

**PSYC 459A: Discrepant Results in Mental Health Research
Spring 2025 Syllabus**

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Teaching Assistant (TA)	Graduate TA: Akram Yusuf (aysuf8@umd.edu) Pronouns: she, her, hers
Meetings	Lecture: MW (11am-11:50am); Laboratory: Thursdays (Section 1: 11am-1pm; Section 2: 2pm-4pm)
Office Hours	Mondays and Wednesdays, 12:00pm-1:00pm, Suite 3144 Or feel free to contact either the instructor or TA to arrange an appointment to meet.
Course Overview	I want you to think of some people close to you. Think of someone who at some point, you started noticing didn't seem themselves. Maybe they seemed nervous, sad, distracted, or angry. You might have been one of the few people in their lives who sensed this about them, even though they seemed this way to you for quite some time. Now, think of someone else, a loved one who many others around you were worried about, not just you. How would you know if your loved ones could use help from a therapist? How would a therapist help, and can science answer questions like these? In this class, we'll probe how scientists use facts to answer questions about mental health. Scientists get a lot of practice learning about the complex paths each of our mental health stories take. Scientists learn by listening to our stories. But, they can't just hear what we have to say. Their work requires precision. So, scientists follow a strategy—they administer tests that pull facts from our stories. Earlier, I asked you to think about your loved ones. It turns out scientists rely on people like us to advocate for our loved ones, by serving as informants who provide facts on some of their tests. As a scientist learns more, the facts begin to tell stories of their own. These stories inform estimates—a scientist's best answers to questions about mental health. Some stories help scientists estimate the rates of diagnoses like anxiety, depression, or disruptive behavior. Other stories help scientists estimate the effects of therapies. To make estimates, scientists use lots of tests. After all, we can't see a diagnosis like depression. So, scientists detect diagnoses the best ways they know how—by testing for signs or symptoms of their presence. These are behaviors like avoiding social situations, difficulty sleeping, or destroying property. Each diagnosis includes many symptoms, and each symptom can be difficult to detect. So, any time you've seen rates of diagnoses like depression, anxiety, or disruptive behavior, they're just estimates. These estimates can change, depending on the test. This also goes for anything we think enhances our mental health, like improving our social skills, rethinking how we react to stress, or building a healthy relationship with a therapist. All this means that when scientists test for any one thing, like anxiety or social skills, they do so in many ways. Surveys, interviews, brain scans, saliva tests, behavioral tasks, passive data from our mobile devices. Scientists have designed creative ways to collect facts about mental health. But this creates new problems to solve. This creativity produces a vast ocean of facts. Let's think of these facts like fish in the sea. With all that fish, where do we focus? Historically, the answer to this question has been seemingly straightforward: Focus on the fish who swim in schools. Look for facts that tell the same story. The two studies that both detect benefits in a new therapy for depression. The parent, teacher, and therapist who all agree that a teen needs help with completing chores at home and doing well at school. Let's just say that the only facts that matter are those that tell the same story. This is what scientists call an assumption: That the only truths are found in schools of fish. But, what if most of our facts are not the fish who swim in schools, but rather the fish who swim alone? What if facts about mental health typically point in different directions? What if one study of a therapy revealed that it "worked," but another study of that exact same therapy revealed it didn't work? What if a client receives a battery of clinical tests, but only some tests revealed that the client needs a therapist? How do scientists learn about mental health when the facts they collect vary in the stories they tell? In this innovative class, we answer these burning questions about mental health research. We start by learning about the "origin story" of how scientists collect facts about mental health; a story that begins in the 1800s. We learn how in some ways, scientists started off on a firm foundation to collect facts about mental health. Yet, in other ways, this foundation has held scientists back, because how they collect facts now looks very different than it did centuries ago. We also learn about some compelling facts and the theories that explain them—a great deal of which have been produced here at the University of Maryland—that give you the tools to become critical consumers of mental health research.

