

revealed suboptimal adherence. Investigators developed a multi-tiered intervention program that included pamphlets, lecturers, and posters of the Checklist for the OR; the impact of these interventions on adherence has not been described. We hypothesized: 1) Interventions will improve Checklist adherence; and 2) Adherence is associated with positive perceptions about the Checklist and use of the Educational Interventions.

**Methods:** Between 06/2014 and 08/2014, a serial cross sectional study design was implemented at two hospitals. Surgical observations measured verbal confirmation of the WHO Checklist's 19 steps by the appropriate surgical staff in their prescribed order ("pre-anesthesia", "pre-incision", "pre-exit from the OR"). Questionnaires were administered to surgeons, anesthesiologists, and nurses. Questionnaires assessed perceptions of the Checklist, interventions, and surgical safety. Responses were compared among surgical staff position and hospital site using ANOVA, T-test, and Chi-squared analyses.

**Findings:** 45 surgeries were observed. Adherence to "pre-incision" Checklist items decreased significantly from 2014 to 2015 ( $P = 0.026$ ). The questionnaire response rate was 93%, with a total of 91 questionnaires administered. On a 1–10 scale, the mean rating of Checklist effectiveness was high, at 9.01 ( $SD = 1.54$ ). There was no association between adherence and Checklist perceptions or educational intervention use. Perceived unavailability of hard copies of the Checklist, lack of time and motivation to complete the Checklist were frequently identified barriers to adherence.

**Interpretations:** While educational interventions are still widely used amongst surgical staff, introducing these interventions did not result in better adherence. In this population, future training programs that prioritize making the Checklist widely accessible may improve adherence and surgical team communication.

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### Health outcomes of low birth weight infants following implementation of a community-based health surveillance intervention: an interim analysis.

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**Program/Project Purpose:** Low birth weight (LBW) < 2500g affects 8 million children annually and is reported in 43% of births in Gujarat, India. LBW infants are at high risk of poor growth and cognitive development, suffer from chronic diseases, and experience 20-fold higher mortality. This study aimed to determine the impact of a community-based participatory health surveillance intervention on growth outcomes and survival of LBW children in rural Gujarat.

**Structure/Method/Design:** This prospective cohort study took place at Mota Fofalia Pediatric Center (MFPC) in Gujarat, India. 1) A pre-intervention assessment of growth status was done in LBW infants born between 06/2012–04/2014. 2) In 06/2014, a health surveillance intervention was implemented for all LBW infants born at MFPC. Trained community health workers

performed pre-discharge counseling and post-discharge follow-up household visits with a standardized health assessment checklist and anthropometric measurements based on WHO recommended schedules. Children were referred to MFPC for clinical or nutritional danger signs. Outcomes included growth change and mortality in LBW children over time.

### Outcome & Evaluation:

- 1) 113 LBW children were included for pre-intervention assessment: 56% female, mean birth weight 2170g (600g–2450g), median age at follow-up 18 mo (1–28 mo) and mortality of 8 (16%). Among 95 live children, 63/95 (66%) were moderately malnourished and 28/95 (29%) were severely malnourished with weight-for-age z-scores of less than -2 SD and -3 SD, respectively (-5.59 to 0.91).
- 2) 433 LBW children were discharged from MFPC: 56% female and mean birth weight 2180g (660–2500g). Three children had incomplete birth data and 135 patients were lost to follow up. The median age at follow up was 24 days (range 2–399 days) with mortality of 9 (3%),  $p < 0.05$ . Among those who were successfully followed up, 115/286 (40%) of children were moderately malnourished and 58/286 (20%) were severely malnourished (-7.2 to 2.14).

**Going Forward:** This interim analysis showed that implementation of a structured discharge procedure combined with a community-based health surveillance intervention designed for trained community health workers was associated with improved growth outcomes and survival in LBW infants. Further evaluation of appropriate referral methods and health outcomes is needed.

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### Salt Reduction Strategy for Tobago (SRS-TAB) "Salt Smart Tobago"

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**Background:** Hypertension is a leading cause of morbidity and mortality worldwide and in CARICOM (Caribbean Community and Common Market) countries. This field experience will provide a multi-disciplinary team of students with an opportunity to work in collaboration with officials from a local health authority in the island of Tobago to initiate a dietary salt consumption reduction program. The field experience will comprise of two primary components: (1) an education component involving patient health promotion and education and working with local food establishments and other stakeholders to educate about and promote low salt food options, and (2) a data collection component to assess hypertension awareness. This summer field experience will be a pilot project of a larger endeavor by health officials in Tobago to reduce dietary salt consumption in Tobago to less than 5g per day per person by 2020, as recommended by the Pan American Health Organization (PAHO).

