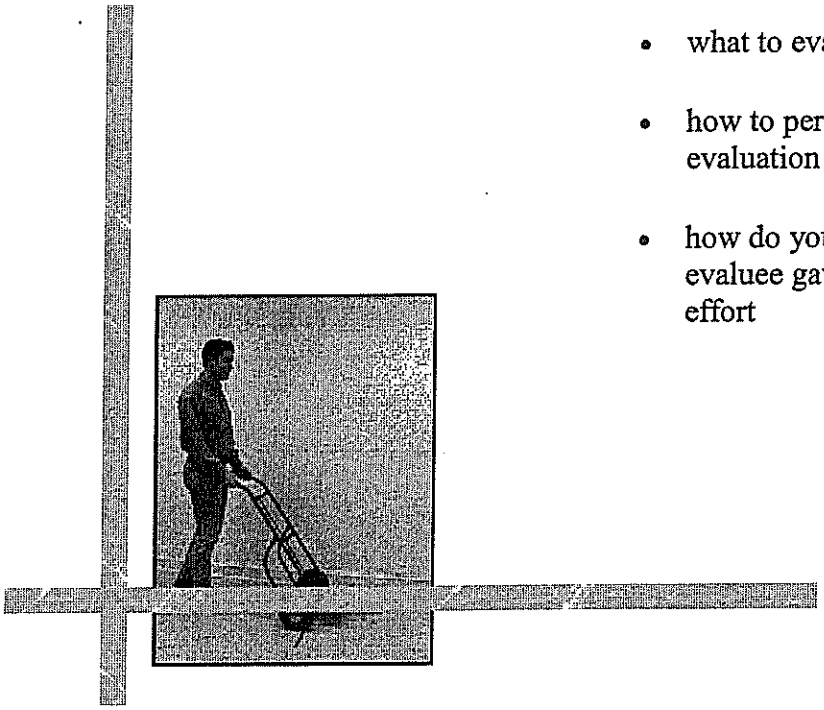
physical abilities

I. Physical Abilities Testing
II. Introduction to MTM
III. Issues in Evaluation and Interpretation

WHAT YOU NEED TO KNOW

- what to evaluate
- how to perform the evaluation
- how do you know if the evaluee gave reasonable effort



PHYSICAL DEMAND CONDITIONS

The DOT and the CCDO Physical Demand Conditions (PDC) have been established as the physical abilities classification model commonly used in industry, insurance claims management, vocational rehabilitation and occupational medicine.

walk	carry	push/pull	stoop	bend	crouch
crawl	kneel	reach	handle	finger	feel

Unfortunately, these PDC classifications do not have evaluation guides, unlike the DOT/CCDO aptitude classifications, which are assessed by established aptitude test batteries. Hence an established methodology is not dictated, and has typically been left to evaluator clinical judgment.

RELIABILITY AND VALIDITY:

Clinical judgment of PDC functional tasks has poor inter-rater reliability and only limited content validity. Therefore, a criterion-reference measurement system would be highly desirable to increase the validity of this section of the Functional Capacity Evaluation. The criterion measurement would need to be adaptable to a variety of occupational demands within a discrete PDC classification. A walking test should equally represent a warehouseman's or an office worker's occupational tasks.

A concern is the ability to predict the evaluee's ability to sustain a full day's work from a brief period of testing. Scientific measurement principles are the solution to this dilemma. It is not economical to perform an evaluation throughout multiple 8 hour days, and through all conditions the evaluee might encounter. Hence the criterion-reference measurement system has to be based on an 8 hour day, and have generalizability to varied environmental, postural and frequency conditions.

Dexterity tasks have the benefit of psychomotor tests that have been developed with published norms. The concern with these tests is that the norm-reference validity is limited to the relevance of the norm group to the evaluee.

EFFORT:

The evaluation of PDC categories has to be sensitive to the effort (or lack thereof) the evaluee might render in the evaluation. PDC functional tasks do not have maximal levels of task performance that could be discounted for sustainability over an 8 hour day. The effort falls within the psychophysical model of testing. The disadvantage of psychophysical testing is the degree of control the evaluee has over effort, and susceptibility to poor effort. A method of evaluating effort is desirable in this testing.

Methods-Time Measurement is a criterion measurement system that facilitates these methodological concerns. The following sections will outline how it has been adapted for physical abilities testing.

DEFINITIONS:

Methods-Time Measurement is a system for measuring and analyzing the components of motion (work methods) in performing work tasks. The purpose is to improve the economy of motion, increase worker efficiency, reduce fatigue, and consequently improve performance.

Constant is defined in the DOT as an activity or condition that exists 2/3 or more of the time.

Frequent is defined in the DOT as an activity or condition that exists 1/3 to 2/3 or more of the time.

Occasionally is defined in the DOT as an activity or condition that exists up to 1/3 or more of the time.

II. INTRODUCTION TO MTM

MOTION TIME STANDARD

Methods-Time Measurement (MTM), the most widely developed and validated motion-time system in the world, was developed in the 1940's. MTM-1 motion standards were first published in the United States in 1948, based on expert rater analysis and standardization of films of industrial tasks performed by qualified operators at many work places (Maynard, Stegemerton, and Schwab, 1948). Since that time the MTM system has continued to be validated in many work sites and production systems (Karger and Bayha, 1987). The MTM Association coordinates world wide development, training and standardization practices (MTM Assoc., 1972, 1990). Studies at Cornell University and Western Michigan University supported the original research (Karger and Bayha, 1987).

THE MTM INDUSTRIAL STANDARD

MTM is a criterion reference system, rather than a population based (normative) system. The concept of *normal* work is the basic premise of the MTM Industrial Standard. ***The Industrial Standard (IS) is the time it takes the average worker with average skill to perform a task throughout an average 8 hour day, with appropriate rest allowances and without undue stress or fatigue*** (MTM Assoc., 1972, 1990).

VALIDITY

The Industrial Standard is an achievable time for the majority of workers aged 18-65 in good health to perform the task (Karger and Hancock, 1982). At least 95% of all workers can achieve the Industrial Standard (Karger and Hancock, 1982). The statistical mean of workers is 120% of the Industrial Standard, with a range of 84-156% (Karger and Hancock, 1982). The lower 5% of the population that can not achieve Industrial Standard time represent workers who are not competitively employable in the workplace (Karger and Hancock, 1982). Therefore the population is not a normal distribution, as it is skewed curve from 92% to 156% due to the absence of the bottom 5% of people aged 18-65 who are not competitively employable (Karger and Hancock 1982).

UNIVERSAL CHARACTERISTICS

MTM motions are 'universal' characteristics demanded by all jobs. Universal characteristics have the greatest predictiveness compared to 'occupationals' (the characteristics required by a specific job), or 'relationals' (the characteristics of a job relative to the environment).

RELIABILITY

The MTM system has demonstrated high internal consistency with an 8% standard error of measurement at 95% confidence level. (i.e., if an individual scores at 100% of the IS then the rater can assume the individual would score from 92-108% of the IS 95% of the time (Karger and Bayha, 1987). The original research found only 8% variance between high and low range (Karger and Bayha, 1987). Interobserver agreement studies were published demonstrating a high level of consistency and agreement (Karger and Bayha, 1987). Evaluators using MTM data following a standardized methodology have proven inter-rater reliability. The data can assist in determination of client consistency.

REST ALLOWANCES

The MTM time standards represent work under ideal conditions (Karger and Bayha, 1987; Karger and Hancock, 1982). Realistic performance requires some adjustment and/or allowance (Karger and Bayha, 1987; Karger and Hancock, 1982). The usual allowances are for personal time, fatigue and minor unavoidable delay (Karger and Bayha, 1987; Karger and Hancock, 1982). The usual allowance for these variables is 10-15% (Karger and Bayha, 1987; Karger and Hancock, 1982).

The International Labor Organization (ILO) has published Relaxation Allowances for MTM data. Physiological validation studies have been performed on these allowances with general agreement found with the ILO allowances (Frievalds and Goldberg,1969).

MTM 'LEVELING' SYSTEM

MTM has accounted for effort since the original research in the 1940's (Lowry, Maynard, Stegemerten, Barnes).

MTM has 6 effort categories that allow an increase or decrease to the observed time:

- ☑ Poor (+15%),
- ☑ Poor to Fair (+10%),
- ☑ Fair (+5%) Average (+0%),
- ☑ Good (-5%),
- ☑ Excellent (-10%) or
- ☑ Excessive (-15%)

LEARNING CURVES

The rate or progress of an individual acquiring skill at a new task can be demonstrated on a learning curve (Woeber). MTM learning curves vary from 88-92% and 90% is commonly used. Two concepts of learning are used, "threshold" and "reinforcement" learning (Woeber). MTM Industrial Standards presume the individual has average skill to perform the task. Disability evaluation should therefore use tasks that are easily mastered, can be demonstrated and *practiced* before the timed assessment, effectively eliminating the learning curve for the simple evaluation tasks by attaining "threshold" learning. If an evaluee demonstrates ability to perform the task correctly they have achieved MTM threshold learning. A learning curve analysis of the disability evaluation should be performed for more complicated tasks or work samples.

