2023 SPA Conference PATS Lab Itinerary

March 29 – April 2, 2023

Page	Date	Time	Presenter	Title
	Th, 3/30	4:30–6:00PM	Cole Morris	SPA Awards Ceremony & Bruno Klopfer Lecture *Best Student Paper of the Year*
1	Th, 3/30	6:00–7:00PM	Michael LeDuc	Testing The Interpersonal Theory of Suicide: Comparing The MMPI-3 To the Interpersonal Needs Questionnaire
2	Th, 3/30	6:00–7:00PM	Tina Greene	Using The Minnesota Multiphasic Personality Inventory–3 (MMPI-3) To Assess Individuals with Posttraumatic Stress Disorder (PTSD) Using A Clinical Interview
3	Th, 3/30	6:00–7:00PM	Ashlinn Peters	Associations Between Problematic Eating Behaviors, The MMPI-A-RF, And Interpersonal Dimensions in Healthy Adolescents
4	Th, 3/30	6:00–7:00PM	Tristan Herring	Associations Between Somatic and Thought Dysfunction Via the Minnesota Multiphasic Personality Inventory - Adolescent-Restructured Form (MMPI-A-RF) And Perceived Problem-Solving in Sibling Dyads.
5	Th, 3/30	6:00–7:00PM	Bryce Robinson	A Meta-Analysis and Literature Synthesis of the MMPI-2-RF Over-Reporting Scales in Veterans and Active-Duty Samples / Speaker's Corner
6	Fri, 3/31	3:45–4:15PM	Keegan Diehl	Comparing Scores of Latinx and Non-Latinx Justice-Involved Youth on the MMPI-A-RF: A Pilot Study / Speaker's Corner
7	Fri, 3/31	3:45–4:15PM	Megan Keen	Psychological Assessment Training in Counseling Psychology Doctoral Programs: Trends in Curriculum, Measure Coverage, & Assessment Use / Speaker's Corner
8	Sat, 4/1	9:00–10:30AM	Dr. Paul Ingram	Looking Ahead: Conversations on the Past, Present, and Future of the Personality Assessment Inventory (PAI)
9	Sat, 4/1	3:15–3:45PM	Alexandra Bammel	Clinical Profiles of Justice-Involved Youth Based on Reactive and Proactive Aggression
10	Sat, 4/1	5:30–6:30PM	Tristan Herring	MMPI-2-Restructured Form (MMPI-2-RF) Cognitive Complaints (COG) Scale in an Active-Duty Sample With MTBI
11	Sat, 4/1	5:30–6:30PM	Amelia Evans	Pre-Performance Evaluations with Division 1 Student Athletes: Examining The MMPI-3'S Prediction of Treatment Use Following Assessment Feedback
12	Sat, 4/1	5:30–6:30PM	Kassidy Kox	Is It 'Normal' Routine Or 'Clinical' Compulsivity?: Assessing Student Athlete Pre-Performance Evaluation Results with the MMPI-3
13	Sat, 4/1	5:30–6:30PM	Ashlinn Peters	Classification Accuracy of the MMPI-3'S Eating Concerns (EAT) Scale Using the Eating Disorder Examination as the Criterion / Speaker's Corner
14	Sat, 4/1	5:30–6:30PM	Cole Morris	Intersecting Identities: Masculine Gender Norm Values And MMPI-3 Pathology Endorsement

Testing The Interpersonal Theory of Suicide: Comparing The MMPI-3 To the Interpersonal Needs Questionnaire

Michael K. LeDuc, Victoria Knebel, Samuel Clendenen, Sarah E. Victor, Paul B. Ingram, and Sean M. Mitchell

Background: In 2020, suicide was the second leading cause of death among youth and young adults (CDC, 2021). Suicide ideation (SI) and suicide attempts (SA) are even more prevalent and continue to rise among young adults relative to other age groups (SAMHSA, 2021; Twenge et al., 2019). The Interpersonal Theory of Suicide (ITS) is a framework for understanding suicidal behavior and proposes that suicidal desire arises from the combination of perceived burden (PB; i.e., feelings of self-hate and liability on others) and thwarted belonging (TB; i.e., loneliness and lack of reciprocal caring relationships; Joiner, 2005; Van Orden et al., 2010). These constructs have been primarily measured using the 15-item Interpersonal Needs Questionnaire (INQ; Van Orden et al., 2012; Chu et al., 2017). Some have also created proxies of TB and PB using the Minnesota Multiphasic Personality Inventory (MMPI; Anestis et al., 2018). However, there is a lack of rigorous research comparing the best measurement strategies for these constructs.
Aims: We will directly compare TB and PB assessed by the INQ-15 and the MMPI-3 among college students with elevated depressive symptoms. We hypothesize that TB and PB indices derived from the MMPI-3 will be more strongly associated with concurrent SI and SA and prospective SI.

Methods: Data collection has been completed using a short-term longitudinal design of 123 full-time college students who were pre-screened for at least moderate depressive symptoms (score ≥ 10 on the PHQ-9) with valid MMPI-3 profiles. TB and PB will be derived from MMPI-3 scales following a scale weighting procedure adapted from Anestis et al. (2018). Lifetime history of SI and SA was assessed at baseline, and past two-week SI was assessed at two, four-, and six-weeks following baseline. The sample includes 76% who had ideation within the past 12 months, 17% who had planned for suicide in the past year, and 17% had at least one prior attempt. Point-biserial correlations, odds ratios, and areas under receiving operating characteristic (ROC) curves will be calculated. We will directly compare the strength of the associations between the INQ variables, the MMPI-3 variables, and the suicide-related outcomes.

