



# AAIM 2025 Triennial

Mental Health Workshop

Dr. Nico van Zyl - SVP, Chief Medical Director, RGA

# AAIM 2025: Mental Health Workshop Objectives



- Depression: Identify high- and low-risk features
- Review treatments and tools
- Differentiate major depression, persistent depressive disorder (dysthymia), and grief
- Bipolar Disorder: Understand components and compare with major depression
- Assess high-risk behaviors and suicide risk
- Evaluate generalized anxiety disorder, panic disorder, and post-traumatic stress disorder (PTSD)
- Discuss co-existing psychiatric diagnoses and dual diagnosis with substance abuse



# Appendix

# Depression : Approach to Diagnosis



- Symptom questionnaire
  - SIGECAPS (sleep, interest, guilt, energy, concentration, appetite, psychomotor, suicidal)
  - Patient Health Questionnaire (PHQ-9)
    - Score > 10 : 88% sensitive, 88% specific
  - Beck Depression Inventory (BDI)
    - Developed in 1961
    - Score > 13 : 100% sensitive, 99% specific
- Family history
- Laboratory studies
  - CBC (complete blood count)
  - TSH (thyroid stimulating hormone)
  - Brain imaging

# DSM 5-TR Major Depressive Episode Criteria



A. Five (or more) of the following symptoms have been present during the same two-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

NOTE: Do not include symptoms that are clearly attributable to another medical condition.

- 1) Depressed mood most of the day, nearly every day, as indicated by either subjective report (eg, feels sad, empty, hopeless) or observations made by others (eg, appears tearful). (NOTE: In children and adolescents, can be irritable mood.)
- 2) Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
- 3) Significant weight loss when not dieting or weight gain (eg, a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (NOTE: In children, consider failure to make expected weight gain.)
- 4) Insomnia or hypersomnia nearly every day.
- 5) Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
- 6) Fatigue or loss of energy nearly every day.
- 7) Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
- 8) Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by their subjective account or as observed by others).
- 9) Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

# DSM 5-TR Major Depressive Episode Criteria cont'd



B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The episode is not attributable to the direct physiological effects of a substance or to another medical condition.

NOTE: Criteria A through C represent a major depressive episode.

NOTE: Responses to a significant loss (eg, bereavement, financial ruin, losses from a natural disaster, a serious medical illness or disability) may include the feelings of intense sadness, rumination about the loss, insomnia, poor appetite, and weight loss noted in Criterion A, which may resemble a depressive episode. Although such symptoms may be understandable or considered appropriate to the loss, the presence of a major depressive episode in addition to the normal response to a significant loss should also be carefully considered. This decision inevitably requires the exercise of clinical judgement based on the individual's history and the cultural norms for the expression of distress in the context of loss.

D. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.

E. There has never been a manic or hypomanic episode.

NOTE: This exclusion does not apply if all of the manic-like or hypomanic-like episodes are substance-induced or are attributable to the physiological effects of another medical condition.

# MDD – Treatment Considerations



- Mild major depression
  - No prior depressive episodes or short duration symptoms → Active surveillance and supplemental interventions (exercise, mind-body interventions e.g. yoga) or psychotherapy e.g. internet-based programs
  - Prior depressive episodes or longer duration symptoms (> 3mo) → psychotherapy or antidepressants
- Moderate major depression
  - Antidepressant and/or in-person psychotherapy

# MDD – Treatment Considerations



- Severe major depression
  - Likely require inpatient treatment
  - Combined treatment with antidepressants
  - Psychotic depression requires combination antidepressant and antipsychotic medication
  - Subset with acutely severe features (such as catatonia, suicidal intent, dehydrated, malnourished) may require electroconvulsive therapy (ECT)

# MDD – Treatment Considerations



- Antidepressants

<b>First Generation Antidepressants</b>	<b>Common Examples</b>
Tricyclic Antidepressants (TCAs)	Amitriptyline, Nortriptyline, Desipramine
Monoamine Oxidase Inhibitors (MAOIs)	Phenelzine, Selegiline, Tranylcypromine
<b>Second/Next Generation Antidepressants</b>	
Selective Serotonin Reuptake Inhibitors (SSRIs)	Fluoxetine, Citalopram, Sertraline
Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)	Venlafaxine, Duloxetine, Milnacipran
Serotonin Modulators	Trazodone, Vilazodone, Vortioxetine
Atypical Agents	Bupropion, Mirtazapine

