

A Report on the Status of Graduate Student Mental Health in the Department of Medical Biophysics

By the MBPGSA Mental Health & Wellness Committee:

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October 2020

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Abstract

This report summarizes the significant findings of an anonymous survey inquiring into the mental health status of students in the Department of Medical Biophysics (response rate: n = 67, 29.4%). Of survey participants, **46.2%** reported a chronic struggle with their mental health **as compared to 9.8% of the general population**, while over 50% indicated feeling major symptoms of anxiety or depression in any given two-week period. These findings are directly linked to being a graduate student in the Medical Biophysics, as 65% of students indicated that their mental or physical wellbeing was negatively impacted by their experience in the department. Furthermore, over 85% of students indicated that statements describing features of imposter phenomenon applied to them. No significant differences were found between the mental health status of students who work at uptown versus downtown locations, or of students at different stages in their degree. An inquiry into contributing factors such as financial stress, supervisory relationship, and work-life balance was also included in the survey. Of these, financial stress was found to be the most impactful among a majority of students. While supervisory relationships in the department are generally positive, students reported feeling inadequately equipped to deal with supervisory conflict should it arise. Also, students who have had conflict with their supervisor had a much more variable degree satisfaction rating. Almost all students reported that a healthy work-life balance is important to their personal sense of success; however, 61% reported that their work-life balance was negatively impacted by their experience in the Department of Medical Biophysics. When asked about strategies that students have in place to deal with their mental health challenges, more students indicated using negative coping mechanisms such as procrastination, isolation, or alcohol and cannabis than constructive mechanisms such as contacting a mental health professional. Over the past year, our committee has held a host of events such as a learning strategies workshop, a roundtable discussion of imposter phenomenon, and an orientation to the University's MySSP counseling program, as well as distributed a detailed student finance tip sheet, in order to aid students in managing their mental wellbeing and its contributing factors in a healthy way. We end the report with a list of recommendations to faculty and the department of intentional ways in which they can positively impact the mental health of their students.

I. Methods

Data Acquisition

We conducted an anonymous survey (on February 11-28, 2020) of students in the Department of Medical Biophysics (hereafter referred to as MBP) at the University of Toronto. Out of the registered students (n = 228, as of March 22nd, 2020), 67 students participated in the survey. The study questions were aimed to assess student wellness within the department, particularly focusing on mental health of students and the impact graduate school has on it. We also determined the perceived mental health of students and correlated it with clinically utilized scoring systems¹ for generalized anxiety disorder (GAD-7) and

depression (PHQ-9). With this information, we want to develop a better understanding of the mental health needs of students within the department to provide specific guidelines for faculty and staff to recognize and mitigate student mental health issues.

Data Analysis

Ranked responses from the survey were treated as ordinal variables. GAD-7 and PHQ-9 scores were calculated by summing up the questions of each particular clinical questionnaire, and also treated as ordinal variables. Questions allowing multiple responses were analyzed by coding each response separately. In total, 115 pairs of questions were analyzed in an exploratory analysis for statistically unlikely correlations. Statistical testing for significant associations was done as follows: significant associations between two categorical variables were assessed using Fisher's exact test; association of a categorical variable with an ordinal variable was assessed using Kruskal-Wallis' H test; and associations between two ordinal variables were assessed using a test of the Kendall Tau-b coefficient. FDR correction was used to calculate q-values to account for multiple testing. Analysis code and results are available upon request.

II. Summary of Results

A. Demographics of survey participants

The Mental Health and Wellness survey 2020 showed a participation of 29.4% of all students in MBP with a slightly higher proportion of M.Sc. student answering the survey compared to Ph.D. students (35.6% vs. 26.1%, Table 1). 43 of the survey participants are based in the downtown locations (TMDT, SickKids, MICE, MedSci, TGH) and 20 participants identify as studying in an uptown location (Sunnybrook, Baycrest), which represents 25.7% and 33.9% of the student body located at either location, respectively. When assessing the distribution of participants regarding their year of study, we found that M.Sc. students in their first year had the highest proportional participation (40.5%), whereas the cohort of fifth-year Ph.D. students is underrepresented (15.0%). Overall, the survey was able to query the wellness and mental health of approximately one third of MBP students.

