

# Monograph

Volume 23, Issue 5



White Coat  
Ceremony

PAM in  
Review

BMPH  
Tips

Inferiority  
Complex:  
What is it?

Music Moid is  
Listening to

## The Monograph Team



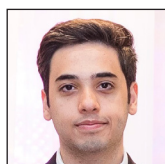
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## Hello (and farewell) Phamily!

Congratulations to all of you for making it to the end of the year. The weather is getting warmer, and we are moving towards EPE rotations, APPE rotations, and graduating to the next steps of our careers. With that, we would like to present to you the very last issue of the Monograph, with a farewell and warm welcome to our new co-editors Joham Ahmad (2T4) and Ruba Ullah (2T5) as well as next year's Monograph representatives: Aqsa Ali (2T5), Ruby Ung (2T4), and Amar Deonandan (2T3)!

This issue features a review of the busy month of March, including the 2T5 induction ceremony, presented by Aqsa Ali (2T5) and CAPSI's PAM 2022. We have a farewell message from Rema Kanna (2T2). Ponder various topical issues in pharmacy practice, including the management of the opioid crisis and lifestyle modification in diabetes by Niki Ghali-baf (2T5) and Ahmad Shakeri (2T5) from EVOLVE, as well as in Understanding the Barriers to Healthcare among Indigenous Populations by Yuji Choi (2T4) from PAIH. Ruba Ullah (2T5) covers the very interesting topic of fake vaccine programs and vaccine hesitancy in Pakistan. With EPE and APPE rotations coming up, Amar Deonandan (2T3) shares some practical tips for performing BPMHs. Shaista Malik (2T2) shares her experiences in her role as she wraps up a two-year Monograph Representative.

Take a break from final exams or preparing for PEBCs and bookmark Ashish Gante's (2T5) recommendations for a future vacation and peek at some music that Moid Shah (2T3) is listening to these days.

We really enjoyed bringing you stories from our classes all throughout this year and would like to express great gratitude to our team of Monograph Representatives, Layout Editors, and all the contributors for making the Monograph possible every issue. We couldn't have done it without you. It has been a pleasure to represent the Monograph as the 2021-2022 Monograph Co-editors!



*Eulaine Ma and Sally Jeon*  
Monograph Co-Editors 2021-2022  
*with Ruba Ullah and Joham Ahmad*

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# UPS Address

## *Hello Pharmacy,*

We cannot believe that it is already the end of the 2021-2022 school year. As this semester is wrapping up and before we all go our separate ways for the summer, we wanted to reflect on the amazing year we have together.

Despite the challenges we faced while navigating the return to in-person classes (and then the return to on-line classes as well), there are many highlights that we will look back on including the 2T5s Phrosh, Back to School Picnics, Boat Cruise, Halloween and Holiday Socials, CAPSI Competitions, Phollies, Athletic Challenges, Charity Week, Lunch and Learns, PAM, Monograph publications, OPSIS 2022, and the countless other initiatives UPS, Class Councils, pharmacy clubs, and students organized and took part in to allow students to continue building connections with their classmates and enhance their time here at the Leslie Dan Faculty of Pharmacy! We know this year has had its ups and downs with restrictions constantly changing, but we are so incredibly proud of all our student leaders for stepping up to the challenge this year. You worked so hard to continue to have events whether it be online or in-person, and we could not be more grateful for the amazing group of student leaders that have demonstrated the spirit of pharmacy this past year.

We would like to give a special thank you to the 2021-2022 UPS Faculty Advisors, Kenny Tan and Aldo Di-Marcantonio, for their constant support and assistance to UPS. With their help, we were able to seek guidance on various activities, and navigate the challenges surrounding delivering student events during this evolving time. Additionally, our incoming UPS President and Vice-President, Al and Rachel, have shown their incredible dedication, enthusiasm, and leadership to the student body this year and we can't imagine better student leaders to take our place! We can't wait to see all the amazing things that they will bring to the UPS Council in the upcoming year and we wish them all the best!

And finally, we owe a HUGE thank you to the members of our UPS General Council. School is busy enough on its own, and yet UPS Council members dedicated their

time and efforts into putting on initiatives and events for students during this challenging time. They helped bring all UPS initiatives and events to life which allowed us to continue the UPS mission of enhancing the student experience in our faculty. We couldn't have done it without their hardwork and dedication!

It has been an absolute honour to serve as your UPS President and Vice-President over this past year! We couldn't have done it without the support of those mentioned above, and the support of all of you as well! Thank you to everyone who participated in our UPS initiatives in the past year, our events could not have been possible without your spirit and participation.

Have a great rest of your year and best of luck in all your future endeavors!



*Christine Tan & Chelsea Alder*

UPS President and Vice-President  
2021-2022





# Class of 2T5 White Coat Ceremony

by: Aqsa Ali, 2T5

The 2T5 White Coat Ceremony was a pivotal moment in our pharmacy careers - taking the oath and being inducted into the profession was a great way to finish our first year of pharmacy school. Looking back to our orientation, it seems like it happened so long ago already. From completing midterms and assignments to preparing for finals, it was great to have a day where 2T5s were acknowledged and celebrated for the hard work and impact we will make in pharmacy.

It was great to have my family and friends be able to watch the live stream of the ceremony. My family has been my biggest support throughout my journey in pharmacy, and although they could not physically be present, it meant the world for me to have them watch through the live stream. I may have watched it two or four more times, but who's counting? All I know is that not only was our white coat ceremony something I will always look back on and remember, but the time we got to spend with friends we have made in this program was memorable. It has motivated me to be more open, and I hope we have more opportunities like this where we

all continue to get to know one another. Not only have I made some of my closest friends through this program that I can see myself growing old with, but our cohort has become like a second family.

During the ceremony, the director of our program, Natalie Crown, mentioned asking ourselves "What does 'I Am Pharmacy' mean to you?" I can say that as of now, pharmacy is my outlet to connect and help people. I aspire to be a healthcare professional that will make a positive impact on the quality of care patients receive.

To my fellow 2T5s, you all make me very proud to be in this cohort. We are a large, diverse group that is inclusive and supportive of one another. Getting the chance to speak and know many of you is always a pleasure, and I cannot wait to see the impact we all make in pharmacy. Remember the tips Christine and Chelsea shared with us; do not be afraid to put yourself out there, uphold professionalism as a pharmacy student and beyond as a pharmacist, and do not forget to ask your patients about their allergies!





## A Farewell Message to the 2T2 Class

*Rema Kanna, 2T2*

OKAY. This is officially the final Monograph issue for class of 2T2, and I am humbled to be making this last submission. Where do I even begin? Should I start with Mol Pharm or ID? Okay fine - I promise this will be a positive post. Now that we are approaching the very end of pharmacy school, do any of you recall the sweat, tears, anxiety, sleepless nights, and stress we all endured these past 4 years?

Wait what? Rema, you said this will be a POSITIVE submission.

Just stay with me...

Yes, I sure remember those difficult times. But what I remember the MOST is the emotional, academic, and moral support the class of 2T2 gave to each other and continue to give each other to this very day. I can very confidently say that I made lifelong friends during this journey, and for that I am very grateful. I am also thankful to be a part of the 2T2 cohort because I had the pleasure of meeting my very intelligent classmates. I have no doubt that we are all destined for great positions in the future.

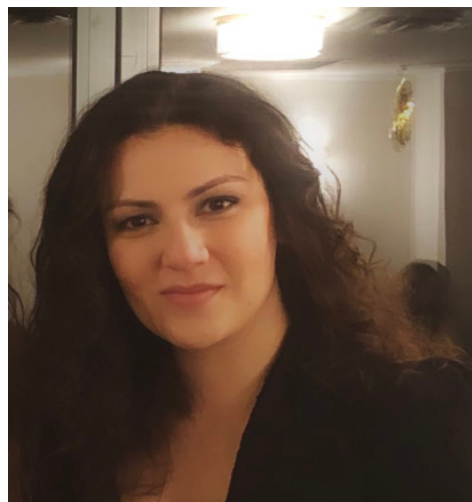
APPE rotations made me realize that we will all be Okay. We all learn differently and move at different rates; opportunities will find you when you are least expecting them. Don't compare yourself to others. You are on your own journey, moving at your own pace. Your time will

come. Always remember, direction determines your destination and is far more important than speed.

During this time, I ask that you all please practice self-care (look who's talking, I am running on 3 hours of sleep), and remind yourself: I am trying to do better. No matter what the PEBC or OSCE results come out to be, just remember, if you survived pharmacy school, you CAN survive this licensing exam one way or another.

I can't wait to celebrate our graduation together! 2T2s, take pride in how far you have come and have faith in how far you can go!

Sincerely,  
Rema Kanna, 2T2





# A WRAP UP OF



## PHARMACY APPRECIATION MONTH

### 2022



March is always a busy time for pharmacy professionals as we all come together to celebrate Pharmacy Appreciation Month (PAM). CAPSI UofT rose to the occasion to provide pharmacy students many different events and opportunities during this month. We started off PAM with a BANG! We hosted a UPS x CAPSI Kick-off virtual event, where we provided students a chance to come and share their thoughts on various pharmacy related topics on our Facebook live event. The topics we dabbled on included: Pharmacy in the Future, Blessings in Disguise During the Pandemic, APPE Rotations during the Pandemic, and Experiences with Both On-line and In-Person School. If you feel like you missed out on these amazing talks, you can still view them recorded on our Pharmacy Appreciation Month UofT 2022 Facebook page. We cannot thank our sponsors this year enough: National Bank, Leslie Dan Faculty of Pharmacy, Pharmasave and Ontario Pharmacists Association, thank you for your unwavering and unconditional support!

Pharmacy Appreciation Month was held in a unique hybrid format, with some in-person and online events. Marketing for our events was super important and our UPS Marketing Directors, Grace Lo and Yuna Choi, worked hard to provide CAPSI UofT with all the amazing promotional materials for PAM and Toronto Next's Top Pharmacist (TNTP). Check out their artistic designs for our PAM banner, stickers, and weekly/monthly calendars! You can still find and add our PAM stickers on your Instagram story by searching UofTPAM. Grace and Yuna produced a captivating TNTP Trailer of our contestants and created all the TNTP Facebook ban-

ners, contestant and judge reveals. We could not have done all the promotions and run such amazing PAM events, without UPS Co-Marketing Directors! Thank you, Grace and Yuna for your creativity, dedication and hardwork!

Every year, CAPSI UofT hosts some annual events, and this year is no different! To list some, we hosted 2T3 Mock OSCEs, Kids in Medicine (KIM) and Pharmacy Outreach Days (PODs), an IPE Event on Heart Failure, TNTP, and the 2022 Evidence Based Practice Competition (on April 1st).

