Virtual Reality-Based Neuropsychological Assessment

Over 27 years ago Paul Meehl (1987) called for clinical psychologists to embrace the technological advances prevalent in our society: “It would be strange, and embarrassing, if clinical psychologists, supposedly sophisticated methodologically and quantitatively trained, were to lag behind internal medicine, investment analysis, and factory operations control in accepting the computer revolution.” Ten years later (17 years ago), Sternberg (1997) described the discrepancy between progress in psychological assessment measures like the Wechsler scales and progress in other areas of technology. Sternberg used the example of the now obsolete black and white televisions, vinyl records, rotary-dial telephones, and the first commercial computer made in the United States (i.e. UNIVAC I) to illustrate the lack of technological progress in the standardized testing industry. According to Sternberg, currently used standardized tests differ little from tests that have been used throughout this century. For example, while the first edition of the Wechsler Adult Intelligence Scale appeared some years before UNIVAC, the Wechsler scales (and similar tests) have hardly changed (aside from primarily cosmetic changes) compared to computers. Although one may argue that innovation in the computer industry is different from innovation in the standardized testing industry, there is still appropriate comparisons. For example, whereas millions of dollars spent on technology in the computer industry typically reflects increased processing speed and power, millions of dollars spent on innovation in the testing industry tends to reflect the move from multiple-choice items to fill-in-the-blank items. Sternberg’s statements are as true now as they were 17 years prior to this publication. One specialty area that is particularly impacted by this lack of technological innovation is clinical neuropsychology. While the historical purpose of clinical neuropsychology was differential diagnosis of brain pathology, technological advances in other clinical neurosciences have changed the neuropsychologist’s role to that of making ecologically valid predictions about the impact of a given patient’s neurocognitive abilities and disabilities on everyday functioning.

Computerized Neuropsychological Assessment Devices

It is important to note that clinical neuropsychologists have not completely ignored technological progress. Computer automated neuropsychological assessments devices (CNADs) were the subject of a recent position paper of the American Academy of Clinical Neuropsychology and the National Academy of Neuropsychology (Bauer et al., 2012). The development of CNADs offers a number of advantages: increased standardization of administration; increased accuracy of timing presentation and response latencies; ease of administration and data collection; and reliable and randomized presentation of stimuli for repeat administrations. Neuropsychologists increasingly use advances in computer technology for cognitive assessment and return-to-work and return-to-play decisions (Parsons et al., 2009). Although the computer automation of neuropsychological assessments represents progress toward developing a technologically advanced application for real-world decisions, it falls short of offering an enhanced assessment methodology that taps directly into real-world function. As Sternberg (1997) points out, psychology needs progress in ideas, not just new measures, for delivering old technologies.

Virtual Reality-Based Neuropsychological Assessment

Virtual reality-based CNADs offer an advanced computer interface that allows humans to become immersed within a computer-generated simulation of real-life activities. Potential virtual environment (VE) use in assessment and rehabilitation of human cognitive processes is becoming recognized as technology advances. Since VEs allow for precise presentation and control of dynamic perceptual stimuli, they can provide ecologically valid assessments that combine the veridical control and rigor of laboratory measures with a verisimilitude that reflects real life situations.

Additionally, the enhanced computation power allows for a range of accurate recordings of neurobehavioral responses in a perceptual environmental that systematically presents complex stimuli. Such simulation technology appears to be distinctively suited for the development of ecologically valid environments, in which stimuli are presented in a consistent and precise manner. As a result, subjects are able to manipulate three dimensional objects in a VE that proffers a range of potential task demands (Parsons, Courtney, & Dawson, 2013). The increased ecological validity of neurocognitive batteries that include assessment using virtual scenarios may aid differential diagnosis and treatment planning.

Conclusions

There are some relatively obvious concerns that neuropsychologists may have for CNADs in general and VR-based CNADs in particular. For example, various configurations and operating systems are in use and researchers need to take steps to insure reliability. At minimum, researchers should make use of position papers developed by the American Academy of Clinical Neuropsychology and the National Academy of Neuropsychology (Bauer et al., 2012). There is a need for neuropsychology to update such guidelines for use with virtual reality-based CNADs and maintain a professional and guiding presence. While much work needs to be done in this area, the potential of clinical psychology to be taken seriously as a science calls for its technology to progress in pace with other clinical neurosciences.
Americans experience persistent pain at a cost of over $500 billion in healthcare and disability related expenses each year. The IOM highlighted significant gaps in the current state of pain care in the United States and called for a national transformation related to the prevention and care of persons with pain. The IOM further noted that veterans, among many other groups including women, children, older persons and ethnic and racial minorities, are particularly vulnerable to disparities in optimal pain care. In fact, evidence suggests that pain may be present among as many as 50% of veterans presenting for care in primary care settings. To address this problem, the Veterans Health Administration (VHA), the largest integrated healthcare system in the U.S., has established pain management as a high priority and promoted a comprehensive, system-wide pain management strategy to promote improvements in pain care for veterans.

