

## **GS01 - Defense Mechanisms, Memory, Flexibility and Wellbeing**

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### **Abstract**

**Defense mechanisms** (DM) are operations that function at an unconscious level to reduce the emotional conflicts and manage intense emotions. While some of them are almost all the time maladaptive, others are either adaptive or maladaptive depending on the context, inflexibility, and severity (APA, 2013).

This poster summarizes the results of **a series of three of our studies** involving 502 subjects. While the common topic is the defenses, each sequence has its distinctive purpose:

**Study 1:** Develop a questionnaire focused on measuring four of the frequently used defense mechanisms: denial, repression, projection and rationalization. The sample size of study one is N=364.

**Study 2:** study the effect of repression on memory. N=88;

**Study 3:** Explore the interaction of defenses with person's aspects broader than memory, more specifically the relationship between the frequency of using these defenses and flexibility and wellbeing. N=50;

**The overall results** showed that the questionnaire has good reliability and validity. It was revealed that the subjects uses DM in both unfavorable and favorable situations and they engage into a variety of defenses. The study of repression showed a significant difference between the unpleasant and pleasant events the subjects remembered after two months. The use of DM negatively correlated with the level of flexibility and there was no correlation between DM and wellbeing except for projection in unfavorable situations. The questionnaire and these findings could be used for creating awareness and developing training programs to enhance people ability to better deal with stress and pressure which are part of the day-to-day life in a changing world.

## **GS02 - Discrimination, Cognitive Styles, and their Associations with Adolescents' Mental and Physical Health**

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### **Abstract**

**Purpose:** This study is based on the hopelessness theory of depression and previous research on perceived everyday discrimination (PED) and both depressive symptoms and Interleukin-6 (an inflammatory cytokine) in adolescents. The purpose of this study is to examine the negative attribution, self, and consequence cognitive styles (CSs) proposed in the hopelessness theory as a possible mechanism underlying the association between PED and inflammation in adolescents and expand our understanding of the comorbidities between depressive symptoms and systemic inflammation (IL-6).

**Methods:** This cross-sectional study featured a sample of 102 adolescents aged 13 to 16 ( $M=14.10$ ,  $SD= 0.52$ ) who identified as White (47.5%), Black (41.4%), Mixed Race (7.1%), Latino (2%), and other (2%). Data analysis was conducted using PROCESS to compute regressions and effects between PED, negative CSs, depressive symptoms, and Interleukin-6.

**Results:** Results showed that negative attribution CS is the only negative CS associated with PED, depressive symptoms, and IL-6. Also, the only negative CS mediating the association between PED and depressive symptoms *and* IL-6 in our adolescent sample.

**Conclusions:** Overall, these results indicate that individual negative CSs proposed in the hopelessness theory impact adolescents' physical and mental outcomes differently, which can inform targeted treatments.

## **GS03 - Everyday Life Factors that Affect Recall Memory**

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### **Abstract**

Working memory is a small capacity form of short-term storage and utilizes information for conscious thought and is most active with difficult tasks such as learning, comprehension,

and reasoning. It is essential for everyday life functioning; it allows us to investigate our current experience, as we move forward and to make sense of the world around us. People with low levels of working memory capacity can store two items in mind. Those with high levels of working memory capacity can store more than four items in mind. This study looked at how many words the participants can recall and whether stress, anxiety, and sleep disturbances affect their memory. One hypothesis was stress will be positively associated with memory performance. A second hypothesis was that anxiety will be negatively associated with memory performance. A third hypothesis was that sleep disturbances will be negatively associated with memory performance. Forty-three college students enrolled at Eastern Kentucky University were recruited and participated online. They completed three surveys, which asked them questions about their stress levels, sleep disturbances, and anxiety. Participants also participated in a memory task. The results showed that participants with anxiety (negative) did have a higher chance of stress. It was concluded that creating short-term memory can be difficult when experiencing both stress and anxiety. One limitation was the lack of motivation to study and limited communication in case participants had questions during the study.

*Keywords:* memory, stress, anxiety, sleep disturbances, recall

## **GS04 - Impact of Handwritten Letters on Mental Illnesses: A Cross-Sectional Pilot Study**

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Background: This paper is the first analysis of the effectiveness of personalized, handwritten letters in improving symptoms related to mental disorders.

**Objectives:** The aim of this current study was to analyze whether receiving and/or writing handwritten letters have an impact on depression and/or anxiety symptoms. We also wanted to see how long the improvement of symptoms lasted if any.

**Methods:** In a cross-sectional study design via email, recipients, and writers of letters were asked to rate their symptom improvement on a scale of 0-10 immediately after receiving or writing a letter respectively. All inquired symptoms were derived verbatim from the patient health questionnaire-9 (PHQ-9) and general anxiety disorder-7 (GAD-7) questionnaire.

**Results:** The median score for symptom improvement as measured using the PHQ-9 scale for letter recipients and writers was 5.0 and 6.0, respectively. The median score for symptom improvement on the GAD-7 questionnaire for both letter recipients and writers was 6.0. One to three days was the most frequent period reported for symptom relief for both letter writers and recipients.

**Conclusions:** The 1-3 day relief from symptoms with letter writing and receiving is substantial and on par with pharmaceutical management. Since a PHQ-9 change score of 5.0 or more is a clinically relevant change with medication-assisted therapy, letter writing and receiving is comparable to the amount of relief gained using pharmacotherapy. Though more research is needed to extrapolate results to the general population, it is conceivable that letter writing and receiving are useful interventions for alleviating suffering from mental illnesses.

