



Improving Diabetes Knowledge in Adolescents Transitioning from Pediatric to Adult Endocrinology

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BACKGROUND

- Challenges facing emerging adults with diabetes can result in worsening glycemic control due to various factors including gaps in knowledge, lack of transition preparation, differences in perceived pediatric vs. adult environments and lack of follow up.
- Structured healthcare transition programs have been associated with better outcomes.

OBJECTIVE

- The primary purpose of this evidence-based quality improvement project was to identify knowledge gaps in those with type 1 diabetes getting ready to transition to adult care.

METHODS

- A special transition clinic was implemented in May, June, and July of 2022 at a free-standing hospital-based pediatric endocrinology clinic.
- The transition clinic involved a follow up visit with the endocrinologist as well as a group educational session on transition related topics such as complications, sick day management, exercise, stress, driving precautions, drugs/alcohol, and smoking.
- A pre-test was provided to all participants prior to the initiation of the educational program followed by a post-test administered after completion of the educational session.
- A second post-test was administered 3-6 months following the educational intervention to assess for knowledge retention.
- Two-tailed test was used to calculate the p value of the HbA1c comparison.

RESULTS

Figure 1. Demographics

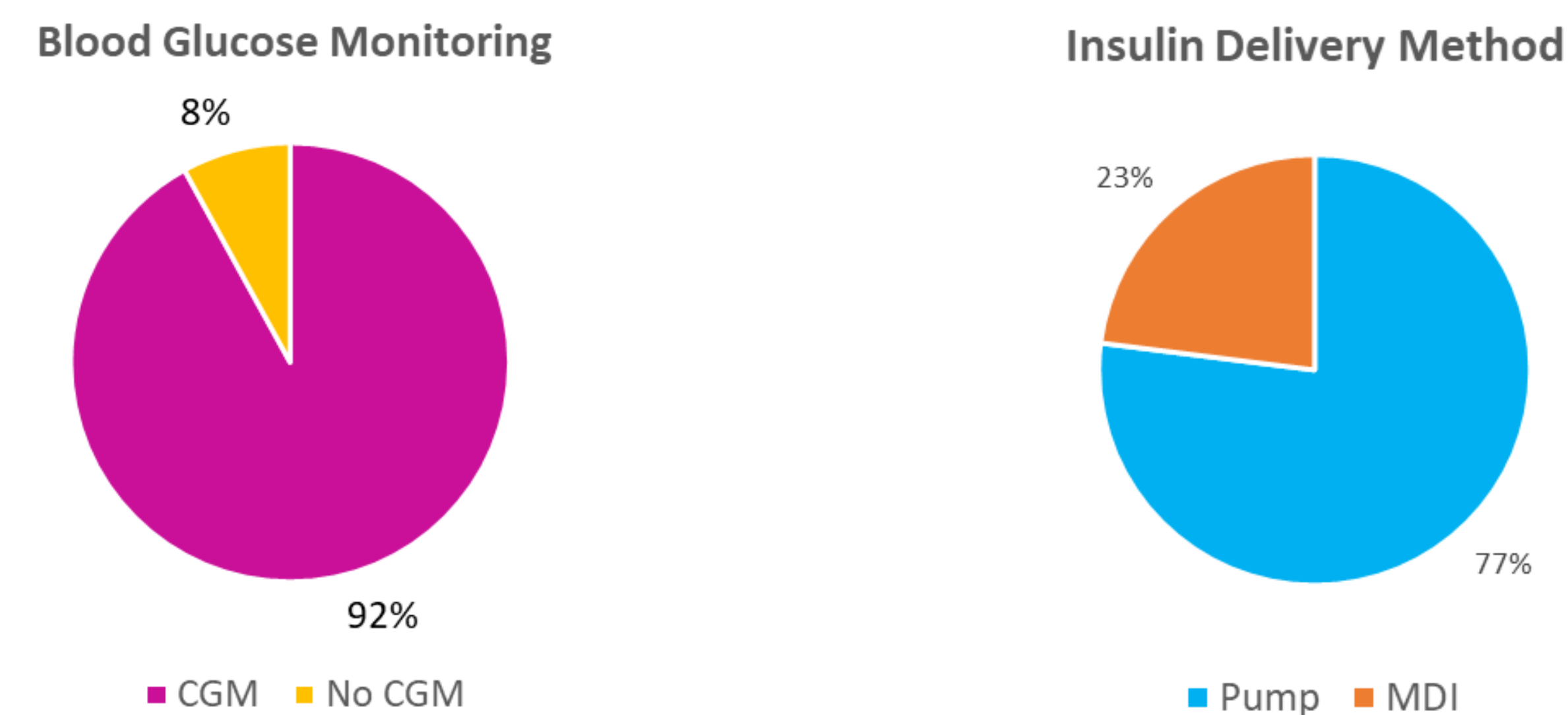


Figure 2.