The IOM recommends that promotion of pain self-management is foundational for a national transformation in pain care in the United States. This recommendation is informed by a substantial empirical literature supporting the efficacy, and even effectiveness, of psychological and other behavioral approaches to pain management that are designed to promote adaptive pain self-management. Among multiple evidence-based psychological therapies, cognitive-behavioral therapy (CBT) has emerged as the most widely endorsed and commonly available approach. CBT typically involves about ten outpatient therapy sessions focused on strengthening patients’ use of any of several adaptive pain coping strategies such as mental relaxation strategies, behavioral goal setting and principles of behavioral activation, exercise and appropriate body mechanics, activity pacing strategies, distraction, and other cognitive coping strategies, among others. In the context of its national pain management strategy, VHA has launched an important national initiative to train mental health professionals to deliver high fidelity CBT for chronic pain. Early outcomes confirm the success of the initiative in enhancing competencies of mental health providers in delivering CBT and improving relevant outcomes for patients receiving CBT by trained providers.

Despite this large scale effort to build capacity for delivering CBT to veterans, it is widely understood that these efforts will be limited in reaching a large proportion of veterans due to access barriers, including geographic and financial barriers and challenges due specifically to pain and associated disability that interfere with veterans’ capacity to travel to meet with trained therapists. To address these barriers, VHA continues to invest in the development of telehealth and related solutions to overcome these barriers and improve access.

For a growing number of veterans with complex chronic disease including chronic pain, home telehealth with nurse care management represents one important option. An in home Health Buddy monitoring system connected to a telephone provides the opportunity for close tracking of vital signs and other biological markers, and in the case of pain management, for veterans and/or their care partners to provide responses to automated scripted prompts about pain intensity, medication use, and medication side effects. Care managers monitor these patient generated data and respond with phone calls according to pre-specified criteria and on regular intervals. Although care managers are not specifically trained in delivering CBT, they do provide education, advice and counseling consistent with many of the key components of CBT.

CBT is also available via the use of high speed videoconferencing that links a veteran in a VHA Community Based Outpatient Clinic to psychologists who provide CBT from the VHA National Tele-Mental Health Center in another area of the country. The use of videoconferencing has been empirically validated for several mental health conditions with promising outcomes including high patient satisfaction. Currently, veterans at over thirty sites receive CBT for chronic pain via video conferencing. This approach holds considerable promise in promoting access to high fidelity CBT for veterans who would otherwise be deprived of access to this important therapy.

VHA is currently developing and evaluating several phone-based approaches that promote veteran access to CBT and related self-management approaches. Of particular interest are approaches that employ Interactive Voice Response (IVR) technologies to deliver CBT and to monitor and promote adherence to recommendations for pain coping skill practice and accomplishment of patient generated behavioral goals. Patients use their phone key pad to report on their level of accomplishment of pre-specified behavioral goals and skill practice on 0 to 9 scales following automated prompts. In one ongoing study, CBT is delivered entirely virtually. Patients use IVR to monitor behavioral goal accomplishment and pain coping skill practice learned via a self-help manual. These patient generated data are closely monitored by an unseen therapist who pre-records patient-specific motivational messages on a weekly basis that are accessible to the veteran via the same IVR system. Preliminary data suggest that use of IVR in this fashion may significantly enhance adherence and goal accomplishment.
The MedEdPORTAL Psychological Science Collection: An Insider’s Perspective

♦ Interviewer/Author: Cheryl L. Brosig Soto, Ph.D., Medical College of Wisconsin, Department of Pediatrics

♦ Interviewee: Dr. Barney Beins, Associate Editor of MedEdPORTAL

The Association of American Medical Colleges (AAMC) and the American Psychological Association (APA) recently announced “a partnership that will provide medical students, faculty, and other health professionals with access to free online psychological science resources. As part of the collaboration, the APA will submit content to create the first-ever psychological science collection within the AAMC’s MedEdPORTAL, an expansive online repository of instructional materials for teaching pre-health curricula in medical education.”

