Welcome Thank you for participating in the 2015 RACMA E-DGY ISSUES PROGRAM funded by RHCE

This E-dgy Issues Webinar and Debate will be facilitated by Dr Jean Collie and will begin shortly

in the 2015 E-dgy Issues Program titled “Conquering Fragmented Rural Mental Health and Other Specialist Medical Services - Telehealth”

***Please type any questions or comments in the bottom left hand chat box for online discussion after the debate.

On completion of this event please fill in the survey to provide us your thoughts
Conquering Fragmented Rural Mental Health and Other Specialist Medical Services - Telehealth

Reduced access to services and specialist in rural and remote Australian communities is a well-documented concern. While the prevalence of mental illness is comparable in rural and metropolitan Australia, the suicide rate is significantly higher in rural and remote areas, predominantly among elderly men, younger men and Indigenous people. Neurological disorders and mental health are flagged to account for 15% of the global burden of disease by 2020 while currently 1 in 10 Australians are reported to be suffering long-term behavioural or mental problems.

An estimated 60% of people presently undergoing a mental health problem are reported to not obtain mental health care within a year. While 84% of Australians are described as having internet access, Telehealth offers an accessible opportunity to deliver evidence-based treatment, to large unserved sectors of the population. Does Telehealth have the ability to conquer fragmented rural health issues? Will Telehealth reduce the need for face to face consultations and adequately provide for rural communities or is it a Band-Aid that just won’t stick?
Professor Peter Yellowlees

Peter Yellowlees MB BS, MD.

Dr Yellowlees lives in Sacramento California, where he is Vice Chair for Faculty Development and Professor of Psychiatry at the University of California Davis. He is Vice President of the American Telemedicine Association, a member of the Institute of Medicines review committee evaluating the national VA mental health services for veterans, and Chair of the Board of HealthLinkNow Inc. Peter is an experienced speaker and media commentator who written and produced over 150 video editorials on Psychiatry for Medscape. He has a number of research interests and is presently working on the development and validation of asynchronous telepsychiatry, automated translation and clinical interpreting systems, internet e-mail and video consultation services and assessment and treatment protocols to improve physician health and wellness. Dr. Yellowlees has worked in public and private sectors in the USA, Australia and the UK, in academia, and in rural settings. He has published five books and over 200 scientific articles and book chapters.
Technology enabled rural mental health services – an opportunity for improved care

Peter Yellowlees MD, FRANZCP
Disclosures

• Funding from AHRQ, UCD BHCE, UCD PMB, Medscape
• Chair and Cofounder HealthLinkNow
Learning Objectives

1. Understand current technology trends in mental health
2. Be aware of influence of changing technologies and processes on future clinical practice
3. Understand how the process, nature and culture of medical care needs to be changed to improve patient outcomes – rural and metropolitan
Leading Technology Trends in Mental Health 2015

1. e-Mental Health
   Mental health services and information delivered or enhanced through technology and the Internet

2. Personalized Medicine
   Technologies and approaches to individualized treatments and therapies for patients

3. Business Intelligence
   Application of technology to inform business decision making

4. Population Health
   Understand and address health determinants to ensure the well-being of a patient population

5. Specific Mental Health Conditions
   Key demographic groups such as rural, females, seniors, homeless, and specific diagnoses – PTSD, Depression, Schizophrenia
Current vs Future Telemental health care

• Current – current methods primarily ensure good quality care, using similar methods of interaction as in-person, just removed at a distance

• Future – future models will provide better care delivered in a way that is different from now – 24/7, mobile, asynchronous, monitoring of data, population based, including genetic profiles and decision support etc
History of Telemental Health

