SWIHDR's Student Brown Bag Seminar:
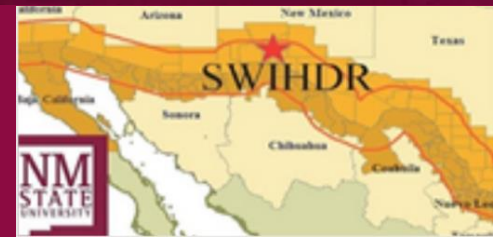
THE ROLE OF GLOBAL SELF-ESTEEM, CONTINGENT SELF-ESTEEM AND CHALLENGE APPRAISAL IN PREDICTING DEPRESSION

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Outline

- Introduction to problem
- Background/significance
- Research methods and design
- Statistical Analysis
- Results
- Discussion
- Study delimitation/limitation
- Potential impact
- Future direction
- References

WHAT WE KNOW ABOUT DEPRESSION

- Affects millions of people worldwide (Lépine & Briley 2011).

- In the United States, about 17.3 million adults or 7.1% of the U.S adult population have experienced at least one major depressive episode in the past year (National Survey on Drug Use and Health, 2017).

WHAT WE KNOW ABOUT DEPRESSION

Past Year Prevalence of Major Depressive Episode Among U.S. Adults (2017)
Data Courtesy of SAMHSA
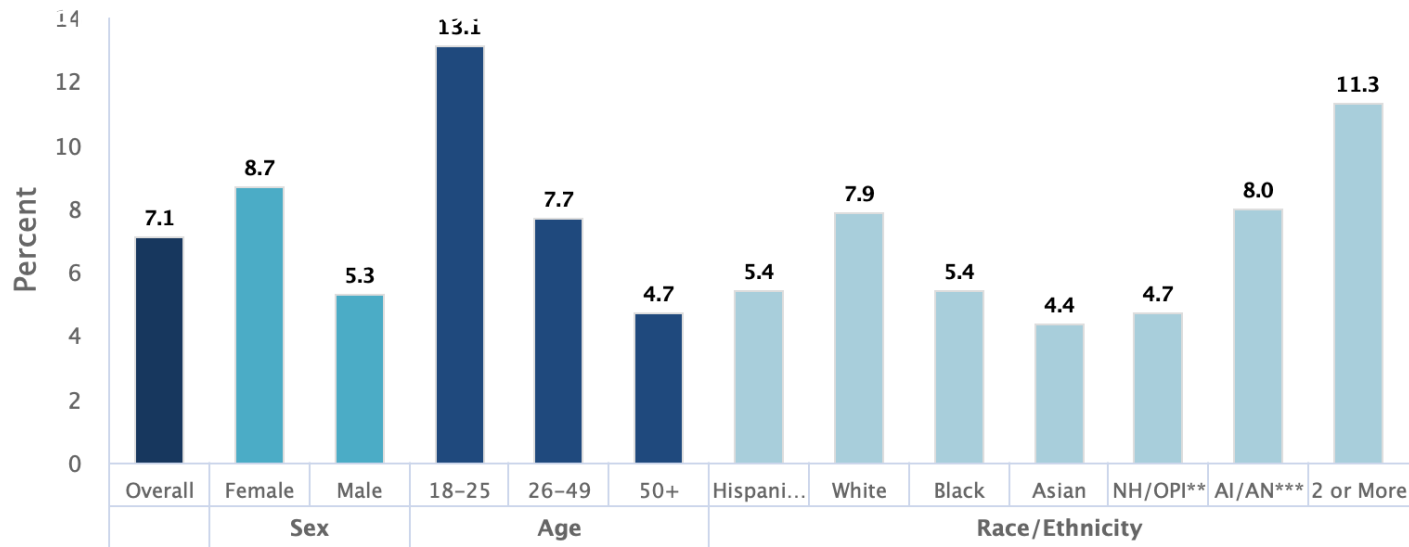
(National Survey on Drug Use and Health, 2017).

WHAT WE KNOW ABOUT DEPRESSION

- World Health Organization (WHO) has indicated that depression will be a leading cause of death by 2030 (Mathers, 2008).

