Background/introduction Female sex workers (FSWs) are often considered as a vector for HIV and other sexually transmitted infections entering the general communities.

Aim(s)/objectives This study investigated the effectiveness of a resilience-promoting intervention that targets at psychological well-being to facilitate adaptation and safe sexual practices among FSWs which could be an innovative strategy in controlling the spread of these infections.

Methods Using resilience framework, this intervention consisted of six-weekly sessions focused on awareness, expression and management of emotions, identifying roles and personal strengths, and effective problem-solving skills. The primary outcome of resilience and reduction of sexual risk behaviour were assessed at baseline, post-intervention and 3-month follow-ups through self-administered questionnaires. Difference of the differences between the two groups and intention-to-treat analysis were adopted in the analysis.

Results 127 FSWs were recruited and randomly assigned to the intervention or usual care (control) groups in a multi-centred randomised controlled trial. There were significant differences on the score on resilience, self-esteem and general mental health status between the two groups at post-intervention and 3-month follow-ups. The rate of condom use improved with time but significant difference between groups was only observed at 3-month follow-ups. Regression models showed that, after controlling for marital status and family size, intervention group assignment (OR = 2.95, 95% CI: 1.19–7.35) and self-efficacy (t = 2.48, p < 0.05) was significantly associated with improved resilience scores.

Discussion/conclusion The results suggest that the programme was effective in promoting resilience, self-esteem and the mental health status but with less obvious effect on sexual health among FSWs in Hong Kong.