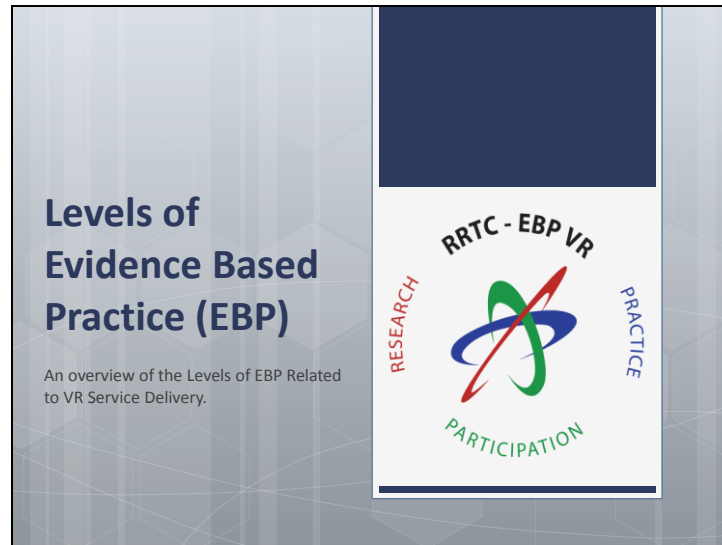
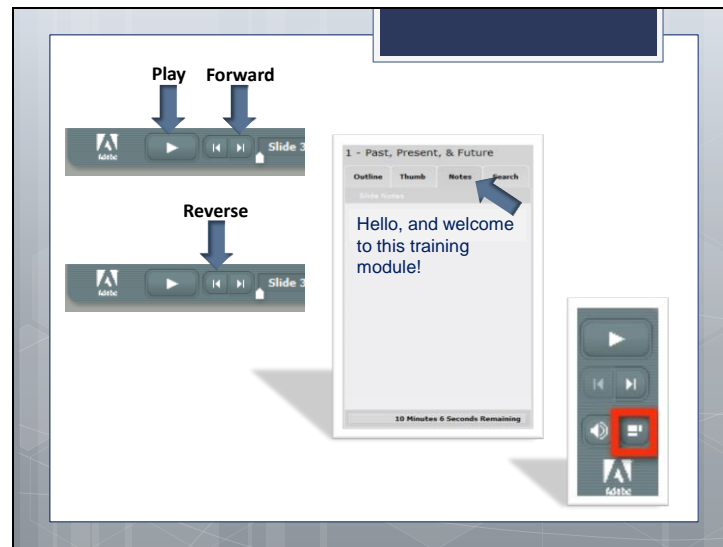


Slide 1



Welcome to “Levels of EBP”, an overview of the Levels of Evidence Based Practice (EBP) Related to VR Service Delivery.


Slide 2



Before we get started, I would first like to briefly talk about how to navigate through this module. At the bottom of your screen is a toolbar that you will use to navigate through this module. Click on the play, or forward button, to advance each slide. Click on the back button to return to a previous slide.

Each unit is narrated, so you will be able to listen to the content. However if you need to, or prefer to read the audio in each unit, it is available in text form. On the right hand side of the screen you will notice a tab titled “Notes”. Click on the “Notes” tab to view all of the spoken text for each slide.

Are you able to view the unit, but are not able to see notes, or a “Notes” tab? Some computers will open up the unit in a smaller window and the notes tab will be hidden. If this is the case, you will see a smaller control bar on the bottom right of your screen like the image on this slide. Click the icon to the right of the volume icon (which is currently outlined in red on this slide) or just maximize your screen.

The graphic features the letters 'EBP' in a large, bold, sans-serif font. Below the letters is a stack of several books, with the spines of the books visible. The background is a light, blurred gradient. The entire graphic is enclosed in a thin grey border.