# MDD – Treatment Considerations



- Antidepressants
  - Initial treatment with a second-generation antidepressant (SGA) such as a SSRI or SNRI
  - All first- and second-generation antidepressants are more effective than placebo at achieving response and remission
  - No clear differences in efficacies between antidepressants

# MDD – Treatment Considerations



- Psychotherapy
  - Several approaches
- Skill of psychotherapist
  - Determines treatment efficacy
- Choice of approach
  - Patient preference
  - Availability

Type of Psychotherapeutic Intervention	Objectives
Interpersonal therapy	Addresses interpersonal difficulties in at least 1 of the following: <ul style="list-style-type: none"><li>• Grief</li><li>• Role disputes</li><li>• Role transitions</li><li>• General interpersonal deficits</li></ul>
Cognitive behavioral therapy (CBT)	Targets inaccurate, negative thoughts and beliefs and problematic behaviors
Behavioral activation	Behavioral component of CBT
Problem-solving therapy	Develops rational and effective problem-solving skills
Psychodynamic therapy	Improves patient's awareness and insight regarding repetitive interpersonal and intrapsychic conflicts
Family/couples therapy	Improves the functioning of the entire family/couple by: <ul style="list-style-type: none"><li>• Correcting distorted communication</li><li>• Addressing impaired relationships</li></ul>
Supportive counselling	Provides support for addressing personal problems

# MDD – Treatment Considerations



- Treatment resistant depression
  - Major depressive episodes that do not satisfactorily respond to at least 2 trials of antidepressant monotherapy at sufficient doses for sufficient durations
  - Highly prevalent: studies show  $\frac{1}{3}$  to  $\frac{2}{3}$  of MDD patients have treatment resistance
  - Augmentation strategies include:
  - Mild to moderate treatment resistant depression
    - Combination antidepressant and psychotherapy
    - Switching classes of antidepressants
    - Adding a second antidepressant
    - Adding other agents: Lithium, thyroid hormone, second generation antipsychotics
    - Transcranial magnetic stimulation

# MDD – Treatment Considerations



- Treatment resistant depression
  - Severe major depression
    - Ketamine infusion
    - ECT
    - Mixed data regarding superiority of ketamine versus ECT. Best evidence suggest ketamine is superior to ECT.<sup>13</sup>

# Bereavement and Grief



Bereavement: Loss of a loved one

Grief: Natural response to the loss

- Emotional and somatic distress with impaired functioning
- Not a psychiatric disorder

# Bereavement and Grief



## Prolonged grief disorder

- Protracted, intense and disabling form of grief
- Maladaptive thoughts
- Dysfunctional behaviors
- Dysregulated emotions
- Psychosocial problems

## Diagnosis

- Six criteria according to DSM 5-TR
- Two key criteria:
  - Death of someone close to the bereaved individual at least 12 months ago.
  - The duration and intensity of the grief response exceeds expected social, cultural, or religious norms for the bereaved individual's social context and culture.

# Grief and Depression Important Differences



- In grief, painful feelings come in waves, often intermixed with positive memories of the deceased; in depression, mood and ideation are almost constantly negative.
- In grief, self-esteem is usually preserved; in MDD, corrosive feelings of worthlessness and self-loathing are common.
- While many believe that some form of depression is a normal consequence of bereavement, MDD should not be diagnosed in the context of bereavement since diagnosis would incorrectly label a normal process as a disorder.

