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Mentors Provide Support in Multiple Areas for Undergraduates with LD Enrolled in STEM

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Background

- Sixty percent of students with learning disabilities (LD) enroll into post-secondary schools, yet less than half complete an academic program.[1]
- Mentoring is used to promote academic success in higher education. Mentoring involves one-to-one relationships in which the mentor guides students in navigating academic and/or psychosocial college experiences.[1,2]
- **A paucity of empirically-tested undergraduate mentorship interventions exist, with proportionally fewer specific to students with disabilities.[3]**

Purpose: To examine the areas of guidance provided via mentorship to undergraduates in science, technology, engineering, and math (STEM) fields.

Methods

Participants:

- Fifty-two STEM undergraduate students with LD who were registered with the campus disability office and 57 graduate students in a related STEM field.

Design & Setting:

- Participants were part of larger study testing a model of coordinated LD supports. Each undergraduate was paired with a graduate student mentor and met biweekly on campus for four semesters.
- Mentors met as a group twice each semester to receive ongoing LD training and discuss mentorship experiences.

Data/Instruments:

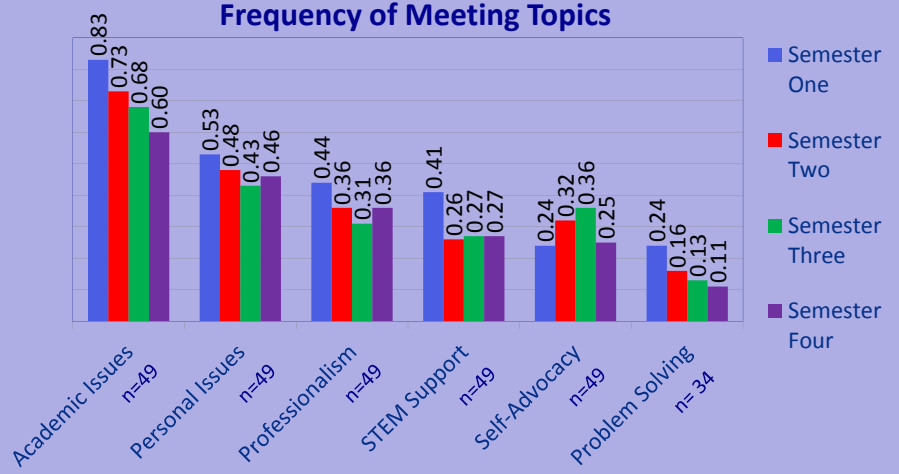
- Biweekly surveys completed by mentors informing on mode of contact and topics discussed.
- Qualitative data from mentor group transcripts were used to expand understanding of guidance provided by mentors.

Analysis:

- Wilcoxon signed rank was used to test between 1st and 4th, as well as consecutive (e.g. between 1st and 2nd) semester differences in meeting patterns and topics discussed.
- Qualitative data from mentor group transcripts were used to expand understanding of guidance provided by mentors.

Results

Frequency of Meeting Topics



Problem Solving

Organization	Communication	Stigma
Mentors help mentees in planning and executing academic related tasks, conceptualizing long and short term goals for career opportunities, and time management.	Mentors and mentees communicate regularly, outside of bi-weekly meetings, for guidance in academic and personal issues, and professional development. Mentors exchange insights and strategies among themselves to optimize mentorship experience for both mentors and mentees.	Mentors learn and gain more understanding about mentees' stigma including the use of accommodations and medications and symptoms. Then, mentors are able to help mentees with self-advocacy and encouragement in academics and self-esteem.
"I started making my scholar write things down in a planner, because he had talked about wanting to have better **time management**, and that was also a way that I did it, I had some trouble getting him to follow through…" Participant 85	"my mentee, she's very **comfortable** talking with me back and forth about issues that she's having…with their academic work and…. some of their personal issues as well." --- Participant 1 "As someone who sounds a lot like your mentee, this is what I would suggest to them…" Participant 76	"I tell her stuff like 'I think you're very smart' and she gets excited about…it's not just trying to make them feel good, it's actually sincerity of it, actually knowing that, **believing in them and helping them believe in themselves as well**." Participant 78

Results cont.

- On average, Biweekly mentorship meetings had a 56% attendance rate.
- Frequency that **academic issues** were discussed decreased by 25% between 1st and 4th semesters (***p*=0.0005**).
- Frequency of discussing **STEM support** decreased by 17% between 1st and 2nd (***p*=0.0006**).
- Mentors described **problem solving** for LD-related difficulties in **organization, communication, and stigma** about LD.

Conclusion

- Mentorship is dynamic.
- Findings support LD-knowledgeable mentors as integral to the student's support system.

Public Health and/or Health Professions Relevance: Findings can be used to develop mentorship programs for students with LD in other institutions.

References

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