Table 1. Comparison of student participation with departmental records

Category		Departmental records*	Study participants	Representation of student body (%)	
Students registered		228	67	29.4	
International students		42	8	19.0	
Institutional distribution	Downtown**	167	43	25.7	
	Uptown**	59	20	33.9	
	USA	2	0	0.0***	
	Co-supervised MaRS and Sunnybrook	n/a	1	n/a	
	Prefer not to say	n/a	1	n/a	
Degree program	M.Sc.	87	31	35.6	
	Ph.D.	134	35	26.1	
	M.D./Ph.D.	7	1	14.3	
Year in program	M.Sc.	1	37	15	40.5
		2	39	13	33.3
		3+	11	3	27.3
	Ph.D. or M.D./Ph.D.	1	22	4	18.2
		2	15	3	20.0
		3	24	8	33.3
		4	30	10	33.3
		5	20	3	15.0
		6+	30	7	23.3
	Prefer not to say		n/a	1	n/a

* accurate as of March 21st, 2020

** Downtown = TMDT, SickKids, MICe, MedSci, TGH, Krembil; Uptown = Sunnybrook, Baycrest

***Students currently studying in the US might have answered as being affiliated with OICR (Boutros Lab)

B. Comparison to the general population

As part of the Mental Health assessment of students in MBP, we asked the study participants to rate their mental health on a scale from poor to fair, good, and excellent. Out of the 67 responses we obtained, 7 students (10.4%) stated they had excellent mental health, 28 (41.8%) described it as good, 23 (34.3%) evaluated it as being fair and 8 students (11.9%) perceive their mental health as being poor. To evaluate the self-assessment within the department we turned to the Canadian Community Health Survey (CCHS) conducted by Statistics Canada in 2018 and focused our analysis on the 18-34 age groups evaluated by the CCHS, as the participants in our study answered to be in age groups 19-24 (49.3%), 25-29 (44.8%) and >30 (6%). For comparison with the CCHS, we grouped the excellent and good answers as well as the fair and poor responses. This presents a cumulative number of 52.2% of students in MBP having excellent or good self-assessed mental health as compared to 64% of Canadians in the 18-34 age group². Strikingly, the grouped assessment of fair and poor mental health as perceived by students in the Department of Medical Biophysics shows that 46.2% of students struggle with mental health compared to 9.8% of the general population². Of note here is that the CCHS survey had seven answer possibilities to the question “In general, would you say your mental health is...?” ranging from “Excellent”, “Very good” and “Good” to “Fair” and “Poor”. Moreover, the survey allowed participants to “Refuse to answer (RF)” and state that they “Don’t know (DK)”³. The students taking our survey only had five options with answers being “Excellent”, “Good”, “Fair” and “Poor”, with the option to opt-out by “Prefer not to say”. Nevertheless, the percentage of students that answered in the lowest category (“Poor”) in the MBP survey is still higher (11.9%) than the combined lower categories (“Fair” and “Poor”) in the CCHS (9.8%), demonstrating that students in our sample cohort are more likely to have poor mental health than the general population.

Table 2. Perceived mental health as reported by study participants compared to data from Statistics Canada

Perceived mental health	Personal assessment (number of respondents)	Personal assessment (%)	Cumulative personal assessment (%)	General population (% ages 18-34, CCHS, 2018)
Excellent	7	10.4	52.2	64
Good	28	41.8		
Fair	23	34.3	46.2	9.8
Poor	8	11.9		
Prefer not to say	1	1.5	1.5	n/a

