The Future of Sleep Medicine

Focus Fall, 2017
Robyn Woidtke MSN-Ed, RN, RPSGT, CCHS
KEEP CALM AND
hmm... I don't know?
Objectives

- Assess current issues in healthcare
- Consider the opportunities to enhance sleep health
- Identify barriers to entry into various health care providing entities
- Develop an action plan to overcome real or perceived barriers
“The future is not an inheritance, it is an opportunity and an obligation”

BILL CLINTON
The Complexities of the Individual Care Process
Illustrative Sleep Journey

Who Does What? Who do patients contact?
We are not alone!

Care Coordination Challenge

Hospitals and Clinics
- Inpatient
- Outpatient

Community Services
- Hospice
- Respite Care

Individual and Carers

Home Care

Many Touchpoints
Multiple Transitions
Silos of Information
Unclear Accountability

Multiple specialists
Inter-professional Sleep Health Care Teams

- Patient/Families
- Sleep Specialist/NP/PA
- Administrative Staff
- DME
- Sleep Technologist
- Registered Nurse
- Nutritionist
- Exercise team
- Diabetic Educator
- Sleep Educator
- Primary Care
- Dentist
The changing nature of health care makes some practices and practitioners obsolete at the same time it opens up opportunities for the formation of new groups.
Thoughts from Sleep Leadership

• More wearables
• Fewer technologists, more advanced practice
• ENT and Primary Care
• In-laboratory sleep studies will most likely continue to be conducted in large hospital networks and academic medical centers
  o will be further restricted for sleep and/or medically complex patients
• Increased use of CBTi

Thoughts from Sleep Leadership

- ¼ fellowship programs in sleep are not being filled
- ~7000 boarded sleep physicians
- Fewer than 300 pediatric boarded sleep physicians
- Insurance issues
  - Current insurance and industry reimbursement policies in the United States require “face-to-face” visits within 30 to 90 days after continuous positive airway pressure (CPAP) initiation

- Phillips, et al. 2015
Preparing the way for integrated sleep health—Be a Change Maker!

- Increased education—How are others changing, how do we need to change
- Involvement in policy—let’s make some noise
- Advocates for the integration and promotion of sleep health
- Care Process Change
American Thoracic Society Issues Recommendations on Healthy Sleep

The American Thoracic Society has released a policy statement with recommendations for clinicians and the general public on achieving good quality sleep and getting an adequate quantity of sleep.

“Sleep plays a vital role in human health, yet there is a lack of sufficient guidance on promoting good sleep health,” said Sutapa Mukherjee, MBBS, PhD, chair of the committee that produced the statement. “In this statement, with an eye towards improving public health, we address the importance of good quality sleep with a focus on sleep health in adults and children; the effects of work schedules on sleep; the impact of drowsy driving; and the diagnosis and treatment of obstructive sleep apnea and insomnia.”

The Future of Sleep Medicine

- Patient Centered-Medical Home
- Role of telemedicine
- Impact of health care reform
- Development of disease management programs
- Strategic Research
- Partnership with Industry

Strollo, et al. (2011)
Medical Home

- **Patient-centered:** A partnership among practitioners, patients, and their families ensures that decisions respect patients’ wants, needs, and preferences, and that patients have the education and support they need to make decisions and participate in their own care.

- **Comprehensive:** A team of care providers is wholly accountable for a patient’s physical and mental health care needs, including prevention and wellness, acute care, and chronic care.

- **Coordinated:** Care is organized across all elements of the broader health care system, including specialty care, hospitals, home health care, community services and supports.

- **Accessible:** Patients are able to access services with shorter waiting times, "after hours" care, 24/7 electronic or telephone access, and strong communication through health IT innovations.

- **Committed to quality and safety:** Clinicians and staff enhance quality improvement to ensure that patients and families make informed decisions about their health.
The Medical Neighborhood

- Community Centers
- Public Health
- Schools
- Employers
- Faith-Based Organizations

Health IT

- Patient-Centered Medical Home
- Home Health
- Hospital
- Pharmacy
- Diagnostics
- Mental Health
- Specialty & Subspecialty
- Skilled Nursing Facility
**Introduction**

The Patient-Centered Medical Home (PCMH) is an approach to providing comprehensive primary care for children, youth and adults. The PCMH is a health care setting that facilitates partnerships between individual patients, and their personal physicians, and when appropriate, the patient’s family.

The AAP, AAFP, ACP, and AOA, representing approximately 333,000 physicians, have developed the following joint principles to describe the characteristics of the PCMH.

**Principles**

*Personal physician* - each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care.

*Physician directed medical practice* - the personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.

