

Diabetes Nutrition Education

There's an App for That!



Intermountain[®]
Primary Children's Hospital

Marilyn Smith, MSNEd, RN
Rachel McPhail, MS
Jenessa Henrie, MS, RD, CDE
Nicole Williams, MS, RDN, CD



Disclosure

No Conflicts Of Interest or Financial Relationships to disclose.

No Sponsorship / Commercial Support



How does it feel to have your child diagnosed with diabetes?

Diabetes Education for newly diagnosed patients with diabetes

Allows patients and caregivers to develop

- Knowledge
- Skills
- Confidence

For safe diabetes self-management!



Diabetes education at Primary Children's Hospital

Previous Model- Instructor only method

- Acute care nutrition education
 - Registered dietitian (RD)-led class
 - Individual follow-up meeting next day
- 2 week follow-up nutrition education
 - Certified Diabetes Educator (CDE)-led class



Why use the tablet as an education tool?

General benefits for learning

- Literacy test results: classes using iPads outperform non-iPad students in every measure they were tested on. ⁽¹⁾
- iPad-equipped medical school class scored 23 percent higher on exams. ⁽²⁾
- Elementary school classrooms using iPads see improvement in reading and math as well as student engagement. ⁽³⁾



Benefits of tablet education at Primary Children's

- Consistency of hospital education
- Available on weekends, holidays, and when RDs unavailable
- Self-paced learning
- Follows trends in technology
- Consistency of home education
- Education for all caregivers
- Focused learning



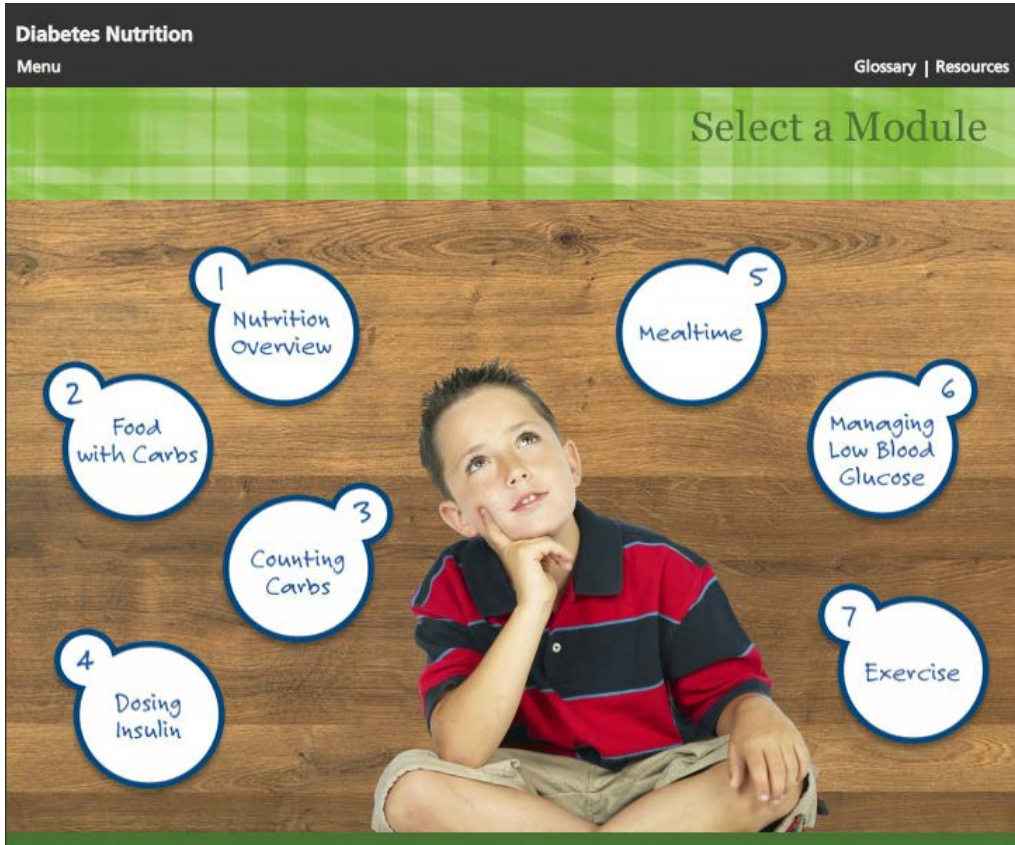
New education model with tablets

New model - blended learning

- Eight nutrition education modules delivered on tablets 1st day of hospitalization
- Follow-up individual one-on-one education sessions with dietitians 2nd day
- Hands-on practice
- 2 week follow-up class



