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Student wellness during curriculum implementation of a lifestyle medicine approach within the Social-Ecological Model: a longitudinal study

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ABSTRACT

Purpose

The student-life experience is an ideal time to implement lifelong wellness behaviors needed for the professional role. The ongoing effects of the COVID pandemic have amplified the need for Doctor of Physical Therapy (DPT) educational programs to train an emerging workforce that can, through personal wellness, withstand the stressors of personal and professional lives. The study purpose is to: a) evaluate the change in student wellness from matriculation to mid-program to completion after implementation of a curriculum based on a lifestyle medicine approach within the Social-Ecological Model, and b) compare student wellness between cohorts that matriculated before and during the COVID pandemic.

Methods/Description

We implemented curricular interventions to promote student wellness and professional formation in the fall of 2019. Students first study healthy behaviors for themselves, followed by learning experiences around the professional formation as a healthy clinician, and finally health promotion for patients and communities. We also modified program policies (e.g., holistic admissions, attendance, tutoring, faculty advising) to be student-centered.

Three student cohorts in the DPT program at a Midwest academic medical center agreed to participate. Cohort19 (C19, n = 66) matriculated in 2019, Cohort20 (C20, n=66) in 2020, and Cohort21 (C21, n=64) in 2021. Participants completed the Five Factor Wellness Inventory (FFW) at matriculation into the 32-month program. C19 and C20 completed the FFW midway through the program as planned. Remaining assessments will occur as scheduled at program midpoint and completion. The FFW inventory is the gold standard for identifying central factors for healthy living. The wellness score is composed of 5 “Selves” (Essential, Social, Creative, Physical, and Coping) made up of 17 domains where the acceptance of personal responsibility and choice have positive effects on well-being. A one-way ANOVA was used to compare FFW scores of all 3 cohorts at matriculation. Paired sample t-tests were used to compare results of C19 and C20 at mid-program and over time (matriculation and mid-program).

Results/Outcomes

The curriculum revisions and policy modifications were implemented in fall 2019. There were unexpected COVID-directed health measures beginning in March 2020 resulting in a move to more virtual activities that were not planned in our curriculum and new pressures related to student wellness.

Three cohorts of DPT students (C19, C20, C21) completed the FFW at matriculation. Additionally, C19 and C20 completed the FFW at mid-program. The response rate for the FFW across all cohorts and time points was 100%.

Comparison across cohorts: At matriculation, one of 17 FFW domain scores was found to be significantly different across cohorts. The score for the exercise domain (physical self) was significantly higher ($p=.046$) for C19 (pre-COVID) compared to C21. However, at mid-program for C19 and C20 (both during COVID), scores were significantly lower in C19 compared to C20 in five domains: culture ($p=.004$) and gender identification ($p=.005$) (essential self), nutrition ($p=.037$) (physical self), leisure ($p=.020$) and self-worth ($p=.035$) (coping self).

Comparison over time: A comparison of FFW scores between matriculation and mid-program for C19 showed a significant increase in self-care scores ($p<.001$) (essential self). For C20 scores significantly increased at mid-program in the coping self domains of leisure ($p=.001$) and stress management ($p=.025$), friendship ($p=.018$) (social self), and nutrition ($p=.001$) (physical self) leading to a significant improvement in overall FFW score ($p=.037$).

Conclusions

To optimally train a health workforce, faculty are studying methods to promote student wellness as part of student professional formation along with the curriculum for the PT of the future. Our study shows higher wellness scores in several domains in cohorts matriculating after COVID compared to before. This finding is interesting as it could indicate students entering professional school were potentially more prepared in terms of healthy behaviors due to the public health news surrounding COVID .

Our study shows that components of student wellness may be improving due, in part, to the curriculum interventions and policies supporting wellness. These are important findings especially given the intended curriculum delivery was interrupted by directed health measures beginning in March 2020.

