Testing the impact of an educational intervention designed to promote ocular health among people with Age-related macular degeneration

Richard Cooke
Rebekah Stevens
Hannah Bartlett
Aston University
Age-related macular degeneration (AMD) affects up to 1% of UK population

AMD patients do not consume foods/supplements known to benefit ocular health (Stevens et al., 2015)

Stevens et al. (2014) found AMD patients were unsure what foods to eat, or supplements to take
The aim of this study was to test the effectiveness of an educational intervention designed to promote confidence, knowledge and motivation regarding healthy eating and nutritional supplementation among AMD patients.
Methods: Intervention development: Literature Search

- Conducted a systematic search for dietary educational interventions in older groups with other health issues

- Sahyoun et al. (2004) stated that interventions
  - Should have one or two key messages that focus on practical needs
  - Should be delivered face-to-face
Methods: Intervention development: PPI

- Conducted two focus groups with AMD patients to discover what kind of intervention they want

- AMD patients reported they wanted to receive the intervention from a trained eyecare professional

- They also said that a leaflet is the best format for the intervention
Intervention Development: Prompt card & Leaflet

- Prompt Card
- Don’t forget to ask your eye professional:
  1. Do I have drusen at my macula?
  2. Are my drusen larger than my central retinal artery?
  3. In my other eye, do I have drusen larger than the central retinal artery or geographic atrophy not involving the central macula?
  4. Do I have geographic atrophy at the macular or wet AMD in both eyes?
Methods: Participants and Measures

► 103 AMD patients recruited at baseline
► 100 completed a 2 week follow-up

☑ Measures
☑ Confidence that diet affects AMD
☑ Motivation to:
  ☑ eat a diet incorporating kale/spinach/eggs;
  ☑ ask my ophthalmologist/optometrist if I would benefit from nutritional supplementation;
  ☑ to take a supplement daily if recommended to
☑ Self-reported intake of kale, spinach and eggs.
Methods: Intervention delivery

► Patients recruited from either a Macular Society roadshow or support meetings/MS database
► Roadshow ppts received materials face-to-face from the 2nd or 3rd authors of this presentation;
► Intervention got the prompt card & leaflet;
► Control got a Royal College of Optometrists leaflet
► Other ppts received either a video where the 2nd and 3rd authors discuss the same material, plus, a prompt card and leaflet in the mail. Control ppts got mailed the Royal College leaflet
Results: Main effects of time for confidence & motivation

► Confidence ($F(1, 92) = 13.9, p < .01$)
► Eat kale daily $F(1, 92) = 6.78, p = .001$
► Eat eggs daily $F(1, 92) = 10.32, p = .002$)
► Ask if I would benefit from nutritional supplementation $F(1, 92) = 19.15, p < .001$),
► Take supplementation $F(1, 92) = 6.82, p < .05$
► Higher scores at follow-up
Results: Main effects for behaviour

- Main effects of time on:
  - Spinach intake ($F(1, 92) = 9.15, p = .003$)
  - Egg intake ($F(1, 92) = 7.26, p = .008$).
  - Higher scores at follow-up

- Main effect of group on Kale intake:
  - $F(1, 92) = 3.92, p < .05$)
  - Control participants ate more kale!!
Interactions between condition & time

- Confidence (F(1,92) = 4.54, p < 0.05)
- Talk to an eye professional about supplementation (F(1,92) = 4.53, p = 0.04)
- Eat eggs daily (F(1,92) = 12.67, p = 0.001)
- Egg intake (F(1,92) = 11.97, p = 0.001).

Intervention scored higher than control.
Conclusions

► Receiving a prompt card and leaflet increased AMD patients’ confidence that diet affects their AMD, their motivation to engage in health protective behaviours, and egg intake.

► Intervention could easily be incorporated into current clinical practice

Any questions please email me r.cooke@aston.ac.uk

I am on Twitter @DrRichardCooke
Future research

► Need for complementary work with eyecare professionals to encourage them to promote dietary intake of lutein-rich foods (kale, spinach, eggs) and/or nutritional supplements with their patients (see Stevens et al., 2016)

► Interviews with pharmacists shown that they do not always see providing health recommendations as part of their job role (Morton et al., 2015). Likely to face similar issues working with eyecare professionals