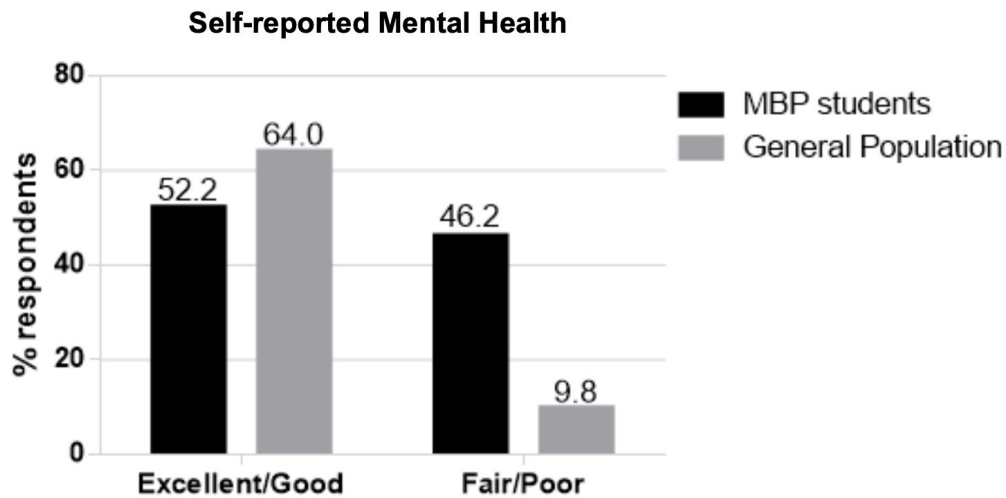


Figure 1: Comparison of perceived mental health in MBP versus general population. Individuals who “Prefer not to say” or had “n/a” data were excluded from this comparison. Data representing the general population was taken from the 2018 Canada Community Health Survey (CCHS) including individuals aged 18-34.

C. Anxiety and depression

To assess whether these poor mental health conditions are related to their graduate studies, we asked the survey participants whether they have a diagnosed mental health issue. To this, 37.3% of students answered yes, with half of them (19.4% of all participating students) noting that they had been diagnosed after starting their program in the department. Using clinical scoring tests, the patient health questionnaire consisting of nine questions (PHQ-9¹⁴), and a test for diagnosing generalized anxiety disorder (GAD7⁵), we found that 25.4% of students score above 10 on the PHQ-9 and 22.4% of students on GAD7, respectively. Both groups would likely be diagnosed with depression or anxiety disorder upon seeing a mental health professional. Overall, the self-assessment and the clinical scoring showed a strong and very significant correlation for both metrics (PHQ-9: $r = -0.62$, $p < 0.001$; GAD-7: $r = -0.64$, $p < 0.001$).

For each of the following symptoms, relating to the PHQ-9 questionnaire, more than half of the participants reported that in a given two week period they had experienced them several days, nearly half of their days, or nearly every day:

- little interest or pleasure in doing things;
- feeling down, depressed or hopeless;
- trouble falling or staying asleep, or sleeping too much;
- feeling tired or having little energy;

- feeling bad about themselves, feeling like a failure and/or feeling they have let themselves or family down.

For the GAD7 questionnaire, over half of the participants stated that they had experienced any of the following for several days, nearly half of their days, or nearly every day in a given two week period:

- feeling nervous, anxious, or on edge;
- not being able to stop or control worrying, worrying too much about different things;
- trouble relaxing;
- becoming easily annoyed or irritable.

Many of these symptoms can be recognized or inquired upon by supervisors to ensure their student’s well-being, which we highly recommend.

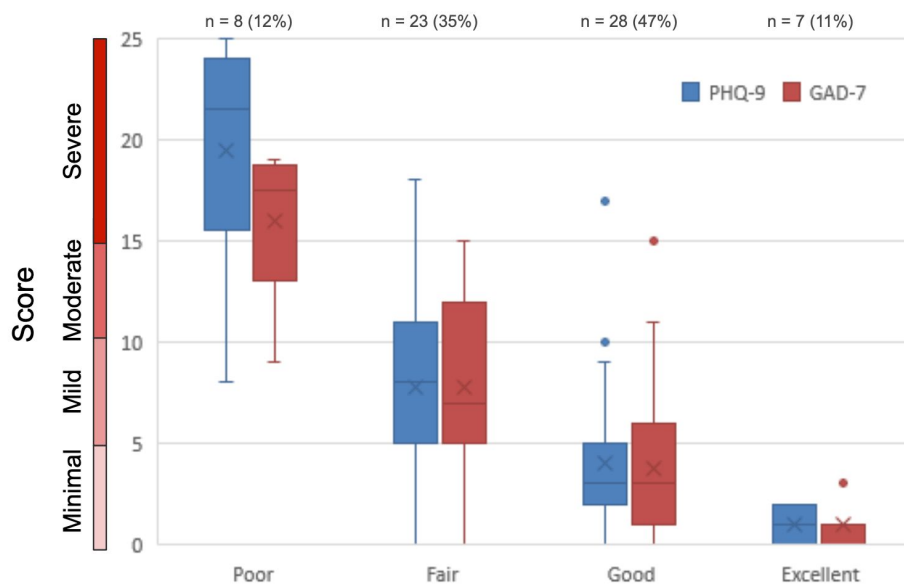


Figure 2: GAD7 (general anxiety disorder) and PHQ-9 (depression) scores in MBP students.

