The Use of Serious Video Games to Improve Children’s Psychological Well-Being
Amy Przeworski, Ph.D. & Marc Buchner, Ph.D.

Anxiety and depression are the most common psychological disorders in children and adolescents. Childhood anxiety and depression are associated with impairments in peer functioning and academic achievement, and greater physical health problems and risk of suicide with the cost of depressive disorders in the US is estimated to be $43 billion dollars.

Numerous prevention programs exist for anxiety and depression, most of which rely on cognitive-behavioral therapy techniques (CBT). The cognitive-behavioral model suggests that thoughts, behaviors, and emotions are inherently connected and that maladaptive thoughts and behaviors result in negative emotions, such as anxiety and depression.

Cognitive behavioral techniques are efficacious in the prevention and treatment of anxiety and depression in children, with results maintained even years after the intervention. However, rates of attrition are high. Additionally, logistic barriers, such as the cost of treatment, travel time to get to a therapist’s office, and the need for child care for siblings, may lead to attrition or prevent a family from seeking therapy services. When games and CBT therapeutic techniques are seamlessly integrated, children may be more motivated to engage in the intervention and therefore may be more likely to complete the intervention.
Computer games have been developed for use in treatment and disease management of childhood chronic illnesses, including asthma, diabetes, cystic fibrosis, and cancer. Game use was associated with improved adherence, blood glucose levels, self-care behaviors, symptoms management, disease-related knowledge, and self-efficacy. Prof. Buchner, a member of the CTSC BRIM core, has helped to develop serious video games for use in providing distraction for pain control during periodontal scaling and root planing procedures and speech therapy training. Additionally, with the Nursing School he has developed and tested two 3D videogames to provide patient training and education to improve health care provider/patient communication and to improve depressive symptoms in young adults.

Video games have been created to support therapy in children whose parents have divorced, to motivate adolescents for psychotherapy and to teach emotion regulation and relaxation in those with impulse-related disorders. Additionally, a video game called Treasure Hunt has been designed to support CBT for various disorders (anxiety, depression, and externalizing disorders).

We have been working to create video game prevention interventions that address symptoms of anxiety and depression in kids, as well as interventions that teach children skills to regulate their emotions. The games are being developed as adventure games in which the child is asked to engage in various activities, such as identifying thoughts that are spewed by a dragon or other creature as being negative or positive and searching for clues that support or refute these negative thoughts. Games will be programmed such that the user will be rewarded with points for successfully completing activities in the game. There will also be the capability for the user to enter information about how the user implemented therapy techniques in their daily life and points will be provided for this to ensure the transfer of therapeutic techniques from game play to real life.

Congratulations to our February 2014 Pilot Awardees!

Join us in recognizing the CTSC's February Core Utilization Pilot Award Recipients:

Monica Montano, Ph.D. Case Western Reserve University School of Medicine.
"Metabolic inactivation of potent androgens in prostate cancer"

Monica Venere, Ph.D. Cleveland Clinic Lerner College of Medicine.
"Identifying post-translational modifications on Eg5 in response to radiotherapy in glioblastoma stem cells"

CTSC Pilot Study Finds Mothers of Children on Life-Sustaining Devices Embrace Tips to Manage Stressed Lives

Many mothers with children on life-sustaining medical devices, such as ventilators and breathing or feeding tubes, suffer physical and psychological distress from the stress of juggling treatments, appointments, therapies and daily family pressures.

But researchers from the Case Western Reserve University nursing school found that an intervention, called "Resourcefulness," which teaches moms how to better cope, bolsters the mother's well-being and, in turn, benefits the whole family.

Findings from a small pilot study of 22 mothers conducted at the William T. Dahms, M.D. Clinical Research Unit (Dahms CRU) located at University Hospitals Case Medical Center, "Resourcefulness training intervention: A promising approach to improve mental health of mothers with technology-dependent children," were published in the journal of Applied Nursing Research. A National Institute of Health Clinical and Translational Science Collaborative at Case Western Reserve supported the study.

