

Exploring Suicide and Mental Health using the Maryland Violent Death Reporting System

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Objectives

- ✓ Understand the application of the Maryland Violent Death Reporting System (MVDRS)
- ✓ Increase awareness of the role of mental health in suicides
- ✓ Utilize insight into risk factors to enhance prevention programs



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What is MVDRS?

- CDC-funded program that collects information on the violent deaths of Maryland resident deaths, excludes out-of-state resident deaths—nationally known as the National Violent Death Reporting System.
- Collects and links data from death certificates, medical examiner reports (including toxicology), and police reports.
- A resource for greater scientific understanding of violent death to encourage the development of effective violent death prevention strategies in Maryland.



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Literature Review

- 90% of persons who die of suicide are suffering from a mental disorder at the time of death (Phillips, 2010).
- Risk of suicide in severe mental illness rose sharply after age 50. Individuals treated for depression had the highest suicide risk. (Osbourne et. al, 2008).
- Marital and interpersonal relationship disruption, occupational and financial stressors, recent heavy substance use and intoxication as well as a history of previous suicide attempts and sexual abuse combine in an additive fashion with personality traits and mental illnesses to intensify risk for suicidal behavior in addiction patients (Yuodelis-Flores,& Ries, 2015).

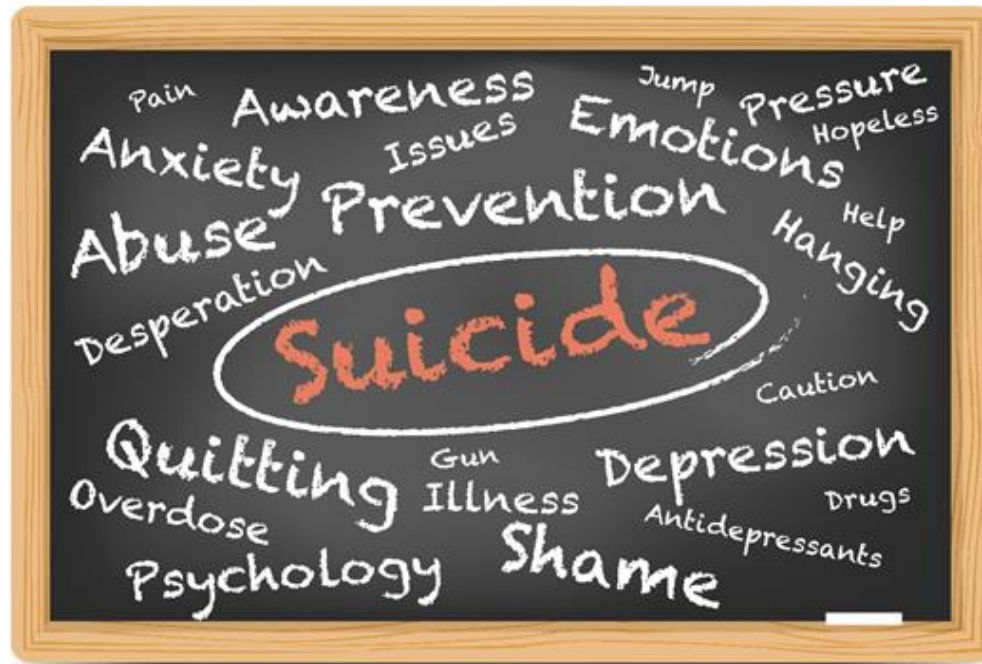


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An Overview of Suicide in Maryland (MVDRS 2009-2013)



Suicide - death resulting from the intentional use of force against oneself.



