PS2-52:

Building a Simulation System to Train Dentists to Practice Evidence-Based Dentistry

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Background/Aims: Because of the distributed nature of dental practice, dentists tend to develop practice patterns based on the training they received in dental school. While their training was current at their graduation, as the period post-graduation increases more recent research holds the potential to improve dental care. Innovative methods are needed to educate dentists in the latest evidence-based approaches to practice. The aim of this study is to build a case-based internet simulation interface to educate dentists on the latest evidence-based approaches to practice. **Methods:** Due to the complexity of the project it was decided to work on multiple components in parallel. One team was formed to review possible guidelines using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) standards. Insufficient high quality guidelines necessitated examining systematic reviews using an approach based on PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analyses). A second team began work to develop standards for case creation. A third team of internet programmers began to create the front- and back-end for the case-based interface. Communication between the teams is facilitated by partial shared team membership and the attention of the principal investigator. **Results:** In order to complete the system within the one year development timeline, we discovered that we needed to make specific compromises to balance the ideal and the practical scenarios. First, each case would involve a single encounter where the provider would be given sufficient information to identify the problems and plan treatments for future encounters. Second, in order to limit the options for gaming the system, all sub-actions will be linked to specific time intervals. Each encounter will then be assigned total completion time based on the sum of the sub-action times. **Conclusions:** Case-based learning, structured around an internet interface and presented to dentists distributed across small practices throughout the world, should be an important link in educating dentists on uniform evidence-based dental information.

Keywords: Evidence-Based Dentistry; Dental Practice

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PS2-53:

Make Research Matter: A Web-Based Toolkit that Supports the Development of Interventions with High Dissemination and Implementation Potential

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Background/Aims: It is now widely recognized that the mere existence of scientific knowledge is not sufficient for its subsequent application. Active dissemination methods are necessary to increase the effectiveness of dissemination and implementation efforts. Furthermore, systematic formative activity and evaluation about external validity and scale-up considerations such as reach, effectiveness, and implementation, and about diffusion considerations such as target audience structure, potential adopter perceptions of prototype interventions, and change agent support, can increase the likelihood of dissemination. **Methods:** We developed, implemented, and tested the Make Research Matter (MRM) website, an online toolkit that assists developers of public health and health services research interventions increase the dissemination and implementation (D&I) potential of their interventions. The toolkit was developed building on the expertise of D&I researchers and existing literature about D&I, and was funded by the National Cancer Institute. Usability testing with potential users was conducted to refine the content and format of the toolkit. **Results:** The MRM website consists of four main tools: 1. the Planning Tool—an interactive survey which provides a tailored report that aids researchers with their dissemination plan; 2. the Resource Library—a searchable database consisting of a compilation of D&I related articles from multiple sources

which is updated monthly; 3. the Narrative Library—a freely accessible online library containing video vignettes and transcripts with junior and senior D&I experts of “how-to” knowledge to D&I problems; 4. the Glossary—containing over 100 definitions of terminology used in D&I health research. Additionally, users of the MRM website can learn more about current publications and presentations, and current news related to D&I. **Conclusions:** The MRM website has been presented to potential users through meetings and poster presentations at different conferences. While it is too early to tell the immediate effectiveness of the MRM website, with continued exposure, the site will be a great starting point for researchers seeking information on how to increase the dissemination and implementation potential of their interventions.

Keywords: Dissemination; Implementation

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PS2-54:

Best Practices: Improving Quality and Reliability in Research Data Sets

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Background/Aims: Healthcare data is highly complex, and considerable effort is required to create rich data resources that are reliable, user-friendly and represent valid utilization. Challenges include identifying appropriate sources, interpreting the data in a given source, matching data between sources, and transforming source data to meet desired specifications. Flaws in any of these aspects of data development can negatively impact data quality and reliability. Creating partnerships for data development across analytic groups within the organization could make the process more efficient by pooling specialized knowledge and increasing opportunities for evaluating data quality. Within Kaiser Permanente in the Mid-Atlantic States, our goal was to (1) identify and implement best practices for data quality, and (2) determine the best method to implement those practices by working in conjunction with not only research staff, but also operations staff and information technology staff. **Methods:** We leveraged literature review to identify best practices in data quality. We identified 3 pillars of data quality improvement: (1) Assessment and Measurement, (2) System Integration, and (3) Governance and Incident Management. Then we used a combined systems and human factors approach to identify opportunities for partnership across analytic groups. This allowed us to identify resources and the appropriate process to engage the 3 pillars. **Results:** We have implemented several capacities that allow us to continually improve our data quality. We developed a decision tree that guides us through the process of developing relevant data partnerships. We implemented mechanisms to monitor relevant changes in upstream systems and alert us to the need to modify extract-transform-load scripts. Lastly, we developed processes to report and address concerns related to data quality and use. **Conclusions:** Improving data quality is not a single act, but rather a journey. The key element identified was the process and governance required to ensure successful partnerships with both the information technology group and operational analytic groups across the institution.

Keywords: Data; Quality; VDW

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Health Services Research / Health Policy

C2-1:

A Randomized Controlled Trial of a Patient Navigator Intervention to Reduce Hospital Readmissions in a Safety Net Health Care System

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Background/Aims: Poor care coordination at hospital discharge can result in avoidable hospital readmissions. This study's aim was to evaluate the effect of a community health worker (CHW) intervention, the Patient Navigator (PN), on readmission rates and post-discharge health care use in a