Valerie Boebel Toly of Case Western Reserve’s Frances Payne Bolton School of Nursing directed the study, along with nursing school professors Carol Musil and Jaclene
Dr. Siran Koroukian on Ohio's Plans to Curb Chronic Diseases

On March 26th, state health officials released "Ohio's Plan to Prevent and Reduce Chronic Disease," which took more than a year to produce with input from more than 40 organizations. The plan outlines dozens of goals to "dramatically improve" the health of Ohio residents.

The collaborative gives public-health professionals hard metrics to meet and monitor together, said Siran Koroukian, an associate professor at Case Western Reserve University's School of Medicine, and the leader of the CTSC's Population Health & Outcomes Research Core.

Physical inactivity, tobacco use, poor nutrition, and advocacy of increased screenings are targeted in the plan. The plan also looks at ways that community organizations, schools and universities, employers, health-care systems and the government can "leverage resources" to make a difference, including the adoption of smoke-free policies in public housing and on university campuses; promoting walking and bicycling to schools; increasing the number of farmers markets in low-income communities; and providing physical activity programs at worksites.

Read More at The Columbus Dispatch

Screening for Cancer in Women: 2014
Register Today - CME Credits Available

May 21, 2014 (8am-3:15pm)
Embassy Suites Hotel Independence

Optimal strategies in cancer screening and detection are constantly evolving, and best practices are changing. This conference will feature speakers from health centers across Northeast Ohio working together to fight cancer, who will offer expert insight, updates, and advice on screening for cancer in women.

This comprehensive symposium is aimed at primary care providers and cancer specialists with updates that can be incorporated into their practices:

- New screening technologies, particularly to detect breast and lung cancer
- Current guidelines for colorectal, skin, lung, breast, and cervical cancer screening
- Impact of the Affordable Care Act
- Racial and economic disparities within cancer screening and detection
- When to refer a patient for a genetics referral or to a high-risk clinic

For more information and to register, visit: cancer.case.edu/training/cme/2014/screening/

Primary care physicians, hematologists, medical oncologists, and nurses should attend this course.

This activity has been approved for a maximum of 6.0 AMA PRA Category 1 Credits™.

If you have any questions regarding this conference, contact the Case Comprehensive Cancer Center Office of Continuing Medical Education at 216.844.5375.

Announcing the Summer Clinical Research Scholars Program Course:
CRSP 401 - Introduction to Clinical Research
We will begin accepting applications for CRSP 401 "Introduction to Clinical Research" course for Summer 2014 at the end of April 2014. Course schedule is July 3 through July 25, 2014, Monday through Friday (8:00 a.m. - 12 noon).

Application forms, details, and step-by-step instructions are posted on our website at [http://casemed.case.edu/CRSP/401.cfm](http://casemed.case.edu/CRSP/401.cfm). This course can be taken for credit or as a Non-Clinical Research Fellow (Non-CRF) for no credit.

Cost for Non-Clinical Research Fellows (Non-CRF) at 10% of 1 credit hour: $160.80
Cost for taking this course for credit (3 credits): $4,824.00

1. The Non-Clinical Research Fellow (Non-CRF) (no credit) is available to individuals who hold M.D., D.O., D.P.M., N.D., D.D.S., Ph.D., and are associated with a CASE affiliated institution (e.g. University Hospitals, MetroHealth, Cleveland Clinic, Louis B. Stokes VA, etc.).

   See Non-CRF at [http://casemed.case.edu/CRSP/401.cfm](http://casemed.case.edu/CRSP/401.cfm) for additional details. Generally, fellows and residents of Case-affiliated hospitals, who do not have an education allowance, will want to register as Non-CRF students for no credit. Non-CRF students pay ten percent of the regular tuition, plus the cost of books and materials. Please complete both pages of the on-line Application for Non-Degree Admission form. Please be sure to complete the "Non-CRF" section of the application.