Pre-Clinic Knowledge Gaps

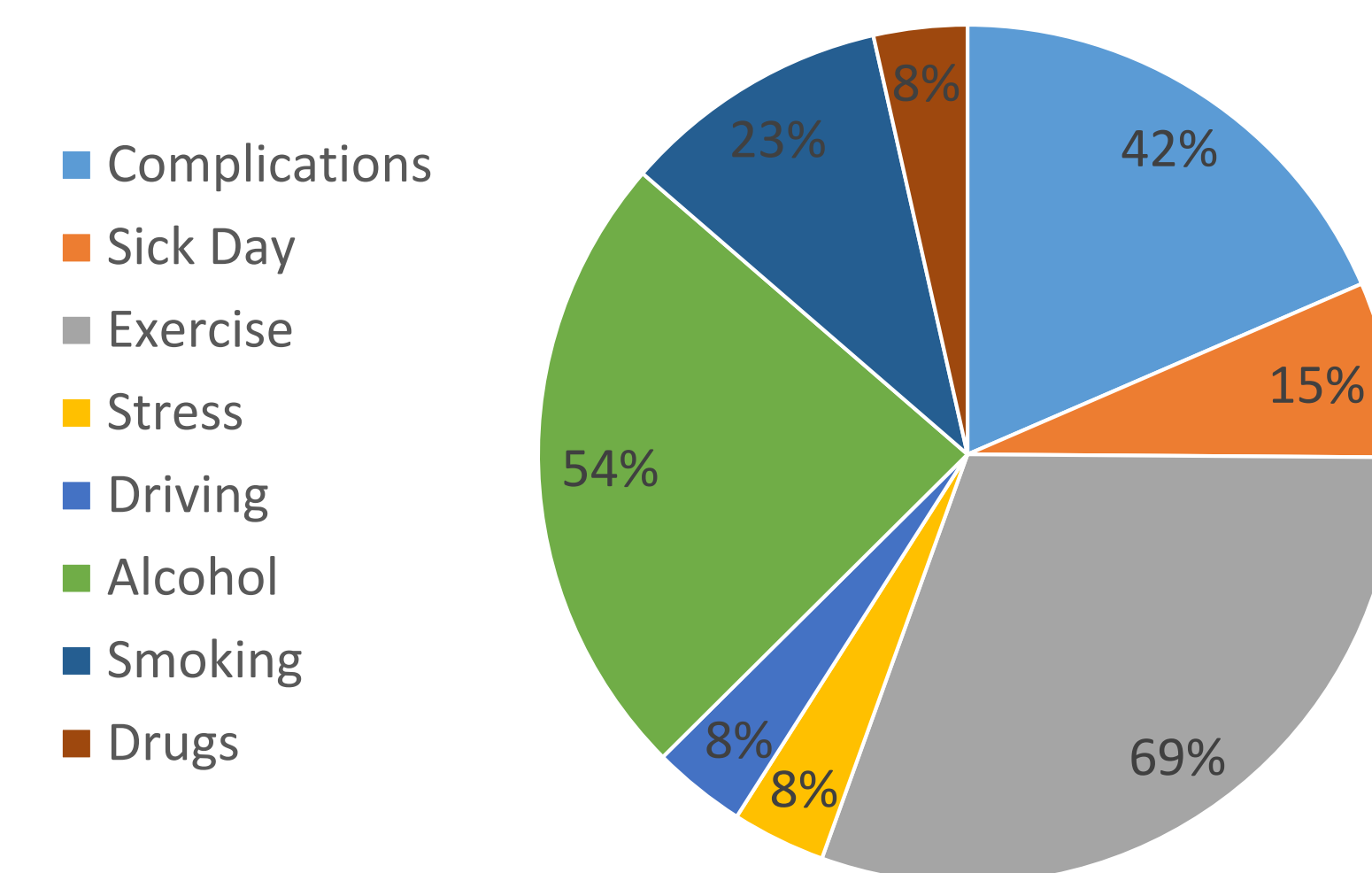


Figure 3.