Results and Expected Findings: Participants ranged from 18–26 years old (M = XX, SD = XX) and were primarily cisgender women (XX.XX%). Participants were primarily White (XX.XX%), and over one-quarter identified as Hispanic/Latinx (XX.XX%). Based on literature, higher TB and PB indexed by the INQ-15 and MMPI-3 will be significantly positively associated with history of SI and SA, and prospective SI (Chu et al., 2017). Models including TB and PB as simultaneous and separate predictors will be significant, though PB is expected to have a stronger relationship with SI and SA (Chu et al., 2017). Finally, although never tested in a college student sample, MMPI-derived TB and PB will demonstrate improved predictive accuracy over the INQ as the MMPI-3 includes greater content coverage of ITS constructs than the INQ (Anestis et al., 2018). These data have been collected, and final analyses will be presented.

Using the Minnesota Multiphasic Personality Inventory–3 (MMPI-3) to Assess Individuals with Posttraumatic Stress Disorder (PTSD) using a clinical interview

Tina E. Greene[1], Megan A. Keen[1], Ashlinn S. Peters[1], and Paul B. Ingram[1]

[1]Department of Psychology, Texas Tech University

This study examined the ability of the recently released Minnesota Multiphasic Personality Inventory–3 (MMPI-3)'s ability to differentiate individuals diagnosed with posttraumatic stress disorder (PTSD) from those without such a diagnosis. Previous research has provided robust support for earlier versions of the MMPI in PTSD assessment. Emerging work on the MMPI-3 suggests similar levels of support; however, research has not yet examined the MMPI-3's classification accuracy of PTSD groups derived from formal diagnostic criteria. This study expands previous work on PTSD classification from the MMPI-2-RF (Sellbom et al., 2012; Wolf et al., 2008) and the MMPI-3 (Keen et al., in review). College students were recruited via SONA and given the MMPI-3, collateral measures, and the Clinician Administered PTSD Scale–5 (CAPS-5) structured interview, from which PTSD/no-PTSD groups were created.

Data collection started September 2022 and we have already achieved a sample size of 11 (Age *M* = 18.27, Life Events Checklist [LEC] = 73% met Criterion A [physical assault = 45%, Sexual Assault = 18%], CAPS-5 *M* = 12.36, *SD* = 9.31, Range = 1 - 27; PCL-5 *M* = 23.82; *SD* = 16.56, Range = 6 - 53). Of these, one met diagnostic criteria for PTSD (CAPS Score = 27, PCL-5 Score = 39). We have prescreened 1,087 college aged individuals, of which 230 (21%) met screening Criteria for PTSD based on the PCL-5 (score ≥ 33). CAPS-5 interviews were completed by a graduate student with a masters' degree, following the completion of training by the National Center for PTSD. A secondary coder who also completed the training was present for each interview and instances of scoring disagreement were resolved through discussion and consultation (*K* = .94). We are scheduling 5 individuals per week for assessment to fill both the PTSD and no-PTSD groups, and college student data collection is anticipated to be completed by December 2022.

Preliminary results indicate large positive relationships between internalization scales and both self-report PTSD symptoms (e.g., *r* = .81[ARX], *r* = .85 [RC7], *r* = .64 [RCd], *r* = .20 [RC2]) and clinician endorsed clinical interview score (e.g., *r* = .71 [ARX], *r* = .72 [RC7], *r* = .64 [RCd], *r* =.26 [RC2]). Correlations between ARX (*M* = 61.09, Range = 48 - 81, %T65 ≥ 36%) and CAPS-5 PTSD clusters were moderate in effect size (*r* = .44 [cluster B] to .62 [cluster E]). Sensitivity, specificity, and predictive utility of the MMPI-3 scales will be presented, along with mean substantive scale differences between the PTSD/no-PTSD groups. Additionally, the poster will present results from a series of incremental analyses (i.e., binary hierarchical logistic regression for diagnostic condition and linear hierarchical regressions for symptom severity and total symptom endorsement), contrasting ARX to other internalizing scales. Funding was recently secured to recruit a separate, community-based Veteran group, with recruitment starting in January of 2023. Preliminary analyses for that sample will also be included to evaluate the generalizability of findings.

Keywords: MMPI-3, Psychological Assessment, PTSD, Veteran, College Student

Associations Between Problematic Eating Behaviors, The MMPI-A-RF, And Interpersonal Dimensions in Healthy Adolescents

Peters, Ashlinn S., Keen, Megan A., M.A., M.S., Morgan, Derek D., M.A., Greene, Tina E., Ingram, Paul B., Ph.D., Christy R., Ph.D.

Up to 29% of adolescents engage in disordered eating behaviors (e.g., unhealthy weight control behaviors, binge-eating; Yoon et al., 2020). Eating disorders account for 3.3 million deaths a year, with the onset of these problems typically starting in adolescence (Slane et al., 2014). Thus, it is critical we identify risk factors, develop effective assessments to capture these behaviors, and put preventative measures in place. The Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF; Archer et al., 2016) is a measure of psychopathology and personality widely used in adolescent assessments, though it has no scale designed to capture eating behaviors. The recently updated adult counterpart to the MMPI-A-RF (i.e., the MMPI-3) includes the Eating Concerns (EAT) scale, which assesses for disordered eating patterns; however, the MMPI-A-RF has yet to add such scale despite the prevalence and developmental trajectory of these concerns in adolescence. Moreover, there are no studies which examine the relationship between disordered eating pathology and the MMPI-A-RF, and there is limited information about sibling closeness and its relationship to problematic eating behaviors. Despite the evidence that adolescents undergo significant changes in regulatory abilities (Cracco et al., 2017) and family relationships (Lam et al. 2012), and that these shifts affect their adjustment (Farley & Kim-Spoon, 2017), it is unclear how developing regulation and family factors relate to eating behaviors during adolescence. Thus, we investigated associations between problematic eating behaviors and MMPI-A-RF scales, and associations between problematic eating behaviors and other salient factors including family closeness, family conflict, and emotion regulation.