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Characteristics of Suicide Victims 2009-2013 (n=2,630)

- Total Number of Suicides: n=2,630
 - Overall Suicide Rate: 10.3 per 100,000 residents
- Most victims were male (80.1%)
 - Rate for Males: 17.2 per 100,000 residents
 - Rate for Females: 4.0 per 100,000 residents
- Veterans and current members of the Armed Forces comprised 18.6% of deaths



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Characteristics of Suicide Victims 2009-2013 (n=2,630)

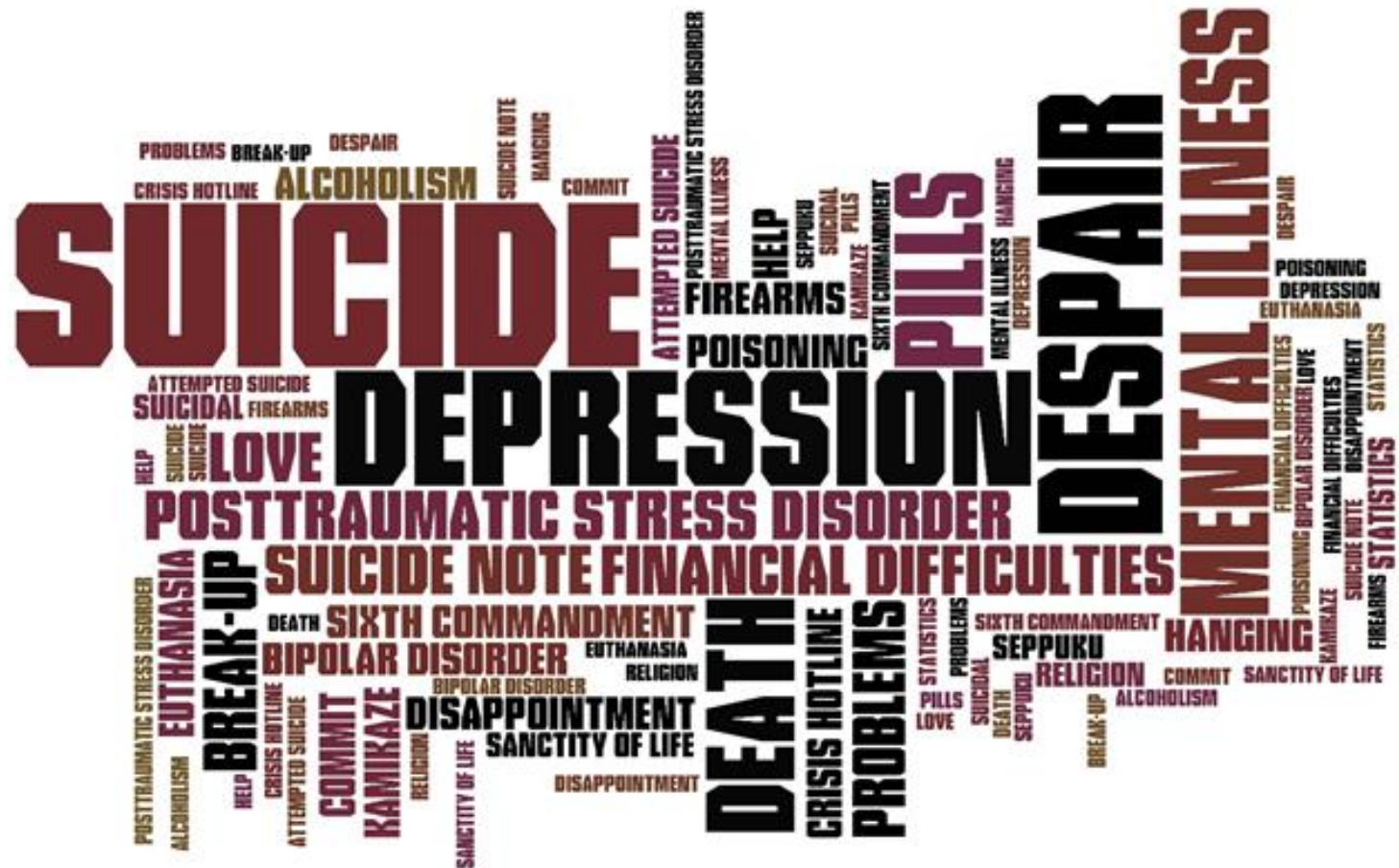
- The highest suicide rates by age group were found in the 45-64 and over 65 age groups
 - Rate for ages 45-64 years: 13.3 per 100,000 residents
 - Rate for ages 65+: 12.0 per 100,000 residents
- The top weapon of injury for all victims was a firearm (46.0%), followed by Hanging/Strangulation/Suffocation (29.4%)
 - Males: Firearms (51.6%), Hanging/Strangulation/Suffocation (29.0%)
 - Females: Hanging/Strangulation/Suffocation (31.3%), Poisoning (30.7%)



