#### Enhancing Wellness for Women With Chronic and Disabling Physical Conditions

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#### **Session Presenters**



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#### **Session Presenters**



Jennifer F. Kelly, PhD, ABPP, is a licensed psychologist and is Board Certified in Clinical Health Psychology. She served as the 2021 President of the American Psychological Association. Her presidential initiatives focused on Psychology's Role in Achieving Health and Racial Equity. She is the director of the Atlanta Center for Behavioral Medicine in Atlanta, Georgia. Dr. Kelly addresses a variety of mental health concerns in her practice, with expertise in treating disorders that involve the relationship between physical and emotional conditions.



## Disclosures/Conflicts of Interest

**Kathleen S. Brown, PhD**: No conflicts of interest or commercial relationships to disclose.

Jennifer F. Kelly, PhD, ABPP: No conflicts of interest or commercial relationships to disclose.

AI was used to generate resources for the content of this presentation.



# Learning Objectives

- 1. Explain the prevalence of chronic health conditions and disability concerns in women.
- 2. Describe three evidence-based treatments that effectively address the needs of women with chronic conditions.
- 3. Discuss strategies to support and promote health and wellness for women living with chronic conditions.



## Acknowledgement of the Terminology

**Gender** is *a social construct* that defines women, men and nonbinary differently which then differentially distributes power, status, and resources.

**Sex** factors, comprising sex chromosomes, gonadal hormones and other factors they influence, lead to male and female differences in morphology, physiology, and behavior.

Gender is often misused in chronic health research, such that sex and gender are often conflated or used inconsistently.



#### Definitions (WHO, 2023)

- Chronic disease noncommunicable diseases that tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors.
- **Disability** conditions which have the following three dimensions:
  - Impairment in a person's body structure or function, or mental functioning; examples of impairments include loss of a limb, loss of vision or memory loss.
  - Activity limitation, such as difficulty seeing, hearing, walking, or problem solving.
  - Participation restrictions in normal daily activities, such as working, engaging in social and recreational activities, and obtaining health care and preventive services.



#### Factors Contributing to Chronic Conditions in Women over the Life Course



Batulan, Bhimla & Higginbotham, 2024



## Prevalence in 2024

- Chronic Conditions
- •Global = 1:3 adults
- •U.S. = 129 million
- Disability
- •Global = 1.3 billion
  - 19% women vs 12% men
- •U.S. = 70+ million
  - 13% women vs 9% men (CDC, 2024)



### Disability & Chronic Conditions in Women

- Rising rates due to the aging of the U.S. population and longer life expectancies of women compared to men
- Chronic conditions pose an increasingly significant burden on the health & quality of life of women.
- Although sex and gender differences in the prevalence of chronic conditions have been documented, existing definitions of chronic conditions do not incorporate sex or gender considerations.
- Sex-disaggregated CMS data for the 21 CMS-defined chronic conditions demonstrate six conditions that occur more frequently in women: hypertension, arthritis, depression, dementia, asthma, and osteoporosis (CMS, 2020).



