Motivational support intervention to reduce smoking and increase physical activity in smokers not ready to quit: the TARS RCT

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Primary conflicts of interest: Paul Aveyard reports a National Institute for Health and Care Research (NIHR) Senior Investigator Award and that he participated in the NIHR Cochrane Tobacco Addiction Group during the conduct of the study. Siobhan Creanor reports that the Peninsula Clinical Trials Unit

received NIHR Clinical Trials Unit support funding for the duration of this trial; she also declares that she is chairperson of the NIHR Research for Patient Benefit South West Advisory Committee outside the submitted work. Tess Harris declares that she was a member of several Health Technology Assessment (HTA) groups: the HTA End of Life Care and Add on Studies groups (September 2015–February 2016), the HTA Primary Care, Community and Preventive Interventions Panel (January 2015–May 2018) and HTA Prioritisation Committee A (Out of Hospital) (January 2015–February 2019). Colin Green declares that he was a member of the HTA General Funding Committee (March 2019–October 2020). Lisa Price reports personal fees from NIHR/University of Plymouth during the conduct of the study. Lisa Price also reports that the University of Exeter, specifically the Physical Activity and Health Across the Lifespan group (within the Sport and Health Sciences department), is part of a collaboration with Activinsights Ltd (Kimbolton, UK), the manufacturer of the GENEActiv accelerometer used in this trial. The collaboration provides data analytics services for human activity research. Lynne Callaghan reports funding from NIHR Applied Research Collaboration South West Peninsula (PenARC) outside the submitted work.

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Plain language summary

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Plain language summary

NHS pharmacological and behavioural support helps smokers wanting to quit, and physical activity may also help. It is unclear if behavioural support for those not ready to quit may lead to more quit attempts and abstinence from smoking.

A total of 915 smokers who wanted to reduce their smoking, but who had not yet quit, were recruited and randomised to receive an intervention or brief support as usual (brief advice to quit), in Plymouth, London, Oxford and Nottingham. The intervention involved up to eight sessions (by telephone or in person) of motivational support to reduce smoking and increase physical activity (and more sessions to support a quit attempt). Participants self-reported smoking and physical activity information at the start of the trial and after 3 and 9 months. Self-reported quitters confirmed their abstinence with a biochemical test of expired air or saliva. Our main interest was in whether or not the groups differed in the proportion who remained abstinent for at least 6 months.

Overall, only 1–2% remained abstinent for 6 months. Although it appeared that a greater proportion did so after receiving the intervention, because few participants were abstinent, the results are not conclusive. However, the intervention had beneficial effects on less rigorous outcomes, including a reduction in the self-reported number of cigarettes smoked, and a greater proportion of intervention than control participants with self-reported and biochemically verified abstinence at 3 months. The intervention also helped participants to reduce, by at least half, the number of cigarettes they smoked at 3 and 9 months, and to report more physical activity, but only at 3 months.

Despite reasonable intervention engagement and some short-term changes in smoking and physical activity, the trial does not provide evidence that this intervention would help smokers to quit for at least 6 months nor would it be cost-effective, with an average cost of £239 per smoker.

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This report

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