Science Says: Exercise Benefits Mood and Mental Health

There’s a great deal of research on how exercise relieves anxiety and depression, dating as far back as the early 1980’s,” says Mantell. In studies, exercise, as a subcategory of physical activity, is defined as planned, structured and repetitive bodily movements done to improve or maintain one or more components of physical fitness (Howley2001).
Health benefits from regular exercise that should be emphasized and reinforced by every mental health professional to their patients include the following:

- Improvement in mood
- Increased energy and stamina
- Reduced tiredness that can increase mental alertness

- Improved sleep
- Increased interest in sex
- Better endurance
- Stress relief
- Reduced cholesterol and improved cardiovascular fitness

Mental health service providers can thus provide effective, evidence-based physical activity interventions for individuals suffering from serious mental illness.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470658/>
Effects of Exercise on the Brain

Exercise seems to have an effect on certain chemicals in the brain, like dopamine and serotonin. Brain cells use these chemicals to communicate with each other, so they affect your mood and thinking.

Exercise can stimulate other chemicals in the brain called “brain derived neurotrophic factors”. These help new brain cells to grow and develop.

Moderate exercise seems to work better than vigorous exercise.

Exercise seems to reduce harmful changes in the brain caused by stress.

http://www.rcpsych.ac.uk/healthadvice/treatmentswellbeing/physicalactivity.aspx

DURHAM, N.C. -- A brisk 30-minute walk or jog around the track three times a week may be just as effective in relieving the symptoms of major depression as the standard treatment of antidepressant medications, according to the results of a Duke University Medical Center study.

The researchers studied 156 elderly patients diagnosed with major depressive disorder (MDD) and assigned them to three groups: exercise, medication, or a combination of medication and exercise. To the surprise of the researchers, after 16 weeks all three groups showed statistically significant and similar improvement in measurements of depression.

"One of the conclusions we can draw from this is that exercise may be just as effective as medication and may be a better alternative for certain patients," said the lead researcher, Duke psychologist James Blumenthal, who published the results of his team's study in the Oct. 25 issue of The Archives of Internal Medicine.

How does exercise help depression and anxiety?
Regular exercise probably helps ease depression in a number of ways, which may include:

- **Releasing feel-good brain chemicals** that may ease depression (neurotransmitters, endorphins and endocannabinoids)
- **Reducing immune system chemicals** that can worsen depression
- **Increasing body temperature**, which may have calming effects

Regular exercise has many psychological and emotional benefits, too. It can help you:

- **Gain confidence.** Meeting exercise goals or challenges, even small ones, can boost your self-confidence. Getting in shape can also make you feel better about your appearance.
- **Take your mind off worries.** Exercise is a distraction that can get you away from the cycle of negative thoughts that feed anxiety and depression.
- **Get more social interaction.** Exercise and physical activity may give you the chance to meet or socialize with others. Just exchanging a friendly smile or greeting as you walk around your neighborhood can help your mood.
- **Cope in a healthy way.** Doing something positive to manage anxiety or depression is a healthy coping strategy. Trying to feel better by drinking alcohol, dwelling on how badly you feel, or hoping anxiety or depression will go away on its own can lead to worsening symptoms.

http://www.mayoclinic.org/diseases-conditions/depression/in-depth/depression-and-exercise/art-20046495

A Patient needs Rehab if:

- Functional questions from OASIS indicate a deficit that can be addressed by rehab to improve or prevent deterioration of function
- A doctor orders rehab ( If no skilled need, discuss discontinuation of orders with MD)
- Has to be a skilled need ( Skilled therapy services require skills of a qualified therapist & must be reasonable and necessary for the treatment of the patient’s illness or injury ).
Therapy staff are required to evaluate, treat, manage & provide direct patient care based on the MD orders according to the plan of care to improve restore clinical function / condition or set up a maintenance program designed to maintain current clinical function / condition and prevent / delay the condition from deteriorating.

Rehab Triggers

<table>
<thead>
<tr>
<th>PT</th>
<th>OT</th>
<th>ST</th>
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Rehab Triggers: M1900 compare with M1800-M1890 ADLS

M1900: Prior level of function ADL/IADLs Has there been a change in the patient’s previous level of function?

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>(0) Independent</th>
<th>(1) Need Some Help</th>
<th>(2) Dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Self-Care (specifically: grooming, dressing, and bathing)</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b. ambulation</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>c. Transfer</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d. Household tasks (specifically: light meal preparation, laundry, shopping)</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tbody>
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If there was a change from previous level of care: Therapy should be ordered (If skilled need is present as stated above)

If however, nothing is new or changed since the skill was originally taught to the patient and/or caregiver, the skilled need is not there: Therapy may not be appropriate
OASIS triggers: Rehab PT

(M1910) Has this patient had a multi-factor Fall Risk Assessment using a standardized, validated assessment tool?

0 - No
1 - Yes and it does not indicate a risk for falls
2 - Yes and it does indicate a risk for falls

Rehab Summary: Triggers for Need

- Change in Previous level of function (M1900)
- Requiring rehab skill need of therapist
  - PT: M1860:Ambulation, M1850 Transfers, M1910 Falls Risk
  - OT: M1800-1850:ADLs, M1700:Cognition, M1200: Vision
  - SLP: M1220-1230 Speech/Language, M1870 Swallowing

Yes

No

- No change in previous level of function
- No rehab skilled need
As Clinicians what can we do to encourage physical activity?