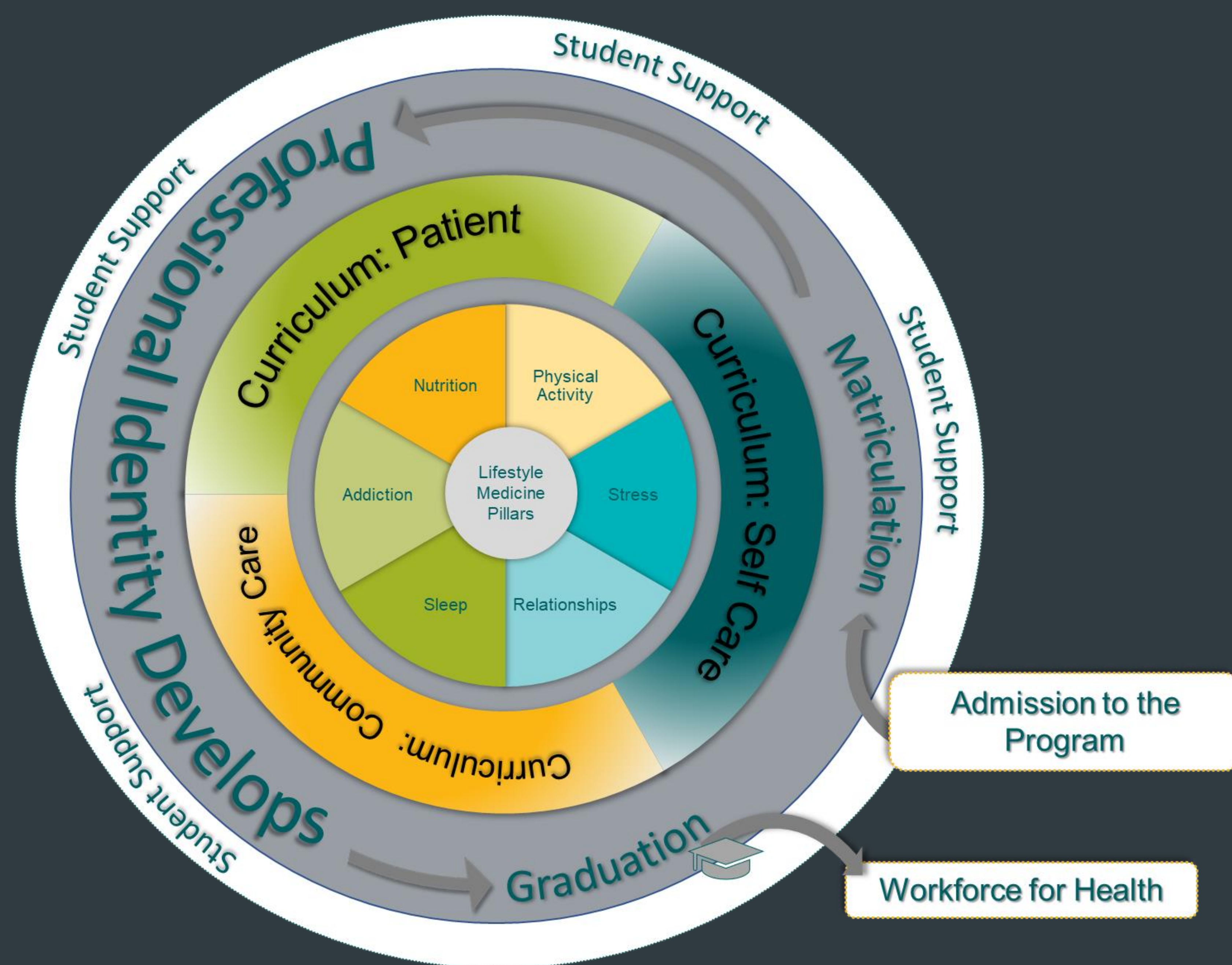
The future direction is to continue to assess outcome measures through the end-of-program. In addition, we are analyzing additional measures of wellness such as psychological capital of hope, confidence, resilience and optimism, and social capital measuring connections with others for a sense of belonging. Our curriculum and supportive policies could be a model to demonstrate how student wellness can be aligned with a lifestyle medicine approach within the individual, relationship, community and society components of the Social-Ecological Model.


