The role of community pharmacists in CVD prevention

A UK study to establish their views

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Cardiovascular disease (CVD) remains the leading cause of death

- 17.5 million people died from CVD in 2012, representing 31% of all global deaths.

- Of these deaths, an estimated 7.4 million were due to coronary heart disease and 6.7 million were due to stroke.

http://www.who.int/mediacentre/factsheets/fs317/en/
CVD were the leading cause of death in Europe in 2013 accounting:

- 34% of all deaths among men
- 40% of all deaths among women

Ischemic heart diseases and strokes comprise around 60% of all cardiovascular deaths, in EU member states in 2013.
British Heart Foundation stated:

CVD is the 2\textsuperscript{nd} leading cause of death in the UK (27\%) in 2014
CARDIOVASCULAR DISEASE
main modifiable risk factors

- Alcohol
- Hypertension
- Physical Inactivity
- Obesity
- Stress
- Smoking
- Diabetes

CVD episode

UK is the “fat man” of EUROPE
CPCF is made up of three different service types

<table>
<thead>
<tr>
<th>Essential Services</th>
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<tbody>
<tr>
<td>New Medicine Service (NMS)</td>
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<td>Medicine Use Review (MUR)</td>
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<table>
<thead>
<tr>
<th>Advanced Services (e.g.)</th>
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<tbody>
<tr>
<td>NHS Health Checks</td>
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<tr>
<td>Weight Management Service</td>
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<tr>
<td>Smoking Cessation</td>
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<td>Alcohol Screening &amp; Brief Intervention</td>
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<thead>
<tr>
<th>Locally Commissioned Services (e.g.)</th>
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# EFFECTIVENESS of PHARMACY-LED CLINICAL SERVICES

<table>
<thead>
<tr>
<th>Objective(s)</th>
<th>Interventions</th>
<th>Key Findings/Statistics</th>
</tr>
</thead>
</table>
| **Smoking** | Maguire T. A., et al. (2001) | - Two groups:  
  - 1st group: The Pharmacy-based smoking cessation (PAS)  
  - 2nd group: as control  
  Non-stop continuous abstention of smoking in the following periods:  
  - 3 months  
    PAS group: 27.5%  
    Control group: 11%  
  - 6 months  
    PAS group: 18.5%  
    Control group: 8.2%  
  - 12 months (cotinine <50ng/ml)  
    PAS group: 14.3%  
    Control group: 2.7% |

| **Diabetes** | Ali M et al. (2012) | - 1st: "Intervention group" assessed patients with Type II diabetes using "the pharmaceutical care package". In this group 6 sessions were delivered  
  - 2nd: "Control group" offered a typical diabetic service and a consultation with the community pharmacist only at the beginning and the end of the assessment period  
  - HbA1c difference counted 17mmol/mol  
  - BMI ↓ from 30.8 kg/m² to 27 kg/m²  
  - Glucose ↓ from 8.8 mmol/L to 6.9 mmol/L  
  - Control group achieved only 6 mmol/mol ↓ in HbA1c |

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Pharmacy-led Weight Management Service

- Boardman et al (2014) study aimed to assist patients in losing 5% of their body weight

At 3 months:
- 26/110 participants (24%) lost 5% of their initial body weight
- The mean weight lost change was -3.07 kg and the mean waist circumference change was -3.87 cm

At 6 months:
- 27/59, 46% lost 5% of their body weight
- A blood pressure decrease with a mean systolic blood pressure change at -9.5 mmHg, and a mean diastolic blood pressure change at -4.7 mmHg.

Boardman et al have shown that pharmacy-led weight management service could implement and reduce patients’ weight and waist circumference.
CVD PREVENTION JOURNEY
Proposed

Non-Disease State

Primary Prevention
Awareness & Identification of CVD risk factors
• Smoking
• Overweight/Obesity
• Excessive Alcohol Consumption
• Physical Inactivity

Post-Diagnosis of CVD risk Conditions State
Secondary Prevention
Management of CVD risk Conditions & Prevention of a 1st CVD episode
• Hypertension
• Dyslipidaemia
• Diabetes Mellitus

Tertiary Prevention
Prevention of a 2nd CVD episode & Reduction of Complications and premature deaths
• CHD – e.g. MI, Angina
• CeVD – e.g. Stroke, TIA
• PAD
• DVT & PE

Established Cardiovascular Disease

- Dispensing prescribed medications: Lifestyle advice
- NMS
- MUR
- Smoking Cessation
- Weight management Service
- Alcohol Brief intervention

- Smoking Cessation
- Vascular Health Checks
- Weight management Service
- Alcohol Brief intervention
RESEARCH QUESTION

What do UK pharmacists perceive their role in CVD prevention?

Can we replicate the evidence provided by UK pharmacists in other European countries?

According to WHO:
CVD mortality rate in Greece is 48% (1st cause of death)

http://www.who.int/nmh/countries/grc_en.pdf?ua=1
### AIM
- To explore the current and future role of UK pharmacists in CVD prevention and views of UK pharmacists and pharmacy staff who offer weight management service in particular

### Qualitative research method
- Semi-structured Interviews

### 28 Questions

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
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</thead>
<tbody>
<tr>
<td>Primary Prevention</td>
<td>Secondary Prevention</td>
<td>General Questions</td>
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</table>

| The role of pharmacists in the initial assessment of CVD risk factors | Pharmacist's role in the management of diagnosed CVD risk conditions | The general role of the pharmacist in CVD prevention |