MTM AND PERSONNEL SELECTION

The MTM Association developed a series of personnel selection tests (Poocke, Foulke). A study found little difference between work performance predicted by the selections tests and actual work performance (Anderson and Edstrom). The European MTM Associations collaborated on a Manual Abilities Scanning Test (MAST) that has been used in disabled and non-disabled populations (Wilcock, 1980). MTM data can be used to design work methods and standards or to match workers' abilities to work requirements

MTM IN DISABILITY EVALUATION

MTM based evaluations have been used with disability populations for more than 30 years. Birdsong and Chyatte (1970) used an MTM based dexterity test to evaluate treatment effects on hemiplegic patients, to test the effect of L-Dopa on Parkinson's patients, and the effects of a muscle relaxant on patients with central nervous system disorders. Todd, Chyatte and Decker (1979) compared MTM based evaluations of Cerebral Palsy patients with AMA impairment ratings. They conclude that the AMA impairment rating had little or no bearing on specific task function while the MTM based evaluation deals in specific task performance. The authors compared MTM based assessment times to norm based classifications of a work sample and found that the work sample overestimated work performance.

Birdsong (1972) reviewed the successful use of MTM based evaluations as a monitoring and investigative technique at the Emory University School of Medicine. MTM has been used in evaluation of the mentally handicapped and design of their sheltered workshop tasks. The relevance of the MTM data, its appropriateness for matching a worker to a job task and designing job accommodation and modification are discussed by various authors *(Brickey; McQuaid and Winkler; Grant, Moores and Whelan; Wilcock, and Mink).*

AssessAbility, an MTM based automated FCE system developed by Michael Coupland, C.Psych, has been recognized as a valid and reliable method of assessing functional Capacity (Rucker, Wehman and Kregel).

III. ISSUES IN EXAMINATION AND INTERPRETATION

STANDARDIZATION

Standardization of measurement forms the foundation of the MTM testing protocols. It is critical that the evaluator follow the testing and timing protocol precisely to ensure a reliable comparison to the MTM Industrial Standard. Multi-media *HELP* files, graphics and computer automated timing devices assist to ensure reliability.

The MTM test protocols evaluate *discrete* tasks (e.g. Reach) instead of simultaneously assessing multiple functions as in Work Sample testing. MTM allows the evaluator to customize the testing protocols to simulate job requirements and ergonomic solutions. Outcome measurement to document therapeutic interventions is available via repeat testing .

FREQUENCY RATING

A significant issue in the evaluation of physical abilities is based in the vague definitions of Constant, Frequent and Occasional work demands. Evaluee performance at or above the MTM Industrial Standard suggests that the evaluee is able to meet the Constant occupational requirements throughout an 8 hour day.

When the evaluee scores between 70 and 100% of the Industrial Standard they could be considered able to meet Frequent occupational demands. The definition of Frequent is 1/3 to 2/3 of the day. Consequently, this statement is true if the Frequent occupational requirement allows the worker to self pace, or the job is not production or safety sensitive to slower than average pace during task performance.

However, if the task is required at a Industrial Standard pace for safety or production reasons then this statement is not true. The same reasoning exists for the evaluee score falling below 70% of the Industrial Standard being considered able to meet Occasional occupational demands.

EVALUEE STABILITY

An issue in evaluation of functional abilities exists with a medically unstable evaluee, such as one presenting with a diagnosis of chronic fatigue syndrome. Measurement science considers that human performance is expected to be consistent within the validated MTM normal fatigue allowances. If the evaluee is not within those normal fatigue and performance limits then greater validity is gained if repeated measures are used. The evaluator should design a test protocol that can measure the variance.

PREDICTING 8 HOUR DAY

The prediction of performance over an 8 hour day based on a short test is based on measurement science. With a very valid and reliable MTM dataset the evaluator can answer questions in the most scientifically sound method by applying the wealth of measurement science methodology and by realizing the strengths and limitations of measurement. MTM is a measurement, and as with any testing situation, interpretation must consider any *threats* that may exist to content and testing reliability.

If threats to reliability and validity have been accounted for then the evaluator can proceed with great confidence. If there are threats to reliability or validity then the evaluator should remark on those concerns in the report and qualify their opinions:

- ☑ with reader caution
- ☑ suggested range of scores
- ☑ qualification words such as 'likely', 'probably', 'possible'.

The evaluator always interprets scores with an established standard error of measurement and confidence interval. With MTM scores the evaluator can conclude that if an evaluee scores 100% IS on a given testing event, and there is no clinical or motivational threat to his/her performance, then it is valid to represent that that evaluee would score between 92 and 108% of IS, 95% of the time.

DETECTING SUBMAXIMAL EFFORT

MTM based testing has a number of methods of considering evaluee consistency and effort. Foremost is the coefficient of variance (CoVar). A study found that poor effort on MTM based tests had a higher variance in scores than evaluees who performed with average effort (Applewhite, Paulhe, and Thompson). MTM Standard Error of Measurement (SEM) is 8%. Although it may be expected that an evaluee will be within 8% CoVar it is suggested that 10% be the minimal cutoff point of concern. Even so, this must be considered within the framework of any reasonable indicator of effort:

- ☑ the evaluation must be on an unimpaired body part to consider a high CoVar as an indicator of poor effort
- ☑ no change in effort was volitionally given (i.e., the evaluator asked for more effort).

Effort rating is available through the MTM leveling system. This requires subjective analysis by the evaluator, and should be used within this regard. It is suggested that the MTM leveled score be presented as a range of scores (from performance score to leveled score) within which the evaluee could likely perform.

Naturalistic testing is based on timed observation of the evaluee while he/she are not in overt testing, i.e. they are on a 'break and walking to the break area, stooping to retrieve drinks from a bottom shelf, reaching etc. The ethics of this testing are established by the evaluator informing the evaluee at the beginning of testing that they are being evaluated during their *entire* time at the evaluation facility.

Alternate forms testing is to perform the same functional test with varying parameters that the program offers. Since the data is always presented as a ratio of the Industrial Standard, the results are comparable.

INTERPRETATION

Discrete motion analysis allows interpretation of function as it may relate to diagnosis, job accommodation and modification. (Evaluee performs better sitting than standing).

Fingering: (tested 10/18/99)

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE	Time Set Completed
1	Dom.	Standing	Immediate	10	19.9	79.9			
2	Dom.	Standing	Immediate	10	18.9	84.2			
3	Dom.	Standing	Immediate	10	18.5	86.0			
Avg: S1	**Dom.**	**Standing**	**Immediate**	**10**	**19.1**	**›83.3‹**	**3.1**	**4**	**10:42**
1	Dom.	Sitting	Immediate	10	14.4	110.5			
2	Dom.	Sitting	Immediate	10	13.9	114.4			
3	Dom.	Sitting	Immediate	10	13.3	119.6			
Avg: S2	**Dom.**	**Sitting**	**Immediate**	**10**	**13.9**	**›114.7‹**	**3.2**	**1**	**10:44**

Evaluee consistency can be interpreted from the coefficient of variance.
Evaluee effort rating can allow a range of score to be considered. (CoVar was high and poor effort was noted and, therefore MTM leveling was applied).

Climb Stairs: (tested 10/18/99)

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE	Time Set Completed
1	None	None	8 stairs	1	5.2	105.9			
2	None	None	8 stairs	1	6.8	81.0			
3	None	None	8 stairs	1	7.1	77.6			
Avg: S1	**None**	**None**	**8 stairs**	**1**	**6.4-15%**	**›101.8‹**	**13.1**	**4**	**10:37**

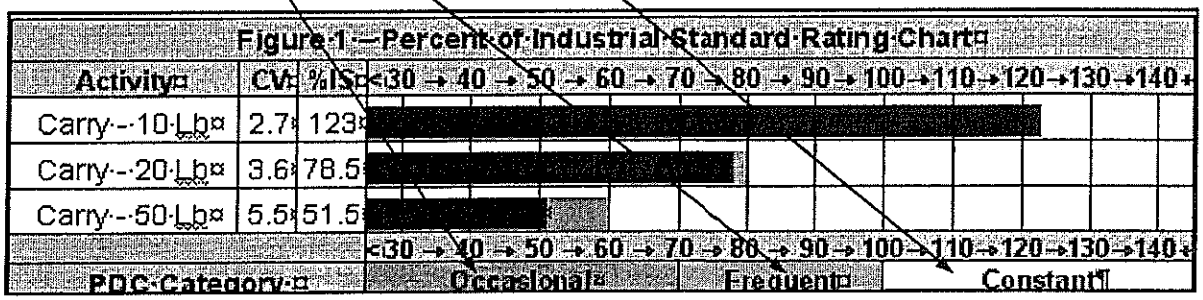
Comments for Climb Stairs by Set (e.g. S1)
S1: Inappropriate Body Mechanics Symptom Complaints or Behaviors Observed Effort was Poor, -15% Leveling Factor applied. complained that they did not want to be in assessment, showed poor motivation to step consistently, had no biomechanical or fitness conditioning impairments, reported perceived exertion inconsistent with demonstrated ability and heart rate (89 bpm)

Short cycle tests can be repeated throughout an evaluation to allow trend analysis. (Ability declined with time).