# Differential Diagnosis for Depression



Selected Differential Diagnosis of Depression	
Major depressive disorder	<ul style="list-style-type: none"> <li>Meets criteria for <math>\geq 5</math> of 9 depressive symptoms, at least 1 of which is dysphoria or anhedonia</li> <li>Present for at least 2 consecutive weeks nearly every day and causes significant distress or impaired functioning</li> <li>Not caused by a substance or other medical condition, and symptoms are not clearly consistent with normal response to a significant loss</li> <li>No history of mania or hypomania</li> </ul>
Persistent depressive disorder (previously dysthymia)	<ul style="list-style-type: none"> <li>Dysphoria and at least 2 other symptoms (eg, appetite change, sleep disturbance, low energy, low self-esteem, impaired concentration, hopelessness)</li> <li>Symptoms occur on most days for at least 2 consecutive years</li> <li>Generally fewer symptoms than major depressive disorder</li> <li>Symptom-free periods do not exceed 2 consecutive months</li> </ul>
Bipolar disorder	<ul style="list-style-type: none"> <li>Mood episodes include mania or hypomania in addition to major depression</li> </ul>
Adjustment disorder with depressed mood	<ul style="list-style-type: none"> <li>Symptoms do not meet criteria for a specific depressive disorder (eg, major depressive disorder)</li> <li>Symptoms occur in response to identifiable psychosocial stressor and resolve within 6 months of stressor</li> </ul>

# Bipolar Disorders: Manic Episode (DSM 5-TR)



- A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least one week and present most of the day, nearly every day (or any duration if hospitalization is necessary).
- B. During the period of mood disturbance and increased energy or activity, three (or more) of the following symptoms (four if the mood is only irritable) are present to a significant degree and represent a noticeable change from usual behavior:
- Inflated self-esteem or grandiosity.
  - Decreased need for sleep (eg, feels rested after only three hours of sleep).
  - More talkative than usual or pressure to keep talking.
  - Flight of ideas or subjective experience that thoughts are racing.
  - Distractibility (ie, attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed.
  - Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation (ie, purposeless non-goal-directed activity).
  - Excessive involvement in activities that have a high potential for painful consequences (eg, engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).
- C. The mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.
- D. The episode is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication, other treatment) or to another medical condition.

**NOTE: A full manic episode that emerges during antidepressant treatment (eg, medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a manic episode and, therefore, a bipolar I diagnosis.**

NOTE: Criteria A through D constitute a manic episode. At least one lifetime manic episode is required for the diagnosis of bipolar I disorder.

# Bipolar Disorders: Hypomanic Episode (DSM 5-TR)



A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least four consecutive days and present most of the day, nearly every day.

B. During the period of mood disturbance and increased energy and activity, three (or more) of the following symptoms (four if the mood is only irritable) have persisted, represent a noticeable change from usual behavior, and have been present to a significant degree:

Inflated self-esteem or grandiosity.

Decreased need for sleep (eg, feels rested after only three hours of sleep).

More talkative than usual or pressure to keep talking.

Flight of ideas or subjective experience that thoughts are racing.

Distractibility (ie, attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed.

Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation.

Excessive involvement in activities that have a high potential for painful consequences (eg, engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).

C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic.

D. The disturbance in mood and the change in functioning are observable by others.

E. The episode is not severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization. If there are psychotic features, the episode is, by definition, manic.

F. The episode is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication, or other treatment).

NOTE: A full hypomanic episode that emerges during antidepressant treatment (eg, medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a hypomanic episode diagnosis. However, caution is indicated so that one or two symptoms (particularly increased irritability, edginess, or agitation following antidepressant use) are not taken as sufficient for a diagnosis of a hypomanic episode, nor necessarily indicative of a bipolar diathesis.

# Anxiety Disorders: DSM-5-TR



- Separation anxiety
- Selective mutism
- Specific phobia
- Social anxiety disorder
- Panic disorder
- Agoraphobia
- Generalized anxiety disorder
- Substance/medication-induced anxiety disorder
- Anxiety disorder due to another medical condition
- Other specified anxiety disorder
- Unspecified anxiety disorder

# Anxiety Disorders: DSM-5-TR



- Generalized anxiety disorder
  - Excessive and persistent worry that is difficult to control, causes significant distress or impairment, and occurs on more days than not for at least six months
  - Comorbidity with major depression is common
  - Usually a chronic disorder with symptom severity that fluctuates
- Treatment considerations
  - First line Rx: Serotonin Reuptake Inhibitor (SSRI or SNRI) or Cognitive Behavioral Therapy (CBT); If only partial response can combine SRI with CBT
  - Second line or first line augmentation medications:
    - Buspirone
    - Gabapentin
    - Pregabalin
  - Treatment Resistant GAD
    - Other antidepressant class agents – Mirtazapine; Imipramine, Vilazodone, Vortioxetine
    - Low dose antipsychotic agents – Quetiapine, Aripiprazole