- On first visit or subsequent visits walk with patient outside while teaching strategies, educating about the illness.

- Encourage patient to walk in park, mall walk if weather indicates, walk out to get mail and newspaper and walk the length of the driveway, increasing every week.

- Educate patient regarding YMCA, Senior Center exercise programs to increase both physical activity and socialization.

What can clinicians do to encourage exercise continued:

Find out patient’s goals/ motivation/history: Do they want to go to their grandchild’s play next month? Visit with their grandchildren? Get back to the Senior Center? Return to their card group?

How can we help the patient achieve their goals?

Functional exercise verses repetitive therapeutic exercise: Walking the dog verses 3 sets of 10 repetitions of a LE exercise. Help patient schedule simple activities into their day, small but achievable. At each visit ask about the activity, was the patient able to complete, if not encourage to keep trying.
Ideas for Functional Activities:

- Rearrange the furniture
- Work in the Garden
- Yoga
- Meditate
- Clean the house
- Wash the car
- Sweep the sidewalk or patio
- Dance to music
- Stretch while watching TV

Educate the patient regarding the SHAPE program (Self-Health Action Plan for Empowerment)

This pilot study examined whether participation in the individualized, community-integrated In SHAPE health promotion program would result in improved physical activity and dietary behaviors, health indicators, and psychological functioning or symptoms in 76 adults with schizophrenia, bipolar disorder, major depression, or other mental disorders. Over a 9-month period, participation was associated with increased exercise, vigorous activity, and leisurely walking (P<.01), and a trend toward improved readiness to reduce caloric intake (P = .053). Participants demonstrated a reduction in waist circumference (P<.05), but no change in BMI. **Satisfaction with fitness (P<.001) and mental health functioning (P<.05) improved, and severity of negative symptoms decreased (P<.01).**

This study demonstrated the feasibility and potential effectiveness of the In SHAPE program, which consisted of exercise and dietary modification. Based on these promising results, randomized controlled trials of the In SHAPE program are necessary to establish its effectiveness compared with usual care and alternative approaches to enhancing fitness.
People with mental illness who enrolled in the In SHAPE health promotion program accrued health benefits in a variety of domains. They increased participation in regular exercise, reduced waist circumference, improved satisfaction with their fitness, and reported improvements in mental health functioning and negative symptoms. They also demonstrated trends toward increased readiness to limit caloric intake and improved self-efficacy for participation in activities. These findings confirm that a community-integrated, individualized health promotion program can substantially benefit consumers of public mental health services.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3163497/

A study designed and conducted by the Dartmouth Hitchcock Psychiatric Research Center, a research arm of Dartmouth College in Hanover, New Hampshire, uses the stages of change model originally developed by James Prochaska and Carlo DiClemente at the University of Rhode Island to measure the program’s effectiveness. In SHAPE participants enrolled in the study are interviewed a total of six times during the program. The first interview gives evaluators a baseline measure of the participant’s physical and mental status, and readiness to change behavior. Following the initial interview, participants are interviewed at intervals of 3, 6, 9, 12, and 18 months.

“The vital ingredient of this program is that it addresses the individual as a whole person, not just the mental illness.”

The data from In SHAPE’s Dartmouth study will be used to leverage more research funds to conduct a control study in New Hampshire. After that, Ken Jue hopes to introduce the concept to the state Medicaid system, and perhaps see the menu of reimbursable services expanded to include a fitness component. He also hopes public and private insurance providers will see it as an important health benefit—as important as anything else provided to individuals with serious mental illness—and one that may actually prove to be much more cost effective.
To learn more about implementing In SHAPE in your community, please contact:

(603) 283-1675
17 93rd Street Keene, NH 03431

Web: www.mfs.org

Questions?
Case Conferencing

The goal of case conferencing is to provide holistic, coordinated, and integrated services across providers, and to reduce duplication. Case conferences are usually interdisciplinary, and include one or multiple internal and external providers and, if possible and appropriate, the client and family members/close supports.

Care/Case conferences are held for every person receiving health care at home or in a care facility. They help the “care team” ~ everyone involved in the person’s care ~ share information and work together to meet the person’s needs.
GOALS OF CASE CONFERENCING

Evaluate plan of care and effectiveness in reaching goals
Understand Interdisciplinary goals and approaches to achieve those goals
Will patient meet their goals in this certification period and/or do they need to be recerted and clinical compliance? What are the barriers to reaching goals?
Progress towards anticipated discharge date

KEY COMPONENTS OF CASE CONFERENCE

Diagnoses
- Psychiatric
- Medical
- History of Suicidal Ideation/Attempts

Assessment
- Which ones?
- What did assessments show-scores
- What disciplines need to be brought in for an assessment-PT,OT,ST,SW
  - Does the person need an HHA
- How would you use data from assessment?
- Visit frequency-disciplines

What would be your goals for the patient?
- Are they reasonable, specific, measurable?
- Sample: "At the end 1st period, BS will be normal; GDS < 12, Hamilton <14",
  - "Pt is not a danger to self or others."
  - "Pt exhibiting less signs of depression. GDS score <10 by week 9. Hamilton Anxiety Scale in moderate range of 18-24."
KEY COMPONENTS OF CASE CONFERENCE

What would your interventions be for this case in this episode?

How would you know if the patient was better?

Is re-certification clinically justified?

Discharge plans-
  ◦ Any plans for discharge?
  ◦ What criteria would you use to justify discharge?

Contact at: 716-863-0743 or www.cvseniorcare.com