Course Level/ Prerequisites	400-Level, Upper-Division, with a PSYC300 (Research Methods) Prerequisite or by Instructor's Permission
Readings	There is one required text for this class: - De Los Reyes, A. (2024a). <i>Discrepant results in mental health research: What they mean, why they matter, and how they inform scientific practices</i>. Oxford University Press. - In addition to this text, select non-text readings serve as material for course reaction papers. There are also four optional texts for this class to supplement the material covered in laboratory: - De Los Reyes, A. (2024b). <i>The early career researcher's toolbox: Insights into mentors, peer review, and landing a faculty job</i>. Springer. - Mooney, C.Z. (1997). <i>Monte Carlo simulation</i>. Sage. - Olson, R. (2015). <i>Houston, we have a narrative: Why science needs story</i>. University of Chicago. - Silvia, P.J. (2007). <i>How to write a lot: A practical guide to productive academic writing</i>. APA. Notes. The storytelling texts connect to one of the course assignments (i.e., group presentation). However, this component will be fully covered in the laboratory meetings and thus does not require reading this text. Similarly, the Monte Carlo simulation text will satisfy anyone curious about the “nuts and bolts” of this tool. However, the course instructor will perform any simulations needed for meetings about these simulations. Beyond this text, if you only wanted a conceptual intro to Monte Carlo simulations, I included additional material as optional readings to download from Canvas. These readings are listed at the end of this syllabus.
Learning Outcomes	In this class, we use the term discrepant results to describe studies that produce different kinds of facts about mental health. At the end of this course, you should be able to demonstrate: - An understanding of theories about discrepant results and methods for interpreting what they mean, - An awareness of strategies for integrating discrepant results. - An ability to design studies and interpret the discrepant results they produce.
Organization of the Class	The class consists of an integrated set of weekly lecture, discussion, and laboratory meetings. I expect you to read the course material, participate in course meetings, and apply what you learn to the course assignments. Each week will begin with a lecture on course content, based on assigned readings. Meetings scheduled for the remainder of the week will consist of a combination of (a) class discussions about the course material and/or (b) laboratory meetings linked to the content covered in lecture and discussion meetings. Unless otherwise specified in the course schedule, each week will consist of three meeting days (Monday lecture, Wednesday class discussion, Thursday laboratory).
Expectations	- Attend meetings, complete assigned readings, and actively participate in class discussions. - Treat fellow students with professionalism and respect.
Names, Pronouns, and Self-Identification	The University of Maryland recognizes the importance of a diverse student body, and I am committed to fostering equitable classroom environments. I invite you, if you wish, to tell me how you want to be referred to both in terms of your name and your pronouns (he/him, she/her, they/them, etc.). The pronouns someone indicates are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more. Additionally, how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity, is your choice whether to disclose (e.g., should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed. I will do my best to address and refer to all students accordingly, and I ask you to do the same for all your fellow Terps.
Department of Psychology Statement on Use of Artificial Intelligence in Courses	Artificial Intelligence (e.g., ChatGPT and other LLMs) are rapidly evolving tools that are certain to have a huge impact on all aspects of our lives. As students, it is critical to understand when and how it is appropriate to use artificial intelligence, and when such use is unethical, inappropriate, or constitutes academic misconduct. Please note that each instructor will have a different approach to AI use for student work, and expectations for AI use might even differ from assignment to assignment in the same class based on the purpose of the learning activity or objectives of the course. Within this course, when in doubt about AI use, please ask me directly. In all cases, students are responsible for ensuring accuracy and integrity of their work, and for abiding by the policies and expectations set forth in each class.
Notice of Mandatory Reporting	As a faculty member, I am designated as a “ Responsible University Employee ,” and I must report all disclosures of sexual assault, sexual harassment, interpersonal violence, and stalking to UMD’s Title IX Coordinator per University Policy on Sexual Harassment and Other Sexual Misconduct. If you wish to speak with someone confidentially, please contact one of UMD’s confidential resources, such as CARE to Stop Violence [health.umd.edu/CARE] (located on the Ground Floor of the Health Center) at 301-741-3442 or the Counseling Center [counseling.umd.edu] (located at the Shoemaker Building) at 301-314-7651. You may also seek assistance or supportive measures from UMD’s Title IX Coordinator, Angela Nastase, by