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Suicide and Mental Health 2012-2013



Current diagnosed mental health problem – those disorders/syndromes listed in the DSM-5 with the exception of substance dependence



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Suicide Victims with a Mental Health Problem

Demographic Characteristics, Maryland, 2012-2013 (n=1,098)

Demographic Characteristic	Victim has a Current Mental Health Problem	Total
Victims w/ Known Circumstances	432 (42.7)	1012 (100)
Sex		
Male	297 (37.6)	790 (100)
Female	135 (60.8)	222 (100)
Race/Ethnicity		
Non-Hispanic White	312 (44.4)	703 (100)
Non-Hispanic Black	47 (34.8)	135 (100)
Hispanic	13 (50.0)	26 (100)
Non-Hispanic Asian	11 (45.8)	24 (100)



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Suicide Victims with a Mental Health Problem by Demographic Characteristics, Maryland, 2012-2013 (n=1,098), cont.

Demographic Characteristic	Victim has a Current Mental Health Problem	Total
Known Circumstances	432 (42.7)	1012 (100)
Age (years)		
10-24	57 (43.5)	131 (100)
25-34	73 (48.7)	150 (100)
35-44	57 (40.1)	142 (100)
45-64	185 (43.5)	425 (100)
65+	60 (36.6)	164 (100)
Veteran/Military		
Yes	73 (38.2)	191 (100)
No	351 (43.8)	802 (100)



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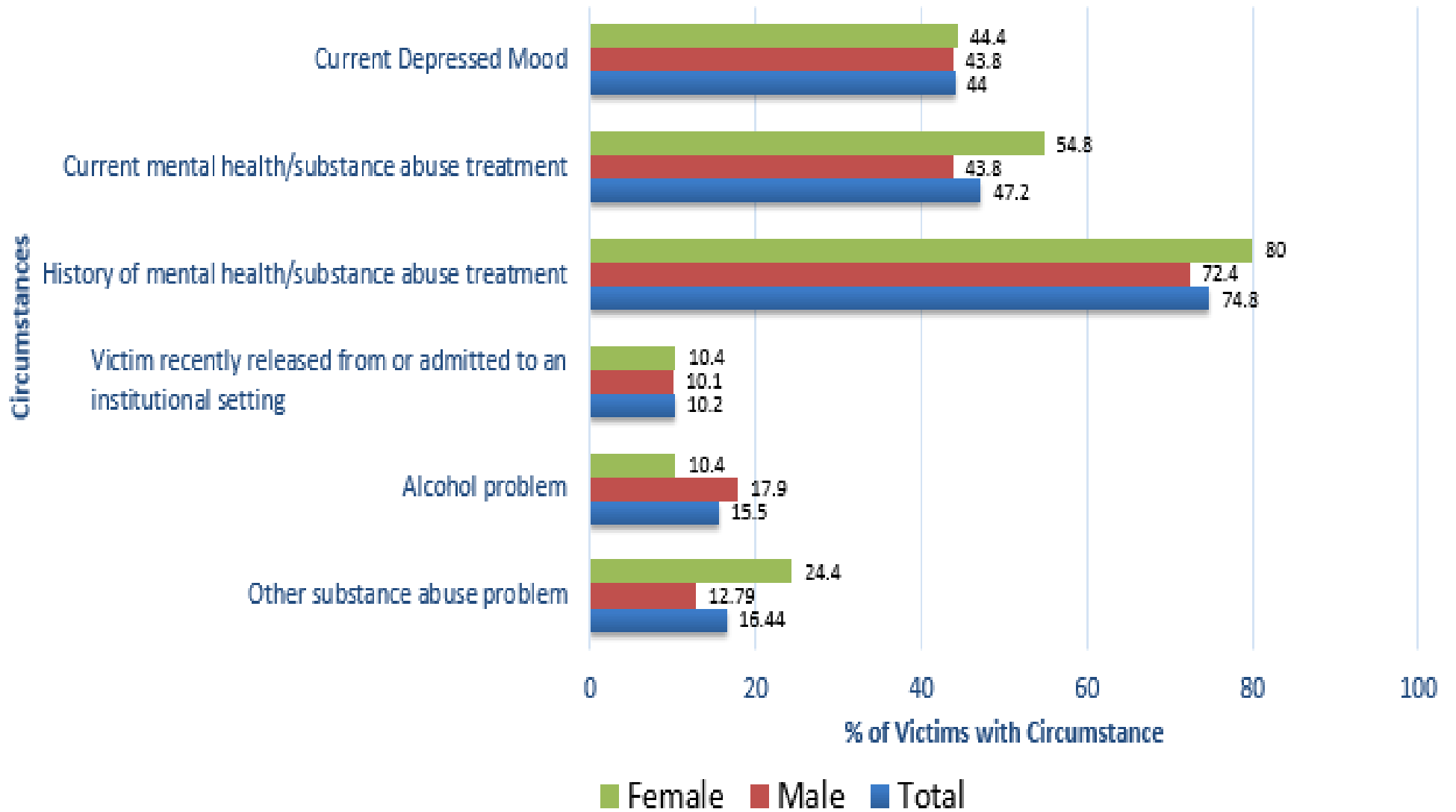


