Compliance to rehabilitation: The patient and physical therapist

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Compliance studies

- Many of the studies about compliance (adherence) are about the injured athlete.
- Rehab compliance studies about non-athlete clients are few and these studies commonly cite the studies of the injured athlete in their review of literature.
- The non-athletes injury studied involved subjects that was recovery from a ACL injury which is classified as a acute injury. Studies about chronic injuries such as runners knee or tennis elbow and compliance to rehab were difficult to find.

Compliance to Rehabilitation

Compliance to Rehabilitation refers to maintaining a rehab regimen for a prolong period of time following injury and/or surgery.

Patient Compliance

Patient compliance is:

Voluntary,
Self-regulated, and
Largely a psychological issue

Compliance is the bottom line

- All content and skills associated with being a physical therapist must translate to your ability to facilitate compliance
  - Reduce lapses (short term) of noncompliance & promote compliance
  - Reduce relapses (long term) of noncompliance & promote compliance

Physical Therapist & training Psychological Skills

- PTs report that many were not satisfied with training they received on the application of psychological skills in injury rehab or rehabilitation compliance (Ford & Gordon, 1998)
  - Most PTs indicated desire to increase the scope of psychological skills training to include:
    - Healing Imagery
    - Motivation (e.g. goal setting)
    - Stress management (e.g. somatic & cognitive relaxation techniques)
    - Enhancing self-confidence (e.g. self-talk
    - coping skills (e.g. overcoming barriers and dealing with pain)
    - Emotional control strategies (e.g. controlling anxiety)

Compliance Rates to Rehab (Brewer, 2002)

Compliance rates to rehab range from 40-91% (or 9-60% non compliance rate to rehab.

20-30% of the clients do not even show for scheduled appointments

Barriers to Compliance

- Convenience, availability, & transportation
- Environmental factors
- Type of injury
- Lack of time*
- Lack of enjoyment
- Client's perception that the rehabilitation is going slowly or poorly
- Personality
- Stress
- Depression
- Access to the facility
- Poor communication between the PT and client
- Lack of support

The purpose of this presentation

- Discuss the determinates and factors about patient's compliance to physical therapy
  - Participants will be able to identify the personality factors in their clients that are barriers and positive correlates to rehabilitation compliance.
  - Participants will be able to identify the environmental and task variables that are barriers to rehabilitation compliance.
  - Participants will be able to identify characteristics of physical therapist that are barriers and positive correlates to rehabilitation compliance.
  - Participants will engage in a discussion of common rehabilitation compliance situations they face in their practice or profession.
  - The presenter will share with participant a screening tool to identify clients **who are at risk of non-compliance.**

Objective 1: Participants will be able to identify the personality factors in their clients that are barriers and positive correlates to rehabilitation compliance.

- Personality Determinates During Injury Rehabilitation (Wittig & Schurr, 1994)
  - Neuroticism
  - Pessimistic Explanatory Style
  - Overestimator
  - Dispositional optimism
  - Hardiness
  - Stress
  - Depression
  - Attitude

Neuroticism

- Selective attention to the negative emotions to injury
  - Anger ("I was not a nice person during rehab)
  - Emotionally venting on the PT
  - Self-blame for the injury
  - Withdrawal (e.g., not coming to rehab)

- Tendency to rely on the following ineffective coping strategies
  - Denial that they need rehab,
  - Withdrawal and disengagement from the program,

Pessimistic explanatory style

- Pessimistic explanatory style
  - ”I’m never going to _____ the rest of my life”
  - Considered to a stable disposition across other situations not just the injury or recovery.

- Health effects
  - Immune system function
  - Poorer health

Overestimators

- Non athletes and athletes in general perceive injury as more serious than it really is when compared to the AT perception (Crossman & Jamieson, 1985)

- There are a group of non-athletes and athletes that are *overestimators:*
  - *Perceive* greater pain,
  - and shows ***slow recover***.

Dispositional Optimism

- Investigations are consistent
  - Cardiovascular and,
  - Immunological function is associated with optimism (Peterson et.al, 1991;Scheiver & Carver, 1987)
- Optimism mitigates the stress-illness relationship
- Link between optimism and faster recovery

Hardiness

- "Constellation of personality characteristics that function as a resistance resource in the encountering of stressful life events"-Kobass, et. al. 1982. P. 169

- Components are
  - Commitment-strong beliefs in one own value
  - Challenge-views difficulties can be over come
  - Control- strong sense of personal power

Hardiness Link

- Kobasa (1979) linked hardiness to physical health.
- Mechanism underlying hardiness seems to be related to the client's high number of coping skills (Florian et al, 1995; Gentry & Kobasa, 1984)

Stress and Depression levels of the Client

- High stress and being depressed are non compliance determinates of rehabilitation and exercise.
- You may be certified to counsel these areas but usually all one can do is screen the client's level of stress or depression.
- These two areas plus eating disorders are commonly referred to certified counselors or psychologist.