	calling 301-405-1142 or emailing titlexcoordinator@umd.edu . To view further information on the above, please visit the Office of Civil Rights and Sexual Misconduct's website at ocrsm.umd.edu .
<i>Inclusive Learning Environment and Hate-Bias Reporting</i>	Students will be invited to share their thoughts in class and a diversity of opinions is welcome. Respectful communication is expected, even when expressing differing perspectives. Supporting one's statements with research findings is encouraged. In accordance with free speech statutes, speech that contains threats of violence is prohibited. As a human, behavior-centered discipline, I value a strong understanding of diversity. Diversity refers to differences in race, ethnicity, culture, gender, sexual orientation, religion, age, abilities, class, nationality, and other factors. The Department of Psychology at the University of Maryland is committed to creating a respectful and affirming climate in which all students, staff, and faculty are inspired to achieve their full potential. I believe that actively fostering an affirming environment strengthens our whole department. A department that values and celebrates diversity among its students, staff, and faculty is best able to develop the strengths and talents of all members of the department community. If you experience racism or other forms of bias or hate in this class or any psychology course, then I encourage you to please report the experience to me, and/or report all incidents of hate and bias to the Office of Diversity and Inclusion .
<i>Statement of Basic Needs</i>	Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and who believes this may affect their performance in this course, is encouraged to use the resources listed below for support. • Fostering Terp Success • UMD Campus Pantry • UMD Student Crisis Fund • Counseling Center
<i>Attendance</i>	This is a course with two meeting days for lecture and discussion, and a third day for the laboratory meeting. Each week, the lecture and discussion meetings focus on readings assigned that week. Each week's laboratory meeting is where we apply material covered that week to answer a question linked to the material. To help answer these questions, the course instructor will present scenarios to the class that involve interpreting facts from studies, as well as facts produced by assessments of individual clients. Attendance at all meetings is critical to master course material. Attending all course meetings facilitates your completing the course assignments. Thus, if you will not be in class for a given meeting, please arrange with fellow students to obtain notes on course material discussed at that meeting.
<i>Standard Course Policies</i>	It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include topics like: • Academic Integrity • Student and instructor conduct • Accessibility and accommodations • Attendance and excused absences • Grades and appeals • Copyright and intellectual property Please visit the Office of Undergraduate Studies' full list of campus wide policies and follow up with me if you have questions.
<i>Academic Honesty</i>	As a student in this course, you are responsible for upholding standards of academic honesty. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. Along these lines, the University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all students. For more information on the Code of Academic Integrity or the Student Honor Council, please visit: http://www.president.umd.edu/policies/iii100a.html . Academic Dishonesty is defined in the Code of Academic Integrity as cheating, fabrication, facilitation of academic dishonesty, and/or plagiarism. Students who engage in academic dishonesty on any other assignment for this course will receive a grade of "Fail". There will be no warnings.
<i>Students with Dis/abilities</i>	If you are a student with a documented dis/ability, please arrange to speak with me to discuss accommodations that will help you be successful in class. You must provide documentation of the dis/ability and the recommendation for accommodations must come from the campus' Accessibility & Disability Service .
<i>Religious Observances</i>	You will not be penalized because of observances of religious beliefs. Please notify me regarding any absences for religious observances.

Meeting Format and Recording	All course meetings will occur in-person. I also plan to record all meetings in case you are unable to attend. I will archive all recordings of course meetings, so that only you and your fellow classmates will have access to them. Before each meeting, I will announce that I will record the meeting.
Inclement Weather or Campus Emergency:	If the University is closed due to inclement weather or a campus emergency (you can find this out by looking at the campus website or the snow phone line [301-405-SNOW]), class will be cancelled. Assignments due on the day the university is closed will be due the next class period (e.g., if the Wednesday class is cancelled, assignments will be due the following Thursday). If the campus is closed for an extended time due to emergency, then students will be notified by e-mail regarding how the course will be continued or completed. Please make sure that you have a current e-mail address listed with the University at all times.
Course Grading	Grading for the course follows the traditional alphabetic system, and consists of two assignments: (a) reaction papers to class discussion articles (80%); (b) final group poster presentation (20%). The course grading method was designed with a few key goals in mind: • Maximize the opportunities for you to demonstrate your competency in mastering the course material. The reaction paper portion of your grade will be based on six reaction papers completed throughout the semester. You can choose which reaction papers to complete. You select 3 from reaction paper options 1-5. You select the other 3 from reaction paper options 6-10. This creates more room for error, compared to alternative grading methods (e.g., method based only on midterm and final exam grades means you need to have two great days to perform well in the course). • Shift your motivations and approach to the course. As you will see below, this course includes a lot of reading. I hope this excites you! I sure find this exciting! This is because many of the readings came out only recently, and this means all of us learn this material in collaboration with one another. This includes me. The grading method I use is my attempt to infuse in the class an eagerness to not only learn the course material but also react to it. This is why in this course, none of the assignments require you to memorize course material to earn a good grade (e.g., to get items right on an exam). • Organize your thoughts in advance of course meetings. Each of the reaction papers are due the night before the meeting where we will discuss the reading about which you wrote the paper. This is an honest attempt on my part to ensure that we have an engaging, thoughtful experience together, as we discuss the course content linked to the reaction paper. • Consolidation of course material. The group assignment allows you to not only work together in groups and get to know your fellow classmates, but also to get practice with consolidating or integrating information you learned throughout the semester. As you will learn early in the class, this includes building skills in communicating with others, using well-established principles of storytelling. Multiple course meetings and optional readings facilitate building these skills.
Reaction Paper Format	The reaction paper is a 2-page, double-spaced (in 12-point, Times New Roman font or equivalent) representation of your thoughts regarding each of the individual class discussion readings. As mentioned previously, the reaction papers provide you with a method for organizing your thoughts and questions about the class discussion readings, with the larger goal of promoting lively and challenging course discussions. Each reaction paper should follow the format of: • Brief, 2-4 sentence review of the reading in your own words; • Discussion of the link(s) between the reading's content and the lecture material of that week; and • Questions or comments about the reading. I am giving you a choice on which reaction papers you complete: • You must submit 3 reaction papers out of reaction paper options 1-5. • You must submit 3 reaction papers out of reaction paper options 6-10. • IMPORTANT: You cannot save all your reaction papers for the end of class. You will only be graded on 3 papers submitted from options 1-5, and 3 papers submitted from options 6-10. The following are instructions for submitting reaction papers: • Each reaction paper is due by the evening before class discussion (i.e., if the class discussion is held on a Wednesday, then the reaction paper is due on the Tuesday before, by 11:59pm ET). • Please prepare your paper in Microsoft Word (or Word-compatible format). • Each assignment has its own dedicated block and due date (e.g., If you choose to submit reaction paper 1, then that paper will be due by 11:59pm on Tuesday, February 11th). • From the first day of class, the grading rubric for the reaction papers will be posted on Canvas, so that you all know how your papers will be evaluated.