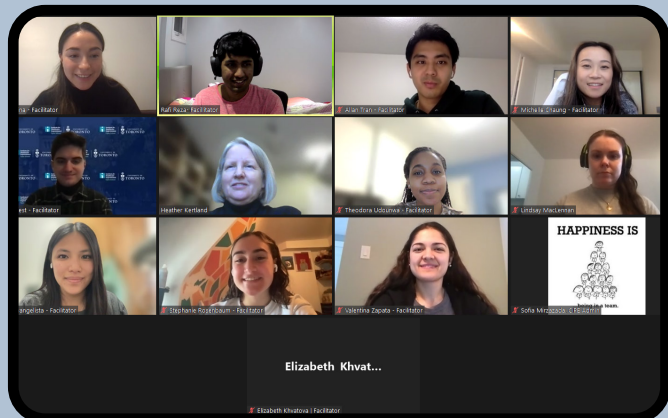


This year, we changed up the delivery of KIM and PODs to account for pandemic-related circumstances. With the 2T3 CAPSI Representatives, Logan Groves and Neil Patel, and the KIM and PODs committees, we



successfully made many infographics and reels for our @uoft\_pam2022 Instagram page. We reached a wide community and health professional audience with our Instagram page, with each of our reels reaching over 400 views. Safe Drug Use is one of our new topics for the KIM Committee this year. This year, Michelle Chaung and Logan Groves had an amazing opportunity to present this topic to Jarvis C.I Secondary School on behalf of the committee, and we had a fantastic response from the Grade 12 Chemistry class! Additionally, the KIM committee hosted 3 sets of KIM Reel Instagram MCQs. Students were able to enter a raffle for a \$10 gift card by watching our reel and answering the questions on our Instagram story regardless of correctness. Overall, all these successful events could not have been done without our amazing KIM and PODs Committee! Thank you all for your dedication, hard work and time on this committee.

## IPE Event: Heart Failure

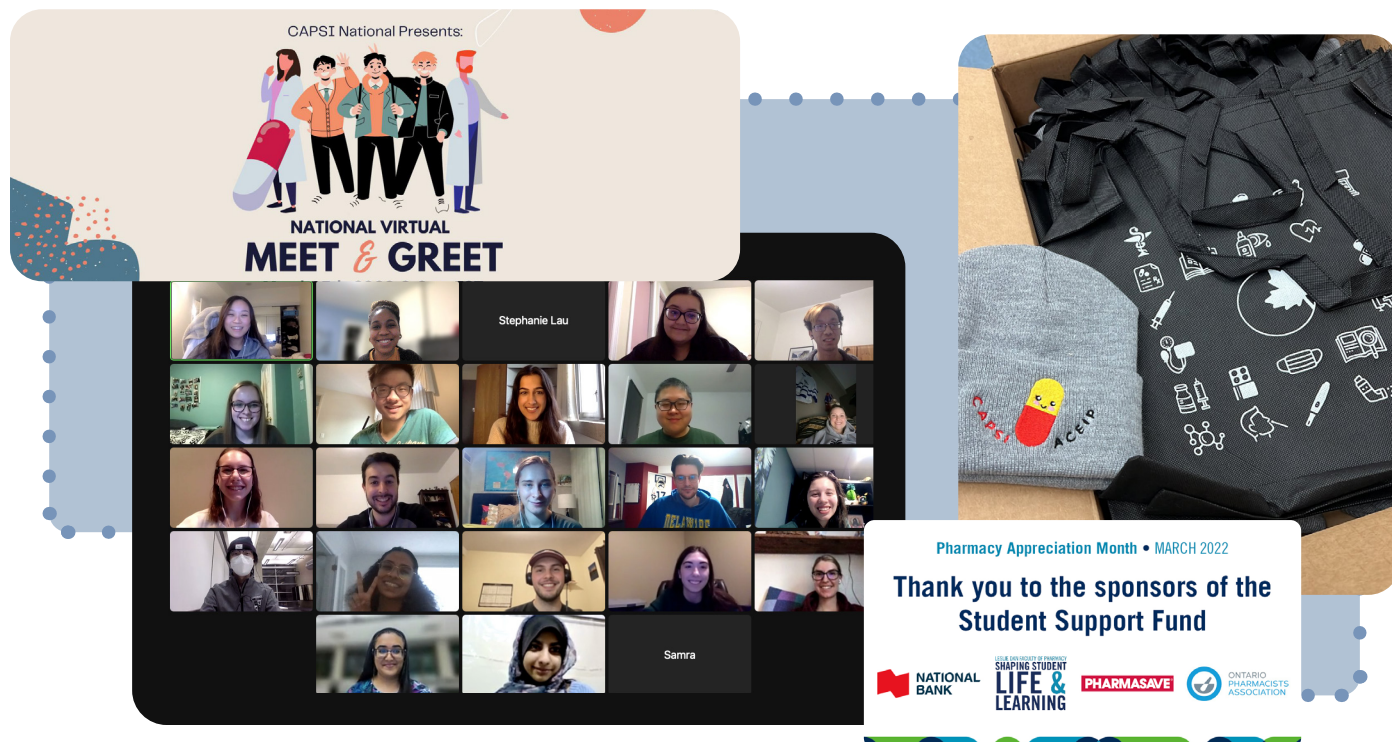


The 2T4 CAPSI Representatives, Rafi Mahsin and Pamela Molina, led the planning of the IPE Event on Heart Failure to which Professor Heather Kertland was invited as a guest speaker. About 40 students from the various UofT healthcare programs participated in this event involving group discussions on providing patient-centered interprofessional care to individuals with heart failure in the context of 2 patients cases written by Dr. Kertland. Planning this event also involved collaboration with the UofT Chapter of the Institute for Healthcare Improvement (UTIHI) to recruit 12 student facilitators. After months of planning, the event went successfully with healthcare students in attendance understanding more about the roles played by providers outside their fields in caring for patients with heart failure. Thank you, Pamela and Rafi!



CAPSI's Toronto's Next Top Pharmacist (TNTP) event is always a HIT and this year, we had FOUR amazing contestants, Sabih Jamil (2T3), Wei Wei (2T3) and Quoc-Huy Pham (2T4), Mackenzie Richardson (2T5). They showcased their unique talents and flashed an amazing catwalk. All the contestants put on a great show with their classy showmanship. Our wonderful judges, Dr. Dubins, Dr. Crandall and Dr. Austin, entertained the crowd with their sassy and fun comments. At the end of the night, they had a tough time crowning our TNTP 2022 winner. After tallying the points, with a close win, Mackenzie seized the TNTP crown, and he will be representing University of Toronto at Canada's Next Top Pharmacy during Professional Development Week 2023 Saskatoon.





Unique to this year, Michelle and Theodora, CAPSI UofT Senior and Junior, took on an additional role as the CAPSI National PAM Committee Co-Chairs. Together, with all 10 other local school representatives, we ran two amazing national events: CAPSI National PAM Merchandise Sale and CAPSI National Virtual Meet & Greet Event. For the first time ever, we sold two limited edition items, CAPSI toques and CAPSI totes, designed by our CAPSI National Webmaster, Angel Nong, CAPSIL National Editor, Winnie Tran, and the University of Saskatchewan Senior CAPSI Representative, Lauren Leuken. This sale was well received and we sold over 600 items. We aim to donate the profits of ~\$1800 to the Canadian Mental Health Association (CMHA) in support of advocating for better mental health, especially during the pandemic. On March 15, we hosted a CAPSI National Virtual Meet and Greet - an intimate session with various students across Canada, coming together to chat and play virtual games together. We hoped that these national events drew the pharmacy students across Canada closer together.

Last but not least, we have to thank all the amazing club executives for planning all their PAM events. Everyone contributed a significant amount this month to ensure all pharmacy students get a well-rounded PAM experience. CAPSI could not have hosted such a successful PAM month without everyone's contributions.

We wish everyone a Happy PAM again and we are looking forward to the next PAM 2023 already!

Cheers,  
Your CAPSI Team 2021-2022

### **CAPSI 2021-22 Team**

Michelle Chaung - Senior Representative  
Theodora Udounwa - Junior Representative  
Logan Groves - 2T3 Representative  
Neil Patel - 2T3 Representative  
Rafi Mahsin - 2T4 Representative  
Pamela Molina - 2T4 Representative  
Ayman Lakhani - 2T5 Representative  
Sasha Mohindra - 2T5 Representative  
Alissa Kong - IPSF Junior Representative  
Aileen Liu - IPSF Senior Representative

### **KIM and PODs Committee 2022**

Natalie Chaput  
Autumn Chen  
Victoria Ezekewmba  
Paulina Kmiec  
Quoc-Huy Pham  
Kristy Scarfone  
Noor Shabab  
Sandrine Tardiff  
Kira Walker  
Nancy Xu



# UPS ATHLETICS UPDATE

**CINDY TRAN, 2T3**

Hey pharmacy!

Another school year has come and almost gone. We hope you were able to enjoy some of the events that were held this year. Congratulations to our Division 1 pharmacy dodgeball team who placed second overall in the league! We are so grateful to have been able to host intramurals again this year, as well as our annual OPA Soccer Cup. We brought back our 10k Step Challenge to get you all up and active while we powered through another blip of online learning. We hope you continue to stay active doing all the fun things you love during the summer as you all complete your EPE and APPE rotations. Until next year!

Cindy Tran, 2T3  
Senior Athletic Director

Jonathan Platt, 2T4  
Junior Athletic Director



*Pharm/Trin/KPE Ultimate Team*



*Pharmacy Dodgeball Team*



*OPA Soccer Cup Team*



# Students Supporting Hospital Pharmacy

## A Guide to CSHP Student Membership

by: Al-amin Ahamed, 2T4

The Canadian Society of Hospital Pharmacists (CSHP) serves to support the advancement of safe practices in hospitals and other collaborative healthcare settings as a national voluntary organization made up of pharmacists. Values of excellence and innovation in patient care, interprofessional collaboration, professional development and mentorship, member dedication to the Society and the profession, as well as accountability to members influence their role in advocacy and education. As a pharmacy student you can register as a supporter to access a wide range of exclusive resources from grants, networking opportunities, conference access and facilitation of research.

Currently, there are 9 branches in CSHP that include; Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan. Student membership is limited to that of your local branch; however, your reach can extend beyond to collaborate and network with professionals of all branches. Each branch hosts Continuing Education events as a means to provide a comprehensive understanding on current events. Student members can volunteer to help coordinate these events which range in topics including; Suboxone in Addiction Management, Review of Post-op Delirium, Deprescribing and HIV Prophylaxis.

Branches may also offer mentorship programs as an opportunity to introduce hospital practice to aspiring students. Through these programs, you will be able to gain competency in daily duties through shadowing opportunities with hospital pharmacists. To learn more about mentorship programs, reach out to your local CSHP branch [here](#).

Student members also benefit from the Continuing Education Travel Grant sponsored by Fresenius Kabi Canada. Through this, students can apply to receive supplementary funding in order to attend conferences and educational events that are in line with pharmacy practice. However, due to the COVID-19 pandemic, CSHP has limited this remuneration for online courses and supplementary resources for education (textbooks and educational subscriptions). Students can apply for a grant [here](#). Additionally, to help support student involvement in hospital practice, the CSHP also offers the Hospital Pharmacy Student Award that opens up around September each year. For full eligibility criteria and deadlines, read about this award [here](#).

As the current Communications Representative I may be biased in my advocacy for student membership with the CSHP. However, objectively speaking, the CSHP offers a great deal of networking opportunities both online and in-person to help facilitate professional networks in the hospital setting. With a large range of financial, social and professional resources, the CSHP is undoubtedly a useful organization in helping students with a passion for hospital pharmacy practice. So, register [here](#) today to unlock all these benefits!



# The 2022 CSHP OB Hospital Pharmacy Management Seminar (OHPMS)

EMERGING LEADERSHIP IN INSTITUTIONAL CARE

AL-AMIN AHAMED, 2T4

UNIVERSITY  
of  
TORONTO

CSHP

Are you interested in leadership? Curious about the various fields of pharmacy outside of community care? Fortunately, the Canadian Society of Hospital Pharmacists (CSHP) offers a wide range of opportunities for practicing pharmacy students to engage in institutional care and advance safe and effective use of medicine in collaborative settings in healthcare. One such opportunity is the CSHP Ontario Branch (OB) Hospital Pharmacy Management Seminar (OHPMS), an annual educational conference dedicated to supporting professionals in emerging roles of leadership.

