

## Using and analysing WEMWBS to measure the impact of interventions in improving mental wellbeing

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#### **WELCOME & INTRODUCTION**

#### **Purpose**

 To equip staff with the skills and knowledge to effectively collect and analyse data collected through the Warwick-Edinburgh Mental Wellbeing Measurement Scale (WEMWBS).

#### **Learning outcomes**

- At the end of the workshop participants will have the knowledge and tools to equip them to measure mental wellbeing as an outcome of their intervention, through:
  - setting-up and administering the WEMWBS measurement tool with participants
  - analysing the data and calculating a mean score
    - interpreting the results to show impact

## **Mental Wellbeing & WEMWBS**

- Mental wellbeing is a key outcome and determinant of health
- WEMWBS & SWEMWBS
- Public Health Outcomes Framework measure of subjective wellbeing
- NW and local baselines (SWEMWBS)
- Used to measure change in mental wellbeing following an intervention
- It is NOT a diagnostic or intervention tool
- What interventions are/ can be measured?



## Services measuring improvement in mental wellbeing

- Social prescribing
- Health Trainers
- Employment support
- Parenting support
- Workplace health
- Community involvement and development projects
- Volunteering
- Self-care/condition management
- Befriending

Any services judged unsuitable for use?



#### **How to use WEMWBS**

- Gain permission
  - Sarah.Stewart-Brown@warwick.ac.uk
     frances.taggart@warwick.ac.uk
  - "Warwick-Edinburgh Mental Well-being Scale (WEMWBS) ©
     NHS Health Scotland, University of Warwick and University of Edinburgh, 2006, all rights reserved".
- What else do you need to consider before you start?



#### Things to consider....

- Is there a project team in place to collect the information?
- Do the project team understand what mental wellbeing is and why it is important for health?
- Do the project team understand what WEMWBS is and how it is used?
- Do the project team fully understand the aims and objectives of the project?
- Timescales (is the project open-ended, or does it have a clear start and end point?) Is it possible to complete a follow-up survey?
- How big is the project (how many people attend/are part of it)?
- Is there a structure in place for collecting, recording and managing WEMWBS data?
- Do team members know how to track individuals over time (to enable collection of before and after WEMWBS scores, to identify change)?



#### ..Planning

- Sample selection
- Timescales
  - There needs to be a 2 week between the before and after questionnaires
  - How easy is it to contact participants, to implement the before and after surveys?
  - Is it possible to conduct a follow-up WEMWBS within your project?
- Completing WEMWBS
  - It is validated for self-completion
  - Introducing WEMWBS
  - Gaining consent What might be included in a consent form?



## Suggestions for consent form

- Information about the project and how the information they provide will be used
- Assurance that responses will remain anonymous when project results are reported
- All WEMWBS forms will be kept secure and confidential
- If the information is stored electronically, it will be kept on a password protected computer, and only the project team will have access to this



#### **Collecting the data**

Assigning identifiers

Ability to identify follow-up respondents and make comparisons

Collecting additional/ demographic information

Adding context to the collected data

Storing data

Check all have unique identifiers, store names and identifiers separately



## **Analysing and interpreting the data**

- Incomplete questionnaires?
  - SWEMWBS all 7 need to be answered
  - WEMWBS at least 11 need to be answered
    - Use a weighted average

11 questions: add scores and multiply by 14/11 (1.273)

12 questions: add scores and multiply by 14/12 (1.167)

13 questions: add scores and multiply by 14/13 (1.077)



#### **Inputting data**

- i. Unique identifier code on both questionnaires
- ii. Date of completion of first (pre) questionnaire
- iii. Score of each question (1-5) from first questionnaire
- iv. Sum of scores (the worksheet calculates this automatically)
- v. Date of completion of second (post) questionnaire
- vi. Score of each question (1-5) from second questionnaire
- vii. Sum of scores (the worksheet calculates this automatically)
- viii.Record any additional data you are collecting e.g. age



## **Calculating the change**

- Calculate change for individuals:
  - Subtract the sum of scores 1 (first questionnaire) from the sum of scores
     2 (second questionnaire).
  - If the first sum is greater this will give a minus (-) and denotes a decrease in wellbeing.
- Calculate the mean change
  - Add together all the individual change scores
  - Divide this by number of individuals
  - NB this only works where you include only clients that have before and after scores

This will give the mean change in wellbeing from the beginning of the intervention to the end



Exercise: For the group of 10 participants below:

- What is the mean SWEMWBS of participants before the course?
- What is the mean SWEMWBS of participants after the course?
- What is the mean change in SWEMWBS?

_ R1	pre score 21	post score 21
— R2	pre score 14	post score 19
— R3	pre score 12	post score 18
- R4	pre score 10	post score -
— R5	pre score 22	post score 21
- R6	pre score 19	post score 22
— R7	pre score 17	post score -
— R8	pre score 23	post score 25
— R9	pre score 20	post score 22
- R10	pre score 22	post score 26



#### **Measuring impact**

- Meaningful change:
  - 3-8 points difference in WEMWBS
  - 2-4 points difference in SWEMWBS
- So in the last exercise, 6 out of 10 (60%) had a meaningful change
- Statistical change you can use a paired sample t test if you have a large, normally distributed sample; for a smaller sample use a Wilcoxon signed ranks test



#### Reporting on your work

- Project report
  - Recruitment and actual numbers including details of those who may have dropped out or number of uncompleted questionnaires
  - WEMWBS questionnaire stages before, during or after
  - Explain any additional research you may have conducted, such as satisfaction surveys or interviews with clients/staff.
  - Include reference to local, regional or national baseline scores
  - INTERVENTION DESCRIPTION
- Send to Warwick (and ChaMPS :)



# Thank you