In summary

- Non athletes and athletes who are high in neuroticism, display over estimators tendencies, report being stressed out, experience depression, and/or display pessimistic attitude will adopt maladaptive behaviors (e.g., withdrawal, anger) which results in longer rehab or incomplete recovery
  - Grove, Stewart & Gordon (1990) with clients with ACL damage
  - Grove & Bahnsen (1997) with 72 injured athletes

What can one do?

- Conduct an informal one-to-one visit & pay attention to the clients' comments:
  - Fear, sadness, embarrassment, guilt, anger, and feelings of being over whelmed by the demands of rehab—signs of neuroticism & over estimator
- Ask the client "Why do you feel rehabilitation will help?" statement….
  - Insight into athlete's explanatory style

Then what?

- Keep them involved in some form of rehabilitation by providing them meaningful incentives (e.g rewards).
- Provide them regular steady feedback on their progress whether it verbal or recording their progress.
- Maintain their fitness level by redirecting them to another physical area such as swimming, cycling, walking, etc.
- They need social validation by significant others, spouses, and relatives.
- Attempt to remove perceived barriers such as providing a flexible scheduling of appointments, providing access to rehab center, and transportation resources.
- Provide strategies or techniques to cope with pain or rehab (e.g. goal setting, attentional focus)

Objective 2: Participants will be able to identify the environmental and task variables that are barriers to rehabilitation compliance.

- Environmental and task determinates of those who comply to their rehab?
  - Self-efficacy of the treatments (Duda, et al,1989)
  - Comfort of rehab setting (Brewer, et al, 1994)
  - Convenience of rehab scheduling(Fields, et al, 1995)
  - Perceived exertion during rehab (Brewer, et al, 1988)
  - Being involved and having choices about their rehab
  - Physical Therapist's expectancy of patient's compliance.

Self-efficacy of the treatment

- Self-efficacy is situational self-confidence and in this case the patients self-confidence in performing the exercises and activities of rehab.
  - There are clients that lack the knowledge in the how to rehab or perform the exercises or activities.
  - There are clients that can not understand what is required of them during rehabilitation, especially the aged adult or mentally impaired patient.
  - These clients are at a high risk of non compliance to rehabilitation.

Comfort of a rehabilitation site

- Clients will not come to a site if they perceive it to be unsafe, especially the aged adult population.
- Distance of Physical Therapy center from one's residence can be barrier.
- Ambient air temperature and lighting
- Accessibility to the center (e.g., waiting time before the appointment and cost)
- Low to moderate positive compliance rates are seen in building newer sites.

Convenience of rehab scheduling

- Patient's need to be given some choice in scheduling appointments (perceived control).
  - Number of appointment per week
  - Time of appointment
  - Day(s)
- Develop a contract with the client about the number and days of weekly appointment that is necessary to assure recovery. Let them have choice in setting the day and time of appointment.

Perceived Exertion

- Most client's that perceive rehab will take a great amount of effort will not comply with the given protocol.
  - PT's needs to develop a protocol that is perceived by the client to take little or no effort.
    - Easier said then done when most clients want a speedy recovery.
      - Design a protocol where an aggressive exercise is followed by easier exercise.
      - Design a program that give the client choice in the order of exercises for that day's appointment.

Client's choices in rehabilitation

- Choices are associated with being in control; perception of being in control strengths one intention to rehab.
- Choices:
  - Schedule
  - Mode*
  - Intensity*
  - Home based and PT facility based program*

PT's expectancy level of compliance

- High PT expectancy compliance of their client results in higher compliance.
  - Need to express it!
  - Set goals!
  - Conduct mass media follow ups via emails, phoning, or card reminders have a low- to-moderate positive effect.
    - Considered to be a supplemental interventions to face-to-face rehab.

In summary

- Environmental and task determinates have a low to moderate positive effect on a clients compliance.
- Commonly cited determinates are
  - Flexibility and choice of scheduling
  - Safe rehabilitative facilities
  - Proximity or location of the rehabilitative facility
  - Cost or fee of rehabilitative services
  - Client' level of self-efficacy and perceived exertion
  - Physical Therapist expectancy of the client to compliance.

Objective 3: Participants will be able to identify characteristics of physical therapist that are barriers and positive correlates to rehabilitation compliance.