- **Negative health consequences of depression**
    - Suicidal Ideation
    - Mental Health problems
    - Death from Myocardial Infarction
    - Death from Cardiovascular diseases (Lépine & Briley, 2011)

RELATIONSHIP BETWEEN DEPRESSION AND STRESS

- Half of individuals with post-traumatic stress symptoms also have symptoms of major depressive disorders (Flory & Yehuda, 2015)

- Job stress, contributes to depression (An, Chung, Kim, Kwak, Son, Koo, & Kwon, 2015).

- Higher rates of mental health issues are found in stressful jobs (Carey, Al-Zaiti, Dean, Sessanna, & Finnell, 2011; Tomaka, Cardiel, Morales-Monks & Magoc, 2017).

DEPRESSION IN STRESSFUL JOBS

- Rates of depression were twice as high among firefighters compared with the general population (22% and 11%, respectively; Carey et al., 2011).

- Over 32.4% of a large sample of firefighters exceeded a minimum cutoff for civilian and general population samples, and 7.0% exceeded a more conservative cutoff frequently used with firefighter and rescue worker samples (Tomaka et al., 2017).

CONTRIBUTING FACTORS

- Personality traits

  Global Self-esteem

  Contingent Self-esteem

  Challenge Appraisal

GLOBAL SELF-ESTEEM

- Global self-esteem is the favorable or unfavorable attitude towards oneself (Rosenberg, 1965) .

- Researchers have found that individuals with low global self-esteem have higher levels of depression (Robert &Monroe, 1992; Orth, Robins, Trzesniewski, Maes & Schmitt,2009).

- In contrast, those with high global self-esteem have shown better mental and health outcomes (Taylor & Brown, 1988), more creative, optimistic, proactive approach towards life (Rosenberg & Owen, 2001) and positive emotions (Baumeister, Campbell, Krueger, & Vohs, 2003).

CONTINGENT SELF-ESTEEM

- Contingent self-esteem is the extent to which one's feelings of self-worth are dependent on external factors such as physical appearance, achievements, and performances (Heppner et al., 2011).

- Highly contingent sense of self-esteem is associated with negative health outcomes compared with non-contingent self-esteem.

- For example, a study conducted by Tomaka, Morales-Monks, & Shamaley, (2013) showed that contingent self-esteem was positively correlated with alcohol-related problems and maladaptive coping.

CHALLENGE APPRAISAL

- Challenge appraisal reflects the tendency to appraise and respond to potentially stressful events as challenges or threats (Blascovich et al., 1996; Seary 2011; Tomaka et al., 1993).

- Several studies have shown that challenge appraisal predicts positive stress reactions (Blascovich et al., 2004; see also Turner et al., 2012).

- Threat appraisal, in contrast, results in subjective distress and negative emotion (Seery, 2011).

SO WHAT ?

- Past studies have examined global self-esteem, contingent self-esteem, and challenge appraisal as risk factors for negative emotional states.

- No studies to date have examined these variables together with regards to mental health outcomes such as depression.

Study Objectives

1) To investigate whether global self-esteem, contingent self-esteem, and challenge appraisal would predict depression symptoms independently.

2) To examine whether these variables interact to predict depression symptoms among municipal firefighters.

Study Hypothesis

General hypothesis is:

      H1: global self-esteem, contingent self-esteem, and challenge   appraisal will be significantly related to depression in different   ways.

Specific sub hypotheses include:

      SH2: global self-esteem will negatively relate to depression.

      SH3: contingent self-esteem will positively relate to depression

      SH4: challenge appraisal will negatively relate to depression

      SH5: When examined together, GSE, CSE, and CA will predict   unique variance on depression, independent of the effects of the other variables.

Methods

Study Design

- This study is a secondary analysis of data already collected by Morales & Tomaka, (2017).

- This study used a cross-sectional design.

Study Sample

737 participants recruited from a large municipal fire department in El Paso, TX.

Mostly male (98.1%)

Age range of 30 – 40 years

Predominantly Hispanic (75.5%).

The firefighters were all EMT Certified

67.4% married,

73% and 23% nonofficers and officers respectively (Tomaka et al., 2017)

Study Procedure

- This study used a sample of firefighters attending the quarterly continuing education program at the fire department's main training facility in El Paso, TX US.

- The firefighters who volunteered to participate in the study were given a self-reported survey instrument in groups of 20-40, which was filled out during the first 30minutes of the training.

