



Enhancing Evidence-Based Practice with a Novel “No-Prep” Journal Club Format: Insights from the UCLA Neurology Residency Program

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Objectives

- Adapt Dzara et al’s novel “No-prep” journal club format to the discussion of neurologic clinical trials in a neurology residency program (1).
- Determine main concepts learned as pertains to research methodology and clinical application of research among UCLA neurology residents using this format.

Introduction/Background

The “traditional” journal club format has been commonly used to teach evidence-based practice, but may disadvantages including a passive audience, variable preparation for the session, and discussion limited to a small number of vocal participants.

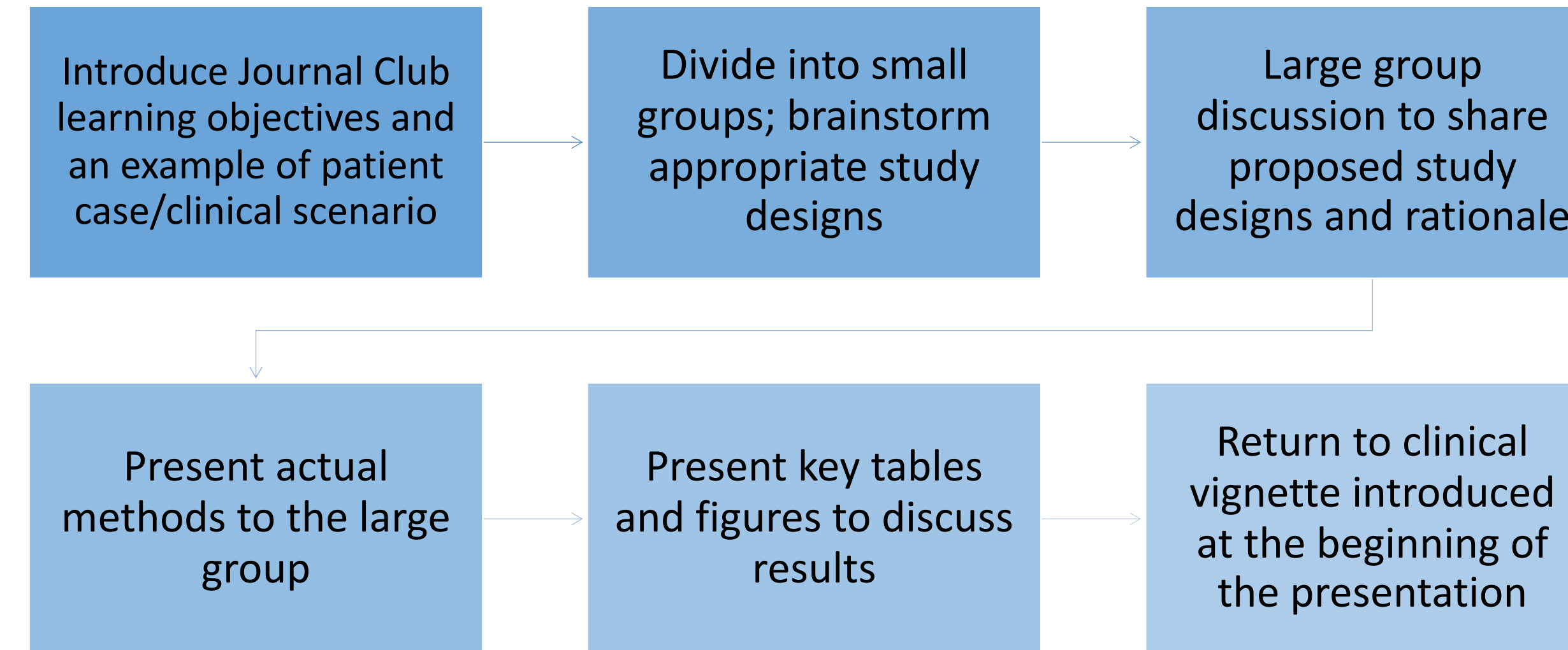
Even with discussion-based formats, challenges with resident preparation for journal club is a barrier to engagement (2). We aimed to adapt Dzara et. al’s “no-prep” journal club format in a constructivist framework to enhance resident learning of evidence-based practice.

- **Constructivism:** theoretical framework asserting that learning occurs through integrating new information with previous experiences. In the “no-prep” format, residents collaborated to propose a study design using their prior knowledge of research methodology.

Methods

- **Sample Size:** There were 22 participating residents across all four journal club sessions, with an average of 7.33 in each session. Residents were instructed to complete worksheets during the sessions.
- **Data Analysis:** Responses from written worksheets were quantified as a surrogate measure of learning outcomes.

Journal Club Format:



Results

From 171 possible question responses, 97 were collected (57% response rate). The results of the content analysis are demonstrated in Table 1, which focuses on research methodology, and Table 2, which focuses on clinical application prompts.

Table 1. Research Methodology

Prompts Related to Research Methodology	Number of Responses
Desired primary and secondary outcomes	20
Key inclusion/ exclusion criteria	19
Strengths and weaknesses of chosen study design	13
Determination of adequate sample size	10
Statistical analyses to conduct	9
Similarities/differences between actual and proposed methods	4
Key points of actual methods from article	1
Key points learned from the proposed study design of other groups	1

Results

Table 2. Clinical Application

Prompts Related to Clinical Application	Number of Responses
Speculate how your care for a clinical patient may or may not change after discussing this article.	16
How will you change your clinical practice after discussing the articles in more depth? Have your thoughts changed?	4

Discussion

- Content analysis of worksheets demonstrated the most discussions around primary and secondary outcomes as well as study exclusion/inclusion criteria, but inconsistent evaluations of the comparison of the small group proposed study designs to the actual methods or that of other groups.
- Variable reports were made of changing clinical practice, but some reported increased confidence around treatment counseling
- Limitations of this study include the small sample size and response rate. Determining better ways of capturing resident learning will be critical.
- Further studies are needed to explore retention of learned information and applicability to other residency programs.

References:

(1)Dzara K, Frey-Vogel AS. Medical Education Journal Club for the Millennial Resident: An Interactive, No-Prep Approach. *Aced Pediatr.* 2019;19(6):603-607. doi: 10.1016/j.acap.2019.05.004

(2)Fu, Katherine, Joy Chan, Katelyn Stepanyan, Ashley Manchada, Alonso Zea Vera, Michelle Vermillion, Holly Wilhalme, Adrienne Keener, and Roy Strowd. “A Mixed-Methods Approach to Teaching Critical Appraisal of Research to Neurology Residents through Social Cognitive Theory (S39.001).” *Neurology* 102, no. 17_supplement_1 (April 9, 2024). <https://doi.org/10.1212/wnl.0000000000204384>.