EBP

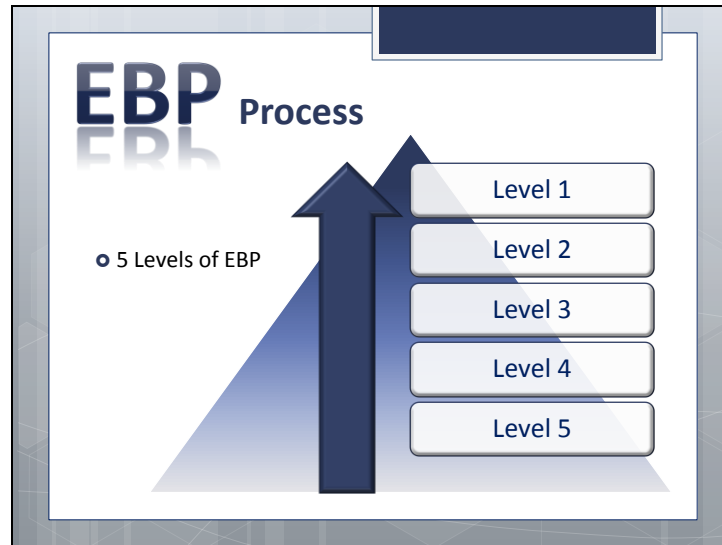
- Incorporates research-based knowledge into clinical rehabilitation practices
- Promotes ethical rehabilitation practices
- Improves efficient use of scarce resources
- Allows people with disabilities to exercise autonomy

Evidence-based practice has been gaining acceptance as a useful approach for increasing consumer involvement, controlling costs, and improving quality and accountability of healthcare and rehabilitation service delivery. The EBP movement within Vocational Rehabilitation underscores the importance of incorporating research-based knowledge into clinical rehabilitation practices to ensure that people with chronic illness and disability receive the most effective services. Additionally, EBP promotes ethical rehabilitation practice by better protecting clients from harmful services (nonmaleficence), improving the efficiency of how scarce rehabilitation resources are used (justice), and allowing people with disabilities and chronic illness the opportunity to exercise self-determination and informed choice (autonomy) based on the provision of knowledge regarding rehabilitation services and care. (Chan et al., 2009).

A slide graphic with a dark blue header bar at the top right. The main content is on a white background with a grey border. On the left, the letters 'EBP' are displayed in a large, bold, blue font, with a faint, larger 'EBP' behind it. To the right of the text is a 3D illustration of several grey puzzle pieces being assembled by small grey figures. The text is centered and reads:

"...should involve the integration of the best, and most current research evidence with clinical/educational expertise and relevant stakeholder perspectives in the pursuit of making the best possible decisions for a particular consumer."

EBP ...*"should involve the integration of the best, and most current research evidence with clinical/educational expertise and relevant stakeholder perspectives in the pursuit of making the best possible decisions for a particular consumer. EBP is not a practice that is driven by research evidence alone, which is a popular misconception. The key ingredient is of this definition is integration"* (Schlosser, 2006).

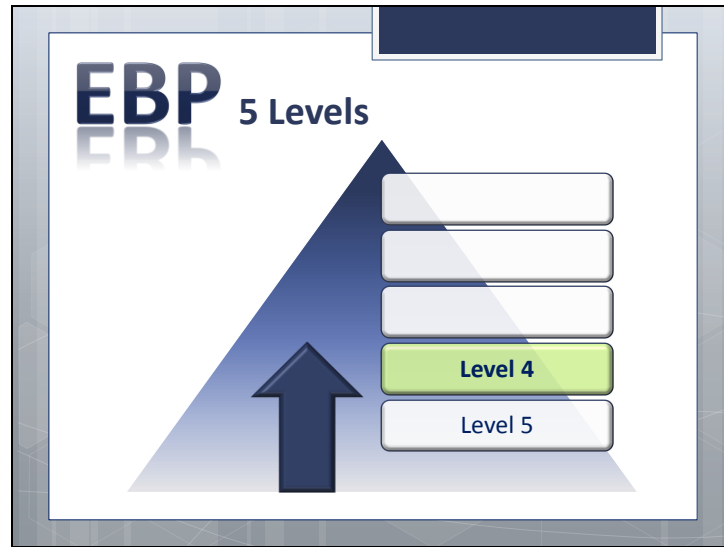


There are 5 levels of Evidence Based Practice. This five-level hierarchical framework offers a way for practitioners to evaluate the strength of evidence for use in VR service delivery. Each level builds on the level below it, with Level 5 representing the weakest evidence available, and Level 1 representing the strongest evidence available. When making evidence-based decisions it's important to select from the highest level research design available for a specific topic. (Chan et al., 2011)