Reaction Paper Grading	Under my direct supervision, each reaction paper for this course will be graded by a TA. The TA will grade your papers based on the grading rubric posted on Canvas. If you have any questions about grading for reaction papers, please feel free to email me and we can set up a time to meet.
Group Presentation Format	Throughout the class, you will learn a lot about how mental health researchers spend their time. We devote a great deal of our time to delivering lectures in classes like this one. Outside of the classroom, we spend a lot of time communicating with various audiences and in a variety of formats, including books, journal articles, social media, podcasts, articles in popular news, and interviews for documentary series. Across these media formats, the best forms of communication are those where the researcher delivers information about a topic (e.g., treatments for anxiety, risk factors for schizophrenia) to an audience of folks who understands what the researcher is trying to say, and regardless of how much folks know about the topic. When they are communicating effectively, researchers are doing what artists do when they grab an audience's attention—they're telling stories. You've likely heard how important it is to tell stories when preparing personal statements, term papers, essays, and other things you've been asked to write or will write. If you have yet to understand what it means to tell a story and you've been wanting to learn more telling good ones, then not only are we going to talk specifics about storytelling, but also one of your course assignments will put your storytelling skills to the test! The group assignment involves leveraging storytelling skills you learn in class to tell a story about a week of course material that resonated with you. The week of course material you select will be up to you and the group of classmates with whom you will prepare your assignment. At the outset of class, I will randomly assign you and your fellow classmates into groups of 3-4 members, depending on the final course listing. Once assembled, expect to meet with your classmates early and often. Early, you will want to meet and strategize about the week of course readings on which you will focus your group assignment. Often, you will want to meet to get practice telling stories to each other about the course material on which you plan to complete the assignment. The group assignment takes the form of a poster presentation, and for this course we will use a specific kind of presentation format—the Morrison Poster approach. This approach was designed to maximize the informative value of poster presentations. Templates are available for preparing these posters for various kinds of presentations. I prepared a Morrison poster template that aligns the sections of the poster with the rubric for grading the group assignment (see the course Canvas page). Early in class, workshops held during our laboratory meetings will immerse you in the art, practice, and science of storytelling. Throughout the semester, we will devote time in laboratory meetings to meeting in your groups, telling stories about the coursework, and using the course poster template to complete the group assignment. Finally, you should know that the approach to telling stories that you will learn in this class is one about which I know a great deal. It's not the only approach out there. That said, it is quite versatile and can be applied to many communication settings. I first learned this approach with this text, which became the “origin story” for my own text about storytelling, and made all the difference when preparing a recent TED talk about the topics covered in this course. This approach to storytelling plays a pivotal role in my professional development meeting I hold each year. At this meeting, we also hold a poster session not unlike the sessions we will hold at the end of the course term. Unlike many poster presentations held on campus and all over the world, our poster sessions will be 100% digital (i.e., no poster to print!).
Group Presentation Grading	The group poster presentation follows the Morrison Poster approach. Each group renders a presentation in a 100% digital poster session held near the end of class. This presentation provides you with a method for communicating information learned during a specific week of course content, with the larger goal of engaging your audience of fellow classmates in course material that your group found personally relevant. Each poster presentation should follow the format of: • Brief, 2-4 sentence overview of the course content covered in the week of your group presentation; • Discussion of the links between the course week's content and its relevance to understanding discrepant results in mental health research; • The implications of the week's content for one or more important topics: ○ Implications for clinical or therapeutic work with clients; ○ Implications for policy or legal issues surrounding mental health; or ○ Implications for future research on the topics covered that week • A “take-home message” placed in the middle of the presentation that uses the “AND-BUT-THEREFORE” storytelling frame you will learn in class; • BONUS POINTS: Use of images designed to facilitate communicating course content that are prepared using a generative AI image platform (e.g., DALL-E).

