



Undergraduate Psychology
Research Conference
Est. 2023

Program

Friday, November 7th, 2025





3rd Undergraduate Psychology Research Conference

University of Southern Indiana

Psi Chi

Psychology Department

University Center: Carter Hall, 226/227

1:00-1:30 pm **Check-in, presentation set up, and opening remarks,**
Hallway, Carter Hall, UC 226/227

Dr. Urska Dobersek, Psi Chi Advisor, UPRC Chair

1:30-3:30 pm **Oral Presentations, Carter Hall & UC 226/227**

3:30-4:00 pm **Poster Presentations, Carter Hall**

4:00 pm **Awards Presentation & Closing Remarks, Carter Hall**

Dr. Urska Dobersek, Psi Chi Advisor, UPRC Chair

Faculty Mentors

- Gisele Casanova, Purdue University Northwest
- Urska Dobersek, University of Southern Indiana
- Julie Eyink, University of Southern Indiana
- George Gaither, Ball State University
- Katie Lawson, Ball State University
- John McCreary, Ball State University
- Zachary Pilot, University of Southern Indiana
- Gerado Ramirez, Ball State University
- Michael Tagler, Ball State University

1:30-3:30 pm
ORAL SESSIONS
Carter Hall

- 1:30 – 1:45 **Braden Ream**, Ball State University
Common Factors Theory and Defining Subjective Support Group Success
- 1:50 – 2:05 **George Trajanoski**, Ball State University
Creating a Measure of Perceived Sexual Knowledge
- 2:10 – 2:25 **Kaylyn Johnson**, Ball State University
Sensory Perception and Sexual Behavior Interest
- 2:35 – 2:50 **Christopher Hill**, Ball State University
How Students Navigate Canvas
- 2:55 – 3:10 **Madison Pierce-Holtzman**, Ball State University
Socially Sanctioned Rape: How Individual Empathy is Undermined by Group Ideologies
- 3:15 – 3:30 **Arianna Foster**, Ball State University
The Impact of Social Support and Sense of Belonging on the Flourishing of Gender Nonconforming Individuals

1:30-3:30 pm
ORAL SESSIONS
UC 226/227

- 1:30 – 1:45 **Emily Balassone**, Purdue University Northwest
Analyzing the Effectiveness of Opioid Use Disorder Treatments
- 1:50 – 2:05 **Saif Abdrabu & Kristina Yang**, University of Evansville & University of Southern Indiana
The Impact of ACEs and First-Gen Status on Anxiety Symptoms in College Students
- 2:10 – 2:25 **Toriana Garmon**, Ball State University
Predicting Insomnia Using Daytime Versus Bedtime Rumination
- 2:35 – 2:50 **Logan Doyle**, University of Southern Indiana
Examining Anxiety in College Students Who Use Substances
- 2:55 – 3:10 **Mya Gregory**, Ball State University
The Role of Self-Determination Theory in Psychedelic Treatment Effectiveness