Condition Analysis Category	Condition (2019 Disability-Adjusted Life Years [DALYs], United States) Fiscal Year 2020 Spending per 2019 DALY (for Conditions with an Available Research, Condition, and Disease Categorization [RCDC])									
Female- Specific	Cancers of the female reproductive tract* (900,843) \$372	Dys- Menorrea Abnormal menses (289,608)	Fibroids* (64,009) \$281	Endometriosis* and adenomyosis (53,777) \$260	Infertility*/ early pregnancy loss (26,355) \$6,108	Polycystic ovary syndrome (42,738)	Pelvic floor disorders Pelvic organ prolapse (21,613)	Menopausal symptoms Pelvic inflammatory disease* Vulvodynia Chronic gynecologic pain disorders Pelvic and vulvar vaginosis		
More Common in Women and/or Morbidity Is Greater in Women	Depressive disorders (1,704,524) \$353	Migraine and headache (1,573,325) \$27	Breast cancer* (1,387,670) \$568	Asthma (820,435) \$411	Autoimmune diseases (including rheumatoid arthritis,* systemic lupus erythematosus, Sjögren's,* scieroderma*)	Rheumatoid arthritis* (187,902) \$463	Multiple sclerosis (143,123) \$866	Sexually transmitted infections (STIs) (37,316) \$10,558	Temporo-mandibular join Chronic fatigue syndrome Fibromyalgia* Candidiasis Irritable bowel syndrome Interstitial cystitis* HPV Infection* Osteoporosis* Eating disorders	
Potentially Understudied in Women	Unintentional Injuries (Including violence against women*) (2,050,026)	Alzheimer's disease and dementia (1,296,376) \$2,156	Osteoarthritis (1,257,042) \$85	Endocrine, metabolic, blood, and immune disorders	Recurrent urinary tract infection Interstitial nephritis	HIV (118,59 <del>6</del> ) \$25,936	Exogenous hormone use Neuropathy Post-traumatic stress disorder Overactive bladder and incontinence Chronic pain (including chronic pelvic pain)			
High Morbidity for Women	Heart disease (3,396,660) \$472	Lower back pain <i>(3,168,583)</i> \$17	Chronic obstructive pulmonary disease (2,568,947) \$449	Drug use disorders (2,323,237) \$967	Stroke (2,098,900) \$210	Diabetes (2,010,853) \$573	CHESSING WEARSONNESS	Obesity and metabolic disease Influenza and pneumonia		



(NIH, 2021)

# Chronic Physical Health Conditions That Impact Women Differently

#### **Pain Disorders**

- Migraine/headache
- Chronic pain
- Fibromyalgia
- Myalgic encephalomyelitis/chronic fatigue syndrome
- Musculoskeletal Disorders
  - Osteoporosis; Sarcopenia

#### Cancer

- Breast (Stage 0-III)
- Endometrial, Cervical, Ovarian
- Thyroid

#### **Neurocognitive Disorders**

• Alzheimer's Disease

#### **Cardiometabolic System**

- CVD
- Stroke
- Metabolic (Type 2 Diabetes, Obesity, Metabolic Syndrome)

#### **Autoimmune Diseases**

- Systemic Lupus Erythematous
- Multiple Sclerosis
- HIV/AIDS



# Female-Specific Chronic Gynecologic Conditions

- Endometriosis/dysmenorrhea/chronic pelvic pain
- Uterine Fibroids
- Infertility
- Vulvodynia
- Pelvic floor disorders (female urinary incontinence, pelvic organ prolapse



## Chronic Mental Health Conditions That Impact Women Differently

- Depression
- Anxiety
- PTSD (traumatic events, domestic violence)
- Sleep Disorders
- Substance Use Disorders
- Somatoform Disorders
- Eating Disorders

Kessler, Demler, et al., 2005



## Mortality From Chronic Conditions Impacting Women Differently

- Alzheimer's Disease
- Breast Cancer
- Chronic Obstructive Pulmonary Disease
- Depressive Disorders
- Ischemic Heart Disease



### NIH Women's Health Spending by Institute, 2020



Temkin. NIH Conference on Women's Health Research. Obstet Gynecol 2022.



## Social Determinants of Health (SDH)



The five social determinants of health | WeCare tlc



#### Social Determinants of Health

Bio-Socio-Cultural Model of Chronic Conditions and Experiences in Women

	BIOLOGICA (Sex, Ances				
Social and Cultural Ident	ities (e.g., Race, Ethnic	ty, Gender Identity, Sexu	ual Orientation, Gender Roles)		
STRUCTURAL DETERMINANTS • Inequitable Policies • Experiences of Ageism, Sexism, Racism, and Discrimination	SOCIAL DETERMINANTS • Socioeconomic Status, Education, and Literacy • Community Built and Neighborhood Environment		OTHER EXPOSURES • Interpersonal Experiences (e.g., ACES, Trauma, IPV, Lack of Social Connections) • Life Events/Chronic Stress		
	RESOURCES	Resilience and Coping			
ALLOS	TATIC LOAD/WEA	THERING/EMBOD	DIMENT		
PREVENTIVE BEHAVIORS (e.g., lifestyle factors and behaviors)	DISEASE CHAR (e.g., age of onse	A STATE AND A STAT	EXPERIENCES WITH CARE (e.g., delay, denial, trust)		
17		1			
	HEALTH CA	RE SYSTEM			
CLINICAL (e.g., access and available health care a services, fragmented care, male-centric s disrespect, bias and discrimir	system, dismissal,	PERSON-CENTERED (e.g., knowledge, self-efficacy, shared decision making)			

