the absorption rate with unknown clinical significance [6][7].

Objectives

- Orally disintegrating tablets are not intended to be absorbed orally but must be swallowed.
- Improper administration can result in treatment failure or medication diversion.
- This study investigated whether those who administer antipsychotic medications understand important administration technique differences between orally disintegrating tablets and sublingual medications.

Materials and Methods

- In this IRB-approved cross-sectional study, a survey was developed (QualtricsXM v03.2020) and administered to psychiatric nurses in a large teaching hospital.
- The survey was sent to 158 nurses by their unit coordinators and remained open for 30 days.
- Preliminary questions collected demographics, followed by six questions evaluating participants’ knowledge concerning proper administration of ODT antipsychotics.
- Responses were tabulated and converted to percentages.
- Analyses based on a respondent’s unit and experience level were performed using Fisher’s exact tests (Stata/IC v15.1).

Results

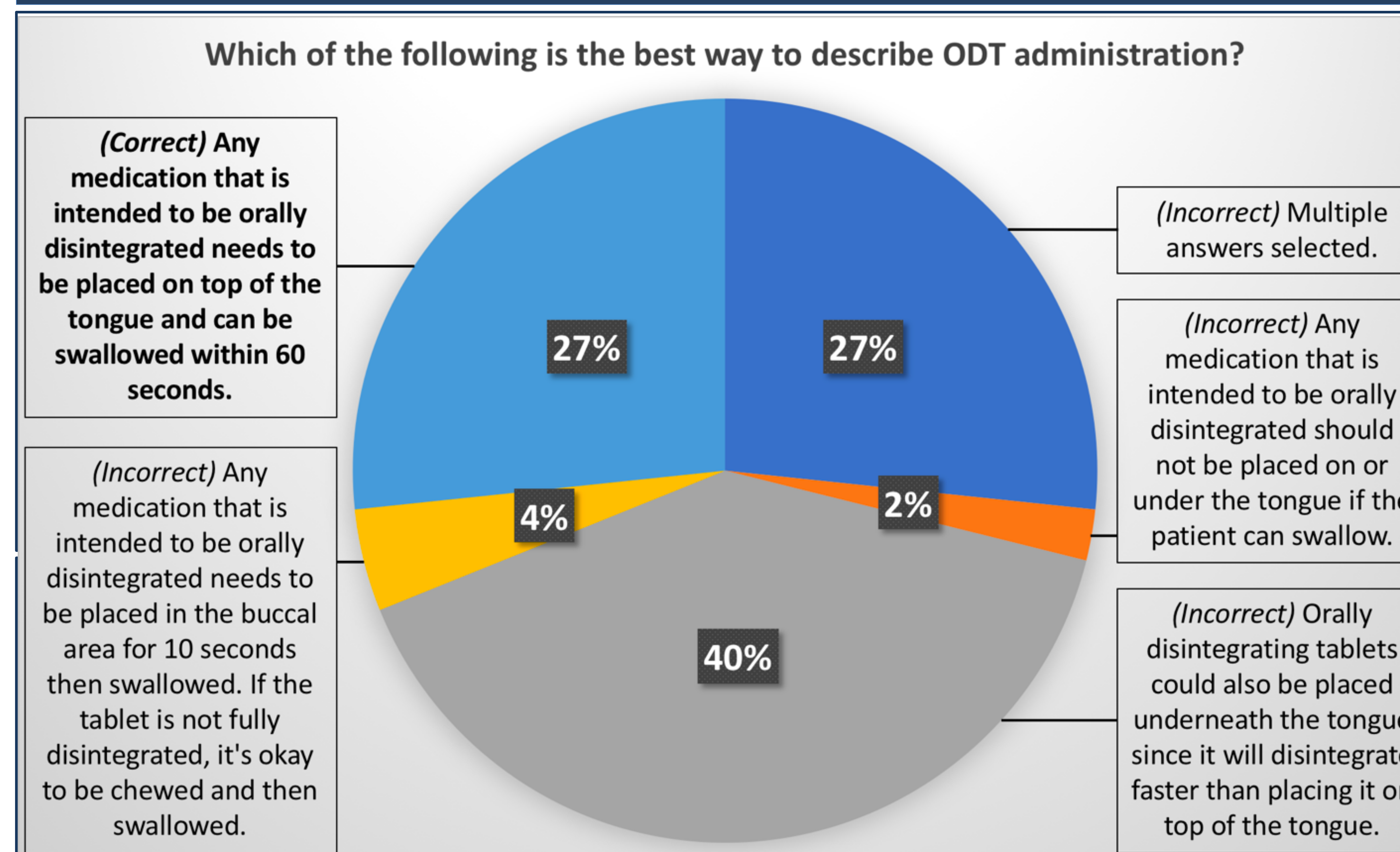


Figure 1 – Percentage of respondents selecting each answer choice for ODT question of interest.

Participants invited, n	158
Surveys begun, n (%)	63 (40%)
Surveys completed, n (%)	45 (28%)
Gender, n (%)	
Female	37 (82%)
Male	8 (18%)
Age (years), Mean (SD)	37.9 (10.5)
Race, n (%)	
Caucasian	31 (69%)
African American	5 (11%)
Asian	3 (7%)
Mixed	2 (4%)
Native American	1 (2%)
Hispanic	1 (2%)
Middle Eastern	1 (2%)
Other	1 (2%)
Experience, n (%)	
<1 year	4 (9%)
1-5 years	16 (36%)
5-10 years	13 (29%)
>10 years	12 (27%)

Table 1. Participant demographic data.

Recommendations

- There is precedent for using a simple EMR alert providing recommendations to the physician; we propose a similar intervention [8].
- The first component of the alert should provide straightforward instructions for the key points related to administration of the patient’s prescribed dosage form (ODT, SL, etc.).
- The second component should provide a reference to evidence for the importance of properly administering the medication.
- We also recommend face-to-face instruction on the differences between ODT and SL administration [9].
