Self-Reported changes in pelvic floor training frequency and incontinence symptoms with the intravaginal Elvie device

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Elvie Trainer is an intravaginal pelvic floor exercise device capable of simultaneous measurement of force and motion. The device was designed to provide users with real-time biofeedback of their pelvic floor muscle training (PFMT) via a smartphone application. Exercise adherence is encouraged through target setting, structured workout routines, and the ability to track improvement.

To estimate the impact of Elvie Trainer on users’ PFMT frequency and symptoms of stress urinary incontinence (SUI), we conducted a survey of users of the device in the US and UK. A questionnaire was sent via email to users who had consented to receive communications from the company. 417 users responded.

![Figure 1: the Elvie Trainer and associated smartphone application](image)

Participants were queried on their frequency of performing PFMT, with answers: “Never”, “Rarely”, “At least once a month”, “At least once a week”, “At least three times a week”, and “At least once a day”. Prior to purchasing Elvie Trainer, the modal answer was “Rarely”. After purchasing Elvie Trainer, the modal response was “At least three times a week”. For users who already performed PFMT, 69% reported increased frequency after purchasing Elvie Trainer.

Participants were invited to answer questions from ICIQ-UI-SF validated questionnaire on urinary incontinence symptoms and the PGI-I question on improvement of condition. Of the 156 participants who responded, 63% reported improvement in SUI symptoms since using Elvie Trainer. Logistic regression revealed that both duration and frequency of use were significantly associated with improvement in symptoms.

Participants were queried on the likelihood of recommending Elvie Trainer to a friend or colleague. 68% of participants responded “very likely” to this question.
In conclusion, self-reported outcomes were highly positive. However, due to data collection processes there is a risk of bias. Further work is needed to establish the impact of Elvie Trainer under controlled conditions.