3:30-4:00 pm
POSTER SESSION
Carter Hall

Layla Brown
University of Southern Indiana

Examining Parenting Styles in Relation to Mental Health

Emilee Shiver
University of Southern Indiana

The Influence of Combining Social Norms on Course Evaluation Participation

Kristina Yang
University of Southern Indiana

Development of the Social Self-Esteem Questionnaire

Abstracts

Oral Presentations

Common Factors Theory and Defining Subjective Support Group Success

Braden Ream, Ball State University

Faculty Mentor: **Dr. George Gaither**

Support groups, as a form of facilitated social support, are beneficial to the individuals who attend them (Nichols & Jenkinson, 2006). Support group success has been evaluated based on common factors of group psychotherapy (Yalom & Leszcz, 2001). However, little research has been conducted to determine if those factors truly represent the successful factors of support groups. This study aims to determine which, if any, of the common factors of group psychotherapy are present in subjective support group satisfaction, using a framework echoing Patient Reported Outcome Measures (PROMs) and the Therapeutic Factors Inventory-8 (TFI-8; Landi et al., 2020). Participants in this study will have attended at least three meetings of a support group. Then, they will complete a survey, reporting which factors they felt were important in their support group, along with a level of subjective satisfaction. Participants will be recruited through online forums (e.g., reddit.com) and through personal recruitment of local and online support groups. We expect that there will be a correlation between the presence of common factors of group psychotherapy and subjective satisfaction with the support groups. These findings can open the door for a better understanding of successful support groups, which will better inform future support group organizers, allowing for increased accessibility in designing community-based approaches to mental health care.

Analyzing the Effectiveness of Opioid Use Disorder Treatments

Emily Balassone, Purdue University Northwest

Faculty Mentor: **Dr. Gisele Casanova**

Opioid dependence is a pervasive and persistent problem in the United States. Those affected struggle with dependence, withdrawal, and relapse without other interventions. This proves to be a costly issue for the American Healthcare system and taxpayers. Some of the traditional interventions have been less than effective at helping patients fully recover, with patients requiring multiple attempts. Repeatedly going through treatment can be dangerous, leading to a higher likelihood of overdose after relapse. This is why it is critical to determine what the most effective methods are, ones that can help patients with the fewest attempts needed. This study examines which methods are the most effective and compares the cost of those treatments. Specifically, it assesses whether cost and success are related and compares different treatment models of different facilities in the state of Indiana. We sought to develop a comprehensive survey to be sent to facility coordinators. A list of eight facilities in Indiana was compiled. The survey asked questions such as how many patients they see on average annually, what types of treatments the facility offers, what the cost of the program is, what their staff-to-patient ratio is, and

whether they offer aftercare services. By gathering both qualitative and quantitative data, the goal is to determine what types of treatment were the most effective and whether a higher cost was positively correlated with higher success. Future application of this research may be used as a valuable metric when determining funding and resource allocation to facilities hoping to help those who suffer from opioid dependence.

Creating a Measure of Perceived Sexual Knowledge

George Trajanoski, Ball State University

Faculty Mentor: **Dr. George Gaither**

Across the globe, standards for sexuality education exist to ensure that students are receiving a comprehensive formal education (Johnson, 2016). There are some existing measures that gauge sexuality knowledge and quality of sexuality education, but many are limited to specific areas of knowledge (Safari, 2024), assess a specific set of standards which may not be widely used (Tavrow, 2022), or utilize standards which have since been updated (Corbett, 2023). As such, a comprehensive scale that assesses a student's perceived sexuality knowledge and the implementation of widely accepted educational standards is needed. Therefore, in this study, a short-form survey of perceived sexual knowledge based on the current Standards for Sexuality Education in Europe is developed and administered to a sample of college students. Reliability with internal consistency and validity will be performed by comparing those with vs without autism on their perceived sexuality knowledge.

The Impact of ACEs and First-Gen Status on Anxiety Symptoms in College Students

Saif Abdrabu & Kristina Yang, University of Evansville

Faculty Mentor: **Dr. Zachary Pilot**

Anxiety disorders are on the rise in the United States, affecting one-third of adults and adolescents, with 39% of college students diagnosed (Healthy Minds Network, 2024). Adverse Childhood Experiences (ACEs) are associated with higher rates of mental health problems, such as anxiety disorders, and may contribute to academic barriers for college students (Helminen et al., 2021). First-generation college students, whose parents did not obtain a four-year college degree, are more likely to experience these barriers, like financial instability, a decreased sense of belonging, lower GPAs, and higher rates of academic stress and dropout (Mueller-Coyne et al., 2024). The current study examined whether college students with more severe ACEs and first-generation status were more likely to experience anxiety symptoms. Data was collected from undergraduate students at a mid-sized midwestern university. Participants completed the ACE-10 and the Generalized Anxiety Disorder scale (GAD-7) surveys as part of a larger study. ACE exposure was categorized as none (0), mild (1-2), or severe (3+). A chi-square analysis was first performed to examine whether first-gen students were more likely to experience more severe ACEs, we predict that they do. Then, a two-way between-subjects Analysis of Variance was conducted to determine the effect of first-gen status and ACEs severity on anxiety symptoms. We predict main effects for first-gen status and

ACE severity as well as an interaction between these two variables. Implications for student success and the need to increase campus resources will be discussed.

