A human factors engineering approach to evaluating and improving care transitions

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Abstract
Care transitions are a growing area of research due in part to the Affordable Care Act, which penalizes hospitals for avoidable readmissions. Care transitions refer the to coordinated patient, family, and provider efforts to share information and work together to avoid rehospitalizations. Our research fits within this coordinated effort and involves understanding the strengths, opportunities for improvement, and possible gaps associated with care transitions for preventing avoidable readmissions. The work presented here includes three different human factors approaches to this issue. In the first study, an information needs-assessment of the patient discharge process was conducted to understand the information gap that exists between the information the patients need and what information the patients actually receive at discharge. A second approach involves a survey that was distributed to employees of a hospital to assess their perceptions of the hospital’s strengths and weaknesses associated with discharge or care transitions related tasks. A third experimental human factors study is discussed in which the characteristics of discharge instructions are evaluated for their effect on readability, comprehension, and retention of information for novices. This talk will discuss the results of these studies in the context of how engineers are working with health care professionals towards preventing avoidable readmissions.

Refreshments will be served in Daniels Hall room 428
Student Lounge from 11:00 a.m. to 11:30 a.m.
Biography
Dr. David Neyens’ primary research interest focuses on human factors in complex systems, specifically health care systems and transportation system. He uses sophisticated analytical models to quantify operators’ behavior and performance in these complex systems and situations. He is particularly interested in developing models that quantify the effect of technology on decision making and human and system performance, the effect that technology has on the changing role of humans in complex systems, and evaluating public health and safety interventions. Dr. Neyens’ work has been funded by NHTSA, Health Sciences South Carolina, Greenville Health System, the Hawkins Foundation, and other companies and organizations.

Dr. Neyens received a PhD in Industrial Engineering from the University of Iowa and has an MPH, also from the University of Iowa. Prior to Clemson, he was a Postdoctoral Research Associate in the Department of Industrial and Systems Engineering at the University of Washington.