

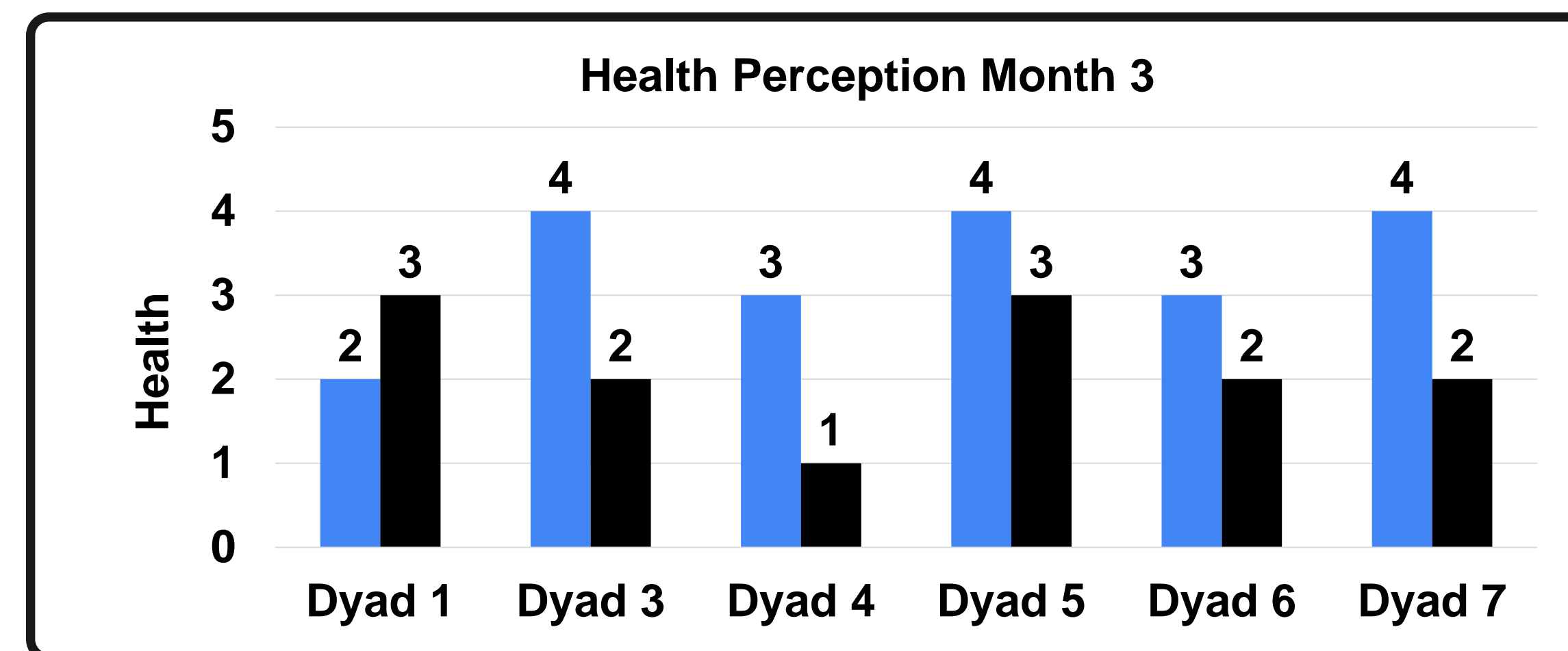
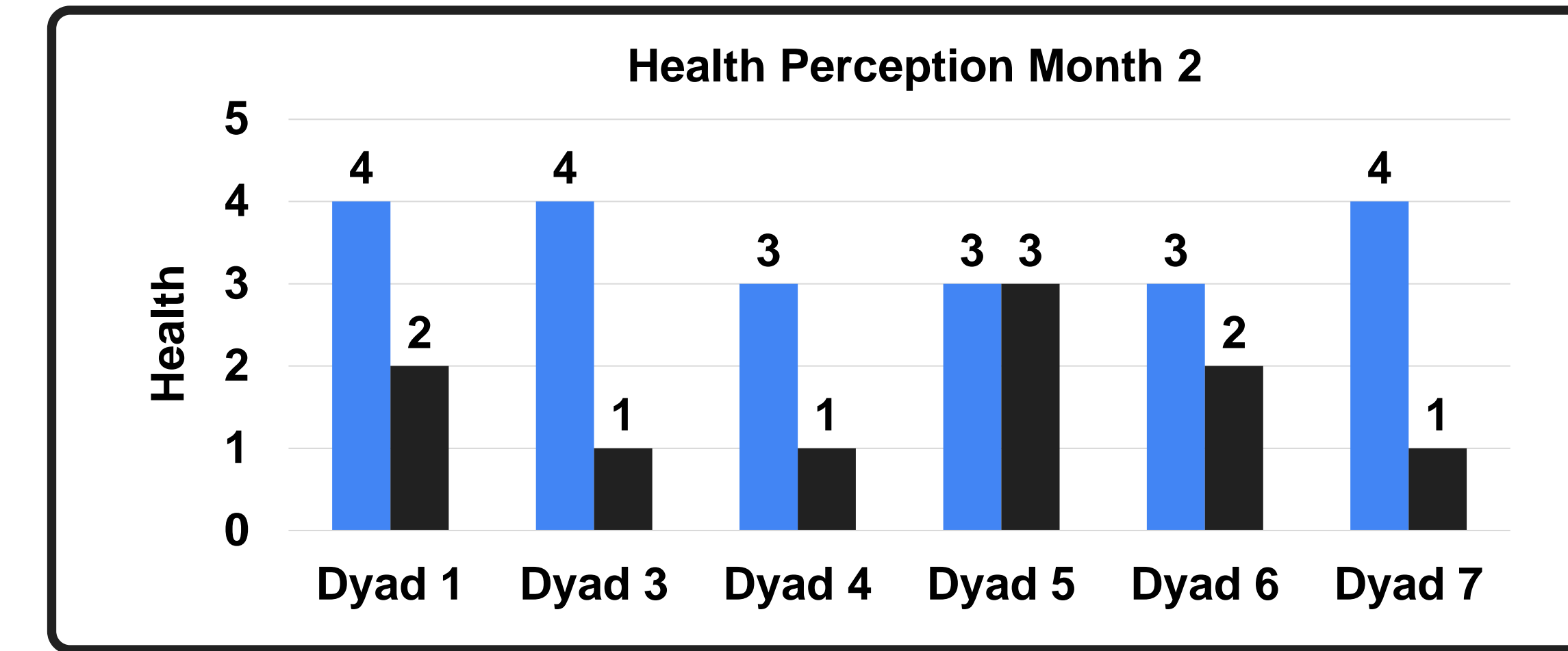