Adolescent sibling dyads (*N*=15 adolescents) reported on problematic eating behaviors (EDE-QS), mood (PANAS), emotion regulation (DERS), parent and sibling closeness (URCS), behavioral affect (BARS), family adaptability/cohesion (FACES), and family conflict (Family Conflict). Older adolescent siblings (*n*=7) completed the MMPI-A-RF. Problematic eating behaviors were positively and meaningfully related to MMPI-A-RF scales assessing internalizing (RCd, RC7, OCS, STW, AXY, ANP, NEGE-r; *r*=.30-.85) somatic (RC1, NUC; *r*=.33-.43), and asocial/antisocial dimensions (RC9, ASA, NPI, AGG, AGGR-r, FML, DSF; low scores on IPP & SHY; *r*=.29-.83). Negative relations were demonstrated with thought dysfunction dimensions (RC8, PSYC-r; *r*=.28-.53) and specific fears (BRF; *r*=.49). In addition to relationships with reported disordered eating, additional correlates of the MMPI-A-RF scales will also be presented, including for self-esteem (e.g., LSE/RC9; r =.42), anxiety (GAD7/RC7; r=.95) and depression (PHQ-9/RCd & RC7; r=.76 & .93, respectively). Regarding family context variables, eating problems demonstrated significant and positive correlations with emotional functioning issues (*r*=.29-.59), sibling support and closeness (*r*=.37-.48), and family conflict (*r*=.40-.71). These findings suggest the need to further develop assessments and investigate moderating factors involved in family relationships and problematic eating. Data collection is ongoing and final analyses will be presented at the conference.

Associations between somatic and thought dysfunction via the Minnesota Multiphasic Personality Inventory -Adolescent-Restructured Form (MMPI-A-RF) and perceived problem-solving in sibling dyads.

Herring, T.T., Keen, M., Morgan, D., Ingram, P.B., & Rogers, C.R.

Background: Executive functions rapidly develop during adolescence. Subjective executive function performance can be measured in adolescents via the MMPI-A-RF somatic/cognitive complaint scales as well as scales measuring dysfunctional thoughts. Given that adolescence is also characterized by increased social sensitivity, examining problem-solving in salient social environments may broaden our understanding of EF development. Although a plethora of research points to peer evaluation and support as influential on adolescent wellbeing, one developmentally salient relationship for adolescents also includes the sibling relationship. Navigating conflicts within sibling dyads provides a safe and opportune space for adolescents to practice and learn EF strategies. As part of an ongoing study, we examined how sibling dyads respond to common conflicts and problem solve those conflicts. This pilot study explored associations between scores on MMPI-A-RF scales measuring somatic/cognitive complaints and thought dysfunction and older sibling's perceived dyadic problem-solving effectiveness.
Method: At Time 1 during a longitudinal study, we administered the MMPI-A-RF to older adolescents and presented sibling dyads with a 15-minute conflict task that displayed contentious topics they both highly ranked as highly contentious and problematic (e.g., chores). Dyads discussed conflicts and how to solve the problem during this task. After, they rate how they performed on this task—including questions about how positive they felt in response to the other adolescent sibling's body language, facial expressions, vocal tone, and content of their words. Siblings also complete the Sibling Problem Solving Scale, which identifies constructive and destructive problem-solving behaviors. For this pilot study, we weighted results from 10 adolescents aged 15.3 years old (*SD* = 1.6) to a sample size of 40. We conducted correlation analyses between MMPI-A-RF scales and indicators of problem-solving.
Results: We observed large, positive associations between destructive social problem-solving and thought dysfunction (*r* =.81), cynicism (*r* =.77), and ideas of persecution (*r* = .81). Conversely, we found large, negative correlations between constructive problem solving and those same thought scales. Somatic/cognitive complaints, and malaise specifically, had large, negative correlations with perceiving positive sibling body language, facial expression, and vocal tone during problem-solving. We observed large, negative associations between thought dysfunction and perceiving positive vocal tone (*r* =-.54) and word content (*r* =.-55). Likewise, positively perceived wording has a large, negative correlation with cynicism (*r* =-.76). These results suggest that MMPI-A-RF scales measuring thought dysfunction and somatic/cognitive complaints associate with adolescent problem-solving behaviors in sibling dyads, such that constructive problem-solving and perceiving positive verbal and nonverbal social cues during problem-solving associates with less cognitive and somatic problems in adolescents.
Discussion: Findings suggest that the MMPI-A-RF scale scores are associated with destructive problem-solving behaviors and conflict resolution perceptions in sibling dyads. As we continue collecting data, we will monitor how these correlations change and if other scales (e.g., COG) correlate with problem-solving behaviors. Relationships with the interpersonal scales will also be presented and explored. The completed study will examine associations between social problem solving in sibling dyads and executive functions both perceptually (as reported here) and behaviorally.

A meta-analysis and literature synthesis of the MMPI-2-RF Over-reporting scales in Veterans and Active-duty samples

Robinson, B. & Ingram, P.B.

