

Non-communicable diseases (NCDs), their risk-factors and management among prisoner populations

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Background – NCDs

- Non-communicable diseases (NCDs) are a major public health issue¹, with almost 2/3 of global deaths in 2008 accounted for by NCDs
- Although NCDs affect people of all nationalities, ages and wealth, they disproportionately affect those vulnerable individuals from lower social and economic positions^{1,2,3}
- As prisoners in the UK are from the poorest and most socially excluded sections of society, they are therefore at greater risk of suffering from NCDs^{3,4}

Prevalence of NCDs among prisoners

Disease	Prison 1 - male remand (n=529)	Prison 2 - male remand (n=357)	Prison 3 - female closed (n=167)	Prison 4 - female closed (n=68)	General population
Diabetes	2%	2%	3%	4%	6.7%
Asthma	12%	14%	27%	21%	5.9%
Hypertension	3%	4%	8%	4%	13.8%
Coronary heart disease	2%	3%	2%	0%	3.2%
COPD	1%	0.2%	4%	1%	1.9%
Epilepsy	3%	3%	4%	6%	0.8%

Prevalence of NCD risk-factors

NCDs are largely preventable through tackling the key modifiable risk-factors linked to the development of these diseases

These key NCD risk-factors are highly prevalent amongst the UK prisoner population:

- Approximately 80% smoke⁵
- Less likely to partake in sufficient levels of physical activity compared to the general population⁴
- Excess consumption of fat and salt a key feature of prisoner diets⁴

So how might we address reducing NCD risk-factors amongst prisoner populations?

Evidence-base for prison peer-interventions

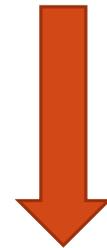
- Prison based peer-interventions have been successful in other health areas such as HIV prevention
- Evidence that peer-delivery is preferred to professional delivery; non-judgemental, empathy, trust, more accessible
- Positive benefits experienced by the peer-deliverers themselves⁶

However, no research to date exploring whether or not prison based peer-interventions can be used to modify risk factors associated with development of NCDs – scope to address this gap in the literature

Our research

A feasibility study exploring the potential of peer-interventions to reduce NCD risk-factors amongst prisoner populations

Phase 1 – gather the crucial information from key stakeholders required to develop an appropriate prison-based peer-led intervention.



(results led to development of intervention)

Phase 2 – to explore the feasibility of undertaking a full-scale trial exploring the effectiveness of a peer-led intervention to modify NCD risk-factors amongst prisoners

Phase 1 objectives

- To explore the priorities of prisoners in addressing NCD risk-factors in prison
- To explore prisoners' views towards the implementation of a peer-led intervention to modify NCD risk-factors in prison
- To explore staff perspectives regarding the implementation of a peer-led intervention to address NCD risk-factors in prison
- To design a prison-based peer-led intervention to modify the behavioural risk-factors associated with NCDs; smoking, diet and physical activity.

Phase 1

3 prisoner focus groups and 12 semi-structured interviews with members of prison and healthcare staff. Key findings were;

- Prisoners had preference for peer over professional led interventions – ‘he’s in the same place as us lot, the same boat as us lot’
- Finding peer-workers with suitable qualities key to success of such an intervention
- Both prisoners and staff highlighted the need for smoking cessation support in prisons
- May be difficult to change diet and physical activity levels due to regime restrictions
- Both staff and prisoners suggested format should be weekly group sessions plus one-to-one support

Phase 2 objectives

The main feasibility objectives to be explored were;

- Levels of recruitment
- Randomisation acceptability
- Intervention attendance
- Intervention fidelity
- Intervention acceptability
- Contamination to the control group
- Completion of follow-up measures over the 3-month follow-up period

Phase 2

Feasibility study to inform design of a full-scale RCT

- 80 participants recruited and completed baseline data collection measures (survey on smoking, diet, physical activity and wellbeing)
- 40 randomised to receive peer intervention v 40 randomised to usual care
- Peer-intervention involved intervention arm participants attending one group session led by trained prisoners over a 6-week period (Jan-Feb 2017)
- All participants were then followed up 1) immediately post-intervention, 2) 1-month post intervention and 3) 3-months post intervention
- Follow-up measures included those collected at baseline + intervention acceptability survey and contamination survey

Phase 2 – preliminary feasibility findings

Recruitment: Achieved 100% of 80 required in 1 month time period

Randomisation acceptability: Randomisation little impact on uptake – however some minor complaints. 5 controls dropped out at follow-up due to being randomised to control group

Attrition rates: Successfully followed up 69/80 at follow-up 1, 69/80 at follow-up 2 and 53/80 at follow-up 3. Main problems were transfers and releases

Intervention acceptability: Majority found the intervention to be acceptable

Contamination: Intervention participants reported sharing information with other prisoners & control participants reported hearing information from groups

In terms of behaviour change...

- At follow-up 1, 50% of the intervention arm participants followed-up had stopped smoking in comparison to 3% of control participants. However by the final time-point similar proportions of participants in each arm reported to be non-smokers (approximately 25%)
- Intervention had little impact on physical activity and diet, with prison regime factors reported to be major factors in limiting participants' ability to change their behaviour (i.e. limited food choice, too much time spent behind cell door etc.)

Phase 2 – challenges and barriers

- Recruitment and retention of suitable peer-workers
- Loss of intervention arm participants due to release or transfer - particularly at the remand prison
- Prison regime: problems with escorting participants to and from venue, group sessions delayed due to staff shortages, participants unable to attend due to conflicting appointment (e.g. legal visit, court case, healthcare)
- Security: Participants missing group sessions for security reasons (which aren't always shared with me!)

References

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Thank you
Any questions?