Study Variables

Independent Variables

- Global self-esteem
- Contingent Self-esteem
- Challenge Appraisal

Dependent Variables

- Depression

Measures/ Instrumentation

- **Rosenberg Self-esteem Scale (RSES; Rosenberg,1965)**

  - The RSES consists of 10 items

  - Examples of Items on the scale:
    - "All in all, I am inclined to feel that I am a failure"
    - "I feel that I have a number of good qualities."

  - Questions on this measure were scored on a 4-point Likert-type scale (1= strongly agree, 4= strongly disagree).

  - RSES has good, reliable, and valid items of global feelings and self-worth with an alpha coefficient of 0.92 and test-retest reliability ranging from 0.85 to 0.88 (Rosenberg, 1965).

Measures/ Instrumentation

- **Contingent self-esteem (CSE; Kernis 2002)**

  - The CSE scale is a 15-item instrument

  - Examples of items of this scale:
    - "My overall feelings about myself are heavily influenced by how much other people like and accept me,"
    - "An important measure of my worth is how well I perform up to the standards that other people have set for me."

  - Items are scored on a 5-point Likert-type scale (1= not at all like me, 5= very much like me). Higher scores on items reflect a more contingent sense of self-esteem.

  - The scale has shown an internal consistency (α =0.85) and a test-retest reliability (r=0.77; Kernis, 2002).

Measures/ Instrumentation

- **Appraisal of Challenge or Threat Scale (ACTS; Tomaka et al., 2018).**
  - The ACTS' is 24-item scale.

  - Items are answered using the primary appraisal question (How demanding is this event to you?) and secondary appraisal questions ("How able are you to take action to deal with it?").

  - Examples of items on the scale include;
    - "You find that someone has said something negative about you,"
    - "You encounter unexpected medical expenses,"
    - "You have an argument with a partner or spouse.

- Appraisal items were scored on a 5-point Likert-type scale (1= not at all, 5= very much).

- The scale has shown an internal consistency of 0.94 (Tomaka, Palacios, Champion, & Monks, 2018).).

Measures/ Instrumentation

- **Zung Self-Rating Depression Scale (ZSDS; Zung, 1965)**

  - The ZSDS's 20 item instrument

  - Assesses four common characteristics of depression: pervasive affect psychological, psychomotor activities and other disturbances.

  - Examples of items include; "I feel down-hearted and blue," "I have crying spells or feel like it."

  - The Zung self-rating depression scale has demonstrated an alpha reliability coefficient of 0.85 (Martínez, Guiot, Casas-Dolz, González-Tejera, & De Martí, 2003) and test-retest reliability of 0.92 (Fountoulakis, Samolis, Kleanthous, Kaprinis, St Kaprinis, & Bech, 2001)

Statistical Analysis

Descriptive statistics (median, mean, standard deviation).

Correlations to assess the zero-order relationship between the independent and dependent variables .

Regression analyses to predict the unique and interactive effects between the variables.

Regression analyses to predict the potential two-way and three-way interactions between independent and dependent variables.

+/− 1 SD and simple slope analyses representation.

A statistically significant result was declared at $p < 0.05$.

Results

Demographics

Table 1

Descriptive statistics for demographic and study variables

Variable	M	SD	%
Age (years)	37.67	8.06	
Gender (male)			98.1
Ethnicity (Hispanic/non-Hispanic)			75.8
Rank (non-officer vs. officer)			73.0
Marital status (married vs. other)			67.6
Job Experience (years)	12.00	7.00	

Inter-correlations of main study variables

Table 2

Means, Standard Deviation, and intercorrelations among Study Variables

	Variable	M	SD	1	2	3	4	5	6
1.	Age	37.67	8.06	-	.80**	.06**	-.12**	.09**	-.04**
2.	Job Experience	144.76	84.82		-	.11**	-.13**	.10**	-.08**
3.	GSE	35.23	4.78			-	-.32**	.39**	-.57**
4.	CSE	44.51	7.93				-	-.43**	.31**
5.	CH Appraisal	1.13	1.2					-	-.42**
6.	Depression	32.66	7.97						-

Note: N=737. GSE= Global Self-Esteem; CSE=Contingent Self-Esteem; CH Appraisal= Challenge/Threat Appraisal. *p < .05. **p<.01.