I am giving you a choice on which week of course content you wish to cover:

- Plan with your group to select the week of content, and by the end of the Week 2 lab meeting, email your decision to me and the course TA (cc all team members on your email).
- **IMPORTANT:** I will deduct 10 points from your group presentation grade if I do not hear from your group by the end of the Week 2 lab meeting.

The following are instructions and recommendations for completing the group assignment:

- As mentioned above, by Week 2 of class you will have already decided on your presentation topic.
- But, I also want you to prepare your presentation as you progress through the course.
- In previous classes, groups have found it beneficial to have the “take-home message” completed ahead of time, to function as an outline for the remainder of the presentation. **Thus, your group’s take-home message will be due to me by the end of the Week 7 lab meeting.**
- The final assignment is due to me via email the week before the presentation day. This will give the course TA and I time to collate the presentations for the poster session.
- On the day of your presentation, you will be given 20 minutes of presentation time during class. This allows us sufficient time during the session to have all groups present.
- **Recommendation:** After your group selects the week for your presentation, each group member should commit to basing one of their reaction papers on the discussion reading for that week.

Course Schedule

Date	Meeting	Topic (WK = Week)	Readings
1/27/2025	Intro	WK1: Introduction to Course & Course Requirements	N/A
1/29/2025	Lecture	History of Measurement and Description of Discrepant Results	De Los Reyes (2024a) Ch. 1,2
1/30/2025	Laboratory	<i>What Happens When Therapy Studies Produce Discrepant Results?</i> <i>How Do Researchers Tell Stories? (Part I)</i>	Optional: Olson (2015) Boutron et al. (2010) Kendall (1994)
2/3/2025	Lecture	WK2: Historical Approaches to Discrepant Results	De Los Reyes (2024a) Ch. 3
2/5/2025	Discussion	Discrepant Results as Tools for Discovery	De Los Reyes (2024a) Ch. 4
2/6/2025	Laboratory	<i>How Do Scientists Integrate Mental Health Facts?</i> Each Group’s Presentation Topic Due	Optional: Bauer et al. (2013)
2/10/2025	Lecture	WK3: Structurally Different Informants and Triangulation	De Los Reyes (2024a) Ch. 5
2/11/2025	Reaction Paper 1 Due by 11:59pm (Kraemer et al., 2003)		
2/12/2025	Discussion	The Satellite Model for Integrating Mental Health Facts	Kraemer et al. (2003)
2/13/2025	Laboratory	<i>Why Should Scientists Change How They Integrate Mental Health Facts?</i> <i>How Do Researchers Tell Stories? (Part II)</i>	Optional: De Los Reyes (2024b) De Los Reyes et al. (2022a) Charamut et al. (2022)
2/17/2025	Lecture	WK4: Bias Models of Discrepant Results	De Los Reyes (2024a) Ch. 6
2/18/2025	Reaction Paper 2 Due by 11:59pm (Chapter 7 of De Los Reyes, 2024)		
2/19/2025	Discussion	The Operations Triad Model	De Los Reyes (2024a) Ch. 7
2/20/2025	Laboratory	<i>What Do Discrepant Results Mean?</i> <i>How Do Researchers Make Time to Tell Stories?</i>	Optional: Keeley et al. (2024) Silvia (2007) Watts et al. (2022)
2/24/2025	Lecture	WK5: Validation Paradigm for Testing Discrepant Results	De Los Reyes (2024a) Ch. 8
2/25/2025	Reaction Paper 3 Due by 11:59pm (Chapter 9 of De Los Reyes, 2024)		
2/26/2025	Discussion	Measurement Validation and Implementation	De Los Reyes (2024a) Ch. 9
2/27/2025	Laboratory	<i>What’s Measurement Invariance and When Do You Use It?</i>	Optional: De Los Reyes et al. (2022b) Olino et al. (2018) Rabner et al. (2024)
3/3/2025	Lecture	WK6: Analytic Procedures	De Los Reyes (2024a) Ch. 10
3/4/2025	Reaction Paper 4 Due by 11:59pm (Lerner et al., 2017)		
3/5/2025	Discussion	Measurement Validation and Implementation in Autism	Lerner et al. (2017)

