Introduction

Psychiatric drug prescribing has been identified as a major issue arising in the medical curriculum [1,2]. There are few clinical tools available to support clinical decision-making, and evidence-based prescribing guidelines for psychiatric medications are not easy to access or interpret [3]. New family physicians often find themselves relying on intuition due to the belief that prescribing practices are ambiguous and inconsistent, and this has broad impacts as due to the increasing requirement of family physicians to handle the management of psychiatric illnesses [4,5,6].

Objective

These issues were aimed to be addressed by aggregating psychiatric medication guidelines into a single framework and then presenting them in a meaningful, user-friendly way.

This project facilitates this concept through the development of an app, titled “Knebel Knotes”, available to Android and Apple devices which provides these features in addition to portability and accessibility.

The app uses the most current Canadian guidelines (CANMAT, CPA, ISBD, etc.) as well as having drug dosing, common side effects and notable side effects derived from multiple sources (RxTx, Stahl’s, drug monographs, etc.) [7,8,9,10].

Then, users, including both medical students and residents, were recruited for qualitative feedback for assessment of the benefit of this clinical tool in the promotion of their learning of how to functionally apply psychiatric pharmacology in clinical settings.

Features

This clinical learning tool includes many different options in which students may browse by:

1. **Guidelines** – allowing students an easy visual way of viewing different 1st, 2nd and 3rd line pharmacological options available in treating common mood and psychotic disorders based on the aforementioned most current guidelines.
2. **Drug class** – allowing students to learn the variety of different options within a drug class to better progress patients in the future with trialing of medications.
3. **Comparisons** – different side-effect profiles can be directly compared between, for example, different mood stabilizers to offer students more comfortability when prescribing and counselling patients on different options available to them.

When selecting a psychotropic medication, students can learn:

- **Dosing information**, allowing them to titrate.
- **Indications**, including if it is a 1st, 2nd, or 3rd line option.
- **Side-effects**, including the most common.
- **Severe side-effects**, which they can counsel patients about.
- **Other relevant important details**, such as work-up, equivalency dosing, etc.

Knebel Knotes app screenshots

Top left: Using filter function to individualize treatment. Top right: A list of the medications in the app. Bottom left: A comparison table of mood stabilizers. Bottom right: The profile of aripiprazole with the indications drop down menu open.

Conclusion

With such tools, future GPs will be able to tailor their medication prescribing practices and improve health care outcomes. For example, they will be able to progress patients through multiple trials, which as evident in the STAR*D trial, only 33% of patients remit after 1 medication trial, but 50% after 2 trials, and 70% after 4 trials [11]. Collectively, the above anticipated outcomes could lead to improved response rates, shorter time to successful treatment, and less mental health burden overall.

Reference / Bibliography