

Evaluation of a Self-Study Website for Teaching Reproductive Health Education Among Urban and Rural Teens

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Adolescents are at increased risk for unintended pregnancy and sexually transmitted disease acquisition. Comprehensive reproductive health education is important to minimize these risks, however, there are many limitations and significant variability as to how this education is conducted in schools. Most curricula are in person, and often sensitive reproductive health subjects may be awkward for adolescents to discuss in the classroom setting. There is a growing need for accurate technology based interventions, and there is currently no comprehensive curriculum that promotes self-directed learning through website modules. A new web-based self-study was recently piloted among a group of Marshall University college undergraduates and resident physicians, and found to be highly accurate, and acceptable. The purpose of this study is to take this website tool, found at www.marshallteentalk.org and disseminate it broadly for use among adolescents in urban and rural counties in West Virginia and neighboring states. Adolescents will evaluate the website tool for ease of use, understanding, and overall acceptability and helpfulness. A small group of adolescents will be followed prospectively and evaluated for changes in reproductive health knowledge. Both outcomes will be used to further develop this tool so that it can be incorporated in other health systems to improve adolescent health.

Obesity a risk factor for anti-coagulation treatment failure: rates of recurrent venous thromboembolism among patients from rural West Virginia

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Obesity is defined as body mass index (BMI) greater than 30 kilogram per meter squared. According to the CDC, 42.4% of U.S population is obese [1]. Obesity is associated with increased risk of venous thromboembolism (VTE) [2,3]. Prevalence of obesity is higher among adults living in rural counties (34.2%) compared to urban counties (28.7%) [1] thus disproportionately increasing the risk of VTE among obese adults living in rural areas. According to West Virginia Behavioral Risk Factor Surveillance System Report (BRFSS 2018), we have the highest rates of obesity in entire nation (37.7%) with most obese people living in Fayette, Logan, and McDowell counties [4]. We have observed that rate of recurrent VTE (treatment failure) is significantly higher among obese patients from these counties despite being on guideline-recommended dose of anti-coagulants. This could be because current guidelines regarding anti-coagulation are based on clinical trials that mostly excluded obese patients. This gap in knowledge regarding optimum therapeutic dose could lead to significant morbidity and mortality among residents of rural West Virginia. Therefore, the primary objective of our study is to estimate the rate of recurrent VTE (treatment failure) while on guideline-directed dosing of anti-coagulants among obese adults of rural West Virginia and compare it with urban patient population. Furthermore, we aim to study the extra financial burden, cumulative length of stay, and number of avoidable readmissions incurred by treatment failure. Finally, we will also study the effect of modified

anticoagulant dose on rate of VTE recurrence with the hope to reduce harm and improve health care outcomes.

References

1. Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health. Page last reviewed: February 11, 2021. Assessed on April 12, 2021.
2. den Exter PL, van Es J, Klok FA (2013) Risk profile and clinical outcome of symptomatic subsegmental acute pulmonary embolism. *Blood* 122:1144–1149
3. Goldhaber SZ, Visani L, De Rosa M (1999) Acute pulmonary embolism: clinical outcomes in the International Cooperative Pulmonary Embolism Registry (ICOPER). *Lancet* 353(9162):1386–1389
4. Fast Facts. (2021). Retrieved 17 April 2021, from https://dhhr.wv.gov/hpcd/data_reports/pages/fast-facts.aspx#:~:text=The%20prevalence%20of%20obesity%20in,2nd%20highest%20in%20the%20U.S.

Safe at Home: Providing Support for Caregivers through Online Training

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Due to the lack of community resources the burden of care for our elderly patients often falls on family caregivers. This can lead to significant burn out and frustration among these caregivers. Our project aims to assess whether providing family caregivers with educational resources about caring for a loved one with dementia will lessen caregiver burden. Our study will be an observational study in which caregivers for patients with dementia will be offered the option of completing a free online training course for caregiving at home or receiving an educational brochure with information regarding community resources and helpful websites. We will assess for caregiver stress using a self-report form, the Zarit Burden interview (ZBI) 12 item scale. We will also assess whether this intervention decreases the occurrence of dementia related behaviors in the home with the Cohen Mansfield Agitation Inventory (CMAI) short form, an observational inventory completed by the caregiver. Assessments will occur once month and then again three months after families have completed the online course or were sent the brochure. This project will allow us to investigate whether online training courses would be a viable option to provide education and support to families caring for an individual with dementia even in our most rural areas. We will also be able to analyze how effective online training would be for improving care for patients with dementia.