- As patients may “cheek and spit” ODTs, it is important for those administering these medications to do mouth checks to ensure swallowing.

Question/Correct answer	Responses correct (n)	Percentage correct (%)	Experience ^a (p-values)	Unit ^b (p-values)
Q1: For best absorption, which of the following medications should NOT be swallowed? A: Saphris Sublingual Tablets, Suboxone Sublingual Strips	7	16%	0.94	0.67
Q2: Which of the following is the best way to describe ODT administration? A: Any medication that is intended to be orally disintegrated, needs to be placed on top of the tongue and can be swallowed within 60 seconds	12	27%	0.24	0.56
Q3: For which of these medicines/routes of administration is a period of patient observation (beyond initial mouth check) recommended? A: Saphris Sublingual Tablets, Risperdal M-tabs, Zydys ODT, Suboxone Sublingual Strips	11	24%	0.44	0.22
Q4: For which of these medicines/ routes of administration is swallowing with water recommended? A: Risperdal M-tabs, Zydys ODT, Haldol tablets	3	7%	0.27	0.91
Q5: If a patient moves a sublingual tablet from underneath their tongue to their buccal area (area between the gum and their cheek), then absorption is significantly impaired/disrupted. A: False	30	67%	0.62	0.21
Q6: Which statement is correct? A: Risperdal M-tab must be swallowed after it dissolves on the tongue for its best absorption.	4	9%	0.62	0.38

^ap-values resulting from Fisher’s exact test represent the probability that correlation between a nurse’s experience level and selecting the correct answer is due to chance
^bp-values resulting from Fisher’s exact test represent the probability that correlation between the unit a nurse works on and selecting the correct answer is due to chance

Table 2. Survey questions and responses (n = 45).

Conclusion

- The survey results demonstrate that more education is needed concerning the differences between orally disintegrating tablets and sublingual medications to prevent misadministration and its consequences.
- Adding instructive comments to the electronic medication administration report may be beneficial.

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