DISPARITIES AND INEQUITIES IN CHRONIC CONDITIONS THAT AFFECT WOMEN

Batulan, Bhimla & Higginbotham, 2024



#### **Structural Competency**



"Structural determinants of the social determinants of health"





## Structural Determinants of Health

Operating social & political mechanisms

- Governing processes, economic and social policies affect everything from sick leave policy to housing or education which are the intermediary step to unequal distribution of power, prestige and resources
  - Sexism (Homan, 2019)
  - Homophobia/ Heterosexism
  - Racial Inequities
  - Ageism



#### **Chronic Pain**



#### Chronic Pain: Overview

- Chronic pain is defined as pain that persists beyond the expected period of normal healing.
- Unlike acute pain, which serves as a protective warning signal, chronic pain often serves no beneficial purpose.
  - It no longer functions as an alert to potential or actual tissue damage.



#### Chronic Pain: Overview

- In most cases, chronic pain develops following an injury or illness.
  - The pain persists even after the body has physically healed—
    - for example, a patient may continue to report back pain despite all diagnostic tests returning normal results.
- Chronic pain can also arise without any identifiable injury or illness, as seen in conditions like **trigeminal neuralgia**.
- Regardless of the cause, the outcome is often the same:
  - a debilitating cycle of **sleep disturbances**, **reduced activity**, **irritability**, **depression**, and intensified pain.



#### Chronic Pain: Overview

According to a recent CDC report:

- Chronic pain affects nearly one in four US adults
- Increased noticeably in recent years
  - In 2023, 24.3% of U.S. adults had chronic pain that lasted three months or longer
  - In comparison, that percentage was 20.9% in 2021, and 20.4% in 2016

https://www.cdc.gov/nchs/products/databriefs/db518.htm



#### Chronic Pain vs. High Impact Chronic Pain

#### **Chronic Pain**

- Pain that lasts for **3 months or longer**, beyond the usual time of healing.
- It can be constant or intermittent and may vary in intensity.
- Impact: May or may not significantly interfere with daily activities, work, or social life.

#### **High-Impact Chronic Pain**

- A subset of chronic pain that not only lasts **3 months or more** but also:
  - Substantially limits life or work activities on most days or every day during the past 6 months.
- Impact:
  - Severe restrictions in **mobility**, **self-care**, or **ability to work**.
  - Often associated with greater emotional distress, social isolation, and higher health care use.

Approximately 7.4% of U.S. adults are affected by high-impact chronic pain.



#### Chronic Pain: Psychosocial Impact

Once chronic pain develops, many psychosocial influences can interfere with recovery, including:

- psychosocial stresses (e.g. financial challenges)
- lack of motivation
- affective changes such as depression and/or anxiety
- reinforcement from family members
- litigation issues
- dependency on medications



#### Chronic Pain: Daily Impact

- Disrupted sleep → leads to fatigue and irritability
- Negative shift in outlook on life
- Strained personal and social relationships
- Limitations in daily activities
- Reduced ability to work due to pain and exhaustion
- Increased risk of long-term disability



# Chronic Pain: The Scope of the Problem

The Cost of Chronic Pain

- Significant burden on individuals, family and caregivers, society, and traditional health care systems
- Indirect costs include lost productivity, reduced tax revenue, legal expenses, and disability compensation
- Estimated U.S. annual cost: \$150-\$215 billion/year





## Chronic Pain: Why Undertreated?

Chronic pain continues to be underdiagnosed and undertreated.

• This has been documented over the past several decades across diverse samples, types of pain and various settings.