# Anxiety Disorders: DSM-5-TR



- Panic disorder
  - Recurrent panic attacks with worry of future attacks for  $\geq$  1month or maladaptive behavior
  - Comorbidity with major depression is common
  - Typically a chronic and recurrent disorder
- Treatment considerations
  - Same as for GAD

# Suicide



Over

**49,000**

people died by  
suicide in 2023



**1** death every

**11** minutes

Many adults think about  
suicide or attempt suicide

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**12.8 million**

Seriously thought about suicide

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**3.7 million**

Made a plan for suicide

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**1.5 million**

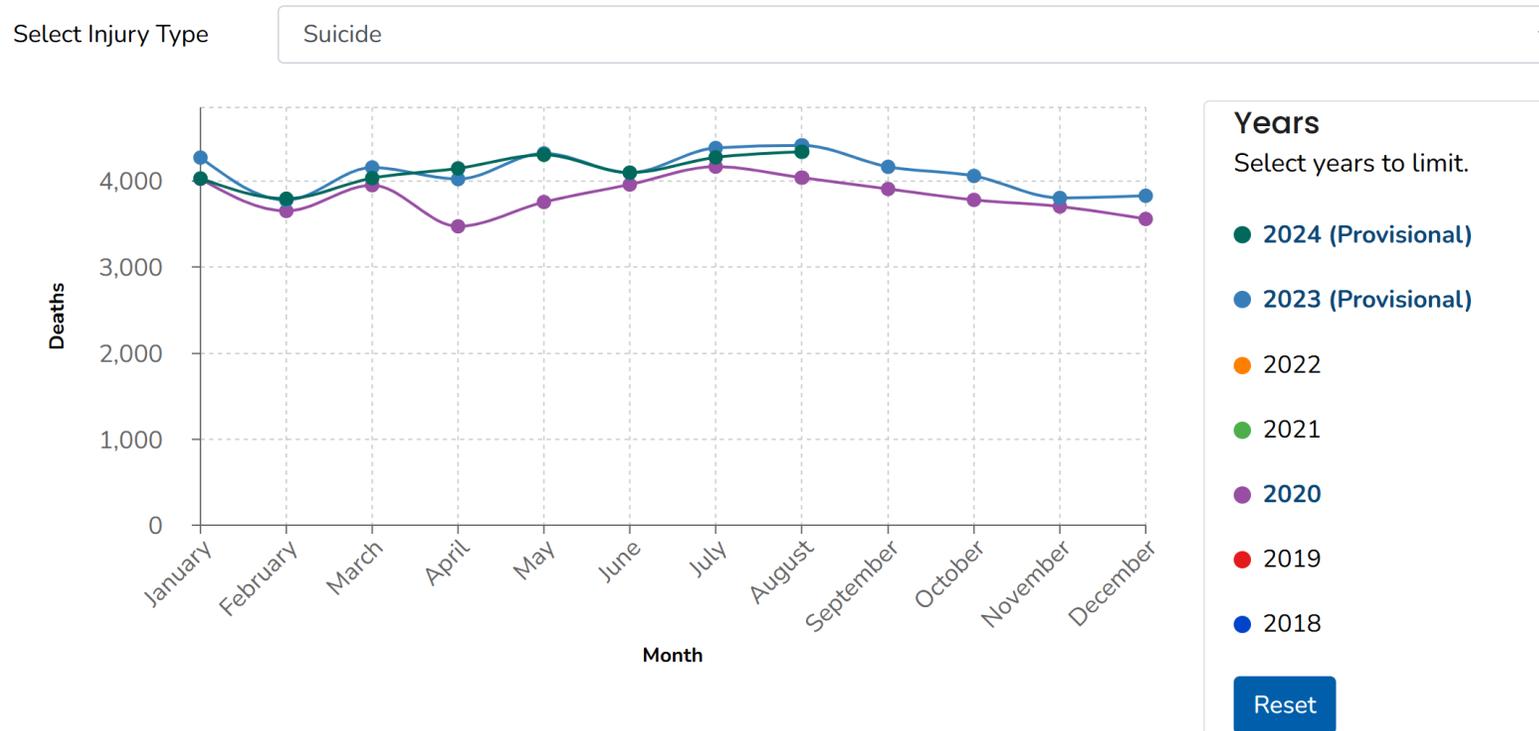
Attempted suicide

<https://www.cdc.gov/suicide/facts/data.html>