Active-duty service members and Veterans (ADaV) face unique mental health needs, including higher and more severe rates of numerous forms of psychopathology. Moreover, validity scales of the MMPI-2-RF are less effective in ADaV populations, because of not just the elevated scale scores (Ingram et al., 2021) but also the scales moderation by frequent forms of psychopathology (e.g., PTSD; Ingram & Ternes, 2016). Seven studies (Veteran=4; Active-Duty=3) have examined the MMPI-2-RF validity scales with ADaV individuals, with effect sizes for the over-reporting scales varying greatly: $M_{unweighted}$ = 1.17 [Large], Range = .3 [Negligible; F-r] to 1.95 [Large; Fp-r] We expand research on the MMPI-2-RF by synthesizing literature on the over-reporting scales of the MMPI-2-RF with ADaV populations using Fixed and Random Effects meta-analyses, including analysis of potential moderators specific to ADaV populations (e.g., era of service, evaluation setting, handling of cases undergoing disability evaluation, etc.).

To identify studies for the meta-analyses, we searched Social Sciences databases via Google scholar and Psych Info using keywords ("mmpi*", "mmpi-2-rf", "malinger*", "Veteran", "Active Duty", "Minnesota Multiphasic Personality Inventory", "overreport*", "feign*" or "faking"). We also conducted a forward and backward search of prior MMPI-2-RF meta-analyses. Means, standard deviations, and sample sizes were collected for studies and, in most cases (k=7), means use MMPI-2-RF linear t-scores. A minority report raw scores: however, calculation of d using raw scores were still usable and produce viable standard effect metrics. Fixed effect meta-analyses for each of the over-reporting scales range in effect from .75 [95% Confidence Interval = .60 to .90; Fp-r] to .93 [95% Confidence Interval =.80 to 1.05; FBS-r], with effects falling in the medium to large effect range (80% large effects; $d \geq .8$; Cohen, 1988). Observed effects are lower than those typically seen in prior meta-analyses (e.g., Fp-r g_{pooled}= 1.43 and FBS-r g_{pooled} = 1.04; Ingram & Ternes, 2016) which include broader population sampling.

This study underscores the contextual and population specific needs of ADaV populations. Means for AD were substantially lower than Veteran means across both Pass and Failed groups, however, subgroup analysis is not possible within mixed (random) effects because of low group counts for AD individuals. Lower AD means coincide with substantial variation in study effects across scales ($d\Delta Mean$=.79), ranging from F-r with a medium effect ($d\Delta$=.43) to RBS with a large effect ($d\Delta$=1.03) differences. Further study with AD is needed. Some other moderators will also not be possible within random effects model due to an insufficient number of studies for those moderators. Despite this difficulty, random effect models will also be calculated and presented as part of this project. We will also present frequencies of ADaV specific moderators which did not have sufficient study for inclusion, but which should be listed in future studies with these populations. Results suggest a need for increased focus on conducting studies with ADaV populations and evaluating assessment validity and utility of the over-reporting scales distinctly from other populations. Implications of findings, as well as moderator coding feasibility and findings, will be presented in the poster.

Comparing scores of Latinx and Non-Latinx Justice-Involved youth on the MMPI-A-RF: A Pilot Study

Keegan J. Diehl[1], Sarah Hirsch[1], Becca Bergquist[1], Adam T. Schmidt[1], & Paul B. Ingram[1,2]
[1]Texas Tech University
[2] Eastern Kansas Veteran Affair Healthcare System

Justice-involved youth often undergo psychological assessments at each intercept with the legal system (DeMatteo et al., 2016). One of the most utilized broadband personality assessments for adolescents is the Minnesota Multiphasic Personality Inventory (MMPI) family of instruments (Cashel, 2002), of which the MMPI-Adolescent-Restructured Form (MMPI-A-RF; Archer et al., 2016) is the most recent version intended for youth. While research into the MMPI-A-RF grows, the representativeness of racial and ethnic minorities during its validation, development, and norming provides little assurance of generalization within these populations given the changing census needs (see Ben-Porath & Tellegen, 2020). This underrepresentation has numerous clinical and forensic implications, such as failure to detect differing symptomology presentation and responding styles which are culturally bound. Therefore, this study evaluated differences among Latinx and non-Latinx justice-involved youth on the MMPI-A-RF. We hypothesized scale scores on the MMPI-A-RF will generally differ negligibly between Hispanic/Latinx and Non-Hispanic/non-Latinx Youth; however, medium effect differences are expected on scales measuring somatic/cognitive complaints (Hispanic/Latinx > Non-Hispanic/Non-Latinx), consistent with common symptom presentation patterns across ethnicity. Participants are juveniles on probation, deferred status, or detained at a local detention center in the southwest United States (n = 58), with age ranges 14 to 17 (M = 15.4; SD = .92). Participants were mostly male (61.7%) and self-identify as Hispanic/Latino (n = 18; 38.3%), Black, (n = 13; 30.2%), White (n = 8; 17%), or other (n = 4; 8.5%). Participants were excluded based on the standard valid profile recommendations on the MMPI-A-RF (TRIN, VRIN, CRIN, F, L, or K), resulting in 43 valid cases (74%). Twenty-nine valid cases (62%) were from detained youth. Mean scores of the overall sample were relatively comparable to comparison groups in the technical manual (T-score difference <|5|); however, notable variations were evident on several internalizing, somatic, and interpersonal scales (e.g., EID, STW, HPC, RC3, etc.), as evidenced by less than a medium effect size (≥T-score 5-point difference). Differences between Hispanic (n = 18) and non-Hispanic individuals (n=25) were assessed across each MMPI-A-RF substantive scale. Contrary to expectation, the Hispanic/Latin-X group endorsed modestly more pathology (e.g., g = .25 [THD], .33 [BXD]), particularly on externalizing scales (g = .26 [NSA] to .40 [AGG]). Examination of substantive scale elevation rate (T≥60) found most scales had negligible to small differences; however, two scales had larger differences (φ ≥ 60 = -.49 [NUC] to -.65 [FML]). Conversely, there were a greater range of differences at T≥70, ranging up to moderate effects (φ = .31 [AGG, SUB]). In general, results support the idea that scales on the MMPI-A-RF generally differ with small/negligible effects between Hispanic/LatinX and Non-Hispanic/non-Latinx youth. Implications for the multicultural appropriateness of the MMPI-A-RF will be discussed, as well as next steps in expanding the Hispanic/LatinX comparison data for incarcerated juveniles.

