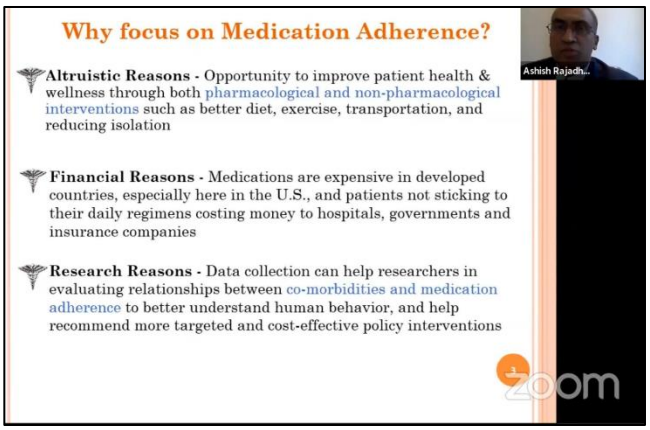
BRAC UNIVERSITY
Inspiring Excellence
Department of Pharmacy

PHARMA HIGHLIGHTS

ISSUE 79 | APRIL 2021

Webinar on 'Medication Adherence: Opportunities for Early Career Pharmacists'



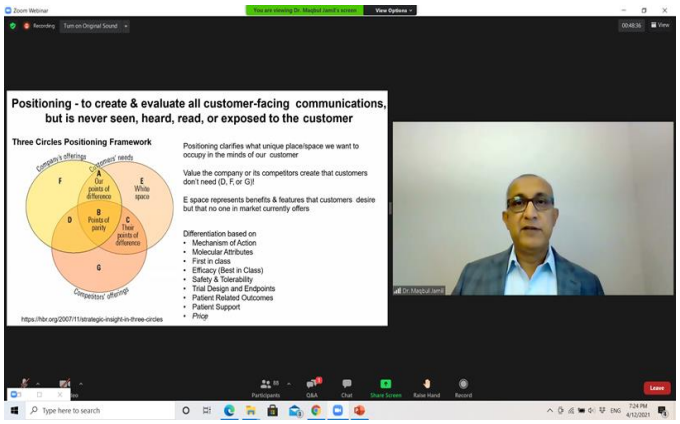
An important component of the pharmacy profession or any healthcare related profession is patient care and finding ways to improve patient care. Currently, a major challenge towards improving patient care is a lack of medication adherence and a sedentary lifestyle. Given these challenges, technology, as well as effective management of health and wellness, could provide an opportunity to improve access, quality, and patient health outcomes. This webinar focused on the different opportunities and skills that early career pharmacists could take advantage of, to help improve patient care.

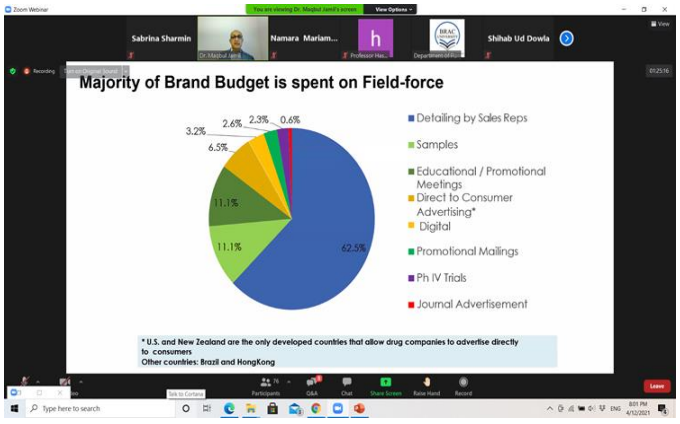
To give us further insight into this topic, we invited an esteemed guest speaker for the event, Mr. Ashish Rajadhyaksha. Mr. Ashish did his M.B.A., with a major in Entrepreneurship, from William Paterson University, New Jersey as well as an M.S., with a major in Health Policy and Economics, from the Department of Population Health Sciences, Weill Cornell Medicine, Cornell University.

The webinar was moderated by Ms. Namara Mariam Chowdhury, Lecturer, Department of Pharmacy, Brac University. The overall technical part of the webinar was taken care of by Mr. Easin Uddin Syed, Lecturer, Department of Pharmacy and Mr. Shihab Ud Dowla, Final year student of the department. The webinar was open to students, alumni and professionals from all disciplines and was live streamed on Facebook from the Department of Pharmacy, Brac University Facebook page. The questions asked by the attendees were insightful and reflected their enthusiasm towards learning more about the different sectors of healthcare.

