



Scientific Tracks & Abstracts



Sessions

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Session Chair

Alberto de Bellis

Maria Rosaria Maglione Foundation Onlus, Italy

Session Co Chair

Lynda Hacker Araoz

Columbia County Pathways to Recovery, USA

Session Introduction

Title: Interventions and attitudes among U.S. and international surgeons treating patients with infective endocarditis from intravenous drug use

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Title: Safety of plasma A β 1-42 and A β 1-40 reduction with H.E.A.L.E.R. (Haemoadsorption for Extracorporeal Amyloid- β Level Expedited Reduction) using BETACLEAR BICARB 1000 in healthy elderly individuals

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Husten Carvalho, UNESA University, Brazil

Interventions and attitudes among U.S. and international surgeons treating patients with infective endocarditis from intravenous drug use

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The treatment of patients with Intravenous Drug Use (IVDU) has evolved to include a wide range of medications, psychiatric rehabilitation, and surgical interventions, especially for life-threatening complications such as Infective Endocarditis (IE). Such interventions remain at the discretion of physicians, particularly surgeons, whose treatment decisions are not merely influenced by medical factors, but also social justice issues ranging from physician bias to bedside rationing. These social justice issues become heightened when IVDU patients require repeat valve replacement surgeries for IE due to relapse or continued drug use. Patients who receive a valve replacement and continue to abuse illicit drugs intravenously, often return to their medical providers months to a few years later with a re-infection of their bio prosthetic valve; such patients require additional surgeries which are at the center of many ethical discussions due to high mortality rates associated with continuous chemical dependency after surgical interventions. The following presentation details our study findings collected from 220 U.S. and international surgeons, who are involved either medically or surgically with the care of their IVDU-IE patients, and their identified practices, attitudes, and ethical perspectives surrounding repetitive heart valve transplantations. Furthermore, we describe the importance of integrative addiction care for this patient population and propose guidelines and best practices for preventing relapse and subsequent patient harm. Our proposed guidelines and best practices are informed by comprehensive care programs, interprofessional health care teams, and administrative support.

Biography

Julie M Aultman, PhD, is a clinical ethicist and Professor of Family and Community Medicine, College of Medicine, NEOMED, where she teaches and researches a variety of topics in bioethics and medical humanities and serves four clinical institutions as a clinical ethics consultant. She is the Director for the Medical Ethics and Humanities Program, College of Graduate Studies. She holds leadership positions within and external to NEOMED, including Chair of the IRB, Diversity Council, and Council on Academic Performance and Professionalism for the College of Graduate Studies. Her research interests extend to psychiatric ethics, healthcare justice, international studies in healthcare systems and community based rehabilitation programs, and moral and professional development in medical education. Recent research areas have focused on the ethics of heart valve replacements for patients struggling with addiction, as well as, justice issues surrounding access of care for refugee and undocumented patients.

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Safety of plasma A β 1-42 and A β 1-40 reduction with H.E.A.L.E.R. (Haemoadsorption for Extracorporeal Amyloid- β Level Expedited Reduction) using BETACLEAR BICARB 1000 in healthy elderly individuals

Miguel A Ramos Jr

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Alzheimer's disease (AD) is a growing concern worldwide due to rise in the elderly population. Symptomatic agents remain to be the cornerstone in its management, whereas the pathological cortical changes are amyloid β -protein plaques and neurofibrillary tangles. Despite well-defined changes in the brain that deleteriously lead to the myriad of symptoms of AD, the Amyloid hypothesis maintains its stronghold in the causation of AD. This study aims to evaluate the safety of H.E.A.L.E.R. procedure with the Amylex BETACLEAR BICARB 1000 in healthy elderly individuals. This product contains a nanomolecular peptide in a sodium bicarbonate compound used as component of dialysate in conjunction with high-flux membrane dialyzer configuration for a hemodialysis procedure in bypass mode. Its active agent specifically targets β -amyloids and facilitates their extraction from the blood. The result is a reduction in the levels of β -amyloids (A β 1-40 and A β 1-42) in the patient's body. Patient information booklet and informed consent will be administered to 3 participants, who will undergo complete physical, neurological and cognitive examination, alongside medical history and drug review. Laboratory and ancillary tests will be done, and patients will undergo cardiac clearance prior. Once qualified, they will be admitted at St. Luke's Medical Center (SLMC) at pre-defined conditions. A triple lumen venous catheter will be inserted percutaneously at the internal jugular vein to be used for the extracorporeal procedure. Lumbar tap will be performed twice to determine the β -amyloids level in the CSF. Plasma β -amyloids will be done immediately before and after each procedure. ELISA technique will be used for Plasma and CSF β -amyloids level determination. Safety monitoring of patients will be in place. After about 25 days, the patients will be discharged once they are deemed fit and free of adverse effects. They will be reexamined after a month. Ethics Committee approval has been obtained and maintained.