As Chair of APAHC’s Task Force on Behavioral and Social Science Foundations for Future Physicians, I had the privilege to interview Dr. Barney Beins, Associate Editor of MedEdPORTAL, to get his perspective on this new collaboration.

Q: For Those Not Familiar with the MedEdPORTAL, WHAT IS IT?
A: MedEdPORTAL is a program that the Association of American Medical Colleges (AAMC) sponsors. It is a free, open resource oriented toward the scholarship of teaching and learning as it relates to health education. It is an online publication, which means that materials in the Portal can be reviewed and updated to maintain currency of ideas.

Publications undergo rigorous peer review by experts in various domains. As such, these publications can be useful for one’s professional advancement. All areas of medical education are relevant to MedEdPORTAL. Current partners include the American Psychological Association, American Dental Association, Portal of Geriatric Online Education, Society for Academic Emergency, and Interprofessional Education Collaboration.

Q: What is Your Role in this New Collaboration?
A: My role in this new collaboration will be to edit submissions to MedEdPORTAL that relate to the teaching and learning of psychological concepts that are relevant to medical issues and experiences. Potential authors will submit descriptions of pedagogical activities, exercises, and materials related to psychology that they have tested in their own teaching. Following successful completion of the review process, the authors will have their peer-reviewed work published in MedEdPORTAL.

The work that I will process is not limited to traditional medical topics. Rather, it will focus on behavioral and social scientific domains that will be important when physicians interact with patients. Further, the published work does not need to involve psychological applications. We will also publish pedagogical work that focuses on basic research that may have implications in medical practice.

Q: Tell Us About the New Collaboration Between APA and the AAMC on the MedEdPORTAL. Why is the Collaboration Important?
A: This new collaboration is important for several reasons. On an immediately practical level, the presence of psychological science is increasing in importance in pre-medical education. With the increase in emphasis on diverse sciences, such as the behavioral and social sciences, on the MCAT, students will be expected to understand the fundamentals of sensory processes, cognition, and sociocultural factors in behavior, all of which interact in complex ways to influence behavior.

Q: How Can APAHC Members Contribute?
A: Members of the APAHC are welcome to contribute their pedagogical materials. MedEdPORTAL publishes a diversity of materials across a wide range of topics that can be relevant to psychologists in academic health centers. We anticipate that the range of psychological topics will increase well beyond what is currently available in the Portal as more psychologists become aware of it and become involved in medical education more generally. In addition, we are always interested in reviewers who are able to assess pedagogical materials of varying kinds. The better the representation we have across different areas of psychology, the higher the quality of work we can publish.

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Useful Apps for Psychologists

Adrienne A. Williams, Ph.D., Department of Family and Community Medicine, University of Maryland School of Medicine

With over one million smartphone and tablet apps currently on the market, it can be difficult for psychologists to be aware of products that may be useful for professional work. While people may be aware of popular or well-marketed products, they are often unaware of better alternatives. By becoming more aware of the various functions apps can offer, psychologists can search for apps that offer those specific functions that will be most helpful to them.

The following categories of apps may be useful for psychologists in general professional tasks, clinical work, teaching, and research. See following page for examples of apps in each category.

Reference Management: Psychologists who conduct research may find reference management apps to be helpful, especially when working on projects away from the office. These apps allow organization of references and note taking. They often work in collaboration with desktop software, but may be independent. When looking for a reference management app, consider whether it allows uploading of PDFs of the full article (which may allow integration of PDF Reader apps). Other features to consider are: whether you can search and import references from external databases, such as PsycInfo or PubMed, how references are organized, and how search functions work within the app. Pay attention to where references are stored, as references saved in a cloud may be available from different devices, but may not be available offline.

Screening Tools/Questionnaires: Many standardized screening measures are now available in app form. Some allow psychologists to enter responses themselves, others may be given directly to patients to complete. Look for validated instruments, whether the app scores tests locally on the mobile device and how these results are protected, or if data is sent to a central database or server for scoring, as this may compromise patient privacy.

Tracking Tools: Tracking tools are apps that patients can download themselves to track their own symptoms and treatment goals. These can be useful for emotional/cognitive symptoms, as well as other health conditions that may be addressed by psychologists. Many include the ability to send results to the provider. Be aware of the cost of these apps for your patients—some have free “lite” versions, but require payment for use of all the features.