**Methods:** Our first objective of this project was to sample patients attending Tobago's primary care clinics and implement a questionnaire asking about: (a) knowledge about hypertension and their hypertension status, (b) knowledge about the relationship between salt consumption and hypertension, (c) whether patients attempt to control dietary salt, (d) barriers to reducing salt intake, (e) hypertension medication knowledge and compliance (among those with hypertension). Prior to the field experience, we developed a survey instrument in conjunction with the Emory and Field Supervisors. The instrument included the collection of quantitative information about hypertension awareness, the relationship between salt intake and hypertension, whether patients have attempted to reduce their salt intake. We additionally developed a set of qualitative questions around dietary behaviors, preferences, and barriers to dietary change. Sampling was taken place in Tobago's primary health clinics and government offices. Another component of the project was sampling from local food distributors and wholesalers asking owners about the salt content of their products and the availability of low salt options for consumers. For this salt sales component, we initially took a census of local food establishments and implemented a short (10 minute) survey ascertaining information about the salt content of their products and if low salt options are available. Finally, in order to develop population-based and culturally relevant health promotion, we developed culturally appropriate materials (posters, advertisements, fliers, etc.) that was posted and distributed in primary health care centers and other health related facilities in the communities of Tobago containing information about hypertension and dietary salt intake.

**Findings:** From May 2015 to July 2015, we distributed survey instruments for our data collection component and held educational seminars while also distributing health promotion materials for our hypertension awareness component. Since the field experience, we have been working with our faculty and field supervisors to assess the progress of data collection and analysis. We will be submitting a Final Report to the Emory and Field Supervisors. The report will provide detailed information on the educational materials developed, sampling strategies and participants surveyed, and initial findings from any statistical analyses completed. The Final Report will be submitted to the Field Supervisors by the end of May 2016.

**Interpretation:** This project has directly benefited residents of Tobago. The intervention component will increase awareness about healthy dietary behaviors, hypertension prevention, and hypertension management. The data collection efforts will yield longer-term benefits by documenting the burden of hypertension in the population and levels of awareness about lifestyle behaviors. This information can be used to tailor future interventions and help in priority setting. It is our interest to develop manuscripts on hypertension prevalence and awareness that are appropriate for an international peer-reviewed public health journal and working with local food establishments and other stakeholders to educate about and promote low salt food options and sales of high sodium foods in Tobago.

**Funding:** Emory University Global Health Institute.

**Abstract #:** 1.018\_NEP

## **To know them is to care for them better: teaching healthcare educators on caring for veterans**

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**Program/Project Purpose:** All nursing schools in the U.S. were challenged to implement curricula based on caring for the veteran patient as part of the *Joining Forces Campaign*, initiated by the White House in 2012. Until recently, BYU College of Nursing (CON) was the only civilian nursing program in the U. S. with an undergraduate course dedicated solely to caring for the Veteran patient. The purpose of this project was to implement veteran related curricula in our nursing program and educate others on doing the same.

**Structure/Method/Design:** Caring for the Veteran patient is included in the BYU CON Global & Public Health course. Any healthcare student or provider must understand veteran culture in order to provide competent healthcare. An undergraduate course was designed at BYU CON in 2005 to educate senior-level nursing students on the care of Veterans. Course includes:

- Didactic & clinical components
- Honor Flight – one-on-one guardian for Veteran to Washington D.C.
- Thorough immersion in Veteran culture
- Intensive exposure to individual as well as groups of Veterans
- Supplemental education by current Veteran healthcare providers
- Eight-day Veteran culture immersion in Washington D.C.

### **Outcome & Evaluation:**

- Students are positively impacted by Veteran contact
  - Begin the course knowing very little about Veterans & exit with greater appreciation and understanding of Veterans
  - Students are never the same after this experience (for the positive)
  - Students are exposed to many Veterans and immersed in their culture
- Students are better prepared to care for Veterans in the future in any setting
- Students do much of the teaching to each other
- Students design & help implement education materials in other program courses

### **Going Forward:**

- Understanding & appreciating any culture has a positive impact on caring for those in that culture
- Veteran culture and healthcare is unique and needs to be better understood
- A course on caring for the Veteran patient significantly impacts students
- Students educating students is highly effective teaching method

**Funding:** Brigham Young University College of Nursing.

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