# Hierarchical multiple regression analyses

Table 3

Main results of hierarchical regression analyses predicting depression symptoms

	Depression	
	$R^2 \Delta$	B
Step 1	.37***	
GSE		-.46***
CSE		.07*
CH APPRAISAL		-.21***
Step 2	.01**	
GSE		-.44***
CSE		.09*
CH APPRAISAL		.21***
GSE x CSE		.06
GSE x CH APPRAISAL		-.03
CSE x CH APPRAISAL		.11**
GSE x CSE x CH APPRAISAL		-.03

Note: N=737. GSE= Global Self-Esteem; CSE=Contingent Self-Esteem; CH Appraisal= Challenge/Threat Appraisal.
*p< .05. **p<.01. ***p<.001.

Interaction Effects
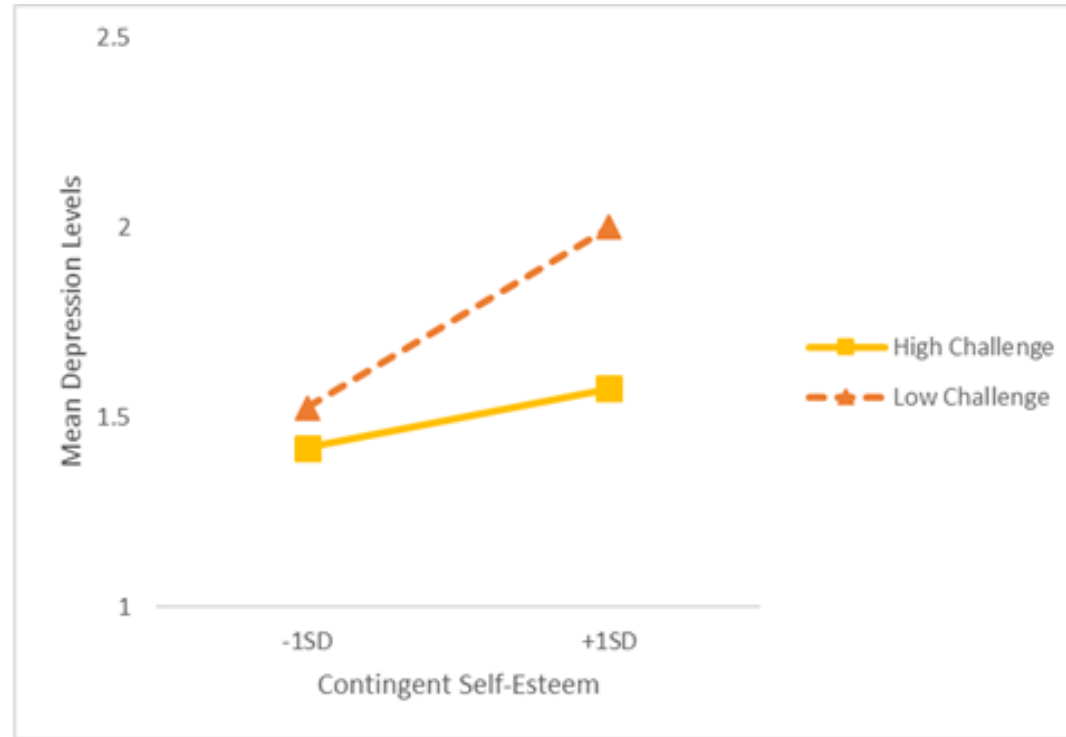
GLOBAL SELF-ESTEEM

- Global self-esteem negatively correlated with depression.

- Firefighters with higher global self-esteem reported lower depression symptoms than firefighters with lower global self-esteem.

- This study outcomes corresponds with past findings that high global self-esteem is protective against clinical disorders such as depression and anxiety (Ames, Rawana, Gentile, & Morgan, 2015).

| 3. | GSE | 35.23 | 4.78 | - | -.32** | .39** | -.57** |

Protective Nature of High Global self-esteem

- Positive behavioral outcomes (Stinson, Logel, Zanna, Holmes, Cameron, Wood, & Spencer, 2008).

- Explore problems positively, cope better with stress, and maintain a positive attitude in situations where outcomes are different from their expectations (Abdel-Khalek, 2016; Eisenbarth, 2012; Tomaka et al., 2013).

- Maintaining positive beliefs and illusions about the self (Taylor, Brown, 1988).

- Protected from anxiety and dread associated with the fear of death (Pyszczynski, Greenberg, Solomon, Arndt, Schimel, 2004).

Contingent Self-esteem

- Contingent self-esteem positively correlated with depression.