Fingering: (tested 10/18/99)

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE	Time Set Completed
1	None	None	12 Ft	3	22.6	113.3			
2	None	None	12 Ft	3	23.3	109.9			
3	None	None	12 Ft	3	21.1	121.3			
Avg: S1	**None**	**None**	**12 Ft**	**3**	**22.3**	**›114.6‹**	**4.1**	**1**	**8:31**
1	None	None	12 Ft	3	26.6	96.2			
2	None	None	12 Ft	3	27.9	91.7			
3	None	None	12 Ft	3	28.5	89.8			
Avg: S2	**None**	**None**	**12 Ft**	**3**	**27.7**	**› 92.5 ‹**	**2.9**	**2**	**10:32**
1	None	None	12 Ft	3	39.3	65.1			
2	None	None	12 Ft	3	41.1	62.3			
3	None	None	12 Ft	3	40.4	63.4			
Avg: S3	**None**	**None**	**12 Ft**	**3**	**40.3**	**› 63.6 ‹**	**1.8**	**4**	**2:17**

Evaluee ratio to the MTM Industrial Standard allows interpretation into DOT/CCDO categories of Occasional, Frequent or Constant work.



Outcome measurement is available via analysis of pre and post treatment scores.

Stoop: (tested 10/19/99)

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE	Time Set Completed
1	Dom.	<2 Lb	None	6	17.9	73.5			
2	Dom.	<2 Lb	None	6	16.8	78.3			
3	Dom.	<2 Lb	None	6	17.2	76.5			
Avg: S1	**Dom.**	**<2 Lb**	**None**	**6**	**17.3**	**76.0**	**2.6**	**5**	**09:43**

Stoop: (tested 11/1/99)

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE	Time Set Completed
1	Dom.	<2 Lb	None	6	12.4	106.1			
2	Dom.	<2 Lb	None	6	13.1	100.4			
3	Dom.	<2 Lb	None	6	12.7	103.6			
Avg: S1	**Dom.**	**<2 Lb**	**None**	**6**	**12.7**	**103.3**	**2.3**	**2**	**08:54**

SUMMARY

The learning objective of this section was to:

- ✓ Introduce the physical ability testing
- ✓ Acquaint the evaluator with Methods-Time Measurement
- ✓ Outline the major issues in physical abilities evaluation

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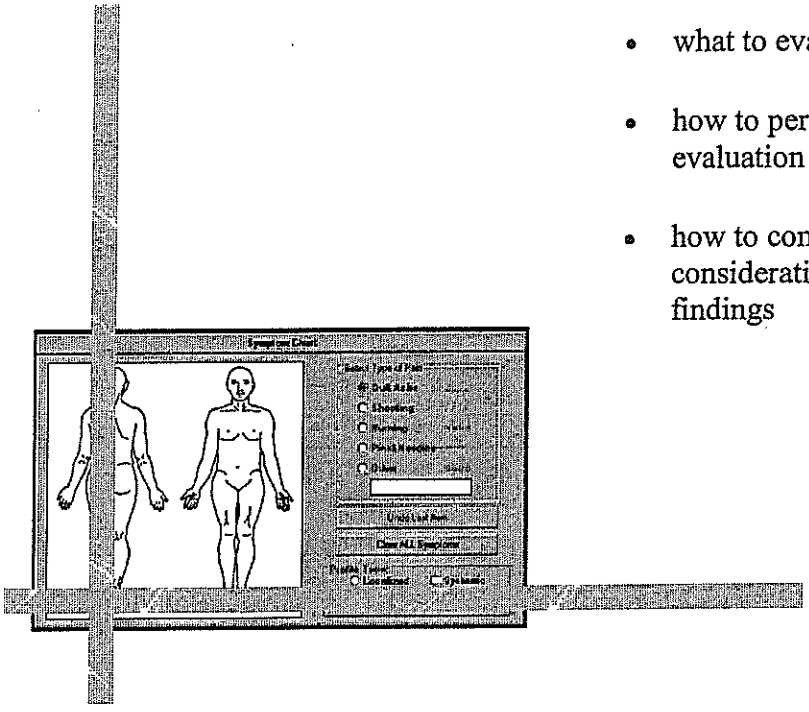
psychosocial aspects

I. Psychosocial Factors in Disability
II. Psychological Diagnosis
III. Pain
IV. Issues in Testing and Interpretation

WHAT YOU NEED TO KNOW



- what to evaluate
- how to perform the evaluation
- how to complete an FCE in consideration of positive findings

CO-MORBIDITY

Many studies presented in this section have found that disability rates and return to work outcomes are as attributable to psychosocial factors as physical abilities. There is a preponderance of co-morbidity of psychological distress at sub-clinical levels and disturbance at clinical levels that exacerbates the evaluee's physical complaints evaluees present.

The most troublesome factor contributing to delayed recovery is pain. Pain is difficult to document objectively and often unretractable even with treatment. Pain presentation leaves the health care professional in a quandary; reluctant to push the patient beyond their pain, yet failing in treatment outcomes unless they do so effectively.

DEFINITIONS:

Psychosocial factors are the inter-related personal and psychological circumstances related to personal distress or disturbance.

Psychological Conditions are diagnoses of mental and cognitive impairments.

Pain is an injury signal, indicating impending or current trauma and need for convalescence. Pain may be acute or chronic.

Anxiety is the unpleasant emotional state consisting of psychophysiological responses to anticipation of unreal or imagined danger, ostensibly resulting from unrecognized intrapsychic conflict. Physiological concomitants include increased heart rate, altered respiration rate, sweating, trembling, weakness and fatigue. Psychological concomitants include feelings of impending danger, powerlessness, apprehension and tension.

Depression is a catch-all term used to describe any of several complex, and sometimes extreme psychological states where the emotions are affected, either by internal factors such as low spirits and low self-esteem, or external factors such as traumatic events in someone's life.

Conversion disorder (somatization) is a loss or change in bodily functioning that results from a psychological conflict or need. The bodily symptoms cannot be explained by any known medical disorder or pathophysiological mechanism.

Delayed Recovery is an unexpected duration of disability relative to guidelines of disability duration by diagnosis.

Symptom magnification is a constellation of behaviors to communicate or display physical impairments, often which are undocumented by objective medical testing.

Disability behavior is a reaction and/or adjustment to environmental reinforcers brought about by the social or administrative systems of illness and compensation.

Malingering is deliberate behavior representing greater impairment to influence compensation decisions.

RESEARCH:

Studies have determined that factors other than physical impairment are related to duration of disability and time off work.

The 'Survey of Ontario Workers with Permanent Impairments' found that socioeconomic characteristics, economic incentives and job characteristics had a significant impact on return-to-work outcomes (Baldwin, Johnson and Butler, 1996). Krause, Dasinger and Neuhauser (1998) report from 23 years of research on return-to-work programs that workers who are offered modified duty return to work twice as often as those who do not have such programs, and modified work programs cut the number of lost days in half. A large industrial study at Boeing found that psychosocial factors were more predictive of disability than medical factors. Foreman assessment of the worker prior to injury was the best predictor. Other studies have found alcohol and drug problems, age, poor education and lack of transferable skills relate to disability rates. (Gamborg, Elliot and Curtis, 1991).

Milhous et al. (1989) performed a longitudinal multivariate study of disability determination and found that various psychosocial factors (age, length of time off work, current activity level, psychological factors) were related while lift capacity was not a determinant. Yelin, Henke and Epstein (1986) performed a large study of SSA clients and determined that musculoskeletal condition was a poor predictor of disability, while the nature of the work was the most discriminate variable. The authors suggest the 'interaction between functional limitations and work requirements are the strongest factors affecting work outcome".

FUNCTIONAL ASSESSMENT:

The Functional Assessment Inventory (FAI) was developed to assess the multivariate predictors of disability and allow analysis for case management. The FAI is a 30 item questionnaire with norms on disability populations (Crewe and Athelstan, 1984). The FAI has been used in many state Vocational Rehabilitation systems. The FAI predicts outcome on four variables: rehabilitation costs, case closure, work status at closure, earnings at case closure. The FAI requires knowledge of the evaluee on these items:

Other tools that exist for psychosocial investigation include the Battery for Health Improvement, Work Readiness Profile, Work Adjustment Inventory, Personal Problems Checklist, Substance Abuse Subtle Screening Inventory, and numerous other scales that have been developed and published.