Sensory Perception and Sexual Behavior Interest

Kaylyn Johnson, Ball State University

Faculty Mentor: **Dr. George Gaither**

The purpose of this study was to examine the relation between sensory sensitivity and preferred kink practices. There has been a large amount of research investigating the relationship between BDSM interest and autism in recent years, driven by the rising rates of ASD diagnosed individuals and BDSM practitioners. Considering that many individuals diagnosed with autism spectrum disorder (ASD) experience higher rates of sensory sensitivity, it is interesting, but not surprising, to see that sensory BDSM practices have been statistically significantly correlated with ASD diagnosis (Bucher, 2018). Furthermore, studies show that sensory sensitive individuals also tend to display a higher inclination towards repetitive behaviors (such as stimming) and specific, limited interests (Schultz and Stevenson, 2019). While typically associated with autism spectrum disorder, research also indicates that there is a large majority of adults who experience sensory sensitivity due to other preexisting conditions that may not be diagnosed with ASD (Ward, 2019). Despite the implications of these studies, there is a staggering lack of research regarding safe, sexual sensory exploration for individuals who experience sensory sensitivity, but may not be diagnosed with ASD. This begged the following question: to what extent does sensory sensitivity impact a person's interest in sensory seeking through sexual practices? Considering the tendency for sensory-sensitive individuals to engage in sensory-seeking behaviors, in tandem with their higher rates of restricted interests, we hypothesized that those same individuals would also show a higher interest in structured sensory play during sex. To examine this, we will be utilizing a survey including the sensory perception quotient-short (SPQ-short) and an altered version of Bucher's (2018) BDSM Behaviors Questionnaire. Our goal is to recruit 300 participants to complete this survey.

Predicting Insomnia Using Daytime Versus Bedtime Rumination

Toriana Garmon, Ball State University

Faculty Mentor: **Dr. Michael Tagler**

Repetitive inner thoughts are closely tied to insomnia; more specifically, sleep-related rumination during the day may be a cognitive feature of insomnia (Palagini, 2015). Rumination may not always be negative, and the type of rumination present (brooding vs. reflection) may be indicative of or potentially a precursor to insomnia. In the present study, I hypothesized that negative rumination (brooding) during the daytime would positively correlate with insomnia. The targeted population will consist of college-aged participants, specifically those struggling with insomnia. A sample of at least 100 will be gathered using the Ball State SONA system, the Ball State Communication Center, and Reddit. Participants will initially complete the Insomnia Severity Index (ISI) questionnaire, determining whether they have insomnia and how severe their symptoms are. Then, they will complete the shortened, 10-question version of the Ruminative Response Scale (RRS) questionnaire (Treynor, 2003) to determine participants' experience of

brooding or reflection-based rumination. This questionnaire will be administered twice, once during the day and once before bed/while trying to sleep, to test for changes in rumination type. I expect that those with higher daytime brooding rumination will have increased insomnia and brooding while trying to sleep. If findings are what is anticipated, this would further solidify the relationship between rumination and insomnia. In relation to current literature, this would support that negative rumination (brooding) is a cognitive feature of insomnia and amplifies symptoms. Further study will be warranted to examine the type of relationship between these variables, and more extensive measures, such as ecological momentary assessment (EMA), may be beneficial in capturing the exact content of inner thoughts. These findings can be used to continue learning more about insomnia and the inner voice, as well as finding ways of managing negative inner thoughts.