Characteristics of Suicide Victims with a Mental Health Problem in Maryland, 2012-2013 (n=432)

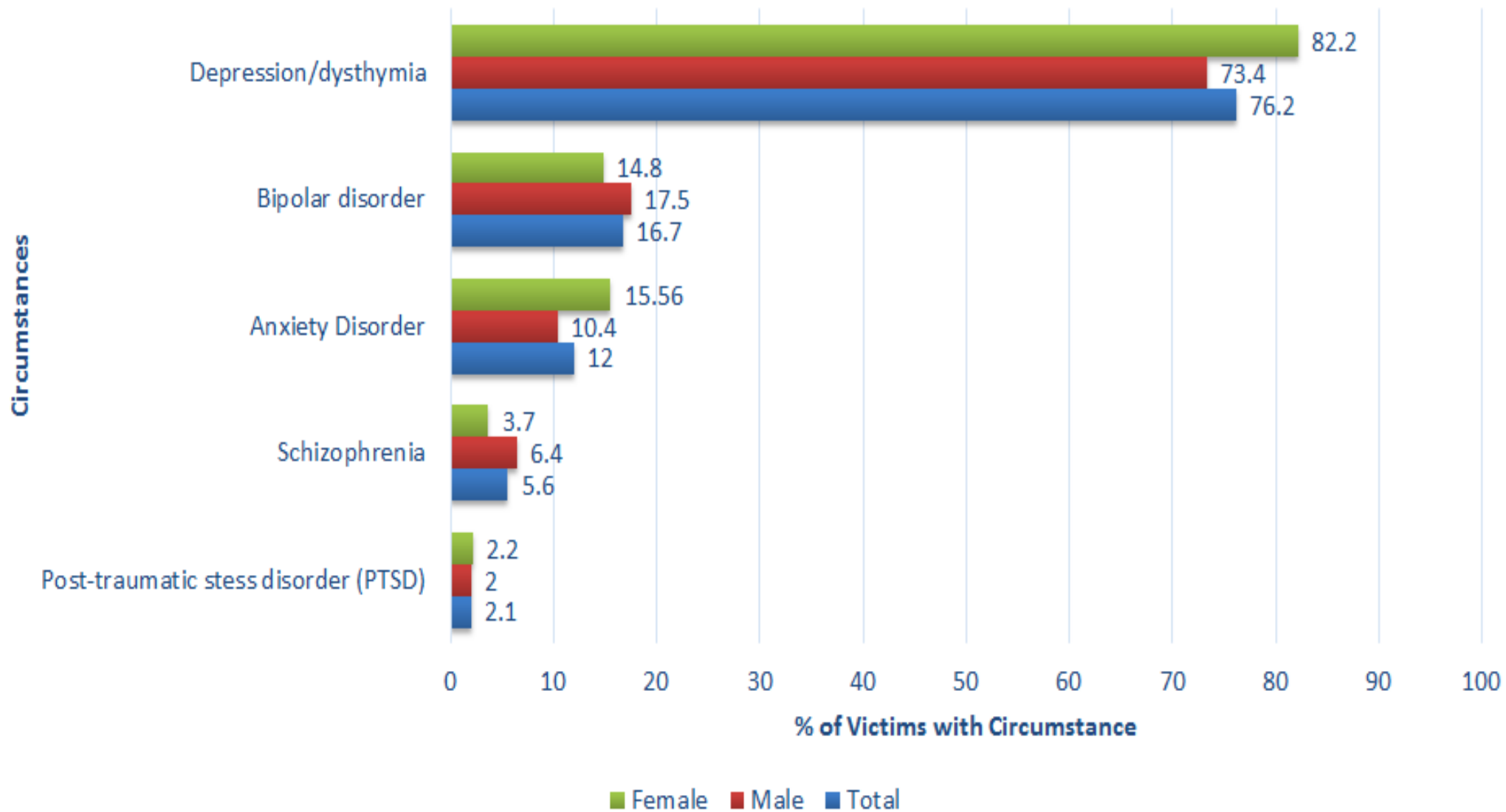
Characteristic	
Known Circumstances	1,012 (92.2%) victims
Current Mental Health Problem	432 (42.7%) victims
Sex	68.8% Male, 31.3% Female
Race/Ethnicity	72.2% Non-Hispanic White 10.9% Non-Hispanic Black 3.0% Hispanic
Age (years)	16.90% - 25-34 42.8% - 45-64
Veteran/Military	16.9.% Yes



