USE OF METAPHOR AS AN EXPLANATION TOOL IN ACES SIMULATION TRAINING

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INTRODUCTION

Adverse childhood experiences (ACEs) have profound implications for adult health. It can be challenging to discuss ACEs in a medical encounter, so health care practitioners need communication tools for trauma-sensitive inquiries with patients. The ACEs and Trauma Informed Care (TIC) team at OU Tulsa has been training health professionals about ACEs, TIC, and communication skills since 2015. One component of this program uses a simulation of a clinic visit with a standardized patient. Metaphors were introduced as a strategy to explain ACEs to adult patients, and clinicians were encouraged to utilize them in the simulation. This study aimed to describe characteristics of effective metaphor use by health care trainees when discussing ACEs and health with adult patients, and to provide example metaphors for clinicians to sensitively address ACEs.

METHODS

- ACEs skills training workshop consists of didactic sessions, training simulations with standardized patients, and a faculty-led debrief

- Healthcare trainees include medical residents and students in medicine, physician assistant, nursing, physical therapy, occupational therapy, and social work

- Trainees were encouraged to use metaphors in their simulations, either original or adopted from examples used in the didactic session

- 434 simulation training videos were collected and a sample (n=122) of these videos were extracted for analysis based on known metaphor use

- A standardized rubric was designed to assess various aspects of each metaphor including:
  - Type of metaphor used
  - Length of discussion
  - Effectiveness of the metaphor's ability to explain ACEs to the patient

- Each metaphor was given an overall score based on the ease of transition into the presentation of the metaphor, the trainee's ability to clearly communicate the metaphor, and the patient's understanding and response

- Basic statistical analysis was conducted to determine if individual metaphors performed better than others and sought to discover underlying factors that impact metaphor effectiveness
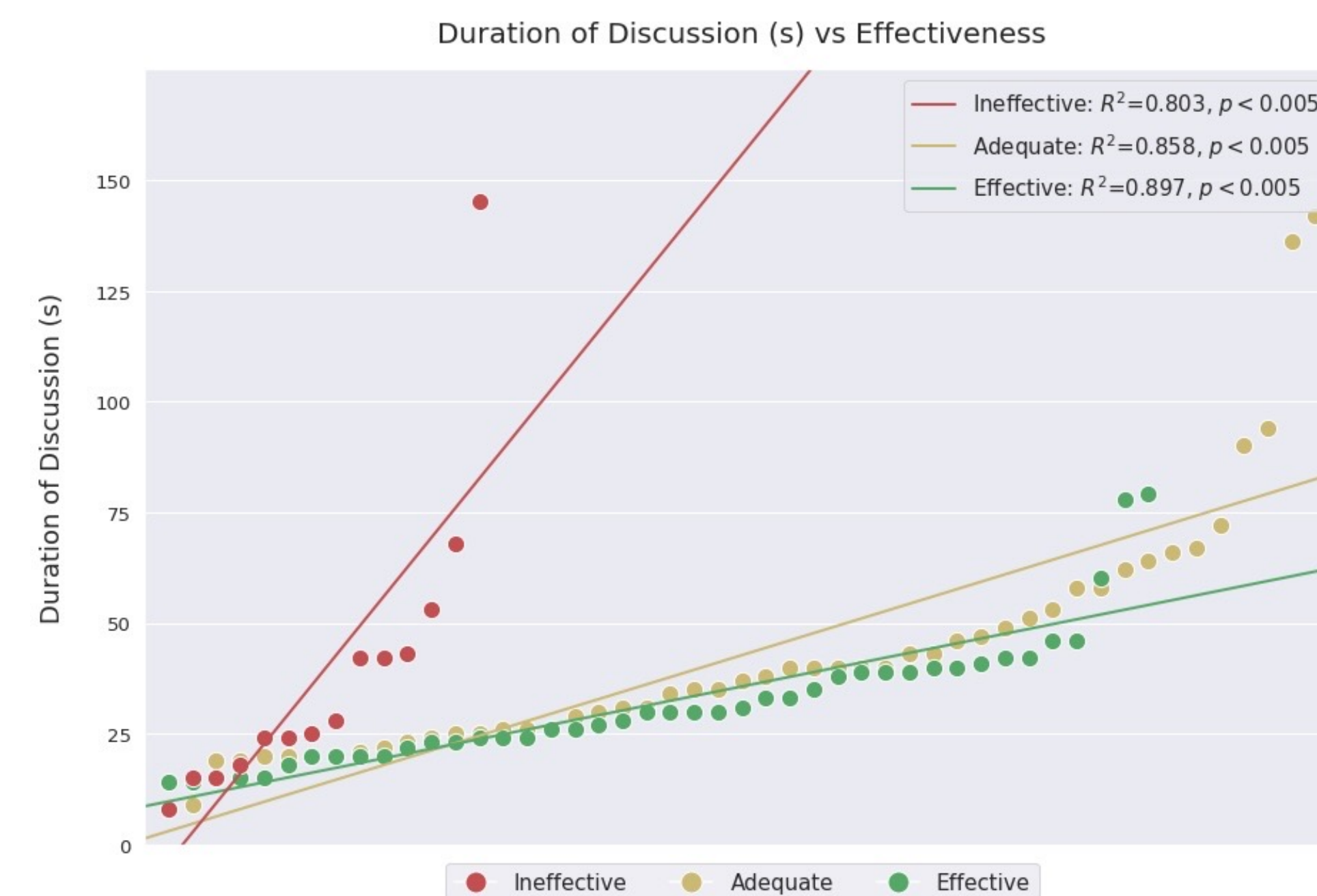
RESULTS