This year, the seminar will be taking place online from May 1st to May 8th, 2022 in light of the COVID-19 pandemic. However, this virtual platform does not take away from the valuable opportunities it provides while beneficially allowing participants the flexibility to attend from the comforts of their own home. In 2022, the conference is focusing on lessons learned from the innate challenges brought by COVID-19. It is no surprise that the COVID-19 pandemic has disproportionately impacted the quality and quantity of institutional care provided to patients. Specifically, the challenges that an increased burden of inpatients had on the functionality of cloud-based electronic health records (EHR) such as EPIC and CERNER.

Consequently, the integration of new and innovative health technologies to leverage institutional pharmacy care and optimize health outcomes has become a hot commodity in the pharmacy community. OHPMS 2022 will work to shed light on these unprecedented challenges but also the wide array of creativity and innovation that resulted. As a benefit to students looking to pursue a career in hospital pharmacy or even prepare for their institutional APPE rotations, this seminar is important in exposing pharmacy students to the unique field that is institutional pharmacy care while also facilitating their growth in leadership practices.

To achieve this growth in leadership, CSHP OB invites leaders in institutional care to share their expertise and also lead a leadership workshop. This 1.5 hour event, exclusive to OHPMS participants, is led by Allan Mills (PharmD, FCSHP), the Director of Pharmacy Services for Trillium Health Partners. Serving to describe leadership, qualities needed in a leader and examples of leadership opportunities, this workshop will enable pharmacy students to develop essential transferable skills to make a lasting impact in their pharmacy community.

While you do not have to be a member to buy a ticket to the event, CSHP student members receive the benefit of applying for the Continuing Education Travel Grant. This grant offers financial aid to CSHP members to eliminate barriers to educational events relevant to pharmacy practice. The Ontario branch will potentially offer up to \$250 as a bursary to registrants of OHPMS. For more information on the travel grant, email Anne Stacey (Ontario Branch Executive Assistant) at [astacey@cshp.ca](mailto:astacey@cshp.ca).

As the final 2022 OHPMS program is still under development, you can visit their registration page at [Eventbrite.ca](https://eventbrite.ca) to review their current line of speakers. Overall, the seminar is unique in its facet to promote advocacy of institutional care while simultaneously building the growth of leaders within the sector. With a focus on management and leadership, pharmacy students will gain invaluable insight on leadership opportunities and qualities to succeed while pursuing a placement or career in an institutional setting. I hope to see you there!

## An Overview of OPA's "Simple Ways to Manage Your Mental Health (For Busy People)"

Ayman Lakhani, 2T5



In light of COVID-19, pharmacy professionals are experiencing increased burnout and a decline in mental health. In recognizing the toll the pandemic has had on its members, OPA produced an 8-episode podcast, titled "A Prescription for Professional Wellness" in collaboration with two health experts. Amy Oliver is a licensed pharmacist with an MBA in Organizational Leadership and Health Administration. Dr. Carly Crewe is a family physician specialized in mental health. She is the CEO of Eunoia Medical Clinic, a virtual clinic that treats women with mental health disorders. Dr. Crewe is also a content creator; she hosts the podcast "Mind Over Motherhood" and is the best-selling author of the book "You Are Not Your Anxiety".

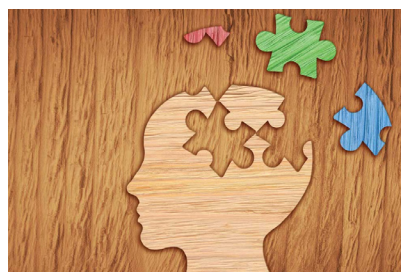
While the podcast references the mental struggles experienced by pharmacists, I was interested in how I could manage my own health as an incoming pharmacy professional. One episode that resonated with me was Episode 3: Simple Ways To Manage Your Mental Health (For Busy People). As students, we can all relate to feeling overwhelmed by the lack of control over our workload. Dr. Crewe acknowledges that as high achievers, we as pharmacy professionals are especially hard on ourselves for struggling. Therefore, our coping mechanism of choice is to push through our struggles, resulting in burnout. To reduce the impact on our mental health, Dr. Crewe provided several strategies to implement wellness into our busy schedules, for both students and employees. These strategies take no time and are easy to implement with observable benefit.

Firstly, Dr. Crewe recommends addressing our mindset. We often adopt a black and white mindset that if we are not putting our all into our health, we might as well be doing nothing at all. While this is contrary to what we recommend to patients, it is easy to fall into this mindset ourselves. Dr. Crewe emphasizes the importance of recognizing "something is better than nothing". When we overcome the mental block of an "all-or-nothing attitude", it is easier to implement small acts of self-care and reap the benefits.

Secondly, Dr. Crewe preaches the importance of mindfulness. She defines mindfulness as "how we sit back and observe what is happening in our minds and bodies as we go throughout the day". Oftentimes, we engage in mindless, routine tasks that require no thought to be executed correctly, such as chores. It is while partaking in these tasks that our mind starts to wander, dwelling on the anxieties and stressors of the day. We start to experience frustration, anger, or anxiety unrelated to the task at hand. Dr. Crewe highlights these tasks as the perfect time to practice mindfulness. She recommends drawing upon our senses – as we partake in a task, try to be aware of our sense of sight, hearing, smell, and touch. While making ourselves acutely aware of our present state, we re-orient ourselves away from the negative emotions in our heads. The more we practice mindfulness, the more present we find ourselves in our day-to-day activities. Mindfulness is especially easy to implement into our busy schedules as it does not require us to block off dedicated time towards self-care; we may simply re-orient our minds to the present during our daily commutes, for example, or while washing the dishes. While such a simple strategy, it is effective in circumventing negative emotions that may arise throughout the day.

Sometimes it is difficult to remember to partake in mindfulness. A simple strategy Dr. Crewe offers is changing our passwords to mindfulness reminders. For example, changing our Quercus password to "3deepbreaths" may remind us to ground ourselves prior to tackling a heavy workload.

The final self-care strategy that resonated with me was setting a "bare minimum routine". With our busy schedules, we lack the time to recharge for hours on end. If we can recognize what our daily schedules can accommodate, we can set realistic "bare minimum routines" to which we can commit, at the very least, on a daily basis. This may be as simple as 1 minute of deep breathing per day or listening to music while preparing our daily coffee. While it doesn't sound like much, the consistency in our routine gives us a calming activity to look forward to. Of course, on days when we have more time to com-





mit to self-care, we absolutely can! The “bare minimum routine” is just that – the absolute least we commit to fitting into our schedules for our mental health.

I thoroughly enjoyed tuning into this episode. The self-care strategies are easily applicable to our schedules as students. What especially stuck with me was Dr. Crewe’s final recommendation that we practice self-compassion – it is so easy to spiral and judge ourselves for our struggles, but it is imperative that we are compassionate with ourselves and acknowledge what we’re going through. We’re in an accredited healthcare program, studying to provide patient care while balancing home and work-life commitments! By acknowledging how hard we

work and validating the struggles that come with our workload, it becomes easier to deem ourselves “worthy” of self-care and implement these strategies. There is almost a simplistic beauty in these strategies that takes away from the intimidation of putting our health first, when, with our busy routines, we are so accustomed to self-care being at the bottom of our priority list.

I would like to thank OPA for the podcast “A Prescription for Professional Wellness”. As healthcare professionals, it is about time we tend to our own health as well. If you are interested in listening to the other episodes of this podcast, they are easily accessible at: <https://opatoday.com/a-prescription-for-professional-wellness/>

## 2022 OPA Virtual Education Conference and Boat Cruise Social

AL-AMIN AHAMED, 2T4



ONTARIO  
PHARMACISTS  
ASSOCIATION

As leaders in advocacy for excellence in pharmacy practice and care, the Ontario Pharmacists Association (OPA) has been essential in evolving professional pharmaceutical care. Key to their influence is their innate ability to leverage the unique experiences and expertise of the pharmacy community in Ontario. One notable way this has been accomplished is through their annual conferences, with their 2022 conference serving as no exception. “Unite to Ignite” will be held virtually on May 13th, 2022 to spark collective discussions and rekindle passion within the pharmacy community. Unique to this year, the conference will be extended to also include an optional in-person social gathering on July 9th, 2022. You will have the opportunity to network, share ideas and learn with pharmacy professionals all across Ontario on a luxury boat cruise in downtown Toronto.

Inevitably, the COVID-19 pandemic has catalyzed a shift in pharmacy practice the last couple of years. With 2022 serving as a huge year for change to optimize patient outcomes, this immersive virtual conference brings together the expertise and brilliant minds of professionals to reflect on challenges faced, share innovative solutions and promote professional development.

- Migraine management
- Promoting mindfulness in pharmacy practice
- Challenges of providing inclusive care virtually
- How to be an advocate for the profession
- How to dispense opioid medications

Importantly, pharmacy students will have access to all the conference materials such as presentation slides and speaker recordings for 45 days after the event. This enables all EPE and APPE students to refer back to evidence based resources and content to inform decisions while on their placements. The conference will also feature two keynote speeches and Q&As from Jessica Holmes, comedian and mental health advocate as well as Nav Bhatia, philanthropist and businessman. Both of these speakers, while not pharmacy professionals, provide a fresh new perspective on motivation and wellness in the healthcare sector.

Overall, with the COVID-19 pandemic expanding the profession unlike any other, the 2022 OPA virtual conference strives to foster connections and uniquely provide pharmacy students with an opportunity to collaborate with leading experts to prepare for changes in the future of pharmacy. If that was not enough, the optional boat cruise social helps unite the community of pharmacy to ignite interesting conversations. Register by April 15 on the [OPA website](#).

### Why Participate as a Student?

- Connect with over 500 pharmacy professionals
- Network with leading industry colleagues
- Discover leading innovations in pharmacy
- Access to exclusive evidence-based resources
- Learn about the future of pharmacy practice

# ANNOUNCING THE RETURN OF THE OPA UNITE TO IGNITE CONFERENCE AND BOAT CRUISE 2022

BY: SAMRA GHAZI, 2T4



The Ontario Pharmacists Association (OPA) works tirelessly to advance and advocate for the evolving profession of pharmacy. OPA offers its members vast benefits, including professional liability insurance coverage, health/home/auto insurance, toolkits to help pharmacy professionals manage their practice, and various social events. That being said, we are excited to announce the return of the annual OPA Conference this summer 2022 in a hybrid format.

The OPAs Unite to Ignite conference will primarily be held virtually this year with an additional in-person social event as the pandemic (hopefully) comes to an end. This conference allows professionals within our pharmacy community to come together while learning, sharing, and discussing their thoughts on pharmacy matters.

Held on May 13th, this virtual conference gives attendees an opportunity to explore different topics pertaining to the pharmacy profession. Throughout the day, we will also hear from keynote speakers such as Canadian comedian and mental health advocate, Jessica Holmes, as well as Canadian businessman and philanthropist, Nav Bhatia, commonly referred to as the “Raptors Superfan.” This event is an excellent way to immerse yourself within the pharmaceutical field and connect with hundreds of other attendees. There will also be several opportunities to collaborate with other pharmacy professionals and gain valuable experience. The OPA team has planned numerous community building activities, virtual lunches, coffee breaks, and several games. There are even opportunities to earn points and win prizes on an interactive leaderboard.

Additionally, the conference hosts an exhibition hall with live demonstrations from exhibitors. Attendees will have the opportunity to connect with representatives of pharmaceutical companies (Amgen, Apotex, AstraZeneca, Teva, etc.) and gain insights into the latest services, tools, and technologies in the field.

