

INTERMITTENT EXPOSURE TO A HIGH-FAT DIET PREVENTS SOCIAL STRESS-INDUCED INCREASE IN ETHANOL CONSUMPTION IN ADULT FEMALE MICE

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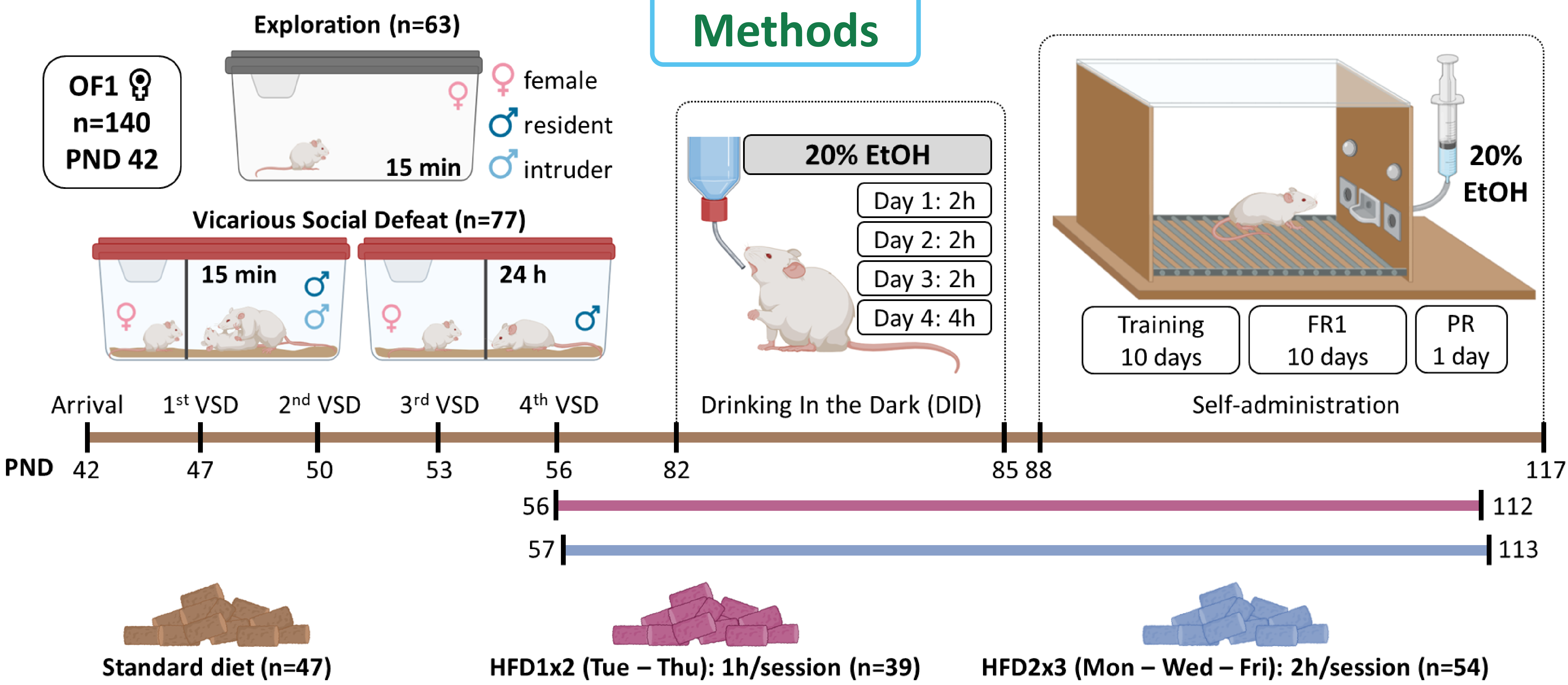
Introduction

Social defeat (SD) increases ethanol intake and motivation in adolescent and adult rodents. Previous studies have shown that consumption of a high-fat diet (HFD) during exposure to social stress attenuates stress-induced increases in ethanol intake. Besides, intermittent HFD consumption has been shown to attenuate stress-induced ethanol intake in adult male mice, but its effects in adult females remain unexplored.

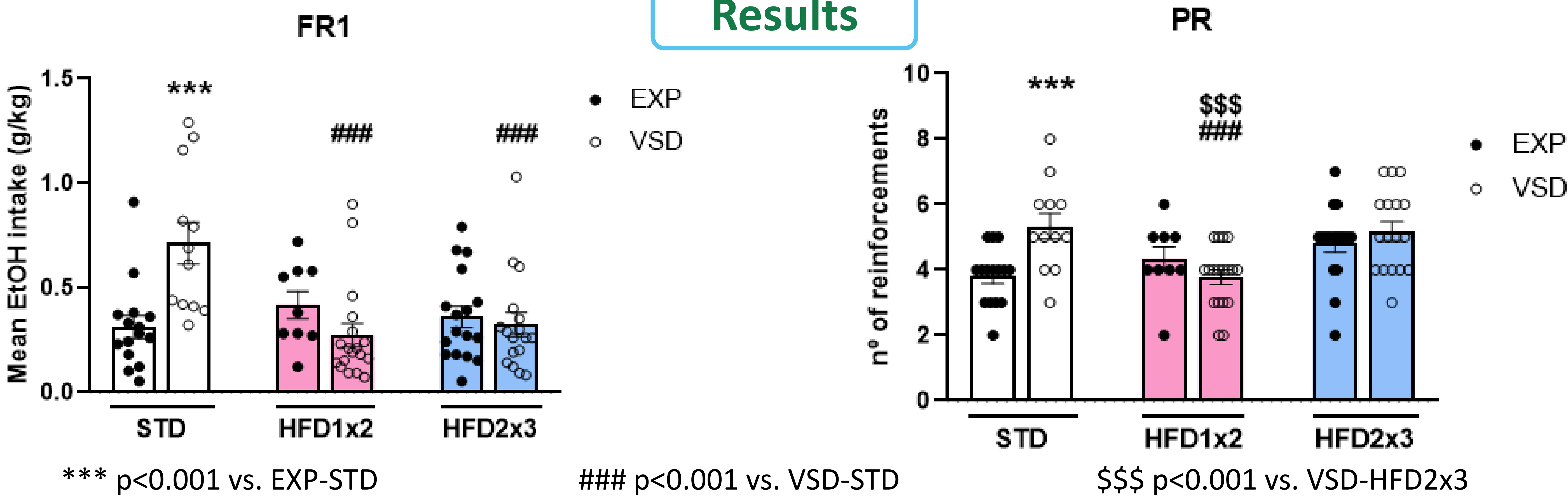
Aim

We aimed to assess whether intermittent HFD following vicarious social defeat (VSD) prevents stress-induced ethanol consumption and seeking in adult female mice.

Methods



Results



- In the FR1 phase, VSD-STD females increased EtOH intake compared with EXP-STD animals ($p<0.001$). Both HFD patterns prevented this stress-induced increase in EtOH intake. All VSD-HFD animals exhibited lower EtOH intake than the VSD-STD ones ($p<0.001$ in both cases)
- In the PR phase, VSD-STD mice showed higher reinforcements than EXP-STD ($p<0.001$). VSD-HFD1x2 females reduced their reinforcements compared to VSD-STD and VSD-HFD2x3 animals ($p<0.001$ in both cases).

Conclusions

Intermittent HFD following VSD counteracts stress-induced increases in ethanol consumption and motivation in adult female mice, with the HFD1x2 pattern showing greater protective effects.