Mental Health Problems in Primary Care: Prevent them before they occur

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Mental Health

- Mental health is defined as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."

Mental illness is defined as "collectively all diagnosable mental disorders" or "health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning."
Why Mental Health?

• Mental health is a **determinant** in the adoption and maintenance of **unhealthy lifestyles** (e.g. cigarette smoking, alcohol drinking)

• Mental health problems increase **the risk of premature mortality from diseases** such as cardiovascular disease, diabetes mellitus and other chronic conditions

• Physical health problems can affect mental health
Major Depression

• Leading cause of disability and premature death among people aged 18-44 years

• It has been estimated that by the year 2020, depression will be the second leading cause of disability throughout the world, trailing only ischemic heart disease.

• 15% died by their own hand, at least 66% of all suicides are preceded by depression

Co/multi-morbidity

- Chronic Pain: 20-40%
- Multi-condition Seniors: 23%
- Heart Disease: 15-20%
- Diabetes: 11-15%
- Stroke: 30-50%

Major Depression
The Mental Health Intervention Spectrum for Mental Disorders
The role of Family Doctors in Mental Health

- Treatment of Mental Health Problems
- Mental Health Prevention
- Mental Health Promotion
PSYCHIATRY & ABNORMAL PSYCHOLOGY

Disease Model:
Neurosis, anxiety, depression, psychosis
Focus on correcting weakness

POSITIVE PSYCHOLOGY

Health Model:
Well being, satisfaction, joy, excitement, happiness
Focus on building competency

Treatment & Prevention

Promotion
Prevention through Cultivating Positive (Capacity) = Promotion

• Stronger “psychological immune system”
• Larger and stronger “psychological engine”
• Dealing with the mental health epidemic
“We have discovered that there are human strengths that act as buffers against mental illness: **courage, future-mindedness, optimism, interpersonal skill, faith, work ethic, hope, honesty, perseverance, the capacity for flow and insight**…we have shown that learning **optimism prevents depression and anxiety** in children and adults, roughly halving their incidence over the next two years...Similarly, I believe, that if we wish to prevent drug abuse in teenagers who grow up in a neighborhood that puts them at risk, that the effective prevention is not remedial. **Rather it consists of identifying and amplifying the strengths that these teens already have.**”

Martin Seligman
Resilience

“A class of phenomena characterized by patterns of positive adaptation in the context of significant adversity or risk.”

Ordinary characteristics, extraordinary results

• Optimism
• Faith and a sense of meaning
• Pro-social behavior
• Focusing on strengths
• Set goals
• Social support
Advantages of Mental Health Prevention, Promotion and Treatment in Primary Care

1. In Primary Care/ Family Medicine settings where the patient feels most comfortable receiving care.

2. Many completed suicides were seen by PCP

- 20% on the same day
- 40% within 1 week
- 70% within 1 month
Why Integrate Mental Health In Primary Care?

• Can have better coordination of care
• Mind and body connection & multimorbidty
• More likely to keep appointments where multiple issues are being addressed = COST EFFECTIVE
• The majority of mental health treatment will occur in community health settings- with focus on preventive care and integration
• LESS STIGMA!!!
Stepped Care Approach for Treatment

- **STEP 1:** GP, practice nurse
- **STEP 2:** Primary care team, primary care mental health worker
- **STEP 3:** Primary care team, primary care mental health worker
- **STEP 4:** Mental health specialists including crisis teams
- **STEP 5:** Inpatient care, crisis teams

- **Recognition**
- **Mild depression**
- **Moderate or severe depression**
- **Treatment resistant, recurrent, atypical and psychotic depression, and those at significant risk**
- **Risk to life, severe neglect**
- **Medications, combined treatments, ECT**
- **Medications, complex psychological treatments, combined treatments**

School of Public Health and Primary Care, CUHK
Stepped Care Approach for Universal & Indicated Prevention?
What are the non-pharmacological mental health promotion & prevention interventions?
Review of innovative preventive "self help" interventions
I. Positive Psychology: Gratitude Research

Objective: To investigate the effects of “grateful outlook” on psychological and physical well being.