Homework/Guided Practices: These apps help patients with therapy homework, and may include guided practices or homework worksheets. Look for apps that compliment the type of therapy you provide, and for features such as password protection to keep homework entries private, reminders, and graphing of symptoms.

Diagnostic Information/Billing Codes: There are several apps available to help clinicians quickly access diagnostic criteria or billing codes that can be used during clinical interviews. Look for apps that are easily searchable and that provide quick pathways to the information that you need.

News/Magazines/Journals: Many professional magazines and journals have their own apps. These apps may allow you to read abstracts of new articles, or may allow you to see full issues. Some use search engines that allow you to save searches for specific topics, and will email or alert you when new news or articles on specific topics are posted. Look for features such as whether you can download and/or save full articles, and whether downloads can be sent to other apps (PDF Readers, Notebooks).

Shared Documents: Document sharing apps store files on a server, rather than on a mobile device, and allow people to access their own documents from different locations (e.g. home office and at work), or share documents with others when collaborating with colleagues. Features to look for include amount of storage space, cost once storage capacity is reached, and how the software handles documents that are open in two locations at the same time.

Survey/Data Collection: Survey apps allow researchers to collect data using mobile devices, which is particularly helpful when data must be collected in the field or with participants who do not have internet access. Look for features such as whether data can be collected offline, how data is stored, how data is exported, security features, and cost.

continued on next page
Useful Apps for Psychologists (continued)

Reference Management
- MyEndNoteWeb: https://www.myendnoteweb.com
- Papers: http://www.papersapp.com
- Mendeley: http://www.mendeley.com
- Refworks: http://www.refworks.com
- Zotero: http://www.zotero.org

Screening Tools
- Depression Screening: https://itunes.apple.com/us/app/depression-screening/id563265002?mt=8
- NovoPsych Psychometrics: http://www.novopsych.com/functionality/app/

Tracking Tools
- Moodtrack: http://www.moodtrack.com
- TracknShare: http://www.trackandshareapps.com
- T2 Mood Tracker: http://www.t2.health.mil/apps/t2-mood-tracker
- My Pain Diary HD: http://chronicpainapp.com
- Chronic Pain Tracker: http://chronicpaintracker.com
- CatchMyPain: http://www.catchmypain.com
- TactioHealth: http://www.tactiosoft.com/tactiohealth

Homework/Guided Practices
- DBT Diary Card/Skills Coach: http://www.diarycard.net
- iCounselor: http://icounselor.biz/clinic
- iCBT: http://bonfire.com/apps/icbt/
- SmallTalk: http://www.aphasia.com/products/apps/smaltalk
- CBT eferee: http://www.cbtreferee.com
- Breathe2Relax: http://www.t2.health.mil/apps/breathe2relax
- Anxiety Free: http://www.ican-hypnosis.com
- Take a Break: http://www.meditationoasis.com/smartphone-apps/

Diagnostic Information/Billing Codes
- DSM-5 Diagnostic Criteria: http://www.appi.org/Pages/DSM5Mobile.aspx

News/Magazines/Journals
- PsychExplorer: http://www.psycexplorer.com
- Flipboard: https://flipboard.com
- Zite: http://zite.com

Shared Documents
- Dropbox: https://www.dropbox.com
- Copy: https://www.copy.com/home/
- Google Drive: http://www.drive.google.com
- Box: https://www.box.com
- GoAruna Files: http://goaruna.com

Surveys/Data Collection
- QuestionPro: https://www.questionpro.com/mobile/
- QuickTapSurvey: https://www.quicktapsurvey.com
The NIH Toolbox for Assessment of Neurological and Behavioral Function

- Cindy J. Nowinski, M.D., Ph.D., Department of Medical Social Sciences and Department of Neurology, Northwestern University Feinberg School of Medicine
- Richard C. Gershon, Ph.D., Department of Medical Social Sciences, Northwestern University Feinberg School of Medicine

What would you get if you asked 256 scientists and staff at over 80 institutions to develop state-of-the-art tools to measure important neurological and behavioral indicators of health? Well, the NIH asked, and the result is the NIH Toolbox for Assessment of Neurological and Behavioral Function. The NIH Toolbox is a multidimensional set of tests that can be used to assess cognitive, emotional, sensory and motor function in people ages 3-85. Developed with funding from the NIH Blueprint for Neuroscience Research, the NIH Toolbox is intended to meet the needs of investigators for standard, brief, easy-to-use instruments that can be used in a variety of settings and at minimal cost. The six year development process, led by Dr. Richard Gershon at Northwestern University, included use of Item Response Theory (IRT) methods, validation against gold standard measures, and the creation of normative reference values based on a national sample (English and Spanish-speaking) representative of the US population.1, 2 This article focuses on the current state of the NIH Toolbox.