Mental Health/Substance Abuse, 2012-2013, (n=432)



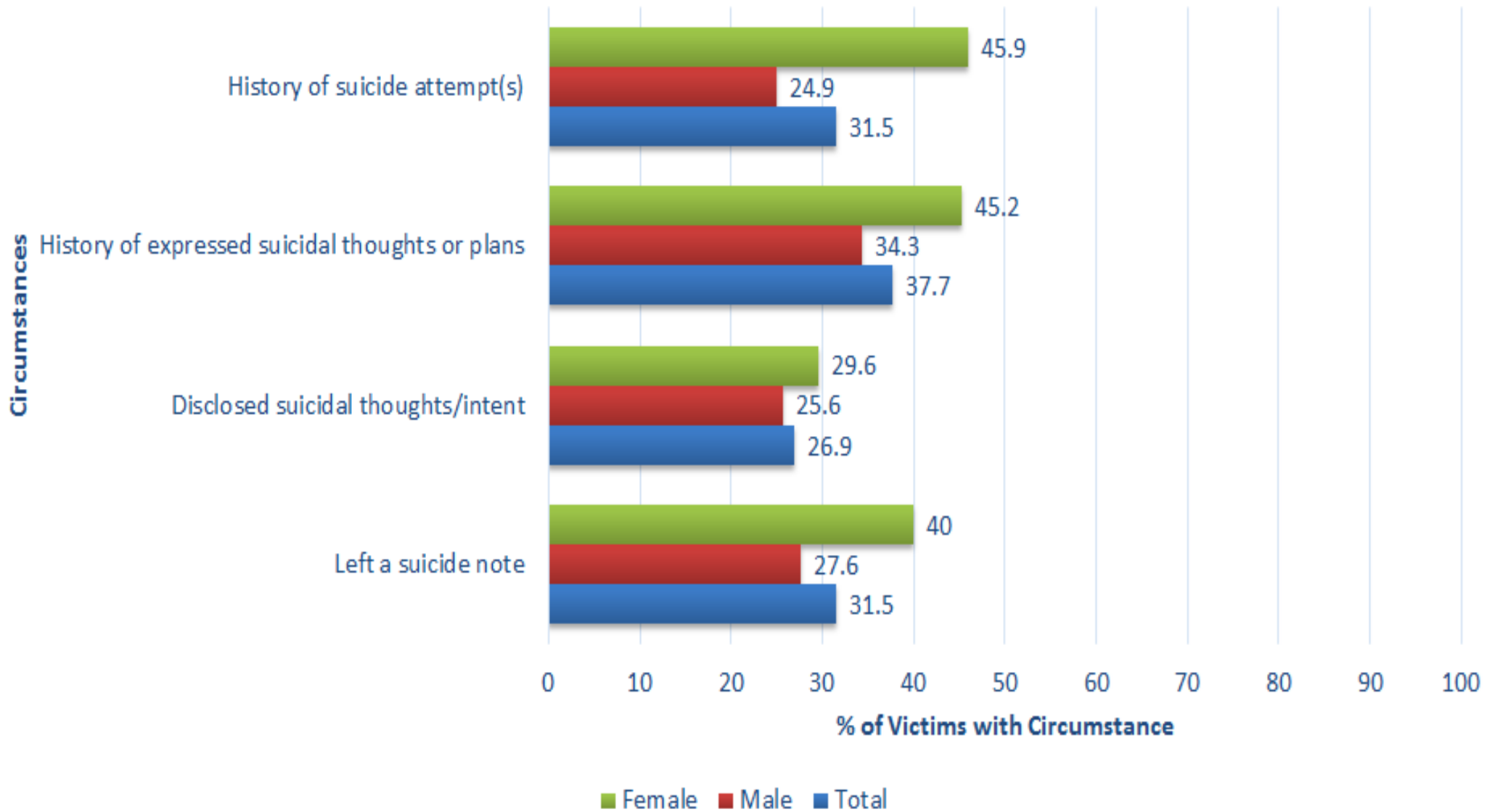
Top 5 Mental Health Diagnoses, 2012-2013, (n=432)