Experimental Design: 1

- 192 College students who were randomized into various interventions: gratitude, hassles, superior/control (neutral events) for 9 weeks
- Participants to record weekly events & outcome measures
- Outcome measures: moods, coping behaviors, health behaviors, physical symptoms, overall life appraisals
Experimental Design 2:

- 65 patients with neuromuscular disease were randomly assigned to either the gratitude condition or a control condition for 21 days
- Daily report of outcome measures
Counting Blessings Versus Burdens: An Experimental Investigation of Gratitude and Subjective Well-Being in Daily Life

Robert A. Emmons
University of California, Davis

Michael E. McCullough
University of Miami

Journal of Personality and Social Psychology
2003, Vol. 84, No. 2, 377–389

Table 2
Comparisons of Groups by Measures of Well-Being, Study 1

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Grateful</th>
<th>Hassles</th>
<th>Events</th>
<th>F(2, 189)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life as whole</td>
<td>5.05</td>
<td>4.67</td>
<td>4.66</td>
<td>4.08</td>
</tr>
<tr>
<td>Upcoming week</td>
<td>5.48</td>
<td>5.11</td>
<td>5.10</td>
<td>2.81</td>
</tr>
<tr>
<td>Physical symptoms</td>
<td>3.03</td>
<td>3.54</td>
<td>3.75</td>
<td>3.06</td>
</tr>
<tr>
<td>Hours of exercise</td>
<td>4.35</td>
<td>3.01</td>
<td>3.74</td>
<td>3.76</td>
</tr>
</tbody>
</table>

Note: N = 192. Means that do not share a letter are significantly different, p < .05.
* p < .05. ** p = .01.
Results: 1

Those who kept gratitude journals on a weekly basis exercised more regularly, reported fewer physical symptoms, felt better about their lives as a whole, and were more optimistic about the upcoming week compared to those who recorded hassles or neutral life events.
More Results

Table 5
Comparisons of Groups by Measures of Subjective Well-Being, Study 3

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Gratitude</th>
<th>Control</th>
<th>F(1, 63)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life as whole</td>
<td>5.54</td>
<td>4.80</td>
<td>13.77**</td>
</tr>
<tr>
<td>Upcoming week</td>
<td>5.70</td>
<td>5.20</td>
<td>5.38*</td>
</tr>
<tr>
<td>Connected with others</td>
<td>5.77</td>
<td>5.07</td>
<td>11.67**</td>
</tr>
</tbody>
</table>

Note. N = 65.
* p < .05. ** p < .01.

Table 6
Comparisons of Groups on Measures of Physical Well-Being, Study 3

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Gratitude</th>
<th>Control</th>
<th>F(1, 63)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours of sleep</td>
<td>7.58</td>
<td>7.06</td>
<td>5.60*</td>
</tr>
<tr>
<td>How refreshed on waking</td>
<td>3.04</td>
<td>2.58</td>
<td>3.09*</td>
</tr>
<tr>
<td>Physical pain</td>
<td>2.96</td>
<td>3.20</td>
<td>0.91</td>
</tr>
<tr>
<td>Pain interference</td>
<td>2.30</td>
<td>2.35</td>
<td>0.05</td>
</tr>
<tr>
<td>Exercise (yes/no)</td>
<td>1.60</td>
<td>1.72</td>
<td>1.78</td>
</tr>
<tr>
<td>Functional status</td>
<td>1.63</td>
<td>1.58</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Note. N = 65.
* p < .05.
People in the gratitude condition

- Experienced higher levels of positive affect
- Improved amount and quality of sleep
- Improvement of well being observed by spouses
“There do appear to exist benefits in regularly focusing on your blessings”
II: Physical Activity

Physical Activity Reduces the Risk of Subsequent Depression for Older Adults

William J. Strawbridge¹, Stéphane Deleger², Robert E. Roberts², and George A. Kaplan³

¹ Human Population Laboratory, Public Health Institute, Berkeley, CA.
² School of Public Health, University of Texas, Houston, TX.
³ Department of Epidemiology, University of Michigan, Ann Arbor, MI.