In the past, attendees have had access to 12 informative sessions with several networking opportunities. Some

of the highlights of the 2021 OPA conference included topics such as Cannabis for Pain, Pharmacogenomics, and Mental Health.

With our evolving scope, pharmacists can provide impactful and meaningful care to their patients. Understanding complex issues such as the role of cannabis for treatment of chronic pain or genotyping for the purpose of personalized therapy is essential as research continues to advance.

Bearing in mind themes from our previous years, our upcoming conference will feature seminars on several engaging topics such as:

- Challenges in Providing Inclusive Virtual Pharmaceutical Care
- Migraine Management
- Advocating for Your Profession
- Pharmacy Technician Roles
- Critical Appraisal Skills
- Opioid Stewardship



Aside from these fascinating seminar topics, we would like to take the time to celebrate our hopeful future. The luxury of meeting others face-to-face is not one that we have had for the past two years. For that reason, the planned social event taking place on July 9th will be the highlight of the annual conference. Join your colleagues on a lavish boat ride with a view of Toronto's scenic waterfront. It will be an excellent opportunity to come together with like-minded individuals and enjoy dinner with entertainment.

It is important to note that this event is not limited to pharmacists. Rather, it is open to all pharmacy professionals, including pharmacy students at a discounted rate (you can even bring along a plus one to the social event).

The OPA conference is an unforgettable experience, providing you with the chance to learn more about the pharmacy profession and see where it is headed in the near future.



# Pharmacist-Led Diabetes Management Through Lifestyle Modifications

Ahmad Shakeri, 2T5 – EVOLVE executive member

Chronic illnesses such as diabetes and hypertension are among the most costly and prevalent health conditions in Canada (1). Approximately 40% of Canadian adults (13 million) are living with at least one of ten common chronic conditions, and this proportion is expected to rise as the population ages (2,3). These patients account for 51% of primary care visits and 55% of specialist visits, highlighting the continuous need for chronic disease management (4). Traditionally, chronic disease management is centered on drug therapy. Although prescription medications are effective in improving chronic disease outcomes, they do not always treat the underlying cause of the illness which could be associated with a patient's poor lifestyle choices (5). A strategy to better manage these illnesses is through lifestyle modification programs that aim to address a patient's lifestyle decisions, such as diet and exercise, as well as educating patients about their condition.

Pharmacists are the most accessible health care providers for many patients living with chronic diseases. Studies have shown that patients visit their pharmacists 1.5 to ten times more often than their family physicians (6). In addition, with an increased scope of practice for pharmacists across Canada, such as MedsCheck programs in Ontario, pharmacists are able to take on important roles in chronic disease management (7). Therefore, in addition to providing traditional counselling on drug therapy, pharmacists play an important role in chronic disease management through lifestyle modifications to help patients better manage their health and achieve better outcomes.

## Diabetes – One of Many Chronic Illnesses Managed by Lifestyle Modifications

Diabetes is a chronic disorder characterized by increased levels of glucose in the blood (hyperglycemia) and if unmanaged it can be associated with severe complications (e.g., neuropathy) (8). Thus, diabetes man-

agement is critical in delaying or even preventing these complications. In Canada, the prevalence of diabetes was estimated to be 9% in 2019, with projections over the next 10 years indicating a relative increase of 22% (9).

Although diabetes is a chronic and progressive illness, it can be managed. Guidelines, such as those created by Diabetes Canada, recommend the “ABCDESSS” algorithm for a comprehensive diabetes management approach that includes both pharmacological (e.g., “D” = Drugs) and lifestyle modifications (e.g., “E” = Exercise/Eating) (10). It is well established in literature that diabetes can be managed by lifestyle changes targeting diet and physical activity improvements (11,12). As such, Diabetes Canada has specific recommendations such as following healthy dietary patterns (i.e., low glycemic index diet) with recommended daily exercise (e.g., 150 minutes aerobic activity/week) (13,14).

## 1 The Pharmacist – An Accessible and Trained Healthcare Provider for Diabetes Management

Despite the large amount of evidence suggesting the importance of lifestyle modifications in diabetes care, these programs are poorly attended by patients. In Ontario, Canada, only 1 in 5 newly-diagnosed diabetes patients attended self-management education programs (5). On the other hand, it is estimated that patients with diabetes see their pharmacist 7 times as often as they do their family physician (15). Hence, an enormous opportunity exists for pharmacists to become involved in chronic disease lifestyle modification. Further, in the last 20 years pharmacists have increasingly taken more responsibility for clinical outcomes associated with diabetes care (16). They work with patients in delivering diabetes management services such as educating patients about diabetes, teaching blood glucose monitoring, working to increase medication adherence, and im-



proving lifestyle choices (e.g., diet, exercise, smoking) (16). In addition to their knowledge gained in school, pharmacists are also the fastest growing healthcare professionals to be designated as Certified Diabetes Educators (17). Certified Diabetes Educators are diabetes experts trained in communication, counselling, and education to provide self-management education/self-management training to patients (18). Thus, they provide an enormous resource for patients to receive the best care for their condition.

## 2 The Evidence – Pharmacists Delivered Lifestyle Modifications and Diabetes Outcomes

Several studies have evaluated the impact of pharmacists' provision of lifestyle modifications in diabetes care, particularly The Asheville Project (19,20). This study evaluated the impact of pharmacist-led diabetes education, self-monitored blood glucose training, and modifications to a patient's lifestyle. Results from the short-term study found improved hemoglobin A1c levels, improved patient satisfaction with pharmacy services, and decreased healthcare utilization (e.g., emergency department visits) (19). In the long-term study, improvements in total cholesterol and low-density lipoprotein cholesterol were also observed (20).

Similar findings have been observed in a systematic review that evaluated 21 studies of pharmacist-led diabetes education and lifestyle modifications in the community; with 13 studies documenting clinically significant reductions in A1c (21). Another study showed that pharmacist inclusion on a primary care team when compared to a control group (no pharmacist in team), decreased patients A1c levels and improved long-term cardiovascular risk (22). The above studies are a few examples of evidence-based findings that support the results of The Asheville Project, whereby delivery of lifestyle modification programs and education by pharmacists improved diabetes outcomes.

## 3 MedsCheck Diabetes – A Community Pharmacy Program for Patients Living with Diabetes

MedsCheck programs are publicly funded community-pharmacy delivered professional services in Ontario (23). When MedsChecks were created in 2007, they targeted patients taking 3+ medications for chronic conditions. However, recognizing the increased number of patients living with diabetes that can benefit from education and lifestyle modifications, as well as the evi-

dence supporting pharmacists' role in diabetes management (as listed in Section 3), the Ontario Government created a diabetes-tailored pharmacy program in 2010 known as MedsCheck Diabetes (MCD) (23). Access to the program is open to anyone living with diabetes and one of the specific goals of the program is to optimize drug therapy and improve patient lifestyle. MCD has enabled pharmacists to provide optimal diabetes care to a large number of patients. Specifically, between the launch of the program in 2010 to 2014, 406,694 Ontarians received MCD, representing approximately half of all Ontarians with diabetes (24). Similar programs exist across all provinces in Canada, thus allowing pharmacists to be more than diabetes drug therapy experts, but also diabetes educators and counsellors for all Canadians living with this chronic condition (25).

The majority of chronic diseases today are managed with drug therapy, however there is an important lifestyle component that can help prevent worsening of the condition. Pharmacists are accessible healthcare providers in the community that are trained to provide optimal care through lifestyle modifications and education to patients living with chronic diseases. Thus, pharmacists should have a role in promoting health and wellness of a patient through lifestyle modification. Although this article uses diabetes as a case study, there are other chronic illnesses (e.g., hypertension) where pharmacists can provide lifestyle modifications and these are also supported by evidenced-based research - for example the Rx EACH and SCRIP-HTN trials for hypertension (26,27). As the Canadian population ages, the number of adults living with chronic conditions will increase. Fortunately, pharmacies are present in every neighborhood in Canada and are no longer just "drug dispensing/therapy" hubs, but instead they are locations to access a chronic disease expert that can help patients better manage their condition(s) through both drug therapy and non-drug therapy focused care (e.g., lifestyle modifications).

**References:** See Page 36



# Pharmacists' Active Role in Addressing the Opioid Crisis



by: Niki K. Ghalibaf, 2T5 - EVOLVE Events Coordinator

The opioid crisis is worsening during the COVID-19 pandemic with many communities reporting a high number of opioid-related deaths. Community pharmacists can play a crucial role in opioid management and harm reduction.

As part of the efforts to improve the opioid crisis in Canada, Shoppers Drug Mart has donated \$2 million to develop a free online education program to enhance pharmacists' knowledge of addiction care and treatment. It is important for pharmacists to use this opportunity to get trained to provide quality healthcare to patients struggling with opioid addiction. This can greatly help to improve the well-being of patients and communities.

Subsequently, all pharmacists should actively provide support and education for individuals receiving opioid agonist therapy to treat opioid use disorder. As the most accessible health care professionals, pharmacists can identify patients who need help with their addiction, as they are in the position to respond immediately and coordinate an ongoing care regimen with the support of the patient's healthcare team.

The Discovery pharmacy at the University of Toronto is now piloting naloxone training for some offices and programs at the university. This initiative would contribute to the safety of our communities and reduce opioid-related deaths. The clinician-educator at the Leslie Dan Faculty of Pharmacy and the Centre for Addiction and Mental Health (CAMH), Maria Zhang, has emphasized the importance of one-on-one training and harm reduction counselling to individuals at risk of opioid addiction. The naloxone pilot program aims to improve

patient privacy to reduce stigma associated with drug use.



Often stereotypes embedded in society make it difficult for people susceptible to opioid abuse to seek help. Thus, it is very important to implement strategies that are non-judgemental to individuals at risk. Some of these strategies might include adopting an open dialogue when engaging with clients on conversations about opioid use and overdose. One good practice to optimize patient experience is to use open-ended questions to assure patients that they can feel safe to share their questions and concerns.

Lastly, pharmacists are front-line health care professionals and can make a significant difference in addressing the opioid crisis by staying up to date with the most recent Opioid prevention guidelines and treatment efforts.

## CLUBS CORNER: COMPPS



## COMPPS Q&amp;A Panel

Kamel Lezzaik, 2T4 Class Representative

On March 21st, we, the COMPPS team, hosted our annual Compounding Panel Q&A. Our panelists included **Benjamin Tanguay** from Galenova (Gentès & Bolduc), **Peter Davies** from Unity Health, and **Dr. David Dubins**, **Dr. Certina Ho**, and **Dr. Franky Liu** from the Leslie Dan Faculty of Pharmacy faculty. If you missed it, first of all, *how dare you??* And second, if you still have some questions about compounding, then no worries - maybe this article will help! Let's start off with the definition of compounding. Compounding is a practice that includes preparing a custom formulation of medication that can fit the needs of a patient. This may be done when the compounded product is not commercially available. These products may come in a variety of forms such as rectal rockets, lollipops, balms, ointments, and even gummy bears (not an extensive list). Compounded products are great for fussy medication takers or even during supply shortages (like when hand sanitizer were being compounded during the shortage in the beginning of the pandemic). Compounding is an art and is a very valuable part of pharmacy practice, but do we do enough compounding in school to be experts by the time we graduate? No! One consensus that all our panelists seemed to have is that there is not enough compounding done in school. While some panelists are actively trying to get more compounding into our curriculum and keep the art alive (shoutout Dr. Dubins), as it stands we likely will not have not done enough compounding by the time we graduate.

