Co-occurring Chronic Medical and Mental Illness: Considerations and Ramifications

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3/27/21
Disclosure: Roger Kathol, M.D.

<table>
<thead>
<tr>
<th>Cartesian Solutions, LLC</th>
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<tbody>
<tr>
<td>Employment -- Direct Relationship</td>
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<tr>
<td>Consulting -- Direct Relationship</td>
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<tr>
<td>Ownership -- Direct Relationship</td>
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</tbody>
</table>
Examples of Comorbid Patients
(2% to 4% of Medical Admissions)

Medical Illness
- “Injections/Insertions”
- Parkinson’s Disease
- Gun Shot to Chest
- Systemic Lupus
- Cellulitis
- IDDM--Ketoacidosis
- Urinary Tract Infection

Psychiatric Illness
- Factitious Disorder
- Acute Psychosis
- Depression
- Malingering
- Mania
- Eating Disorder
- Delirium
The Current Delivery System
The Non-Communicating Delivery Systems Created by 2 Payors

Medical Sector

Medical Provider Network

70% of psychiatric patients never go to the BH sector for care

Psychiatric Sector

Psychiatric Insurance

Med/Surg Insurance

Purchasers

(at least partial psychiatric care)

Behavioral Provider Network

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Medical and Psychiatric Segregation Prevents Integrated Care

30% of Psychiatric Patients; 95% of BH Providers

Many SPMI patients use no Med coverage or are not in “communicating” Med care systems

70% of Psychiatric Patients Are Seen Primarily or Only in the Medical Sector (only 5% of BH providers work in medical settings)
$406B Extra is Spent Annually on Psychiatric Patients (2014-2015 benefits)

<table>
<thead>
<tr>
<th></th>
<th>Total Population Served</th>
<th>% of Pop. with BH Claims</th>
<th>Total Annual Spend</th>
<th>% BH Spend on Total Pop.</th>
<th>% of Total Medical Claims Incurred by BH Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>200.1M</td>
<td>18%</td>
<td>1.1T</td>
<td>5.8% ($63.8B)</td>
<td>32.7% ($358.6B)</td>
</tr>
<tr>
<td>Medicare: Medicaid</td>
<td>142.8M (57.7:75.1)</td>
<td>15% (10:20)</td>
<td>1.1T</td>
<td>8.4% (1.9:15.2) ($91.4B)</td>
<td>27.0% (21.8:32.6) ($295B)</td>
</tr>
<tr>
<td>Total</td>
<td>342.9M</td>
<td>16%</td>
<td>2.2T</td>
<td>6.0% ($130B)</td>
<td>28.4% ($622B)</td>
</tr>
</tbody>
</table>

--the cost of medical services is 4.7X the cost of psychiatric services but lives in a separate world

Melek, Milliman Report, 2018
An Integrated Delivery System & Its Cost Saving Opportunity

(Capturing the COVID-19 Opportunity)
## Independent to Integrated General Medical and Psychiatric Care

<table>
<thead>
<tr>
<th>Feature</th>
<th>Independent</th>
<th>Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Pool</td>
<td>separate</td>
<td>single bucket</td>
</tr>
<tr>
<td>Patients</td>
<td>same</td>
<td>single identifier</td>
</tr>
<tr>
<td>Network of Providers</td>
<td>separate</td>
<td>all in one</td>
</tr>
<tr>
<td>Practice Locations</td>
<td>separate</td>
<td>co-location</td>
</tr>
<tr>
<td>Approval Process</td>
<td>separate</td>
<td>uniform</td>
</tr>
<tr>
<td>EHR Systems</td>
<td>separate</td>
<td>unified</td>
</tr>
<tr>
<td>Collaboration &amp; Communication</td>
<td>rare</td>
<td>routine</td>
</tr>
<tr>
<td>Coding and Billing</td>
<td>separate</td>
<td>one system</td>
</tr>
<tr>
<td>Outcome Accountability</td>
<td>disciplinary</td>
<td>total health for all</td>
</tr>
<tr>
<td>Clinical/Cost Data Warehousing</td>
<td>separate</td>
<td>consolidated</td>
</tr>
<tr>
<td>Administrative Oversight</td>
<td>separate</td>
<td>coordinated workflows</td>
</tr>
</tbody>
</table>

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Integrated Delivery Infrastructure

Health Delivery Networks

1. Purchasers
   - Private
   - Public

2. Insurance Companies
   - Med/BH

3. Providers
   - Med/BH

-- Vendors
-- Organizations
-- Regulators

Improved Quadruple Aim: Better Health Care, Better Outcome, Lower Cost, Provider Satisfaction

Body/Mind

Med Home

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Integration of Medical and Psychiatric Payment and Services