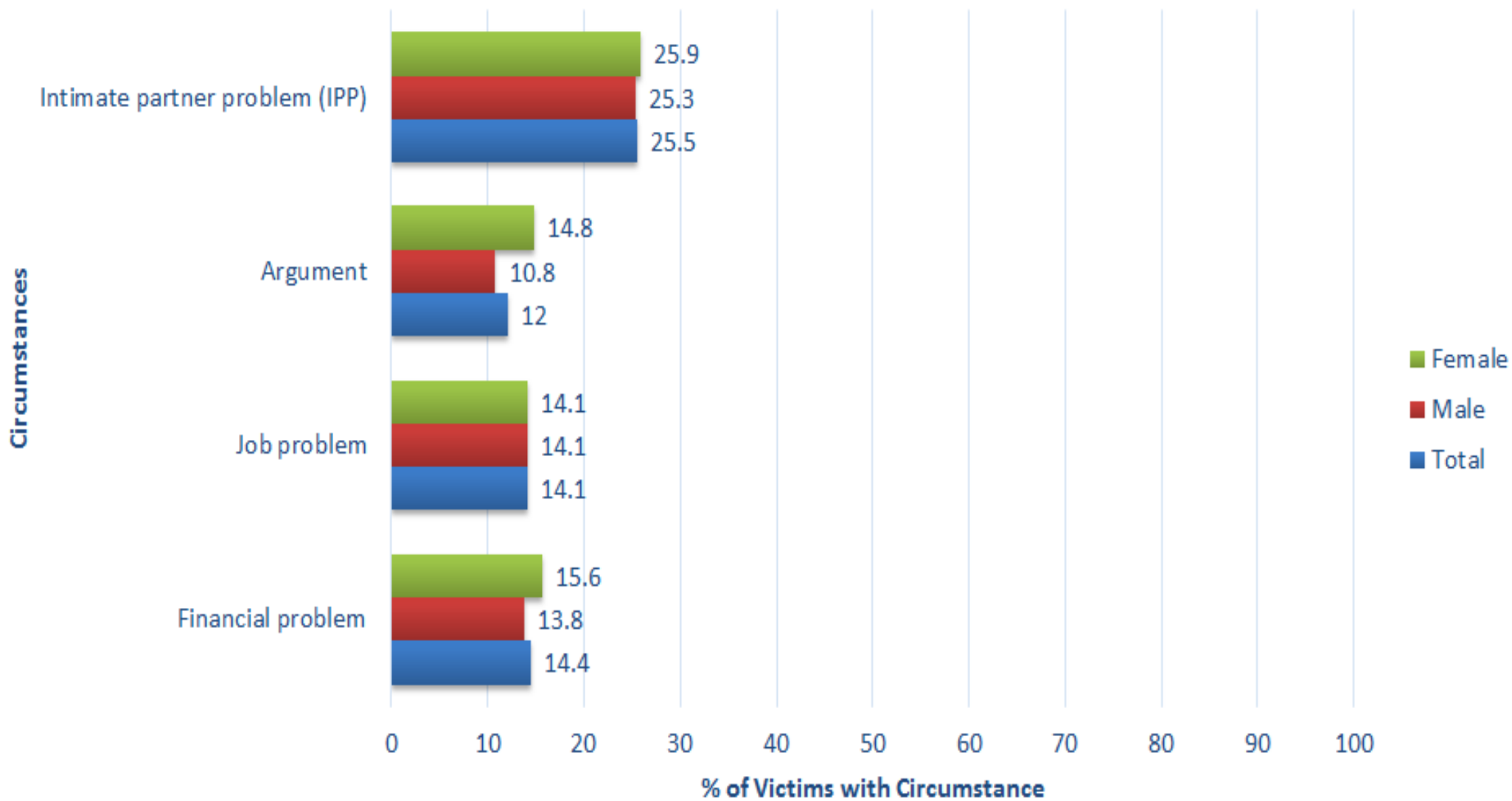
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Suicide Markers, 2012-2013, (n=432)