3/6/2025	Laboratory	<i>What's a Measurement Battery and How Do You Build One?</i>	Optional: Haeffel et al. (2022) Kang et al. (2023)
3/10/2025	Lecture	WK7: Project CONTEXT, Part I	De Los Reyes (2024a) Ch. 11
3/11/2025	Reaction Paper 5 Due by 11:59pm (Chapter 12 of De Los Reyes, 2024)		
3/12/2025	Discussion	Project CONTEXT, Part II	De Los Reyes (2024a) Ch. 12
3/13/2025	Laboratory	<i>What's a Monte Carlo Simulation and When Do You Use It?</i> Each Group's Take-Home Message for Presentation Due	Optional: Mooney (1997) Harrison (2010) Makol et al. (2025) Ch. 5 Raychaudhuri (2008)
3/17/2025	No Class	SPRING BREAK	N/A
3/19/2025	No Class	SPRING BREAK	N/A
3/20/2025	No Class	SPRING BREAK	N/A
3/24/2025	Lecture	WK8: Project CONTEXT, Part III	De Los Reyes (2024a) Ch. 13
3/25/2025	Reaction Paper 6 Due by 11:59pm (Cannon et al., 2020)		
3/26/2025	Discussion	Unfamiliar Peer Paradigm	Cannon et al. (2020)
3/27/2025	Laboratory	<i>If My Assessments Suck, What Can Go Wrong?</i>	Optional: Weisz et al. (2019) Wright et al. (2022)
3/31/2025	Lecture	WK9: Clinical Utility	De Los Reyes (2024a) Ch. 14
4/1/2025	Reaction Paper 7 Due by 11:59pm (Chapter 15 of De Los Reyes, 2024)		
4/2/2025	Discussion	Meta-Analysis	De Los Reyes (2024a) Ch. 15
4/3/2025	Laboratory	<i>Are All Informants Created Equal?</i>	Optional: Loeber et al. (1990)
4/7/2025	Lecture	WK10: Integrating Mental Health Facts	De Los Reyes (2024a) Ch. 16
4/8/2025	Reaction Paper 8 Due by 11:59pm (Lambert et al., 2001)		
4/9/2025	Discussion	Pairing Mental Health Facts with Feedback	Lambert et al. (2001)
4/10/2025	Laboratory	<i>What's the Top Problems Checklist and When Do You Use It?</i>	Optional: Langer & Jensen-Doss (2018) Sewart and Craske (2020) Weisz et al. (2011)
4/14/2025	Lecture	WK11: Description of Discrepant Results in the Clinic	De Los Reyes (2024a) Ch. 17
4/15/2025	Reaction Paper 9 Due by 11:59pm (Chapter 18 of De Los Reyes, 2024)		
4/16/2025	Discussion	The Needs-to-Goals Gap Framework	De Los Reyes (2024a) Ch. 18
4/17/2025	Laboratory	<i>How Do Therapists Keep Their Clients Engaged in Therapy?</i>	Optional: Becker et al. (2018) Becker-Haimes et al. (2018) Makol et al. (2019)
4/21/2025	Lecture	WK12: Conducting Assessments in the Clinic	De Los Reyes (2024a) Ch. 19
4/22/2025	Reaction Paper 10 Due by 11:59pm (Hawley & Weisz, 2003)		
4/23/2025	Discussion	Discrepant Results When Determining Therapy Goals	Hawley and Weisz (2003)
4/24/2025	Laboratory	<i>Processing and Feedback on Group Presentations</i>	N/A
4/24/2025	Final	Group Presentation Assignment Due	
4/28/2025	Lecture	WK13: Directions for Future Research, Part I	De Los Reyes (2024a) Ch. 20
4/30/2025	Discussion	Directions for Future Research, Part II	De Los Reyes (2024a) Ch. 21-22
5/1/2025	Laboratory	Poster Presentation Session	N/A
5/5/2025	Lecture	WK14: Directions for Future Research, Part III	De Los Reyes (2024a) Ch. 23-24
5/7/2025	Discussion	Making Decisions When Confronted with Discrepant Results	Marsh et al. (2020)
5/8/2025	Laboratory	<i>What are Your Own Future Directions?</i>	N/A
5/12/2025	Lecture	Final Class Review and Discussion about Course Content	N/A