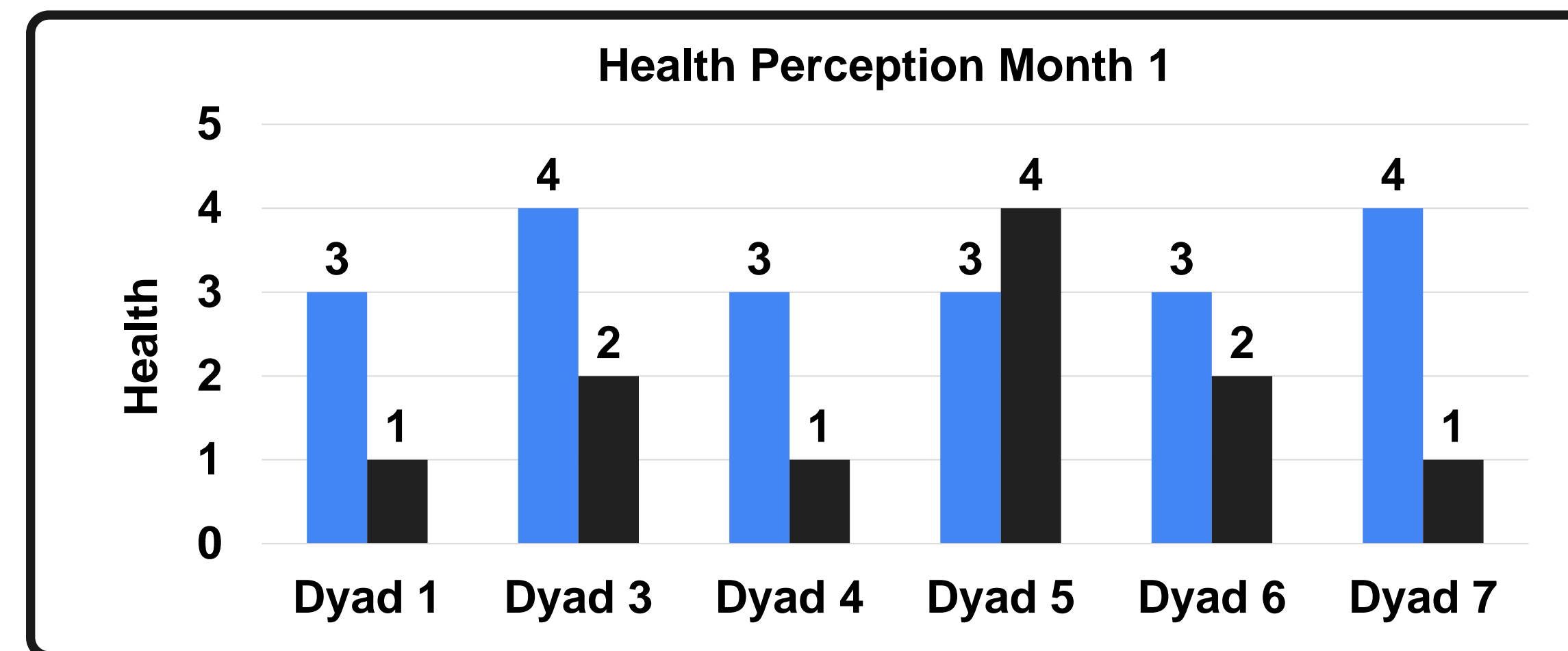
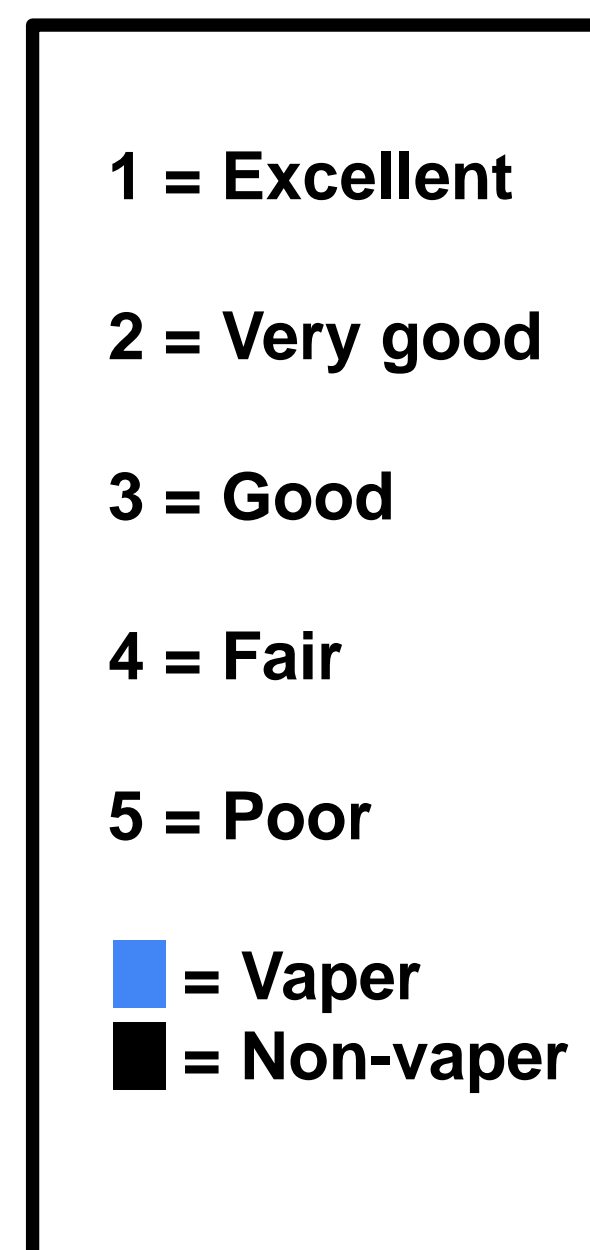
BACKGROUND

