# EFFECT OF MINDFULNESS TRAINING ON MINDFULNESS LEVEL IN THE WORKPLACE, PATIENT SAFETY CULTURE AND STAFF ENGAGEMENT AS A PART OF ERROR PREVENTION IN RADIATION ONCOLOGY PRACTICE: A PILOT STUDY

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### **BACKGROUND:**

Error prevention in radiation oncology became a significant issue after patient morbidity and death from mistakes in radiation delivery was reported in the lay press in 2010. Mindfulness training has been delivered to health care providers with multiple documented benefits. The overall goal of this project was to deliver mindfulness training to the staff of a free standing radiation oncology center and measure its impact on an error prevention process.

#### **METHODS:**

A six week Mindfulness Leadership Training was delivered by an outside expert to all Harbin Clinic radiation oncology staff as a part of normal operations, which include continuous quality improvement. Staff members were invited to participate in a research trial concerning this training and informed consent was obtained in those who chose to participate. Objective data was gathered including near miss and incident reporting 60 days pre- and post- intervention, as well as a proprietary Mindfulness Survey, the MAAS survey of mindfulness, and the Medical Office Survey on Patient Safety.

#### **RESULTS:**

Fifteen total employees signed informed consent and participated in the study. Ten completed the immediate post test and 8 completed the 60 day post-test. Of 96 relationships tested, eight had statistically significant outcomes (p<.05)from the pre-test to the first post-test and fifteen had significant outcomes between the pretest and 60 day post test. All statistically significant outcomes differed in the direction of more mindfulness and increased patient safety parameters. Near miss and incident reporting increased from 10 to 25 reports for the 60 day periods pre and post- intervention (p= NS).

## **CONCLUSIONS:**

Mindfulness training can be delivered to radiation oncology staff as a part of continuous quality improvement with a focus on error prevention and patient safety culture. Small sample size precludes definitive conclusions, however all statistically significant results differed in the direction of increased mindfulness and improved patient safety culture. Future studies with larger populations are recommended to further explore this approach.