Which one of the following is the most commonly cited characteristic about the physical therapist effectiveness by a client or patient:

- Their competency in their delivery of the protocol
- Their experience
- Their education and certification
- Their communication between themselves and the client
- Their ability to instills a sense of self-responsibility in the client

Patient Practitioner Communication

- Studied extensively in medical literature
- Results have indicated:
  - Poor patient-practitioners communication discourages future use of medical services (Taylor, 1995)
  - Poor patient-practitioners communication hampers compliance to rehab (Meichenbaum & Turk, 1987)

Patient –Practitioner Perceptions

- Rehabilitation Regimen
  - Non athlete or athletes and health professional have significant disagreement about rehab program (Kahanov & Fairchild, 1994).
  - Patients expect to complete their rehab on an average 42% quicker then health professional estimates.
  - 77% of sport injury patients who were prescribed home rehab exercises misunderstood the rehab program (Webborn, et al, 1997)

Poor Communication

- Patient
  - Anxiety
  - Inexperience with the medical disorder
  - Lack of intelligence
- Practitioner
  - Not listening
  - Using jargon
  - Technical language
  - Displaying worry
  - Depersonalize the patient

Three Practical Suggestions

1. Listen before you fix
2. Listen for the “but”
3. Value patient input

Attribution of Recovery

- Instilling a sense of self responsibility for rehab by the athlete (Gordon et al, 1991)
  - Depends on the rate of recovery
    - Slow recovery are less likely to accept responsibility
    - Faster recovery more likely they will engage in their own self-recovery

In summary

- Clients desire to have a speedy recovery.
- Slow recovery is a sign of trouble for physical therapist and compliance to rehab.
- The PT who's protocol(s) produces results, demonstrate their competency, communicates, and instills in client a level of self-responsibility is assured of higher compliance rate than otherwise.

Objective IV: Participants will engage in a discussion of common rehabilitation compliance situations they face in their practice or profession.

Discussion of common rehabilitation situations?

- Case of the bum knee
- Case of the bad brake
- Case of the sprained ankle
- Case of the aged adult

Case of the Bum Knee

- David, 1:46 half-miler and NCAA I All American, is suffering from patellar-femoral syndrome. The coaches recently have been unhappy with his preseason, fall training. He rarely runs with the group and has missed several team meetings. The head track coach has notified David that if he does not get involved with training that he will be drop from the track squad and stripped of his full ride scholarship. David is from Kenyan and needs the scholarship to stay in school and failure to will result in him eventually being deported.
  - If you were the physical therapist assigned to treat David, How would you expect Dave to behave?
  - How would you address Dave's injury from the psychological perspective?

Case of the Bad Brake

- Kevin, freshman starting forward in basketball at division III school, went up for rebound and was undercut by a defending player. He landed breaking his fibula in two places. He has no history of ever being injured. The doctor performed surgery and pinned the fibula in place. After the surgery the surgeon informed Kevin that with proper rehab, he would be back playing next year.
    - If you were the PT assigned to treat Kevin, How would you expect Kevin to behave?
    - How would you address Kevin's injury from the psychological perspective?