2. The Non-Degree Option (for credit) - individuals who wish to earn credit for this course should review Non-Degree Student Registration Guidelines at [http://gradstudeis.case.edu/prospect/nondegree.html](http://gradstudeis.case.edu/prospect/nondegree.html) and fill out the on-line Non-Degree Application Form.

Please be sure to print out your complete application, scan and e-mail to ccieducation@case.edu or fax it to 216-368-0207 - 'Attention - Angela Bowling'.

Regarding the application process, contact Angela Bowling at 216-368-2601 or axb710@case.edu with any questions or concerns.

Please read this before you fill out the Application for Non-Degree Admissions form or the Non-CRF or Non-Degree Form!

- Use Adobe Reader to fill out the form, you should be able to save your responses.
- Visit [http://casemed.case.edu/CRSP/401.cfm](http://casemed.case.edu/CRSP/401.cfm) to download complete step-by-step instructions to complete the applicable application, obtain parking, and course registration.
- Most all employees of affiliated institutions (e.g. University Hospitals, MetroHealth, Cleveland Clinic, Louis B. Stokes VA, etc.) have a CWRU ID#. Please verify whether an ID # is already in place prior to beginning the application (instructions on how to verify is on page 1 of the step-by-step instructions located at [http://casemed.case.edu/CRSP/401.cfm](http://casemed.case.edu/CRSP/401.cfm)).
- Please provide a valid e-mail address that you check regularly.
- International students must provide their foreign address in their country of citizenship; the application will not be processed without this information.
- In Institutional Affiliation filed, please indicate whether you are at UH, RBC, CCF, MHMC, VA, etc.
- In Student Signature field you can type in your name.
- E-mail the completed application to ccieducation@case.edu - this method is preferred! Alternatively, you can fax your completed form to 216-368-0207 attention Angela Bowling. Feel free to call 216-368-2601 with any questions.
- Upon receipt of your application, an e-mail with your course details, parking, and tuition billing information will be issued.
- After your application is processed by the Graduate School, you will receive additional information via e-mail on how to complete your registration online.

**Important Note:** You will be officially registered for the course only after you complete the online registration through the CWRU Student Information System (SIS)!

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5th Annual Dept. of Medicine Research Day
The 5th Annual Department of Medicine Research Day will be held on Friday, May 2, 2014 at the Wolstein Research Building.

Information regarding registration and abstract submission can be found [here.](#) For more information please contact Martha Salata at 844-1988 or mks18@case.edu.

### Comparative and Cost-Effectiveness Research Course/Workshop

**May 19-20, 2014 (9am-5pm)**

Nursing School, Ground Floor, Room NOA 270

"Comparative Effectiveness Research: From All Angles," the 4th annual two-day conference (also available for course credit EPBI/MPHP 467), will be held May 19-20, 2014 at Case Western Reserve University. Many expert speakers are featured covering: methods, policy, physician practice, public acceptance, economics of payment, health care organizations, and ethical/legal/social issues.

This is followed the next week, May 27-29, by a 3-day crash course in Cost-Effectiveness Analysis. For more information about the program and registration fees, or how to register for academic credit, visit: [http://www.CERCME.wordpress.com.](http://www.CERCME.wordpress.com)

Discounted registration for interns, residents, fellows, full-time students not taking for academic credit and employees of public health departments.

Questions? Contact Dr. Mendel Singer at mendel@case.edu or 216-368-1951.