A1c Comparison

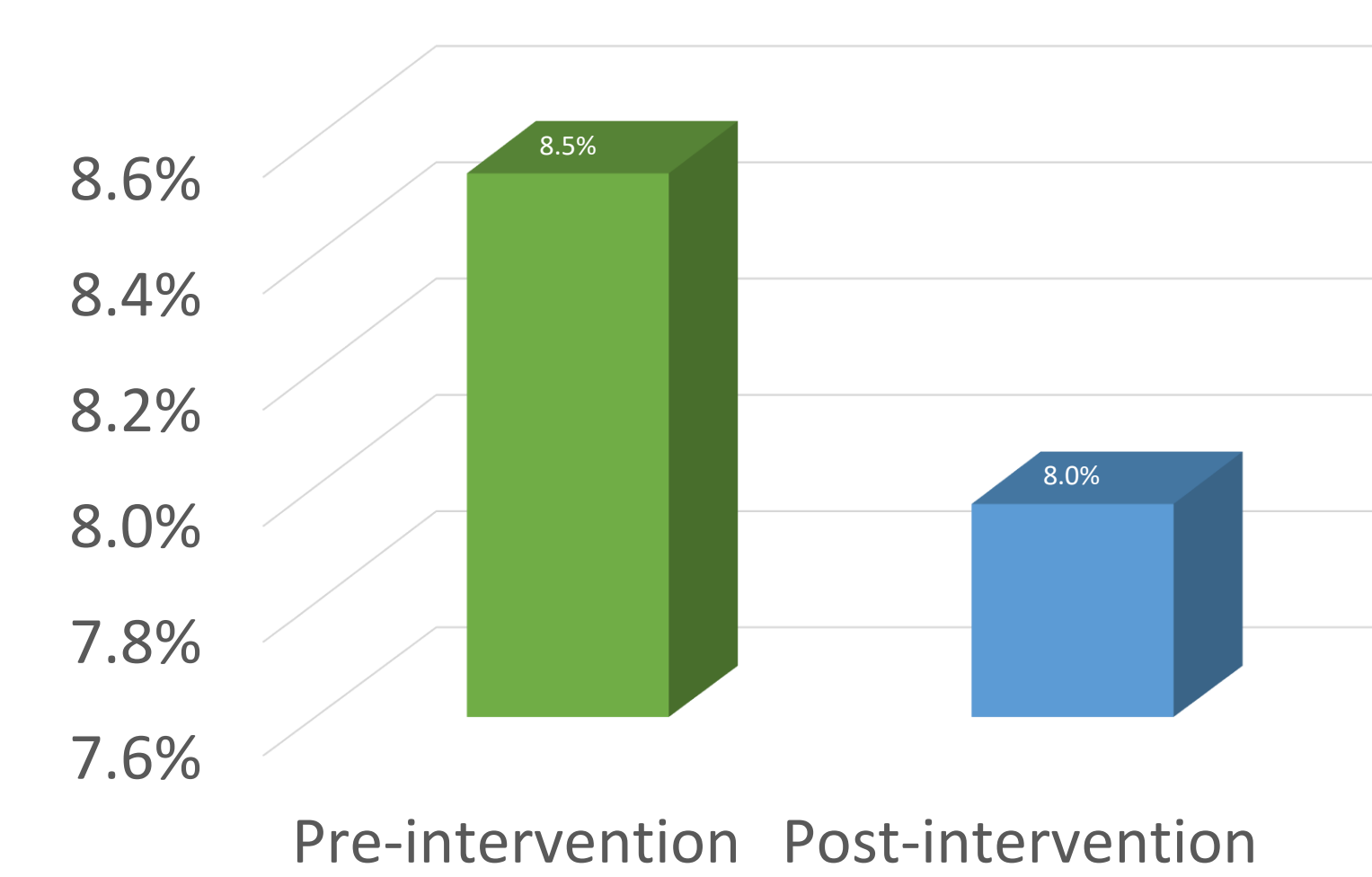
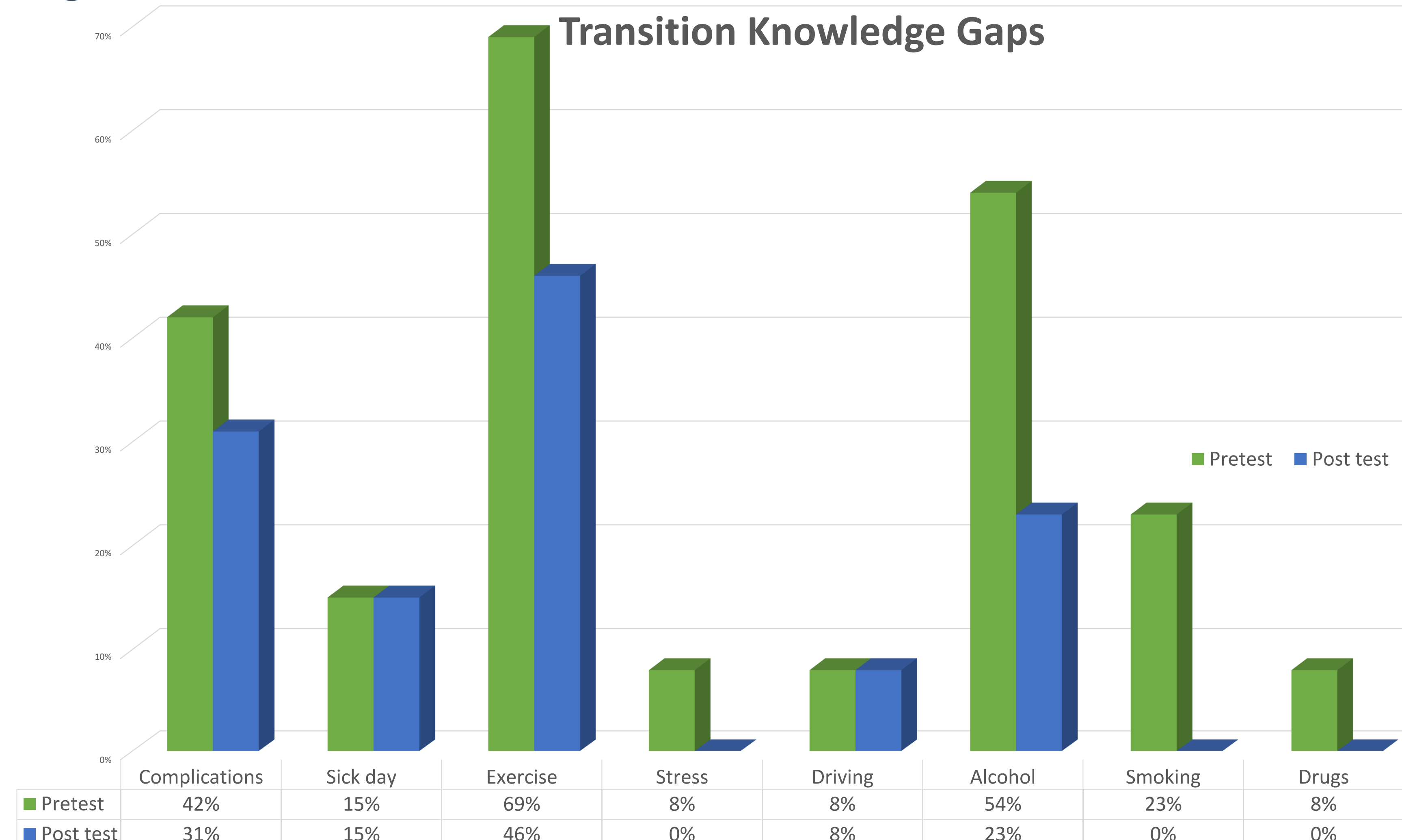