Why?

- Lack of insurance, poor access, inadequate training
- Fundamental challenge- pain is subjective.
  - Pain is assessed primarily through patient-provider interaction
  - The lack of objective evaluation and the reliance on social interaction make pain assessment uniquely vulnerable to psychosocial influences



# Chronic Pain: The Scope of the Problem

Data from CDC (2023)

Women were more likely-

- to have chronic pain (25.4% vs. 23.2% in men)
- and high-impact chronic pain (9.6%) than men (7.3%)

The report also notes that both chronic pain and highimpact chronic pain increase with age and are more common in rural areas.

https://www.cdc.gov/nchs/products/databriefs/db518.htm



## Chronic Pain in Women: The Global Scope of the Problem

Pain conditions affecting women have a significant global impact.

- Millions of women around the world suffer from chronic pain but many remain untreated
  - There is still a lack of awareness/ recognition of pain issues affecting women
- Chronic pain affects a higher proportion of women than men around the world
- However, studies have shown that women are less likely to receive treatment than men.



## Sex and Gender Disparities in Pain

The International Association of the Study of Pain, declared 2024 as the Global Year of Sex and Gender Disparities in Pain

- Women (or those assigned female at birth) are more likely to experience almost all forms of chronic pain than men.
- Female anatomy and physiology are associated with forms of pain unique to women and can lead to specific challenges

Failure to consider these conditions and challenges contributes to the burden of pain for women throughout their lives.



## Acknowledgement of the Terminology

Researchers have found sex differences (biophysiological differences between male, female, and intersex bodies) in scale and experience of chronic pain, and

Research documents gender differences as well.



## Chronic Pain in Women: The Scope of the Problem

Stanford study: Evaluated thousands of electronic patient records and found

- Women tended to report much more severe pain than men, no matter the source of the pain.
  - When asked to rate their pain, women on average scored their pain 20 percent more intense than men.
- The results held up across a wide variety of diseases and injuries, including back and neck pain, digestive disorders, sinus infections.
- In almost every category researchers looked at, women reported more pain than men.

Ruau, D., Liu, L. Y., Clark, J. D., Angst, M. S., & Butte, A. J. (2012). Sex differences in reported pain across 11,000 patients captured in electronic medical records. Journal of Pain, 13(3), 228–234. https://doi.org/10.1016/j.jpain.2011.11.006



#### Chronic Pain In Women: Gender Differences In Rates Of Common Pain Conditions In The General Population

- Age and sex -specific prevalence patterns differ for different pain conditions, but prevalence rates of most common chronic pain conditions are higher among women than among men.
- In population-based studies of adults, the female: male ratios
  - 1.5:1 for headache, neck, shoulder, knee and back pain
  - 2:1 for orofacial pain conditions
  - 2.5:1 for migraine headache
  - 4:1 for fibromyalgia (a less prevalent but often disabling condition)



### Chronic Pain in Women: Epidemiology of Female-Specific Pain Conditions

- **Dysmenorrhea** (painful menstrual periods)
  - Affects 40-90% of women. About 15% of women describe their menstrual pain as excruciating.
  - The prevalence and severity of primary dysmenorrhea are highest in late adolescence and the young adult years.
  - Although rates vary across populations, a median of about 20% of girls report missing school days due to dysmenorrhea.

#### • Chronic (non-menstrual) pelvic pain

- Can be caused by gynecological conditions (e.g., endometriosis, infection) or non-gynecological conditions (including irritable bowel syndrome or bladder-related pain).
- 15 % of women of reproductive age in the US report chronic pelvic pain from all causes.


### Chronic Pain in Women: Epidemiology of Female-Specific Pain Conditions

Approximately 45% of women experience pain in the lower back/pelvic girdle during pregnancy.