With input from almost 200 external content and methodological experts, the NIH Toolbox is divided into 4 core “domain” batteries (i.e., cognition, emotion, motor, sensation), each of which measures critical aspects of that domain for a comprehensive understanding of health for ages 3-85. These batteries are supplemented by additional tests that can be used for specific age groups. Each battery takes approximately 30 minutes to administer, with individual measures averaging about 5 minutes of administration time. Thus, all 4 batteries can be given within 2 hours. The Cognition battery is comprised of tests to assess executive function, attention, working memory, language (vocabulary comprehension and oral reading), episodic memory and processing speed. The Motor battery measures strength, dexterity, endurance, locomotion and balance. The Emotion battery is available in both self administered (age 8-85) and proxy versions (for children ages 3-12). The instruments evaluate multiple aspects of Negative Affect, Psychological Well-being, Stress and Self-Efficacy and Social Relationships. Sensation measures assess sight, taste, olfaction, audition, vestibular and the subjective experience of pain.

The NIH Toolbox was originally developed to meet the needs of researchers. Therefore, special attention was paid to ensure that in addition to being psychometrically sound, the tests possessed those properties that would facilitate research use, particularly in large-scale studies. These properties include brevity, availability of a Spanish version, ease of administration (test administrators need only bachelor’s level experience), minimal equipment and supply costs, and the availability of normative reference values. These same properties may make the tests attractive to clinicians (and they are available to clinicians) but it is important to note that the NIH Toolbox was not developed for diagnostic purposes. Therefore, while investigators are starting to use the NIH Toolbox with clinical populations, much of the work needed to demonstrate its suitability as a diagnostic tool remains to be done.

The NIH Toolbox is currently administered online through Assessment Center (www.assessmentcenter.net) an NIH-funded research management software platform. Most measures require the use of a computer and external monitor with some individual tests having additional equipment or supply needs. Computerized administration helps ensure that the measures are given in standard ways. In addition, it enables Computerized Adaptive Testing (CATs) for IRT-based measures. However, the NIH Toolbox was always intended to be a dynamic system that can adapt to changing needs. For example, users have expressed the desire for increased portability. Therefore, efforts are underway to make it possible to administer the NIH Toolbox without an Internet connection and/or on an iPad. These modifications should make it easier to utilize the NIH Toolbox in a wider variety of settings.

Those wanting to learn more about the NIH Toolbox, including current technology, software and equipment requirements, estimated costs for use, and how to access the measures, should visit the NIH Toolbox website (www.nihtoolbox.org).

1.2 NIH Toolbox for Assessment of Neurological and Behavioral Function, Neurology; March 2013; 80 (11 Supplement 3).

Privacy and confidentiality are two of the cornerstones of healthcare, particularly psychology. Concerns have been expressed about interactions with patients. Dr. Keely Kolmes (www.drkkolmes.com) provides some suggested guidelines with using social media, clinical practice, and ethical guidelines for psychologists. She suggests having an open discussion with patients about your social media presence and confidentiality and has also provided suggestions for a social media policy in one’s private practice. Additionally, Facebook and Twitter do provide security options controlling the accessibility of your account. You can limit people posting to your Facebook page and lock your tweets from being viewed by the public. Again, having a plan in place about how you want to use social media will give you an opportunity to address potential high risk situations you may encounter in clinical settings.

The availability of comments on social media and the Internet leads some individuals to avoid social media altogether. Some discussions do not represent well in text, losing the tone and inflection of verbal expression. Basically, think before you type. Remember that your comments will remain open and searchable for a long time. Social media allows for quicker dissemination of our impulsive thoughts. Functioning from a foundation of your professional identity promotes reflection in how you communicate with others in a format as open as the Internet.

In summary: Be transparent, be mindful, and know who you are as a professional in social media.

Donations in any amount are welcomed and all contributions will be acknowledged publically. Individuals who wish to contribute $500 or more to the fund will be recognized as founding members in the APAHC public materials. Contributions received will serve as discretionary funds to be dispersed upon approval of the APAHC Board. However, no more than 5% of the fund may be expended in any year. It is the hope of the APAHC Board that this fund grows and does honor to our field.
R. Brown...continued from page 1

to cope with the ‘daily hassles’ associated with the management of a disease by electronic media? Will individuals find greater social support when they are able to use social media to communicate with fellow patients about their illness and associated treatments? Admittedly, I do not have all of the answers to the difficult questions that I have posed, but these are interesting questions that await much needed research in this important area of technology.