- Electronic cigarettes (e-cigarettes) are increasingly becoming popular among college students. There are different perceptions of health in association to e-cigarette between users and non-users.
- Most commonly, e-cigarette users tend to perceive better health effects than non-users.
- Interestingly, there is an association between e-cigarette use, and reports of fatigue and depressive symptoms. Some studies suggest a bi-directional relationship with e-cigarette use and depressive symptoms.
- E-cigarette users, ages 18 to 30, are shown to be twice as likely to report signs of depression compared to non-users. Fatigue is shown to be consistently associated with overall health including physical and mental health.

METHODOLOGY

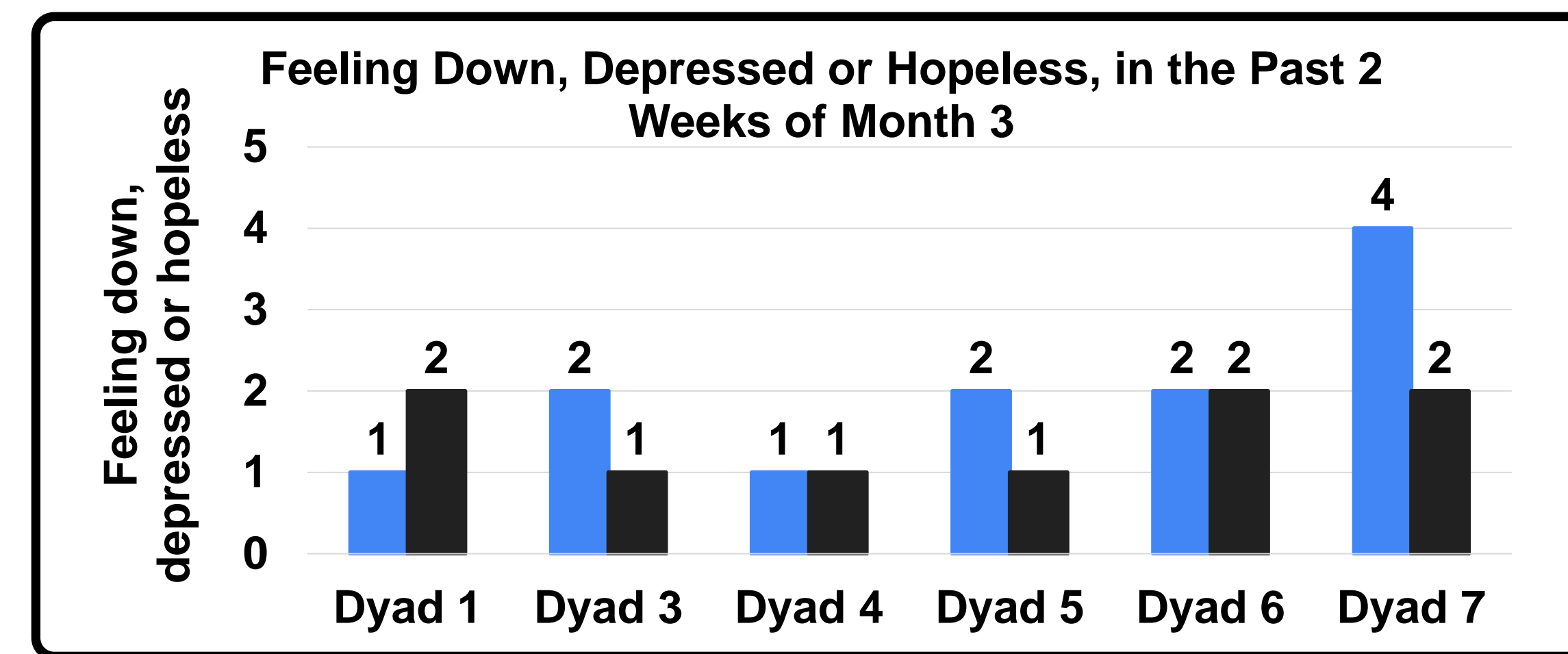
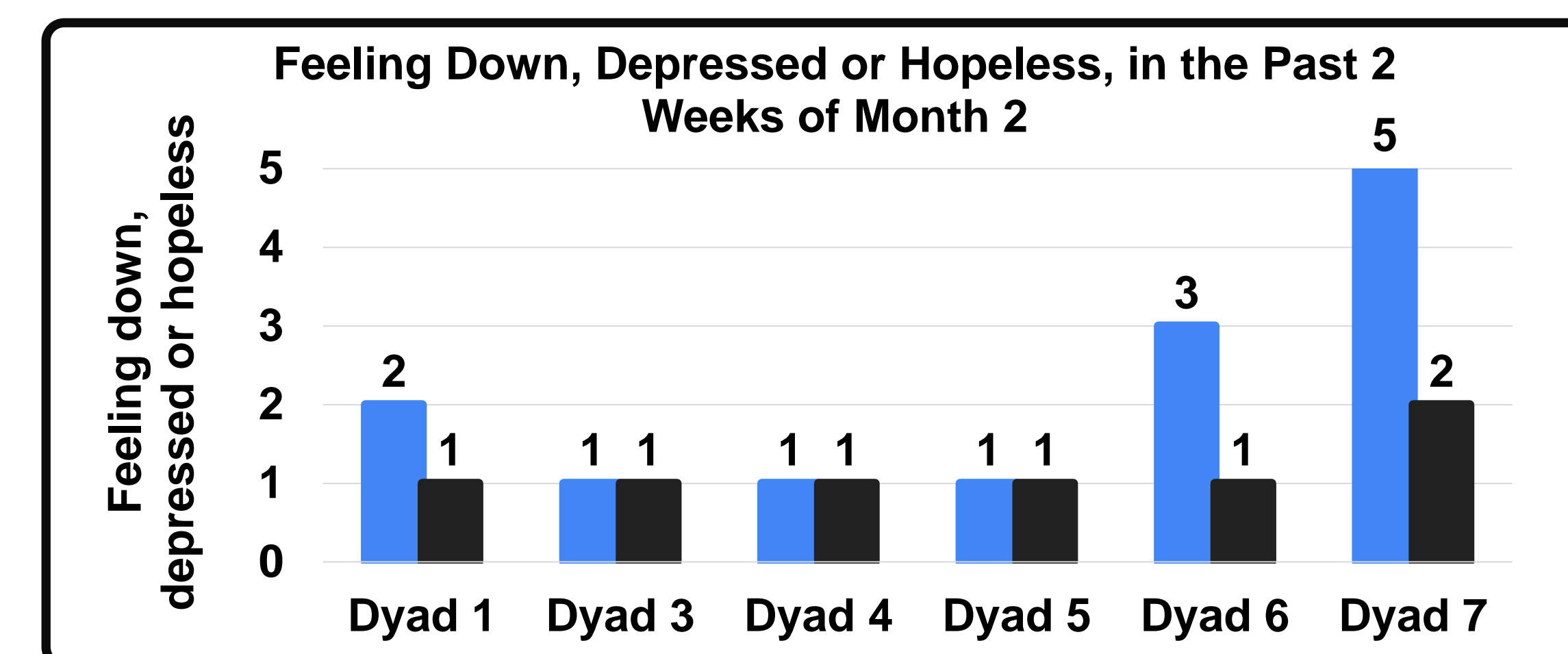
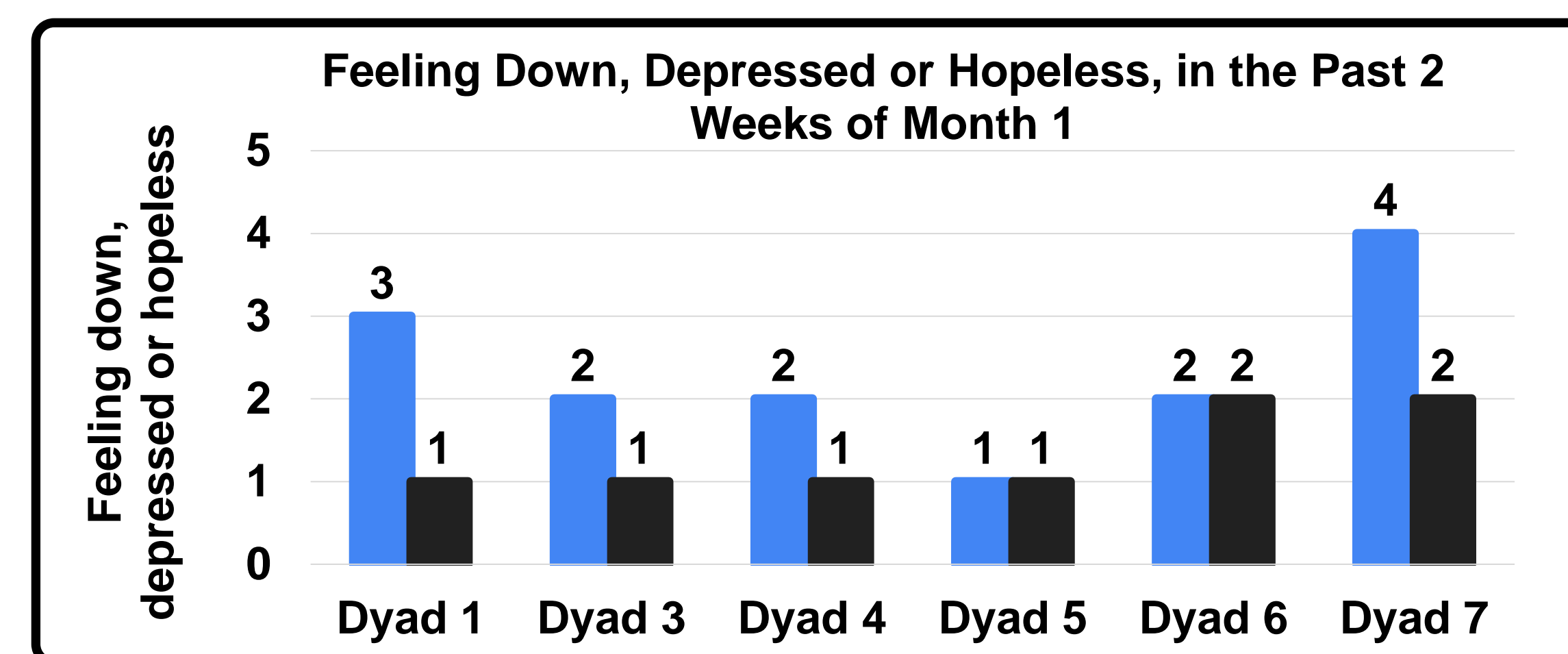
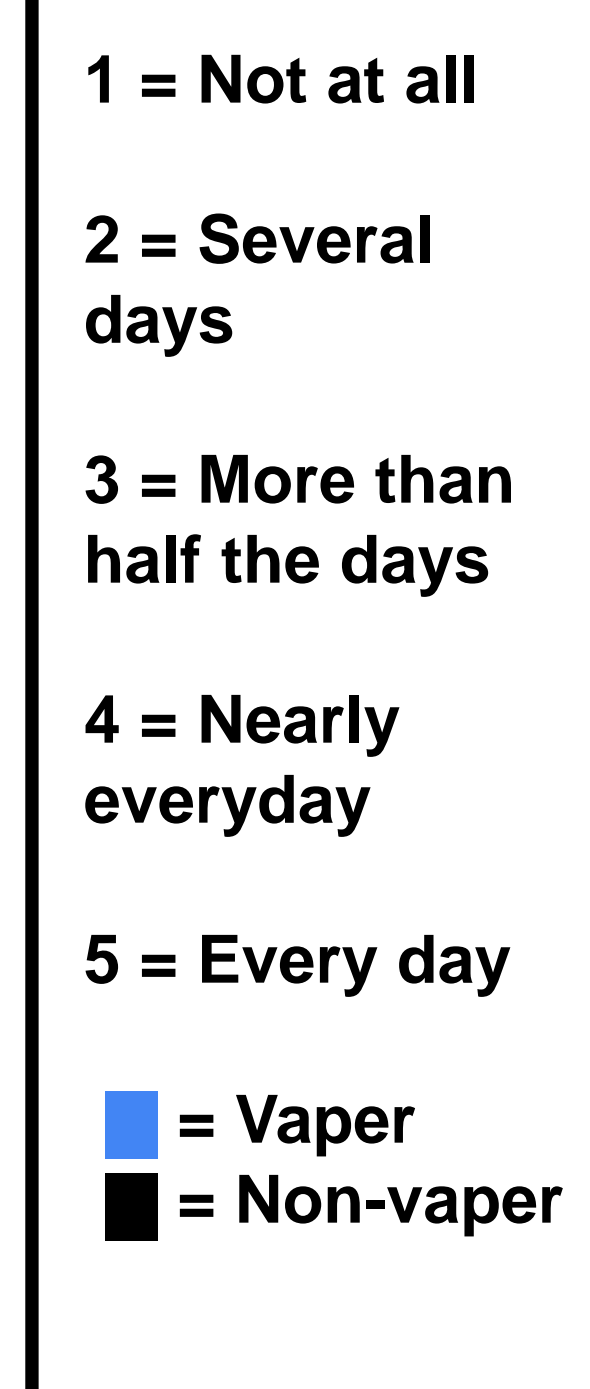
- One of the aims of the pilot study examined the participant's behavior and perception of harms associated with e-cigarette use.
- Participants are recruited through flyers, posters, referrals, and emails with a QR code to an eligibility survey.
- The vaper and non-vaper will form a dyad. Six dyads, who completed three months of the study were eligible.
- Visits are conducted twice a month across 3 months for each dyad.
- At the first monthly visit, dyads were given silicone wristbands to wear continuously for seven days.
- At the second monthly visit, dyads took a survey and returned the wristbands for nicotine analysis.
- In this analysis, the differences in trends among vapers' and non-vapers' self-reported health perceptions were compared.

