

# Complementary and Alternative Medicine (CAM) Smart Phrase Study: Using educational intervention and smart phrases to improve residents and faculty's attitudes, knowledge and use of CAM smart phrases

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## Introduction

- Many patients use herbs and dietary supplements (H/DS) across ethnicity, education and socioeconomic status.<sup>1</sup>
- Healthcare providers are aware of this, but often do not feel knowledgeable enough to make sound recommendations on use, side effects, interactions and efficacy.
- The lag between research and adoption of interventions via healthcare practices and clinical guidelines persists.
- Physicians rated research evidence, particularly on CAM efficacy and non-conventional pharmacology, as the most important factor influencing its integration into their practice patterns.
- Physicians cite a lack of resources and formal training as barriers to responding to patients' inquiries about dietary supplements.
- 76% of physicians thought they were "poorly informed" about herbal medicines and 46.6% said that their own knowledge on this topic was "very poor" or "quite poor"<sup>2</sup> in a 2010 survey<sup>4</sup>.
- Family Medicine Residents in a survey thought they should have received more education on supplements (91.9%)<sup>5</sup>.
- Utilization of the electronic health record is an easily accessible and practical approach to optimize H/DS education in the hospital and practice setting.
- A 2012 pilot study of one-hour didactic lecture, case-study, EHR-based assessments and smartphrases revealed educational intervention can broaden medical students' attitude and knowledge of H/DS and other CAM approaches and increase their competence in counseling patients on their use and safety<sup>8</sup>.
- Education of medical providers and patients on H/DS might facilitate their safe and appropriate integration into conventional medicine.

## Setting



- Institute for Family Health (IFH) is an outpatient, non-profit health center network dedicated to serving underserved population, with certified clinics as Federally Qualified Health Centers (FQHCs)
- Administers two family medicine residencies which share curriculum
  - Harlem Family Medicine Residency
  - Mount Sinai Residency in Urban Family Medicine
- Both residencies have significant Integrative Medicine curricula and both participated in this intervention
- Board-accredited Integrative Family Medicine Fellowship on site

## Methodology

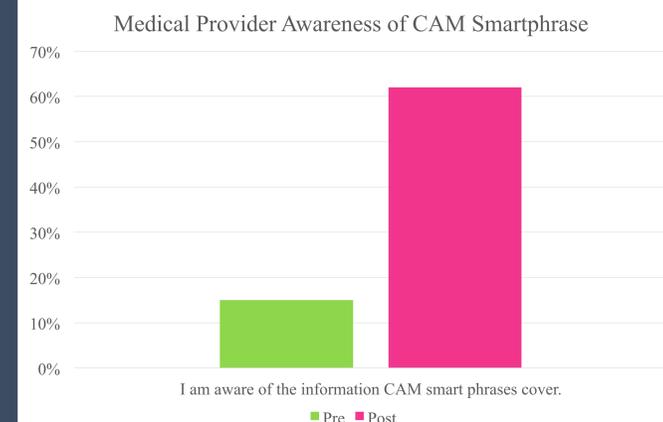
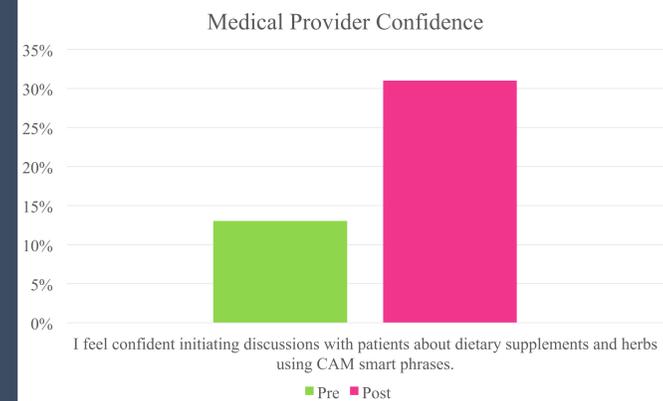
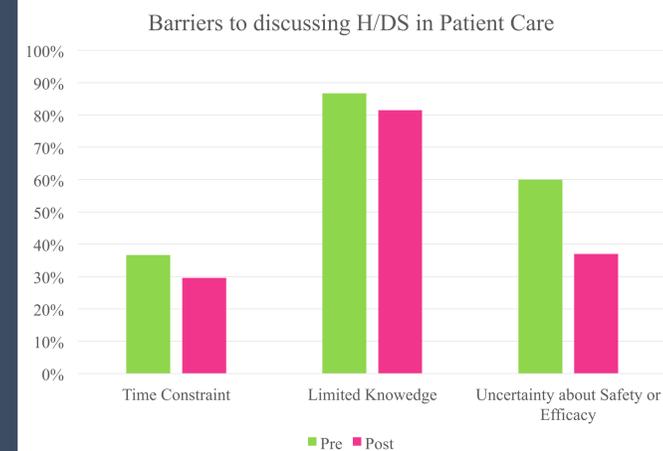
- One-hour didactics for residents and faculty at Harlem and Mount Sinai Family Medicine Residency Programs
- Detailed on the availability and use of smart phrases on EMR EPIC for five dietary and herbal supplements, their use and side effects: Coenzyme Q, fish oil, *Ginkgo biloba*, St. John's wort (*Hypericum perforatum*), and probiotics
- Pre and post intervention surveys completed by participants prior to intervention and then 4 weeks after the intervention, respectively
- EMR data on the frequency of the smart phrase usage collected and analyzed



## Results

- Awareness about the existence of CAM smart phrases increased after the intervention from 52% to 72% (p-value = 0.06).
- Awareness about the information covered in CAM smart phrases increased from 15% to 62% (p-value = 0.06).
- Prior to the intervention only 13% of the participants stated they feel confident initiating discussions with patients about H/DS using CAM smartphrases. Post intervention, 31% of providers stated that they felt confident.
- However, there was no statistical difference in medical providers' confidence in using CAM smartphrases to counsel patients on supplements they currently take or initiating a new supplement.
- There was no change in the knowledge of five supplements (score 3.8/5 vs 3.4/5).
- Two participants stated they did not think their patients had access to or could afford supplements.
- This intervention did not increase the number of times medical providers used CAM smartphrases in a patient After Visit Summary. However, there was a slight increase in medical providers using it to look up information (17% vs 33%).

## Analysis



## Discussion / Future

Our educational intervention showed a positive change in the medical providers' confidence in counseling patients using CAM smartphrases; awareness of CAM smartphrases and awareness of the content of the smartphrases, but not to statistical significance.

Our intervention also did not improve the perception of barriers and did not have a clear effect on empowerment of knowledge measures. This is perhaps not surprising given that our intervention was mostly "passive," ie through a lecture / group discussion. Of note, very few of our preceptors made reference to the smartphrases during the month studied, which is consistent with minimal change over time.

Future efforts could involve faculty development so that more discussions around supplements could occur at precepting opportunities

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