Biography

Miguel A Ramos Jr. is a well-known medical professional and clinical researcher in the field of geriatrics. He is currently the Medical Director of the National Center for Geriatric Health and president of the Philippine Society of Geriatric Medicine. He is also the Director of the Geriatrics Center at St. Luke's Medical Center and is set to be the Head of the new Geriatrics Department in the National Kidney and Transplant Institute. He has extensive experience in the field of age-related diseases and is a founding member of several Alzheimer's organizations such as Dementia Society of the Philippines and Alzheimer's Disease Association of the Philippines.

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Figure 1. Schematic Diagram of the Hemoadsorption System

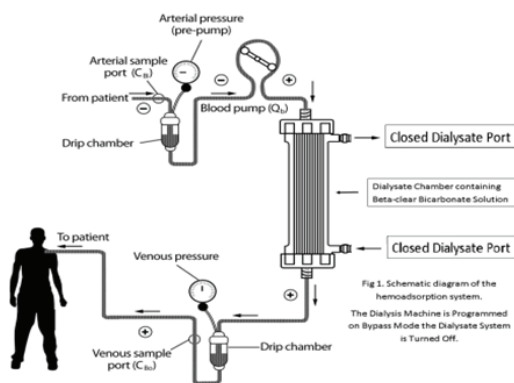


Fig 1. Schematic diagram of the hemoadsorption system. The Dialysis Machine is Programmed on Bypass Mode the Dialysate System is Turned Off.

Crystal Meph: Christopher Marlowe's Dr Faustus and the evil of addiction

Catherine Harrison

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In *Crystal Meph*, I suggest that Marlowe's c.1588 hit, *Dr Faustus*, is a portrait of addiction; that Faustus's behaviours are characterised by 'overwhelming involvement' with his primary drug of choice, magic; and that his sense of profound 'psychosocial dislocation' manifests in cognitive, behavioural, and physiological symptoms.

Faustus appears to play out on the force field generated by an elemental binary that recurs in addiction testimonies: God is at one pole, Lucifer/Evil the other. In the twenty-four years before he dies and goes to hell, magic delivers repeatedly to Faustus intense feelings of pleasure. He flies around the world, beds beautiful women (including Helen of Troy), learns Ptolemaic secrets and fraternises with heads of state - including the Pope and the Holy Roman Emperor. However, his fatal addiction to 'that execrable art' takes him, finally, to hell.

Exogenous addiction factors considered include socio-economic/religious metanarrative, and university setting; and the availability of magic (Cf. other addictive triggers). Magic is contextualised in the recent Reformation: transubstantiating prayers, substances, spells, crystal balls (such as the one owned by Elizabeth I's conjurer, Dr John Dee) and rituals were more than hangovers from Catholicism. Discussion of (endogenous) self/personality links with familiar Twelve Step rationale: echoes of *I was born an alcoholic* in the predestinarian, 'melting heavens conspired his overthrow' of the *Prologue*.

Textual evidence frames addiction in Faustus in the religious terms, the paper concludes. Long before Mephistopheles crystallised as the next good idea in the ether of his consciousness, Faustus was already intoxicated and dangerously isolated by his own success. Intellectually unassailable, detached from his fellows, always hungry and restless, his illimitable lust for knowledge yields the singular truth, that, 'All sin tends to be addictive, and the terminal point of addiction is what is called damnation.'