Figure 4.



- We saw a total of 13 participants with T1DM aged 18-20 yrs. with a mean duration of 8.1 ± 4.8 years (median 6.9 years).
- The top 3 identified knowledge gaps were related to complications, exercise, and alcohol.
- The post-test showed improvement in 6 of the 8 areas indicating that the group education was effective.
- A second post-test was performed 3-6 months following intervention. Data obtained from 6 of the 13 participants showed identical or enhanced scores demonstrating knowledge retention.
- HbA1c level decreased 0.5% 3-6 months post intervention ($P < 0.01$)

CONCLUSIONS

- This pilot QI project highlights the need for a more structured transition pathway to close knowledge gaps in adolescents and young adults with type 1 diabetes.
- This intervention proved to have an impact on A1c suggesting a short-term benefit in closing knowledge gaps.
- Although our sample size was small, mean HbA1c was comparable to the national average.
- The number of participants using technology exceeded the national average, 90% vs 60% respectively. Use of technology has overall improved diabetes outcomes.
- Based on our findings, our center is pursuing a second QI project educating providers on the importance of a structured transition pathway beginning in early teen years.
- Additionally, we are increasing the number of transition clinic offerings for the 2023 year.
- Transition-related education and self-management skills should begin in the early teen years to allow ample time for adjustment

REFERENCES

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