Demonstration



[iPad Diabetes Nutrition Education](#)



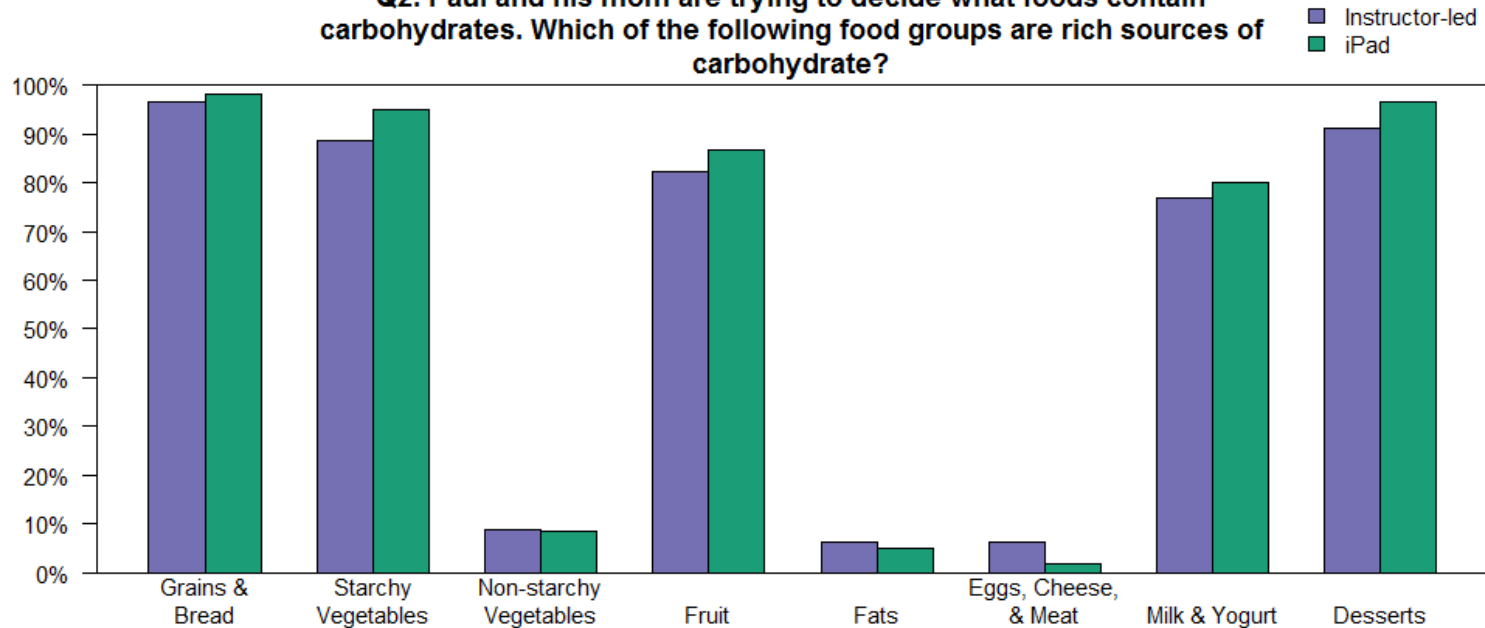
Quality improvement project

- Provide evidence that technology-based diabetes nutrition education for patients newly diagnosed with Type 1 Diabetes is effective and facilitates learning
- Provide qualitative evidence of patient and family satisfaction with pioneering diabetes nutrition education



Quiz results

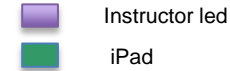
Q2. Paul and his mom are trying to decide what foods contain carbohydrates. Which of the following food groups are rich sources of carbohydrate?



