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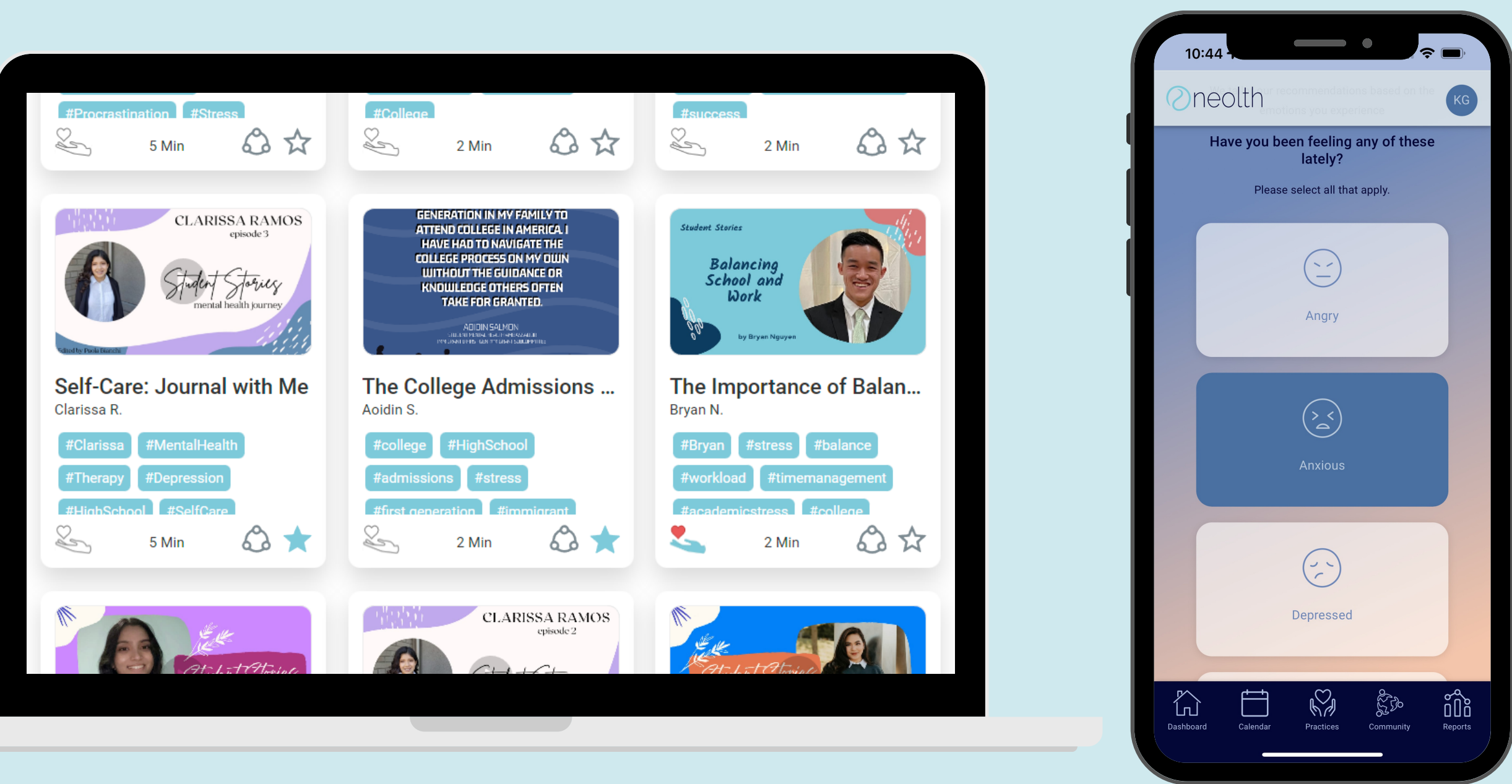
AFFILIATIONS



Characteristics and Changes in Symptoms Among Users of a Digital Mental Health App for Students

Research Objective

Neolth, a MH app created for young adults and adolescents, provides information and practices tailored to each user. This study's goal was to identify meaningful changes in self-reported symptoms and behaviors over time using the app.



Study Design

This was a cross sectional study. Demographic, mental and physical health symptoms, conditions, treatment status, and stress levels (Perceived Stress Scale-4) were collected. Statistical methods were used to identify trends in stress, symptoms and behaviors over time using the app.

“Neolth is an amazing resource, especially for the younger generations who need more tools for managing their mental health.”

Results

Medical diagnoses were reported in 8.7% (128/1471) while 27.12% reported at least one MH diagnosis (399/1471). Anxiety was most frequently reported (21.48%, 316/1471) with depression occurring in 17.47% (257/1471). Of symptoms, “feeling anxious” was the most frequent (61.86%, 910/1471), while “feeling overwhelmed,” “constantly worrying,” fatigue and “productivity trouble” were reported by more than half (60.10%, 54.45%, 55.74%, 50.58% respectively). Mixed linear models indicated that there was a general trend suggesting overall declines in stress during the first year of using Neolth. There was a significant interaction between time and engagement level, such that significant decreases were observed in users who completed >4 guided relaxation practices. The largest reductions in symptoms were seen in feeling anxious ($r = -.234, p < .001$), forgetful ($r = -.212, p < .001$), indecisive ($r = -.198, p < .001$) and depressed ($r = -.168, p < .001$). There was an increase in “liking my body” ($r = .205, p < .001$). Changes in behavior were also reported, with reductions in binge eating ($r = -.202, p < .001$), productivity problems ($r = -.284, p < .001$), panic attacks ($r = -.164, p < .001$) and use of substances to relax ($r = -.118, p = .02$).

