

Can Commitment Devices Boost Self-Monitoring on a Weight Loss Website?

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Why Self-Monitor for Weight Loss?

The simple act of keeping track of diet and exercise behaviours, and taking regular weight readings improves weight management.¹ It is no surprise that a variety of self-monitoring tools have emerged in the weight loss sector – apps, wearable technology – that complement traditional food diaries.

Despite the benefits of self-monitoring and the wide range of easy to use tools, it remains difficult for many to consistently self-monitor over time.² So how can people stay on track?

Perhaps with a “commitment device” – some strategy that binds future actions in line with a personal goal³ such as a public pledge, or a contract with money attached, by changing the costs and benefits of staying on track.

Commitment devices have shown promise in studies testing for weight loss,^{4,5} but are untested for self-monitoring behaviours, which is a key intermediary step in behaviour change for improved health.

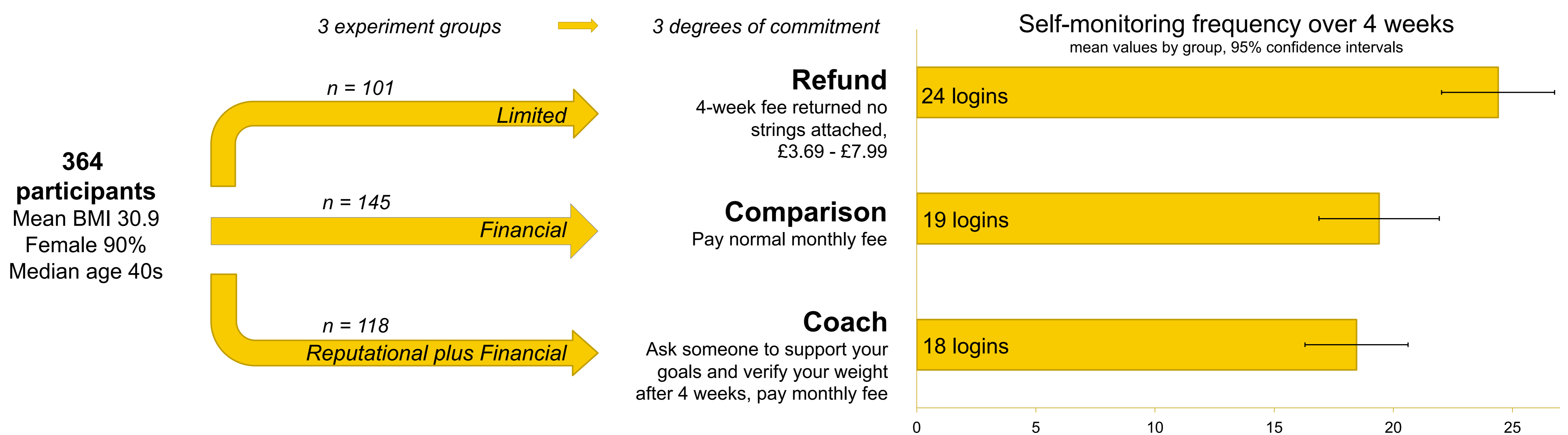


How to Promote Self-Monitoring? A Field Experiment Testing Commitment Devices

I partnered with a digital weight loss company offering a calorie counter and food journal tool, to find out if more commitment leads to more self-monitoring. I conducted a trial over July 2013 – February 2014 with 364 paying clients.

Through an online survey they were randomly allocated to 3 experimental groups, with varying degrees of commitment over 4 weeks. Based on behavioural economics theory,⁶ I hypothesised that the stronger the commitment, the higher the frequency of self-monitoring.

Self-monitoring outcomes were captured through the number of times participants used any of the available tools to note down their diet, exercise, weight, or mood over 4 weeks.



Which Commitment Group Self-Monitors the Most?

- 25% more self-monitoring in the ‘refund’ group than the comparison group, and 32% more than the ‘coach’ group ($p < 0.05$ in both cases).
- Being offered a refund raises self-monitoring by 1 extra login per week (*regression analysis* $\beta = 4.639$, $p < 0.05$).
- The ‘coach’ group self-monitor the least (*not statistically significantly different from the comparison group*).

The Results Challenge Theory: Two Surprising Findings

1. Adding a reputational element to an existing financial commitment makes no significant difference to self-monitoring behaviours.
2. Removing both kinds of commitment leads to the greatest self-monitoring.

1. Why does a coach not have a positive effect?

Design matters

Suggesting a coach to people looking for a time-saving self-monitoring method does not work. This was not the right type of reputational commitment to use here, so only 40% actually named a coach.

2. Why does a refund have a positive effect?

Money motivates

The refund may have been perceived as a gift or reward. This suggests occasional, lottery-style rewards simply for being signed up to a self-monitoring tool may have significant short run effects that policy makers should consider.

Commitment devices may have a role in boosting self-monitoring, but their design needs to be carefully tailored and targeted. A modest lottery-style reward might be just as, or more, effective.

One commitment strategy at a time

Compliers in the coach group had the lowest recorded self-monitoring levels, suggesting a substitution effect away from the online tools toward their coach. It was not possible to add another layer of commitment, so instead personal accountability to the coach replaced online self-monitoring.

Freedom motivates

Could the perception of being unshackled from a financial commitment device encourage better behaviour? This might explain why even small refunds have an effect, and there is no difference across sums refunded.

References

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