Mental Wellbeing: what is it, why does it matter and how do we measure it?

Sarah Stewart-Brown
Professor of Public Health
What does mental wellbeing look like?
FEELING GOOD
AND
FUNCTIONING WELL
Functioning well
Psychological WB; Eudemonic WB; Flourishing

Self acceptance

Positive relations with others

Autonomy

Agency

Purpose in life

Personal growth and development

Ryff 1995
Feeling good
Subjective; WB Hedonic

• Life satisfaction
• Happiness

Diener 1993
Spiritual wellbeing
Salovey 1990

- Practicing a religion
- Going to church
- Belief in the divine
- Sense of purpose
- Connectedness
Mental Health Continuum

Nº of People

Poor mental health/mental illness

Good mental health/mental well being
Distribution of Mental Health

No of People

Poor mental health/mental illness

Psychiatric diagnosis

Good mental health/mental well being
Distribution of Mental Health
Geoffrey Rose Argument

Number of People

Poor mental health/mental illness

Good mental health/mental well being
Distribution of Mental Health

Nº of People

Poor mental health/mental illness

Good mental health/mental wellbeing
Promoting mental wellbeing prevents mental illness; but preventing mental illness does not promote mental wellbeing.
WEMWBS vs CESD-D

Pearson correlation .842
Why focus mental wellbeing?

• General public increasingly demanding that the NHS should concern itself with wellbeing as well as disease
• **Lack of mental wellbeing creates risk for mental illness**
• Lack of mental wellbeing is a determinant of physical health
• Interventions which focus on the positive may be more effective than those that focus on the negative.
  – ‘What you pay attention to is what you get more of’
  – Biology of Belief: Bruce Lipton 2008
Mental Illness/Disorder/
Mental Health Problems

• Many studies show mental illness is very common
  – >10% of children and young people
  – >18% of adults
  – 0.5% have psychosis

• Lifetime risk much higher
  – 25% of men and 50% of women have had an episode of clinical depression in their lifetime
% 18-64yrs Reporting problems with work or other daily activity as a result of their health over 4 wks (SF-36)
Postal questionnaire survey of 9332 adults in old Oxford Region

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Studies showing mental health problems predict physical disease (1)

- People with psychotic disorders die on average 25 yrs earlier than the general population (Parks et al 2006)

- Self report of depression in population studies increases mortality by 50% (Mekletun et al 2007)

- Diagnosis of neurotic disorder in general practice increases mortality over next 11 years by 70% (Lloyd et al 2006)
Positive Relationships Prevent Death
Holt-Lunstad J. Smith TB, Layton JB 2010

Meta-analysis
• 148 Studies
• OR 1.50 (1.42-1.59) favouring stronger social relationships
• Measures of social integration OR 1.91 (1.63-2.23) were more strongly predictive than measures of social networks OR 1.19 (0.99-1.44)
Wellbeing is holistic

• Descartes was wrong
  • The mind and body are one system
• We are all connected
  • Humans are part of the ecological system
Stress

• A potential disturbance in the equilibrium of essential body functions (McEwen and Lasley 2002)

• Equilibrium is the balance between the stress (sympathetic) and relaxation (parasympathetic) response (Dusek et al 2008)

• Stressors can be either physical or psychological: the response is the same
Stress response

• In healthy state, the stress response is followed by re-establishment of balance, but this takes time to happen
• Repeated or chronic stress results in permanent imbalance, and ultimately dysregulation of the stress response
• The stress response affects all physiological systems including respiration, cardiovascular, digestion, immunity and memory
Hostility, depression, anxiety, anger

Distress, crying, withdrawal

Sets thermostat on HPA stress response

Adult who is prone to fight, flight or freeze responses
Smoking

– 42% of tobacco consumed by adults is consumed by people with mental disorder

– prospectively associated with 50% increase in the risk of mental health problems (Culjpers et al 2007)

– cessation associated with improvements in mental health (Taylor et al BMJ 2014)

– smoking in pregnancy predicts mental health problems in offspring
Substance misuse

– Drug and alcohol abuse strongly associated with mental health

– Parental alcohol misuse is a potent cause of mental health problems in children
Physical Activity

• Mental illness associated with sedentary lifestyles
• Adults meeting guidelines for PA have greatest wellbeing
• PA reduces depression and anxiety and reactivity to psychosocial stressors
Fruit and Veg and Mental Health

• Dose response relationship between current fruit and veg consumption and mental health up to 7 portions a day: Blanchflower et al 2012 Soc Indic .res DOI.10007/s11205-012-01730y

