Educators: Go Mobile & Join the Digital Revolution!

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Introduction

Healthcare is being rapidly transformed and requires a business savvy, visionary, and adaptable educator to work in vastly different practice environments. As traditional reimbursement models disappear, diabetes educators must develop new strategies for helping patients and populations efficiently reach and maintain therapeutic targets, support self management behaviors, and improve outcomes in chronic care. This will involve leveraging technology tools to extend the capacity and capability of the health care team to provide ongoing, cost-effective self-management, as well as clinical treatment optimization.

Over 40,000 mobile health applications have been introduced in the past 5 years. Of these health related apps, over 1000 diabetes focused apps offer medical management, tracking and display of health information, education, food reference databases, social forums, or clinician directed apps. While offering great potential to improve diabetes care and self-management, many challenges remain including the need for proving the effectiveness of these apps, integrating their use into healthcare practice, and providing consumers with systematic and reliable information about the safety and efficacy of mobile health applications (1). When apps are involved in the diagnosis, treatment, and mitigation of disease they are regulated as mobile medical apps by the Food and Drug Administration (FDA) (2).

Mobile Prescription Therapy (MPT) is a new class of therapy that leverages digital technology, clinical and behavioral science, and validated clinical outcomes to provide guidance for patient daily self-management and data for healthcare provider decision–making (3).

Mobile Prescription Therapy (MPT)
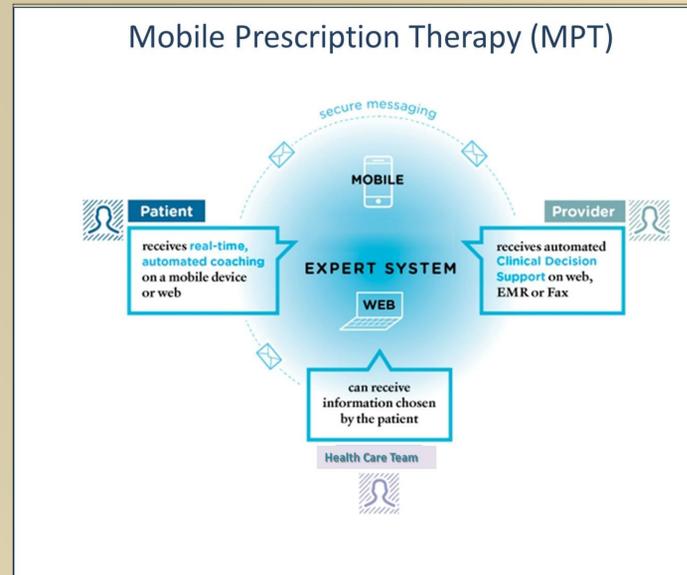
BlueStar®, first-in class MPT, is an FDA-cleared Class II medical device indicated for healthcare providers and their adult type 2 diabetes patients to improve self-management and medication adherence (4)

BlueStar leverages mobile technology using proprietary clinical/behavioral algorithms to provide contextual, personalized, and tailored coaching based on ADA and AADE medical and educational guidelines and has demonstrated significant A1C reductions in clinical trails (5,6). BlueStar aligns with the National DSME/S Standard #8: "Ongoing Support". BlueStar is secure, HIPAA compliant, and compatible with most Android™ Smartphones, iPhones, iPad tablets, and all computers.

Methods

MPT, as a new category of therapy was introduced in the form of BlueStar to 550 primary care and endocrinology providers in the Mid-Atlantic region using a traditional face-to-face physician detailing model. BlueStar was prescribed by a physician, nurse practitioner or physician assistant, activated with a pharmacy dispensed code, and adjudicated as a pharmacy benefit.

Diabetes Educators coached the patients on:
- Downloading the BlueStar app from the app store and registering the patients on their device(s)
- Personalizing BlueStar based on patient's current clinical profile, medications and diabetes care plan
- Developing a plan for integrating BlueStar into their daily self-management
- Determining when and how often patient sends a report to their health care team
- Ensuring patient updates their treatment plan and clinical profile after each healthcare visit

Results

Providers:
- Of the targeted providers, 400 providers (75%) prescribed BlueStar for over 4000 type 2 diabetes patients.