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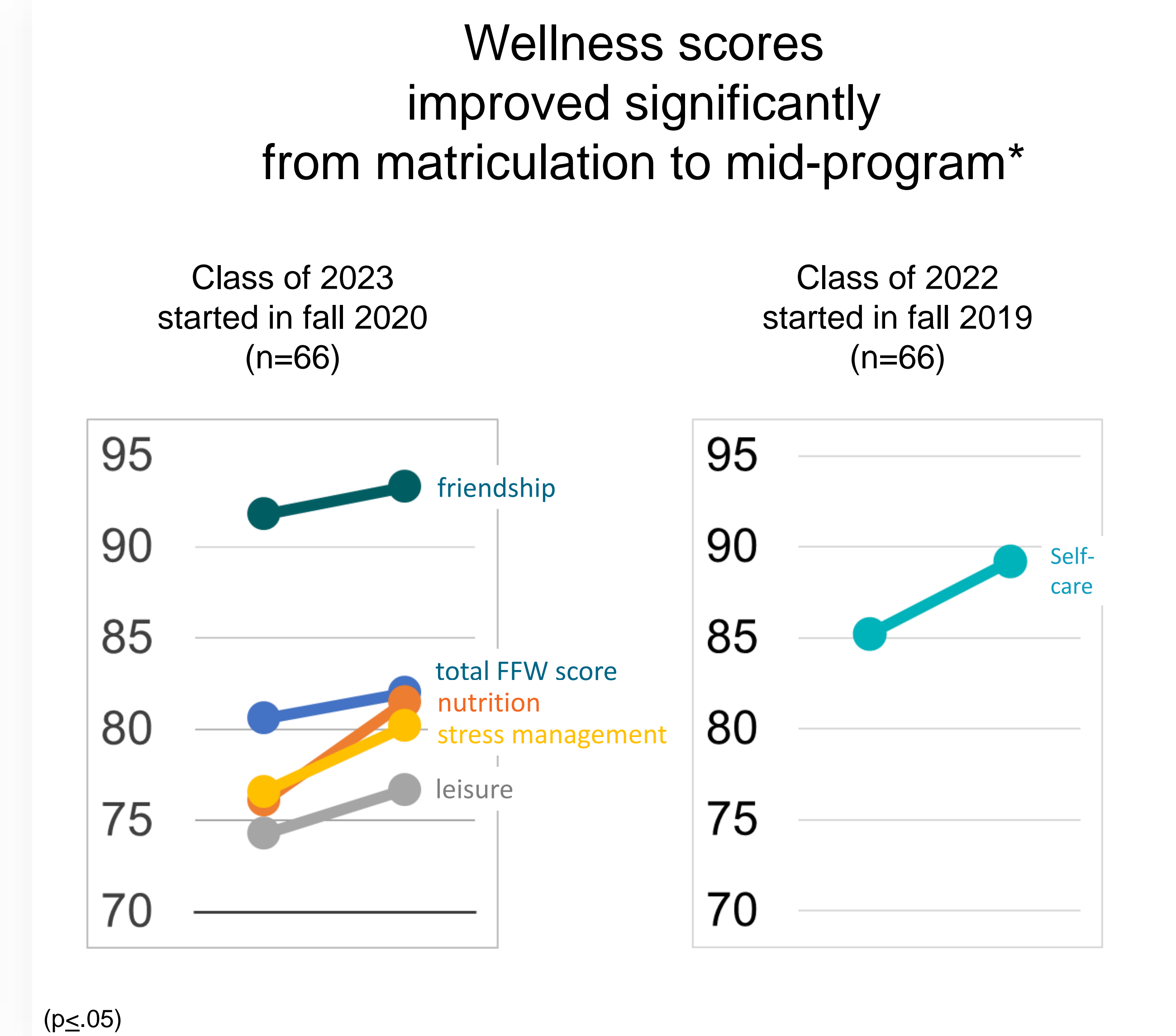
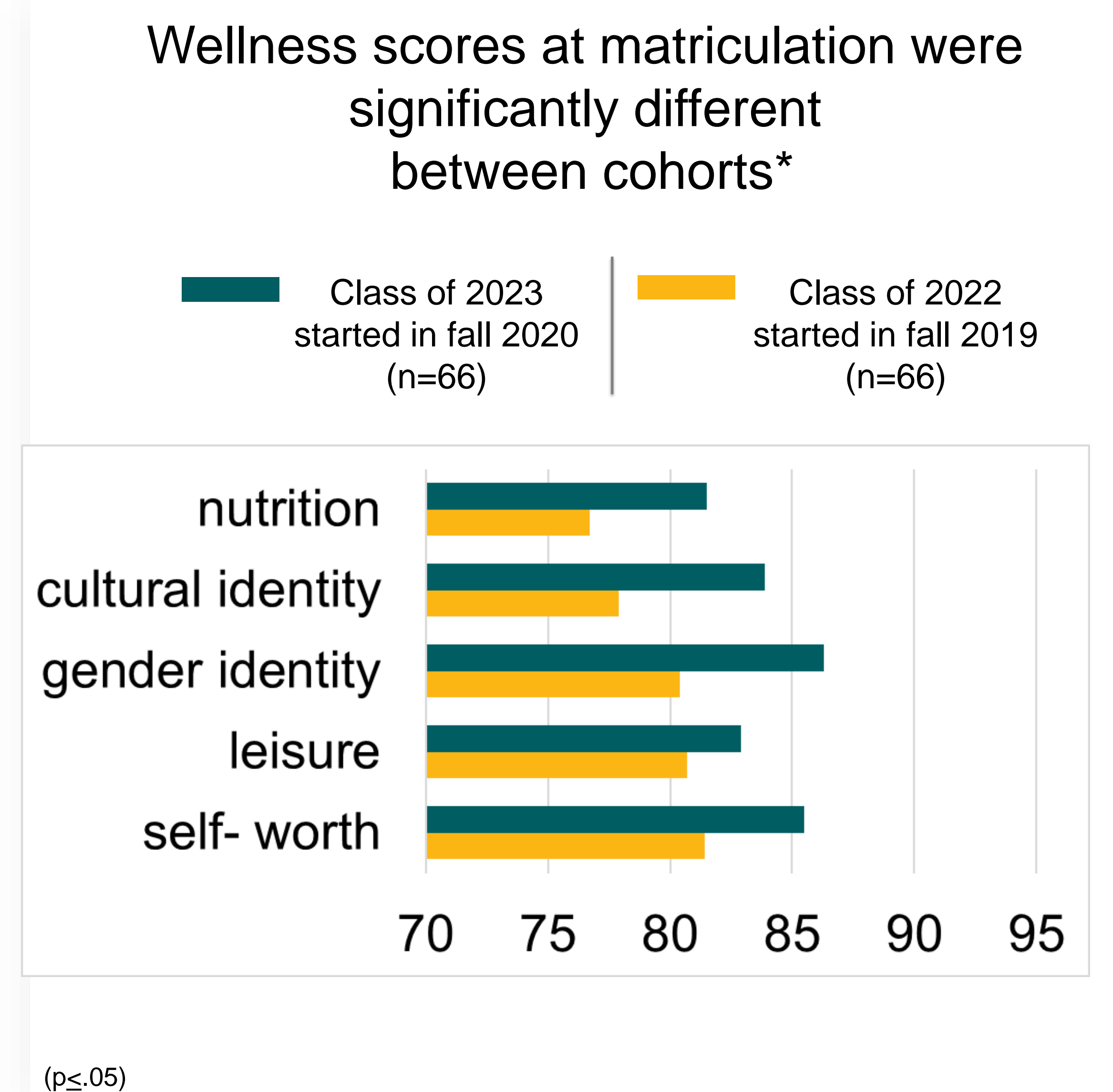
Purpose

Evaluate changes in student wellness with a new curriculum

Methods

- Revise curriculum to promote student wellness and professional formation emphasizing learning experiences for self-care, patients and communities (see Figure)
- Increase student support at university, college and program levels for both the individual and the cohort
- Outcome Measure: Five Factor Wellness (FFW) Inventory (Shannonhouse L, et al. 2020)
- Analyze outcomes across cohorts and over time

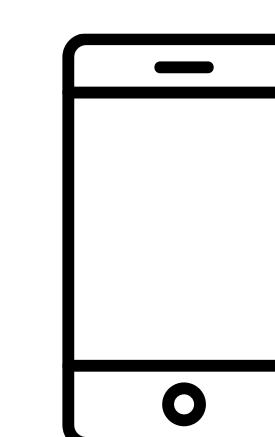
Results



*The FFW wellness inventory is composed of 17 domains where the acceptance of personal responsibility and choice have positive effects on well-being. The FFW domains with significance are reported in the charts.

Conclusion

The student-life experience is an ideal time to reinforce and implement lifelong wellness behaviors needed for the professional role. Curricular and extracurricular supports should be adaptive for inspiring behavior change.



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