II. PSYCHOLOGICAL DIAGNOSIS

SCREENING

Pre-existing conditions and the results of the disability both contribute to the psychological condition. It is important to assess the severity of psychological distress and discriminate between those who have a high state of psychological distress versus those who present with clinically elevated levels of disturbance. Various screening and diagnostic tools have been developed and validated for this purpose and are accessible to the evaluator. Differential diagnosis of psychological overlay versus disability behavior is critical in the evaluation and treatment process.

ANXIETY

Anxiety may accompany a disabling condition. In early treatment anxiety may complicate organic disease and may produce painful muscle contraction. The evaluee is likely anxious about the occupational, social role and economic effects from their disabling condition. There is often fear of re-injury and exacerbation of pain from activity the evaluator is requesting. Evaluees that exhibit anxiety need to be reassured that the evaluation is in their control, they will be kept from re-injury and the pain they experience is not harmful.

DEPRESSION

Reactive depression is common among the disability evaluation population. Depression may serve to amplify minimal organic pathology. Chronic depression is thought to be a major factor in chronic pain and other somatic symptoms. Anti-depressants have shown effectiveness in this population for pain management as well as mood elevation.

SOMATIZATION

Somatization can contribute significantly to an evaluee's presentation of symptoms and response to evaluation. There is low awareness within the evaluee that this dynamic contributes to functional ability, hence there is poor prognosis for change while this remains unresolved. Evaluees with somatization hold an intensely concrete perception of their world, and the causality of a physical injury to their internal distress is reinforcing and unretractable. Insight therapy is not realistic for these evaluees, and solutions founded in concrete treatments such as work hardening are more attractive.

The Symptom Checklist 90 (SCL-90) or its shorter version, the Brief Symptom Inventory (BSI), can be used by any licensed health care professional for psychological screening. The subscales on the SCL-90 and BSI include:

- ☑ Somatization
- ☑ Obsessive Compulsive
- ☑ Interpersonal Sensitivity
- ☑ Depression
- ☑ Anxiety
- ☑ Hostility
- ☑ Phobic Anxiety
- ☑ Paranoid Ideation
- ☑ Psychotocism
- ☑ Global Severity Index
- ☑ Positive Symptom Index

A clinically elevated score on the screening tool would suggest referral for further assessment and intervention, while non-elevated scores suggest the evaluator take appropriate response to the distress indicated, but that clinical psychology is not likely necessary at that point in time.

The DUKE Health Profile and DUKE Severity of Illness Checklist are other useful screening tools for the disability evaluation. The DUKE will be presented in the LEARNING section.

AMBIGUOUS RELATIONSHIP

Studies have demonstrated that the association between pain and physical impairment is often ambiguous and poorly correlated. No physiological response has been identified to characterize pain.

Self report measures have been the utilitarian solution. Although concern exists that self report measures may be biased, many studies have shown high correlation between these measures and concurrent objective measures, functional capacities and therapist ratings.

PAIN EVALUATION

The most common measures of pain self report are:

- ☑ Visual Analogue scale
- ☑ McGill Pain Questionnaire
- ☑ Roland and Morris Disability Questionnaire
- ☑ Oswestry Low Back Pain Disability Questionnaire
- ☑ Psychosocial Pain Inventory

Many would prefer to use an objective pain evaluation. The UAB Pain Behavior Scale (Richards et al., 1982) is a validated instrument for that purpose. It has eight items:

- ☑ Medication
- ☑ Stationary Movement
- ☑ Use of Supportive Equipment
- ☑ Body Language
- ☑ Mobility
- ☑ Standing Posture
- ☑ Facial Grimaces
- ☑ Down Time
- ☑ Vocal Complaints: Non-Verbal
- ☑ Vocal Complaints: Verbal

SCREENING RECOMMENDATIONS

The most important issue in this area of the evaluation is to use validated screening tools and make appropriate recommendations from those measures. The evaluator must not avoid these important psychosocial factors and the role they may be playing in the disability, but also should not go beyond their area of expertise for diagnosis.

The disability insurance process inadvertently fosters disability behavior, providing powerful reinforcers for secondary gain. Traditional medical treatments are not successful when these factors are prevalent and active exercise rehabilitation, early return to work and case management counseling have been most effective.

INTERPRETATION

Interpret results indicating that the results 'suggest' <findings>. Do not put forward opinion that the evaluee 'is depressed' or 'is somaticizing', unless this is your area of expertise.

Interpret physical capacity results in light of remarkable findings on the psychosocial factors, using the flexibility the evaluation tools and methodologies to present results in the direction expected with resolution of the psychosocial issues.

SUMMARY

The learning objective of this section was to:

- ✓ Introduce the purpose and reason for pain evaluation
- ✓ Acquaint the evaluator with screening and diagnostic tools
- ✓ Outline the major issues in pain evaluation

LEARNING EXERCISE:

The DUKE Health Profile be presented:

Raw Score: ___	Reference Adjusted Score: ____	Physical Health
Raw Score: ___	Reference Adjusted Score: ____	Mental Health
Raw Score: ___	Reference Adjusted Score: ____	Social Health
Raw Score: ___	Reference Adjusted Score: ____	General Health
Raw Score: ___	Reference Adjusted Score: ____	Perceived Health
Raw Score: ___	Reference Adjusted Score: ____	Self Esteem
Raw Score: ___	Reference Adjusted Score: ____	Anxiety
Raw Score: ___	Reference Adjusted Score: ____	Depression
Raw Score: ___	Reference Adjusted Score: ____	Anxiety-Depression
Raw Score: ___	Reference Adjusted Score: ____	Pain
Raw Score: ___	Reference Adjusted Score: ____	Disability

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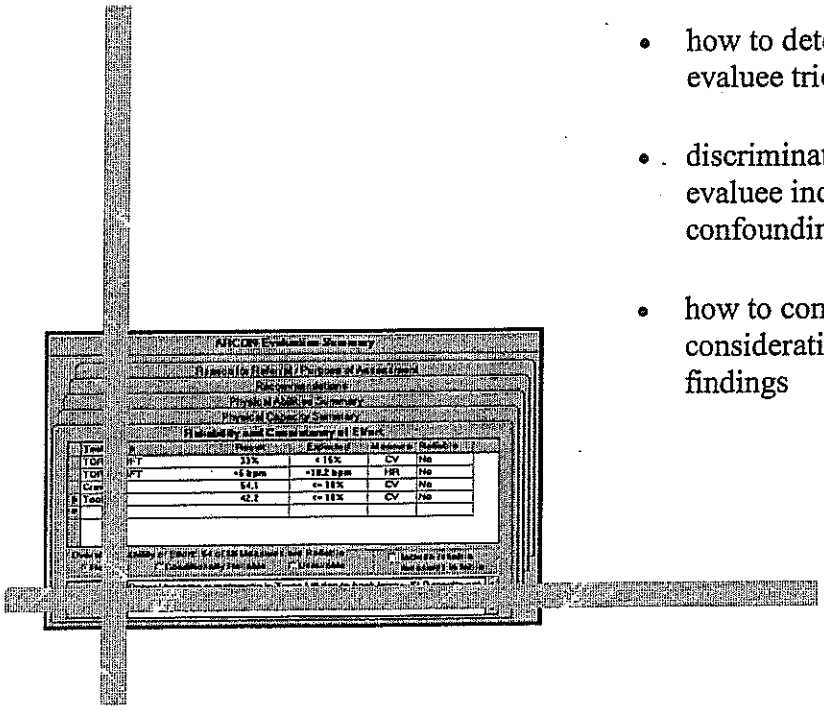
evaluee reliability

I. Introduction to Evaluee Reliability
II. Evaluation Protocols
III. Behavioral Indicators

WHAT YOU NEED TO KNOW



- how to determine the evaluee tried his/her best
- discriminate between evaluee inconsistency and confounding variables
- how to complete an FCE in consideration of positive findings

I. INTRODUCTION TO EVALUEE RELIABILITY

HOW DO YOU KNOW THE EVALUEE TRIED HIS/HER BEST?

This section will bring together the data from the preceding sections to develop an interpretation and opinion as to whether the evaluee tried his/her best. There is no algorithm or comprehensive guide that can fully assist in the final interpretation and conclusions. The medical-legal issues have to be considered very carefully because empirical evidence does not support making conclusions solely on one segment of data.

There is equivocal research on whether the existence of disability compensation has a confounding effect on disability duration and outcomes. It is estimated only 5% of disability claimants consciously alter their behavior to manipulate outcomes in their favor. Ultimately, the evaluator has to rely on clinical judgment as well as the objective evidence to make an opinion as to whether the evaluee tried his/her best, and what that may mean to the results of the testing.