D. Suicidal thoughts

In addition to inquiring about mental health issues, we asked students whether they had ever gone to the extreme and contemplated suicide during their time in graduate school. According to our survey, 19.4% of MBP students in the department have had passing thoughts of suicide in graduate school, 1.5% of participants answered that they had a suicide plan at least once but no intention to execute it and 6% stated that they had a suicide plan and although they did not follow through with it, had the intention to die. This is an alarming trend that should be noted and addressed as soon as possible to prevent adverse mental health effects and their consequences from occurring in the future and for future generations of students.

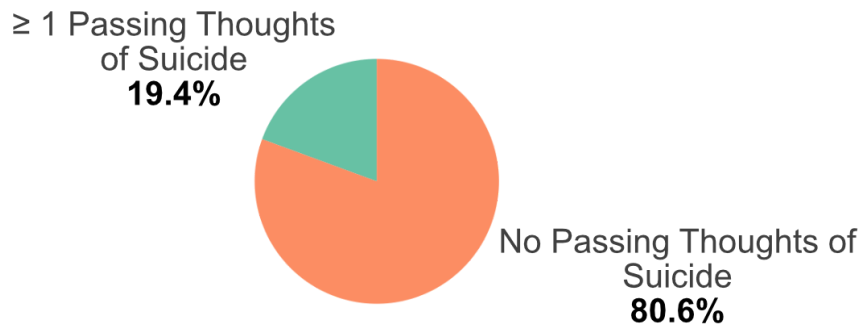


Figure 3: Proportion of MBP students who have passing thoughts of suicide.

E. Impostor phenomenon

In our study, the majority of survey respondents (85-96%) indicated that the following statements indicating imposters syndrome applied to them:

“I can give the impression that I'm more competent than I really am”

“I'm afraid people important to me may find out that I am not as capable as they think I am”

“I often compare my ability to those around me and think they may be more intelligent than I am”

“I feel bad and discouraged if I am not ‘the best’ or at least ‘very special’ in situations that involve achievement”

The majority of students indicated having only an intermediate level of confidence in their abilities as a researcher and in their technical capabilities relative to their peers (rating themselves a 2 or 3 out of 5).

F. Stressors

We asked students whether various stressors have impacted their mental health during graduate school. The primary stressor, with 91% of respondents indicating that they experience it, is career anxiety. Moreover, 86% of survey respondents indicated that they have experienced a lack of motivation and/or stagnation in research. The pressure to succeed ranks number three among impacts on mental health with 83% of participants reporting having been impacted. 80% of respondents indicated both experiencing financial struggles and having difficulty maintaining a work-life balance. In addition, 72% of respondents expressed that they have experienced concerns about supervisor and/or co-worker relationships. Lastly, 64% of participating students indicated that they were experiencing self-isolation and loneliness.

G. Coping Mechanisms

Many students use constructive, easily accessible, and conventional coping mechanisms for dealing with mental health challenges. The most commonly used coping mechanism for experiencing mental health difficulties by survey respondents is exercise and physical activity (77%). Other commonly used methods include cleaning, organizing and planning (66%), conducting mentally stimulating or soothing activities

(59%), seeking emotional support from others (56%), distancing themselves from the stressor (42%), or seeking new social connections (19%)

However, many students also use passive, inefficient or even destructive mechanisms of coping with stress. The next most common coping mechanisms indicated were procrastinating (52%), waiting and hoping for negative feelings to pass (52%), sleeping/napping (52%), and finding comfort in food (44%). Students also indicated partaking in alcohol and cannabis use (36%), checking social media (34%), isolating themselves from others (34%), significantly reducing food intake (14%), taking non-prescription medication or illegal substances (3%) and self-harm (2%) as coping mechanisms.

Many students are using professional or professionally-recommended resources as coping mechanisms, with 28% indicating that they cope with mental health challenges by contacting a mental health professional, and 30% indicating that they attend therapy or counselling sessions. 16% of survey respondents take prescription medications related to mental health. In addition, 25% of students are using meditation and mindfulness techniques, and 23% seek or employ self-help techniques.

44% of students indicate that they work harder in response to having mental health difficulties.