- One-fourth of all women have pain of sufficient severity to require medical attention.
- Postpartum, about 25% of women experience lower back/pelvic girdle pain, with about 5% of all women experiencing severe pain.
- 95 percent of women report labor pain



# Chronic Pain: The Scope of the Problem

The higher prevalence of clinical pain conditions in women than in men, coupled with the predominance of a few specific pain conditions in men suggests that:

- **different clinical pain mechanisms** may operate in men vs. women;
- different or additional risk factors are relevant in one sex, or
- differences compound such that small differences in mechanisms become large differences in morbidity and mortality through interactions with pharmacological and interventional therapies



#### Chronic Pain in Women: Gender Differences in Rates of Common Pain Conditions in the General Population

- Women are more likely than men to experience multiple pains simultaneously.
  - Having multiple pain conditions is associated with higher levels of disability and psychological distress than having a single pain condition, and
  - Having multiple pains is a risk factor for onset of new pain conditions.



### Chronic Pain in Women: Gender-Related Risk Factors for Pain

#### **Co-morbidities**

- Women are more likely to experience depression than are men, and depression appears to be a risk factor for common pain conditions.
- Similarly, women experience **more physical conditions** than do men, and the presence of such co-morbidities is hypothesized to be a risk factor for pain.



#### Chronic Pain in Women: Gender-Related Risk Factors for Pain

#### Hormonal Differences:

- Estrogen, the female reproductive hormone plays a role in some pain conditions (e.g., migraine headache, temporomandibular disorder pain).
- For other pain conditions, the evidence of hormonal involvement is less clear.
- However, rates of many common pain conditions increase for girls as they pass through puberty, whereas rates for adolescent boys are stable or rise less steeply than for girls.



#### Chronic Pain in Women: Factors that Impact on Gender Differences in Pain Experience

- Changes in sex hormones have been found to moderate pain (e.g., menstrual cycle, pregnancy)
- Sex differences in pain can vary across the lifespan.
  - Many of the observed gender differences in pain prevalence (i.e. headache, abdominal and visceral pain) appear to reduce when one goes beyond the reproductive years.
- Sex differences in pain can vary across different cultures as well



#### Chronic Pain in Women: Sex Hormones and Pain

- Pain perception varies according to the menstrual cycle phases in women with chronic pain.
  - For example, temporomandibular pain is highest in the pre-menstrual period and during menses.
- Androgens and estrogens are vital for the proper development and maintenance of the male and female reproductive systems. They also play a crucial physiological role in the activity and well-being of both males and females.



#### Chronic Pain in Women: Gender-Related Risk Factors for Pain

#### **Endogenous opioid system**

- Men and women respond differently to various classes of opioid medications, suggesting that the endogenous opioid system may differ in the two sexes, possibly influencing rates of pain.
- Why?



#### Chronic Pain in Women: Gender Differences in Response to Analgesia

- Research indicates notable sex differences in the way individuals respond to analgesics, including both their effectiveness and side effects.
- Women and men may experience varying side effect profiles when using pain medications.
- Gender differences have been observed in the response to nonpharmacological treatments for chronic pain
  - This suggests that biological and psychosocial factors may influence treatment outcomes.
- When it comes to opioid analgesics, the evidence in humans is mixed.
  - Some studies suggest opioids may be more effective in men, while others report greater or equal efficacy in women.
  - In contrast, studies in animal models consistently show that opioids tend to be more effective in males.



#### Chronic Pain in Women: Gender Differences in Response to Analgesia

Reasons to account for the gender differences in pain and analgesia

- Biological mechanisms include sex hormones, genetics, and anatomical differences.
  - Some of these biological factors (i.e., gonadal hormones) become less apparent in the post-menopausal years.
- Psychosocial influences include emotion (e.g., anxiety, depression), coping strategies, gender roles, health behaviors, and use of health care services
- While most explanations concentrate on biological mechanisms, such as genetic and hormonal differences, it is becoming increasingly clear that social and psychological factors are also important
- Pain hits women hard because of the insomnia, fatigue, loss of appetite, muscle atrophy, and depression that go along with many such disorders



#### Chronic Pain in Women: Factors that Impact Gender Differences in Pain Experience

Different strategies men and women use to cope with pain

- Women tend to focus on the emotional aspects of pain they experience; men tend to focus on the sensory aspects, for example concentrating on the physical sensations they experience.
- Research has shown that while the sensory-focused strategies used by men helped increase their pain threshold and tolerance to pain, it was unlikely to have benefit for women.
- Women who concentrate on the emotional aspects of their pain may actually experience more pain as a result, possibly because the emotions associated with pain are negative.