*Whole person orientation* - the personal physician is responsible for providing for all the patient’s health care needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life; acute care, chronic care, preventive services, and end of life care.

*Care is coordinated and/or integrated* across all elements of the complex health care system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient’s community (e.g., family, public and private community-based services). Care is facilitated by registries, information technology, health information exchange, and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.

*Quality and safety* are hallmarks of the medical home:
No one is happy!

“As primary care decreases in this country, our practices exist in silos that provide care in our area of focus, often failing to integrate the total care of a patient. Transition between silos is associated with duplicative testing, repetitive visits, and often lost information. Patients are frustrated and clamor for change. Equally dissatisfied are physicians and payers.” “There is a need to recognize the role of specialty practices in fulfilling the PCMH model of care”

Primary Care: Looking for ways to capture more revenue

- Allergy Testing
- Diabetes Education
- Weight Loss Clinics
- MedSpa’s

- How about Sleep Services?
The problem is……

- Primary care physicians don’t know much about sleep, sleep health or sleep disorders

- They need someone like you, they just don’t know it yet
Algorithm of Referral Process for Primary Care–Sleep Medicine Integration

Abbreviation: CPAP = continuous positive airway pressure.
Telemedicine/Health

- Telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status.
- Telemedicine includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology. (ATA, 2015)
Services

- **Primary care and specialist referral services** may involve a primary care or allied health professional providing a consultation with a patient or a specialist assisting the primary care physician in rendering a diagnosis. HOW ABOUT SLEEP

- **Remote patient monitoring**, including home telehealth, uses devices to remotely collect and send data to a home health agency or a remote diagnostic testing facility (RDTF) for interpretation. Such applications might include a specific vital sign, such as blood glucose or heart ECG or a variety of indicators for homebound patients. Such services can be used to supplement the use of visiting nurses. HOW ABOUT SLEEP

- **Consumer medical and health information** includes the use of the Internet and wireless devices for consumers to obtain specialized health information and on-line discussion groups to provide peer-to-peer support HOW ABOUT SLEEP
Sleep Telemedicine

• Is it viable?
Sleep Telemedicine

- Data strongly suggest that telesleep is a viable approach
  - Improved outcomes
  - Patient acceptance
  - Cost are variable
    - Technologist or other, increased time spent with patient
  - “Most practices can see a return on their investment in about 3 months”

Current Healthcare Climate

- What is happening in healthcare?
- How or.... is it possible to integrate sleep health as a component?
Consumer Demands Are Changing Healthcare

HIDA surveyed 1,000 patients to learn the impact rising expenses have on healthcare decisions. Our Horizon Report, Healthcare Consumerism: Quality and Cost Driving Patient Behavior, provides detailed data on how consumerism is a driving force in healthcare. For more information, visit www.hida.org/HorizonReport.

Out-of-Pocket Expenses Increase For Many Patients

- 2016: 42% had increase
- 2017: 44% expect increase

Younger Patients More Likely To Shop To Manage Costs

<table>
<thead>
<tr>
<th></th>
<th>All Patients</th>
<th>Millennials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose A Specific Provider</td>
<td>24%</td>
<td>34%</td>
</tr>
<tr>
<td>Changed Providers To Lower Cost</td>
<td>13%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Quality Still Matters Most

Top 3 Factors That Influence Provider Selection

- Quality Of Care: 55%
- Cost Of Care: 44%
- Provider Cleanliness/Infection Prevention: 35%

Patients Want Transparency

“Providers should combine services, and reduce the number of visits when possible, so one charge can cover treatment.”
— Female, Silent Generation, West

“Have a list of the prices for various procedures and visits.”
— Male, Millennial, Midwest


Half of Millennials will pay more out of their own pockets to visit a provider that offers newer technology and products.
What matters to patients?

- Feeling informed and being given options
- Staff who listen and spend time with patient
- Being treated as a person, not a number
- Patient involvement in care and being able to ask questions
- The value of support services
- Efficient processes

Sources:
- Patient survey
- Friends and family
- Patient stories
- Complaints
- Quantitative efficiency measures e.g. LOS, readmission rate

(Robert et al. 2011)
Institute of Healthcare Improvement: Triple Aim

- What is it?
- Where does it come from?
- Who uses it?
- Why is it important
IHI

• IHI was officially founded in 1991, early work for National Demonstration Project on Quality Improvement in Health Care, committed to redesigning health care into a system without errors, waste, delay, and unsustainable costs.
IHI Triple Aim

• Provides a framework/optimizes an approach to healthcare system improvement

• The simultaneous pursuit of improving the patient experience of care (quality and satisfaction), improving the health of populations, and reducing the per capita cost of health care
Benefits of Treatment: The “Triple Aim”

Beyond economics and cost savings, imagine what the U.S. would be like if all 29.4 million people with OSA received treatment...