## **GS05 - Masculine Norms, Interpersonal Function, and Wellbeing among Military Personnel**

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This study explored the relation between masculine ideology and adverse childhood experiences (ACEs) and outcomes in psychopathology among U.S. Military service members. The sample consisted of 262 participants with an average age of 40.18 years ( $SD = 14.16$ ); males consisted of 73.7%; females 24.8%; non-binary 0.8%; and prefer not to disclose 0.8%. The participants were 74.4% white and BIPOC folx accounted for 24.8%. Multiple regression analysis was conducted with  $n = 218$  (cases with missing variables were eliminated from the analysis) with the following models: (a) Model 1 consisted of demographic variables (SES, gender, race, age); (b) Model 2 consisted of the sum of gender role conflict (GRC) and sum of ACEs; (c) Model 3 consisted of intrapersonal and interpersonal functioning on post-traumatic maladaptive beliefs.

Each model was significant with: (a) demographic variables accounting for 6.6% of the variance explained; (b) GRC and ACEs accounting for 22.2% of the variance explained; and (c) intrapersonal and interpersonal dysfunction accounting for 18.9% of the variance explained. Results indicate that GRC and ACEs predict higher levels of PTSD symptoms in addition to dysfunctional

intrapersonal/interpersonal dynamics. Coefficients indicated that the significant factors in Model 3 were SES, GRC, and interpersonal/intrapersonal functioning. Further study would investigate if intrapersonal/interpersonal functioning mediates the relation between GRC and ACEs on PTSD symptoms. These findings may help mental health professionals consider areas of foci (e.g., gender role conflict, trauma, or current intrapersonal/interpersonal functioning) for prevention and intervention efforts when working with U.S. military personnel.

## **GS06 - Preschooler Attachment and Adolescent Psychological Flexibility**

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Psychological flexibility is consistently associated with psychological symptoms, but it has seldom been examined developmentally. We predict that individuals with higher-risk preschool attachment strategies will show decreased psychological flexibility as adolescents.

Twenty-one children (about 50% female) participated at 4.5 and at 16.6 mean years. Attachment strategies, assessed in the Strange Situation, were divided into low vs. high-risk. Psychological flexibility was assessed using the Avoidance and Fusion Questionnaire for Youth (AFQY: Greco, Baer, & Lambert, 2008). The Social Desirability Scale-17 (Ströber, 2001) was included as a covariate. Data was analyzed using ANOCOVA.

Results showed that attachment risk approached significance in its association with psychological flexibility ( $p = .063$ ), but it did not meet the standard to be statistically significant [ $F(1,21) = 3.913$ ,  $p > .05$ ,  $\eta^2 = .179$ ]. This is likely due to low sample size. Results suggest that psychological flexibility may be one factor in determining why insecure attachment creates risk.

## **GS07 - Sense of Belonging Among Disabled College Students**

Allison Tapia Elyssa C. Berney, Joseph H. Hammer

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Sense of belonging becomes increasingly important when young adults start college (Strayhorn, 2019). Students with disabilities are more likely to experience decreased belonging when starting college (Vaccaro et al. 2015) due to increased social stigma (Aquino, 2019), made more complicated by the fact that students with disabilities make up only 18 percent of full-time undergraduate students. Being a part of the campus community is important for students to feel as if they belong. Sense of belonging at the university level is linked to positive self-perceptions of social acceptance and scholastic competence (Pittman, 2008). With lack of accessibility being a common occurrence among universities (Fleming, 2017), we sought to investigate the barriers

that accessibility creates in fully accessing campus belonging for those students. This study aims to examine the correlation between sense of belonging to a campus community and disability status in a sample of 6,405 disabled college students from the 2019-2020 Healthy Minds Study data. Implications for increased accessibility and interventions to increase campus belonging for students with disabilities will be discussed.

## **GS08 - South Asian Mental Health Help Seeking**

Ashna Sangar, MS CRC, & Joseph Hammer, Ph.D.

*Faculty Advisor: Joseph Hammer, Ph.D. - University of Kentucky*

Despite the high prevalence of mental health concerns in the South Asian (SA) community, they continue to under-utilize mental health services. The present study will assess the social and cultural factors within the framework of the theory of planned behavior to explain the variance in intention to seek help from a mental health professional amongst SAs in the US. The data was collected from 563 SAs over the age of 18, living in the US on various immigration statuses, and proficient in written English. Participants completed a battery of measures to assess personal and social stigma, perceived social support, adherence to Asian American values, and reflected shame. The analysis is underway, and linear regression will be run to predict the relationship between the social and cultural factors and the intention to seek help in SAs. The results of this analysis will be summarized in the final poster presentation.

## **GS09 - The Impact of Spiritual Beliefs and Worldview Style on Covid-19 Health Behaviors**

Daniel Frame, Keyton Sampson & Jamie Humphrey

*Faculty Advisor: Dr. Brittany Canady - Marshall University*

This study examined the relationship between spiritual beliefs, worldview, and COVID-19 health behaviors. The COVID-19 pandemic exacted a toll on physical and mental health of Americans (Vindegard and Benros, 2020). Americans were unprepared for COVID-19 and the need to adopt behaviors to maintain health throughout the pandemic. This study looked at effects of spiritual beliefs on those in the pandemic, measuring level of beliefs transferred into action against beliefs in masking practices. Slimak and Dietz (2006) found that higher levels of values, beliefs, and social norms translates into differing risk perceptions. This study hypothesized that spiritual beliefs translate into perception of and response to risks associated with COVID-19. Hart, Shaver, and Goldenberg (2005) found that worldview affects levels of change someone will engage in to feel security. This study posited that worldview influences adoption of COVID-19 health behaviors, with a pessimistic worldview being more likely to engage in health behaviors.