HEALTH



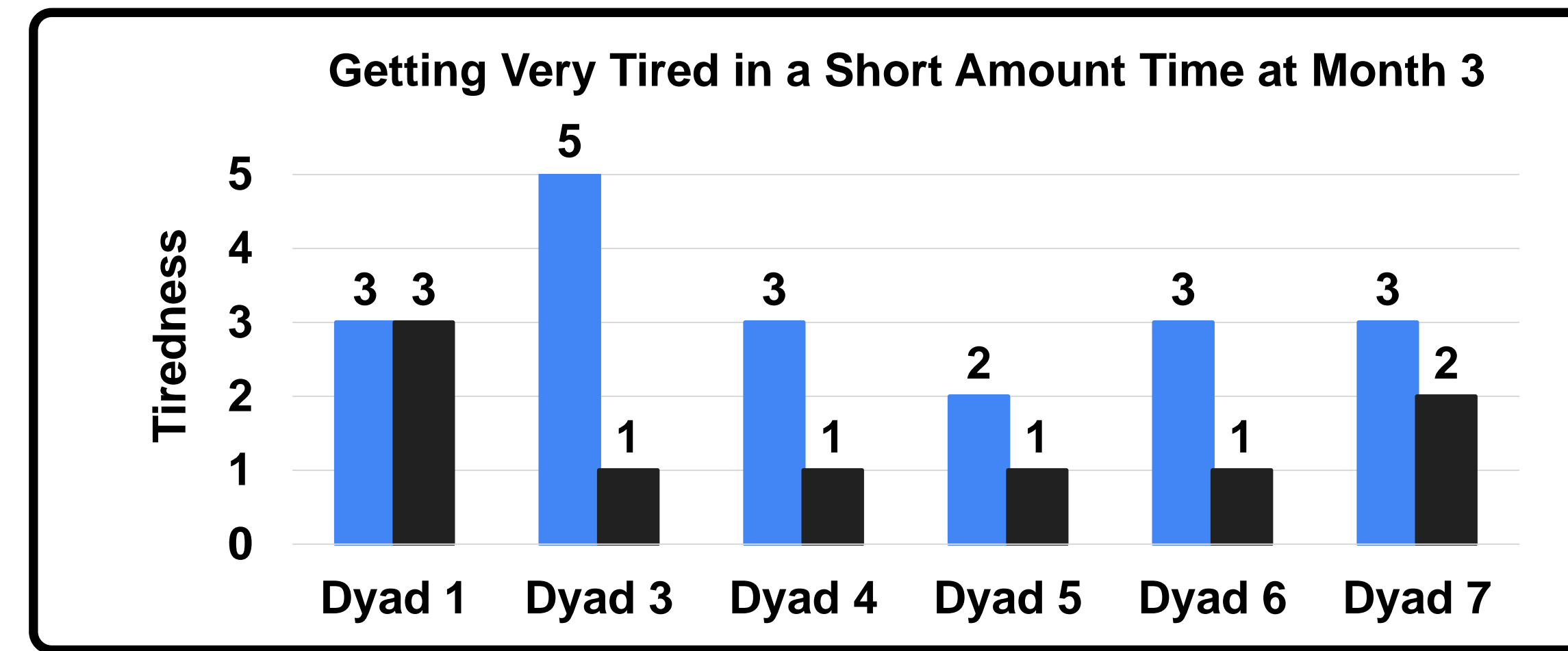
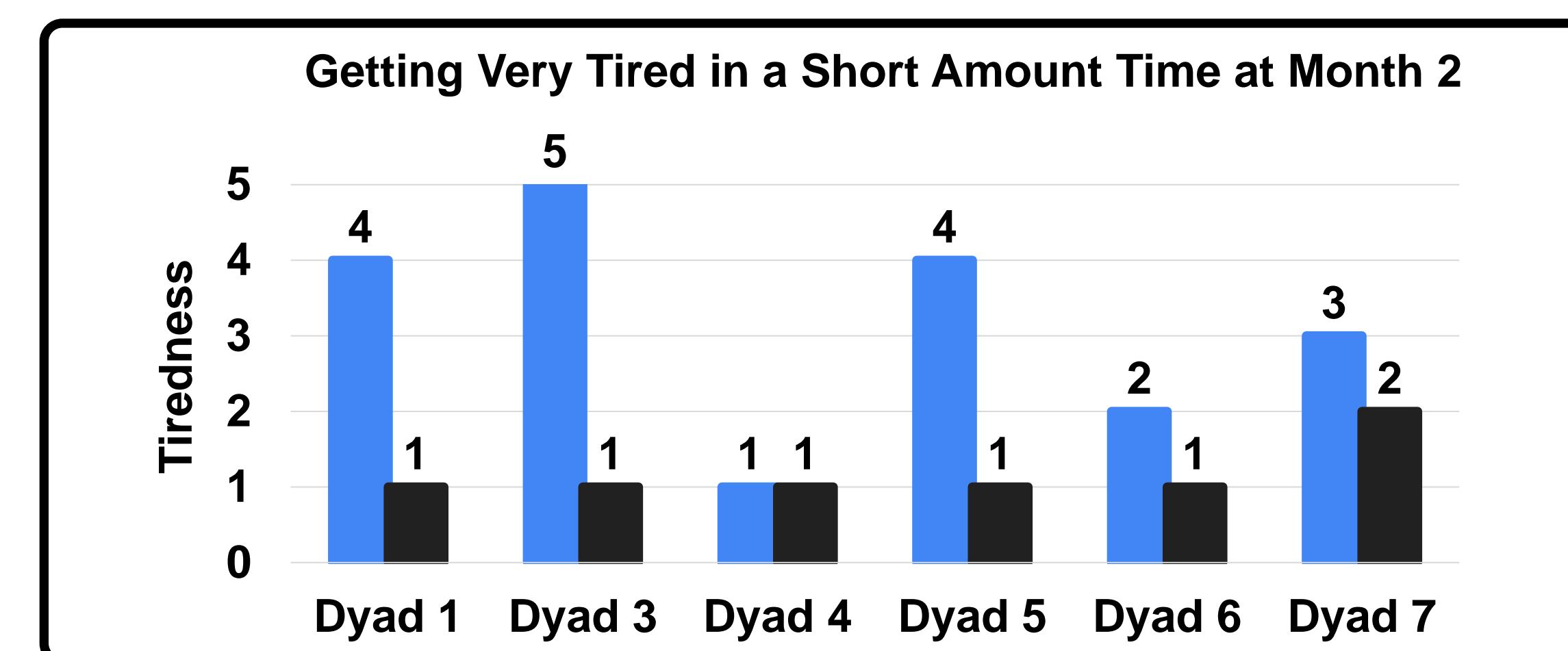
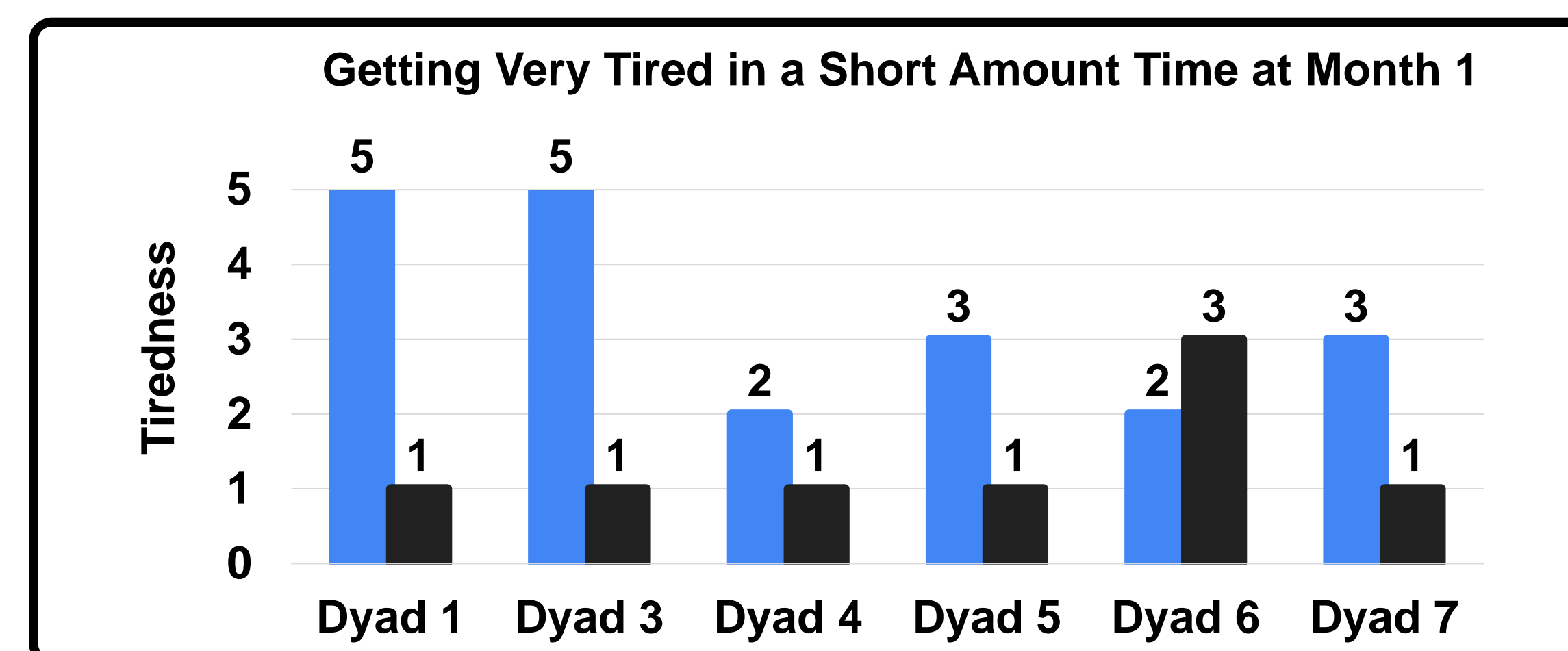
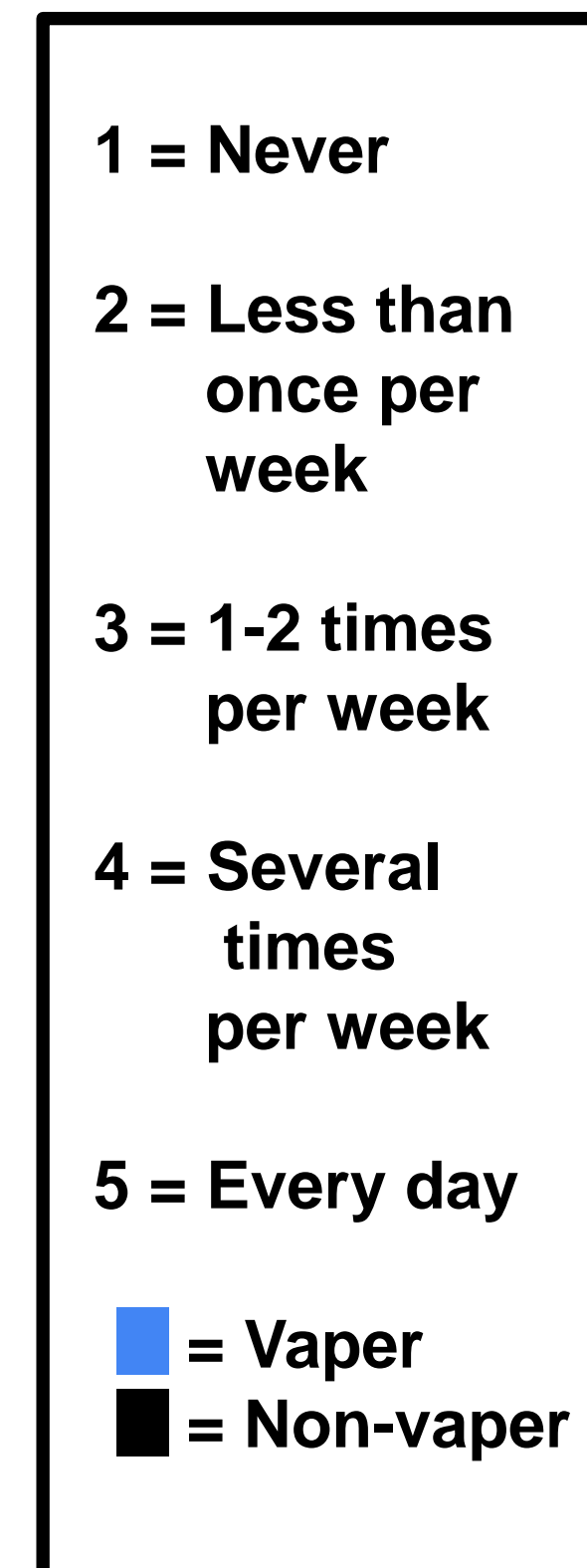
- Individuals in dyads 1 and 7 had the same trend but had different health perceptions that was consistent from month 1 to 2.
- Individuals in dyad 5 reported differently at month 1, but the same reports by month 2.
- Individuals in dyads 4 and 6 had the same trend, but consistently reported different health perception for all months.
- Generally, vapers stayed within the range of "fair" to "good" and "very good" to "excellent" for non-vapers for all 3 months.