Given this, you might be interested in learning about compounding outside of the school curriculum. One suggestion was to start with courses offered by Professional Compounding Centers of America (PCCA) and Medisca. These are two pharmaceutical companies that offer compounding courses. However, there are a couple drawbacks to taking these courses that should be made transparent. The first one is that these pharma-

ceutical companies push their products. Another is that these courses teach compounding done in a perfect environment, which is completely different from what is typically done in compounding practice. Nevertheless, they are a great way to get your foot in the door. Another way to get some experience would be to apprentice at different compounding pharmacies, with someone who knows what they are doing. Try getting an EPE or APPE rotation in a compounding pharmacy. If you are in a hospital pharmacy, follow techs around and see how they compound. Compounding is a skill that can be developed and improved with experience, so it is important to learn from someone with experience. Ben, our Galenova rep, brought up a good point in this regard: if you are working by yourself, sometimes you don't even know what mistakes you are making. You can learn new techniques when you get another person's perspective. *Remember, compounding is an art so not everyone will use the same techniques.*

Another advice offered at the panel was to keep an eye on regulations! These often change and you never know when the change might affect your practice.

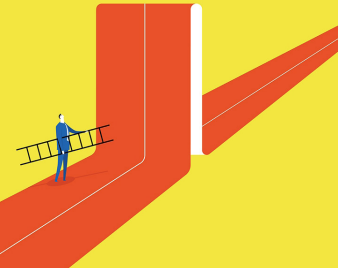
I hope this article helped answer some questions you had about compounding. If you have any more questions, come to our next Compounding Q&A Panel, you lazy bums.





# Understanding the barriers to healthcare among Indigenous populations

Yuji Choi, 2T4



The state of health disparities in the Indigenous population is a global issue that is often ignored. For instance, Indigenous populations around the world tend to have higher rates of chronic disease than the majority of population, including but not limited to hypertension, obesity and diabetes. (1) Given the increased likelihood of health conditions, it is no surprise that Indigenous people in several industrialized countries tend to have a shorter life expectancy and higher mortality rates, to the extent that the mortality rate in Canada for Native populations is 6 times greater than the national average. (1)

The health disparities among Indigenous populations have emerged as a result of European colonization that has introduced infectious diseases and dramatic lifestyle changes associated with relocation to reserves. (1) It is important to understand sociological and biological consequences of colonization and how these have affected the health status of Indigenous populations to this day in order to address some of these issues in real life practice. When it comes to sociological factors that contribute to the barriers to healthcare services among Indigenous populations, they can be largely divided into rural location, lower socioeconomic status, and cultural barriers. Many Indigenous communities are isolated in remote rural locations where health centres are operated by nurses or community health workers. As a result, there often is the limitation on healthcare professionals' scopes of practice and patients must travel to cities to receive specialized care. (2) In terms of socioeconomic status, the rates of economic disadvantage and poverty among Indigenous populations in North America are greater than the majority of populations. (1) Despite the fact that Canada boasts a public healthcare system that provides equal access to healthcare, several studies have shown that Canadians with lower incomes, particularly Indigenous populations, have low rates of healthcare

access and utilization. (1) It is also important to consider that cultural barriers play another significant role in receiving proper care in the healthcare setting. Language barriers decrease an individual's ability to navigate through the healthcare system, and even if the provider and the patient speak the same language, cultural values and experiences of the patient can affect the way they communicate and perceive feedback about their health. (1) In consequence, there can be significant differences in health perception between Indigenous population and their healthcare providers that can lead to inadequate care. These factors are all crucial in proper healthcare delivery and the failure to address both social and health inequities may further worsen the health disparities among Indigenous populations.

Furthermore, health inequity is precipitated by negative biases held by healthcare professionals. Some healthcare providers associate individuals of indigenous descent with addicts and alcoholics who seek medical care in order to abuse medicine. (2) Such negative stereotypes may limit the interaction between healthcare professionals and Indigenous patients such that less counselling is given and specialist referrals are denied. (2) Past experiences of discrimination fosters negative perceptions of the healthcare system and prevents indigenous individuals from seeking future care in fear of discrimination. Indeed, the study conducted by Kitching et al. has found that experiences of discrimination by healthcare providers are the determinant of unmet health needs among Indigenous people. (3) Considering the significance of interactions with healthcare professionals, it brings into question how we can provide more equitable care as future pharmacists. One way is by engaging in cultural safety training programs to increase the awareness of different cultures and learn how our internalized biases can lead to discriminatory assumptions and modified care. Cultural safety training pro-

grams such as San'yas Indigenous Cultural Safety Training are available to expand our knowledge in different aspects pertaining to indigenous health such as mental health, child welfare, justice and foundations that can help healthcare professionals increase knowledge and build self-awareness of biases and assumptions to minimize discrimination in healthcare setting.

The health status of Indigenous populations globally tends to be much poorer than the majority populations. These disparities in health continue to increase and this suggests that the current level of societal interventions is not sufficient in quelling these trends. Therefore, it is critically important to understand the factors underlying these health disparities for Indigenous populations that continue to be vulnerable to social marginalization. Considering that pharmacists are the most accessible members of the healthcare team in both primary and ambulatory care settings, acknowledging factors that play into health disparities and the actions that we can take to prevent them are crucial to minimizing the healthcare gap for the Indigenous population.

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## CLUBS CORNER: GMI

# Infectious Disease in Times of Conflict

**by: Anthony Singh, 2T3 - GMI Representative**

War, civil unrest, and political violence have dramatic and most often negative effects on health services, leading to the emergence of infectious diseases. Emerging infectious diseases are those that are either newly recognized in a population, or involve a previously recognized pathogen affecting new or larger populations or geographic areas. In regions of conflict, the incidence of infectious disease is directly influenced by mass movement of populations, overcrowding, lack of access to clean water, poor sanitation, lack of shelter, poor nutritional status, collapse of public health infrastructure,

and the lack of healthcare services. Unfortunately, examples of disease outbreaks during periods of conflict are not difficult to find:

- 2013 Polio outbreak in Syria
- 2018 Ebola outbreak in the Democratic Republic of Congo
- 2018 Cholera outbreak in Yemen

We are observing a similar situation unfolding in Ukraine where there is a fear of disease outbreaks. Of course, given the current pandemic, much focus is

placed on COVID-19. However, there is also concern regarding surges in cases of polio, cholera, measles, and tuberculosis.

Across Ukraine, COVID-19 vaccination rates are low - about 65% in Kyiv are vaccinated, but rates are as low as 20% in some regions. For comparison, approximately 80% of Canada's population is fully vaccinated. Low vaccination rates mean the risk of severe disease and death from COVID-19 is quite high, especially with the current disruption to healthcare resources. In addition to COVID-19, the vaccination rates against polio and measles have not been high enough to reach levels of herd immunity seen in neighboring European countries.

Ukraine recently had an outbreak of vaccine-derived polio with two cases in the country last year - the most recent being in December 2021. Poliovirus was also isolated from 19 healthy contacts. However, it is believed that the outbreak is much larger since poliovirus paralyzes about 1 in every 200 who are infected. As a result, the country was in the midst of a 3-week campaign to vaccinate nearly 140,000 children when the conflict first started, however, this campaign is now on hold.

Measles is also a prevalent issue given its high degree of transmissibility. Ukraine had a large outbreak between 2017 and 2020 which saw more than 115,000 cases. By 2020, although 82% of the population had received two doses of a measles-containing vaccine, the rate is still not high enough to prevent deadly outbreaks.

Lastly, Ukraine has one of the world's highest burdens of multidrug-resistant (MDR) tuberculosis (TB). Each year, nearly 32,000 people develop active TB and about one third of all new TB cases are drug-resistant.

Drug-resistant TB occurs when individuals don't adhere to the long-term daily regimen of therapy. Due to health service disruptions as a result of COVID-19, diagnosis and treatment of TB decreased by 30% in the last two years, ultimately leading to increased transmission of the pathogen and disease.

Unfortunately, we are just seeing the beginning of the burden that Ukraine's healthcare system will face. Keeping with the foundational beliefs of GMI, we can continue to support those in Ukraine through financial and medical supply donations to foundations across the GTA.

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## **THE CIA'S**

# **Fake Vaccine Program in Pakistan and Vaccine Hesitancy**

Ruba Ullah, 2T5

When the first COVID-19 vaccinations were rolling out, I was excited to finally protect myself and others from this virus and was finally feeling optimistic. I had also hoped everyone was as eager as me to get vaccinated. However, many of my family members had a general distrust and wanted to wait a bit longer before getting the vaccine. I thought it was silly as to why my Pakistani family did not want to get the vaccine even though there is proof that it is effective. This caused me to research a bit on the conspiracies and it interested me how these rumors are twisted by true information at times.

There are a lot of current events that have been happening that genuinely do make me upset, but learning about the CIA's fake vaccine program is one thing I want everyone to know about especially since we are future healthcare workers. I hope in writing this that students will feel the same anger as I did but also gain some empathy and clarity on the distrust within BIPOCs.

The CIA, ever since the 9/11 attacks, was on a mission to locate and hunt Osama Bin Laden. There were various operations done by the CIA to try to locate him and one way they did this was using a fake hepatitis B vaccination program to collect DNA from the neighborhood he was hiding in. This operation failed and the worst part was that it induced a huge distrust within the country and set public health efforts back by decades.

These communities already struggled to trust vaccines and vaccine workers. This caused real vaccine workers to be chased off, accused of being spies. It led Taliban

leaders to ban polio vaccinations due to the CIA's operation. It even led to nine vaccine workers being killed! We were really, really close at eradicating polio but because of this operation we see a surge in cases of polio today in Pakistan. The everlasting effects from the operation is still prevalent in Pakistan.

As a Pakistani woman, I see vaccine hesitancy and the distrust of the government in my community. We have to recognize the medical violence that our governments have done to communities of color. I wish this was brought up and talked about more in our classes. It angers me to know that BIPOCs are dying because of medical racism and children in Pakistan are dying of polio even though there is a vaccine to prevent it. It is vital as clinicians to pitch within our communities and reassure them that we have looked at the data and trust it.

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# A Pharmacy Student's Reading of Careers with the Pharmaceutical Industry

Quoc Huy Pham, 2T4

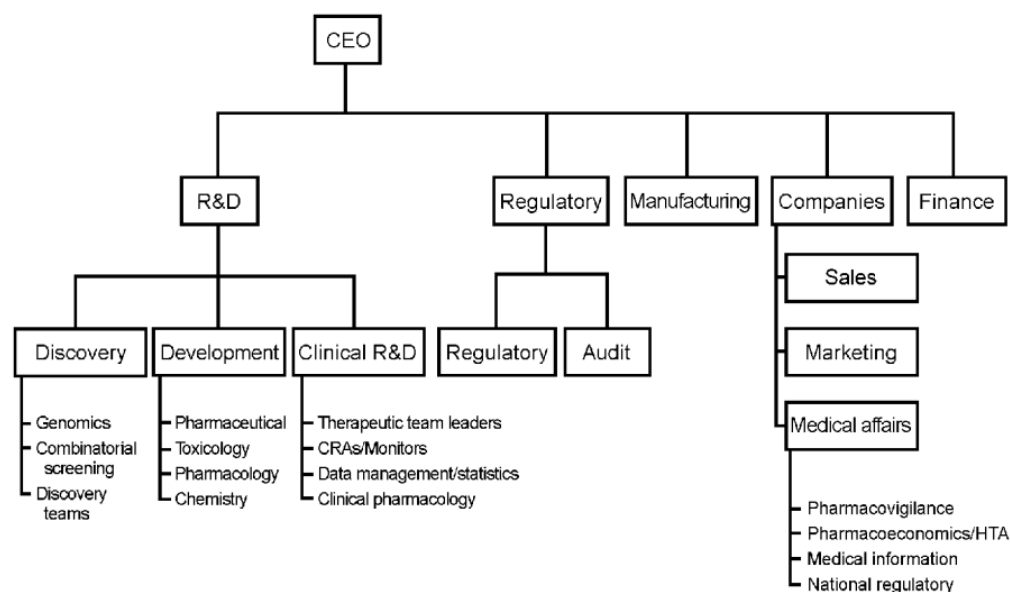
Careers with the Pharmaceutical Industry: Second Edition edited by Peter D. Stonier is a book composed from contributions from people inside and outside the pharmaceutical industry. The book is divided into five parts and has somewhat of a formula in most of the chapters, where an area in the pharmaceutical industry such as data management is introduced, the role of that area, the skills and knowledge needed for this area, career development and the future of that area. As a pharmacy student, there are certain chapters I'd like to highlight.

