

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

Ben Till

MSc Public Health Nutrition

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 community³
- In England during 2011-2012 malnutrition with and without associated disease was estimated to cost £19.6 billion in public health and social care expenditure⁴
- Up to 10% of individuals aged 65 years old and over living in the community were estimated to be malnourished in 2013⁵

Screening

- Key step in tackling malnutrition is early identification^{6 7}
- Screening should be a simple and rapid process⁸

What we know:

- Responsibility lies with GPs and community nurses
- Poor compliance to nutritional screening^{9 10}:
- Minimizing burden of screening is crucial¹¹

An alternative approach: The PaperWeight Armband

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



- 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:



Wessex
Academic Health
Science Network

AGEconcern
Hampshire

- 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 ($<20\text{kg}/\text{m}^2$)
- 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 it 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

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Thank you & any
questions?