Featured speakers include:

- **Jessica Berg, JD, MPH** - Professor of Law, Bioethics, and Epidemiology & Biostatistics, CWRU; Associate Director, CWRU Law-Medicine Center
- **Barbara J. Daly, PhD, RN, FAAN** - The Gertrude Perkins Oliva Professor in Oncology Nursing; Professor, Biomedical Ethics, CWRU School of Medicine; Director, Clinical Ethics, University Hospitals Case Medical Center
- **Gregory S. Cooper, MD** - Professor of Medicine, Department of Gastroenterology and Liver Disease, University Hospitals Case Medical Center
- **William S. Schwab, MD PhD AGSF** - National Guidelines Committee, Kaiser Permanente; Medical Director, Home Health, Ohio Permanente Medical Group
- **J.B. Silvers, PhD** - John R. Mannix Medical Mutual of Ohio Professor of Health Care Finance; Department Chair & Professor, Banking and Finance, CWRU; Board Member, Joint Commission Resources/Joint Commission International; Board Member, Vice Chair of Finance and Audit, The Joint Commission
- **Mendel E. Singer, PhD MPH** - Coordinator - Associate Professor and Vice Chair of Education, Dept. of Epidemiology and Biostatistics, CWRU; Director of Research, Master of Public Health program

### MSC 2013 Publication To Be Released

CSC 2014 and MSC 2015 Conferences Announced

The post-conference MSC 2013 publication will be released this month by Stem Cell Translational Medicine! Here is a link to the report which our travel awardees helped us...
The conference directors were pleased to host 324 delegates from 21 countries and 120 different institutions at this unique, translationally-focused adult stem cell conference in Cleveland Ohio. The spectrum of over 100 high quality poster presentations spanned international laboratories and commercial entities in the field of adult stem cell biology and therapeutics.

In addition, conferences for 2014 and 2015 have been announced:

**August 17-20, 2014**
[http://www.ncrm.us/Events/csc/landing.cfm](http://www.ncrm.us/Events/csc/landing.cfm)
Registration and abstract submission opens March 31, 2014 and early-bird discounts ($100 off) are available until May 1.

**August 17-19, 2015**
[http://www.mscconference.net/](http://www.mscconference.net/)
Planning for MSC 2015 will begin September 2014.

We hope you will make Cleveland your translational science destination every August!

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**Michael J. Fox Foundation Event**
**May 31, 2014**

The Michael J. Fox Foundation is hosting a large patient education symposium at the Cleveland Convention Center on Saturday May 31st, 2014. Researchers are encouraged to participate and to share information with patients. Space to exhibit trials and gather leads for your recruiting research will be provided. Researchers will also be free to promote other patient services that your institution provides.

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**Register Now for OHRP Research Community Forum**
**Cincinnati, OH - May 21, 2014**

"Clinical Research...and All That Regulatory Jazz!"

For the first time in this region, the federal Office for Human Research Protections (OHRP) will partner with Cincinnati Children’s Hospital Medical Center (CCHMC), the University of
Cincinnati (UC), Cincinnati Veterans Affairs Medical Center and the Center for Clinical & Translational Science & Training (CCTST) to co-sponsor this dynamic and engaging event.

To be held **Wednesday, May 21, 2014** at the **UC Kingsgate Marriott Conference Center**, the forum will address challenges institutions face regarding protection of human subjects, and explore current "hot topics" in research.

The program features distinguished faculty members from academia, industry and the federal government.

**Marshall L. Summar, MD**, Children’s National Medical Center, will deliver the keynote address, "Multi-Center Longitudinal Research in Rare Disease: Why? What? How?"

**Jerry Menikoff, MD, JD, MPP**, director of the OHRP, will present "Improving Informed Consent."

In addition, there will be 5 "hot topic" tracks with a total of 15 breakout sessions. Session topics include biobanking, technology and internet-based research, novel research and network-based research. A full conference schedule is available here. Links for hotel registration are also found on this site.

Registration: $150

This activity has been approved for AMA PRA Category 1 Credit(s)™ as well as nursing, psychology, social work, CRP, and CIP continuing education credit.

For more details about the forum, please contact **Mina Busch** or **Mark Schuller**, conference co-chairs.

For assistance registering, please email the CCHMC CME office at cme@cchmc.org or call (513) 636-6732.

Hope to see you May 21!

Visit Our Website

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