#### Chronic Pain in Women: Pain-Related Health Care Use and Disability

- In the U.S., women are more likely to seek health care for pain than men, resulting in a high proportion of women in many pain treatment settings.
  - The higher rate of treatment seeking among women may be because pain is often more severe for women than for men.



#### Chronic Pain in Women: Pain-Related Health Care Use and Disability

- It is unclear whether women or men are more likely to experience employment disability associated with pain conditions.
- Numerous factors such as type of work and family responsibilities influence employment disability rates.
- However, when disability is defined in terms of limitations in activities of daily living as well as work absence, women have higher rates of pain-related disability.



#### Impact of Catastrophizing on Women's Pain

**Catastrophizing-** Imagining and expecting the worst possible outcomes

- Characterized by excessive worry, rumination, and magnification of pain experiences
- Leads to the individual perceiving pain as more intense, disabling and uncontrollable than it actually is
- Research has consistently shown that catastrophizing can exacerbate pain experiences, impair emotional and physical functioning, and increase the risk of developing chronic pain conditions.

Cohen, L. L., & Linton, S. J. (2006). *Catastrophizing and pain. In Psychological approaches to pain management: A practitioner's handbook* (pp. 23–40). New York, NY: Guilford Press.

Traeger, A. C., Henschke, N., Koes, B. W., & Refshauge, K. M. (2016). *The association between pain catastrophizing and disability in people with musculoskeletal pain: A systematic review and meta-analysis. Pain, 157*(5), 783–793.



### Gender Differences in Catastrophizing

- Women, in general, tend to score higher on measures of catastrophizing compared to men.
- Related to various factors
  - hormonal differences, greater socialization of emotional expression in women, or gendered experiences of pain (e.g., childbirth, menstrual pain, and societal expectations).
- Women may also be more likely to internalize pain experiences, which can amplify feelings of helplessness and fear of further pain.

Green, C. R., & Johnson, R. W. (2013). The role of gender and psychological factors in chronic pain. American Journal of Physical Medicine & Rehabilitation, 92(10), 835–843.



#### Impact on Treatment and Implications for Recovery

- Women who catastrophize may have poorer outcomes following medical interventions, rehabilitation, and physical therapy.
  - This may be because catastrophizing can lead to maladaptive coping strategies (e.g., avoidance of activity) or increased fear of movement, which impairs functional recovery.
- Interventions (e.g., pharmacological treatments), focused solely on the treatment of depression, without attention to catastrophizing, may not be sufficient.
- Interventions designed to reduce catastrophizing, such as cognitive restructuring, may have a greater impact on decreasing pain, pain behavior, and physical disability in women than in men



### Chronic Pain in Women: Disparity in Treatment Exists

Several reasons may explain why barriers to treatment still exist.

- Psychosocial factors, such as gender roles, pain coping strategies and mood may influence how pain is perceived and communicated.
- Lack of acceptance or understanding of the biological differences between men and women that may impact how pain is perceived.
  - These psychosocial and biological factors, coupled with the economic and political barriers that still exist in many countries, have left millions of women living in pain without proper treatment.



### Chronic Pain in Women: Disparity in Treatment Exists

- The fundamental reason relates to its subjectivity. Pain is assessed primarily through patient-provider interaction
- The lack of objective evaluation and the reliance on social interaction make pain assessment uniquely vulnerable to psychosocial influences



Treatment depends, in part, on the condition, but there are **commonalities**:

- Accepting attitude from both the physician and the patient
- Comprehensive clinical evaluation, accurate diagnosis
- Education for affected individuals, family, society



- Encourage patient to take an active role in self-care
  - Proper nutrition, regular exercise within limits placed by a health care professional, and managing stress
- Psychological support
  - There may be a need for psychotropic medications, especially if there is co-occurring depression and anxiety
- Should include cognitive coping strategies
  - Re-labeling the pain experience
- Biofeedback, relaxation training, physical therapy/physical modalities, exercise program



- Women have more of a tendency to concentrate on the emotional aspects of their pain.
  - As a result, they may experience more pain, likely because the emotions associated with pain are negative.
- Treatment Implication: Work on changing the thoughts associated with the pain.
  - E.g., Instead of seeing it as disabling, overwhelming, see it as something that can be managed and something that they can work with if they make positive modifications in their life.