Health Setting Care

Purchasers

Medical/BH Insurance

--medical patients

--medical & psychiatric patients

Medical/Psychiatric Hospitals and Clinics

Covered Population

Medical/BH Provider Network

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Population Served through Integrated Medical and Psychiatric Care

Medical & Psychiatric Care

Inpatient Sector
- Chronic Illnesses
- Health Complexity

Outpatient Sector

DOH/DHS → MCO

(consolidated rules and procedures)

(single payment for medical and BH services)
Opportunity To Drive Down Costs for Chronically Ill Patients

Average Annual Per Capita Health Care Costs in U.S. Dollars: $10,345 in 2016

Average Annual Cost of Top 1%: $110,000/person
Average Annual Cost of Top 5%: $50,000/person
50% of Spending: Top 5% of Patients
66% of Spending: Top 10% of Patients
18% of Spending: Bottom 80% of Patients
Annual Cost: $0/person (Bottom 15%)
Annual Cost of Bottom 50%: $276/person
60% to 80% have comorbid BH conditions

AHRQ, Statistical Brief 521, February 2019
Cartesian Solutions, LLC
### Actuarily Projected ROI with Medically-Based Integrated Psychiatric Care

<table>
<thead>
<tr>
<th></th>
<th>Annual Value Opportunity</th>
<th>Annual Cost Savings Potential</th>
<th>ROI (savings/cost of BH professionals working in medical setting)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>$179B</td>
<td>$19 – 39B</td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td>$52B</td>
<td>$6 – 12B</td>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
<td>$175B</td>
<td>$12 – 17B</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$406B</td>
<td>$38 – 68B*</td>
<td>2.3 to 4.1</td>
</tr>
</tbody>
</table>

*cost of all psychiatrists and psychologists in US <$22B Annually

Melek, Milliman Report, 2018

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Providing Medical Services to Psychiatric Patients
In the Current Delivery System

- 70% of psychiatric patients who don’t go to the psychiatric sector—no psychiatric access; high medical service use; no cost savings
- 30% who enter the psychiatric sector
  - Refer to medical sector (known or anonymous medical consultant; within or outside of network)
  - Onsite medical practitioner (usually an NP)
  - Refer to emergency room
  - Psychiatrist provides both medical and psychiatric services
In the Current Delivery System

- For the 30% who you treat in the psychiatric sector
  - Try to establish a uniform connection to the medical sector for referral and establish communication
  - Insure that shared psychiatric information is provided to the medical providers; there are few things that you cannot share with clinicians and it can be very helpful to them
  - Confirm who and how follow-up will occur, both medically and psychiatrically
  - Diplomatically insure that medical test/procedures and treatments are being completed
In an Integrated Delivery System

- All patients, especially the 60% to 80% with high-cost comorbid conditions (Milliman Reports), can access integrated services
- Psychiatrists and other BH providers will get paid on par with other medical professionals
- A new Parity Accreditation (URAC) with legal impact now available to document if ACA requirement is being met (financial incentive to provide parity services)
Value-Based “Integrated” Medical & Behavioral Health Service Models

- **Medical Setting**
  - **Inpatient**, e.g., proactive psychiatric consultation; delirium prevention and treatment programs; routine “sitter” review; CIUs
  - **Outpatient**, e.g., TEAMcare/Collaborative Care; medication assisted treatment (MAT) in substance use disorder clinics; complexity clinics; LTAC & nursing home settings supported by medical and BH coverage; targeted BH interventions in medical settings, e.g., SBIRT; medical and BH prevention programs
  - **Emergency room**, e.g., medical and BH services co-evaluate patients in “medical” ERs (sunset standalone psychiatric ERs)
  - **Across treatment platform services**, e.g., value-based integrated case management for complex adults and children

- **BH Setting**—selected specialty sector BH services will become part of all other medical/surgical subspecialty services in a unified medical system

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1—Proactive Psychiatric Consultation

Organizational Set Up

- Assigned psychiatrist (team—NP/CNS, PhD psychologist, and/or social worker) part of general and specialty medical inpatient team members to screen and treat medical/surgical patients when needed

Outcomes

- 0.92 day shortened ALOS\(^1\)
- Admissions to 92 IP medical beds\(^2\)—BH 0.65 <ALOS; net savings >$.5M; ROI 1.7:1; other medical patients—0.3 <ALOS
- IP medical beds\(^3\)—1.19 <ALOS; net savings >$1M; CL billings collected 26%; (P-CL psychiatrists subsidized by hospital due to total cost savings)

2—Systematic Psychiatric (Nursing) Service Review of Sitter Use

- **Annual Hospital Costs** – $500,000 to $2M (largely unreimbursed nursing)\(^1\)

- **Model** – psychiatrist/nurse practitioner review of CO, CO setting reorganization, follow-up

- **ACE Protocol Results** – $700,000 annual savings on ~500 patients, 15% lower CO, no increased morbidity or mortality (fewer complications), ROI 6:1\(^2\)