H. Isolation

Out of the surveyed student population, 58% stated that they sometimes or often feel left out and 43% of survey participants expressed that they feel isolated from others sometimes or often. Both observations correspond to the mental health status, as established by PHQ-9 and GAD-7 scores. Correlation analysis of PHQ-9 and GAD-7 scores indicates that students who answered that they sometimes or often feel left out (PHQ-9: $p=0.02$; GAD-7: $p=0.003$) or isolated from others (PHQ-9: $p=0.05$; GAD-7: $p=0.03$) had significantly worse mental health. Moreover, 61.5% of surveyed students feel they lack companionship either sometimes or often. Taken together, this shows a need for more inclusivity in the department.

I. Personal sense of success

80% of respondents indicated that having a fulfilling career is very important to their personal sense of success. A majority (52-69%) of students indicated that marriage and/or having a family, strong social bonds, pursuit of passions, good health and physical fitness, mental wellness and work-life balance are very important to their personal sense of success. While this suggests that a fulfilling career may be most commonly desired by respondents, other aspects of a well-rounded and healthy life are also very important to students in MBP.

J. The MBP experience and its effects on personal life

To gain insight on how to improve the student experience, we asked students whether they feel that their experience in MBP has negatively impacted various aspects of their life.

Of most concern, 65% of students indicated that their MBP experience has negatively impacted their physical or mental wellness. Another concern is that 63% of students indicated that their experience in MBP has negatively impacted their financial needs.

The MBP experience has impacted the well-roundedness of students' lives, as 61% of respondents indicated that it has negatively affected their work/life balance, 67% indicated that it negatively impacted their pursuit of hobbies or other passions, 37% indicated that it has negatively impacted their friendships and social bonds, 37% indicated it has negatively impacted their romantic relationships, 18% indicated it has negatively impacted their family relationships, and 6% said it has negatively impacted their parental responsibilities.

Interestingly, 14% indicated that their MBP experience has negatively impacted their career prospects.

K. Work-life balance

Having a good work-life balance can contribute to one's overall mental and physical health. 92% of respondents say that a good work-life balance is either moderately or significantly important for their sense of personal success. However, 61% of students report spending over 40 hours per week on their graduate school project (with 31% spending over 50 hours). It's not surprising that the number of hours students spend on their graduate project is negatively correlated with time spent on leisure ($r_b = -0.32$, $p = 0.003$). Since graduate students are much more susceptible to anxiety and depression than the general population, it's important for students to balance their time spent working on their project with their time spent doing leisure activities. 61% of survey respondents say that MBP has negatively impacted their work-life balance.

It should be emphasized that the amount of time students spend per day on leisure activities is positively correlated with their perceived mental health status ($r_b = 0.32$, $p = 0.003$) and negatively correlated with their PHQ-9 ($r_b = -0.22$, $p = 0.03$) and GAD-7 scores ($r_b = -0.27$, $p = 0.006$).

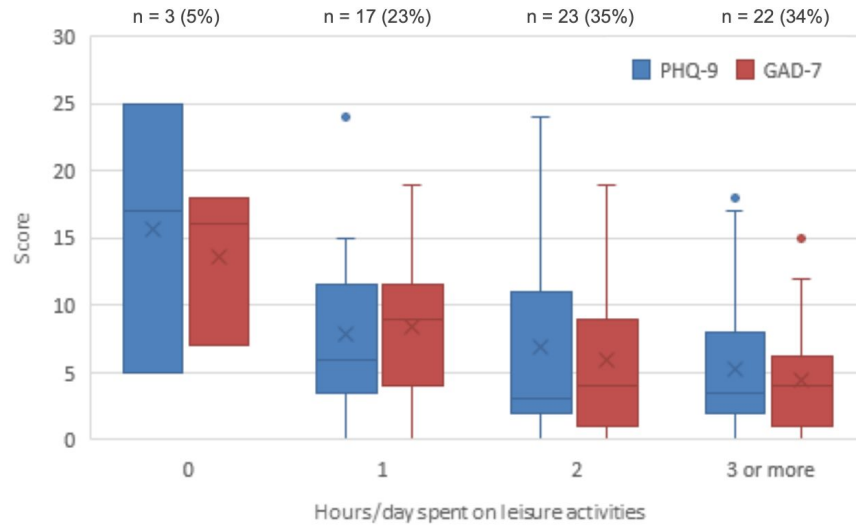


Figure 4: MBP students' GAD7 and PHQ-9 scores compared to number of hours spent on leisure activities. Number of hours spent on leisure activities is negatively correlated with both GAD7 ($r_b=-0.27$, $p=0.006$) and PHQ-9 ($r_b=-0.22$, $p=0.03$).