• Sparing use of medications proven to be effective

- (e.g., low-dose tricyclic antidepressants (mostly amitriptyline) or other serotonin reuptake inhibitors, nonnarcotic analgesics, anti-epileptics (gabapentin, pregabalin)
- Regular monitoring and follow-up



### **Psychological Approaches**

- Supportive Therapies
  - Brief, psychodynamic therapy
  - Emotional Awareness and Expressive Therapy
- Self-regulatory treatments (SRT)
  - Biofeedback
  - Relaxation training (progressive muscle relaxation, autogenic training)
  - Hypnosis
  - Mindfulness-Based Stress Reduction
- Behavioral Interventions (BEH)
  - Altering pain-relevant communication
  - Behavioral activation via contingency management
- Cognitive-Behavioral Therapy (CBT)
  - Reconceptualization of pain as problem to be solved
  - Coping skills training
- Acceptance and Commitment Therapy (ACT)
  - Willingness to experience pain
  - Engagement in valued life activities despite pain
- Trauma-informed Therapy

Kerns, R. D., Sellinger, J., & Goodin, B. R. (2011). Psychological treatment of chronic pain. *Annual review of clinical psychology*, 7(1), 411-434.



#### Cognitive Approaches in Pain Management

- Studies have shown that patients who misinterpret their experience of pain are more severely disabled
- Negative, unrealistic thoughts, images and beliefs contribute to physical and emotional suffering as well as self-defeating behaviors
  - Negative, unrealistic cognitions about pain and other life events have a significant negative influence on emotions, behaviors, and physiological sensations of pain



### **Key Considerations**

- Validate pain as real and complex—not "in your head."
- Screen for trauma and comorbid mental health conditions early.
- **Tailor goals** to the woman's life context (parenting, work, caregiving).
- Encourage self-compassion, not self-blame.



#### Wellness for Women's Health





#### Treatment: Target Relevant Impacts On Women's Functioning & Wellbeing

- Psychosocial/ Behavioral
- Mental Health
- Relationships
- Body Image
- Sexual & Reproductive Health
- Financial/Economic Health
- Profession/ Career



### **Promoting Self-Advocacy**

- Write concerns or questions before appointment
- Show tracked data of symptoms, medications, etc.
- Use "I" statements"
- Practice assertiveness
- Communicate boundaries
- Bring buddy for listening, note taking
- Use notes to follow-up on issues
- Trust instincts



### Are Support Groups Useful?

#### Benefits

- Safe place to share
- Decrease social isolation
- Validation
- Self-management tips
- Provide Resources
- Convenience and accessibility online

#### Risks

- Trigger emotional overwhelm
- Can spread misinformation without facilitator
- Can support dysfunction
- Reinforce maladaptive behaviors
- Wrong time/ pace



#### Approaches to Address Barriers in Health Care for WWD

- Environmental and Transportation
- Equipment
- Informational
- Attitudinal

Piotrowski & Snell, 2007, <u>Health Needs of Women With Disabilities Across</u> the Lifespan



#### Structural Interventions to Reduce Health Disparities

- Promote the science of community and stakeholder engagement in assessing structural determinants of health and designing meaningful relevant interventions to reduce health disparities.
- **Strengthen** scientific frameworks to evaluate long-term impact of structural interventions on health disparities.
- **Develop** robust methods and measures to evaluate structural intervention impact in reducing disparities.
- **Support** dissemination and implementation science research for structural interventions on health disparities to enhance understanding of what strategies work across different populations, disease conditions, and geographic settings.
- Harness innovative and evidence-based approaches to addressing disparities.
- **Support** multilevel and multisectoral interventions with rigorous evaluation methods and population-level data infrastructure building to assess changes over time in reducing health disparities.