Biography

Charlotte Pickering/Catherine Harrison is a British writer of fiction and non-fiction. The second edition of her acclaimed novel *Messiah of the Slums* (Fey Publishing) was published in 2017 with a Foreword by former Chair of the Booker Prize Committee Sir Gerald Kaufman MP and an Afterword by Rowan Williams, Master of Magdalene College Cambridge, and former Archbishop of Canterbury. Drug addiction and its personal and social consequences was the pivotal theme in the work. As Catherine Harrison, she has worked for many years as a teacher, music producer & promoter, session pianist and vocalist, and freelance musical director.

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Feature binding as an indicator of early cognitive decline in dementia

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Statement of the Problem: Early cognitive changes in people at risk of developing dementia may be detected using behavioral tests that examine the performance of typically affected brain areas, such as the hippocampi. An important cognitive function supported by the hippocampi is memory binding, in which object features are associated to create a unified percept. The purpose of this research is to compare Visual Short-Term Memory (VSTM) binding performance for object names, locations, and identities between a participant group known to be at higher risk of developing dementia Mild Cognitive Impairment (MCI) and healthy aging controls.

Methodology & Theoretical Orientation: Ten MCI and 10 control participants completed five VSTM tests that differed in their requirement of remembering bound or unbound object names, locations, and identities, along with a standard neuropsychological test (Addenbrooke's Cognitive Examination [ACE]-III).

Findings: The performance of the MCI participants was selectively and significantly lower than that of the healthy aging controls for memory tasks that required object-location or name-location binding. A follow up control study with young (n=36) and normally aging (n=36) older adults showed relatively a less significant performance difference between the age groups.

Conclusion & Significance: Tasks that measure unimodal (object-location) and cross-modal (name-location) binding performance appear to be particularly effective for the detection of early cognitive changes in those at higher risk of developing dementia due to Alzheimer's disease.

Biography

Raju Sapkota has expertise in studying human visual short-term memory in healthy participants and in cognitively and visually impaired patients. He has published a number of research papers in peer-reviewed journals on this topic (Sapkota, Pardhan, & van der Linde, 2016; Sapkota, Pardhan, & van der Linde, 2015; Sapkota, van der Linde, & Pardhan, 2015; Sapkota, Pardhan, & van der Linde, 2013; Sapkota, Pardhan, & van der Linde, I., 2011a; Sapkota Pardhan, & van der Linde, 2011b), which have received considerable attention from researchers from around the world. His recent work has led to the development of new visual short-term memory tests as possible early biomarker for dementia. These tests have been piloted on a small cohort of patients with mild cognitive impairment (who are at an increased risk of developing dementia) and healthy controls and have been published (Sapkota et al. 2017).

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Maternal smoking during pregnancy: A review

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Background: Maternal Smoking During Pregnancy (MSDP) is greatly associated with serious health outcome for offspring. Citing from past studies to present, A majority of studies have focused more on indirect association and little or nothing on direct association. This review paper seeks to examine studies conducted on the direct relationship between maternal smoking and fetal brain development.

Method: A systematic search of, Psyc-INFO, Medline, Scopus, Web of Science and Embase was conducted (from 1977-2017) and 116 studies were identified with eleven studies meeting inclusion criteria gathering data from over 4,000,000 participants. All studies measured outcomes using either internalizing (anxiety, depression, cognition) or externalizing (overaction, aggressiveness, head circumference) behaviors or both.

Results: All the studies showed an indirect association between maternal smoking and fetal brain development and none could show how cigarette smoke affects fetal brain development directly. Six studies used internalizing behavior to show this indirect association and the remaining five used the externalizing behavioral outcome. Some studies predicted the smoke not to be the main cause for the abnormalities during brain development, but the confounding factors are responsible for the unhealthy outcomes on brain development.

Conclusion: However, heterogeneity in the timing of brain development, assessment measures used for mother smoking habit and inconsistencies in adjustment for confounders, limits the synthesis and interpretation of findings. Moreover, if direct affect is to be attained, different measures and designs of prospect studies be required to investigate this complex association between maternal smoking during pregnancy and fetal brain development.