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3—Types and Prevalence of CIUs/MPUs

- **Type I & Type II**: no longer considered CIUs
- **Type III**: low to high psychiatric with medium medical acuity (CIU I)
- **Type IV**: low to high psychiatric with medium to high medical acuity (CIU II)

Kathol et al, Psychsom 33:376, 1992

**Netherlands**: CIUs now considered a national value-added program with 24 Type III/IV units & 18 lower intensity

**US**: 2018 survey—160+ Type III/IV “potential” units in 4,800 US general hospitals; national consortia of CIU leadership starting in US

**Critical elements of sustainable CIUs**: 1. set up as ”medical” units; 2. care delivered by jointly trained nurses; 3. co-attending medical and psychiatric physicians deliver care
Collaborative Care (CC)

- CC procedures (CMS pays for CC services to PCC)
  - Trained psychiatrist/NP/PA and case manager review of BH PC cases q 1-2 weeks; recommendations to PCP for orders on intervention
  - Assistance in BH Rx by onsite case manager; treatment escalation if needed
  - Discharge to PCP (most); direct involvement (in some)

- Outcomes
  - Statistically better clinical improvement than usual care for up to 2 years\(^1\); high variability and difficulty in deployment\(^5\)
  - Statistically higher patient satisfaction\(^1\)
  - CC reduces annual cost ~$450 in 1\(^{st}\) 12 months\(^2\), ~$900 at 24 months\(^3\), and ~$3,350 at 48 months\(^4\)
  - ROI: $6 savings for $1 spent\(^6\)

5—Screening, Brief Intervention, & Referral for Treatment (SBIRT) in ER and Medical Outpatient Settings

- SBIRT implementation in ER and medical outpatient settings
- Population: ER = 7,658; OP = 2,177
- Cost: ER = $12.81; OP = $21.45
- Social cost lowering: ER = $532; OP = $218 (days working, fewer auto accidents, incarceration days, etc.) (ROI—ER 1:42; OP 1:10)
- 13.8% more abstinence or improved drinking in ER (better than OP, but both improved)

Barbosa et al, JSAT, 53: 1-8, 2015
Integrated ER setup

- Shared EHRs, including for SUD patients
- Ready access to medical “clearance”
- BH services available for the 36% of “medical” ER patients with primary (6%) or comorbid (30%) BH issues
- Treatment available for BH issues in medical ER

Outcomes—4X < ER LOS; 3X < ER cost; 20% reduction in total ER costs; gap closure of total cost for those with chronic illnesses, e.g., renal, CAD; total savings of 25% for BH patients in med ERs
7—Value-Based Integrated Case Management (VB-ICM)

- High intensity medical and behavioral health assistance and support for adults/elderly and/or children/youth that:
  - Assists using prioritized, patient-centered, relationship-based, longitudinal, clinical and non-clinical core practices
  - Establishes a care plan with “goals” and “actions;” systematically documents reversal of barriers to improvement
  - Measures improved clinical, functional, and cost outcomes, satisfaction with care, and quality of life during VB-ICM/VB-PICM delivery

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<thead>
<tr>
<th>Utilization of High-Cost Services</th>
<th>Percentage Decrease</th>
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<tr>
<td>Emergency Department Visits</td>
<td>51.9%</td>
</tr>
<tr>
<td></td>
<td>(322 → 155)</td>
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<tr>
<td>Hospitalizations</td>
<td>53.1%</td>
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<tr>
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<td>(160 → 75)</td>
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Szigethy et al, 2017
Creating an Integrated Care Environment

Stepwise Process
(Moving to Non-Traditional BH Care)

#1. Care delivery system sends notice requiring integrated Med-BH contracts to medical insurers

#2. BH providers are transitioned into medical-network

#3. Medical & BH service line leadership guides integration vision & deployment

#4. BH services and procedures are incorporated into medical clinics, inpatient, & emergency settings

#5. Value-based adult & child integrated case management is initiated

#6. Specialty BH services are downsized and adapted to integrated procedures
Prioritize Deployment of High Value Integrated Medical & BH Services

- **Medical Setting**
  - **Inpatient**, e.g., proactive psychiatric consultation, delirium prevention and treatment, routine “sitter” review, CIUs
  - **Outpatient**, e.g., TEAMcare, Collaborative Care, complexity clinics, targeted BH interventions in medical setting, medical and BH prevention
  - **Emergency room**, e.g., medical and BH services co-evaluate patients in “medical” ERs (sunset psych ERs)
  - **Post-acute care**, e.g., LTAC & nursing home settings supported by medical and BH coverage
  - Value-based integrated **case management** for complex adults and children

- **Specialty BH Setting**, e.g., specialty sector services, as with other medical specialties

Priority--1, 2, 3, 4
Thank you!

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