L. Financial stress

As indicated above, being in graduate school has a negative impact on the financial needs of students. 58% of respondents indicated that worrying about making rent payments or being able to afford groceries is a contributor to their stress. 33% of respondents indicated being worried about paying off student loans. 12% of respondents said their financial stress is tied to having to support someone financially in addition to themselves.

Some students also struggle with the emotional aspects of frugally managing their finances on the graduate student stipend. For instance, 60% of respondents indicated that they feel guilt due to over-spending/spending on unnecessary items, and 78% indicated that not being able to afford things they would like (such as trips, subscriptions, a car etc.), while peers in other professions are able to, can cause them stress.

As a result of their financial needs, many students are pursuing alternative forms of income in addition to their stipend. 26% of respondents indicated that they have a part-time job and 18% indicated that they do some contract or sporadic work. However, 27% of respondents indicated that they do not have any form of supplemental income aside from the stipend, including financial support from family. 43.5% of students have partial financial support from family.

27% of respondents indicated that they do not feel well informed about financial management, and 6% indicated that they know nothing about financial management. Moreover, 21.5% of respondents indicated that they did not have any financial plan. Among respondents without a financial plan, some indicated

that they would not know where to start in creating one, and that the idea of creating one causes them stress. These results suggest a need for financial management resources for students.

M. Supervisor conflict

Graduate students depend on the mentorship from their supervisors for successful research projects and positive program experiences. As subordinate individuals in this relationship, conflicts between graduate students and their supervisors may be detrimental to the students' overall health and wellness. Indeed, for graduate students who have never had a conflict with their graduate project supervisor, they largely reported their degree satisfaction as 8 out of 10; however, for students who have had a conflict with their supervisor, degree satisfaction was much more variable ranging from 3 to 8 out of 10. These results not only confirm events of supervisor conflicts during some students' graduate degree programs, but also suggests that students who have experienced a conflict may have diminished program outlook.

When asked whether or not students would be likely to turn to others for help in the event of a student-supervisor conflict, most students reported "Somewhat Likely" as opposed to "Moderately Likely" or "Very Likely" (2/4 on a nominal scale). In recent years, there has been a push from student bodies representing the health and wellness status of graduate students to make aforementioned help resources accessible. Interpreting the results from this survey question, we conclude that most students are inadequately equipped to respond to student-supervisor conflicts.

One mode of student-supervisor conflicts may be a lack of conversation surrounding students' academic and individual wellness. Here, we report that within the 2 weeks prior to survey completion, the majority of students working in labs located in downtown Toronto have not been the recipient of this type of conversation. In contrast, most of the students working Uptown report that their supervisors have initiated with them a conversation of this nature. The absence of this wellness check-in may be a contributing factor in how prepared students feel in reaching out for help during conflicts.

III. Mental Health & Wellness Committee 2019-2020 Initiatives

Learning Strategies Workshop

In October 2019, we hosted a 1-hour long Learning Strategies workshop with Jasjit Sangha from the Academic Success Centre at the University. The workshop covered topics such as imposter phenomenon and lack of motivation, and provided resources for staying motivated, such as setting realistic goals and summarizing journal articles in an effective way. About 20 MBP students were in attendance.

Bell Let's Talk Day - Imposter Phenomenon Roundtable

On Bell Let's Talk Day (January 29, 2020) we hosted a roundtable discussion on imposter phenomenon in partnership with the Graduate Conflict Resolution Centre. In small groups facilitated by CRC Peer

Advisors, students discussed their experiences with imposter phenomenon and brainstormed strategies to combat it. About 20 MBP students were in attendance.

MySSP Promotion

MySSP is a free phone app for all University of Toronto students that provides one-time counselling via chat message or phone call, which can extend to long-term in-person counselling when needed. To promote this program among MBP students, a spokesperson for MySSP, Jesse Poulin, was invited to give a short presentation prior to the Bell Let's Talk Day event. Jesse also gave a presentation prior to an uptown student seminar in February, as this resource is particularly useful for uptown students who cannot access on-campus resources as easily.