Biography

Molonga Simon is a fourth-year doctoral candidate in Public Health in the Department of Addiction Science. He is originally from Cameroon and earned his BSc from the University of Buea with a major in Life Science and a minor in Medical Laboratory Technology. In 2015, he earned his MA from Ajou University, with a concentration in global trade policies and how it affects local farmers income. He is interested in research that evaluates how maternal smoking habits during pregnancy retards fetal brain development, more specifically the direct relationship between the nicotine and the fetal brain, something which has not been proven. During his time in Ajou University he was elected as the student representative of his department and nominated as a teaching assistant for one semester. As a PhD student he worked as a research assistant for 2 years, which earned him his first published article in October 2018. Currently, he is doing final touches on his dissertation proposal which focuses on e-cigarette and South Korean youths.

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Accessible and flexible digital addiction

Lars Öhman

RevErea, Sweden

Is it possible to conduct digital processing with simple tools?

RevErea means HONOR in Latin. For us, it means that our work must be characterized by the fact that the name and our business with its content have a good reputation. That we who work have a high sense of duty, are moral, honest and trustworthy towards clients, remitters and collaborative partners.

HEAT in this context also means that we are proud of our work. Proud to work with you.

With a simple search with the word's internet-based intervention on Google, it emerges that today, more and more is being researched on internet-based interventions both as self-help but also with the help of professionals. As self-help interventions, today we can see good and positive results, among other things via www.alkoholhjalpen.se and there is also more and more research into the fact that pure treatment via the net has positive effects.

One way to capture the motivation is to use screening tools that show the extent of the problem behavior and the client's ability to change. Such screening tools are currently available to the profession and are made available to the client when the profession meets them. Being able to do the screening tools more accessible via the network could lead to individuals seeing their problems with other eyes and thus either self-healing everything is seeking help to a greater extent.

Today, we will present our approach with three simple tools from investigation to treatment with digital tools which means that we can lower the treatment costs.



Biography

Lars Öhman is a dependency therapist who for many years has been working to find simple pathways to care as an employee in municipal outpatient care. Now as a self-employed, he is about to develop his own way of working digital with tools that are available without too high costs. He has a master's degree in business administration with a focus on quality management but has never regretted his career choice.

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Characterization of the behavior of young people identified as having problematic use of electronic games and evaluation of possible impairments in cognitive test performance

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Playing videogame allows intense contact with the virtual world and a pleasurable relationship with this technological model, however, recent studies have reported problem video game playing and dependence. After having performed the validation of the Problem Video Game Playing (PVP) scale, our research group proposes in this new work, identify students with problematic use of video games, characterize changes in their behaviors and to evaluate possible losses in the development of reasoning. We have identified 74 students, which are considered problematic video game players according to the PVP scale. These 74 young people were submitted to several tests according to the battery of reasoning tests - 5 (RPA-5) that include verbal, abstract, spatial, mathematical and mechanical reasoning. A group of 61 young people who did not practice video games or had no problematic use, was used as control. Participants who were considered problematic players have more often choose items of scale which relates to restlessness, the loss of control and problems in the family or school environment. Our results showed that the majority of players with problematic use practice video games in the bedroom and living environments takes about 6-12 hours of dedication every 24 hours, including day and night. The players start practicing between 5 and 8 years old, both non problematic players and those who had problematic use. Results showed that players with problematic use had lower performance than their peers who did not have known problematic use for the RPA-5 test. We have concluded that the intense use of video games may lead to a lack of interest in other activities interfering with age-appropriate performance or causing disruptions in different areas of cognitive development.

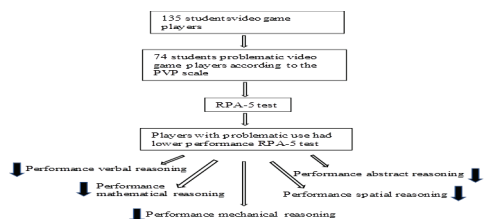


Figure 1. Distribution of participants with problematic use of electronic games according to the PVP scale and evaluation of reasoning abilities according to the RPA-5 test.

Biography

Husten Carvalho is a professor and researcher with a background in Molecular Biology and Morphology, recently has been working with his research group to research on the negative effects of excessive practice of electronic games by adolescents. His research includes the validation of scales of problematic use of electronic games and addiction of games. In addition, it has been dedicated to evaluations of the effects of the practice of electronic games in the performance of cognitive processes, especially reasoning and attention.

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