Chapter 3 explores potential careers in the field of drug discovery. This area is for the chemically-minded, detailing the process of drug discovery and how different fields of study approach a drug target. The section on career development looks into career development within drug discovery and outside the area. The latter is intriguing and the author describes that "discovery usually provides excellent training and experience for a career move into other divisions within a pharmaceutical company, especially where the discipline overlap is significant" (pg. 34). The chapter looks into clinical pharmacologists, who ideally "should be equally familiar with the worlds of medicine and of science" (pg. 47). Of course, familiarity is not omniscience, so if you're interested in clinical pharmacology

as a career, the author states that you should have a strong curiosity and a desire to learn about pathophysiology and drug mechanisms, as well as able to integrate information from a multitude of disciplines.

Part III consists of Chapter 11: A Career in Product Management and Chapter 12: A Career in Medical Sales and Medical Sales Management, with the former covering in part the emphasis on market analysis and strategic planning in product/brand management and the latter covering the medical representative and their responsibility of selling/promoting a company's product to healthcare professionals. The Chapter 12 author also made a distinction between medical representatives and clinical liaisons (and through inferred extension, medical science liaison) but did not elaborate much on the differences.

Chapter 18 examines possible careers in drug safety and pharmacovigilance. In these areas, one may be a pharmacovigilance associate, who are responsible for receiving reports of adverse events within and outside the company, and assessing the quality of information of the reports. Alternatively, one may be a drug safety pharmacist (the text actually says physician but this is a role that a pharmacist can fill), where one interprets the safety data and



**Figure 1.1** Example of the structure of an organisation involved in pharmaceutical R&D and sales

identify any 'signals' for further investigation, as well as contribute to the medical interpretation of a product's aggregate ADR experience as documented in periodic safety update reports (which I imagine are very dense and comprehensive documents if their counterparts the development safety update report are anything to go by).

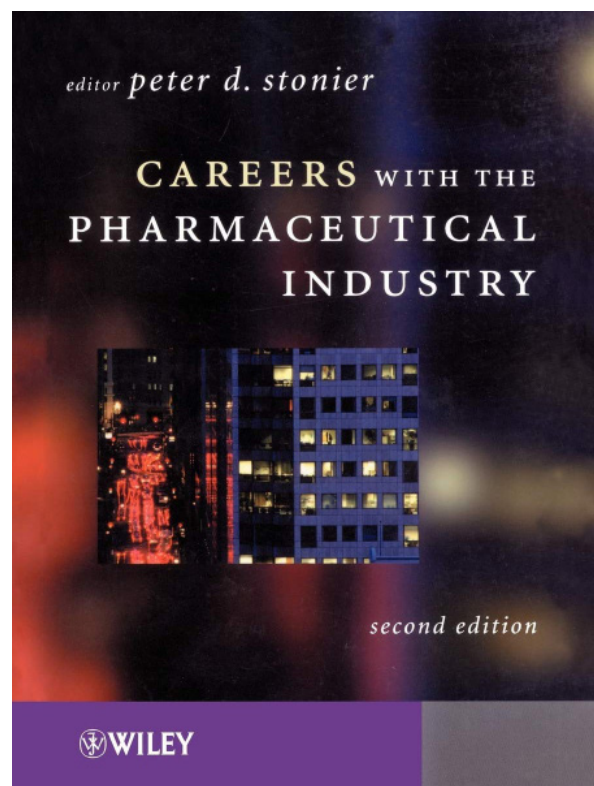
The chapter on medical information outlines the activities such as answering information requests and reviewing promotional material, qualifications and personal attributes suited for medical information. Some of these qualities are good time management, adaptive and flexible thinking, and persuasiveness. The chapter on medical writing is interesting, looking at what documents are written such as product monographs and protocols.

The chapter of special interest is Chapter 13: The Role of the Pharmacist in Healthcare. The chapter author first goes through the typical areas of pharmacy in the UK and the profession as a whole. Discussing the career pathway, he makes an argument for educating pharmacy students on community pharmacy practice, quoting Stuart Anderson, a British professor whose research focus is the history of pharmacy, on his view that the "single-minded approach in which we unambiguously train all pharmacy graduates to perform competently as community pharmacists, regardless of their future career aspirations may well prove to be the best investment the profession can make for its own future" (pg. 139). The author details the role and responsibilities of pharmacists in R&D, which he categorized into formulation design, pharmaceutical analysis, and clinical trial supplies, almost to the point of emphasis. However, it is possible for pharmacists to find themselves outside of R&D, whether it's in medical information or pharmacovigilance. The author sees that it is because "of their rather special broad skills that the industrial pharmacist has the ability to cross scientific and managerial boundaries with comparative ease and confidence" (pg. 160), a takeaway being that one should highlight one's soft skills. The chapter ends on an inspiring note, outlining how pharmacists can help the industry by being creators, problem-solvers and innovators.

The section on career progression begins with a good chapter on landing a job in the pharmaceutical industry, going in-depth on the components of a CV, cover letters and the interview process. Though, it's not particularly a pharmacy professional's guide to resumes, CVs and interviewing that I would spend time hunting down. The next chapter covers career development in the industry,

providing a marketing-driven and quality-orientated approach where you are the product. Disappointingly, the two chapters do not go into much detail about networking like a pro (a minor inconvenience for introverts, the overwhelmed, and the under-connected). The last chapter is on education and training in the pharmaceutical industry and how to find opportunities for them. A template of a training cycle is given and is composed of the identification of training needs, analysis of training needs, setting training objectives, the design and implementation of training, and evaluation of training. The list of education and training offered in the chapter is restricted to the UK so if one wants to find education opportunities specific to Canada, I would take a look at the drug companies' website, Council for Continuing Pharmaceutical Education, or LinkedIn.

Overall, it's a decent book. It does its best in covering as many areas as possible, which one would imagine to be a challenging endeavor considering that, as the editor puts it, "it is not possible to cover all the variants of jobs and careers that exist in this complex and evolving industry; notably absent is the manufacturing sector, business management and administration" (pg. xiii). It is nearly two decades old but the content is still relevant for the modern pharmaceutical industry. As a resource for getting into industrial pharmacy residency, better roadmaps to this form of postgraduate training in pharmacy are out there.





# TRYING TO MAKE IT “CLICK”

## AN ABRIDGED INTRODUCTION TO CLICK AND BIOORTHOGONAL CHEMISTRY FOR PHARMACY STUDENTS

QUOC HUY PHAM, 2T4

One definition describes click chemistry as the synthesis of a wide range of chemical compounds through the use of smaller units that are joined together by carbon-heteroatom bond-forming reactions. In order to meet the criteria for click chemistry, the reactions must have a high yield, stereospecific, wide in scope, modular, and produce side products that are inoffensive and easily removed through non-chromatographic methods. The process should ideally have simple reaction conditions (preferably those that are insensitive to water and oxygen), readily available starting materials and reagents, use no solvent or a benign or easily removable solvent like water, and have simple product isolation. These reactions require a high thermodynamics driving force ( $>20$  kcal/mol) such as heat in order to quickly drive the reaction towards completion. Click chemistry is of great interest for bioorthogonal chemistry, which refers to chemical reactions that can occur in biological environments without interacting or interfering with biochemical processes. In an ideal bioorthogonal reaction, the reactants are non-toxic, metabolically and thermally stable, chemically inert to biological functionalities, with selective reactions under physiological conditions, and products that are stable with minimal or benign side products. Most of these reactions follow second-order kinetics.

A wide range of reaction mechanisms can be employed in click and bioorthogonal chemistry. These reactions may be generally categorized into four major types: cycloaddition reactions, addition reactions, nucleophilic ring opening reactions, and carbonyl condensation reactions. An article by Kathrin Lang and Jason W. Chin delves further into the different reactions, their reaction rates and whether or not they can occur *in vitro* or *in vivo*.

Click and bioorthogonal chemistry has found some applications in *in vitro* and *in vivo* protein labeling. This process could involve the use of genetic code expansion and the incorporation of unnatural amino acids (amino acids other than the 20 canonical amino acids in humans) that contain a strained alkyne or alkene side chain residue in the protein of interest. The side chain would then react with a chemical probe containing an azide or a tetrazole. This can be further expanded into activity-based protein profiling, which is used to directly determine the presence of active enzymes. This is especially useful for enzymes that frequently interact with endogenous inhibitors or require post-translational modification for activity, as well as determining differences in activity between normal and disease states and correlations between the function of enzymes and a particular phenotype. First, the initial reagent acts as an irreversible enzyme inhibitor through mechanism-based inhibition. This is due to a reaction between the electrophilic group on the reagent and a nucleophilic active site residue. A second reagent containing a tag reacts with the covalently bonded reagent, thereby labeling the enzyme.

There are also applications in the synthesis of antibody-drug conjugates (ADCs). The conjugation of a drug to an antibody typically involves a reaction with the lysine or cysteine group at the amines and sulfhydryls respectively. This process produces heterogeneous mixtures of ADCs, which can have suboptimal pharmacokinetics, stabilities, efficacies and safety profiles. The selective nature of a bioorthogonal reaction would minimize the possibility of unintended reactions with other side chains in the antibody and enable the production of homogenous ADC mixtures.

Bioorthogonal click chemistry may be applied into the design and development of radiopharmaceuticals, enabling a rapid and efficient synthesis of radiolabelled probes. Click chemistry may also be applied into pre-targeted imaging and therapy, where a ligand containing a strained alkyne is administered and accumulates at the target tissue, followed by a second radiolabelled agent which reacts with the ligand.

Click chemistry is also applicable for drug discovery and design, where click reactions involving [3+2] cycloaddition reactions may be used to produce drugs that contain 1,2,3-triazole rings. 1,2,3-triazoles are useful in medicinal chemistry, as they are stable to acid-catalyzed and base-catalyzed hydrolysis, and metabolic decomposition as a result of high aromatic stabilization. In addition, triazoles can perform hydrogen bonding,  $\pi$ - $\pi$  stacking and dipole-dipole interactions. The triazole moiety also mimics amide bonds (1,4-disubstituted triazoles being structurally similar to Z amide bonds and 1,5-disubstituted triazoles to E amide bonds) and by extension, peptide bonds. These properties make 1,2,3-triazoles ideal linkers and bioisosteres for a variety of functional groups and pharmacophores. Some other applications of click chemistry in drug discovery are the rapid synthesis of the chemical libraries for high-throughput screening (possibly through a combinatorial meth-

odology) and fragment-based drug discovery, where click chemistry is used to link low-affinity fragments to create high-affinity ligands.