• First psychiatric consults Uni Nebraska – late 50’s
• Lot of interest in 60’s/70’s – NASA – Apollo Soyuz, disaster relief
• Reduction 80’s, but then reinvigoration early 90’s – large networks in the USA, Canada and Australia but still poor bandwidth and device based. All grants and project driven.
• 2000 onwards – increasing move to fiber and more bandwidth. Increasing reimbursement and sustainable financial models, but still driven by academic institutions mainly delivering care to rural areas.
• 2005 onwards - web-based systems, cloud storage, wireless and mobile– dramatically increased consults, and not just to rural regions,
• 2010 more commercial involvement and medical service companies.
In 1929 Alfred Traeger invented a pedal-operated generator to power a radio receiver to let people in the outback call on the Flying Doctor in an emergency.
Professor Peter Yellowlees

Adelaide Multi-function Polis

Edgy Issues Topic 3 - Conquering fragmented rural mental health and other specialist medical services - Telehealth
Professor Peter Yellowlees

Specialty Care Telepsychiatry - Current
Professor Peter Yellowlees

Direct to Consumer

1. Register on Website
2. **Consultation**
3. Feeling Better

Edgy Issues Topic 3 - Conquering fragmented rural mental health and other specialist medical services - Telehealth
Current drivers of telemental health

• Isolation and Access - geographically driven
• Convenience – savings in time and money
• Technological ease and wireless/mobility
• Research evidence and guidelines
• Increased integration - hybrid care
• Changing expectations/attitudes – age/generational
• Shortage of psychiatrists (av age 56 nationwide USA)
• New models of care – primary care collaboration
• New cost models – capitation and episodic
What is unique about current telepsychiatry

- Encourages intimate conversations and clinical observation
- Collaboration improved
- May be preferable in some clinical situations
  - Children/Youth
  - Paranoia
  - Anxiety
  - PTSD
  - Elderly/Disabled
Current uses of Telemental Health

• All areas of mental health practice – most psych outpatient care delivered in primary care, inpatient in corrections.

• Outpatient – diagnosis, treatment, individual and group therapy – dynamic and cognitive behavioral

• Inpatient – consultation and treatment, emergency, correctional, substance institutions, court diversion

• Child, adult and geriatrics

• Primary Care, Home, specialist clinics (pain, obesity, surgery)

• Multiple technologies – and hybrid with in person
The Effectiveness of Telemental Health: A 2013 Review


• Comprehensive review of telepsychiatric literature was conducted in MEDLINE, PubMed, PsychInfo, Embase, etc.

• Focused on video conferencing only

• 70 articles were selected that included good data on effectiveness.
Effectiveness of a Telehealth Service Delivery Model for Treating ADHD: A community RCT

Kathleen Myers et al, JAACP. April 2015

Aims: To test a multi-modal telehealth delivery model for ADHD (CATTs)

Methods: Hybrid approach with multiple synchronous and asynchronous technologies, combined with in person modalities. 223 children, 88 PCP’s, 7 NW communities. 22 weeks telepharmacotherapy and caregiver training v PCP + telepsych

Results: Both groups improved. Intervention<controls.

Aims: To test a TM collaborative care model to improve engagement in PTSD Rx

Methods: RCT across 11 VA clinics with 265 treatment resistant vets randomized to usual care or TOP intervention – 12 month follow up of PTSD severity.

TOP intervention: Offsite PTSD team supports clinic providers – nurse, pharmacist, psychologist (cog process psychoRx) and psychiatrist - Rx as necc.

Results: Both groups improved. Intervention<controls. Attendance at 8+ sessions psychoRx predicted improvement (73/133 v 16/132) – no other diffs.

Significance: Engagement in care for vets is difficult. TM based collab care can engage pts in evidence based PsychoRx and improve PTSD outcomes
Professor Peter Yellowlees
Fiscal year 2014 Veterans Affairs
Telemental Health Outcomes

• Over 335,000 telemental health consultations to over 108,000 veterans

• Veteran satisfaction score of 94% for clinical videoconferencing and 88% for home telehealth services (often monitoring)

• Decrease of over 26% of psychiatric hospitalizations in approximately 250,000 patients receiving telemental health services since their commencement.

