

Students Teaching Students: Community Health's School Health Education Program (SHEP)

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The School of Medicine, as part of its overall mission, is committed to educational activities that promote social responsibility in future doctors. In their first year, through the Community Health course, service learning opportunities is provided to students in such experiences such as the School Health Education Program (SHEP), which is a partnership with the Department of Education. In six public high schools across Oahu, the SHEP initiative has brought together JABSOM's commitment to service learning and the DOE's willingness to partner in the teaching of their new Health Content Standards Curriculum. The Program serves to improve adolescent health literacy, while at the same time allowing first-year medical students to develop health-related communication skills through the teaching of the following priority areas: (1) injury and violence prevention, (2) alcohol and drug use prevention, (3) sexual health and responsibility, (4) tobacco use prevention, (5) nutrition and physical activity, and (6) personal and consumer health.

Recently, the DOE has mandated that each public high school create standards-based learning objectives that allow high school students to develop skills that encourage positive decision making in priority risk-taking areas. In SHEP, JABSOM first-year medical students are utilized as content experts, and augment the health education curriculum provided by the high school teachers. Medical and premedical students are divided into teams, along with a faculty advisor, with each team assigned to two high schools for the academic year. This format fosters a longitudinal relationship with each high school. To prepare the students for their role as teachers, medical school faculty introduce educational and teaching principles and curriculum design methods, as well as review content appropriate for the target audience. As the year progresses, the medical students quickly learn that didactic teaching often does not engage the high school students, and thus move to more interactive methods of teaching and learning. The student groups often gravitate towards

small group discussions (similar to PBL tutorials) as a means of engaging the high school students, and encourage more interactive, question-focused learning. This model shares common themes with the medical students' problem-based learning, in which there is heavy emphasis on self-directed, small group learning, as well as peer teaching. The similarities between the PBL and SHEP models are outlined below:

Medical students are also encouraged to present the topics in the context of adolescent risk-taking behavior with subsequent biological, epidemiological and clinical consequences. This allows the SHEP students to direct the discussion toward strategies that reduce or eliminate risk-taking behaviors. Students are ultimately responsible for determining the "what" and "how" of learning.

Six high schools (McKinley, Castle, Waipahu, Nanakuli, Farrington, and Roosevelt) participate in the monthly health education presentations. Each SHEP team develops presentations on healthy living, substance abuse, sexual health, and violence prevention. The presentations are adjusted for age appropriateness and high school demographics. Monthly sessions are presented to a class of 20-40 high school students each semester, with content knowledge and confidence in making health decisions measured over time using a pre- and post-test model.

Test results have revealed that high school students demonstrated a statistically significant increase in knowledge ($p < .0001$) and confidence with decision making ($p < .0001$) after the substance abuse, sexual health, and violence prevention presentations ($n=638$). The high school students also ranked their individual learning on the presentations positively, with a mean satisfaction score of 4.17 (1 through 5 scale).

Teaching social responsibility dictates that medical students be aware of and educate patients about their clinical condition and risks for future illness. This is especially true for patients with low health

Step	PBL Model	SHEP Model
1	Given a clinical scenario, students work in small groups to identify the facts; develop hypotheses, identify needed additional information, and identify learn issues to research.	Pre-medical and medical students are assigned to groups and assigned to two public high schools. SHEP students are introduced to adolescent health and developmental issues and DOE Health Content Standards. Based on the experience within the high schools, SHEP student teams identify priority content in each topic area to teach to the high school students.
2	Learning issues are researched; information is synthesized and summarized through discussions with faculty, community resources, textbooks and journals. Written summaries are developed, and presentations are prepared and practiced.	SHEP students research the content relevant to the assigned topic and develop presentations utilizing methods they feel will be most effective. Oral presentations and written handouts are prepared. Student practice their presentations on SHEP peers and faculty.
3	Peer teaching is used to present new information to the group. The scenario is reanalyzed using the new information and key points summarized. Students and faculty evaluate the effectiveness of their learning.	SHEP students provide health education sessions to the high school students. The high school teachers, SHEP faculty and fellow students review their performance. Outcome measures are collected and summarized. Ways to improve performance are discussed.

literacy rates, which requires innovative instructional strategies to improve health outcomes. The SHEP students have found that small group session utilizing innovative approaches, such as "Jeopardy" type games require high school students to apply knowledge before answering questions. This has been an effective teaching tool.

The past and current students who have participated in the SHEP program report they have gained an appreciation for the complexity of health education and their social responsibility to improving adolescent health. Common themes expressed by medical students are that high school learners are diverse. This challenges the medical student to develop communication skills on subjects out of their comfort zone. For example, when discussing sexual health, the SHEP students found that high school students were bored with formal lectures and found small group discussions with anatomical props to be more effective in promoting discussion and questions. While initially overwhelmed by the paradigm shift required for working with high school learners, the SHEP students began to appreciate the early exposure to diverse learners. All medical students participating in SHEP believe that this program has improved their confidence in educating non-traditional learners, and better prepared them for future training as physicians in hospitals and clinics.

The hope is that in addition to improving medical students' attitude toward social responsibility and teaching skills, the health literacy of high school students exposed to this program will reduce risk-taking behavior. Long-term studies are ongoing to validate this goal.

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