How Students Navigate Canvas

Christopher Hill, Ball State University

Faculty Mentor: **Dr. Gerado Ramirez**

This study examines how students navigate and process disorganized versus well-organized Learning Management System (LMS) environments. We aim to understand how disorganization affects task completion time, frustration, course preference, and perceptions of instructors. Research seems to suggest that there is a problem with growing student frustrations in classrooms. Both students and professors want to bridge the disconnect between them, which is the cause and means to handle it. Professors feel more easily put down by the reduced lack of trust given by students, and their feelings that there is a higher learning cost in recent education seems to be on the rise. For example, how we present our information or how we design our LMSs can affect the student experience. Research suggests that a lack of proper presentation can make the students feel a greater need to resist the professors in some ways. If we can accommodate the growing issues students have with the disconnection in classrooms, then we will be able to have higher rates of student success & dedication within classrooms. We plan on recruiting 100-120 students from undergraduate psychology classes through platforms like SONA. We will be measuring how the students respond to being presented with either an Organized or Disorganized Canvas page for them to navigate and complete an assignment. We are expecting the results to showcase that Students assigned to disorganized Course A will take longer to complete tasks, report greater frustration, rate the instructor less favorably, and show reduced belonging than those assigned to organized Course A. This would show that course disorganization imposes measurable cognitive and emotional costs on students.

Examining Anxiety in College Students Who Use Substances

Logan Doyle, University of Southern Indiana

Faculty Mentor: **Dr. Urska Dobersek**

According to research, 40% of college students suffer from anxiety (Nelsen et al., 2021). Mental health is a big topic of conversation, specifically research among certain populations. One such population under study is college students. College students go through many challenges, including adapting to being away

from home, paying bills, and new and challenging classes. These new challenges are associated with anxiety and other mental health concerns (Pisarik et al., 2017). To manage these symptoms, students engage in maladaptive coping mechanisms, such as substance use. Nevertheless, this relief may be nothing more than a façade, as recent studies suggest an apparent relationship between substance use and increased anxiety amongst college students (Halladay et al. 2022; Nelsen et al., 2021; Pisarik et al., 2017). Given these findings, further examination of the relation between substance use and anxiety levels among college students is needed. As such, participants will be recruited via random sampling, and they will be administered a collection of surveys to answer. Surveys included are the informed consent, the GAD-7, the CAGE questionnaire, and a demographic questionnaire. Once the information is gathered, I will use jamovi to analyze information such as descriptive and inferential statistics to determine the outcome of the study. With respect to selectivity, my results will provide additional evidence that students who use substances show higher anxiety scores compared to those who do not use substances.

Socially Sanctioned Rape: How Individual Empathy is Undermined by Group Ideologies

Madison Pierce Holtzman, Ball State University

Faculty Mentor: **Dr. Katie Lawson**

While sexual violence occurs most frequently within a social group, instances of inter-group sexual violence appear to be regarded as less abhorrent or more justified by the social group associated with the perpetrator. Theoretically, this social reinforcement of sexual violence against individuals of a social out-group can be explained within the frameworks of social identity theory and social dominance theory, as sexual violence acts as a means of reinforcing social hierarchies, whether those hierarchies are related to gender, religion, ethnicity, or some other aspect of social identity. This theoretical framework will be applied to a particularly notorious instance of inter-group sexual violence, motivated by the ethnonationalist conflict of the Yugoslav Wars in the 1990's, during which the Bosnian Serb Army, in an arguably successful attempt to "ethnically cleanse" eastern Bosnia and Herzegovina of Bosniak Muslims, systematically raped Bosniak Muslim women and girls, as well as a significant number of women of other ethnicities. Using the social identity and social dominance frameworks, this poster will assert that the ethnonationalistic political climate of the former Yugoslavia encouraged individuals to hold beliefs and partake in behaviors that asserted the dominance of their ethnic in-group, one such social-dominance-perpetuating behavior being sexual violence, reducing the general empathy toward those victims of such tactics. Then, based on the historical analysis of the mass rapes in the Yugoslav Wars, a correlational research study will be proposed with the goal of studying the potential relationship between social dominance orientation and empathy toward victims of sexual violence in racial in-groups and out-groups.

