

Identifying Distinct Quitting Trajectories after an Unassisted Smoking Cessation Attempt: An Ecological Momentary Assessment Study

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ABSTRACT

Objectives: This study aimed at identifying distinct quitting trajectories over 29 days after an unassisted smoking cessation attempt by ecological momentary assessment (EMA). In order to validate these trajectories we tested if they predict smoking frequency up to six months later. **Methods:** EMA via mobile phones was used to collect real time data on smoking (yes/no) after an unassisted quit attempt over 29 days. Smoking frequency one, three and six months after the quit attempt was assessed with online questionnaires. Latent class growth modeling was used to analyze the data of 230 self-quitters. **Results:** Four different quitting trajectories emerged: quitter (43.9%), late quitter (11.3%), returner (17%) and persistent smoker (27.8%). The quitting trajectories predicted smoking frequency one, three and six months after the quit attempt (all $p < 0.001$). **Conclusions:** Outcome after a smoking cessation attempt is better described by four distinct trajectories instead of a binary variable for abstinence or relapse. In line with the relapse model by Marlatt and Gordon, late quitter may have learned how to cope with lapses during one month after the quitting attempt. This group would have been allocated to the relapse group in traditional outcome studies.

KEYWORDS

Smoking Cessation; Lapse; Relapse Process; Ecological Momentary Assessment; Self-Quitter

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