This would not be a presidential column if I didn’t delineate my initiatives for the next two years. First, we want to grow the membership of our great organization, which will assure that we remain a vibrant organization that includes all psychologists who are employed in academic health centers. Ultimately, a robust membership would allow us to lobby at both state and national levels, to provide funding for attendance at various events including the biannual conference at a discounted cost, and perhaps eventually offering membership at a reduced cost. Thousands of psychologists are employed in academic medical centers, yet there are only 200 members in the Association of Psychologists in Academic Health Centers. We need to continue to spread the word about the benefits that the Association offers members including our journal, Journal of Clinical Psychology in Medical Centers, which publishes articles of interest for psychologists practicing in health centers. In addition, the biannual conference, the next of which will be held in Atlanta, Georgia in February of 2015 provides the opportunity for professionals at all levels to share experiences, and to learn and grow together. Finally, the program for early career psychologists provides much needed support that our junior colleagues deserve. Thus, I want to solicit your assistance for this new growth of membership initiative by recruiting members for the organization. I would like to charge each of you with recruiting a member to the Association. This might occur by soliciting colleagues with whom you work to join the Association or by sending an electronic mailing to a colleague at another university inviting her/him to join. When you attend a conference, we would like you to “talk up” the Association and perhaps “arm” you with flyers and brochures discussing the benefit of membership. We want you to be part of the strategic plan of making the Association a vibrant and strong group that can advocate for its members in important ways.

A second presidential initiative is to provide services for members with some of the financial reserves that we have accrued. Potential activities might be small research grants for junior colleagues or lobbying in the capital for important legislation that impacts academic health centers such as enhancing the budget at the National Institutes of Health and the Centers for Disease Control and Prevention. It is likely that you have many more ideas as to what our Association can do for you as a practicing psychologist in an academic health center. I look forward to hearing from you and to serving you.

References


Q: Please Describe the Submission Process. How is This Similar To/Different From Submitting a Manuscript to a Journal?
A: In many ways, the process of submission here is no different from submission to any other professional journal. You can see the guidelines at the MedEdPORTAL: [https://www.mededportal.org/submit/instructions/](https://www.mededportal.org/submit/instructions/). One caveat regarding types of materials is that PowerPoint files of course syllabi alone will not provide the type of information required for MedEdPORTAL articles. Similarly, bibliographies that are not pedagogically focused are not appropriate.

When we receive your submission, it goes out to reviewers who evaluate and offer help in moving it toward publication. As with any peer-reviewed submission, you will receive feedback that will help you strengthen the manuscript as necessary. As you read through existing publications in MedEdPORTAL, you will see that the format and approach differs from that of many research journals with respect to assessment of the pedagogical exercise or material. The extensive and complex statistical treatment in theoretical research journals is much reduced in MedEdPORTAL articles.

Q: Are You Looking for Content in Certain Areas/Topics?
A: The content we are interested in ranges from guidance on teaching basic areas of psychology through the teaching of very specific, applied topics. The important aspect is that the material be appropriate to advance the education of medical students in the social and behavioral sciences, complementing their education in the natural sciences.

The titles of articles below may give you a sense of what has already appeared in MedEdPORTAL. We hope that with the advent of the collaboration between APA and MedEdPORTAL, the topics will broaden significantly and appear more regularly.

- What Patients Bring to the Medical Encounter
- Dealing with the Whole Patient
- Psychosocial Risk Screening of Children Newly Diagnosed with Type 1 Diabetes: A Training Toolkit for Healthcare Professionals
- Refugee Health Elective
- Got Ethics? Exploring the Value of Interprofessional Collaboration through a Comparison of Discipline Specific Codes of Ethics
- Patient Centered Care Workshop: Providing Quality Health Care to a Diverse Population

Q: How do Academic Institutions View Publications in the MedEdPORTAL?
A: Every institution has its own standards regarding professional advancement, so there is no single answer to this question; however, an article that appears in MedEdPORTAL is a professional, peer-reviewed publication. The Portal is overseen by the Association of American Medical Colleges, a highly respected organization that promotes high quality education and instruction. If your institution values peer-reviewed work in the area of the scholarship of teaching and learning, publications here should count toward promotion.