

**Using Theoretical Domains Framework to inform
an intervention to manage cardiovascular disease
risk in people with severe mental illness:
PRIMROSE Programme**

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Context

- People with severe mental illness (SMI) die significantly earlier than the general population
- Mostly due to treatable conditions such as cardiovascular disease (CVD)
- CVD risk elevated in this group due to side effects of anti-psychotic medication (weight gain) and lifestyle (smoking, poor diet, little/no exercise)
- Evidence that screening and management of CVD risk in SMI populations in primary care in UK is suboptimal

PRIMROSE Programme

Prediction and management of cardiovascular disease risk for people with severe mental illness

- Programme aim - to develop and test a primary-care intervention to reduce CVD risk in SMI
- Intervention informed by:
 - Systematic review of interventions to manage cardiovascular disease risk in people with severe mental illness
 - **Focus groups** (GPs, primary care nurses, service users, carers and community mental health teams)

Group	Number of Groups	Number of participants
Service users	5	25
Practice nurses	3	13
GPs	2	11
GPs and practice nurses	1	5 GPs, 3 practice nurses
Community Mental Health Team	2	11
Carers	1	7
TOTAL	14	75

Why we used TDF

We needed an approach that was...

- **Theoretically-based** – interventions informed by theory more likely to be effective
- **Comprehensive** – considered all factors that might influence behaviour of health professionals, service users and carers
- **Evidence-based** – has been used in a range of health settings to identify facilitators and barriers to intervention implementation
- **Flexible** - to adapt to different health professional and lay groups

= TDF

Focus group research questions

- Which **strategies are currently used** to prevent and manage CVD risk in patients with SMI in primary care?
- What might **facilitate** implementing a CVD risk management intervention for patients with SMI?
- What are the **barriers** to implementing a CVD risk management intervention for patients with SMI?

Topic guide

- Questions structured by TDF domains¹

Findings

Domains	Facilitators/ barriers	Intervention component
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Knowledge

Lack of awareness of increased CVD risk

Screening for CVD risk factors



*NHS good practice incentive and reward programme

Findings

Domains	Facilitators/ barriers	Intervention component
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Social influences

Involving carer to encourage patient to attend appointment

Engaging patients (including follow-up)



Intervention components

1. Identify patients with SMI on GP register



2. Engaging patients with primary care team



3. Screening for CVD



4. Delivery or onward referral for behavioural and/or pharmacological CVD risk management intervention



5. Follow-up monitoring CVD risk and intervention adherence



Advantages of using TDF

In addition to the reasons why we chose TDF...

- **Guided the structure** of focus groups
- **First step in intervention design** using other tools developed in behavioural science. Preliminary mapping work:
 - Behaviour change Wheel¹
 - BCT Taxonomy (v1)²

1. Michie et al. (2011) *Implementation Science*, 6:42
2. Michie et al. (2011) *Implementation Science*, 6:10

Acknowledgments

Focus Group Research Team (on behalf of the PRIMROSE programme):

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- Dr Ben Gray - Service user expert, Rethink Mental Illness
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- Dr Kate Walters - Senior clinical lecturer in primary care

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Supplementary slides

Focus group topic guide

Domain	Question
1. Knowledge	Talk me through how you currently screen for and manage CVD risk (in patients with SMI)
2. Skills	What (if any) training and support would be helpful in dealing with SMI patients to enable your practice to run the service?
3. Professional Role and Identity	What do you see as your role in screening and managing CVD risk in SMI patients?
4. Beliefs about Capabilities	How confident would you feel in delivering the service for patients with SMI?
5. Optimism	Do you think it is possible to achieve an effective practice nurse led service for patients with SMI in current circumstances?
6. Beliefs about Consequences	What do you think the benefits/advantages might be of a practice nurse led service for patients with severe mental illness?
7. Reinforcement	What factors might encourage screening and management of CVD risk for SMI patients (earlier than the general population)?

Focus group topic guide

Domain	Question
8. Intentions	Having discussed the service would you offer it to patients with SMI if you had the opportunity to do so?
9. Goals	Are there any other things you would want to do during the patient visit that might interfere with delivering the service?
10. Memory, Attention and Decision Processes	Are there any circumstances for which you might decide to exclude a patient with SMI from receiving the service?
11. Environmental Context and Resources	What resources are currently available to you that might facilitate you carrying out the service for SMI patients?
12. Social influences	What might help or hinder the implementation of a practice nurse led service ? (prompt – team attitudes/working)
13. Emotion	Would you feel comfortable carrying out the service for patients with SMI?
14. Behavioural Regulation	Do you have systems that you could use for monitoring whether or not you have carried out a review with SMI patients and provided subsequent follow up?

Findings

Domains	Facilitators/ barriers	Intervention component
Knowledge	Lack of awareness of increased CVD risk	Screening for CVD risk factors
	Lack of awareness of relevant services available to SMI patients	Behavioural and pharmacological management of CVD risk factors
Professional roles and identity	See CVD screening and management in SMI part of their role not mental health team	Screening for CVD risk factors/ Behavioural and pharmacological management of CVD risk factors
Optimism	Perception that behaviour in SMI populations difficult to change (GPs)	Behavioural and pharmacological management of CVD risk factors
Reinforcement	Put CVD risk management on Quality Outcomes Framework*	Behavioural and pharmacological management of CVD risk factors
Intentions	Buy-in: Health professionals want to monitor and reduce CVD risk in SMI patients and believe it is something they should be doing	Screening for CVD risk factors/ Behavioural and pharmacological management of CVD risk factors

*NHS good practice incentive and reward programme

Findings

Domains	Facilitators/barriers	Intervention component
Social influences	Involving carer to encourage patient to attend appointment	Engaging patients (including follow-up)
Environmental context and resources	Accuracy of coding SMI patients	Identify patients with SMI on practice register
	Co-ordination of care within practices and with secondary care mental health team	Behavioural and pharmacological management of CVD risk factors
	Time constraints for comprehensive screening	Screening for CVD risk factors
	Continuity of care (to establish rapport)	Follow-up monitoring CVD risk and intervention adherence
Behavioural Regulation	Lack of proactive invitation from the GP practice to attend screening appointment (mostly limited to three letters)	Engaging patients