**WM- interviews**: Shorter version of the same interview schedule (14 questions)
## THE STUDY details

<table>
<thead>
<tr>
<th>City /Regions</th>
<th>Sample Size</th>
<th>Duration of each interview (average)</th>
<th>Data collection period</th>
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<tbody>
<tr>
<td><strong>United Kingdom</strong></td>
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<tr>
<td>• London and Surrey</td>
<td>20 pharmacists</td>
<td>20 min</td>
<td>September 2015 - October 2015</td>
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<tr>
<td><strong>Weight Management Service</strong></td>
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<tr>
<td>• Kingston &amp; Richmond LPC</td>
<td>15 pharmacists and pharmacy staff</td>
<td>20 min</td>
<td>March - November 2016</td>
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<td>• Kent LPC</td>
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<td>• Hackney &amp; City LPC</td>
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- All interviews were recorded and then transcribed
- Thematic analysis - NVivo 11 Software for Windows
THE STUDY results

<table>
<thead>
<tr>
<th>4 Themes were identified</th>
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<tbody>
<tr>
<td>o Knowledge</td>
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<tr>
<td>o Communication</td>
</tr>
<tr>
<td>• Interprofessional relationship</td>
</tr>
<tr>
<td>• Pharmacists’ Approach</td>
</tr>
<tr>
<td>• Communication Barriers</td>
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<tr>
<td>o Resources and tools</td>
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<td>o Role recognition/identity</td>
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</table>
THE STUDY results

Interprofessional Relationship

Opportunistic Approach

Need of further training

Primary CVD Prevention

Secondary CVD Prevention

Tertiary CVD Prevention

Funding

Policy
THE STUDY

results

Honesty
Understanding
Relationship with their clients/patients

Accessibility
First port of call
Open door policy
"We do NMS and MUR, and we are also doing counselling when we dispense a medication. That is a must."

"You can never approach someone and say you are a little bit overweight. Only if they come in and ask for advice we are able to approach them. […]"

"We have an open door policy. People can come and talk to us any time. […] Because we are open and we are more or less friendly, it helps."

"As part of our everyday work, we offer certain services. […] if someone came in and I smelled the smoke, […] obviously I would try to get them to quit smoking, so that they could lower the risk of developing CVD."

"I think collaborating with other healthcare professionals is the way forward. Both can share their knowledge, hopefully giving patients better care planning that way, but in reality there is no collaboration between us and GPs."

"[…] No, there is no collaboration with other healthcare professionals, as they want to deliver services such as NHS health checks, so there is competition."

"[…] Only if they come in and ask for advice we are able to approach them, so we help them in that way."

"THE STUDY results"
### THE STUDY

**results - WM interviews**

<table>
<thead>
<tr>
<th>3 Themes were identified</th>
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<tbody>
<tr>
<td>- Training and Support</td>
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<td>- Barriers</td>
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<tr>
<td>- Approach</td>
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</table>
THE STUDY

results - WM interviews

Commissioned Weight Management Service

Approach  Training

Strengths

Experience

Time

Demand Advertisement

SUSTAINABILITY?
“There […] is no funding right now so we just have to utilise the means we have and make most of the contact of the people we have with the patients because there is no funding anywhere so we can't say, Okay invest this money, invest in this because there is no money.”

“Yeah, I don't think that it is advertised enough. I think that actually, it should be more advertised on tellies […]”

“I personally think training is lacking in this, really lacking, and I think there is not enough people doing enough of this, and I think there is still a big gap for people and pharmacists can help skill them.”

“Again, I think it should be more publicised, really […] because I think it will all be beneficial for the NHS anyway.”
## Pharmacy-led WM Service

- Design, Initiation and Evaluation in Greece

- Designed and delivered Training sessions to participating pharmacists including motivational interviewing, and consultation skills

### 10-week programme
- 10-week programme
- 26 pharmacists participated
- Recruitment: over 120 participants between July 2016 and January 2017

### Sample size: ≥ 96 participants calculated based on the SD of weight at baseline and the effect size

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### Initial Screening

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<th>VISIT 1</th>
<th>VISIT 2</th>
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<th>VISIT 5</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Week 3</td>
<td>Week 5</td>
<td>Week 7</td>
<td>Week 9</td>
<td>Week 11</td>
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If eligible for the programme:
- Distribution of booklets
- Goal setting
- ESC guidelines for healthy eating

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If eligible for the programme:
- Importance of Healthy-balanced diet and Portion Size
- Importance of Physical Activity
- Alcohol and Weight, Food Labelling
- Shopping Tips and Eating out
- How to maintain the Weight Loss
  - Service evaluation questionnaires
  - Discussion of Achievements
NEXT STEP - THE NEED

materials

KEEP an EVERY DAY PHYSICAL ACTIVITY DIARY

Take a few minutes every day to write down when you are active. Love your body, love your heart, reduce your body weight and change your life!

Always bear in mind that 10 MINUTES OF EXERCISE COULD MAKE A DIFFERENCE TO YOUR LIFE.

Set yourself an active goal for the next 2 weeks:

<table>
<thead>
<tr>
<th>Week 1</th>
<th>DAY</th>
<th>TYPE of ACTIVITY</th>
<th>HOW LONG</th>
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Total minutes per week:

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<thead>
<tr>
<th>Week 2</th>
<th>DAY</th>
<th>TYPE of ACTIVITY</th>
<th>HOW LONG</th>
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Total minutes per week:
Pharmacy-led Weight Management Service

- 119 individuals enrolled
- 117 completed the service – 2 participants stopped
- 55 participants achieved ≥ 10% weight loss
- 59 participants achieved 5-10% weight loss
- 3 participants achieved <5% weight loss
THANK YOU VERY MUCH

Contact Details:

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