DEFINITIONS:

Evaluee consistency is evidence of expected results in unconfounded testing, compared to criteria developed from research studies.

Non organic signs are evidence of biomechanically unexpected results in dissimulated physical examination.

Malingering is deliberate behavior representing greater impairment to influence compensation decisions.

Repeated Measures is successive performance on the same task.

Alternate Forms is a change in the content of a test while maintaining the criterion construct.

Dissimulation is deliberate misleading or leaving expectations ambiguous so as to prompt an evaluee to portray inappropriate behavior if they are so inclined.

Naturalistic testing is observation and measurement in an environment absent of the artificiality of the testing situation.

Standard Error of Measurement is an estimate of the absolute reliability of a test; the amount of error to expect in an evaluee's score represented by the Coefficient of Variance.

II. EVALUATION PROTOCOLS

CONSISTENCY

Various protocols have been developed to test for client consistency. The most researched FCE protocols involve comparing the consistency of the evaluee's scores on *Repeated Measures* to the *Standard Error of Measurement* (SEM) as reflected in the *Coefficient of Variance* (CoVar). It is hypothesized that an evaluee's scores will be within the established CoVar if they are giving maximal effort, and that they will have higher than expected CoVar if they are giving sub-maximal effort. This hypothesis has shown equivocal results in empirical research

COEFFICIENT OF VARIANCE

Higher than expected coefficient of variance (CoVar) is not necessarily evidence of submaximal effort. Various confounding variables can contribute error measurement. Fatigue and impairment are common reasons why inconsistent effort may be evident, even with the evaluee performing at a maximal level on each repeated measure. Other factors include measurement error, task distraction, learning curve, evaluator error, etc. These factors should be carefully documented to assist the evaluator in their review of test results when considering if a high CoVar is representative of inconsistent effort.

REPEATED MEASURES

Repeated measures test protocols have been developed for the hand grip test and the MTM testing. Standard Error of Measurement is 8% for MTM and 14% for the Jamar hand grip. Since there is some learning curve on MTM tests and they are not performed at a maximal effort then it is suggested that evaluee consistency should not be considered as a concern until CoVar is greater than 10%, and even then the cautions mentioned must be adhered to.

ALTERNATE FORMS

Alternate forms testing is the most established and validated method of testing evaluee consistency. It has been used in psychological paper and pencil testing for decades. The methodology involves repeat testing of the same function on a variance of the initial test. There need to be established relational outcomes against which to compare the evaluee's performance. Threats to validity of alternate form testing exist primarily due to change of evaluee function on that factor between testing events, and lack of control over learning curve that might exist on that function. Examples of alternates form testing in the FCE are the five hand grip positions on the Jamar, with the established bell shaped curve, and the Progressive Isoinertial Lifting Evaluation, with variation of lift distances resulting in predictable change in strength data. Alternate forms testing exists for the MTM tests, which have ratio criterion that maintains predictability via alternate forms of testing.

DISSIMULATION

Dissimulation has a long history of being used in psychological testing. Subjects are led to believe they are being tested for a particular trait or characteristic when in fact they are being monitored on another variable. There are ethical considerations when this methodology is used in experimental designs, usually monitored by a Human Subjects Research Committee. Dissimulation is the methodology inherent in the Waddel signs. Waddel developed physical examination techniques that lead the evaluee to believe he/she is being examined for some characteristics while other results are being monitored. Waddel tests also involve expectations of symptoms being simulated in evaluees, contrary to biomechanical function. Dissimulation is used in the clinical setting in tasks such as asking the evaluee to pick up a item dropped 'accidentally' by the evaluator, or writing paper and pencil tests to monitor sitting function.

NATURALISTIC TESTING

Naturalistic testing involves monitoring and measuring the evaluee while they are behaving outside the expected parameters of the evaluation environment. Threats to validity of this methodology involve conditioning that exists so strongly that disability behavior pervades all environments, not just the reinforcing environment. This would suggest false positive findings. Naturalistic testing captured via surveillance video misses some of the facilitative factors that enhance behavior. This can lead to false negative findings. Controlled naturalistic testing may be the optimal condition for this methodology. Observation and measurement of pre-determined tasks while the evaluee is on a 'break' from testing can be revealing. An example is arranging the break area so the evaluee has to walk to a break area, stoop and reach to get refreshment, arise, walk and sit. The results from this test can be compared to the 'test behavior' results from formal testing and measurement.

LIE SCALE

A methodology used in psychology, but not implemented in Functional Capacity Evaluation yet, is use of a validity or lie scale. The MMPI has a series of questions that are extremely rare to answer in the affirmative. An example of a validity question is "I never lie". Other tests use repetition of the same items twice within a lengthy test. An example of a repeated question is:

I get headaches:

a) one or more per day;
b) three or more per week;
c) three or more per month;
d) less than three per month.

This methodology holds some promise for development of a series of items that could be interspersed into a paper and pencil functional capacity self report. An examples of a validity item would be "My symptoms remain the same regardless of what I do". The affirmative would be very rare.

CONCURRENT VALIDITY SELF REPORT SCALES

Scales have been developed that self report pain, exertion, and functional tolerance. Published concurrent validity data can assist in interpretation as to the minimization, normalcy or exaggeration of the self report scales. The Borg perceived exertion scale (RPE) has been used widely in concurrent validity studies, both as criterion and dependent variable (Carton and Rhodes, 1985). The Borg Scale has shown .85 correlation to heart rate. Consequently concurrent heart rate monitoring and RPE measurement can lead to interpretation of the evaluee's self perception as being within normal limits, minimized or exaggerated.. Heart rate monitoring has some validity problems however, as heart rate is subject to effects of anxiety, tobacco, caffeine and chronic pain attenuation. Using resting heart rate as benchmark diminishes some of these concerns.

Self report functional and pain scales can be compared to objective measures from the FCE. Caution must be applied when differences in self report and observed performance are noted because many evaluees are quite unaware of their limits and abilities and are unreliable sources of estimation.

III. BEHAVIORAL INDICATORS

VIGILANT OBSERVATION

Skilled observation requires focus, sensitivity, objectivity and much practice. Most evaluators will have had the opportunity to hone these skills over years of practice.

Focus and perceptual skill requires suspension of judgment in favor of highly vigilant perception. Avoid judgment that filters sensory input into selective perception.

DOCUMENTING BEHAVIOR

Documentation of behavior supercedes judgment about the meaning of that behavior. It is more appropriate to document that "the evaluee stopped the lifting task, groaned and reached for their lumbar area", than it is to 'judge' that the evaluee "reached their maximal lifting capacity". The evaluator must avoid 'bias' based on personal values, expectations or other information in the evaluee file. Some evaluators practice a principle of not reading clinical information before the evaluation, while others have the clinic administration purposefully keep the evaluator naïve to the referral source to remove bias.

Behavior analysis serves to validate or invalidate test results. Poor dexterity scores would be further validated by observation of penmanship during paper and pencil intake questionnaires. Coping skills can be observed during the 'stress' of testing. Anxiety indicators, such as evaluee questions and voiced concerns, crying, request for feedback about performance can be helpful indicators for case management.

METHODS OF OBSERVATION

There are three methods of observation: narrative, event sampling and time sampling. The three methods are not mutually exclusive and any or all three can be used.

Narrative observation occurs at no set time or event. Observations can be documented in real time or at a convenient time to write the narrative. Observations usually document remarkable occurrences. The bias of narrative observation is that the preponderance of documentation is remarkable and the trend of 'normal' behavior is not revealed.

Event sampling looks for a particular behavior to occur and records it each time it happens. Event sampling is most appropriate when concerned about a particular behavior such as pain behavior. A checklist or other appropriate recording instrument should accompany this observation method. Caution must be exercised to try and limit the effect of behavior sampling on its reinforcement by performing this task as covertly as possible.

Time sampling is the most systematic method. This method assumes that overt behaviors occur on a fairly regular basis. It entails selecting a period of time averaging 10 minutes per hour and systematically recording functional and work related behaviors. Behavior criterion should be predetermined, appropriate to the particular evaluee, with rating scales. Criterion examples (and ratings) are down-time (minutes), verbal and non-verbal symptom indicators (1-3 indicators, 3-5 indicators, 5 or more indicators).

COMMON BEHAVIORAL OBSERVATION ERRORS

A common error in behavioral observation for health care professionals is the *tendency to be lenient.* The evaluator must try to use the most objective measures possible and leave judgment about the behavior to the interpretation stage of the report.

Another error is based *on central tendency.* Evaluators have to consider that there will be some high and low ratings and avoid always selecting ratings towards the average.

The *halo effect* concerns the evaluee with some attractive qualities not being objectively documented for their undesirable behavior.

