Create Chronic Disease Services Using Secure Social Networks

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Kim Norman, MD
UCSF Distinguished Professor
Dept. of Psychiatry, UCSF

Kimberlie Cerrone
Founder and CEO
Tiatros Inc.

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Conflict of Interest

Kimberlie Cerrone, MS, MBA, JD

Ms. Cerrone is the Founder and CEO of Tiatros Inc., a digital health company that delivers the technical solution that power the clinical examples in this presentation.

Kim Norman, MD

Dr. Norman is married to Kimberlie Cerrone and, therefore, has a household interest in Tiatros Inc.

Dr. Norman holds stock options in Tiatros Inc. as an Advisor to Tiatros Inc.

Dr. Norman is required to recuse himself in matters related to the use and procurement of the Tiatros solution pursuant to the University of California, San Francisco Medical Center’s stringent Conflict of Interest provisions.
Agenda

• Introduction to UCSF Young Adult & Family Center
• Mental health challenges and problems
• Current industry implementation of social networking technology
• How secure social networking transforms chronic disease care
• Selected use cases
• Plans for the future
• Key lessons learned
• Questions
Learning Objectives

• Evaluate the impact of collaborative chronic disease care programs that use secure, social health networks on clinical outcomes and care provision costs
• Design chronic disease care programs that offer comprehensive services and use secure, social media style networks to enable truly collaborative care
• Design collaborative chronic disease care programs using secure, social health networks that integrate behavioral health services and the critical social determinants of health and wellness into chronic disease care
• Evaluate the impact of behavioral health and social determinants of health integration into chronic disease care programs on clinical outcomes and care provision costs
• Evaluate the impact of collaborative chronic disease care programs using secure, social health networks on healthcare disparity, specifically on improved patient access to chronic disease care services
The Value of Health IT: STEPS

TREATMENT/CLINICAL

PATIENT ENGAGEMENT AND POPULATION MANAGEMENT

Quality of Care
Efficiencies
Safety
Prevention
Patient Education/Engagement
The UCSF Young Adult and Family Center

Mission: de-stigmatize mental illness and improve mental health of adolescents, young adults and families

1. Staff of 20 provides clinical services, and create and study innovative care

2. Leverages technology for behavioral healthcare equality

3. Committed to advancing knowledge base of best clinical practices
600 In-Person Patients Each Year...for Starters

1. Mental health clinics within UCSF’s Langley Porter Psychiatric Hospital & Clinics

2. Embedded within UCSF’s Department of Pediatrics and Young Adult Medicine clinics

3. Initiates school-based interventions for mental health in local high schools and colleges

4. Pioneers e-therapeutics as evidenced-based medical care
Unique Problems and Challenges

1. **High Risk**: Lifetime risk of acquiring mental illness is 50%. Only 20% ever get help.

2. **Chronic**: Most mental illnesses are chronic conditions.

3. **Co-Morbid**: Increases vulnerability to other diseases. Frequently consequence of other chronic illnesses.

4. **Stigmatized**: Mental illness has a stigma other chronic diseases do not.

5. **Disconnected**: Behavioral health care process is often separate from all other medical care.
Social Networks In the Business of Healthcare

1. General health literacy, prevention, and education for patients
2. Advertising and fundraising for customers and donors
3. Clinical trials and research recruitment
4. Social intelligence and customer relationship management
The Power of Telemedicine – Still Early

Video conferencing, texting, emailing, and photo sharing in common use—often not integrated and not secure.

1. Collaboration between patients and providers is safer and more efficient with better outcomes.

2. Targeted scalable therapeutics bridge health disparities.
Our View of Secure Social Networks

ACTS

A Improves ACCESS to care

C Increases the scope and depth of COLLABORATION by care teams

T Supports digital therapeutics that are simultaneously TARGETED AND SCALABLE

S Returns STORYTELLING to the practice of medicine
Enabling Technology Selected Through Rigorous Approval Process

Selected on specific criteria: HIPAA-compliant, customizable access and communication rights, supports collaboration, treatment, education, and research on one platform

1. 2-year security audit by UCSF Information Technology Security Committee before approval for use

2. Available for sale by vendor number across all 5 University of California Medical Centers

3. YAFC continues to develop scalable therapeutics for deployment on *Tiatros*
Patient ACCESS is a Challenge for My Private Practice at UCSF

1. The demand for direct mental health services taxes YAFC’s small team.

2. Mental health services are especially needed in remote, rural, and underserved urban areas.

3. Many patients are unable or unwilling to visit a mental health clinic.

4. Mental health challenges and co-morbidities are often missed in chronic disease care.

5. Embedding mental health services in primary care and specialty clinics is not scalable.
Social Networks Close the Patient and Information ACCESS Gap

1. 95% of patients and care teams are “strongly engaged” with the care plan.
2. Reduced stigma and improved patient sharing
3. 30% increase in daily sessions due to ease of micro-telemedicine sessions
4. 2400% improvement in compliance
5. Engagement of family members and non-medical caretakers
Oncologists at UC Davis Struggled with Care Team COLLABORATION

1. Integrating behavioral health services is a huge challenge.
2. Average care team is 26 providers at 12 different clinical locations.
3. Protocol adherence by patients and other clinicians is low.
4. Large population of foreign language speakers and migratory population
5. Struggle to incorporate behavioral health and social context of care
Social Networks Expand the Definition of Care COLLABORATION

1. Extract value from extended care teams with a new average of 44 participants, including non-clinical role types.

2. 169% increase in the patient’s care team participation.