**Providers**
- Aligns with population health incentives
- Improved outcomes increases profit in a value-based healthcare system
- Lowers healthcare utilization and reduces admissions

**Payors/Employers**
- Reduces costs long-term
- Increases productivity
- Lowers accident rates and liability costs

**Patients**
- Improves health and life expectancy
- Increases productivity
- Increases quality of life
- Improves relationships

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CAHPS-AHRQ

- Consumer Assessment of Healthcare Providers and System
- Standardized survey is increasingly becoming the instrument of choice for multi-stakeholder collaborative organizations, health systems, health plans, and medical groups to evaluate and improve the care patients receive
CMS CAHPS Surveys

CMS CAHPS® Surveys
- Hospital CAHPS
- Home Health CAHPS
- Fee-for-Service CAHPS
- Medicare Advantage and Prescription Drug Plan CAHPS
- In-Center Hemodialysis CAHPS
- Nationwide Adult Medicaid CAHPS
- Hospice
- CAHPS® Survey for Accountable Care Organizations Participating in Medicare Initiatives
- Enhanced CG-CAHPS for PQRS

Patient Experience Surveys under Development
- Outpatient/Ambulatory Surgery Center survey
- Emergency Department
- Marketplace Qualified Health Plan

Other CMS Patient Surveys
- Health Outcomes Survey (HOS)
- Medicare Advantage and Prescription Drug Plan Disenrollment Reasons Survey
Hospital—Understand the Pressure

- 30 day hospital readmission rates
- Diagnostic related group (bundled payment)
- Patient Satisfaction
CMS and 30 Day Readmission

30-day risk-standardized mortality measures
- Acute Myocardial Infarction
- Heart Failure
- Pneumonia

30-day risk-standardized readmission measures
- Acute Myocardial Infarction
- Heart Failure
- Pneumonia
- Hip/Knee

AHRQ Patient Safety Indicators (PSIs)
- PSI 04 - Death among surgical inpatients with serious treatable complications
- PSI 90 Composite - Complication/patient safety for selected indicators
Where healthcare is now on march to value-based pay

By Melanie Evans and Bob Herman | January 28, 2015

U.S. healthcare providers and insurers start from widely divergent places as some of the largest move to put most of their business into payment models that reward lower cost and higher quality care.

A new task force made up of providers, insurers and employers has committed to shift 75% of its members' business into contracts with incentives for health outcomes, quality and cost management by January 2020.
HEDIS® and Quality Compass®

The Healthcare Effectiveness Data and Information Set (HEDIS)

- HEDIS is a tool used by more than 90 percent of America’s health plans to measure performance on important dimensions of care and service.
- Included in HEDIS is the CAHPS® 5.0 survey, which measures members’ satisfaction with their care in areas such as claims processing, customer service, and getting needed care quickly.

HEDIS 2015
Volume 1: Narrative
- HEDIS 2015 Measures
- HEDIS 2015 Physician Measures

http://www.ncqa.org/HEDISQualityMeasurement/WhatisHEDIS.aspx
What is an ACO?

A group of healthcare providers that contracts with Medicare (or another payor) to coordinate care for beneficiaries and reduce the overall costs associated with delivering the care.

Specifically ACO providers agree to work together to:

- Coordinate patient care
- Reduce costs
- Perform well on quality measures

Share in achieved cost savings by reducing cost to deliver care
Specialty Practices/Disease Management

- Cardiology
- Bariatrics
- Pediatrics
- Psychiatry
- OB/GYN
- Pulmonology
- Intensivists

Integrated Sleep Services
Chronic Conditions-Management Programs

• **Bi-Directionality**
  o Stress the importance of sleep health
  o Understand the impact of poor sleep health on chronic conditions
  o Understand how these conditions contribute to poor sleep

• Integrate sleep health as part of the chronic disease management program

• Make sleep a “measureable outcome”
Acute Care Hospitals

- **Possible Roles**
  - Clinical Sleep Educator
  - Sleep Health Provider
  - Sleep Health Coordinator

- **What would these roles do?**
  - Assess/modify sleep environment
    - Quiet surroundings is on the HCAHPS
  - Evaluate for sleep disorders
  - Discharge planning (OSA etc...)
Background: Sleep Apnea

Chronic Disease
- ↑morbidity, mortality
- Economic burden est. $20 billion dollars

1:4 American Adults
- 70-80% undiagnosed
- ↑risk heart disease, hypertension, diabetes, stroke

80% Hospitalized Patients
- Critical safety concern
- <20% with a diagnosis of OSA received therapy during hospitalization (Memtsoudis et al, 2013, NEJM)

2004 National Hospital Discharge Survey
- 6.8% reported SA in discharge data
- 5.8% received continued PAP therapy while hospitalized

Used with Permission, Lisa Kuhen DNP
It’s all about the risk, bout that risk…..