Psychological Assessment Training in Counseling Psychology Doctoral Programs: Trends in Curriculum, Measure Coverage, & Assessment Use

Megan A. Keen[1] & Paul B. Ingram[1,2]
[1]Texas Tech University
[1] Eastern Kansas Veteran Affair Healthcare System

Assessment training varies greatly between programs while still meeting APA guidelines. Variations in training experiences impact student outcomes and the field more broadly (Bergquist et al., 2022). Some previous work has documented training trends in APA-accredited doctoral programs, but has largely focused only on Clinical Psychology (Mihura et al., 2017). Training Directors from APA-accredited Counseling Psychology doctoral programs have not yet been similarly surveyed despite these programs representing an important part of health psychology and producing psychologists who provide equitable professional services. While research suggests robust similarities between clinical and counseling psychology programs, several important differences in assessment training remain. For example, previous research has suggested that counseling students go on to conduct more vocational assessments and less projective and intellectual assessments than clinical students (Norcross et al., 2020). We surveyed training directors of APA-accredited counseling psychology doctoral programs to determine current training trends in the field and provide a comparison to existing clinical psychology programs. Directors of clinical training (DCT) from the 74 APA-accredited counseling psychology programs were contacted by e-mail. Of the 51% (n = 38) of programs who provided responses, most used a Scientist-Practitioner model (74%), although Practitioner-Scholar/Scientist (18%) and other models (e.g., Practitioner-Scholar; 8%) were also represented. Respondents reported their personal research lines as largely being related to Vocational (42%) and Personality (32%) assessment. Respondents reported curriculum coverage of diagnostic systems, assessment domains (e.g., personality, cognitive), and specific measures. In our sample, the DSM was a required component of all programs. The ICD was the second most covered diagnostic system (69%). Programs rarely covered PDM, AMPD, and HiTOP diagnostic models (13% to 22%). Additionally, nearly all programs (97%) reported requiring training on clinical interviewing and the WAIS-IV. Most programs also covered the WISC-V, the Strong Interest Inventory, the PAI, and the MMPI family of instruments (not covered: 3% to 16%). Adolescent-specific assessments and performance-based measures were the least likely to be included in required or elective curricula, highlighting an under-covered population frequently in need of assessment services. Respondents also indicated the average assessment competence of students graduating from their program across several domains (e.g., intelligence testing) as well as the estimated proportion of their graduated students who participate in various fields of assessment based on data collected for APA accreditation. On average, respondents estimated that their students went on to conduct diagnostic/personality (47%) and intelligence (32%) testing regularly. Career outcomes involving developmental disorder, health-related, and vocational assessments were uncommon (M = 16% - 19%). All programs indicated that they believed their students graduated with at least average competence in self-report measures and, on average, indicated that they believed they possess average to above-average competence in intelligence testing and vocational assessment. Below-average competence was reported in the areas of health, neuropsychological, performance, and forensic assessment. In general, these patterns are consistent with those in clinical programs and in the professional literature more broadly. Counseling programs seemed to include more vocational assessment training and less child and performance-based assessment training than do clinical programs.

Looking Ahead: Conversations on the Past, Present, and Future of the Personality Assessment Inventory (PAI)

Presenters:

Les Morey, PhD, George T. and Gladys H. Abell Professor, Texas A&M University
Paul Ingram, PhD, Assistant Professor, Texas Tech University
Sierra Iwanicki, PhD, Project Director, Psychological Assessment Resources, Inc.
John Kurtz, PhD, Professor, Villanova University

The purpose of this roundtable discussion is to share perspectives on the history, current status, and future of the Personality Assessment Inventory (PAI). The session will include two distinct parts: first, discussion between panelists, and second, dialogue between the audience and the panelists. We hope to provide attendees with a unique networking opportunity as well as an open discussion forum centered around the PAI.

Clinical Profiles of Justice-Involved Youth Based on Reactive and Proactive Aggression

Alexandra C. Bammel, B. S. (1); Becca Bergquist (1); Adam T. Schmidt, Ph.D. (1,2); & Paul B. Ingram (1,3)

1. Department of Psychological Sciences, Texas Tech University, Lubbock, Texas
2. Center of Excellence for Translational Neuroscience and Therapeutics, Texas Tech University Health Sciences Center, Lubbock, Texas
3. Eastern Kansas Veterans Affair Healthcare System