- Firefighters with higher contingent self-esteem reported higher depression symptoms than firefighters with lower contingent self-esteem.

- The relationship between contingent self-esteem and depression symptoms observed in this study is consistent with past research.

  (Cambron, Acitelli, & Steinberg, 2010; Crocker, Karpinski, Quinn, & Chase, 2003; Lakey, Hirsch, Nelson, & Nsamenang, 2014; Wouters, Duriez, Luyckx, Klimstra, Colpin, Soenens, & Verschueren, 2013; Sargent, Crocker, & Luhtanen, 2006).

| 4. | CSE | 44.51 | 7.93 | | | - | - | -.43** | .31** |

Study Results supports……..

- Highly contingent self-esteem individuals are impacted cognitively and emotionally when they fail in areas where they are contingent (Crocker & Wolfe, 2001).

- Highly contingent self-esteem individuals often doubt their value and self-worth (Lakey et al., 2014).

- Contingent self-esteem individuals are more likely to engage in high-risk behavior, resulting in developing depression symptoms.

- Highly contingent individuals have stronger reactions to anger, anxiety, negative effects, and depression symptoms (Zeigler-Hill, Besser, & King, 2011; Borton, Crimmins, Ashby, & Ruddiman, 2012).

Challenge Appraisal

- This study found the tendency to appraise events as challenges to negatively relate to depression.

- This finding is consistent with past researchers that individuals who appraised events as more challenging (vs. threatening) reported lesser depression symptoms.

  (Blascovich, Mendes, Tomaka, Salomon, & Seery, 2003; Blascovich & Tomaka 1996)

| 5. | CH APPRAISAL | 1.13 | 1.2 | -.42** |

Study Results supports........

- Appraising situations as challenging (vs. threatening) improves task performance (Blascovich & Tomaka, 1996; Drach-Zahavya & Erez, 2014).

- Individuals who appraise situations as challenges (vs. threats) are more resilient in the face of potential stressors (Seery, 2011).

- Assessment of situations as a challenge (vs. threat) was more associated with toughness and positivity (Dienstbier, 1989).

- Challenge appraisal is associated with lower anxiety, better emotional stability, and improved immune functions ((Dienstbier, 1989; Blascovich & Tomaka, 1996; Seery, 2011).

Uniqueness of this study.....

- Interaction between contingent self-esteem and challenge appraisal significantly predicted depressive symptoms.

- Specifically, the study results suggest that the tendency to make challenge appraisals moderates contingent self-esteem and depression relationship.

- Those high in contingent self-esteem who make challenge appraisals report lower depression symptoms than those who make low challenge (threat) appraisals.

- Thus, challenge appraisal may serve as a buffer against depression among those with high contingent self-esteem.
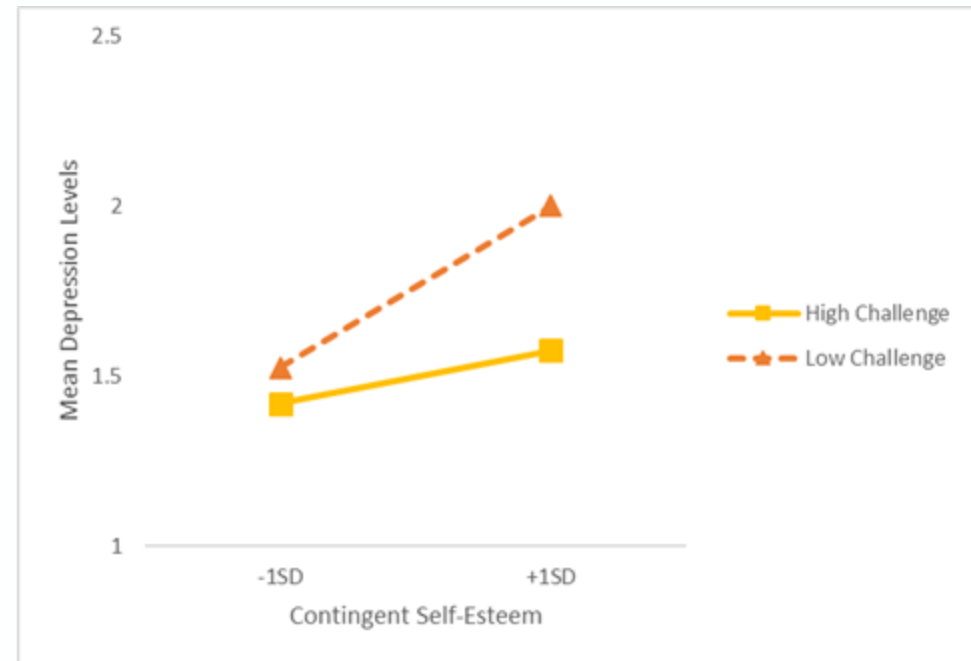
Interestingly.......