- Possible scenarios
  - Reduction of fall risk
  - Reduction of adverse events
    - Perioperative
    - PCA’s
    - Monitoring CPAP use
  - Reduction of 30 day hospital readmission
  - Reduction of facility liability
How Do Clinicians Assess, Communicate About, and Manage Patient Sleep in the Hospital?
Ye, Lichuan PhD, RN; Keane, Kathleen MS, BSN, CNL, CCRN; Johnson, Stacy Hutton MS/MBA, RN, NE-BC; Dykes, Patricia C. DNSc, RN

Abstract

OBJECTIVE: The objective of this study was to characterize how clinicians assess, communicate about, and manage patient sleep, with the focus on identifying existing barriers and facilitators to sleep promotion in clinical practice.

BACKGROUND: Sleep is a critical need for improving for hospitalized patients.

METHODS: Content analysis was used to interpret descriptive data from 4 group interviews with a total of 62 clinicians.

RESULTS: Clinicians reported they did not formally assess for patient sleep, which led to largely unmanaged sleep disruption during hospitalization. Major barriers to effective sleep management were limited understanding of the importance of sleep, lack of a standardized tool for assessment, and inadequate communication. Facilitators included collaborative communication with patients and the healthcare team and customized patient-centered interventions.

CONCLUSIONS: It is critical to inform clinicians on the importance of sleep, to standardize sleep assessment, and to facilitate collaboration among caregivers to promote sleep for hospitalized patients.
A Side Effect....

Researchers estimate that about 40 percent of delirium cases are preventable. Many cases are triggered by the care patients receive — especially large doses of anti-anxiety drugs and narcotics to which the elderly are sensitive — or the environments of hospitals themselves: busy, noisy, brightly lit places where sleep is constantly disrupted and staff changes frequently.

http://www.nextavenue.org/delirium-a-surprising-side-effect-of-hospital-stays/
Cost of CPAP in the Hospital

- Prospective cohort study tertiary academic medical center (JH); evaluate costs associated with hospital vs patient provided CPAP
- All new pt admissions >18 prescribed CPAP as an in-patient (1/1-2/28, 2012)
- N=162; 1.2% of admissions
- Cost to provide CPAP to hospitalized patients vs use of home CPAP (avg nights of use 5.3±5.5)
  - RVUs (110 units; F/U 8units --$2.68)
  - Patient Provided=$0.00 (27.50 for the RT charge)
  - Hospital provided 27.50/day; differential charge = 416.10 (daily rental fee and RT follow ups) for a patient who stayed more than 1 day
- Cost savings to the hospital and insured can be significant >1.1 million per year

Smith et al., 2014, doi.1002/lary.24604
Discharge Planning

- Do you think sleep is mentioned?
- Do the hospital discharge planners know and understand about OSA/CPAP?

<table>
<thead>
<tr>
<th>UNDERSTANDING YOUR CARE WHEN YOU LEFT THE HOSPITAL</th>
</tr>
</thead>
</table>

23. During this hospital stay, staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left.
1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

24. When I left the hospital, I had a good understanding of the things I was responsible for in managing my health.
1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree
### Other opportunities for Sleep Health

<table>
<thead>
<tr>
<th>Where</th>
<th>What</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatrics/Schools</td>
<td>OSA, behavioral sleep challenges</td>
<td>Childhood growth and development; what is normal; physiology; parent-child interaction</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>OSA, menopause, polycystic ovarian syndrome</td>
<td>Normal reproductive physiology, changes to sleep in menopause; understanding PCOS</td>
</tr>
<tr>
<td>Occupational Health</td>
<td>Preventative; OSA ; shift work</td>
<td>Circadian rhythm; phase shift, sleep promoting guidance</td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>Cognitive decline, sleep deprivation</td>
<td>Normal changes; abnormal neurodegenerative changes; impact to family and QoL</td>
</tr>
<tr>
<td>Community/Society</td>
<td>Poor knowledge in general</td>
<td>Health promotion including sleep, diet, exercise</td>
</tr>
</tbody>
</table>
Interprofessional Teams

• Research has long suggested that interprofessional collaboration improves coordination, communication and, ultimately, the quality and safety of patient care.
• It utilizes both the individual and collective skills and experience of team members, allowing them to function more effectively and deliver a higher level of services than each would working alone.

