

FIGURE

Major Focus Group Themes Emerging From Physiology Flipped Classroom Pilot

program directors regarding their experiences participating in FCs versus TDs, use of educational materials, and application of knowledge to the clinical environment (levels 1–3);

- Knowledge assessments of learners consisting of multiple-choice questions preimplementation and 1, 12, and 24 weeks postimplementation (level 2); and
- Results of national subspecialty in-service training examinations over a 3-year period (level 4).

The development of high-quality educational materials on a national scale has been labor intensive. An editorial board was created and structured with reviewers for each submitted program. Participating educators gain opportunities to join an educational collaborative and engage in faculty development and educational scholarship.

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Skin in the Game— Taking Skin of Color Dermatology to the Classroom

Setting and Problem

Diagnosis and treatment of dermatological conditions play critical roles in disease prevention. However, previous studies have demonstrated that dermatology education in internal medicine residency programs is underemphasized, and education on skin of color dermatology is especially limited. Dermatology education involves pattern recognition and active, analytical thinking due to the heavy emphasis on visual learning. An effective way of absorbing these tenets requires learners to apply concepts and individually engage with the subject matter at their own pace. We sought to implement and improve dermatology education for skin of color through flipped learning, which shifts the focus of traditional learning from the group to the individual by engaging learners in a dynamic environment. We used these principles to develop 2 games to teach internal medicine residents about skin of color dermatology.

Intervention

We first used traditional learning styles to introduce simple concepts important for dermatology of darker skin. We introduced important resources and

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discussed epidemiology of ethnic skin diseases at a 1-hour hospital-wide grand rounds. We subsequently conducted a 2-hour classroom session during which residents taught each other about common skin of color diseases in a large group setting. We then piloted the following 2 games during a 30-minute interactive session to solidify the aforementioned topics and to introduce more complex issues.

"Skin Matchmaker" is a game in which individual residents are given 20 images of dermatologic conditions: 10 images of conditions on dark skin and 10 images of identical conditions on lighter skin. First they name and match identical conditions, and then they describe similarities and differences in appearance and treatment considerations on light and dark skin.

In "Guess Who? The Derm Term Version," a group of 4 residents are given 10 images of conditions on dark skin. Three residents are given 1 image of the 10 to provide clues to the fourth resident. The residents first give visual descriptions of the chosen image in order to aid the fourth resident to guess the correct image. They then proceed to describe treatment, diagnosis, and epidemiological considerations for the chosen image. Allowing only visual descriptions initially aids residents in much needed practice for physical examination skills for dermatology.

Outcomes to Date

The traditional lecture was best used to introduce simple and easily understood concepts, and the large group session allowed residents to explore these concepts more in depth in a group setting. The flipped learning session allowed individual learners to directly engage with more complex concepts. This session was very well received—over 90% of residents rated the session as very good or excellent (the highest 2 scores on a 5-point Likert scale). Our open resident feedback found that the flipped learning session engaged individual learners in visual learning and pattern recognition, which are necessities of dermatology education. We observed that visual learning in this setting increased motivation to learn, triggered emotive responses that helped sustain knowledge, permitted quicker transmission and improved comprehension of complex topics, and most importantly allowed residents to learn at their own pace.

Based on feedback from residents, we will implement an online interactive module that includes the above games in addition to information on skin of color dermatology. Once implemented, we will send a postintervention survey assessing residents' knowledge and comfort of skin of color dermatology. We will utilize the results to further refine these tools.

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Games Squared: A Card Game to Learn About Using Games in Medical Education

Setting and Problem

Games for learning, sometimes referred to as "Serious Games," are becoming increasingly popular at all graduate medical education training levels. Some of the noted virtues are that they help engage and challenge learners, address complexities, and provide ongoing feedback. Furthermore, they add an element of "fun" that is likely to grow into a motivational force. To help educate faculty about the large variety of possible games, we developed a card game that highlights the pros and cons of each modality and provides an opportunity to match specific games with specific curriculum development challenges. The challenges are organized by the 6 Accreditation

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