

Application of novel outcome evaluation criteria to UK social marketing campaigns focused on infections

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Introduction

Social marketing (SM) interventions have been valuable in addressing communicable diseases¹, and the government in the United Kingdom (UK) spent about £55 million on social marketing in 2013-4². Whilst evaluation of public health activities is critical to determine if an intervention achieves its desired results, is cost effective, or requires modification, SM has received scrutiny for insufficient standardisation of practice and lack of outcome evaluation.

Previous systematic reviews of SM campaigns noted increased attention to process evaluation (e.g., segmentation, implementation), but only small improvements in the quality of outcome evaluation³, or significant lack of rigorous outcome evaluation techniques⁴.

We developed and applied a novel set of evaluation criteria to UK social marketing campaigns focused on infections.

Methods

Campaigns active between 2001-2013 were identified from literature and internet searches. Two researchers (ECS, MI) independently extracted data on 13 evaluation indicators previously proposed (Box 1) from information publicly available about the campaigns and interventions.

Each reviewer independently scored the quality indicators for validity. Scores were given from 0 points (lowest quality, indicator definition not met, red), to 1 point (indicator definition partially met, or not reported, amber) or 2 points (highest quality, indicator definition met and/or reported, green). Therefore, intervention scores could range between 0 and 26 points. Final scores were discussed and agreed, with the assistance of a third rater to resolve discrepancies (intraclass correlation coefficient 0.9453).

Quality Indicator	Description
1. Developed with thorough understanding of the problem & key stakeholders	Lack of understanding can lead to ineffective interventions, iatrogenic effects and financial waste
2. Clear definition of desired outcome	Prior to intervention design and implementation, including what changes will be measured and how
3. 'A priori' indication of how much change is needed to achieve desired effects	To differentiate between statistical and 'on the ground' changes due to an intervention
4. Clear theory/plausibility of how intervention results in outcomes	Strict adherence to existing theories not necessary, but logical plausibility for why intervention effective should be present
5. Include outcome measures that meet the needs of the stakeholders	Meeting the needs and interests of stakeholders is ethical and essential for continuing a successful intervention
6. Measure impact	Often not measured, but helpful in establishing sustainability and efficiency
7. Ensure acceptability and sustainability of intervention for different participants	Interventions must be acceptable to the target population in order to be ethical and effective.
8. Include measurements indicating the way the intervention led to desired outcome	Pre- and post- intervention changes not enough to determine that the changes can be attributed to the intervention
9. Include measurement of competing factors that could influence the change	With complex interventions environmental determinants also measured to ensure outcomes due to intervention
10. Identification of unpredicted changes, including 'iatrogenic' effects	All changes induced by intervention are critical to measure
11. Application of most robust outcome evaluation allowed by intervention design	Minimum outcome measurements required to determine the outcome changed after the intervention was implemented are essential, however the most robust strategy is best

Box 1. Outcome evaluation indicators, Castro et al [In press]

Table 1. Social marketing campaigns on infection, 2001-2013, UK

Intervention	1. Understanding Problem & Stakeholders	2. Definition of Outcome	3. Long term Change	4. Clear Theory / Plausibility	5. Meet Needs	6. Measured Impact	7. Acceptability / Sustainability	8. Link between Intervention & outcome	9. Competing Factors	10. Unpredicted Change	11. Strategy	12. Econ Analysis	13. Peer Review	Score
'Are you getting it?' ⁵	2	0	1	2	1	1	1	1	1	1	2	1	1	15
CaSH ⁶	2	2	1	2	2	1	1	0	1	1	1	1	1	16
'Chlamydia get tested' ⁷	2	2	1	1	2	1	1	0	0	1	0	1	1	13
'Checkin' it out' ⁸ / 'It's down to you' ⁹	2	1	1	1	1	1	1	1	1	1	1	1	0	13
Clean safe care ¹⁰	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Cleanyourhands ^{11,12}	1	2	1	2	1	2	1	0	0	1	1	1	2	15
COAST ¹³	2	2	2	2	2	1	1	0	0	1	0	1	1	15
Coronation Street ¹⁴	1	2	1	2	1	1	2	1	1	0	2	1	2	17
DaSH ¹⁵	1	1	1	2	2	1	1	0	1	1	0	1	1	13
'Easy-peasy' chlamydia testing ^{16,17}	2	2	1	1	2	1	1	0	1	1	1	1	1	15
Increasing the uptake of MMR in London ¹⁸	2	0	1	1	2	1	1	0	1	1	2	1	1	14
Judah et al. ¹⁹	1	1	0	2	1	0	0	2	0	0	2	0	2	11
'Just4You' ²⁰	1	0	1	1	1	1	1	1	1	1	1	1	0	11
Love is Infectious ²¹	1	1	1	1	1	1	1	1	1	1	1	1	1	13
'My60seconds' ^{22,23}	2	2	1	2	2	0	1	1	1	1	0	1	1	15
NHSCSP - Mass media ²⁴	2	2	1	1	2	1	1	1	1	1	2	2	2	19
'Spend a Penny, Gain a Fiver' ²⁵	1	1	1	1	2	1	1	1	1	1	1	1	1	14
Score	26	22	17	25	26	16	17	11	13	15	18	17	19	

Results

We identified 17 social marketing campaigns focusing on chlamydia (7), screening of sexually transmitted infections (5), immunisations (2), hand hygiene (2), and healthcare-associated infections (1). (TABLE 1)

Median score for all campaigns was 14.2 +/- 2 (26 points maximum possible). Indicators 1 'Developed with thorough understanding of the problem & key stakeholders' and 5 'Outcome measures that meet the needs of the stakeholders' were best described (score 26; 34 points maximum possible). Two-thirds (14/22, 66.1%) of interventions provided insufficient or ambiguous information towards each indicator (in amber, Table 1).

Indicator 8 'Include measurements indicating the way the intervention led to desired outcome between intervention and outcome' received the lowest score (11/34), and was effectively not included in 7/17 interventions. Other indicators such as 9 'Include measurement of competing factors that could influence the change' (13/34 points) and 10 'Identification of unpredicted effects changes from intervention' (15/34 points) included poor or incomplete reporting. Indicators 3, 7, 10 and 12 were insufficiently or inadequately reported in 88% of campaigns.

Discussion

We recommended initial standards for outcome measures to improve value assessment of interventions. This framework is a flexible tool that can be used in numerous, as audit tool, intervention development, benchmarking, kaizen, scaling-up, dissemination, and/or research. As with most quality indicators, these criteria could be considered subjective. Other limitations include the limited information available across the interventions and that might have led to over-estimation of partial scores.

Conclusions

UK social marketing campaigns on infections could improve their reporting of key outcome evaluation aspects. Sustainability, economic evaluation and unintended effects of campaigns require increased attention.

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Your thoughts? Use post-its and add below, contact e.castro-sanchez@imperial.ac.uk or @castrocloud

References

Reference list available at