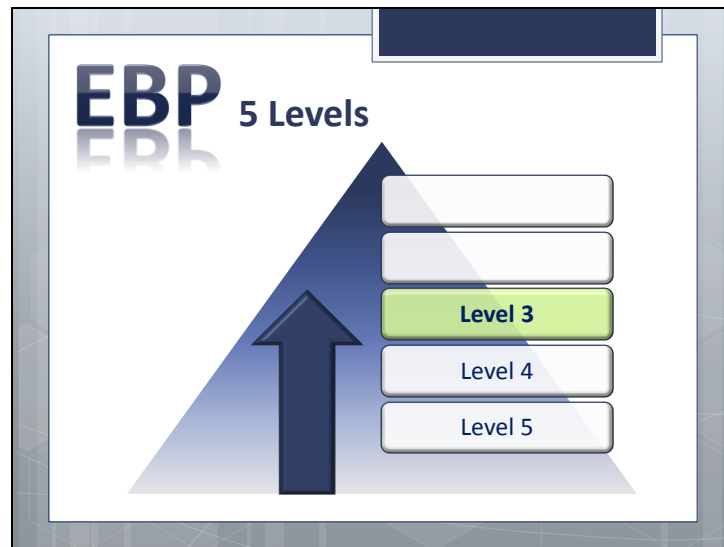


Level 5 represents evidence from opinions of respected authorities, based on clinical evidence, descriptive studies, or reports of expert committees.

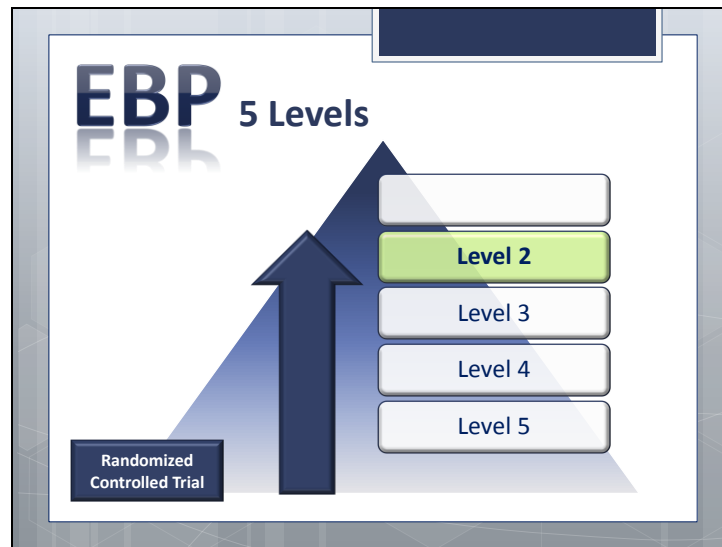
Slide 7



Level 4 represents evidence from well-designed non-experimental studies from more than one center or research group.

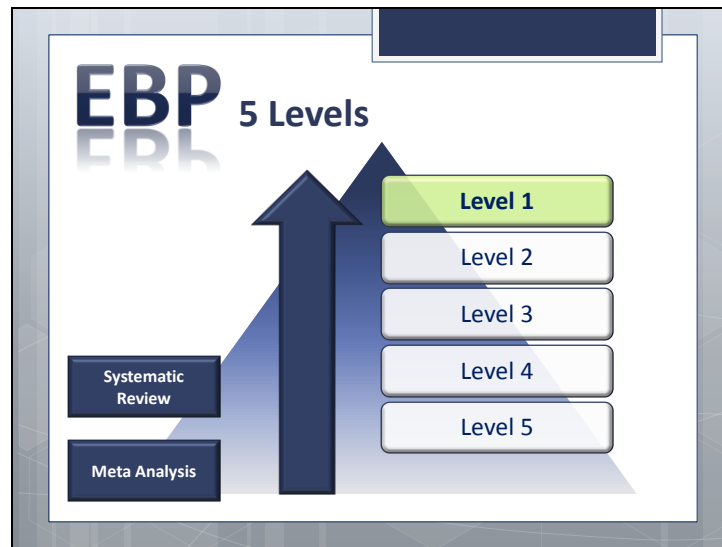


Level 3 represents evidence from well-designed research trials without randomization, single group pre-post, cohort, time series, or matched case-controlled studies.



Level 2 represents strong evidence from at least one properly designed randomized controlled trial of appropriate size.

Click on the labeled button for more information about a Randomized Controlled Trial



Level 1 represents evidence from a systematic review of multiple, well designed, randomized controlled trials.