• 9 different antioxidants found in F&V associated with optimism in cross sectional study. Boehm et al Psychosomatic Medicine 2013;75:2-10

• Consumption of fruit and vegetables predicts same day positive affect and also next day. Bonnie et al BJ Health Psychology 2013; doi:101111/bjhp.12021

• Fruit and veg most consistent predictor of mental wellbeing in Health Survey for England (PA not measured)
  http://bmjopen.bmj.com/content/4/9/e005878.full
Mental wellbeing underpins:

- Motivation
- Agency
- Autonomy
- Self belief
- Self care

- And is thus bound to influence the capacity to develop and sustain a healthy lifestyle and care for self in chronic illness
Determinants of Wellbeing

Internal World

External World
Social inequalities as determinants

35B: Adults in the poorest fifth are much more likely to be at risk of developing a mental illness than those on average incomes.

DH Health Survey for England (from www.poverty.org.uk); the data is the average for 2006 and 2008 for England.
Life Satisfaction and GDP in the UK 1973-2011

By Kind Permission of Ewen Mckinnon  Cabinet Office  Nov 2012
Educational Achievement Mental Wellbeing
adjusted for age, sex, income, employment status, marital status, ethnicity, religion

**Odds of Low Mental Wellbeing**
relative to mid range (p trend = < 0.001)

**Odds of High Mental Wellbeing**
relative to mid range (p trend > 0.05)

Reference category Degree Level Education

Health Survey for England Adults 16+ 2010 / 2011
Stewart-Brown et al BJ Psych in press 2014
Employment Status and Mental Wellbeing
adjusted for age sex, income, education, marital status, ethnicity, religion

**Odds of Low Mental Wellbeing**
relative to mid range (p trend <.001)

**Odds of High Mental Wellbeing**
relative to mid range (p trend >.05)

Reference category in employment

Health Survey for England Adults 16+ 2010 / 2011
Stewart-Brown et al BJ Psych in press 2014
Determinants of Wellbeing

Internal World

External World
Measuring Mental Wellbeing
Positive or Negative

• Great majority of measures of mental health focus on the negative/disease/distress

• Public and patients prefer positive measures
  Crawford et al. Selecting outcome measures in mental health. J. Mental Health 2011(20)336-346

• Positive measures better support positively focused interventions
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<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>None of the time</th>
<th>Rarely</th>
<th>Some of the time</th>
<th>Often</th>
<th>All of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’ve been feeling optimistic about the future</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling useful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling relaxed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling interested in other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve had energy to spare</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been dealing with problems well</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been thinking clearly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling good about myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling close to other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling confident</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been able to make up my own mind about things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling loved</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been interested in new things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve been feeling cheerful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
WEMWBS items (full scale)

Tennant et al 2007

- I’ve been feeling optimistic about the future
- I’ve been feeling useful
- I’ve been feeling relaxed
- I’ve been feeling interested in other people
- I’ve had energy to spare
- I’ve been dealing with problems well
- I’ve been thinking clearly
- I’ve been feeling good about myself
- I’ve been feeling close to other people
- I’ve been feeling confident
- I’ve been able to make up my own mind about things
- I’ve been feeling loved
- I’ve been interested in new things
- I’ve been feeling cheerful
WEMWBS

• Self report measure of mental well-being
• Covering both eudemonic and hedonic components
• Adopting a single continuum model
• Focusing entirely of positive aspects of mental health
Distribution of WEMWBS scores: student and population samples

Student sample: median score: 50

Population sample: median score: 51
One Week Test-Retest Reliability

Student sample

<table>
<thead>
<tr>
<th></th>
<th>WEMWBS Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole sample</td>
<td>0.83**</td>
</tr>
<tr>
<td>Warwick</td>
<td>0.80**</td>
</tr>
<tr>
<td>Edinburgh</td>
<td>0.83**</td>
</tr>
</tbody>
</table>