The Role of Self-Determination Theory in Psychedelic Treatment Effectiveness

Mya Gregory, Ball State University

Faculty Mentor: **Dr. John McCreary**

The use of Psychedelic treatment (e.g., psilocybin, ketamine, etc.) to treat mental health disorders is rapidly growing, yet current research is lacking in informing providers which individuals would benefit most. One unique factor that has not been considered yet is the self-determination theory (SDT), and this study examines whether unmet self-determination needs (autonomy, relatedness, competence) are associated with reduced effectiveness of psychedelic treatment. Participants will be recruited from online forums (e.g., Reddit) where individuals discuss psychedelic treatment experiences. The survey will utilize scales to measure SDT levels, satisfaction with psychedelic experience, locus of control, and depression severity. Based on previous research on psychedelic treatment effectiveness and personality traits, it is hypothesized that individuals who score low in self-determination needs will report lower perceived effectiveness of treatment, reflected through sustained depression symptoms post-treatment. This research is an important contribution to the growing knowledge of psychedelic treatment by identifying how self-determination needs may moderate treatment effectiveness. If a strong correlation is seen, assessing self-determination needs could help inform protocols for pre-treatment screening. The correlation may also suggest a shift in treatment to focus on potential underlying issues before advancing to psychedelic treatment. This approach would help ensure psychedelic treatment is offered when individuals are most likely to benefit.

The Impact of Social Support and Sense of Belonging on the Flourishing of Gender Nonconforming Individuals

Arianna Foster, Ball State University

Faculty Mentor: **Dr. Katie Lawson**

Past research indicates there is a positive relation between social support and sense of belonging in gender nonconforming individuals (Dolan, 2023). Previous research also suggests that there is a positive relationship between social support and flourishing (Yudha & Urbayatun, 2020). Flourishing relates to psychological well-being and encompasses emotions like happiness, satisfaction, optimism, confidence, engagement, and resilience. While research in the past has looked at the relationship between sense of belonging and social support in gender nonconforming individuals, current research has not tied this flourishing. This current study aims to fill this gap in the research by investigating the relationship between social support and flourishing in gender nonconforming individuals. It also aims to investigate whether sense of belonging mediates the relationship between sense of social support and flourishing in gender nonconforming individuals as compared to gender conforming individuals. This study uses a Qualtrics survey that entails a basic demographic questionnaire, including whether an individual identifies as gender conforming or gender nonconforming. Gender nonconforming will be operationally defined as an individual who feels that they do not identify within the gender binary. Gender conforming will be operationally defined as anyone who identifies within the gender binary. The survey will also include measures of the general sense of belonging, social support, and flourishing. The proposed distribution of

the survey would use the Ball State Comm Center, Ball State Spectrum, and Reddit.com to get a variety of respondents, totaling around 100 participants (50 gender conforming, 50 gender nonconforming). I hypothesized that a sense of belonging would be positively correlated with social support and flourishing in individuals. Also, there would be a greater effect size for the mediation of sense of belonging on the relationship between social support and flourishing within gender nonconforming individuals than gender conforming individuals.