Titles, Descriptions, and Learning Outcomes for Laboratory Meetings

Week	Title and Description	Learning Outcomes
1	<i>What Happens When Therapy Studies Produce Discrepant Results?</i>—Therapies cannot be evaluated with one measure, and therapy studies often produce discrepant results. How do scientists identify evidence-based therapies when the evidence is inconsistent? This laboratory exposes us to procedures for detecting evidence-based therapies, and the impact of discrepant results on decision-making. At this meeting, we will also participate in a workshop about storytelling that covers an element of your group presentation assignment. • Laboratory Group Activity: Apply and discuss standards of evidence for interpreting discrepant results in a study.	1. Learn how to estimate the outcomes of studies about therapy. 2. Understand procedures for detecting evidence-based therapies. 3. Link discrepant results with procedures for detecting evidence-based therapies. 4. Learn to tell stories about research.
2	<i>How Do Scientists Integrate Mental Health Facts?</i>—Scientists often have to integrate mental health facts that disagree. What do these procedures look like? This laboratory immerses us in procedures for integrating mental health facts and exposes us to the <i>user assumptions</i> of these procedures. At this meeting, we will also meet in groups to decide on the topic of each group's poster presentation. • Laboratory Group Activity: Instructor will apply traditional procedures for integrating mental health facts to a dataset, and class will break into groups to figure out what the findings say about whether any of these procedures work.	1. Learn about procedures scientists have traditionally used to integrate mental health facts. 2. Understand the user assumptions of these procedures. 3. Link discrepant results with the concept of user assumptions.
3	<i>Why Should Scientists Change How They Integrate Mental Health Facts?</i>—New science challenges use of the procedures we covered in Week 2. How do modern procedures differ from the ones reviewed in Week 2? In this laboratory, we learn how modern procedures for integrating facts guide users to not only select procedures that work, but also select the facts that ought to be integrated. At this meeting, we will also participate in a workshop about storytelling that covers an element of your group presentation assignment. • Laboratory Group Activity: Instructor will apply modern integrative procedures to a dataset. The class will break into groups to apply findings from these procedures to make decisions about whether the procedures work better than the procedures tested in Week 2.	1. Learn modern procedures for integrating mental health facts. 2. Understand the assumptions underlying use of modern procedures. 3. Link discrepant results with assumptions underlying use of modern procedures. 4. Learn to tell stories about research.
4	<i>What Do Discrepant Results Mean?</i>—In Weeks 2 and 3, we learned about traditional and modern procedures for integrating mental health facts. How do these procedures perform when scientists want to use facts to answer questions about mental health? In this laboratory, we expose ourselves to modern approaches to discovering what discrepant results mean, what we call <i>measurement validation</i>. At this meeting, we will also participate in a workshop about making time to tell stories about research. • Laboratory Group Activity: Design a hypothetical study to test what discrepant results mean, inspired by prior published work.	1. Learn modern approaches to measurement validation. 2. Develop measurement validation strategies to test what discrepant results mean. 3. Interpret findings from validation studies, using published examples. 4. Learn strategies for writing productivity.
5	<i>What's Measurement Invariance and When Do You Use It?</i>—In Week 2, we learned about some procedures for integrating mental health facts. What about other procedures, and what are the consequences for using them where they shouldn't be used? This laboratory exposes us to the use (and misuse) of a procedure we call <i>measurement invariance</i>—a procedure that's traditionally used to promote equity in how we measure mental health. When misused, these procedures might make assessments less, not more, equitable. • Laboratory Group Activity: Apply the definition of measurement invariance procedures to prior published work, and judge whether this work misused the procedures.	1. Learn about measurement invariance procedures. 2. Understand the consequences of misusing these procedures. 3. Distinguish between proper and improper uses of measurement invariance, using published examples.