Click on the labeled buttons for more information about a Systematic Review and Meta Analysis



The slide features a logo in the top left corner with the letters 'EBP' in a large, bold, blue font, and 'EBP' again in a smaller, lighter blue font directly below it. To the right of the logo is a photograph of a stack of several books, with a blurred background of a library or bookstore. The slide is divided into two columns of text, each with a bold heading and a list of bulleted items.

EBP
EBP

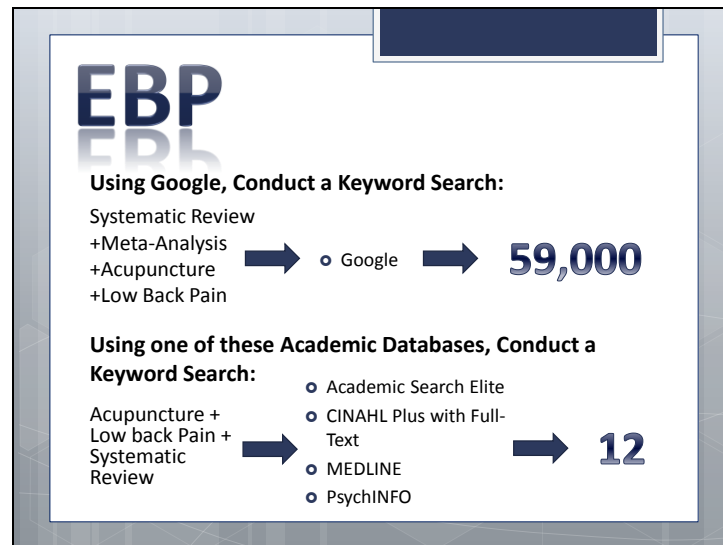
Medical Rehabilitation

- [The Cochrane Collaboration](#)
- [Agency for Healthcare Research and Quality](#)
- [American Congress of Rehabilitation Medicine](#)

Academic Databases

- Academic Search Elite
- CINAHL Plus with Full-Text
- MEDLINE
- PsychINFO

Here are some sources of information on EBPs. A reliable way to find best evidence is to search academic databases or scholarly Web sites. (Chan et al., 2009) Click on the underlined links to go directly to each specific website, or consider consulting one of the academic databases listed.



Here is an example to illustrate the reliability of searching academic databases or scholarly websites.

When using Google to conduct a search for “Systematic Reviews”, use keywords related to the clinical problem coupled with the terms “systematic review” or “meta-analysis”. Consider this: entering the terms systematic review, meta-analysis, acupuncture, and chronic pain in Google resulted in 59,000 items; a search using the terms acupuncture, low back pain, and systematic review using Academic Search Elite, CINAHL Plus with Full Text, MEDLINE, and PsychINFO resulted in 12 entries.



EBP
EBP

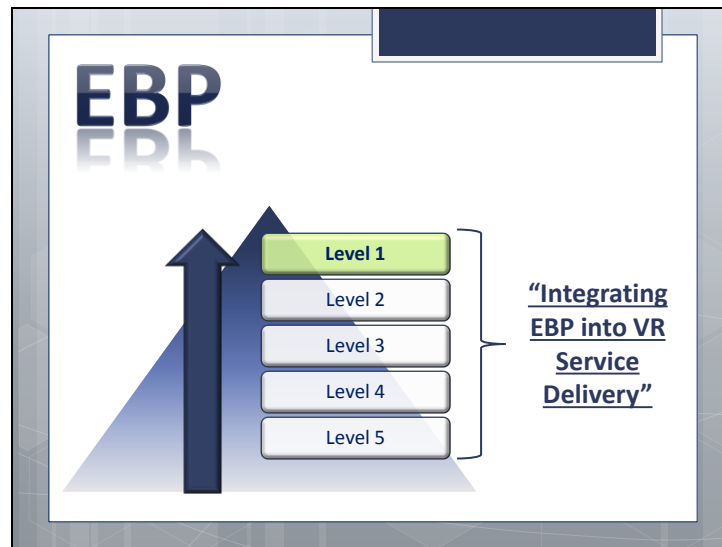
NIDRR-Funded Research Sites

- [Rehabilitation Research & Training Center on Evidence-Based Practice in Vocational Rehabilitation \(EBP\)](#)
- [Virginia Commonwealth University RRTC](#)
- [Institute for Community Inclusion](#)
- [NRTC on Blindness and Low Vision](#)

The slide features a logo with 'EBP' in large blue letters and 'EBP' in smaller letters below it. To the right is a photograph of a stack of several books. The text is presented in a clean, professional layout with a dark blue header bar at the top right.