Logical error in rating exists when a behavior is expected due to its relationship to behavior already documented. An evaluee who displayed stoic pain behavior during a carry from floor task at 8:00 a.m. might be expected to have the same behavior on repeated testing at 10:00 a.m. To read this subtle behavior into the second evaluation is a mistake unless it is clearly observed.

Contrast error exists when an evaluator rates others in the opposite direction from their perception of themselves on a trait. High regard for a personal trait leads to the tendency to rate all others as low on that trait. Athletic evaluators who have coped stoically with injury rehabilitation might be biased in their ratings of evaluees who overtly demonstrate their discomfort.

Proximity error exists when tasks are not separated by much time. In the FCE a noticeable gait behavior during the first walk task might be read into the second walk task, but in actuality was a spasm that resolved itself based on the first activity.

INTERPRETATION

Interpretation of behavior should follow the guideline of 'keep it simple'. A simple, commonsense explanation of behavior does not require a license in psychology. If the evaluee is unwilling to perform a task following a painful spasm in the previous task it can be concluded that they were symptomatic and not uncooperative. Restrict interpretation to the present situation. The behavior may not arise in a more natural setting.

Look for trends in behavior. If a male evaluee had a male evaluator, and was resistant and hostile, but smiled, joked and flirted with female clinic staff there may be advantage to scheduling the afternoon follow up with a female evaluator.

BEHAVIOR CHECKLIST

- ☑ Hygiene and Dress
- ☑ Initiating Behaviors
- ☑ Odd Behaviors
- ☑ Communication Skills
- ☑ Vitality
- ☑ Stamina
- ☑ Steadiness
- ☑ Quality
- ☑ Production Rate
- ☑ Attendance
- ☑ Punctuality
- ☑ Frustration Tolerance
- ☑ Personal Complaints
- ☑ Distractibility
- ☑ Safety
- ☑ Social Skills

SUMMARY

The learning objective of this section was to:

- ✓ Introduce evaluee reliability indicators
- ✓ Acquaint the evaluator with interpretation guidelines
- ✓ Outline the major issues in evaluee reliability

LEARNING EXERCISE:

The participants will develop an effort rating scale. Each group will develop three items for their assigned parameter and design a concurrent validity test.
(see next page)

EFFORT RATING SCALE

Parameter	Item
Vocal Indicators: Verbal	1)
Concurrent validity criterion:	2)
	3)
Vocal Indicators: Non-Verbal	1)
Concurrent validity criterion:	2)
	3)
Down-Time (time spent inactive):	1)
Concurrent validity criterion:	2)
	3)
Body Language:	1)
Concurrent validity criterion:	2)
	3)
Physiological:	1)
Concurrent validity criterion:	2)
	3)
Biomechanical:	1)
Concurrent validity criterion:	2)
	3)
Psychophysical:	1)
Concurrent validity criterion:	2)
	3)
Motivational:	1)
Concurrent validity criterion:	2)
	3)
Emotional State	1)
Concurrent validity criterion:	2)
	3)
Locus of Control	1)
Concurrent validity criterion:	2)
	3)
Other parameters	1)
Concurrent validity criterion:	2)
	3)

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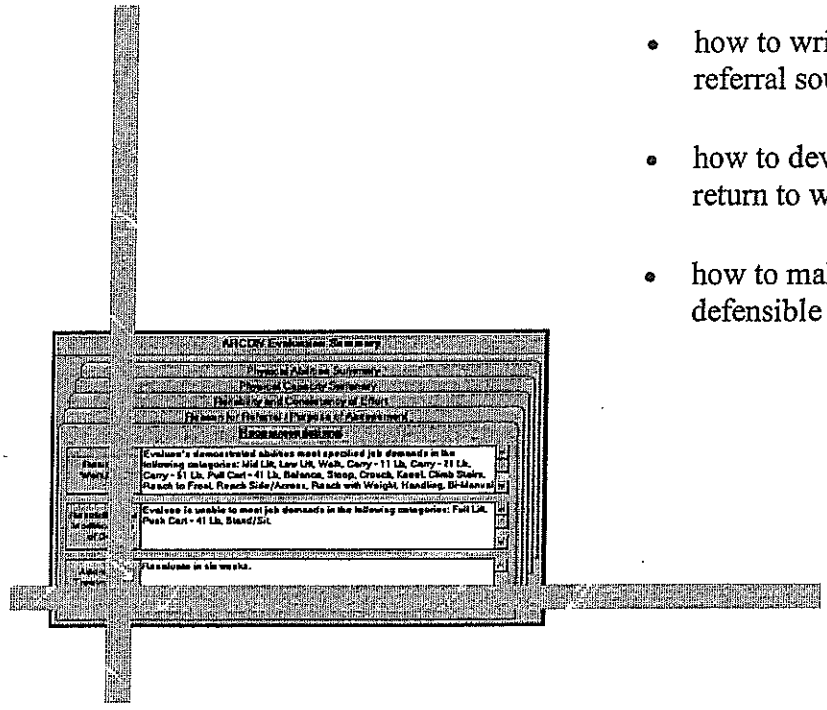
report and interpretation

I. Reviewing the Data
II. Reason For Referral
III. Evaluee Consistency
IV. Return to Work Recommendations
V. Clinical Opinion

WHAT YOU NEED TO KNOW

- how to write a report to meet referral source needs
- how to develop a realistic return to work plan
- how to make report legally defensible



I. REVIEWING THE DATA

INTRODUCTION

After collecting all the data the evaluator has to provide the most valuable component of the FCE, the report. This is a process of synthesizing evaluation data, medical history, behavioral observations, knowledge of the job demands and opportunity for accommodations in order to comprehensively give realistic, defensible return to work guidelines.

Referral sources prefer a brief opinion and summary cover page outlining significant findings and conclusions of the evaluation, followed by the data in the body of the report. The summary should outline the reason for referral, relevant medical history, synopsis of evaluation reliability and return to work recommendations.

DEFINITIONS:

Causality is the reasonable degree of medical probability between an accident or exposure and the impairment. Causality can be classified as medically probable, medically possible and aggravation.

Apportionment is an estimate of the degree to which each of the various medically probable factors contributed to a particular impairment.

Maximal Medical Improvement indicates that further medical recovery and restoration of function can no longer be anticipated to a reasonable degree of medical probability.

II. REASON FOR REFERRAL

ANSWER THE REFERRAL QUESTION

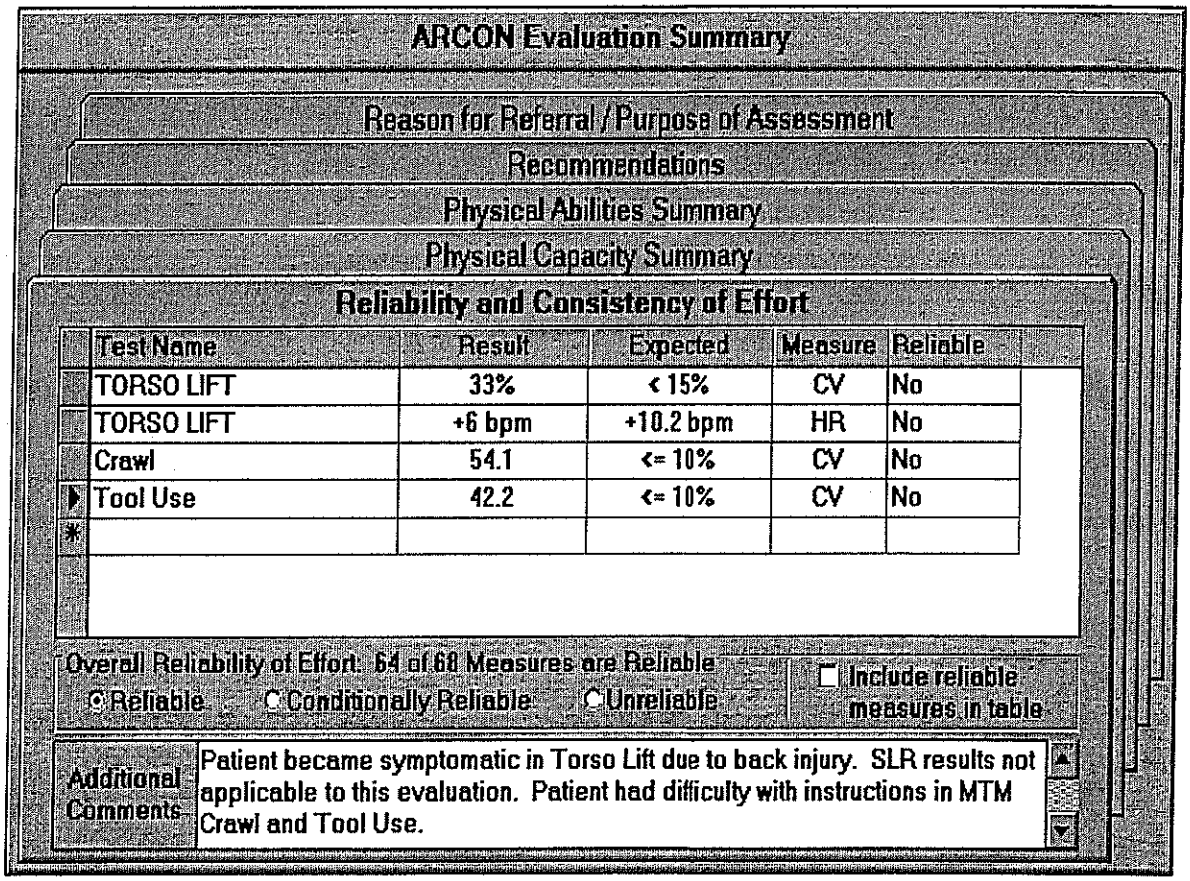
It is beneficial to review the most common referral reasons for an FCE. In most cases the evaluee will have been on disability compensation and one of the stakeholders in the disability management process (employer, insurance company, case manager, union, attorney) will have requested the FCE to define the evaluee's abilities for a return to their own job, their own occupation or any occupation. The compensation system may give award for permanent disability or loss of earning capacity, and those losses will have to be calculated. In some cases causality or apportionment will be an issue. In other cases appropriateness of care and/or treatment planning will be at the forefront. The evaluator needs to be clear on the referral question in order to provide valuable services to their referral source.