** P<0.01
Sensitivity to Change

Mean change in WEMWBS Score

<table>
<thead>
<tr>
<th>Study</th>
<th>ES (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family links</td>
<td>7.30 (6.00, 8.70)</td>
</tr>
<tr>
<td>NHS Mental Health Services Outpatient clinics</td>
<td>0.10 (-3.30, 3.50)</td>
</tr>
<tr>
<td>Perth and Kinross Local authority</td>
<td>10.60 (8.90, 12.30)</td>
</tr>
<tr>
<td>Mental Health Research Unit, Derby</td>
<td>-0.60 (-2.30, 1.00)</td>
</tr>
<tr>
<td>Up for it</td>
<td>7.00 (6.00, 8.00)</td>
</tr>
<tr>
<td>PEIP</td>
<td>7.20 (6.60, 7.80)</td>
</tr>
<tr>
<td>Foundation for positive mental health</td>
<td>2.90 (1.30, 4.50)</td>
</tr>
<tr>
<td>Up for it Lifestyles</td>
<td>6.00 (4.80, 7.20)</td>
</tr>
<tr>
<td>Sligo sports and recreation</td>
<td>3.20 (1.10, 5.30)</td>
</tr>
<tr>
<td>Bright Futures</td>
<td>9.30 (4.10, 14.30)</td>
</tr>
</tbody>
</table>
## One Body One Life Evaluation

### Change in Mental Wellbeing | (WEMWBS)

Baseline to completion Effect Size = 0.51  
Baseline to 3 Months Effect Size = 0.40

### Correlation between change in WEMWBS scores and change in lifestyle

<table>
<thead>
<tr>
<th>N at start = 481</th>
<th>Baseline to completion N = 307</th>
<th>Completion to 3 months N =121</th>
<th>Baseline to 3 months N =121</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R (rho)</td>
<td>p</td>
<td>R (rho)</td>
</tr>
<tr>
<td>Fruit and veg consumption (portions per day)</td>
<td>.241</td>
<td>.001*</td>
<td>.028</td>
</tr>
<tr>
<td>Physical activity (times per week active &gt;30 minutes)</td>
<td>.068</td>
<td>.358</td>
<td>.151</td>
</tr>
<tr>
<td>Walking (times per week walking &gt;30 min)</td>
<td>.041</td>
<td>.569</td>
<td>.126</td>
</tr>
</tbody>
</table>
Validation in 13-15 year olds

Quantitative findings – instrument valid

Qualitative findings:

- Understood the instrument
- Found it easy to complete and acceptable
- Two items which created most discussion in focus groups:
  - I’ve been feeling optimistic about the future
  - I’ve been feeling interested in other people
Minority Ethnic Validation
Pakistani, Chinese, Urdu, Bangla

Qualitative findings
– Understood the instrument
– Found it easy to complete and acceptable
– Half items posed no problem: 7 created discussion
  • Context
    – I’ve been feeling useful/relaxed/loved
  • Cultural differences
    – I’ve been able to make up my own mind about things
    – I’ve had energy to spare
  • Comprehension
    – I’ve been feeling optimistic about the future
    – I’ve been feeling interested in other people
Validation

- http://www2.warwick.ac.uk/fac/med/research/platform/wemwbs/
- Frances Taggart, Tim Friede, Scott Weich, Aileen Clarke, Mark Johnson, Sarah Stewart-Brown Cross Cultural Evaluation of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) A mixed methods study Health and Quality of Life Outcomes http://www.biomedcentral.com/1471-2458/11/27
- Marion Trousselard et al. Sarah Stewart-Brown Nicolas Franck Investigating well-being in France with the WEMWBS: healthy populations and schizophrenia (submitted)
Other Measures of Mental wellbeing:

- Office of National Statistics: 4 Questions
- Short Form Mental Health Continuum
  - Keyes 2002
- WHO 5
- SF -36 : PCS and MCS
- GHQ- 12
Office of National Statistics Approach

• Overall how satisfied are you with your life nowadays?

• Overall how happy did you feel yesterday?

• Overall how anxious did you feel yesterday?

• Overall, to what extent do you feel things you do in your life are worthwhile?
Mental wellbeing was not credible as a goal for publicly funded services

- ‘woolly’
- ‘soft, fluffy’
- ‘all subjective’

‘Tree huggers’
‘They thought we were nuts’

‘What’s this got to do with us? ... yeah.. bewilderment I suppose’

‘You could see [the effect of {mental health promotion}], you could feel it, but you couldn’t measure it’

‘The key indicator was the suicide rate’
‘Eureka moment’

‘We were just desperate for a measure that recognised positive mental health’

‘A great solution because there is nothing else’

‘Not clinical’
‘Didn’t medicalise’

It was ‘easy, simple, no floor or ceiling effects; robust validation’
WEMWBS doesn’t solve all problems

- One off MWB interventions not suitable for evaluation
- Many community based organisations are not familiar with evaluation
- Some components of wellbeing are not covered in WEMWBS
Focusing on the positive is an intervention in its own right.