Embedding Early Child Brain Development and Language Training in a Prelicensure Nursing Program

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Background

- Early language exposure paired with reciprocal parent-child interaction in the first three years of life are associated with language and cognitive development, as well as future academic performance.
- Talk With Me Baby (TWMB) is an early language initiative that trains professionals on ways to coach families to talk with their babies to create a language-rich environment in support of healthy early brain development.
- Historically, TWMB primarily included practicing nurses and professionals in Women, Infants, and Children (WIC) Nutritional programs.

Objective

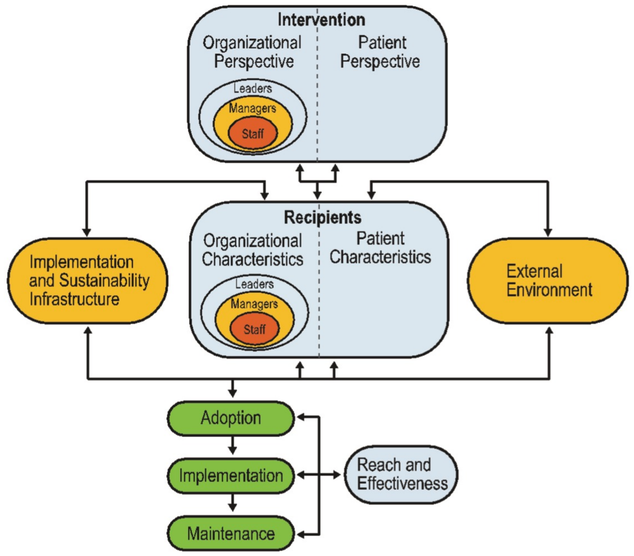
To understand the most effective ways to introduce the concept of early language and literacy coaching to a future nursing workforce during their prelicensure training to enhance adoption, maintenance, and future implementation of TWMB skills in practice.

Methods

- The implementation science model PRISM (Practical, Robust Implementation and Sustainability) guided this study.
- PRISM examined key elements
  - Program (Intervention)
  - External environment
  - Implementation and sustainability infrastructure
  - Recipients
- A sequential exploratory mixed methods design with iterative phases was used to explore these key elements
  - Faculty focus group (n=10)
  - Initial student focus group (n=7)
  - Student online survey in REDcap (n=78)
  - Final student focus group (n=6)
- Sample- Prelicensure nursing students who previously received TWMB training and nursing faculty
- Focus groups were audio recorded, transcribed verbatim, and qualitative thematic analysis performed
- This study was IRB-approved
- Written and Verbal consent obtained

Results

- Due to the COVID-19 pandemic, the TWMB training of prelicensure nursing students shifted from synchronous in-person training to virtual flipped classroom.
- This provided a unique opportunity to compare how TWMB was previously implemented (i.e., synchronous, in-person) to the newly adapted virtual flipped classroom implementation.
- Of the total sample (n=78), a total of 36 participants received the online TWMB flipped classroom and 42 participants received the synchronous in-person TWMB training.



- Faculty focus groups identified organizational perspectives to enhance the adoption, implementation, and maintenance of embedding TWMB in a prelicensure nursing program.
- Student focus groups
  - Identified barriers, facilitators, and ways to enhance future implementation of TWMB in prelicensure nursing programs.
  - Reflected students feeling empowered and confident to practice TWMB and train parents.
- Student online survey
  - Found no differences in 5-point Likert scale questions between groups where 1 represents strongly agree on Ability to apply TWMB to practice (1.89 and 1.93), Knowledge gained (1.5 and 1.52), Importance of TWMB (1.39 and 1.43), Ability to apply TWMB (1.58 and 1.60), and Confidence coaching parents (2.25, and 2.4).
  - Students felt equally confident and competent on TWMB between training groups.

Conclusions

- The importance of early language exposure and interventions aimed at enhancing early language exposure are clear.
- However, little has been done to evaluate the impact of embedding these concepts into prelicensure nursing programs.
- This study explored the ways to implement the concept of early language exposure to prelicensure nursing students.
- The COVID-19 pandemic shifted how trainings and education were delivered, moving from in-person synchronous training to virtual formats.
- Results of this study highlight how incorporating novel educational and training approaches, such as a flipped classroom, can result equally between groups in knowledge, perceived importance, confidence, competence, and ability.
- This study made notable discoveries leveraging implementation science to enhance adoption, maintenance, future implementation, reach, and effectiveness of TWMB.

Implications

- Prelicensure nursing students are the future of the nursing profession.
- Embedding early child brain development and language training in prelicensure nursing programs prepares the nursing workforce on ways to promote early language environments.
- Results of this study provide insight to future implementation of early child brain development and language training to enhance reach and effectiveness.

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