Click and bioorthogonal chemistry encompasses a wide variety of reaction mechanisms and enables a rapid, efficient and safe pathway for chemical synthesis. These reactions may be applied into a multitude of fields, whether it's drug discovery, polymer chemistry or bioconjugation. As more researchers invest into the potential of click chemistry and bioorthogonal chemistry, they could find even more applications.

## Further Readings

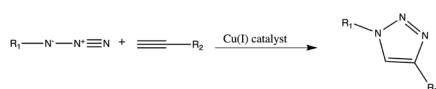
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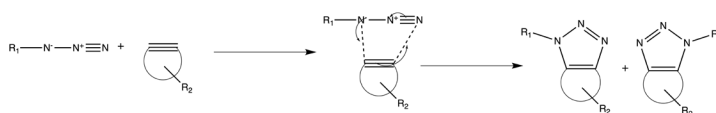
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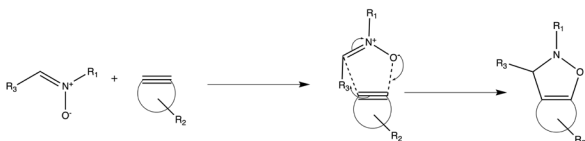
Copper(I)-catalyzed azide-alkyne cycloaddition (CuAAC)



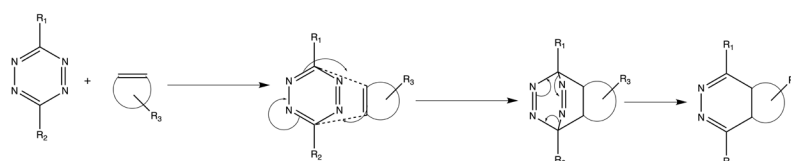
Strain-promoted alkyne-azide cycloadditions (SPAAC)



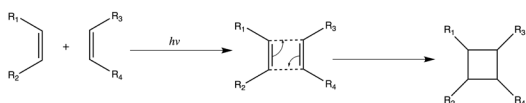
Strain-promoted alkyne-nitrone cycloadditions (SPANC)



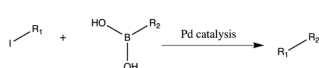
Diels-Alder cycloaddition between tetrazines and strained alkenes/alkynes



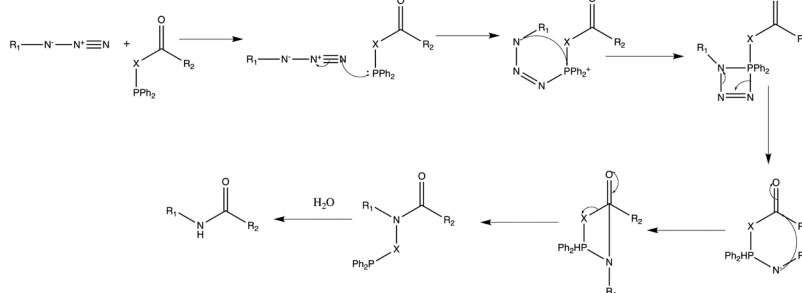
Photoclick chemistry ([2+2] cycloaddition reaction)



Palladium-catalyzed cross coupling (Suzuki reaction)



"Traceless" Staudinger ligation





## Advocating for Pharmacy: Family and Friends First

Minahil Rafiq, 2T2

A few months ago, I was telling a non-healthcare friend about a disgruntled patient who, in addition to making some rather cruel comments regarding my appearance, questioned my pharmacotherapy knowledge, favouring advice from a non-medical expert. As I was telling my friend about this experience, he interjected and said, 'but wait, Minahil...are you supposed to provide education regarding their medication... like don't you just pull a medication off the shelf and slap a label on it?'

The initial agitation and hurt from the patient turned into dismay as my friend made this remark because I could understand the lack of awareness on a societal level for what pharmacists do, but someone that did know me personally not knowing what I did, it hurt. The Doctor of Pharmacy degree is an intensive four-year degree, that in tandem with a rigorous academic load, incorporates copious amounts of clinical experience, all ultimately producing medication management experts. Thus, at the end of our educational and practical experience, providing medication advice is exactly what we are supposed to do.

I am often left stunned when non-pharmacy individuals think that a four-year professional program would only teach counting pills and 'slapping labels' on medication bottles. Though this line of thinking annoys me, I used to be able to shake it off as I could tell myself that these individuals did not personally know a pharmacist. However, when my friend made that remark, I began thinking, perhaps before we advocate for a so-

cietal change with how pharmacists are perceived, or maybe alongside societal changes, we need to advocate amongst our loved ones.

Advocating doesn't have to be difficult. It can be a simple conversation at the family holiday dinner party or perhaps a post that you share on your social media pages among loved ones, but it all boils down to increasing awareness among the people closest to you. Or like in my case, it can be simply explaining to your friend what you and other pharmacy peers do and why it's hurtful when people assume you aren't healthcare providers.

I didn't realize the impact my conversation had on my friend until a few weeks later when he messaged me to say he was at a local Shoppers with an impatient friend who started making frustrating remarks to the sole pharmacist working the night shift. My friend excitedly messaged me to say that after he explained to his friend why the pharmacist was taking a 'minute' to fill his prescription, his friend calmed down and apologized to the pharmacist. Not every family member or friend will understand or appreciate the work we put in and sometimes it may feel like thwarted progress, but I promise there will be some in your close circle that will get it. There is strength in numbers and thus outreaching and educating those closest to us about our profession will make it that much easier to make an impact on a larger scale. Thus in order for us to make monumental changes in how our profession is seen by the general public, we must start with those closest to us.





## some practical bpmh tips

AMAR DEONANDAN, ZT3

Hello everyone, and congratulations on making it to the end of another school year! If you're going to do an institutional rotation for an upcoming EPE/APPE Block or will be working in a hospital over the summer, I have some useful BPMH tips to share with you to help transition you from what we learn in class into practice.

### tip #1: overcoming language barriers

Unlike what we learned in class, there will be times when a patient you interview won't be able to speak the same language as you. If you do, great, just speak to them in the language they are most comfortable with as long as you're able to elicit accurate clinical information from the patient. If you can't, try to find a way to get that information through another means possible. This could be through a family member who knows their medication history or can act as a translator, or through their assigned nurse/another healthcare professional who can serve as their translator.

### tip #2: use the show-and-tell method

Drug names can be very hard to pronounce for patients, and even some healthcare providers (ever struggled to say levetiracetam?). Patients will often bring a list of their medications or all of their vials to help healthcare providers determine the medications a patient is taking. Often, showing a patient the medication in their vials will go further than trying to make a patient pronounce their medications, especially when they might be tired, confused or overwhelmed in the hospital. RxPhotos by Vigilance is a great app to have - you can use your phone to show pictures of medications a patient may be taking, which I found helps jog a patient's memory.

### tip #3: do your research

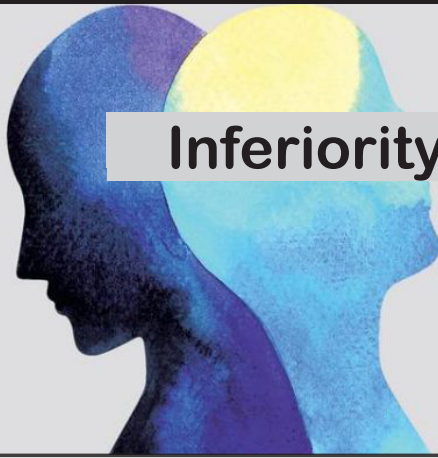
Before interviewing a patient, I make it a habit to review the physician's dictation as well as chart notes before interviewing a patient. This can give you a variety of important information, such as if a patient has a reduced alertness/orientation (and won't be able to give you a reliable history), a preliminary medication list (to capture

medications that might not be on your printed records), allergy information (which patients often forget during the interview), and location information (is the patient about to be moved to the floor, or did a patient go to a cath lab for a STEMI and won't be available for you to interview). Doing so can save you lots of time having to follow up with patients.

### tip #4: you are performing a best possible medication history, not a perfect possible medication history

In MTM, you will always be given a perfect scenario to complete your BPMH; the patient will be fluent in their medication history, you will always have at least two sources of information, and no room for uncertainty. This isn't always the case in real life, as sometimes you really don't have a lot of information to go off of. A patient's pharmacy might be closed, there might not be any ODB information on the drug profile viewer/ConnectingOntario, or the patient/family won't be able to speak to you. If after trying every possible way to get a medication history nothing is possible, document the best information you could obtain and the circumstances that led to this.

BPMHs in practice often play out differently from what you learn in MTM. It's important that you develop a good workflow and understand how to navigate around these differences while out in practice. As you practice, you will discover what works, and what doesn't work, and learn how to perform BPMHs as accurately and efficiently as possible in these differing circumstances. Best of luck!



# Inferiority Complex: What is It?

Joham Ahmad, 2T4

You may have heard and related to the term *imposter syndrome* a lot as a post-secondary student. But what about *inferiority complex*?

Coined in 1907, the term inferiority complex describes the overwhelming feeling of inadequacy and insecurity. It tends to lead people to overachieve to compensate for the mismatch between self-perception and the perception of others. And yet that self-perception remains the same regardless of hard work. Simply put, it's the deep-seated fear of 'never being good enough'. A North American Journal of Medicine & Science article from 2014 states that, while some degree of feeling inferior can allow for growth, it is "significantly associated with hostility, depression, and insomnia". It can manifest as chronic low self-esteem, frustration, a lack of motivation, downplaying accomplishments, feeling guilty about your choices, and taking criticism personally.

There is no quick and easy solution to overcoming your inferiority complex. It requires self-reflection, recognition of the disproportionate and destructive feelings of inadequacy, acceptance, and the strength to overrule false thoughts. While therapy is a great tool for this, it may be inaccessible. The Kentucky Counselling Center offers 3 alternative ways to start addressing your inferiority complex.

1.

## Journal

Putting thoughts to pen and paper can help find the root cause of feelings of inadequacy. It helps track patterns of thought and the narrative you assign to yourself. If you prefer, meditation offers a similar way to navigate a cloud of negative thoughts.

2.

## Positive affirmations

One of the aspects of having an inferiority complex is belittling accomplishments, so it's important to counteract that by engaging in positive self-talk. This goes hand-in-hand with expressing gratitude. For example, "I am good at persevering in the face of difficulty, and I am thankful for these opportunities that I get to grow."

3.

## Surround yourself with positive people

This is an extension of positive self-affirmations. It's important to have people in your social circle who root for your successes and support you in hardship, as well as those who have good self-esteem. An aspect of the inferiority complex is being unable to take criticism well, and if those around you are putting you down in subtle ways or don't tend to uplift you, this can exacerbate negative self-perception.

The first step towards battling your inferiority complex is recognizing it. It is a common condition, but it can be reversed. I know from personal experience that it can feel debilitating at times, but it gets better. To readers of our last Monograph issue, best of luck with pharmacy and beyond – you're destined for great things.

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# My Experience Being Monograph Representative



*Shaista Malik, 2T2 Monograph Rep*



Over the past two years, I have had the honour of serving as Monograph representative for the class of 2T2. My interest for this role started back in first year when I remember feeling excited with the release of new issues. I enjoyed contributing to the Monograph and looked forward to reading submissions from other students. Moving forward to second year, the idea of being part of class council captivated me. I wanted to take part in a position that would represent the 2T2s. When it came time for elections, I looked over the list of all the different positions available on class council and felt that the Monograph representative was the perfect fit for me. I decided to run for this position and to my surprise, I was the only candidate! The process of campaigning was quite unique and memorable. I had never been a part of a class council and it was the first time putting myself out there, but the overall experience was quite enjoyable. I was inspired by the creative campaigns led by other students. After a week of hard work, I received an email with the results. I felt a rush of happiness when I saw I was elected for Monograph representative.

