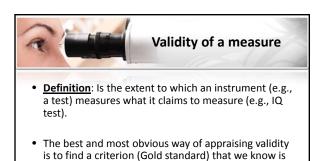
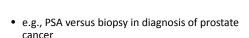


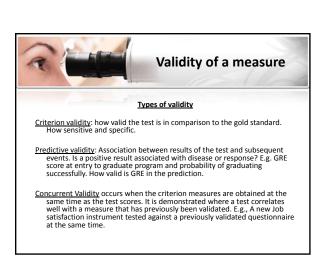


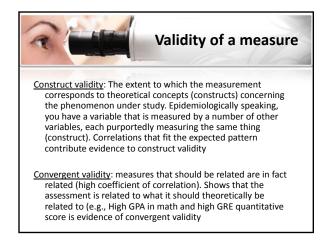
- Continuous: measurement error
- The concept of disease as a continuum

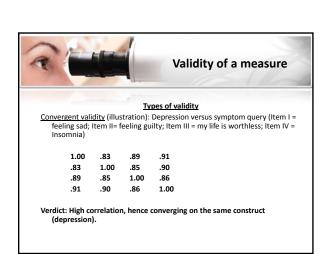


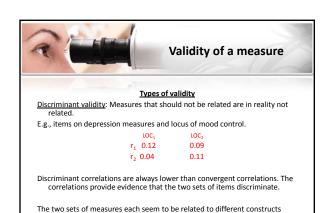


close to the truth.



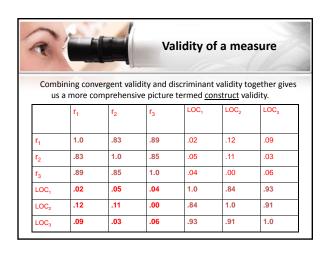


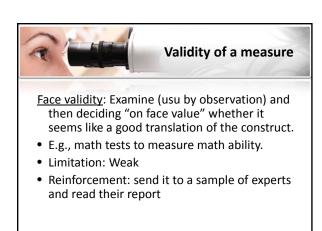


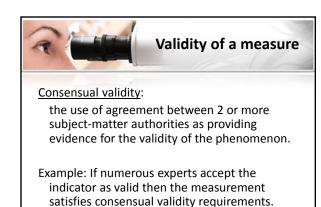


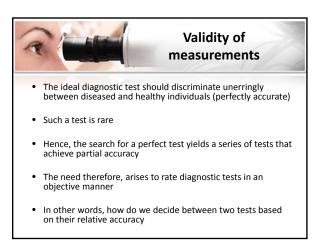


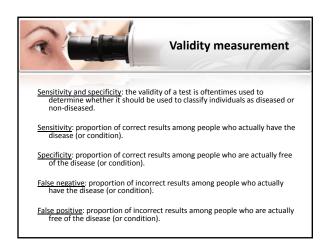
 Narcissism and Self-esteem are theoretically different concepts, and therefore it is important that the researcher show that their new scale measures Narcissism and not simply Self-esteem.

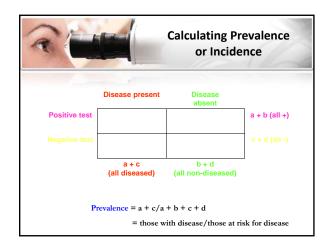






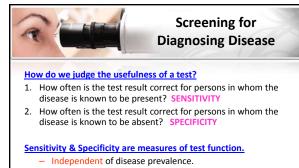




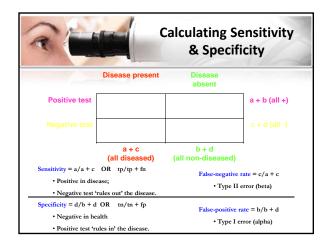


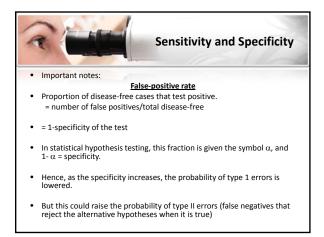
Validity of screening tests

- Purpose of a screening test is to identify individuals or groups who have a high probability of having a particular disease or other attribute.
- Definition of a screening test (1951; US Commission on Chronic Illness): the presumptive identification of unrecognized disease or defect by the application of tests, examinations or other procedures which can be applied rapidly. Screening tests sort out apparently well persons who probably have a disease from those who probably do not. A screening test is not intended to be diagnostic.



- If a test is not sensitive, it will fail to detect disease in some diseased subjects. FALSE-NEGATIVE
- If a test is not specific, it will falsely identify disease in whom the disease is not present. FALSE-POSITIVE







Sensitivity and Specificity

False-negative rate

- Proportion of diseased cases that test negative.
 number of false negatives/total diseased cases
- = 1-sensitivity of the test
- In statistical hypothesis testing, this fraction is given the symbol $\beta,$ and 1- β = power.
- Hence, as the sensitivity increases, the probability of type II errors is lowered.
- But this could raise the probability of type I errors (false positives that reject the null hypothesis when it is true)



Applying Sensitivity & Specificity

- A screening test used to 'rule out' a diagnosis should have a high degree of sensitivity.
- A confirmatory test used to 'rule in' a diagnosis should have a high degree of specificity. (SpIn). In order to reduce false-positives (α), specificity should be high (because α = 1- specificity).