A Process Evaluation of the PaperWeight Armband in Screening for Malnutrition Among Older Adults

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Malnutrition

- Definition: “...a state of nutrition in which a deficiency or excess (or imbalance) of energy, protein and other nutrients causes measurable adverse effects on tissue/body from (body shape, size and composition) function, and clinical outcome” Elia & Stratton 2003\(^1\)(p3)

- Over ~3 million individuals are estimated to be at risk of malnutrition (undernutrition) \(^2\) ~93% of which are living in the community\(^3\)

- In England during 2011-2012 malnutrition with and without associated disease was estimated to cost £19.6 billion in public health and social care expenditure\(^4\)

- Up to 10% of individuals aged 65 years old and over living in the community were estimated to be malnourished in 2013\(^5\)
Screening

• Key step in tackling malnutrition is early identification

• Screening should be a simple and rapid process

What we know:

• Responsibility lies with GPs and community nurses

• Poor compliance to nutritional screening:

• Minimizing burden of screening is crucial
An alternative approach: The PaperWeight Armband

- Intended to identify individuals that have a BMI of $<20\text{kg/m}^2$

How does it work?
- Simplified Mid Upper Arm Circumference (MUAC)
- 23.5 cm in length
- If arrow meets red line & PWA slides up and down easily= individual may be underweight
PWA implementation

- Joint project:
  - Since April 2016 Age Concern Hampshire volunteers have been using the PWA:
    - Food and Friendship Volunteers
    - Older People’s Action in the Locality (OPAL) Volunteers
    - Village Agents
  - Home visits and at Age Concern Events
  - Used in conjunction with weight loss questions
  - Take action if client is underweight or has lost weight
Main Findings
Determine the ease of use of the PWA and questions to screen for malnutrition in the community

- Manager’s intention of providing a simple tool to volunteers was realistic:
  "you don’t want it to be too technical and too scientific” Manager 3

  "...it’s the easiest thing to do the band explains on it what to do” Volunteer 5

- Misuse was reported:
  “I don’t ask them to remove any clothing or anything” Volunteer 3

- Using the PWA in isolation- only identifying individuals who are underweight (<20kg/m²)

- Easy to use but may not be adhering to the correct procedure
Determine the use of the PWA as a tool to prompt discussion around nutrition

- Where the PWA has made the biggest impact
- Volunteers were using the PWA as a visual aid:
  “…it’s visual, it’s a practical aid to that conversation with the client” Volunteer 1
  “…I tend to find that is does broaden my role and gives me more to actually discuss with people” Volunteer 2

- PWA allows a way in to apply knowledge acquired from the malnutrition training

- Confidence and knowledge of the volunteer was highlighted as a mediating factor
Assess how training of volunteers on both the PWA and discussing food & nutritional issues is applied in community settings

• Volunteers well positioned:
  “...she tells me things that she probably wouldn’t tell anybody else” Volunteer 5

• Targeting specific risk factors already

• Raised awareness resulting from the training; signs of malnutrition and what they can do in their role:
  “...it actually opened my mind up to the fact that there really was a problem with malnutrition...I’m now very much aware that I have to be aware of it” Volunteer 4

• Training has empowered volunteers to have conversations about nutrition

• Positive outcome
Determine whether and how the PWA is used to refer and signpost high risk older people

• Questions over the monitoring procedure
• Managers’ were concerned about adherence:
  “...I just don’t think they see recording as their priority”
  Manager 2

• Similar barriers could be preventing monitoring

• Inappropriateness of recording information on clients:
  “..I certainly wouldn’t do any recording as my role...totally outside my remit” Volunteer 4

• Review of monitoring process is needed
Suggested improvements

**Training:**
- Standardized training
- Focus on questions and PWA together
- Shadowing opportunity

**Improvements to PWA:**
- Reusability

**PWA use:**
- Changes to flowchart on procedure for volunteers

**Monitoring:**
- Review forms with volunteers
- Colour code monitoring forms
- Differentiated forms

**Volunteer support:**
- Peer support forum
- Regional nutrition champion
References

Thank you & any questions?