Conduct problems involving aggressive behavior and violation of the rights of others are common among justice-involved (JI) youth and have significant implications for mental health and public policy. Callous-Unemotional (CU) traits refer to a lack of empathy; a lack of preoccupation with one's performance; and a reduced range of affect. CU traits are an important distinguishing characteristic for youth with more severe, more stable antisocial tendencies (Frick et al.,2014). More specifically, CU traits reflect the affective dimension of psychopathy among adults and of conscience in children (Frick et al.,2014); are linked to more gun carrying/usage (Robertson et al., 2020); and are associated with worse psychosocial impairment (Graziano et al., 2016). The importance of CU traits in distinguishing more severe antisocial behavior has also been formally recognized through its use in the "Limited Prosocial Emotions" DSM specifier for Conduct Disorder (APA, 2022). Thus, JI youth with heightened CU traits represent a particularly important population in a focus to reduce more serious offending among JI youth. We used the Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF) to evaluate the clinical profiles of JI youth who exhibit different levels of CU traits to gain a better understanding of clinical targets for JI youth. Our sample included 64 juveniles detained in a local juvenile detention center in large Southwestern state. Youth (Age M=15.06) were predominantly male (69.8%) and identified primarily as either Latino (48.3%), African American (25%), or White (12.5%). Twenty-two youth were excluded for missing variable information and five were excluded based on standard valid profile exclusion criteria. The remaining 37 youth were split into two groups: higher (n=18) and lower (n=19) CU traits based on XXXX. Differences were examined using independent samples t-tests for scale means and Chi square for scale elevation frequency (score≥T60). Mean differences are summarized for this abstract. Groups differed meaningfully across a variety of scales with high CU trait individuals reporting greater negative emotionality/neuroticism (p=0.042; d=0.21) and dysfunctional negative emotions (p=0.04; d=0.193). Conversely, youth with lower CU traits exhibited more obsessive-compulsive symptoms (p=0.005; d=0.63); antisocial attitudes (p=0.012; d=0.40); anger proneness (p=0.045; d=0.30); and social avoidance (p=0.013; d=0.08), with generally medium effects. However, youth with higher CU traits. Findings suggest distinct clinical profiles for youth with greater CU traits compared to youth with less CU traits. Greater social disengagement, negative emotionality, and obsessive-compulsive thoughts are evident among JI youth compared to non-JI youth on the MMPI-A-RF (Connelly, 2021). This research suggests that these pathology patterns may further differ based on a youth's CU traits. Thus, a greater focus on increasing the range of positive emotionality may be a particularly worthwhile treatment target for JI youth with high CU traits to decrease mental health symptoms and criminal offending among this high-risk population. Alternatively, a greater focus on social skills and anger management may be more relevant for JI youth with less CU traits.

MMPI-2-Restructured Form (MMPI-2-RF) Cognitive Complaints (COG) Scale in an Active-Duty Sample with mTBI

Herring, T.T., Armistead - Jehle, P., & Ingram , P.B.

Background: Research on the Somatic/Cognitive scales of the MMPI-2-RF is limited. Past studies on the cognitive complaints (COG) scale primarily explore its potential to discern between epileptic and non-epileptic seizures as well as the scale's relationship with non-credible neurocognitive performance. One simulation study found a higher percentage of COG elevations in participants simulating head injury than controls with no association between the COG scores and neuropsychological performance. This study builds on the literature by providing expanded neuropsychological testing correlates of the somatic/cognitive scales in an active-duty military sample with and without mild traumatic brain injury (mTBI), and focuses extensively on COG given its specific focus on attention, concentration, and the type of executive processing commonly assessed in neurocognitive evaluations.

Methods: Following standard validity exclusions, we compared MMPI-2-RF somatic/cognitive complaints scales scores in 125 active-duty service members across (1) those with (*n=87)* and without (*n*=38) mTBI and (2) those with (*n=62)* and without (*n*=63) elevations on COG. Our sample was predominately male (93.6%), white (80%) and 34.5 years old (*SD*= 8.6). Participants had 15.3 years of education (*SD*= 2.3), an average of 4 concussions (*SD*= 5.5), with 60.7 months (SD= 52.4) since last TBI. T-tests, correlational, and Chi Square analyses were conducted between groups (mTBI/no-mTBI and $COG_{elevated}$/$COG_{notelevated}$) on somatic/cognitive scale scores, standalone cognitive SVTs and PVTs, and neurocognitive testing performance.

Results: We found more elevations on Somatic/Cognitive scales and a higher percentage of performance validity test failure in those with mTBI (44.8% RC1≥ T65; 16.% NV-MSVT; 22.9% MSVT; TOMM Trial 2 15.2%) and the COG≥T65 group (48.4% RC1≥ T65; 18.5% NV-MSVT; 23.3% MSVT; TOMM Trial 2 20%). Results focused on COG are presented in this abstract to demonstrate some observed patterns. Correlations between COG and neuropsychological testing were generally negligible in effect, and evidenced small/moderate negative relationships in a minority of cases (e.g., r = -.03 − -.42). Relationships between standalone cognitive SVT were moderate to large (r = .36-.71) while PVT relationships were modest (v = .07-.17). Correlations for the remaining MMPI-2-RF Somatic/Cognitive scales will be presented in the poster. Elevations on the Somatic/Cognitive scales were associated with mTBI and other somatic/cognitive complaints; however, elevations on the Somatic/Cognitive scales do not relate to neurocognitive testing performance. Implications for use of the MMPI-2-RF in mTBI and active-duty personnel are discussed.

Pre-Performance Evaluations with Division 1 Student Athletes: Examining the MMPI-3's Prediction of Treatment Use Following Assessment Feedback

Evans, A., Kox, K., Keen, M., Bradstreet, T., & Ingram, P.B.

Approximately 16% of undergraduate and 13% of graduate students experience mental health concerns, and athletes accounting for a substantial 4% of all students. College athletes undergo additional stressors (i.e., increased academic pressures, longer playing seasons, pressure from coaches) and are more susceptible to mental health issues due to the demands of athletic participation (Torstveit, 2004). To help early identification and treatment of mental health among athletes, the National Collegiate Athletic Association (NCAA) requires pre-season mental health screening of new and transfer athletes, and recommends athletes regularly meet with a multidisciplinary team to discuss mental and physical health (Hong et al., 2018). The mental health screening (i.e., preperformance evaluations [PPE]) are an important resource for recognizing health conditions that preclude safe participation in sports (Seto, 2011), and should use a standardized and validated instrument to screen for mental health concerns.