Fig 1 . Duration of metaphor delivery by level of effectiveness.

The minimum amount of time observed in metaphor conversations rated as effective was 17s. Ineffective metaphors had a similar duration of time as the effective metaphors but with greater variation in duration and the weakest coefficient of determination ($R^2=0.803$). The effective metaphors had the strongest coefficient of determination ($R^2=0.897$) (Fig 1).

Effective metaphors had the least variation in delivery time, and the narrowest standard deviation in comparison to the adequate and ineffective use cohorts. Adequate metaphor use spanned the widest range of time (15-90 seconds), and "adequate" was the most common score, by a small margin (n=49) (Fig 2).
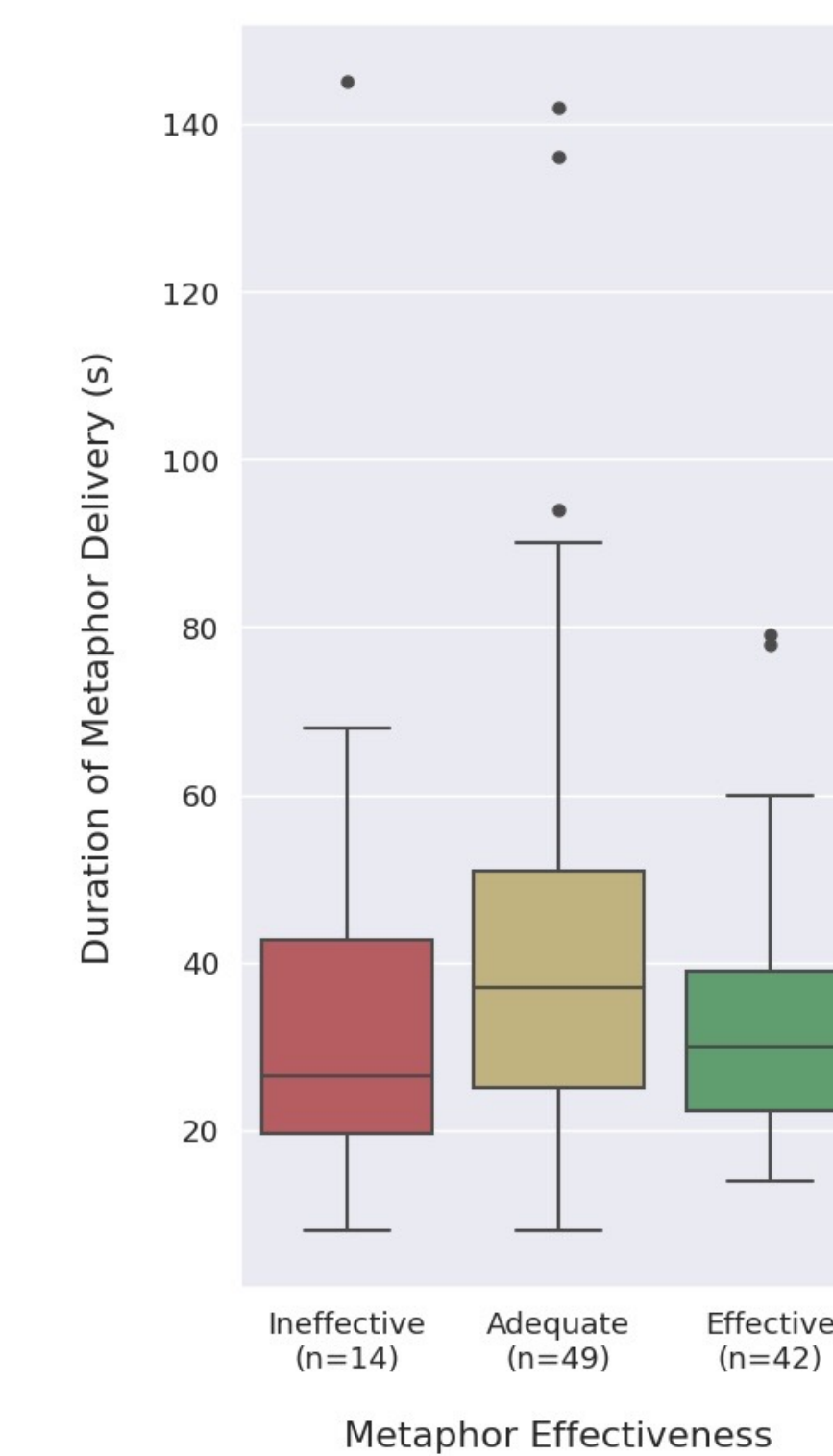