- Prescribing providers included:
  - Endocrinologists - 18%
  - Primary care providers - 75%
  - NP/ PA - 7%

- Additional clinicians who interacted with BlueStar included diabetes educators, case managers, care coordinators, pharmacists and other clinical support personnel.

- BlueStar provided analyzed between-visit patient self-management and metabolic data that was sent to the health care team when requested to support timely treatment decisions and care plan modifications (SMART Visit Report™).

Patients*:

User Demographics	
Average Age	54 years old
Gender	44% Female; 56% Male
Medications	Orals Only – 34%
	Non-Insulin Injectables – 26%
	Basal Insulin – 14%
	Basal/Bolus Insulin – 26%

BlueStar Usage			BlueStar User Satisfaction	
Total # Entries	66,242		Important to use	4/5
BGs	11,149		Improved self-management	4/5
Meds	28,977		Simple to use	3.75/5
User notes	3,710		Likely to recommend	4/5
Labs	1,521			
Average Engagement	2-3 entries per day			

* Data on file

Practice:
- **Clinical Workflow**: Endocrinology practices readily utilized the clinical decision support (SMART Visit Report ™) in the context of the patient visit, and in some instances between visits, to inform the diabetes care plan. Primary care practices needed implementation support to optimize the integration and utilization of the clinical decision support.

Quote from CDE using BlueStar:

"I believe Mobile Prescription Therapy is a 'huge' player in the changing world of healthcare. Just today, I had a patient who followed up with me and has been using the MPT program for the past month. He proudly showed me his BG trend graph and pointed out the one high BG that he related to 'the day he forgot his dinner med'. As a result, he problem-solved by making certain to take his med with him to work when his schedule involves eating dinner at his job. Perfect!"

- **Practice Models**: Participating clinicians identified that MPT tools such as BlueStar can be used to support care coordination, be integrated into existing DSME/S programs, and support population health initiatives.

- **Educator MPT Workflow**: MPT clinical liaisons working with the participating clinicians in the different practice models developed the MPT Diabetes Educator Model.
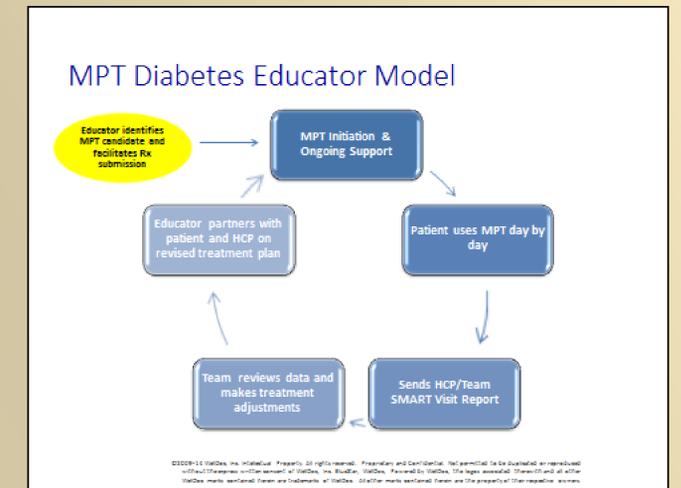
Conclusions

We identified that MPT has the potential to transform the educator's individual practices, the DSME/S program model, and provide new roles for educators to engage in the evolving health care system.

- MPT enables cross-team communication, care management (care collaboration).

- MPT enhances patient-provider communication (shared decision-making).

- MPT supports efficient interactions between patient and educator (virtual or face-to-face).

- MPT provides self-management support between face to face visits/classes and provider visits (DSME/S Ongoing Support Standard 8).

- MPT generated data provides the educator with the clinical decision support to negotiate and/or implement needed treatment changes with the healthcare team (addresses clinical inertia).

- MPT can be integrated into health system initiatives such as Meaningful Use, PCMHs, and ACOs to address care access, care quality and outcomes. (population health & value-based models of care).

References

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