Getting over the hill – encouraging middle-aged Singaporean women to exercise

By Anna Meadows

Physical inactivity is a global issue. As one of the 4 main risk factors for non-communicable diseases it has become a focus for governments worldwide. The problem is greater in countries with high GDP and Singapore is no exception; 54% of adult Singaporeans are reported to be ‘physically inactive’. One of the least active segments is women aged 40-59. The Singapore Government is making efforts to address this problem.

In 2014 Sport Singapore launched ActiveSG, an initiative to encourage sporting participation and exercise. Over 20% of the population have signed up and been given a generous financial incentive (in the form of free credit) to use at government run pools, gyms and exercise classes. As one would expect in Singapore, these are beautifully maintained, accessible and friendly places. Despite this embarrassment of riches, inactivity levels persist and facilities are underutilised.

In collaboration with Sport Singapore, I had the opportunity to approach this issue through the lens of behavioural science. Could a simple intervention promote exercise amongst middle-aged Singaporean women? Could they be encouraged to make greater use of the facilities on offer?

Given the obvious and known health benefits of physical activity, the rationality of the decision not to exercise is open to question. In line with this, a number of different studies which have...
demonstrated the opportunity to influence exercise behaviours by applying an understanding of heuristics and biases.

As part of my MSc dissertation project, I designed an intervention using SMS messages targeting established cognitive biases. 353 middle-aged Singaporean women participated in the study and were randomised into one of two treatment arms or a control group. One arm received loss aversion themed messages, the other messages using descriptive social norms.

Each evening all participants were required to report whether and where they had exercised. As every Singaporean has a unique identity number (NRIC) I was also able to link the participants in the study to their actual use of government exercise facilities.

Receiving a daily text message of either kind did not increase the likelihood of exercising over the study period. However, compared with loss-framed messaging, social norm themed messages generated significantly more click-throughs to the ActiveSG website, indicating a possible intention to exercise albeit one that was not realised. Those who received loss-framed messages were significantly more likely to use a Government facility for the first time in the study period, drawing on the credit available to them. Furthermore the total sample (including the control group) reported higher than expected levels of exercise frequency leading me to consider the value of daily recording as a method of motivation in future studies.

Further analysis of the data collected revealed that whilst work and family are the most common reasons given for exercise avoidance, this study found no relationship between work status or motherhood and exercise frequency. This suggests these reasons may be post-rationalisations for the decision not to exercise. This was a useful finding for Sport Singapore strategic planning as, pending further substantiation, it may inform more precise targeting of programme development and communication.

The most fulfilling element of this experiment was the shared enthusiasm with Sport Singapore for 'doing things differently'. This was the first study of this type that the department had undertaken; the experience demonstrated that conducting a randomised controlled experiment was feasible, affordable and useful. It also showed the unique advantage that Singapore has for this type of research given the existence of NRIC numbers enabling the linking of experimental and Government data across a range of different behaviours – a prospect that is exciting for researchers and policy makers beyond the sphere of exercise.

*This blog post was written by Anna Meadows as a summary of the research undertaken for her dissertation as part of the Executive Masters in Behavioural Science at LSE, 2015-16. Anna Meadows is the founding director of Sycamore Research, a Singapore based research consultancy. Follow her on LinkedIn [https://www.linkedin.com/in/anna-meadows-476a9a17/]*
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