Evaluating a Multidisciplinary Approach to Teaching Mobile Healthcare

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INTRODUCTION

• Mobile healthcare is improving access and quality of healthcare while reducing costs and increasing the mobility of patients and providers.
• Innovations are created by technical experts without adequate knowledge of the interplay between various mobile health agencies.
• Improvement of communication and collaboration between mobile health leaders necessitates a multidisciplinary approach to education.
• This study evaluates a didactic course dedicated to teaching mobile healthcare and telemedicine to graduate students in a multidisciplinary format.

THE COURSE

• 45 hours of class
• 30 lectures covering major topics in policy, regulation, business, research, funding, application design
• 25 guest speakers from private and federal agencies
  QualComm Mhealth Alliance
  Care Innovations DataDyne
  WellDoc Communications USAID
  BeClose NIH
  Infield Health US Department of State
  West Wireless Health Institute Department of Health and Human Services
  American Telemedicine Association DC 311
• 33 graduate students from various disciplines, institutions and occupations
• 6 multidisciplinary groups developing innovative telehealth solutions

THE STUDY

OBJECTIVE

• To measure the impact of the multidisciplinary lectures and multidisciplinary groups on each student’s growth in knowledge and level of communication in other professional areas.

METHODS

• Surveys administered to evaluate the impact of each lecture on students’ growth in knowledge and level of communication
• Self-assessment of based on current field of study or employment
• Evaluation using a 6-point Likert scale, excellent (1) to poor (6)

RESULTS

Student Evaluation of Increased Understanding of Mobile Healthcare

• Students with knowledge of the lecture content gave an excellent rating of 1.61
• Students without knowledge of lecture content gave a very good rating of 2.38

Student Evaluation of Increased Ability to Communicate about Mobile Health

• Students with knowledge of the lecture content gave an excellent rating of 1.72
• Students without knowledge of lecture content gave a very good rating of 2.77

Student Evaluation based on Subject

• Individual subject ratings consistent with each other except for research design
• Research design rated good in both increased understanding and communication by students with background knowledge (2.13, 2.24) and students without (2.96, 3.08)

CONCLUSION

• The multidisciplinary format to teaching mobile healthcare appears to have a positive increase in student understanding and ability to communicate in associated fields.
• The impact of growth in knowledge was apparent for students with and without background knowledge regardless of content area.
• These results support the use of multidisciplinary education in fields such as mobile healthcare that require collaboration from various professions.
• Future studies will consider the long-term benefit and alternative modalities of integrative teaching methods.

Academic Concentration of Graduate Students

- Public Health and Policy
- Epidemiology and Biostatistics
- Medicine
- Nursing