FEELING DOWN, DEPRESSED, OR HOPELESS



- Individuals in dyad 5 had the same trend and the same report of "Never" from month 1 to 2.
- Individuals in dyad 4 had the same trend and the same report at "Never" from month 2 to 3.
- Reports of feeling depressed were more prevalent among vapers across all 3 months.

GETTING TIRED IN A VERY SHORT AMOUNT OF TIME



- Dyad 7 had the same trend but reported differently at month 2 and 3.
- Dyad 1 had different trends but reported the same by month 3.
- Across all 3 months, only dyad 3 had the same trend, but consistently had different reports.
- At least half of vapers reported getting tired whereas at least half of non-vapers reported "never" for all months.

CONCLUSION

- Non-vapers had a healthier perception of their own health. Vapers reported more of feeling depressed and getting tired in a short amount of time across all 3 months. Almost all non-vapers reported never getting tired.
- Each dyad had a very different trend from each other except for dyads 4 and 6 among the overall health perception. Even then, they reported different health perceptions.
- Various research indicated that vapers view e-cigarette as a healthier alternative, but as seen in the self-reported perceptions, vapers had a lower view of their own health.
- Among those with the same trend or reports, there may be an association between health perception and peer influence or secondhand exposure.
- The use of e-cigarettes may affect how someone views their own health therefore more research is required to examine this association given the pilot nature of this work.

ACKNOWLEDGEMENT

- The University Grants Program

REFERENCES

Jones, R. D., Asare, M., & Lanning, B. (2021). A Retrospective Cross-Sectional Study on the Prevalence of E-cigarette Use Among College Students. *Journal of community health, 46*(1), 195–202. <https://doi.org/10.1007/s10900-020-00869-x>

Obisesan OH, Mirbolouk M, Osei AD, et al. Association Between e-Cigarette Use and Depression in the Behavioral Risk Factor Surveillance System, 2016-2017. *JAMA Netw Open.* 2019;2(12):e1916800. doi:10.1001/jamanetworkopen.2019.16800

Patel, D., Davis, K. C., Cox, S., Bradfield, B., King, B. A., Shafer, P., Caraballo, R., & Bunnell, R. (2016). Reasons for current E-cigarette use among U.S. adults. *Preventive medicine, 93*, 14–20. <https://doi.org/10.1016/j.ypmed.2016.09.011>

Zvolensky, M. J., Manning, K., Garey, L., Mayorga, N. A., & Peraza, N. (2019, May 14). *Fatigue severity and electronic cigarette beliefs and use behavior.* Addictive Behaviors. Retrieved February 13, 2023, from <https://www.sciencedirect.com/science/article/pii/S0306460319303181?via%3Dihub>