Faculty IAR Training

In an effort to equip faculty to discuss mental health with their students, we distributed an Identify, Assist, & Refer (IAR) training module that was created by the University's Health and Wellness Centre. The module takes about 30 minutes to complete. A list of resources was also created by us and distributed to supplement the resources provided in the training module. Faculty who have completed the training have their names listed on the MBP website. To date, 10 faculty members have completed the training. Faculty who have not yet completed the IAR module can find it at iar.utoronto.ca, and will be featured on the MBP website once they forward their certificate of completion to Charlie Berger.

Financial Tip Sheet

In early March, a financial tip sheet compiled by our committee was distributed to students. The tip sheet included strategies on saving money, listed various stores offering student discounts around the city and benefits provided by each of the research institutions, and provided ideas for part-time jobs students can look for to supplement their student stipend.

COVID-19 Initiatives

Since the onset of COVID-19 working restrictions, we've continued to distribute our list of resources to students. We've amended this list to include resources that can be accessed remotely, and directives to new initiatives that have started as a result of our current living situation. We also are currently working on a list of resources specifically meant for BIPOC students.

[maybe add para about department's response to recommendations from last year - only one for sure is that we have a faculty liaison]

IV. Request for Departmental Action

The results demonstrate that many students do not feel that the department, specifically faculty, is strongly invested in their mental well-being. In addition, through previous departmental mental health events and initiatives, as well as a freeform question about additional comments in this survey, students

have indicated that they feel that faculty are not aware of or disregard the prevalence of student mental health challenges. To mitigate this, we suggest the following items be acted upon by the department.

1. Implementing a mandatory Identify, Assist, Refer training module for faculty (iar.utoronto.ca).

Identify, Assist, Refer (IAR) training provides the skills necessary to identify and support students experiencing mental health challenges. We have previously distributed a 30-minute IAR online training module for faculty to complete with an additional list of resources. To date, only 10 MBP faculty members have completed this module. We request this training module be made mandatory for faculty. Certificates are administered at the end of the training module that can be used as proof of completion. We further recommend that reminders for faculty to complete the online IAR training are administered quarterly by faculty executives. This can be done via email and in faculty meetings.

2. Instilling quarterly mandatory check-ins by faculty members with their students regarding the student's mental well-being, in addition to their academic success.

We recommend instilling mandatory check-ins with students regarding their mental health. We can provide questions for these meetings and an extensive list of mental health resources to aid faculty in addressing student concerns and directing them to the appropriate resources. Sample questions could include:

- a) How are you enjoying grad school?
- b) Are you transitioning to grad school well?
- c) Do you feel financially secure?
- d) What are your hobbies outside of grad school?

Proof of meeting completion can be indicated through a completed form emailed to the department administration. Our committee will collaborate with the faculty executive on the creation of this form, and on sorting through any logistical concerns. As we realize that monthly check-ins with supervisors *might not adequately address the needs of students working in toxic lab environments*, we would like to also collaborate with faculty on discussing this issue further, and the best way that regular mental health check-ins could be implemented.

To complement this, we also recommend that committee members inquire about a student's mental health at the end of committee meetings, in conjunction with the confidential discussion of the student-supervisor relationship. Completion of this mental health discussion can be indicated on the committee meeting form.

3. Make mental health resources on the website more accessible.

We recognize that a student's Principal Investigator or committee members may not be the best outlet for all students in terms of disseminating information about their mental health. While we applaud the department for the creation of the "Mental Health Resources" page on the MBP website, we feel as

though it could be made more accessible. We request the department implement a “Student Assistance” button, in line with that on the MD Program webpage (md.utoronto.ca).

4. Advocating for increased student stipend.

The results demonstrate that financial stress is a top factor contributing to negative mental health among graduate students within the department. Financial stress has also been identified by other University of Toronto mental health groups as an issue for graduate students campus-wide. With the ever increasing cost of living in Toronto, many students struggle to fulfill their living expenses on the current stipends. This causes many students to have to take on part-time employment to supplement their income, which takes time and focus away from their academics. Those in lab environments that do not permit them time or agency to take on part-time work often must live with financial precarity. We recommend that the graduate student stipend is increased to meet student needs.

V. Recommendations to Supervisors for Daily Action

General

- 1) Ask how the student is feeling at your weekly meeting. They may not open up to you, but if they know you are open to the conversation, then they will feel more comfortable speaking to you at a later date should a mental health problem arise.
- 2) Normalize that grad school is stressful, and discuss your past experience with this.
- 3) In first meeting with new students (or first discussing mental health with long-time students), identify other supports and resources that the student can use if they don't feel comfortable bringing their concerns to you. A list of these resources and their descriptions can be found on the last page of this report. It is also recommended that you keep a hard copy of this list on-hand in your office to distribute to students in need.