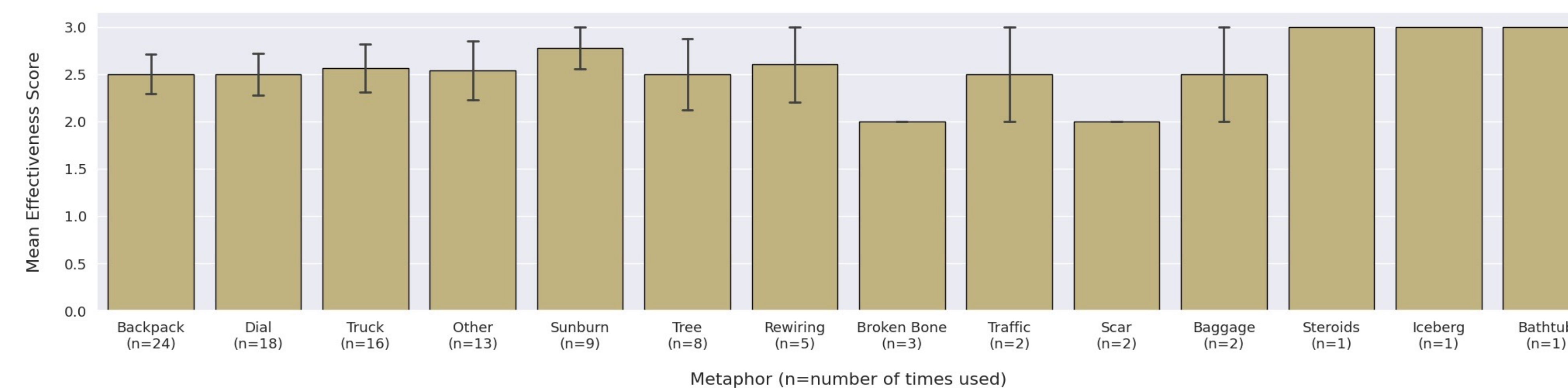Fig 2. Mean effectiveness score of all identified metaphors.

Fig 3. Mean effectiveness score of individual metaphors used in patient simulations.

DISCUSSION

As medical knowledge of trauma-informed care continues to grow, the use of evidence-based communication methods is an area of increasing importance. Our research suggests literary devices such as metaphors may be effective and efficient explanation tools for clinicians addressing sensitive topics with their patients, such as ACEs. Minimal time investment is required to employ metaphors in ACEs discussions. No single metaphor was found to be clearly superior, indicating that patient-centered metaphor use may improve communication between clinicians and patients who experienced childhood trauma.

FUTURE WORK

- Expand and refine the authors' database by reviewing additional simulation videos

- Explore the possible impact of well-executed transition statements

- Determine the most effective and most clinically applicable interventions

- Use data to improve training

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