6	<i>What's a Measurement Battery and How Do You Build One?</i>—The first five laboratories exposed us to ways of collecting mental health facts. Should we assume that all these ways are equally useful? In this laboratory, we apply the concept of the measurement battery to various research scenarios. • Laboratory Group Activity: Design measurement batteries for various kinds of studies, informed by the study's aims.	1. Learn about the concept of the measurement battery. 2. Understand distinctions between different kinds of batteries. 3. Select appropriate batteries for various research scenarios.
7	<i>What's a Monte Carlo Simulation and When Do You Use It?</i>—The first six weeks of laboratories immersed us in the facts produced by mental health research. Now, we are equipped to apply what we learned to <i>Monte Carlo simulations</i>. This laboratory exposes us to what Monte Carlo simulations are, and how they help us compare different approaches to integrating mental health facts. • Laboratory Group Activity: Instructor will construct a Monte Carlo simulation and explain to the class links between the simulation and work on discrepant results. The class will then break into groups to apply the findings of the simulation to hypothetical studies, with the goal of selecting appropriate procedures for integrating mental health facts.	1. Review key characteristics of mental health facts. 2. Learn about how Monte Carlo simulations help us choose ways of integrating mental health facts. 3. Apply findings of Monte Carlo simulations to compare ways of integrating mental health facts.
8	<i>If My Assessments Suck, What Can Go Wrong?</i>—Week 1 taught us about how discrepant results impact identifying evidence-based therapies. In Week 8, we learn what the last five decades of therapy research has taught us about the effects of these therapies. In this laboratory, we describe a new Monte Carlo simulation connected to the simulation conducted in Week 7. • Laboratory Group Activity: Instructor will construct a Monte Carlo simulation and explain to the class links between the simulation and work on discrepant results. The class will then break into groups to apply the findings from the simulation to hypothetical studies, with the goal of understanding how discrepant results impact selecting therapies.	1. Learn about the history of research on therapy effects. 2. Discover links between therapy effects and discrepant results. 3. Apply findings from Monte Carlo simulations designed to illustrate these links.
9	<i>Are All Informants Created Equal?</i>—In the course's laboratory meetings, we learned to think critically about assessing mental health. How do these decisions impact assessments of individual clients? This laboratory foreshadows a problem discussed later in the course, namely with how therapists select informants and react to the discrepant results they encounter in assessments. • Laboratory Group Activity: Instructor will return to the Monte Carlo simulation constructed in Week 8 and explain to the class links between the simulation and work on discrepant results. The class will then break into groups to apply the findings of the simulation to hypothetical clinical cases, with the goal of understanding how discrepant results impact the financial costs of strategies for using facts to inform clinical work with clients.	1. Learn how therapists select informants. 2. Understand how selecting informants impacts how therapists deliver therapy. 3. Learn how Monte Carlo simulations help us estimate the costs involved in therapy.
10	<i>What's the Top Problems Checklist and When Do You Use It?</i>—Week 11 will cover discrepant results when assessing clients. How do therapists plan out therapies for their clients? In this laboratory, we learn about the “top problems” approach to planning therapy, by exposing ourselves to a widely used procedure for detecting therapeutic goals and tracking progress in meeting these goals. • Laboratory Group Activity: Instructor will review the “top problems” approach and share copies of the instrument with the class. The class will then break out into groups and apply the approach to hypothetical clinical scenarios, consisting of vignettes of clinical cases describing their needs for therapy.	1. Learn how therapists plan the therapies that clients receive. 2. Understand the “top problems” approach to planning therapy. 3. Practice applying this approach to hypothetical clinical scenarios.

11	How Do Therapists Keep Their Clients Engaged in Therapy?—In Week 11, we learned about how therapists and clients plan therapies together, using the concept of <i>therapeutic goals</i>. Might discrepancies between how clients, therapists, or other informants view these goals impact a therapy's effects? In this laboratory, we link research on discrepant results with a crucial aspect of therapy, namely keeping clients engaged in the therapies they receive. • Laboratory Group Activity: Class will break into groups and apply their knowledge of links between discrepant results and therapy to design a study focused on using discrepant results produced by the assessments used to plan a client's therapy.	1. Learn about discrepant results and links to planning therapy. 2. Understand how discrepant results inform approaches to engaging clients in therapy. 3. Construct a study to test integrating discrepant results when planning therapy.
12	• Laboratory Group Activity: Discuss the process of preparing the final group presentation and learning about students' experiences with completing the assignment. Instructor will also highlight principles of storytelling linked to the group assignment.	• This will be an informal lab meeting devoted to discussing the process of completing the group assignment.
13	• Laboratory Group Activity: Hold group poster sessions.	• We will hold sessions to give groups the opportunity to present their posters.
14	What are Your Own Future Directions? —This course deals with fundamental principles of measurement and observations in research that impact what we know about mental health. As a first-of-its kind course, I am curious about how its content relates to students in the class and their plans following graduation. Learning about these plans may facilitate improving future iterations of the course. • Laboratory Group Activity: Discuss how the course content relates to the graduate school and/or career goals of students who took the class.	• This will be an informal lab meeting where the class discusses how the course content connects with their graduate school and/or career goals.

Non-Text Readings for Discussion Meetings

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- Becker, K.D., Boustani, M., Gellatly, R., & Chorpita, B.F. (2018). Forty years of engagement research in children's mental health services: Multidimensional measurement and practice elements. *Journal of Clinical Child and Adolescent Psychology*, 47(1), 1-23. <https://doi.org/10.1080/15374416.2017.1326121>
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