#### Barriers in Women's Health Research

- Lack of clear definitions of chronic debilitating conditions specific to women (NIH, 2021),
- Inadequate attention to the social and environmental factors that influence health,
- Inadequate enforcement of requirements that clinical trials include representative numbers of women and that women's results be reported,
- Lack of accounting for sex and gender differences in the study design and analysis, and
- Lack of reporting on sex and gender differences.

(IOM, 2010)



#### Future Recommendations for Women's Health Research

- Strengthen and sustain focus on women's health, including genetic, behavioral, and SDH, to integrate women's health research into pain, chronic conditions and disability research so that differences between subgroups of men and women are routinely assessed.
- Ensure adequate participation of women, analysis of data by sex, and reporting of sex-stratified analyses in all health research.
- Education and further research of the similarities and differences in women's response to pain and analgesia.
- **Researchers need to study** how to translate research findings on women's health into clinical practice and public health policies rapidly.
- Editors of relevant journals could adopt a guideline that all papers reporting the outcomes of clinical trials report on men and women separately unless a trial is of a sex-specific condition (such as endometrial or prostatic cancer).



#### **Professional Resources**

- American Psychological Association (2024). APA Clinical Practice Guideline for Psychological and Other Nonpharmacological Treatment of Chronic Musculoskeletal Pain.
- American Psychological Association (2022). Guidelines for Assessment and Intervention with Persons with Disabilities.
- American Psychological Association (2018). APA Guidelines for Psychological Practice with Women and Girls.



#### Curated Patient Education Resources

ADA Resources for Women with Disabilities

Website: <u>Empowering Women with Disabilities: Navigate the Intersection of Gender & ADA</u> <u>Resources</u>

Caudill, M.A. (2016). Managing Pain Before It Manages You, Fourth Edition. The Guilford Press.

The Center for Chronic Illness

Website: Center for Chronic Illness

Stanford Division of Pain Medicine Free Community Resources

Website: <u>Free Lectures and Support Groups | Division of Pain Medicine | Stanford Medicine</u> Zoffness, R. & Schumacher, M. (2020). The Pain Management Workbook: Powerful CBT and Mindfulness Skills To Take Control of Pain and Reclaim Your Life. New Harbinger Publications.



## Q&A With Dr. Brown & Dr. Kelly

- We will now discuss select questions that were submitted via the Q&A feature throughout the presentation.
- Due to time constraints, we will not be able to address every question asked.



#### References

- Batulan, Z., Bhimla, A., Higginbotham, E. J., & National Academies of Sciences, Engineering, and Medicine. (2024). Chronic Conditions in Women and the Structural and Social Determinants of Health. Advancing Research on Chronic Conditions in Women.
- Casale, R., Atzeni, F., Bazzichi, L., Beretta, G., Costantini, E., Sacerdote, P., & Tassorelli, C. (2021). Pain in women: A perspective review on a relevant clinical issue that deserves prioritization. Pain and Therapy, 10(1), 287–314. https://doi.org/10.1007/s40122-021-00244-1
- Lucas, J. W., & Sohi, I. (2024). Chronic pain and high-impact chronic pain in U.S. adults, 2023 (NCHS Data Brief No. 518). National Center for Health Statistics. https://www.cdc.gov/nchs/products/databriefs/db518.htm
- Pogatzki-Zahn, E., Wesselmann, U., & Vincent, K. (2024). Pain in women [Fact sheet]. International Association for the Study of Pain (IASP). https://www.iasppain.org/advocacy/global-year/sex-and-gender-disparities-in-pain/
- Ruau, D., Liu, L. Y., Clark, J. D., Angst, M. S., & Butte, A. J. (2012). Sex differences in reported pain across 11,000 patients captured in electronic medical records. Journal of Pain, 13(3), 228–234. https://doi.org/10.1016/j.jpain.2011.11.006