Written by: Department of Pharmacy

Webinar on 'Brand Development in Pharma'





A pharmaceutical brand is a perception or set of associations physicians have of an asset. Those perceptions originate from the story companies tell about their asset, the vision, the values, and the services they offer, and how physicians are transformed as a result of using those products or services.

As part of the 'Toolbox for Success' series designed by the Department of Pharmacy, Brac University, a webinar on 'Brand Development in Pharma' was organized on April 12, 2021. The speaker of the webinar was Dr. Maqbul Jamil,

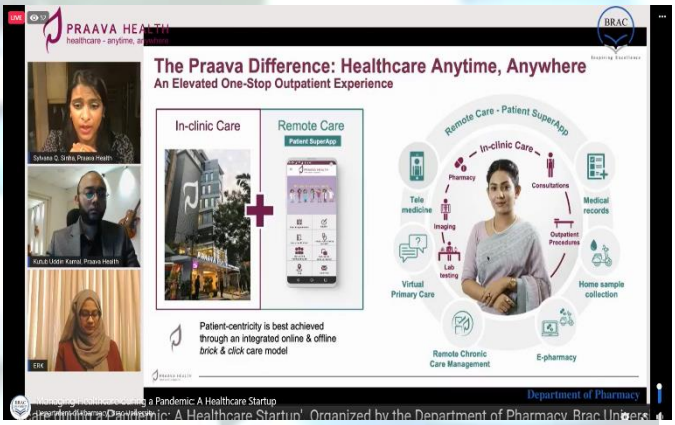
Associate Vice-President of Global Oncology Marketing, Merck and Adjunct Professor, Marketing, Columbia Business School. The webinar was moderated by Ms. Namara Mariam Chowdhury, Lecturer, Department of Pharmacy, Brac University. The overall technical part of the webinar was taken care of by Mr. Easin Uddin Syed, Lecturer, Department of Pharmacy and Mr. Shihab Ud Dowla, Final year student of the department. The webinar was open to students, alumni and professionals from all disciplines.

Dr. M. Jamil is a commercial leader in the pharmaceutical industry with two decades of strategic and operational experience in matrix organizations across geographies. Dr. Jamil has extensively worked with clinical development teams to commercialize breakthrough therapeutics including the first small molecule targeted therapy and the first aPD-1 immunotherapy. Currently, he is working for the commercialization strategy of oncology products at Merck & Co, as well as teaching marketing at Columbia University. Previously he worked in marketing and commercial roles of increasing responsibility at Bayer, Eli Lilly and Novartis in the US, Europe, Middle East and Emerging Markets to launch multiple products in numerous therapeutic areas. Dr. Jamil got his Ph.D. in Marketing from Kelley School of Business, Indiana University.

The speaker shared his two decades of experience in building multiple brands on a global stage. He emphasized that developing a brand requires defining, articulating, and asserting messaging and then translating that message into channels where physicians can interact with the brand. According to him creating a brand requires research, brainstorming, data, insights, and a clear vision. The webinar was very interactive and the participants also asked questions and shared their opinion. The questions asked by the attendees were insightful and reflected their enthusiasm towards understanding brand development and growing as competent professionals.

Written by: Department of Pharmacy

Webinar on 'Managing Healthcare during a Pandemic: A Healthcare Startup'



As part of the 'Toolbox for Success' series designed by the Department of Pharmacy, Brac University, a webinar on 'Managing Healthcare during a Pandemic: A Healthcare Startup' held on April 18, 2021. The speakers of the webinar were Ms. Sylvana Q. Sinha, Esq., Founder, Chairman, and CEO of Praava Health and Mr. Kutub Uddin Kamal, Communications Lead at Praava Health.