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Previous studies assessing protective effects of physical activity on depression have had conflicting results; one recent study argued that excluding disabled subjects attenuated any observed effects. The authors’ objective was to compare the effects of higher levels of physical activity on prevalent and incident depression with and without exclusion of disabled subjects. Participants were 1,947 community-dwelling adults from the Alameda County Study aged 50–94 years at baseline in 1994 with 5 years of follow-up. Depression was measured using criteria from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (Washington, DC: American Psychiatric Association, 1994). Physical activity was measured with an eight-point scale; odds ratios are based upon a one-point increase on the scale. Even with adjustments for age, sex, ethnicity, financial strain, chronic conditions, disability, body mass index, alcohol consumption, smoking, and social relations, greater physical activity was protective for both prevalent depression (adjusted odds ratio (OR) = 0.90, 95% confidence interval (CI): 0.79, 1.01) and incident depression (adjusted OR = 0.83, 95% CI: 0.73, 0.96) over 5 years. Exclusion of disabled subjects did not attenuate the incidence results (adjusted OR = 0.79, 95% CI: 0.67, 0.92). Findings support the protective effects of physical activity on depression for older adults and argue against excluding disabled subjects from similar studies. Am J Epidemiol 2002;156:328–34.

aged; disabled persons; exercise; mental health; prospective studies
TABLE 2. Sequential logistic regression models showing relations between 1994 physical activity and depression in 1994 and 1999 with adjustments for other risk factors among 1,947 men and women, Alameda County Study, California, 1994–1999

<table>
<thead>
<tr>
<th>Model and 1994 covariates</th>
<th>Prevalent 1994 depression (cross-sectional analyses) with all subjects included (n = 1,947)</th>
<th>Incident 1999 depression (longitudinal analyses) with 1994 depressed subjects excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR*</td>
<td>95% CI†</td>
</tr>
<tr>
<td>1. Age, sex, and ethnicity</td>
<td>0.75</td>
<td>0.68, 0.84</td>
</tr>
<tr>
<td>2. Model 1 + education, financial strain, and neighborhood problems</td>
<td>0.78</td>
<td>0.70, 0.87</td>
</tr>
<tr>
<td>3. Model 2 + physical disability,† chronic conditions, BMI,† smoking, and alcohol consumption</td>
<td>0.86</td>
<td>0.76, 0.96</td>
</tr>
<tr>
<td>4. Model 3 + no. of relatives, no. of friends, and satisfaction with relations</td>
<td>0.90</td>
<td>0.79, 1.01</td>
</tr>
</tbody>
</table>

* Odds ratios (OR) represent the approximate relative likelihood of being depressed associated with a one-point increase in the physical activity scale. Because the incidence rate for depression is relatively small (5.4%), the resulting odds ratios for the longitudinal analyses closely approximate relative risks.
† CI, confidence interval; BMI, body mass index.
‡ This variable is omitted from models in which physically disabled subjects were excluded.
“Findings support the protective effects of physical activity on depression for older adults.”

Exercise Treatment for Major Depression: Maintenance of Therapeutic Benefit at 10 Months

Michael Babyak, PhD, James A. Blumenthal, PhD, Steve Herman, PhD, Parinda Khatri, PhD, Murali Doraiswamy, MD, Kathleen Moore, PhD, W. Edward Craighead, PhD, Teri T. Baldewicz, PhD, and K. Ranga Krishnan, MD


Objective: The purpose of this study was to assess the status of 156 adult volunteers with major depressive disorder (MDD) 6 months after completion of a study in which they were randomly assigned to a 4-month course of aerobic exercise, sertraline therapy, or a combination of exercise and sertraline. Methods: The presence and severity of depression were assessed by clinical interview using the Diagnostic Interview Schedule and the Hamilton Rating Scale for Depression (HRSD) and by self-report using the Beck Depression Inventory. Assessments were performed at baseline, after 4 months of treatment, and 6 months after treatment was concluded (ie, after 10 months). Results: After 4 months, patients in all three groups exhibited significant improvement; the proportion of remitted participants (ie, those who no longer met diagnostic criteria for MDD and had an HRSD score <8) was comparable across the three treatment conditions. After 10 months, however, remitted subjects in the exercise group had significantly lower relapse rates ($p = .01$) than subjects in the medication group. Exercising on one’s own during the follow-up period was associated with a reduced probability of depression diagnosis at the end of that period (odds ratio = 0.49, $p = .0009$). Conclusions: Among individuals with MDD, exercise therapy is feasible and is associated with significant therapeutic benefit, especially if exercise is continued over time. Key words: depression, exercise, aging.
Results

“After 10 months, however, remitted subjects in the exercise group had significantly lower relapse rate than subjects in the medication group.”