Another source for information on EBP is NIDRR-funded research sites. Here are some examples of sites specific to disability, but don't limit yourself to these.


- **Rehabilitation Research & Training Center (RRTC) on Evidence-Based Practice in Vocational Rehabilitation (EBP)** (www.research2vrpractice.org)
- **Virginia Commonwealth University RRTC** (<http://www.worksupport.com/>)
- **Institute for Community Inclusion** (<http://www.communityinclusion.org/>)
- **NRTC on Blindness and Low Vision** (<http://www.blind.msstate.edu/>)



As noted earlier, it's important to select from the highest level research design available for a specific topic. However, there appears to be a scarcity of "acceptable" evidence for effective interventions in the field of vocational rehabilitation (Johnson et al., 2010). For this reason it may be necessary to evaluate information on a continuum of innovative practices ranging from emerging to promising to evidence-based. To learn more about this, use the RRTC-EBP-VR's free training module on "Integrating EBP into VR Service Delivery." Click on the underlined link on this page to access more information.

RRTC-EBP-VR

The Rehabilitation Research and Training Center on Effective Vocational Rehabilitation Service Delivery Practices (RRTC-EBP-VR) is established at both the University of Wisconsin-Madison, and the University of Wisconsin Stout under a grant from the Department of Education National Institute on Disability and Rehabilitation Research (NIDRR) grant number PR# H133B100034



RRTC - EBP VR

RESEARCH

PRACTICE

PARTICIPATION

References:

Chan, F., Chronister, J., & da Silva Cardoso, E. (2009). *An introduction to evidence-based practice approach to psychosocial interventions for people with chronic illness and disability*. In F. Chan, E. da Silva Cardoso, & J.A. Chronister (Eds.), *Understanding psychosocial adjustment to chronic illness and disability: A handbook for evidence-based practitioners in rehabilitation* (pp. 3-16). New York: Springer.

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Durlak, J. A. (1995). *School-based prevention programs for children and adolescents*. Thousand Oaks, CA: Sage.

Johnson, K., Brown, P., Harniss, M., & Schomer, K. (2010). Knowledge translation in rehabilitation counseling. *Journal of Applied Rehabilitation Counseling*, 24(3 & 4), 239-250.

Schlosser, R.W. (2006). *The role of systematic reviews in evidence-based practice, research, and development* (Technical Brief No. 15). Austin: National Center for the Dissemination of Disability Research.



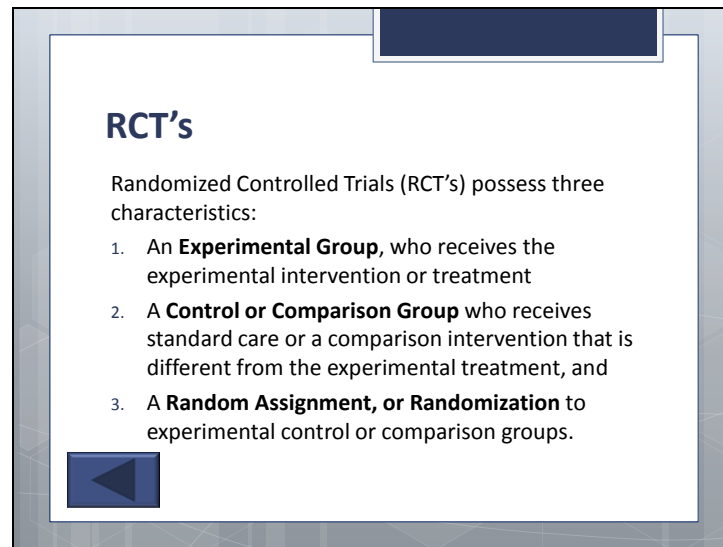
Chan, F., Chronister, J., & da Silva Cardoso, E. (2009). *An introduction to evidence-based practice approach to psychosocial interventions for people with chronic illness and disability*. In F. Chan, E. da Silva Cardoso, & J.A. Chronister (Eds.), *Understanding psychosocial adjustment to chronic illness and disability: A handbook for evidence-based practitioners in rehabilitation* (pp. 3-16). New York: Springer.

