Implementation of a Transition Process for Pediatric Kidney and Liver Transplant Recipients

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Background/Triggering Issue

- Transition is "The purposeful, planned movement of adolescents and young adults with chronic physical and medical conditions from child-centered to adult-oriented health care systems (Blum, et al., 1993)"
- Both pediatric and adult health care systems face the challenge of creating models of service that incorporate uninterrupted and coordinated transfer of care processes for this vulnerable emerging adult population (Disabato, et al., 2019)
- There is significant pediatric morbidity and mortality, with 2 liver transplant studies reporting a 28% mortality within 2 years and 1 kidney transplant study reporting a 30% mortality within 3 years following transition (Shapiro, et al., 2021 & Coyne, et al., 2016)
- An academic medical center in Central Virginia with a pediatric liver and kidney transplant program was lacking a formalized process for transition from pediatric centered to adult centered care.
- Key stakeholders, including executive leadership, physicians, nurse practitioners, nursing, social work and others are invested in the implementation of a transition process in this population

Clinical Question

A systematic review of the literature was performed with the purpose of answering the clinical question:

Does focused transition planning for adolescent and young adult pediatric kidney and liver transplant recipients improve adherence to medication therapies and follow up care?

Implementation Framework

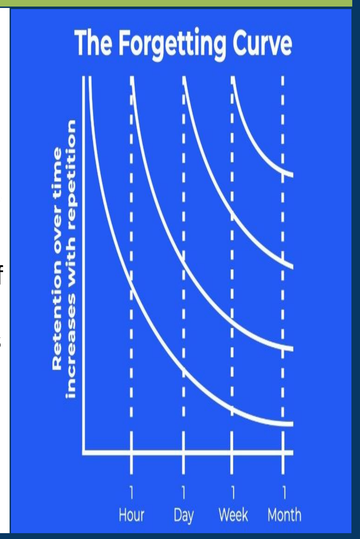
The project methods were guided by the steps of the Iowa Model of Evidence-based Practice.

Assemble, Appraise and Synthesize the Literature

- The Johns Hopkins Nursing Evidence Based Practice Model was used for the literature review.
- Level I – A quality (1)
- Level II – A quality (5)
- Level II – B quality (5)
- Level V – B quality (2)
- The literature provided a more informed approach to transition
- A risk - benefit analysis is clear that the potential for benefit outweighs negligible risk
- Identified biases may have impacted the findings, but no negative outcomes were identified
- The recommendations based on the literature review strongly support the need for a transition process based on current best practice guidelines from American Academy of Pediatrics, the American Academy of Family Physicians, and the American College of Physicians

The Ebbinghaus Forgetting Curve

- In 1885 Herman Ebbinghaus created the Ebbinghaus Forgetting Curve
- Suggests that people tend to continually halve their memory of newly learned knowledge in a matter of days or weeks unless they actively review the learned material
- Ebbinghaus found that the majority of people forget an average of 90% of the material they were provided if it is not reinforced
- The Forgetting Curve was applied to help the nursing staff retain the process and education that was provided to the patients

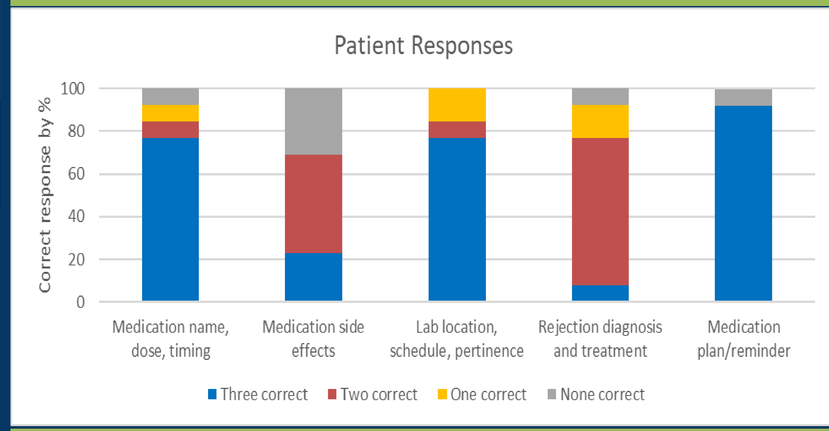


References Access: : (QR Scan Code Here)

Piloting a Practice Change

- The pilot was implemented in an academic medical center in Central Virginia for pediatric liver and kidney transplant recipients, to prepare them for ongoing medical management of their transplant as young adults
- 2 RNCC were provided education utilizing the Ebbinghaus Forgetting Curve
- Patients 17 and older were educated
- A follow up phone call was made at least 4 weeks later to assess for retention
- 100% of the 13 patients participated in the follow up phone call and provided answers to the questions posed
- The results were positive, with good retention in 3 areas and need for reinforcement in the other 2
- The staff provided positive feedback on the process, including the use of the Ebbinghaus Forgetting Curve

Results



Conclusions

- Three of 5 questions had 80% or better retention scores, reinforcing the utility of these questions
- Two questions required reinforcement
- The pilot was successful and provides evidence that implementation should proceed, with minor edits and ongoing assessment
- Lessons learned include utilizing the Ebbinghaus Forgetting Curve in future to improve retention of patient education