# Suicide



## Provisional and Final Fatal Injury Data by Month, United States



<https://www.cdc.gov/suicide/facts/data.html>



# Mortality in Mental Disorders and Global Disease Burden Implications. A Systematic Review and Meta-analysis

JAMA Psychiatry 2015;72(4):334-3412

# Meta-Analysis of Mental Disorders and Mortality



Study Population	No. of Studies/No. of RRs	RR (95% CI)	I <sup>2</sup> Statistics, %
All-Cause Mortality	148/149	2.22 (2.12-2.33)	99.6

# Meta-Analysis of Mental Disorders and Mortality

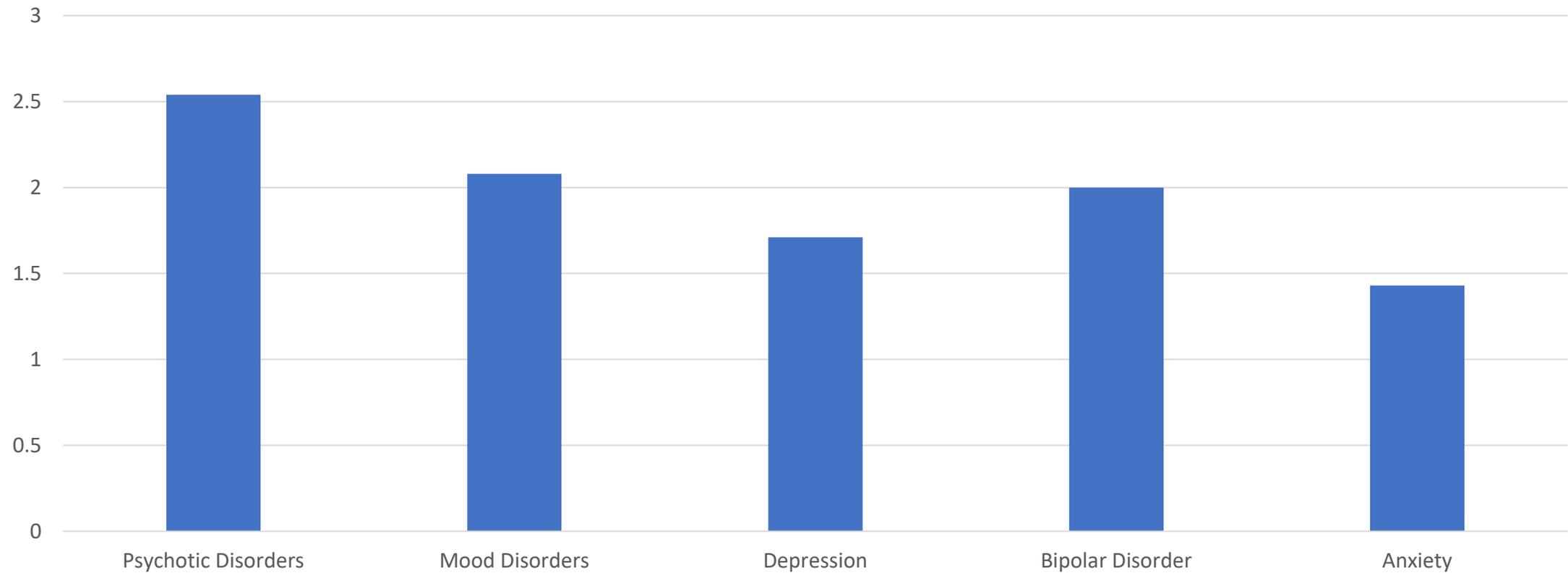


Study Population	No. of Studies/No. of RRs	RR (95% CI)	I <sup>2</sup> Statistics, %
Population of people with mental disorders			
Inpatient	60/61	2.42 (2.24-2.61)	99.6
Outpatient	38/38	2.08 (1.91-2.27)	99.6
Community	28/28	1.90 (1.61-2.25)	94.6

