Medical training with the Dynamic Patient Simulator
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ASTRACT:
The best way to obtain medical experience is to work as a physician in medical practice. A qualified physician however does not allow students to treat patients without supervision. This may result in a passive attitude in some students in clinical situations. The Dynamic Patient Simulator (DPS) is a computer-based simulation program that accurately simulates medical practice. By using DPS, students can practice medicine on a virtual patient. With simulations created in DPS students are forced to treat the virtual patient on their own thus becoming responsible for their own decisions. They are free to use any possible diagnostic or therapeutic measure as in real life. During a simulation a student assesses the state of the patient by taking medical history and performing physical examination. Additional investigations can be required to gather enough information to make a (differential) diagnosis and start therapy. The student is responsible for the consequences of his actions: starting an inappropriate therapy may deteriorate the patient's condition or induce medical complications.
Simulations can vary from simple first aid cases that last for only ten minutes to complex clinical cases that can last for years, including the follow-up of a patient after treatment. Accelerating the time path, thus obtaining information on the patient's state of health, is possible for future DPS cases.
Medical students can obtain clinical experience in an early phase of their education by using DPS. They acquire insight into their (lack of) knowledge and skills. This may be confronting, but also encourages further studying. Students can treat the virtual patient independently or together, training their medical- as well as their inter-physician communication skills. DPS can be used in the absence of a teacher. If students get stuck during a case, they can request advice from the built-in assistance system. The assistance provided depends on the preceding actions of the student and on the state of the patient.
The system provides personal feedback to the student during and after a simulation. Each simulation results in a final score and can therefore be used as a self-test. In our presentation we will give you an overview of the many possibilities DPS provides.

BENEFIT TO PARTICIPANTS ATTENDING SESSION:
The Dynamic Patient Simulator is an authoring package for creating computer-based medical simulations. DPS is used as primary authoring package for creating patient simulations at most university medical centers in the Netherlands as well as in some centers in Belgium. Although most current simulations are in Dutch, the program itself is in English. With little effort it should be possible to deploy this software at English sites.