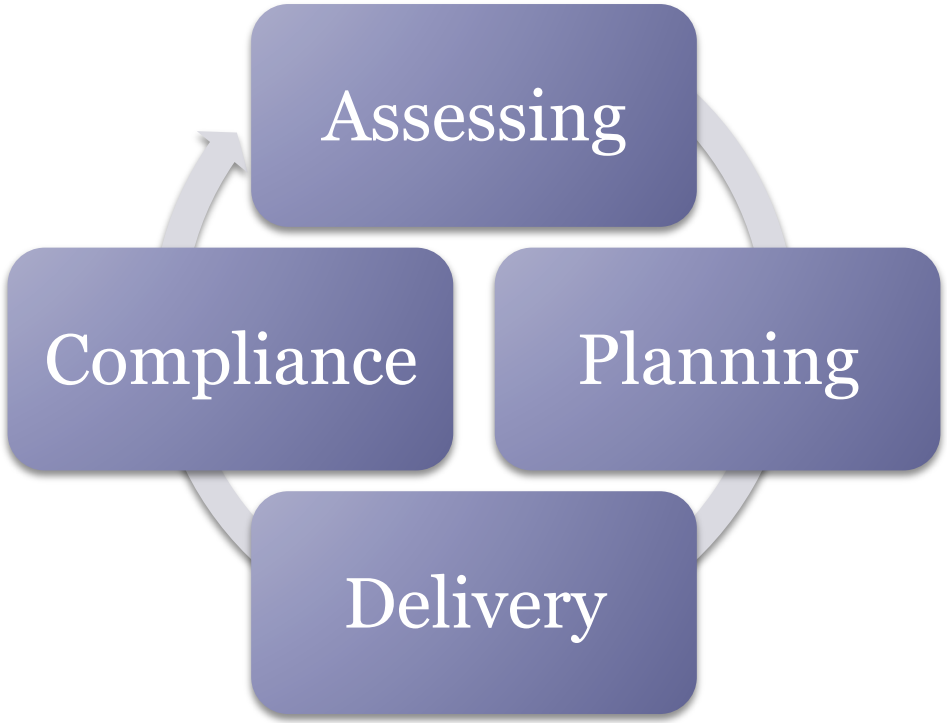
Case of the Sprain Ankle

- Josh, senior starting forward in basketball at a Division I school, went up for rebound and was undercut by the defending player. He landed severely sprained his right ankle. The team has qualified to play in the NCAA I tourney and they are favored to win the National Championship. The doctor who treated Kevin indicated that he could play through the injury if he could tolerate the pain. But if he takes time off and rehabs, he should not have any long term problems with the ankle.
    - If you were the PT athletic assigned to treat Josh, How would you expect Josh to behave?
    - How would you address Josh's injury from the psychological perspective?

Case of the Aged Adult

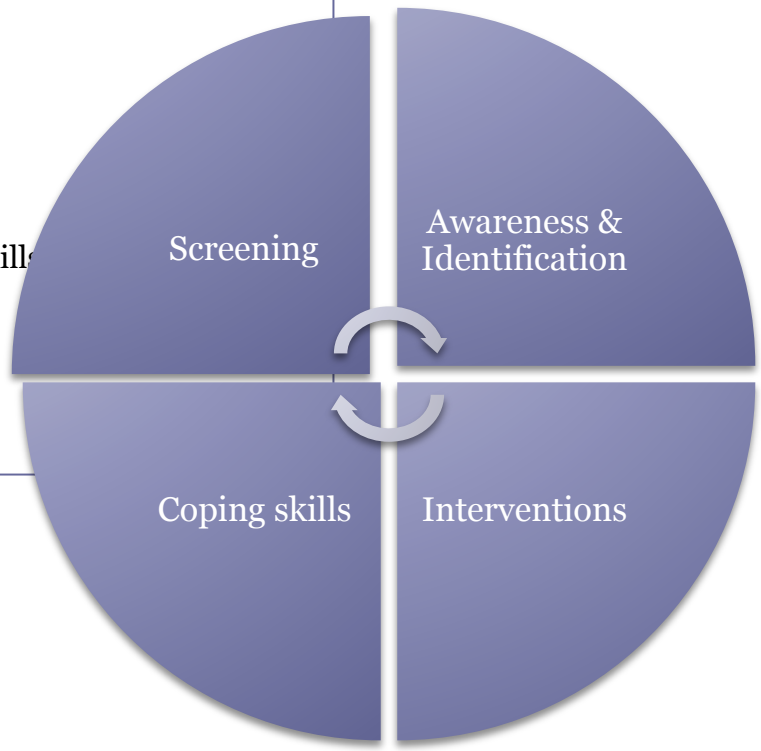
- Helen, a 91 year old women, suffered from a stress fracture to her left femur due to a fall in her home. The surgeon decided not to operate because of Helen's heart condition and age. The doctor's orders stated that there would be no weight bearing on the leg for up to 6 weeks maybe 8. Helen was admitted to the rehabilitation floor of the hospital for rehab. If successful, could return to living in her home once the femur had healed and when she was able to gain enough strength to prevent future falls.
  - If you were the PT assigned to treat Helen, How would you expect Helen to behave?
  - How would you address Kevin's injury from the psychological perspective?

Objective 5: The presenter will share with participant a screening tool to identify clients **who are at risk of non-compliance.**



Screening the Client's level of risk for non compliance

- Creates an awareness in the client and PT
- Identifies what psychological factors contribute to non compliance behavior
- What interventions can be developed based on their risk profile
- Helps in developing coping skills to overcome barries



Screening Inventory

- Risk of Non-Compliance Inventory (RNCI) measures the client's:
  - Stress
  - Depression
  - Self-efficacy
  - Motivation
  - Attitude (Thoughts)
  - Barriers
- Categorizes the client as being low, moderate, or high in risk of not complying to rehab

Summary

The reason why a client does or does comply to rehab are related to the following:

- The personality of client,
- The environmental and task characteristics, and
- Characteristic of the physical therapist.

- Screening client's risk of non compliance will make you more aware of your client's risk of non compliance which may end in better planning and programming of rehab.

Final Comment

- Thanks you for attending this presentation and hope it was useful in your practice.

- This presentation and references can be found on my website called “PT Presentation F09”:

www.d.umn.edu/~dmillsla