Motivation & Stagnation in Research

- 1) Open the conversation: ask your students if they are feeling motivated, and are satisfied with the pace of their project and their productivity.
- 2) Remind your students why their project is important and useful to you, and how it fits into the bigger picture.
- 3) Set deadlines for your students to do specific tasks, draft outlines, etc.
- 4) If you don't already, meet with your students regularly to check in on their progress (this can be in person or even over email).

Career Anxiety

- 1) Ask your students what their plans are after graduating, and how you can help them achieve these goals.
- 2) Provide your students with opportunities to discuss your knowledge of the job market, and how they can best describe their transferable skills on their CV.
- 3) We recommend that the Department purchase a few copies of “Success After Graduate School - A Guide for Professional Development for Graduate Students in the Biomedical Sciences” by Lee & Reithmeier. These can be kept in the MBP admin office for students to “rent” out. Supervisors may also want to have a copy in their offices to share with their students if they are unsure of their options post-graduation.
- 4) Advise the Career Development Association to ensure faculty input is a part of their events.
- 5) If your students have a physics background, emphasize how they are using this knowledge when you discuss their research.
- 6) MBP Admin can work with the Mental Health & Wellness committee to create a department-specific career roadmapping brochure, following the format of the Pilot Grad Maps initiative by the Faculty of Medicine.

Work-Life Balance

- 1) Remind students to measure their productivity in terms of their research output, rather than the hours of work that they put in per week.
- 2) Clarify expectations about how much time students should be spending in the lab/working.
- 3) Plan social activities or outings with your lab group.
- 4) Encourage your students to attend the many events planned by the MBPGSA Social Committee. Many students will not go to events due to guilt felt from not doing lab work.

Supervisor/Coworker Relationships

- 1) Consult the School of Graduate Studies’ Graduate Supervision Guidelines: <http://www.sgs.utoronto.ca/Documents/Graduate-Supervision-Guidelines-faculty.pdf>
- 2) Teach your students how to get the most out of supervision meetings - discuss what has worked for you in the past, and negotiate a joint framework.

- 3) Ask more questions. Issues can be complex and layered – dig beneath positions to uncover interests and test assumptions.
- 4) Listen before problem-solving. Setting the stage can take time – build time into key meetings to let stories unfold.
- 5) “Big picture” goal-and-purpose discussions may be more useful than “nuts & bolts” strategizing.
- 6) Have your students summarize conversations and next steps each week to engage them and thus create “buy-in”.
- 7) Be specific about what you can and can’t do for the student, and where they can find support outside of the supervisory relationship.
- 8) Your interests matter too! Share responsibility for setting the agenda for conversations.
- 9) When your students hit a roadblock in their research, remind them that this is a common and necessary part of the process. Relate to them with a personal story of your own roadblocks as a grad student.

Financial Struggles

- 1) Be aware of major scholarship application deadlines and encourage your students to apply for them.
- 2) Specifically for the Faculty Executive Committee: continue to push for stipend increases in the Faculty of Medicine’s Harmonized Base Funding Agreement.
- 3) Ask your students if they have a part-time job and, if so, ask if they feel as though they are able to balance it with their research work adequately.

Social Isolation and Loneliness

- 1) If possible, give students a variety of “jobs” related to their research project that allow them to collaborate and work alongside other students.
- 2) Plan lab social activities to facilitate building connections.
- 3) Promote major MBP social events such as Geneva Park and the MBP Olympics.

Lack of Access to Resources

- 1) Inquire with the University about student access to mental health resources that are provided at Sunnybrook or Baycrest.

- 2) Have the MBP Mental Health & Wellness Committee list of resources (on following page) on-hand or available in a shared work area for students.

VI. References

1. Kroenke, K. & Spitzer, R. L. The PHQ-9: A New Depression Diagnostic and Severity Measure. *Psychiatric Annals* vol. 32 509–515 (2002).
2. Statistics Canada, Canadian Community Health Survey (CCHS).
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4. Kocalevent, R.-D., Hinz, A. & Brähler, E. Standardization of the depression screener Patient Health Questionnaire (PHQ-9) in the general population. *General Hospital Psychiatry* vol. 35 551–555 (2013).
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