“Exercising on one’s own during the follow-up period was associated with a reduced probability of depression diagnosis at the end of that period (0.49. p=0.0009)”
III: Mindfulness

• Moment to moment awareness
• Cultivated by purposefully **paying attention** to things we ordinarily never give a moment’s thought to
• Systematic approach to developing new kinds of control in our lives, based on our inner capacities for relaxation, paying attention, awareness, and insight
“Mindfulness means paying attention in a particular way;
On purpose, in the present moment, and nonjudgmentally.”

Jon Kabat-Zinn
A Test for your attention!
Mindfulness-Based Stress Reduction

- established by Jon Kabat-Zinn at the University of Massachusetts Medical School.
Mindfulness Based Cognitive Therapy

• By Segal ZV, Williams JM, Teasdale JD
• Based on empirical work showing relapse is related to reinstatement of automatic modes of thinking and feeling of the depressed state
• Monitoring & observing thinking patterns when sad to enable development of skills in meta-cognition or de-centering
Mindfulness & Mental Health Problems

• Recurrent Depression

• Generalized Anxiety Disorder

• Others
Mental Health - Prevention of Recurrent Depression

- Relapse and recurrent after recovery from major depressive disorder are common
- Maintenance antidepressant monotherapy - depressive relapse prophylaxis: standard of therapy
- Non-compliance up to 40%
- Question: Would MBCT help to prevent relapse?
Prevention of Relapse/Recurrence in Major Depression by Mindfulness-Based Cognitive Therapy

John D. Teasdale
Medical Research Council Cognition and Brain Sciences Unit

This study evaluated mindfulness-based cognitive therapy (MBCT), a group intervention designed to train recovered recurrently depressed patients to disengage from dysphoria-activated depressogenic thinking that may mediate relapse/recurrence. Recovered recurrently depressed patients \( (n = 145) \) were randomized to continue with treatment as usual or, in addition, to receive MBCT. Relapse/recurrence to major depression was assessed over a 60-week study period. For patients with 3 or more previous episodes of depression (77% of the sample), MBCT significantly reduced risk of relapse/recurrence. For patients with only 2 previous episodes, MBCT did not reduce relapse/recurrence. MBCT offers a promising cost-efficient psychological approach to preventing relapse/recurrence in recovered recurrently depressed patients.
Figure 1. Survival (nonrelapse/nonrecurrence) curves comparing relapse/recurrence to "Diagnostic and Statistical Manual of Mental Disorders" (3rd ed.; American Psychiatric Association, 1987) major depression for treatment as usual and mindfulness-based cognitive therapy in patients with three or more previous episodes of major depression: (a) intent-to-treat sample and (b) per-protocol sample. CT = cognitive therapy.
Antidepressant Monotherapy vs Sequential Pharmacotherapy and Mindfulness-Based Cognitive Therapy, or Placebo, for Relapse Prophylaxis in Recurrent Depression

Zindel V. Segal, PhD; Peter Bieling, PhD; Trevor Young, MD; Robert Cooke, MD; Lawrence Martin, MD; Richard Bloch, M.

Context: Mindfulness-based cognitive therapy (MBCT) is a group-based psychosocial intervention designed to enhance self-management of prodromal symptoms associated with depressive relapse.

Objective: To compare rates of relapse in depressed patients in remission receiving MBCT against maintenance antidepressant pharmacotherapy, the current standard of care.

Design: Patients who met remission criteria after 8 months of algorithm-informed antidepressant treatment were randomized to receive maintenance antidepressant medication, MBCT, or placebo and were followed up for 18 months.

Results: Intention-to-treat analyses showed a significant interaction between the quality of acute-phase remission and subsequent prevention of relapse in randomized patients ($P = .03$). Among unstable remitters (1 or more Hamilton Rating Scale for Depression score $> 7$ during remission), patients in both MBCT and maintenance treatment showed a 73% decrease in hazard compared with placebo ($P = .03$), whereas for stable remitters (all Hamilton Rating Scale for Depression scores $\leq 7$ during remission) there were no group differences in survival.

Conclusions: For depressed patients achieving stable or unstable clinical remission, MBCT offers protection against relapse/recurrence on a par with that of maintenance antidepressant pharmacotherapy. Our data also highlight the importance of maintaining at least 1 long-term active treatment in unstable remitters.