With the new role I was to undertake, there was much to learn. However, the initial feelings of nervousness quickly faded away as I learnt more about the position from previous representatives. Throughout my time as Monograph representative, I have always felt supported by the team of the editors and representatives from other years who make up a remarkable team.

Throughout the year, my role was to encourage students to contribute to the Monograph whether it be through articles, photography, artwork, recipes and more! My favourite aspect of the Monograph was the sense of teamwork I experienced across all years who collectively worked together to contribute to each issue. I quickly learned that it truly is a school-wide effort putting together the issue with contributions from students, the layout editors, representatives, and the co-editors.

The Monograph is a representation of the student voice. Throughout my position, I thoroughly enjoyed reading through different perspectives shared by students.

Despite not being able to hand out the Monograph in person during online classes and fourth-year APPE rotations, being able to see student engagement with the Monograph has been an amazing experience.

Being a part of class council has also led to an overwhelming sense of community within the class. Working together with brilliant-minded individuals towards a larger goal has been rewarding.

My time as a Monograph representative during third year was an unforgettable experience. As the year came to an end, I knew I wanted to continue being part of the class council. However, I couldn't put my finger on the exact role I wanted to pursue. The opportunity then came up to re-run for Monograph representative. This decision came easy since in my heart, I knew I wanted to continue with this role. I then accepted the offer and became the fourth-year representative! Being a Monograph representative was an amazing opportunity and I will always hold a special place in my heart for the Monograph.

As I reach the end of my APPE year and come closer to graduating as a PharmD, I have bittersweet feelings as this chapter comes to an end. It has been an absolute pleasure serving as Monograph representative for the past two years and I will forever cherish the experiences I have gained through this role. Though my time at Leslie Dan is coming to an end, I look forward to keeping up with the Monograph and reading future issues. I can't wait to see what the upcoming Monograph team has in store!







### *3 Discreet Travel Destinations for your next Vacation!*

*Ashish Gante, 2J5*

With summer fast approaching and COVID-19 restrictions finally being reduced (for like the 5th time), I thought I would share some interesting destinations for you to visit on your next vacation!



Are you tired of chasing waterfalls in the Hamilton Area and want to visit some place other than Vancouver in the west? If you ever find yourself in this situation, go visit Multnomah Falls in Oregon to witness a year-round waterfall with a 611-foot drop! Just a 30-minute drive from Portland, this is the perfect place to visit if you love hiking and being outdoors.

Keeping up with the outdoors theme, if you are seeking an “off the radar” escape, Cappadocia is an absolute must visit destination. Located in Central Turkey, Cappadocia is known for its cave dwellings, rock formations and perhaps, most famously, the hundreds of hot air balloons that soar in the sky every morning. Booking a hot air balloon will give you 360-degree views of the “fairy chimneys” and famous limestone spires, something you won’t be able to observe at ground level.

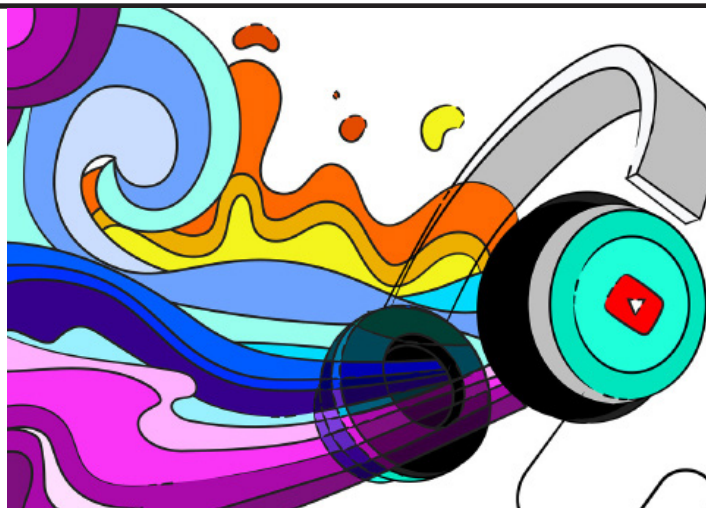


When people think of visiting Italy, they often think of visiting the capital city, Rome, the Colosseum, or the Leaning Tower of Pisa. However, if you want to visit a place a little bit more lowkey, Puglia is a must. Known for its rural landscape, Puglia offers a glimpse into the true Italian traditions and values. Lush with vineyards, this area produces some of Italy’s finest wines and olive oils.

# Music I'm Listening to

Moid Shah, 2T3

## Albums



### By The Time I get to Phoenix – Injury Reserve

This album was one of my favourites from last year and I haven't been able to stop listening to it since it came out in September 2021. The opening song "Outside" is a slow start to the album with vocals that sound tired and feverish. It builds and has a very climactic second half of the song. The progression of this song makes it one of my favourite songs ever. Given the greater context of this album, which was released following the death of one of the three members of the band, you can really hear the grief in the vocals and instrumentation throughout the album. The sound of this album is very experimental and not for everyone, but once you go through it a couple times it really starts to make sense and becomes addicting. I find that I can relate to much of this album by connecting it to my own experiences of grief. There's a song called "Top Picks For You" which describes the concept of how algorithms for streaming services can still give recommendations for a person even if they pass away. The memory of that person lives in the people (and algorithms) that remember them. The friends and family reminisce on the person they lost and think on how they would have loved new movies and music. If you want to hear something a bit out there and different, then give this album a try because it's a masterpiece.

### Melt My Eyes See Your Future – Denzel Curry

This is the newest album on this list and was released by Denzel Curry 5 years following his last studio album "Taboo". "Melt My Eyes See Your Future" was well worth the wait. The album is very meditative and reflective which is a stark change of pace from Denzel's usual high energy attitude on his songs. Much of the instrumentals are jazzy and songs flow well into each other despite the

great variety across the album. Denzel summarizes the album well in one of the lines by saying "this is not rap .. this is more like bebop". Despite how introspective this album is, it's also very catchy and entertaining. Songs like "Walkin'", "Worst Comes to Worst", "Troubles", "Ain't No Way" X-Wing" and "Zaotoichi" are all very catchy and great songs to listen to on repeat.

### Dragon New Warm Mountain I believe in You – Big Thief

The best word I can use to describe this album is "pleasant". Despite being over an hour long it goes by very smoothly and is very easy to listen to. The style of this album is folk/country/indie and the song writing makes it a wonderful listen. Throughout the album there are lyrics that just put a smile on your face. One of my favourites is "Kiss the one you are right now/ Kiss your body up and down other than your elbows". Lead singer Adrianne Lenker has an extremely unique voice, and combined with the down to earth instrumentals of the album makes for a pleasant listen. If you want something light and very catchy and folky, then give this a listen.

### Dawn FM – The Weeknd

It gets better with every listen! The Weeknd has been doing an 80s sound for a while now and he's been doing it well. His last album "After Hours" had a great pop vibe to it while still being dark and brooding in a style that he is notorious for. This time around he only takes the aesthetic further. That being said, this album is more conceptual than anything he's done in the past. Dawn FM is a radio station that plays as someone is on their journey to afterlife, or in purgatory. There is a great fun



energy to many of the songs, especially in the first half of the album. But, within the context of the album as a whole it's unclear if all of the partying is blind to the dark reality that The Weeknd and/or the listener is already dead. This album is so infectious because as soon as I put on one song I have to listen to the whole album in order. This pattern is in large part due to the fact that each song seamlessly transitions into the next. Songs like "Out of Time", "Take my Breath" and "Less than Zero" are some of my favourite songs The Weeknd has ever made and I'm going to continue to listen to this album for a long time.



## Songs



Aside from these great albums here are a few songs that I have been listening to on repeat as of late.

**Good Will Hunting – Black country new road**

**Outside – Injury Reserve**

**Rebound! – JPEGMAFIA**

**See You again – Tyler The Creator**

**Diet Coke – Pusha T**

**Fake Flowers – Boldy James**

**Best Friends – The Weeknd**

**Walkin' – Denzel Curry**

**Johnny P's Caddy – Benny The Butcher**

## Pharmacy Shout-outs!

Ayman you're literally the most generous person I have ever met 😊

Shoutout to Nick for getting so passionate about certain topics

Shoutout to myself because there ain't no one else like yourself!

Joham is super helpful whenever I have a question or ask for help!

S/O to Joy for being an awesome webmaster and a phriend <3

Ajitha for being an amazing friend 😊

Sarah (aka SR) for always brightening the room with her wonderful personality!

Bakhshish (aka koyu) for being an amazing friend and partner in crime!

Huda for her wonderful personality. She's an amazing writer and a great skater.

Varun for being so nice to everyone he meets!

Aleks Milosevski for being the best Big Sib I could ever ask for!

Kelly and Galit for being amazing co-presidents for PSASS.

Shoutout to Ashish and his trusty Hyundai Santa Fe



## Chapter

## 1

*This poem is about breaking the expectations that hold us down and daring to accomplish the things that frighten us.*

## Chapter One

Hudaifa Khanam, 2T5

I would choose to write Chapter One,  
If I hadn't drowned in conformity,  
I would have danced on tightropes,  
If I hadn't poisoned that part of me,



And when I would write that chapter one,  
The pen would scratch the paper - not bleed,  
The clock would shatter in reverse,  
As I pour my past into the present of me,

But in that first breath of conformity,  
I soaked in drying puddles of validation,  
I did not wait, but hunted the frigid storms,  
For the downpour promised, that drowning is safe,

And when I would carve the air on tightropes,  
The storms would calm to clouds of awe,  
As I balance the dance of shear confidence,  
And then suffered the forecasted plunge of fear,

But I poisoned the part that dreamed,  
Buoyant in the flooded puddles of misery,  
As the cyanide searches for more to deplete,  
I realize the clock is yet to turn, the dance is incomplete,

So I will save my breath from the storm that expects,  
I will bleed the poison that dares to change me,  
I will cartwheel on tightropes unafraid to plunge,  
As I raise the pen and write my Chapter One.

## References (From Page 17)

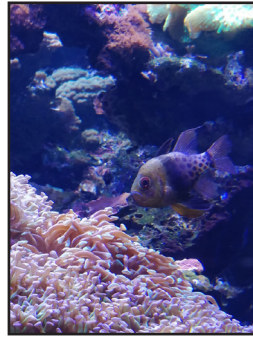
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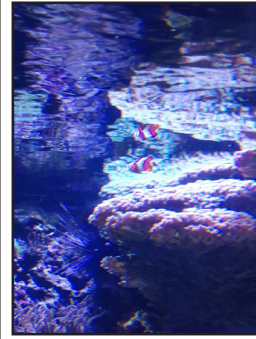
Prima Zhao, 2T4



Prima Zhao, 2T4



Prima Zhao, 2T4



Prima Zhao, 2T4



Prima Zhao, 2T4



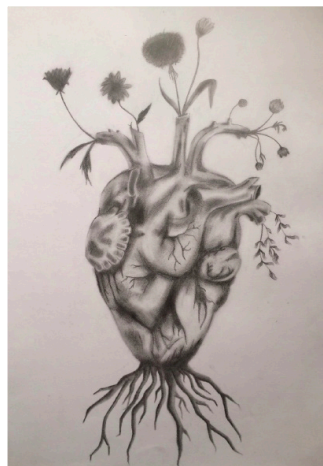
Brendan Lim, 2T4



*Behind the Lens*

PHOTOGRAPHY

*Artist  
Spotlight*



Samra Ghazi, 2T4



Selina Luong, 2T4