Three Core components

- Information (data collection) – H/P
- Information (data analysis) - Dx
- Communication and (project implementation) Rx planning and education
Virtual ‘hybrid’ care

Boundaries – technical, psychological, physical, ethical – suggest ‘rules’ – and provider rights to privacy
Future Directions for TMH

• Change the process of care
  • Increase mobile and direct to patient (home)
  • More asynchronous and remote monitoring
  • Increase hybrid/integrated and collaborative care.

• Change the culture of care
  • More patient focused
  • More evidence and information based
  • Increased attention to diversity and culture

• Change the nature of care
  • Population based
  • Data driven – genomic and phenotypic
Professor Peter Yellowlees

Asynchronous telepsychiatry

Clinician
Nurse, Counselor, and other Therapist

Video is routed to psychiatrist.

Patient
• Diagnostically reliable across differing language groups with translation
• Not suggested for therapy
• Can be used for monitoring treatment progress
• Easier management, admin/scheduling
• Improved communication between patient and reporting provider
Professor Peter Yellowlees

Instantaneous interpretation — any time, anywhere

I’m feeling depressed today.
Me estaba deprimido hoy.

Telepsychiatry
Synchronous & asynchronous
Professor Peter Yellowlees
Real-Time Language Interpretation
– Google Glass
Professor Peter Yellowlees
Real-Time Language Interpretation – Smartphones
Real Patient and Virtual Therapist?
1. Change the process of care: E-mental health – online clinical care

- Most outpatients treated in primary care
- Direct consults – telephony, email, texting, messaging, patient portals, videoconferencing – to clinics, home and community
- Indirect consults / collaborative care - EMR reviews, second opinions, curbside consults by email or phone, video e-consults/ asych telepsych
- Virtual reality and online treatment programs - CBT
- Monitoring/behavior change via mobile apps and wearable technologies
- Social networks – open/closed
2. Change the culture of care: Personalized/Individualized medicine

- Genotype analysis – p450 and others – drug efficacy and predisposition or prevention of disease
- Phenotype analysis - Diversity and Culture - Machine learning facial, movement and language recognition algorithms for screening and diagnosis
- Evidence-based and information/guideline driven – for specific diagnostic/demographic groups
- Big Data analysis and personalization - IBM (Watson) - multiple data sources (published literature, genetic and EMR info, personal fitness data, mood, diet, sleep etc)
3. Change the nature of care: Big Data/predictive analytics for populations

- Patient registries and cohort discovery and analyses – better business intelligence
- Development of decision support tools – for patients and providers – based on large populations
- Natural language processing of EMR data
- Imaging and visualization of datasets
- Population health data – social networks (twitter, facebook etc), billing and CMS/payor/insurance data
Professor Peter Yellowlees

Closing Summary

• New models of care and changing workflows lead to better quality care – telemental health becoming routine – now need to move to changing clinical and organizational processes, increase proportion of asynchronous consults and start using population data

• Technology opportunities are extensive – personal and population based

• Patients find accessibility and convenience excellent – and some prefer this to in-person care.

• Younger patients and providers adapt easily

• Leadership, training and change management is vital
Professor Peter Yellowlees

Peter Yellowlees MD, FRANZCP

pmyellowlees@ucdavis.edu
Dr James Freeman
Affirmative Debater

Debate Statement:

*Telehealth will supersede face to face consultations by 2025 in rural communities*
Dr James Freeman
Affirmative Debater

Dr James Freeman is the founding owner of GP2U Telehealth with executive responsibilities for platform development and clinical oversight. He's a practicing GP, a Lecturer in Medicine at UTAS, and has a B.Sc, MB,BS and notation on the Dean's Roll of Excellence for outstanding academic achievement.

GP2U Telehealth was founded around the idea of bridging the gaps that separate patients needing care, from the doctors who deliver that care. The idea had its roots in founder Dr James Freeman's experience working as a flying doctor.