# Meta-Analysis of Mental Disorders and Mortality



Mental Health Disorders and Mortality Risk



# Meta-analysis of Mental Disorders and Mortality



Study Population	No. of Studies/No. of RRs	RR (95% CI)	I <sup>2</sup> Statistics, %
Cause-specific mortality			
Natural	100/100	1.80 (1.71-1.88)	99.3
Unnatural	106/106	7.22 (6.43-8.12)	99.5

# Age-Standardized Mortality Ratios (SMRs) for Mental Illness



	Standardized mortality ratio for deaths in 2007-09 *p<0.05; (95% CI, number of deaths)		
Diagnosis	15-44 years old	45-64 years old	65+ years old
Depressive episode and recurrent depressive disorder	3.21 (2.40-4.20, n=53)*	1.75 (1.35-2.22, n=66)*	1.18 (1.08-1.28, n=501)*
Substance use disorders	6.81 (5.77-7.98, n=153)*	4.40 (3.70-5.20, n=139)*	1.91 (1.44-2.48, n=56)*
Bipolar affective disorder	4.09 (2.38-6.54, n=17)*	2.58 (1.77-3.64, n=32)*	1.51 (1.15-1.95, n=59)*
Schizophrenia	4.73 (3.52-6.22, n=51)*	3.44 (2.82-4.16, n=106)*	1.63 (1.39-1.89, n=165)*

*Chang C-K, Hayes RD, Broadbent M et al, All cause mortality among people with serious mental illness, substance use disorders and depressive disorders in southeast London: a cohort study, BMC Psychiatry 2010; 10:77*

# Mental Health Disorders Mortality Risk



- Risk ranges from minimal to significant excess mortality
- Associated with increased mortality risk, including:
  - Suicide/homicide
  - Accident
  - Medical conditions
- Worse prognosis and increased mortality risk with co-morbid psychiatric and/or medical diagnoses (substance abuse)
- Disability-adjusted-life-years (DALYS) from mental health disorders increased globally by 3.1% between 1990 and 2019.

# Depression and Mortality



Study	Mortality association (all-cause)
Walker ER et al. <a href="https://doi.org/10.1001/jamapsychiatry.2014.2502">https://doi.org/10.1001/jamapsychiatry.2014.2502</a>	RR of 1.71
Cuijpers P et al. DOI: 10.1176/appi.ajp.2013.13030325	RR 1.64
Machado et al Machado et al. BMC Medicine (2018) 16:112	Community: Effect Size (ES) 1,48
	Outpatients: ES 1.47
	Primary Care: ES 1.44

# Bipolar Mood Disorder and Mortality



Study	Mortality association (all-cause)
Walker ER et al. <a href="https://doi.org/10.1001/jamapsychiatry.2014.2502">https://doi.org/10.1001/jamapsychiatry.2014.2502</a>	RR of 2.0
Biazus TB et al. <a href="https://doi.org/10.1038/s41380-023-02109-9">https://doi.org/10.1038/s41380-023-02109-9</a>	RR 2.02

# Anxiety Disorders and Mortality



Study	Mortality association (all-cause)
Walker ER et al. <a href="https://doi.org/10.1001/jamapsychiatry.2014.2502">https://doi.org/10.1001/jamapsychiatry.2014.2502</a>	RR of 1.43
Miloyan B et al. DOI 10.1007/s00127-016-1284-6	Overall: HR 1.09
	Patient: HR 1.14
	Veteran: HR 1.79
	Community: HR 0.99
	Adjusted for depression: HR 1.01

# PTSD and Mortality



Study	Mortality association (all-cause)
Boscarino, J.A.DOI: 10.1016/j.annepidem.2005.03.009	HR of 2.2 (veteran population)



# Thank you!

Dr. Nico van Zyl

[Nico.VanZyl@rgare.com](mailto:Nico.VanZyl@rgare.com)

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