Given the requirements for mental health screening, this study expands the limited research on effective evaluation and monitoring of these needs. While past work has focused primarily on screening measures (e.g., PHQ, GAD; Survey questions), we examine the utility of the MMPI-3 and provide preliminary comparison groups to enable effective use in student athlete populations. One prior study has similarly examined student athletes using the MMPI-2-RF (Leonelli et al., 2020), with findings indicating more frequent under-reporting and a tendency for pathology to predict service utilization. With new scales and revised norms, this study expands data on the feasibility and utility of the MMPI-3 in PPEs.

All incoming student athletes (*n*=105) underwent the PPE process at a large Division I university in the southwestern united states. Following exclusion for invalid responding, participants (*n*=105 remaining) were mostly male (63.8%). Participants included all university sports, but were primarily Football (*n*=23), Track and Field (*n*=27), or Baseball (*n*=20). Around 20% had a single elevation on a MMPI-3 substantive scale, 12% had two elevations, and 53.3% had 3+ scale elevations. Only 14.3% did not have a single elevation. On average, respondents demonstrated a small to medium effect difference (2 to 5 t-points) above the MMPI-3 normative sample across scales; however, scores were also somewhat lower than those observed on the MMPI-2-RF (Leonelli et al., 2020).

In a subsample (*n = 59)*, we evaluated associations between MMPI-3 substantive scale scores and those who scheduled and attended (n = 13) or did not use (n = 46) mental health services following services being offered during assessment feedback. Several scales demonstrate large differences (e.g., Cohen's d EID = 1.49, RCd = 1.45, DOM = 0.88) Notably, the Cynicism scale (RC3 on MMPI-2-RF) was not associated with increased treatment engagement following the assessment, in contrast to prior work on the MMPI's prediction of treatment in college students. Risk ratios will also be presented for scales with predictive utility of treatment utility. Implications for use of the MMPI-3 in student athlete PPEs are discussed, as well as how research on treatment prediction aligns with past literature on student athletes with the MMPI-2-RF and treatment seeking literature more broadly.

Is it 'normal' Routine or 'clinical' Compulsivity?: Assessing Student Athlete Pre-Performance Evaluation Results with the MMPI-3

Kox, K., Evans, A., Keen, M., Bradstreet, T., & Ingram, P.B.

As a previously overlooked domain of student-athlete wellness, associated entities have begun emphasizing best care practices for mental health over the last decade. One of these "best practices" required by the National Collegiate Athletic Association (NCAA) is pre-participation evaluations (PPE) that include mental health screenings for all incoming student-athletes (NCAA Sport Science Institute, 2016).

Limited research has been conducted on psychological assessment effectiveness in student-athletes PPE evaluations. Most studies, and best practice guidelines, use screening measures rather than clinical assessment instruments (Gouttebarge et al., 2021). However, one study (Leonelli et al., 2020) examined the MMPI-2-RF and found its scales were useful for predicting mental health treatment need and use, particularly for RCd, RC1, RC8, and RC3 sclaes. While impactful to clinical use, elevation frequencies on the substantive scales were not provided, nor did this study contrast performance across sport despite variance in financial and stress levels related to NIL funding and national visibility. Finally, given the recent renorming of the MMPI-3 as well as the novel scales included on the measure (e.g., Eating Concerns, Compulsivity, etc.), this study expands the extant literature by using a mixed-methodology to provide preliminary comparison group data on the MMPI-3 with student-athletes and explore reasons for elevations on the Compulsivity [CMP] scale, which elevated in 45.7% of cases. This study included all athletes undergoing evaluations as part of standard NCAA PPEs at a large Division 1 university in the southwest United States. Following exclusion for invalid responding using standard MMPI-3 interpretive guidelines, participants (n=105) belonged to all university sports, but were primarily Football (*n*=23), Track and Field (*n*=27), or Baseball/Softball (*n*=27).

Around 20% had one MMPI-3 substantive scale elevation, 12% had two, and 53.3% had 3+. Only 14.3% did not have a single elevation. On average, respondents demonstrated a small to medium effect difference (2 to 5 t-points) above the MMPI-3 normative sample across scales; however, scores were also somewhat lower than those observed on the MMPI-2-RF (Leonelli et al., 2020). Moderate to large effect differences were observed between combined gender sport groups (football [male], Baseball/Softball [male/female], Track & Field [male/female], and Basketball [male/female]) on externalizing scales (e.g., BXD η^2=.09, RC4 η^2=.15, JCP η^2=.14), as well as SUI (η^2=.12), CMP (η^2=.12), and others. Football athletes have the most elevated scores of evaluated groups. Given that Compulsivity (CMP) was the most frequently elevated scale (M = 58.7, T65≥45.7%, T75≥13.3%), feedback from a subset of individuals elevating only that scale was gathered for inductive qualitative thematic analysis methods. Those who elevated only CMP and no other MMPI-3 scales were otherwise comparable to those without other elevations. Reasoning for item-level endorsement were gathered and coded, with preliminary coding indicating themes of general/normative organization patterns, sport-related behaviors (double checking practice times, schedule referencing), and some instances of superstitious compulsion. Explanations of item-level trends will be presented. Results support the use of the MMPI-3 for PPEs but suggest that modified interpretation for CMP is warranted.