Population

Participants were 1,471 Neolth users between the ages of 11 and 30. AYAs who enrolled and utilized the optional stress-tracking features, which includes PSS-4 completion, were included.

- N = 1,471
- M Age = 18.6 years
- 65.4% female, 6.5% other gender
- 57.0% white, 28.5% AAPI
- 46.8% high schoolers
- 8.7% had medical diagnosis
- 27.1% had mental health diagnosis



Health Benefits After Use of Neolth

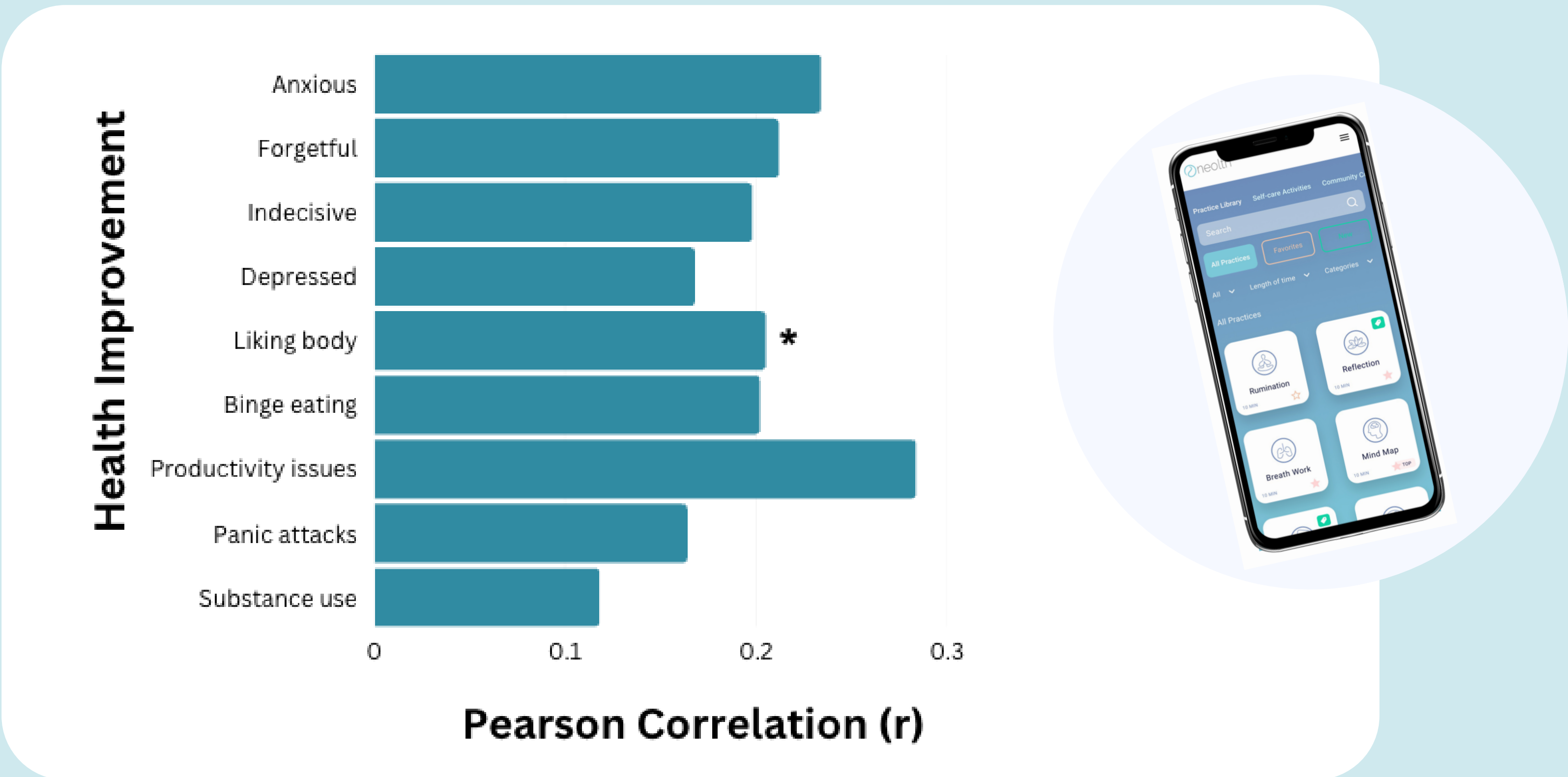


Figure 1. Neolth users benefitted from a change in health across 9 domains, in addition to stress. *Changes were associated with a reduction in symptoms, except for 'liking my body' which had a positive correlation with Neolth use. Changes in stress (PSS-4) occurred after just 5 logins, or approximately 25 minutes on the Neolth app.

Conclusion

Results highlight important patterns of usage and indicators of change among a large sample of Neolth users. Self-assessments showed a general trend toward reduction in stress and symptoms with increases in healthier behaviors and body acceptance. Findings support future explorations of patterns of preexisting symptoms and stress as they relate to change in health status over time, along with an examination of the impact of engagement on outcomes.