POST OFFER OF EMPLOYMENT

The FCE is also used in pre-placement/post-offer evaluation and periodic screening. However, these evaluations typically focus on only a small set of functional demands that have been demonstrated to be *bona fide* requirements of the job. Report and interpretation requirements are usually limited to the data and a pass/fail criterion only. Subsequent personnel decisions are a Human Resource function.

EVALUEE CONSISTENCY AND EFFORT

The data relevant to evaluee consistency needs to be reviewed as a composite. There is no algorithm or benchmark to establish conclusively whether the evaluee gave best effort in the evaluation. The evaluator has to collect all the consistency indicators, discard the indicators that are not reliable and valid for the evaluee, and synthesize an overall opinion.



The evaluee performed 22 out of 30 consistency indicators within reliability limits. It appears that the evaluee applied consistent effort overall.

ABILITY TO MEET JOB DEMANDS

The validity of return to work recommendations is predicated on the reliability and validity of the job demands analysis available to the evaluator. It is beneficial to have employer job descriptions and job analyses, cohort information and ultimately a job demands analysis performed by a trained analyst. However, self-report data collected from the evaluee is the source of job analysis more often than not. The report should state some limitations of the validity of the recommendations and/or need for a job demands analysis when that data is lacking.

It is important to define the job demands in the same terminology that the FCE defines functions. Minimally these descriptions need to follow the DOT/CCDO PDC categories.

JOB DEMANDS ANALYSIS

Help for Activity Demands | Help for Strength Demands

From Dictionary of Occupational Titles - Volume II, Fourth Edition, Revised 1991

Physical Demand Level	OCCASIONAL 0-33% of the workday	FREQUENT 34-66% of the workday	CONSTANT 67-100% of the workday
Sedentary (S)	1 - 10 lbs.	Negligible	Negligible
Light (L)	11 - 20 lbs.	1 - 10 lbs.	Negligible
Medium (M)	21 - 50 lbs.	11 - 25 lbs.	1 - 10 lbs.
Heavy (H)	51 - 100 lbs.	26 - 50 lbs.	11 - 20 lbs.
Very Heavy (VH)	Over 100 lbs.	Over 50 lbs.	Over 20 lbs.

DIAGNOSIS | INTAKE | Empl/Phys/Ins/Atty | HISTORY

Mechanism & History of Injury | Therapies | Medications | Employment | Education | Job Demands

Activity	C	F	O	N	n/a
Walk	X				
Climb					X
Balance		X			
Stoop					X
Kneel			X		
Crouch			X		
Crawl				X	

Strength	S	L	M	H	VH	n/a
Lift Hi						X
Lift Md					X	
Lift Lo						X
Lift Full			X			
Carry				X		
Push			X			
Pull		X				

V. CLINICAL OPINION

CLINICAL JUDGMENT

Final conclusions regarding the evaluee's functional capacity are based on the evaluator's *clinical skills to adjust the FCE data to match the evaluee's clinical profile (*to the degree the clinician's licensing allows). The clinician has to review the medical history and make a final decision about each functional capacity. For example an evaluee with multiple knee surgeries may perform the walking tests at a Constant rate on repeated measures. However, if the clinical profile contraindicates Constant walking, then the evaluator needs to downgrade the recommendation to the appropriate Frequent or Occasional category.

FURTHER TREATMENT REQUIREMENTS

The evaluator should consider the impact that further medical management, therapy, psychosocial and pain interventions may have on the evaluee's recovery. Conflict of interest on potential self referrals are prohibited in some jurisdictions, or require alternate authorization approvals and these guidelines need to be followed.

OTHER EVALUATION REQUIREMENTS

Screening or evaluation tests may have uncovered areas of concern or impairment that need further evaluation outside the scope of the FCE. The evaluator should state the results that are of concern and make appropriate recommendations.

MAXIMAL MEDICAL IMPROVEMENT

Maximal Medical Improvement indicates that further medical recovery and restoration of function can no longer be anticipated to a reasonable degree of medical probability.

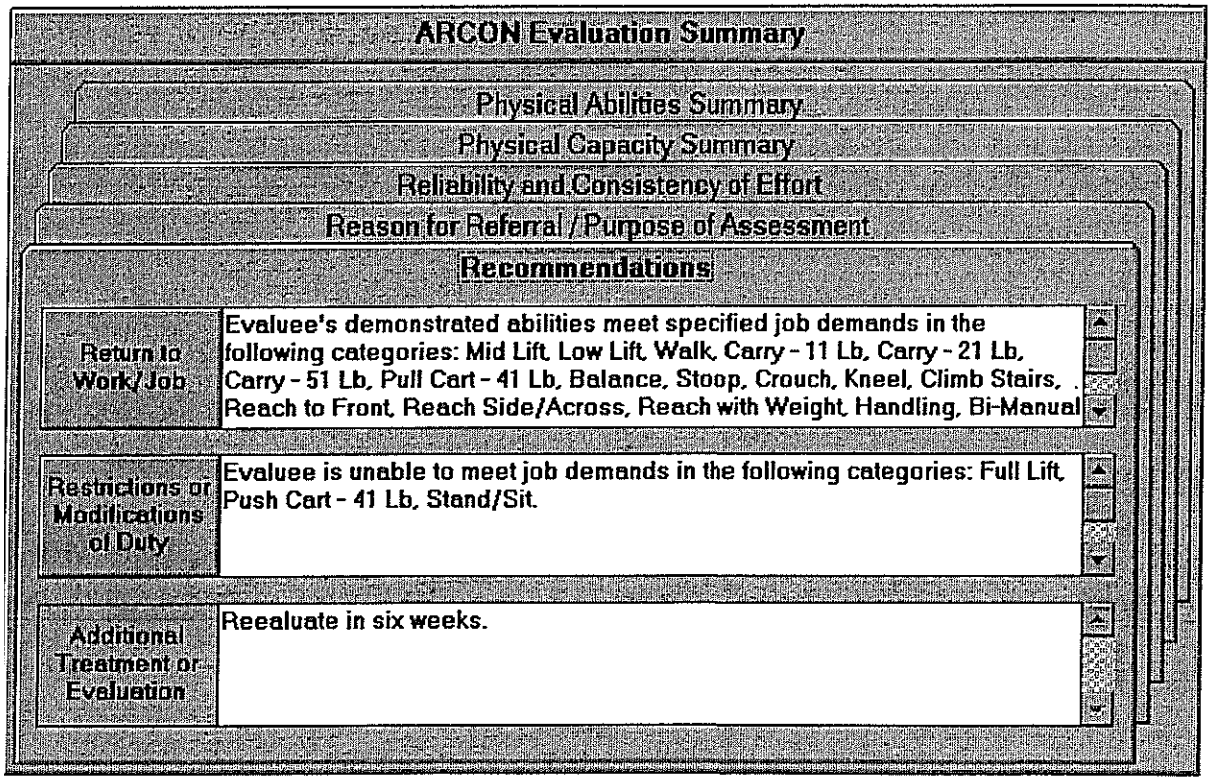
SUMMARY

The learning objective of this section was to:

- ✓ Review the data analysis
- ✓ Acquaint the evaluator with interpretation guidelines
- ✓ Make the report legally defensible

LEARNING EXERCISE:

The ARCON Evaluation Summary will be demonstrated.