Classification Accuracy of the MMPI-3's Eating Concerns (EAT) Scale using the Eating Disorder Examination as the Criterion

Ashlinn S. Peters[1], Megan A. Keen[1], Tina E. Greene[1], Nicole M. Morris[1] & Paul B. Ingram[1]
[1]Department of Psychological Sciences, Texas Tech University

Eating disorders are prevalent and highly impactful on both individuals and the general population with an estimated 3.3 million global death a year (Streatfield et al., 2020). The early detection of eating pathology is one of the best methods to mitigate the individual and public health impacts (Moessner & Bauer, 2017). Until the recent release of the MMPI-3, broadband measures of personality and psychopathology have neglected to assess for eating pathology. Thus, the validity of the MMPI-3's Eating Concerns Scale (EAT) has attracted researchers' attention, with findings generally supporting EAT as an effective predictor of dysfunctional eating behaviors in college students (Merek et al., 2021; Morris et al., in review; Vaňousová et al., 2021). These studies have generally relied on correlations to describe relationships between EAT and self-reports of eating, health, and diet behaviors. Conversely, research evaluating EAT's classification accuracy and diagnostic utility for possible eating disorders is limited (Morris et al., in review), as are relationships to non-self-report criteria. There are no studies on EAT's validity with clinical interview, despite clinical interviews serving as a gold standard criterion for diagnostic groups. This study uses the EDE, a widely used clinical interview for disordered eating, to differentiate those who have an eating disorder (ED) and those who do not as well as examine the classification accuracy. College students (BMI M=24.31) were recruited from a study research pool and administered the MMPI-3, the EDE, and collateral measures of eating and health behaviors, then classified based on the EDE as having an ED/no-ED. Clinical interviews were conducted by a trained graduate student, with a second trained researcher also present for the interview (K = .98). Preliminary results based on ongoing data collection (n = 15) have identified 8 individuals (53%) with disordered eating (1=Bulimia Nervosa, 7=Anorexia sans BMI criteria; a pathology level like Atypical Anorexia). EAT (M=54.6, SD=16.9, Range=44-95) is moderately associated with meeting disordered eating criteria (τ=.49), and those with an ED have substantially higher scores (d=1.12; M_{ED}=62.4, SD=20.1, $M_{no\text{-}ED}$=45.7, SD=4.5). Correlations between EAT and health behaviors are generally moderate, but include some large effects (e.g., BMI=.57, regional fatness=.60, repeated weighing=.29, upsetting weight gain value =.40, desire for flat stomach=.16). Receiver operator curve (AUC=.745[.473-1.00]) provided moderate effects with T65 indicating high specificity (1.0, due to lack of false positive elevations on EAT) and moderate sensitivity (.63). Exploratory analysis evaluating social media use and its relationship to disordered eating was also examined, with results indicating of those who use social media (n=15), 73% (n=11) reported social media making their self-image worse, consistent with research on thin beauty ideal and western beauty standards. Follow-up analysis examining different forms of disordered eating are planned as samples grow. Additionally, funding for a community sample screening positively for problematic eating has been secured. Recruitment for that sample will start in January 2023 and this community data will also be presented. Thus far, our research using clinical interviews support the EAT scale. Results will be contextualized within existing literature on ED assessment on the MMPI.

Keywords: MMPI-3, Psychological Assessment, Eating Disorder, College Student, Outpatient, Problematic Eating Behaviors

Intersecting Identities: Masculine Gender Norm Values And MMPI-3 Pathology Endorsement

Morris, N. M. & Ingram, P. B.

Gender is an important consideration for psychological assessment with most research focusing on how the rates and symptoms of psychopathology vary between men and women (Hartung & Lefler, 2019). Research has identified important trends in psychopathology based on categorical gender differences (e.g., sex or binary gender; Eaton et al., 2012); however, these findings omit the known impact of gender socialization and conformity to norms in our understanding of psychopathology (Hartung & Lefler, 2019). For instance, certain masculine gender norms, such as being self-reliant, is associated with negative mental health outcomes and avoidance of help seeking (Wong et al., 2017). No research has linked the impacts of gender norm conformity to commonly used psychological assessment instruments such as the Minnesota Multiphasic Personality Inventory-3 (MMPI-3; Ben-Porath & Tellegen, 2020), leaving a gap in our understanding of how gender norms are related to observed mental health trends on the MMPI-3. Following exclusions based on standard MMPI-3 validity scales, participants were between 18 to 56 years of age (M = 19.97) and mostly women (69.7%), heterosexual (85.9%), and White (74.1%). Two separate sets of Latent Class Analyses (LCA) on (1) the MMPI-3 and (2) the conformity to masculine norms inventory (i.e., CMNI-30; CITATION) were conducted in a sample of 347 college students. LCA models used the MMPI-3 Higher-Order and Restructured Scales (11 indicators) and CMNI-30 for each traditional masculine norm scale (10 indicators). Across both sets of analyses, results suggested 3-class solutions. The 3-class MMPI-3 model indicated normative symptomology (44%), high internalization (20%), and high activation and aberrant experiences (36%) classes. For the CMNI-30, classes were characterized by an average engagement with traditional norms (13%), low sexuality, power over women, and emotional control/self-reliance (37%), and lower sexuality and power over women but higher emotional control/self-reliance (50%). Following LCA analyses, cross-tabulations were conducted to identify patterns of combined pathology and gender norm endorsement. There were notable overlaps between group membership for each LCA. Groups and LCA analyses will be presented in the poster. The high emotional control class is more distributed across symptom patterns, but was the most common in the high internalization and normative symptom groups. Low emotional control was fairly equally distributed across the high activation/aberrant symptoms and normative symptom groups, but less evident for the high internalization group. The average masculine norms group tends to have more activation and aberrant thought experiences. Results provide context about how gender norms correspond with patterns of pathology endorsement on the MMPI-3; however, research validating these symptom patterns pattern groups with external ratings remain needed (e.g., non-self-report). Findings are congruent with research on masculine norms, with conformality associated with mental health difficulties and different masculine norm adherence patterns predicting different symptom experience endorsements. These findings can inform clinical practice and assessment recommendations as certain masculine gender norms provide risk for mental health difficulties. Results have implications for effective, integrative assessment practice and will be discussed.