Chan, F., Sung, C., Muller, V., Wang, C.C., Fujikawa, M., & Anderson, C.A. (2011). Evidence-based practice and research utilization. In D. Maki, & Tarvydas, V.M. (Eds.), *Professional practice of rehabilitation counseling* (pp. 391-412). New York: Springer Publishing Company.

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RCT's

Randomized Controlled Trials (RCT's) possess three characteristics:

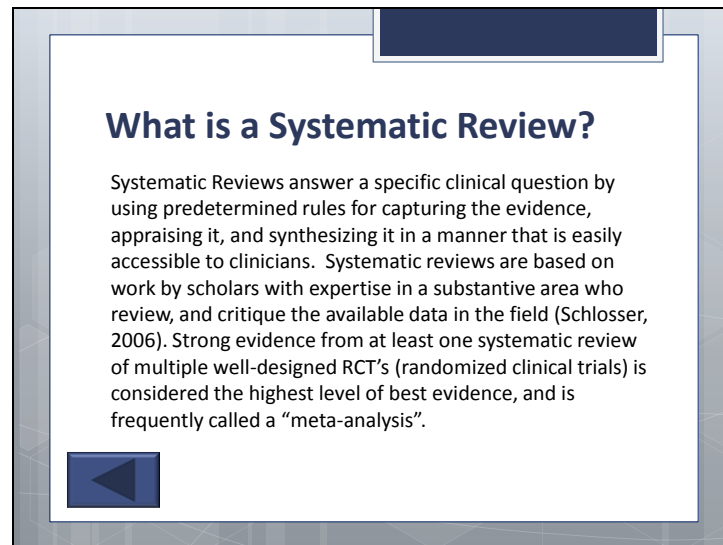
1. An **Experimental Group**, who receives the experimental intervention or treatment
2. A **Control or Comparison Group** who receives standard care or a comparison intervention that is different from the experimental treatment, and
3. A **Random Assignment, or Randomization** to experimental control or comparison groups.

RCT's possess three characteristics:

- An experimental group who receives the experimental intervention or treatment
- A Control, or Comparison group who receives standard care or a comparison intervention that is different from the experimental treatment
- Random Assignment, or Randomization to experimental and control or comparison groups

(Chan et al., p.10)

Click on the back arrow to return to the previous slide.



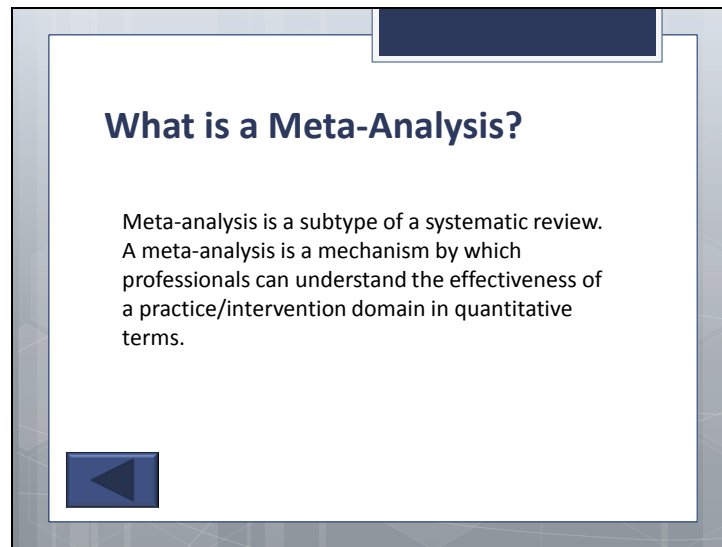
What is a Systematic Review?

Systematic Reviews answer a specific clinical question by using predetermined rules for capturing the evidence, appraising it, and synthesizing it in a manner that is easily accessible to clinicians. Systematic reviews are based on work by scholars with expertise in a substantive area who review, and critique the available data in the field (Schlosser, 2006). Strong evidence from at least one systematic review of multiple well-designed RCT's (randomized clinical trials) is considered the highest level of best evidence, and is frequently called a "meta-analysis".

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Click on the back arrow to return to the previous slide.

(Chan et al., p.9)



What is a Meta-Analysis?

Meta-analysis is a subtype of a systematic review. A meta-analysis is a mechanism by which professionals can understand the effectiveness of a practice/intervention domain in quantitative terms.

◀

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(Chan et al., p.9)

Click on the back arrow to return to the previous slide.