Robert Wood Johnson Foundation, 2015
IOM Core Competencies for Health Professionals (2003)

- Provide patient-centered care
- Work in interdisciplinary teams
- Employ evidence-based practice
- Apply quality improvement
- Utilize informatics
Overlap of Core Competencies for Health Professionals

IOM, 2003
So... where from here?

- Make Sleep Health Inquiry an **ALWAYS EVENT**
- Be out in the community
- Speak every chance you can
Don’t know where to start?

### Always Events® Getting Started Kit

February 2014

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### Science of Improvement: Establishing Measures

Measurement is a critical part of testing and implementing changes; measures tell a team whether the changes they are making actually lead to improvement. Measurement for improvement should not be confused with measurement for research. This difference is outlined in the table below.

<table>
<thead>
<tr>
<th></th>
<th>Measurement for Research</th>
<th>Measurement for Learning and Process Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>To discover new knowledge</td>
<td>To bring new knowledge into daily practice</td>
</tr>
<tr>
<td><strong>Tests</strong></td>
<td>One large &quot;blind&quot; test</td>
<td>Many sequential, observable tests</td>
</tr>
<tr>
<td><strong>Biases</strong></td>
<td>Control for as many biases as possible</td>
<td>Stabilize the biases from test to test</td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td>Gather as much data as possible, &quot;just in case&quot;</td>
<td>Gather &quot;just enough&quot; data to learn and complete another cycle</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>Can take long periods of time to obtain results</td>
<td>&quot;Small tests of significant changes&quot; accelerates the rate of improvement</td>
</tr>
</tbody>
</table>
PROMIS Mission, Vision & Goals

PROMIS Mission

PROMIS® uses measurement science to create a state-of-the-art assessment system for self-reported health.

Vision

The Patient-Reported Outcome Measurement Information System (PROMIS®), funded by the National Institutes of Health, aims to provide clinicians and researchers access to efficient, precise, valid, and responsive adult- and child-reported measures of health and well-being.

PROMIS Strategic Goals

- Create and promulgate a set of qualitative and quantitative methodological standards for development and validation of PROMIS instruments.
- Launch a PROMIS sustainable entity that is able to continue and grow the research, development, and dissemination activities for the network.
- Identify and prioritize a set of research and development opportunities for PROMIS that include, but are not limited to, clinical applications.
- Disseminate information on PROMIS to forge strategic alliances with key individuals and organizations that will help PROMIS fulfill its vision and enhance its adoption in research, clinical practice, and policy.

www.healthmeasures.net/explore-measurement-systems/promis
It’s about outcomes

<table>
<thead>
<tr>
<th>Domain</th>
<th>PROMIS-29 v2</th>
<th>PROMIS-43 v2</th>
<th>PROMIS-57 v2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Distress - Anxiety</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Emotional Distress - Depression</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Fatigue</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Pain - Interference</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Pain - Intensity</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Function</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Ability to Participate in Social Roles and Activities (v2.0)</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

Sleep Disturbance

In the past 7 days...

- My sleep was refreshing
  - Not at all
  - A little bit
  - Somewhat
  - Somewhat
  - Very much

- My sleep was restless
  - Not at all
  - A little bit
  - Somewhat
  - Somewhat
  - Very much

- I worried about not being able to fall asleep
  - Not at all
  - A little bit
  - Somewhat
  - Somewhat
  - Very much
Brilliant surgery!
Well done!
Shame the patient died.
• If you can’t measure it, you can’t manage it. Peter Drucker
Creating a Culture of Change

Viewpoints from All Stakeholders

- What are the goals?
- Appetite for Change
- Gaps
- Transition Plan - Minimize disruption
- Implementation of change
- Commitment to change: resistance

Adapted from CiCares.com
Healthcare at a Tipping Point

Volume:
- Volume-based Compensation
- Future of ACA?
- Fee-for-Service

Value:
- Readmissions
- Patient Satisfaction
- Consumer Input on Quality
- Bundled Payments
- Value-based Purchasing
- Physician Employment
- ACOs

Used With Permission Linda Rouse O’Neil HIDA
The future?
Summary

• Improving skills and knowledge is imperative
• Understand policy and the healthcare landscape
  o Reimbursement probably will remain an issue
• Opportunities Exist
Dream Big-Dream Different

“Keep away from people who try to belittle your ambitions. Small people always do that, but the really great make you feel that you, too, can become great.”

– Mark Twain
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(If emailing, please put Focus 2017 in subject line)