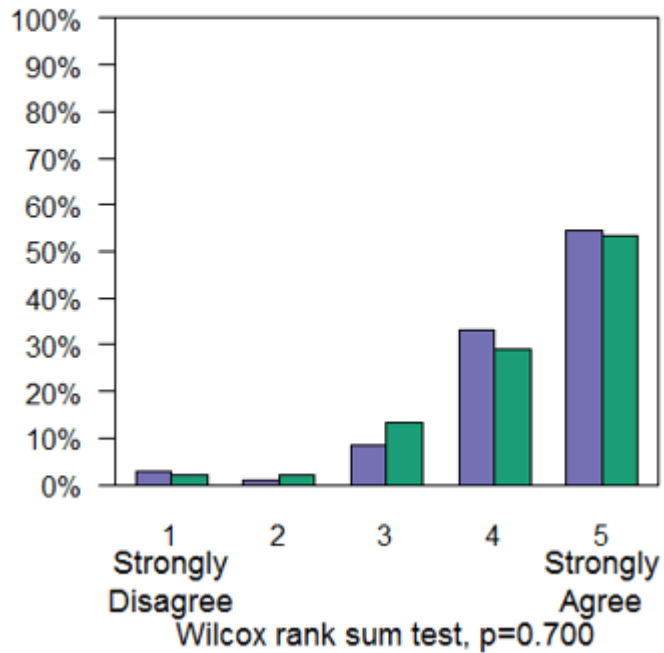
* There is a significant difference between instructor-led education and iPad education (Fisher's exact test with false discovery rate)



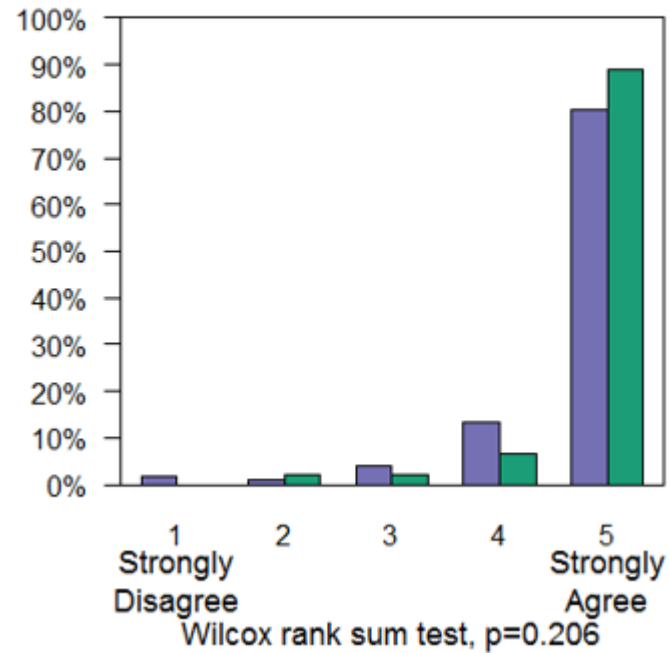
Survey results



Q1. I liked the way the diabetes nutrition education was taught.



Q10. I am able to take care of my child's nutrition needs at home.



Questions?



References

<http://www.loopinsight.com/2012/02/17/ipad-improves-kindergartners-literacy-scores/>

<http://mobihealthnews.com/20311/ipad-equipped-medical-school-class-scores-23-percent-higher-on-exams/>

<http://article.sapub.org/10.5923.j.edu.20120205.05.html>

There's an App for That: How Two Elementary Classrooms Used iPads to Enhance Student Learning and Achievement. (n.d.). Retrieved November 2, 2015.

Rovner, A., Nansel, T., Mehta, S., Higgins, L., Haynie, D., & Laffel, L. (2012). Development and Validation of the Type 1 Diabetes Nutrition Knowledge Survey. *Diabetes Care*, 1643-1647.

Eigenmann, C., Skinner, T., & Colagiuri, R. (n.d.). Development and validation of a diabetes knowledge questionnaire. *Practical Diabetes International Pract Diab Int*, 166-170d.