Relationship and Life Stressors, 2012-2013, (n=432)



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Toxicology Results, Suicide Victims with a Mental Health Problem, Maryland, 2012-2013 (n=432)

Substance Tested Positive	Total	Male	Females
	n(%)	n(%)	n(%)
Blood Alcohol Concentration* (BAC)	114 (28.1)	80 (29.2)	34 (25.8)
BAC <0.08 g/dl	36 (31.6)	24 (30.0)	12 (35.3)
BAC ≥0.08 g/dl [†]	73 (64.0)	52 (65.0)	21 (61.8)
Amphetamines[‡]	9 (2.2)	7 (2.6)	§
Antidepressants[‡]	139 (34.5)	73 (26.9)	66 (50.0)
Cocaine[‡]	8 (2.0)	8 (3.0)	§
Opiates[‡]	57 (14.1)	25 (9.2)	32 (24.2)

*Percentage of victims tested: Total - 94.0%, Male - 92.3%, Female - 97.8%

[†]BAC ≥ 0.08 g/dL used as the standard for intoxication

[‡]Percentage of victims tested: Total - 93.3%, Male - 91.3%, Female - 97.8%

[§]Counts not reported for deaths < 6



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Narrative Examples

Gunshot to Head

- 41 year old white female
- Hypertension, cancerous brain tumor, recent deafness
- Depressed due to health issues
- Previous suicide attempts
- Emergency petitions
- Put scissors/knife to throat
- Appeared drunk/drugged
- Intimate partner problems

Hanging

- 10 year old black male
- Fair student
- Previous suicide attempt
- ADHD: Adderall to Ritalin
- Depression Rx: Methylphenidate
- Visits therapist weekly
- Lives with aunt, father incarcerated
- Mother deceased, wants to be with deceased mother



Discussion

- What were the precipitating circumstances, relationship and life stressors, and suicide markers in each victim's narrative?
- What components of a suicide prevention or mental health program could specifically target the issues each victim faced?
- What did you find most interesting about the presentation, and how could you use what you learned to help others?



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Data Requests?

Maryland Violent Death Reporting System
Department of Health and Mental Hygiene
201 W. Preston Street, 4th Floor Baltimore, MD 21201
(410) 767-6807 – phone
dhmh.envhealth@maryland.gov



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References

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