BACKGROUND/SIGNIFICANCE

• Adults with mental illness (MI), on average, die 25 years earlier than the general population, purportedly due to chronic conditions

• Leading causes of death in the U.S. midlife population
  - Cancer, heart disease, unintentional injuries

• Mental illnesses differ in prevalence, symptoms, treatments, and associated health conditions, which may be associated with premature death

• To reduce premature mortality in midlife mentally ill, we need to know what to target

PURPOSE

• To examine differences in leading causes and manner of death among midlife adults with a psychiatric diagnosis documented on the death certificate

METHODS

Data source and sample

• Mortality data for midlife adults (50-64 years) who died in Minnesota between 2011 and 2017 (n=40,636)

Measures

Exposures

• Psychiatric Diagnoses [from ICD10 Chapter F]: Depressive disorders, anxiety disorders, bipolar disorder, schizophrenia/psychotic disorders, and psychoactive substance use disorders (SUD) as ICD10 contributing cause codes

• Any Mental Illness: Has any psychiatric diagnosis other than SUD, may be in addition to SUD but not SUD alone

• Mental Illness Category: Mutually exclusive: Mental illness only, SUD only, both, or neither

Outcomes

• Manner of Death: Natural, accident, homicide, suicide, & undetermined as documented by medical examiner or medical certifier of death

• Leading Cause of Death: Underlying cause of death as documented by ICD10 codes

Covariates

• Sex, race/ethnicity, educational attainment, marital status, urban/rural residence

Analysis

• Summary statistics, cross-tabulations with chi-square tests

• Logistic regression to estimate odds of non-natural (suicide, accident, undetermined) death vs. natural and odds of specific psychiatric diagnoses at death

• Stata SE, version 15

RESULTS

Prevalence (Table 1)

• 4% (1,571) of midlife adults had a mental illness documented at death; 12.6% (5,103) when including psychoactive substance use disorder (SUD) as Mental Illness

  • Of those with any mental illness other than SUD, 16% had two or more diagnoses

  • Prevalence of mental illness documented at death 2.8 times higher in MN than US (1.3% vs. 0.5%) among midlife population

  • Prevalence of mental illness differs by manner of death

  - In middle adults, documented mental illness ranged from 0% in homicides to 32% in suicides

Leading causes rank and percent of deaths (Table 2)

• Leading cause in midlife with mental illness was intentional self-harm (28% of deaths), while suicide was 7th leading cause (2% of deaths) for no mental illness

• Intentional self-harm was 2nd leading cause for midlife with mental illness in US; this represents only 14% of deaths to midlife with mental illness in US [data not shown]

Odds of manner of death (Table 3)

• Midlife adults with mental illness, with or without SUD, have more than 20 times higher odds of death by suicide compared to those with no MI or SUD

• SUD alone has 3-4 times higher odds of death due to accident or undetermined intent

DISCUSSION

• Chronic conditions are not leading causes of death in MN midlife adults with MI

  • Suicide is the leading cause (28% of deaths to midlife adults with mental illness)

  • 29% of deaths due to chronic conditions (cancer, CVD, and diabetes combined)

• Preventing premature death in midlife adults with mental illness needs attention

  • Chronic condition management is necessary, but we also need to address mental illness

  • Mental health promotion and mental illness prevention

  • To reduce deaths due to unintentional injuries and suicides

  • To improve mental health, which can lead to better chronic condition self-management

  • Creative solutions to reach midlife mentally ill

  • Our prior research shows midlife adults with mental illness are less likely to access healthcare

  • We also previously found more social isolation (e.g., unmarried, unemployed, activity limitations) in midlife mentally ill making it harder to identify (other than self-identify) and provide services

Limitations/Issues

• Mental illness higher in MN may be due to more complete documentation

• Deaths with mental illness in MN do not reflect patterns for region or nation

• Differential (under) documentation may indicate that national story is not entirely accurate