In 2004, operating out of Katherine, with hybrid technology ranging from HF radio to email to sat phones to a Super King Air turbo prop, his role there as District Medical Officer required supporting 65 remote clinics spread over a million square kilometres. This experience was seminal in demonstrating that high quality care can be delivered when patient and doctor are not in the same physical location. Since its inception in 2011 GP2U has evolved into the largest provider of Telehealth services in Australia serving not only individual doctors and patients, but also corporate giants like Rio Tinto.
Our Ageing Population

- Death, taxes and DEMOGRAPHICS
- 1,000,000 -> 3,500,000 by 2050
- 1:5 -> 1:4
- But it’s not just our patients.....
- Average age of GPs around Meridin WA > 70
Dr James Freeman
Affirmative Debater

The Death of The Generalist

• You become a generalist by NOT becoming a specialist
• Generalism was effectively killed by VR
• Most doctors want to be specialists 16k -> 25k in < 10 years, no change in GP numbers
• Centre of excellence sounds great but...
• Everywhere else is not -> medicolegal
OTDs Patching Our Problems

- Currently 1/5 GPs & 1/4 specialists are OTDs
- 19AB is only good for 10 years
- In 2007 1200 AUS grads
- In 2014 4200 AUS grads
- No 19AB for locals..... Conscription?
- But even then, how do we triple Master-Apprentice training?
Sex Education

- A doctor is not allowed to have a relationship with a patient, where’s my future wife if everyone is my patient?
- Boarding school has gone out of fashion
- If my wife/husband really want our children to go to a public school?
- Powerful forces dictating city life.....
Dr James Freeman
Affirmative Debater

Conclusion

• Simple demographics dictate our healthcare problems will increase
• The 19AB band aid solution clashes with the 3x increase in local grads
• We can’t train our local grads to the level required anymore
• And even if we could they won’t want to go
• So at best.....
Professor David Perkins
Negative Debater

Debate Statement:

*Telehealth will supersede face to face consultations by 2025 in rural communities*
Professor David Perkins
Negative Debater

- As Director of the CRRMH David is responsible for research, service development and providing advice to policymakers, service providers, employers, and other government departments based on evidence generated by a research team and more broadly available. He has worked as a senior health service manager in the United Kingdom and is currently a member of the New South Wales Ministerial Advisory Committee on Rural Health.

- David is particularly interested in mental health, its promotion and maintenance in settings with limited access to primary and secondary care such as rural and remote committees. He is the editor-in-chief of the Australian Journal of Rural Health and a senior editor of the International Journal of Integrated Care. He chaired the second World Congress of Integrated Care which was held in Sydney in November 2014 and had a major theme of the integration of mental health care. He is a board member of the International Foundation for Integrated Care and a keynote speaker at the 2015 World Congress.

- He is conducting strategic research for most of the rural health districts in New South Wales and for the Mental Health Drug and Alcohol Office of the New South Wales Ministry of Health.

- David is a chief investigator on the Australian Rural Mental Health Cohort Study and the immediate past director of the Australian Rural Health Research Collaboration. He was involved in writing support papers for the National Review of the Effectiveness and Efficiency of Mental Health Services and regularly consult with and advise the NSW Mental Health Commission.

- David is closely linked with most of the rural interest groups in New South Wales and more broadly and recognise that improved mental health requires community action which goes far beyond the provision of medical services.
Debate Statement: *Telehealth will supersede face to face consultations by 2025 in rural communities*

- TH consultations are technically feasible now
- Barriers are professional, administrative and social
- Will TH address multi-morbidities?
- Will TH be as fragmented as rural health?
- Will patient/citizens turn to alternative providers – e.g. Dr Google?
- Will rural people accept a 2nd class service?
- Will the internet be seen as a safe space for health care?

- TH may prove to be a supplement rather than a substitute
Discussion between presenters answering any questions raised from participants

“Conquering Fragmented Rural Mental Health and Other Specialist Medical Services - Telehealth

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https://www.surveymonkey.com/s/X6J5FHB
Discussion between presenters answering any questions raised from participants

“Conquering Fragmented Rural Mental Health and Other Specialist Medical Services – Telehealth

Thank you for participating in the 2015 E-dgy Issues Program titled “Playing Ball – Embracing Collaborative Care and Reducing Load on Rural Practice Through True Multidisciplinary Integration”

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