4. 67% of participating physicians are making telemedicine appointments.

Press video to play or visit: https://www.youtube.com/watch?v=ePUUsv2p5NE
One More Example for COLLABORATION:

Caregivers on the Network Contribute to and Benefit from Social Network

New York State Dept. of Public Health + NYU + Alzheimer's Association are delivering supportive services to family caregivers of dementia patients.


2. Caregivers get support from medical team AND from other caregivers to prevent compassion fatigue and caregiver burnout.
PTSD at VA: Not TARGETED AND SCALABLE

1. Nearly 100% of the VA’s backlog is seeking mental health services.

2. Veterans and military face mental health stigma, despite 22 suicides/day.

3. Large numbers of veterans live outside of care coverage and struggle with multiple mental health issues.

4. 25% completion rate for in person psycho-educational classes, and similar rates for traditional computer assisted therapeutics.
Next Mission Provides Care Options That are TARGETED AND SCALABLE

Meets paradoxical need for both privacy and community with the power of positive peer pressure.

1. 70% completion rate of course, with better outcomes for post traumatic growth than with in-person therapies.

2. Students earn college credit or promotion points bypassing stigma.

3. Students strongly endorse power of storytelling and interaction in healing and personal growth.

Press video to play or visit: http://en.savefrom.net/1-how-to-download-youtube-video/
Modern Medicine Has Lost Its Best Diagnostic Tool: STORYTELLING

1. Technological limitations restrict big data analysis to structured data.

2. Analytics engines cannot directly access PHI due to HIPAA.

3. Check lists don’t tell stories, stories tell stories.

4. Information is most useful when provided in a context.

5. There is often too much data to be usefully analyzed and applied to population health in time.
Artificial Intelligence makes STORYTELLING Scalable

Secure social networks can re-create the basis of the doctor-patient relationship, which is based in storytelling.

1. Natural language analytics can capture clinical insights that are timely and relevant.

2. Ecological Momentary Assessments (EMAs) that incorporate storytelling will yield actionable insights for real-time Ecological Momentary Interventions (EMIs).

3. Clinical insights can be aggregated into useful health intelligence for patient care and population health.
Lessons Learned Using Secure Social Networks in Chronic Disease

**Doctor Driven, Patient Centric:** Social networks must allow clinicians to be the key drivers of care while keeping the patient at the center of care.

**Broadly Adopted, Deeply Useful:** Social networks must be flexible enough for a diverse care team.

**Social Power is Real:** Patients bonded by purpose and teamwork value facilitated discussions, but otherwise need little from professionals.

**Workflows:** It is not enough for a social network to connect all of the members of the care team. The social network must have the tools for them to easily execute.

**Physicians are Coaches:** Social networks can scale the physician’s ability to listen and advise patients and families across their lifetime plan of care.
Our Next Steps in Creating Effective Care, Anytime, Anywhere

**Artificial Intelligence Assessments:** YAFC is using the Personality Insights tool to study outcomes and identify which personality traits may be protective against PTSD and/or more responsive to the Next Mission intervention.

**New Interventions:** Methods for teaching stress and resiliency in workforce, high school, and college settings for improved health and wellness are in progress.

**Scale:** YAFC anticipates 100,000 students will participate in *Next Mission* courses. To scale, YAFC will begin training graduates of *Next Mission* courses to lead future iterations of the course. This will scale the 'social' in social network offerings.

**Courses:** A new course specific for ‘Woman Warriors’ will be deployed Q1 2016, and a general course on trauma and post traumatic course will be deployed Q4 2016.
What We’ve Covered Today

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• Current industry implementation of social networking technology
• How secure social networking transforms chronic disease care
• Selected use cases
• Plans for the future
• Key lessons learned
An Summary of How Benefits Were Realized for the Value of Health IT
Questions?

Kim Norman, MD
Founder & Director
Young Adult & Family Center
kim.norman@ucsf.edu
(415) 377-0931
YAFC/You.org

Kimberlie Cerrone, MS, MBA, JD
Founder & Chief Executive Officer
Tiatros Inc.
kcerrone@tiatros.com
(415) 378-2838
Tiatros.com