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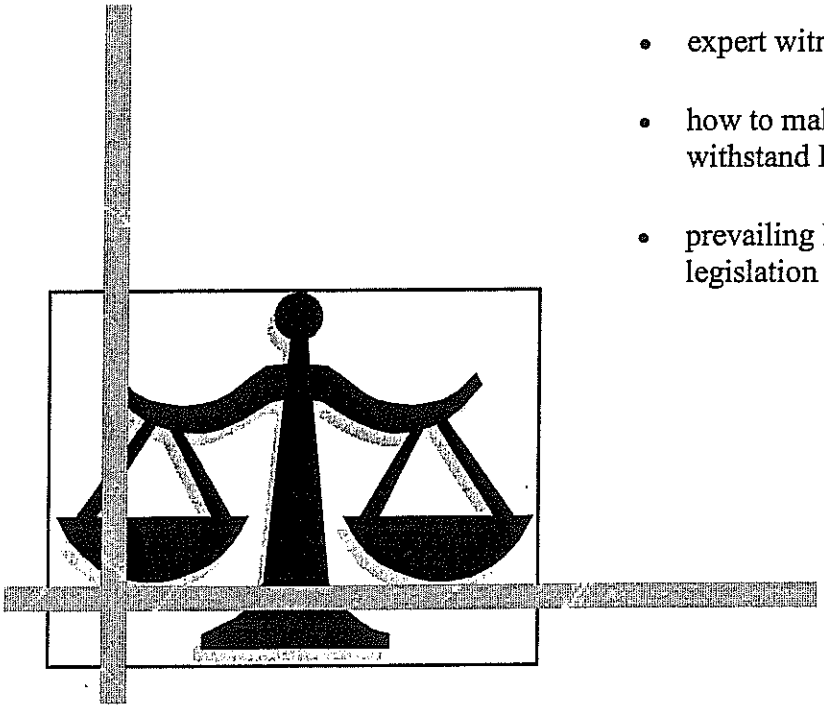
legal foundations

I. General Principles
II. Areas of Concern
III. Case Precedence
IV. ADA

WHAT YOU NEED TO KNOW

- expert witness issues
- how to make the evaluation withstand Daubert challenge
- prevailing laws and legislation



PREPARE FOR CROSS EXAMINATION

The evaluator must be prepared to be challenged on any and all points of methodology and interpretation in the evaluation. The attorney will often have significant experience in the general issues of measurement and testing, even if they are not familiar with FCE methodology specifically.

CHALLENGES

The areas in which the evaluator should be prepared for challenges are:

- ☑ Credentials (expert capacity);
- ☑ Validity of the information the evaluation relied upon: self-report data, other medicals;
- ☑ Standardization (reliability);
- ☑ Maintenance of calibration protocols and logs (reliability);
- ☑ Credibility of the evaluation methodology (reliability and validity);
- ☑ The accuracy to which a short evaluation is able to predict evaluee performance over an 8 hour day (validity);
- ☑ Lack of valid job demands analysis (validity);
- ☑ Effort given by the evaluee (reliability and validity);
- ☑ Interpretation of the data to opinion and conclusions (expert capacity).

III. CASE PRECEDENCE

CASE LAW

This list of cases have been compiled by John-Allen Waldrop, JD, Counsel for VerNova/ARCON. This is not meant to be an exhaustive list, but is comprised of relevant cases that have come to his attention.

Allstate Ins. Co. v. Orthopedic Evaluations, Inc., 300 N.J. Super. 510, 693 A2d 500 (N.J. SuperA.D. 1997).
Richard v. Dollar General Store, 606 So.2d 831 (La.App. 2 Cir. 1992).
Allen v. City of Shreveport, 595 So. 2d 340 (La.App. 2 Cir. 1992).
Bernard v. O'Leary Bros. Signs, Inc., 606 So.2d 1331 (La.App. 3 Cir. 1992).
Britton v. Morton Thiokol Inc., 604 So.2d 130 (La.App. 2 Cir. 1992).
Prudhomme v. DeSoto Pro Home Health, 579 So.2d 1167 (La.App. 2 Cir. 1991).
Burr v. Huthnance Drilling Co., No. 87-1757 (W.D. La. 1988).
Chevalier v. L.H. Bossier Inc., No. 92-888. (La.).
Manson v. City of Shreveport, No. 22221CA (La.).
Willis v. Solida Construction, No. 20341CA (La.).
Jones v. Kentucky Fried Chicken, No. 17482CA (La.).
Morgan v. General Motors Corp., No. 16521CA (La.).
Hudges v. Webster Parish Police Jury, No. 14878 (La.).
Molman v. Reliance Ins. Co., No. 14808 (La.).
Scott v. Sears, Roebuck, & Co., No. 14700 (La.).
Reliford v. Fitzerald Contractors, Inc., No 14554 (La.).
Thomas v. McInnis Bros. Construction, No. 14572 (La.).
Henderson v. Union Pacific RR, No. 890301816 (Multnomah County, OR 1989).
Allen v. Tri-County Multnomah Transportation, No. C890137CV (Anacelto Montes, OR 1989).
Kohrman v. Transport Asset Mgt Corp, No. 84462016 (Id. Work Comp).
Blackwood v. S.A.I.F Corp of Oregon, No. 89-21907 (Or. Work Comp).
Kay v., Freightliner Corp, (Or. Work Comp).
Ray v. IML Freight, No. 87-07878 and 86-12747 (Or. Work Comp).
Flores v. Coastal Hydro Service, Inc., No. 14-96464, (Dept of Labor)

IV. ADA

PROTECTIONS FOR THE DISABLED

The Americans With Disabilities Act is a federal statute in the United States that requires employers to focus on the ABILITIES of applicants rather than on their DISABILITIES. The ADA protects persons who have a disability, who have a record of disability, who are perceived as having a disability (whether they do or not), or have a relationship or association with persons who have a disability. Under the ADA, a person is considered a qualified individual with a disability if he/she can perform the essential functions of the job *with or without* reasonable accommodation.

USE OF TESTS WITHIN THE ADA

Tests cannot be used to exclude an individual with a disability unless:

1. The tested skill is necessary to perform an essential function of the position and
2. There is no reasonable accommodation that can be made available to enable the individual to perform that essential function or
3. Providing the necessary accommodation would cause undue hardship.

The ADA requires tests which screen out persons with disabilities be job related and consistent with business necessity. Tests that measure aptitude, physical agility, intelligence, and specific skills may be used. These kinds of tests are not considered to be "medical examinations" under the ADA and are not subject to the special rules that govern medical examinations.

Employers have an obligation to provide persons with disabilities reasonable accommodation to enable them to take the test. The place where the tests are held must be accessible.

Applicants should not be disqualified from a job they have the ability to perform because a disability prevents them from taking the test as it is presented. When the employer's failure to make reasonable accommodation negatively affects test results, persons who really are qualified can be excluded. This is what the ADA was designed to prohibit.

Requiring employees to continue to meet the physical criteria established for the job will help to validate the physical requirements that may screen out persons with disabilities.

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The ADA does not compel an employer to hire a person who would be a direct threat to his or her own health or safety, or to the health and safety of others at the work site. Before a decision not to hire someone because they pose a direct threat, it must first be determined that the evaluee poses a significant risk of substantial harm to the health and safety of the individual or others that cannot be eliminated or reduced by reasonable accommodation. This determination must be based on an individualized assessment of the evaluee's present ability to safely perform the essential functions of the job. The specific risk posed by the evaluee should be identified.

The determination of whether an evaluee poses a direct threat should be based on the following factors:

1. duration of the risk;
2. nature and severity of the potential harm;
3. likelihood that the potential harm will occur; and
4. imminence of the potential harm.

SUMMARY

The learning objective of this section was to:

- ✓ Acquaint the evaluator with the appropriate laws
- ✓ Make the report legally defensible

REFERENCES

1. Employment Screening, Medical Examinations, Health Insurance and the ADA, Marjorie E. Karowe, Schenectady, New York (199?).
2. ADA Regional Disability and Business Technical Assistance Center Hotline, (800) 949-4232 (voice/TTY).
3. Equal Employment Opportunity Commission, 1801 L Street, NW, Washington, DC 20507, (800) 669-4000 (Voice) to reach EEOC field offices; for publications call (800) 800-3302 or (800) 669-EEOC (voice/TTY).
4. Isernhagen S. "Workers Compensation Issues: The Functional Evaluator's Role as an Expert (Witness)." Occutra 6 (1995).
5. Nassau, DW; "The Effects of Prework Functional Screening on Lowering an Employer's Injury Rate, Medical Costs, and Lost Work Days". WorkSmart, Sparks, Maryland, USA.
6. Rockey P, Fantal J, Omenn G. "Discriminatory aspects of pre-employment screening. Low back x-ray examination in the railroad industry." American Journal Law medicine 1 (1979): 197-2; 24.

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