Poster Presentations

Examining Parenting Styles in Relation to Mental Health

Layla Brown, University of Southern Indiana

Faculty Mentor: **Dr. Urska Dobersek**

Parents' attitudes and behaviors toward children (i.e., parenting styles) play an important role in children's biopsychosocial development. Moreover, the implications of these attitudes and behaviors from parents may reflect the child's mental health in adulthood. However, there is limited evidence on parenting styles in relation to mental health. Therefore, the present study investigated the mental health of adults exposed to differing parenting styles in childhood. Participants will be recruited via convenience sampling from the university's campus using the Psychology Subject pool (SONA). Using a Qualtrics link, participants will be asked to complete a demographic questionnaire, the Parental Bonding Questionnaire (PBQ), the Parental Bonding Instrument (PBI), and the Patient Health Questionnaire (PHQ-9) in a randomized order. Participants who had a parent who displayed an authoritarian-like style of parenting would score higher on depression and anxiety compared to adults whose parents displayed an authoritative-like parenting style. This study will provide valuable insights into the lasting effects that parenting styles can have on mental health. The results of this study carry significant theoretical and practical implications within the fields of both developmental and child psychology. Theoretically, my results will contribute to the existing body of research by introducing different perspectives as well as opening a world of novel research questions that can usher in future studies on the topic. On the other hand, practically, the implications of this study concerning the relationship between parenting styles and mental health offer valuable insight to parents, developmental psychologists, and child psychologists alike. These findings can guide practices aimed at better supporting the psychological development of children.

The Influence of Combining Social Norms on Course Evaluation Participation

Emilee Shiver, University of Southern Indiana

Faculty Mentor: **Dr. Julie Eyink**

Social norms are a driving force that influence the way people act through unwritten rules or standards of behavior (Cialdini et al., 1990). These include injunctive norms (what is approved of by others) and descriptive norms (what the majority is doing; Cialdini et al., 1990). In the past, a combination of these norms has been used to influence behavior. It is often assumed that a mixture of high injunctive norms and high descriptive norms is the most effective in increasing behavior, but recent research found that this is not always the case. Specifically, a study done on charitable donations found that a mixture of high injunctive norms and low descriptive norms increased positive attitudes and donation amount (Eyink et al., in prep). In the current study, we are examining student participation in course evaluations. Despite their importance, participation is often very low (Guder & Malliaris, 2013). To determine if social norms can be used to increase participation, students in a section of Introduction to Psychology will receive a course evaluation email containing high injunctive norm, a combination of high injunctive and low

descriptive norms, or a combination of high injunctive and high descriptive norms. For a high injunctive norm, the email will state that course evaluations are important and helpful. For high and low descriptive norms, the email will state that either many students complete course evaluations or few students complete course evaluations. We will look at who clicked on the survey link and the amount of time spent on the evaluation of students who opened the email. We predict that those who receive an email containing high injunctive and low descriptive norms will be more likely to click on the link and spend more time on the evaluation.

Development of the Social Self-Esteem Questionnaire

Kristina Yang, University of Southern Indiana

Faculty Mentor: **Dr. Urska Dobersek**

The Rosenberg Self-esteem Scale (RSS) is among the most frequently used self-report questionnaires in academic research to examine self-worth. However, some researchers argue that RSS is too generalized and may not account for all the facets that make up self-esteem. As such, other scales were developed to assess these facets, including social self-esteem. Previous research described social self-esteem as self-comparison to others in social situations or skill in social situations. These served the purpose of creating several measurements, such as the Social Self-esteem inventory. However, these measures typically exclude the aspect of social self-comparison and define social self-esteem as confidence in social skills. Thus, there is a gap in the research of social self-esteem that simplifies it to one factor rather than a multifactor structure. In this study, I aim to address this gap and develop a new measurement to include these two factors. Therefore, the purpose of this study is to investigate the psychometric properties of the proposed Social Self-esteem Questionnaire (SSQ). Data collection is still ongoing with the expected sample size of 50 participants. Participants will be recruited using a convenience sampling via SONA or the psychology subject pool. Participants will be asked to complete an online Qualtrics survey that will include a demographic questionnaire, SSQ, RSS, Ten Item Personality scale, and Shyness scale. Data analysis will include testing the psychometric properties of the SSQ using convergent validity, divergent validity, and exploratory and confirmatory factor analysis.