- This study did not find global and contingent self-esteem to interact to determine depression.

- Tendency to make challenge appraisals positively impacted depression symptoms independent of feelings of self-worth.

Study Limitations/Delimitation

- Cross-sectional

- Unusual study sample

- Generalization issues

- No random selection

- Study's dependence on self-report methods

Future Projection

- This study may have some implication for the development of;
  - Challenge appraisal Interventions.
  - Self-esteem Interventions.
  - Improving learning goals targeted at reducing contingent self-esteem.

- Future research
  - Drug use and misuse evaluation

- Mental health Promotion
  - Cognitive behavioral therapy

Conclusions….

- This present study supports the contention that global self-esteem, contingent self-esteem, and challenge appraisal relate to depression symptoms.

- No studies to date have examined these variables together with regards to mental health outcomes such as depression.

- Specifically, the study results suggest that the tendency to make challenge appraisals moderates contingent self-esteem and depression relationship.

- With the prevalence of mental health issues today, future research should direct resources towards exploring how various personality traits influence health and mental well-being.

References

- An, S. J., Chung, Y. K., Kim, B. H., Kwak, K. M., Son, J. S., Koo, J. W., ... & Kwon, Y. J.

  (2015). The effect of organisational system on self-rated depression in a panel of male municipal firefighters. Annals of occupational and environmental medicine, 27(1), 1.

- Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. Psychological review, 103(1), 5.

- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles?. Psychological science in the public interest, 4(1), 1-44.

- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), Measures of personality and social psychological attitudes (pp. 115–160). San Francisco, CA: Elsevier Academic Press.

- Blascovich, J., & Tomaka, J. (1996). The biopsychosocial model of arousal regulation. Advances in experimental social psychology, 28, 1-52.

- Blascovich, J., Mendes, W. B., Tomaka, J., Salomon, K., & Seery, M. (2003). The robust nature of the biopsychosocial model challenge and threat: A reply to Wright and Kirby. Personality and Social Psychology Review, 7(3), 234-243. Blascovich, J., Seery, M. D., Mugridge, C. A., Norris, R. K., & Weisbuch, M. (2004). Predicting athletic performance from cardiovascular indexes of challenge and threat. Journal of Experimental Social Psychology, 40(5), 683-688.

- Blascovich, J. (2013). 25 Challenge and Threat. Handbook of approach and avoidance motivation, 431.

- Carey, M. G., Al-Zaiti, S. S., Dean, G. E., Sessanna, L., & Finnell, D. S. (2011). Sleep problems, depression, substance use, social bonding, and quality of life in professional firefighters. Journal of occupational and environmental medicine/American College of Occupational and Environmental Medicine, 53(8), 928.

- Flory, J. D., & Yehuda, R. (2015). Comorbidity between post-traumatic stress disorder and major depressive disorder: alternative explanations and treatment considerations. Dialogues in clinical neuroscience, 17(2), 141.

- Lépine, J. P., & Briley, M. (2011). The increasing burden of depression. Neuropsychiatric disease and treatment, 7(Suppl 1), 3.

- Mathers, C. (2008). The global burden of disease: 2004 update. World Health Organization.

- National Survey on Drug Use and Health (NSDUH). (2017). Results from the 2017 national survey on drug use and health: Detailed tables, SAMHSA, CBHSQ. SAMHSA - Substance Abuse and Mental Health Services Administration. https://www.samhsa.gov/data/sites/default/files/cbhsq- reports/NSDUHDetailedTabs2017/NSDUHDetailedTabs2017.htm#tab8- 56A

- Tomaka, J., Magoc, D., Morales-Monks, S. M., & Reyes, A. C. (2017). Posttraumatic stress symptoms and alcohol-related outcomes among municipal firefighters. Journal of Traumatic Stress, 30(4), 416-424.

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