Intervention Design

Study Design Co.

- While mindfulness has been extensively studied and shown to have numerous benefits for physicians, similar studies assessing the effect on OR physicians have been absent likely due to the stochastic schedule of this unique population.

- In order to develop an appropriate study design that utilized evidence-based tools to assess the effect of a modified mindfulness intervention on the OR performance of physicians while simultaneously not impeding the workflow of subjects, an interprofessional approach was essential.

- With the use of an abbreviated, expertly designed mindfulness intervention, a study methodology designed by social psychologists and surgeons, and surveys being accessible via smart phone devices, we have developed a brief mindfulness intervention that has been shown to be compatible with the busy workflow of operating room physicians and shows promise for increasing the mindful state due to the stochastic schedule of this unique population.

Evidence Based Tools Utilized

- Case Flow State Scale (BFSS) was chosen as a method to effectively assess the focus and mental involvement of participants during surgical cases as these菲信中,and mindful state are essential for performance during critical care.
- BFSS was designed to be a self-report tool that participants were asked to rate on a Likert-like scale compared to their personal experience with the target activity, in this case being anesthesia in surgery.
- BFSS was found to be a reliable and valid measurement tool.

Table 1: Description of three OR case categories provided to subjects

Study Design Co.

- Key Day Experience

- Day-to-Day Experience

- Scheduled Routine Pre Case Survey

- Scheduled Complex Pre Case Survey

- Add On Pre Case Survey

- Mindfulness Training and Intervention

- 25-Minute Mindfulness Intervention Session

- 3-Minute Breath Awareness Intervention

- Intervention

- Brief 4 Minute Breath Awareness Practice

- Intervention Design

- Mindfulness and Neurosurgery

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Mindfulness Intervention

Intervention Design

- Interprofessional Team of Social Psychologists, mindfulness expert, and OR Physicians
- Intervention follows evidence-backed Mindfulness-Based Stress Reduction program based on the psycho-educational model of Krasner et al

25-Minute Mindfulness Training Session

- Introduction to Mindfulness
- Describe benefits of mindfulness practice for surgeons and anesthesiologists
- Examine ways that mindfulness practice can be integrated into the OR
- Learn and practice breath awareness meditation to be performed prior to 3 post-intervention cases

3-Minute Breath Awareness Intervention

- Professionally recorded audio file that participants can access via smartphone
- MBSR-certified mindfulness instructor designed the script and was the voice of recording
- Participants let everything but their natural breathing move into the background as they pay attention to the breath sensations, holding them in their field of awareness

Pre-Case Survey
Scheduled Complex Case
Scheduled Routine Case
Add On case
Post Case Survey

Pre-Case Survey
Brief 4 Minute Breath Awareness Practice
Scheduled Complex Case
Scheduled Routine Case
Add On case
Post Case Survey
Evidence Based Tools Used

<table>
<thead>
<tr>
<th>Core Flow State Scale</th>
<th>Mindfulness Attention and Awareness Scale</th>
<th>Stress Level of Participants</th>
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</thead>
<tbody>
<tr>
<td>CSFF was chosen as a method to effectively assess the focus and mental involvement of participants in the operating room as these outcomes are essential for performance during surgical cases.</td>
<td>15-item scale</td>
<td>Queried the participant’s perceived stress level and perception of the case which provide insight into the participants’ disposition throughout the case</td>
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<tr>
<td>-10-items that are descriptions of what it feels like to be in flow during a target activity</td>
<td>-Developed to assess a core characteristic of mindfulness, namely, a receptive state of mind in which attention, informed by a sensitive awareness of what is occurring in the present, simply observes what is taking place</td>
<td>-Utilizes a 5-point scale assessing perceived stress level of participants from no stress to extreme stress</td>
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<td>-Expressions used by elite athletes to describe what it is like to be in flow were adapted into short statements that participants are asked to rate based on their experience with the target activity, in this case being involvement in a surgical operation</td>
<td></td>
<td>-Measured before, during, and after case</td>
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