Arch Gen Psychiatry. 2010;67(12):1256-1264
Enrollment
- 3683 Telephone inquiries
- 937 Telephone interviews
- 478 SCID for MDD and eligibility

262 Excluded
- 223 Not meeting diagnostic criteria
- 19 SCID not completed
- 9 English second language
- 3 No OHIP coverage
- 8 Miscellaneous

Acute treatment
- 216 Eligible for inclusion
  - 22 Psychiatrist exclusion for medical reasons
  - 34 Consent declined
- 160 Received 2-step antidepressant monotherapy
  - 50 Failed to meet remission criteria
  - 16 Withdrew participation
  - 10 Responded but refused randomization

84 Acute-phase remitters randomized to

- 28 To maintenance antidepressant medication
  - 8 Completed
  - 13 Relapsed
  - 7 Dropped out

- 26 To discontinuation + MBCT
  - 11 Completed
  - 10 Relapsed
  - 5 Dropped out

- 30 To discontinuation + placebo and clinical management
  - 6 Completed
  - 18 Relapsed
  - 6 Dropped out

28 In intention to treat
  - 0 Excluded from analysis

26 In intention to treat
  - 0 Excluded from analysis

30 In intention to treat
  - 0 Excluded from analysis
A Kaplan-Meier survival curve is shown, comparing three groups: M-ADM, MBCT, and Pla+Clin. The x-axis represents time in days, ranging from 0 to 600. The y-axis represents the estimated survival probability, ranging from 0.0 to 1.0.

The table below the graph shows the number of subjects at risk at different time points:

<table>
<thead>
<tr>
<th>Group</th>
<th>0 d</th>
<th>100 d</th>
<th>200 d</th>
<th>300 d</th>
<th>400 d</th>
<th>500 d</th>
<th>600 d</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-ADM</td>
<td>11</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>MBCT</td>
<td>18</td>
<td>14</td>
<td>11</td>
<td>11</td>
<td>10</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Pla+Clin</td>
<td>14</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Continuation and relapse prevention

At remission:
Encourage a person who has benefited from taking an antidepressant to continue medication for at least 6 months and inform them that:
- this greatly reduces the risk of relapse
- antidepressants are not associated with addiction

6 months after remission:
Review with the person the need for continued medication, taking into account:
- number of previous episodes
- residual symptoms
- concurrent physical health problems and psychosocial difficulties

If risk of relapse is significant or there is a history of recurrent depression
Discuss choice of treatment with the person, and base choice on previous treatment history and the person's preference

Continuing medication
- Advise use of antidepressants for at least 2 years.
- Maintain level of medication at which acute treatment was effective (unless there are adverse effects) if:
  - the person has had two or more recent episodes of depression which caused significant functional impairment
  - they have other risk factors for relapse
  - the consequences of relapse are likely to be severe.

After 2 years
- Re-evaluate treatment with the person, taking into account age, comorbidities and other risk factors; thereafter re-evaluate as regularly as needed.

Augmenting medication
- People who have had multiple episodes of depression and who have a good response to augmentation should remain on this treatment if side effects are acceptable. If one medication is stopped, it should usually be the augmenting agent.
- Do not use lithium alone to prevent recurrence.

Psychological interventions
- Provide individual CBT for people who have relapsed despite antidepressants and for people with a significant history of depression and residual symptoms despite treatment.
  - Typically deliver 16–20 sessions over 3–4 months.
  - If more are needed to achieve remission, deliver 2 sessions per week for the first 2–3 weeks; also include 4–6 follow-up sessions in the next 6 months.
- Provide mindfulness-based cognitive therapy for people who are currently well but have had 3 or more episodes of depression. Deliver in groups of 8–15 people in weekly 2-hour meetings over 8 weeks. Also offer 4 follow-up sessions in the next 12 months.
Current Research funded by HHSRF

- MBCT in reducing mood symptoms among GAD patients in community and primary
- MBSR in reducing stress and depressive symptoms among caregivers of people with disabling chronic conditions
- MBCT in improving sleep quality and quantity among people with primary insomnia in primary care
- MBSR in reducing chronic pain symptoms in patients with chronic pain
Take Home Message

A. For simple self help preventive interventions:
1. Be grateful
2. Do physical activity
3. Mindfulness

B. Strengthen positive attributes/resilience among those at risk (selected intervention) and universal intervention
“We see what we look for and we miss much of what we are not looking for even though it is there….Our experience of the world is heavily influenced by where we place our attention.”

Stavros and Torres
Thank you!