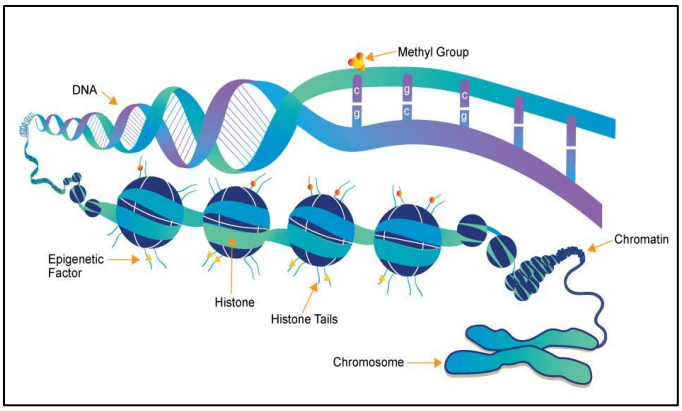
The webinar was moderated by Ms. Namara Mariam Chowdhury and Ms. Marzia Alam, Lecturers at the Department of Pharmacy, Brac University respectively, and the overall technical part of the webinar was taken care of by Mr. Easin Uddin Syed, Lecturer, Department of Pharmacy and Mr. Shihab Ud Dowla, final year student of the department. The webinar was open to students, alumni and professionals from all disciplines and was live streamed on Facebook from the Department of Pharmacy, Brac University Facebook page and Praava Healthcare Facebook page simultaneously. The speakers talked about the journey of Praava Health - a homegrown brick and click healthcare model that puts patients first, and how this startup sustained and served our community during the COVID-19 pandemic.

They introduced the audience to the value-based concepts of the delivery of healthcare during a pandemic. Ms. Sinha discussed the first fully integrated HIS (Hospital Information System) of Praava Health, which collects data to help better understand the communities being served. She also spoke about EHR (Electronic Health Records) and the first Patient Portal app in Bangladesh that can be used from the phone on the go or from the comfort of one's home. The app helps the patients

make appointments, download medical records, view lab results, communicate with doctors and medical professionals, etc. The webinar was very interactive and the participants also asked questions and shared their opinion. The questions asked by the attendees were insightful and reflected their enthusiasm.

Written by: Department of Pharmacy

Epigenetics and Type I Diabetes



Type 1 diabetes can be caused by abnormalities with the immune system that eventually lead to the destruction of beta cells and the loss of insulin. Small genetic changes have been linked to the disorder, but genetic changes have not been found in every case. New studies have focused on some of the epigenetic influences that could potentially be linked to type 1 diabetes.

Epigenetics can affect gene activity without causing any changes in the actual genetic sequence and it was previously seen that environmental factors were able to impact epigenetics. These environmentally-induced epigenetic changes have been linked to type 1 diabetes in various research studies. Type 1 diabetes has been known to be connected to the HLA gene region since the 1970s; dozens of mutations in the DNA sequence in that region have since been linked to the disorder. An epigenetic feature known as methylation in the HLA region has also been associated with type 1 diabetes.

DNA has to be compacted and carefully organized in the cell; its three-dimensional structure can affect gene expression, and DNA is wound around histone proteins. Histone modifications are another epigenetic feature of the genome. Abnormal histone modifications have also been identified in type 1 diabetes patients. Non-coding RNAs, which are sometimes involved in gene regulation, have also been associated with type 1 diabetes. The expression of immunological and inflammatory genes and the function of beta cells in the pancreas may be affected by any or all of these epigenetic changes, which influence the development of type 1 diabetes in many ways. Given the relationship between epigenetic changes and type 1 diabetes, various epigenetic changes could potentially serve as markers for disease progression and treatment effects or even as targets for future therapeutics. Other studies have suggested that drugs that change DNA methylation might benefit type 1 diabetics. Existing studies suggest that environmental insult-induced epigenetic changes modulate the expression of critical genes relevant to the initiation and progression of autoimmunity and beta cell destruction and are therefore implicated in the development of type 1 diabetes.

Written by: Sabiha Akhter (TA)

New COVID Drug Reduces Deaths in Patients with no Antibodies

US drugmaker, Regeneron, in a partnership with Oxford University, has found that its new drug is capable of reducing COVID deaths by 20% when compared to standard treatments. The drug, known as REGEN-COV, is a combination of two monoclonal antibodies known as casirivimab and imdevimab. Using both antibodies together reduces the possibility of developing resistance to the treatment as they bind to different sites on the coronavirus's spike protein and thus, the virus is also prevented from infecting healthy cells. In the study, half of the patients received REGEN-COV, the other half

received standard treatment- either a steroid called dexamethasone or, for those with the most severe cases, an anti-inflammatory known as tocilizumab. Approximately two-thirds of the patients were had already developed COVID-19 antibodies before treatment while the remaining third were had not and were seronegative. The study found that seronegative patients who received REGEN-COV had hospital stays that were an average of four days shorter than those who received standard treatment. These patients were also less likely to need a ventilator. For patients who had developed antibodies, however, REGEN-COV had no effect. The researchers say that upon admission to hospital, patients should now be tested for antibodies to help doctors decide which treatment is best for them.

Written by: Syeda Fahria Hoque Mimmi (TA)

Newsletter Editorial Board: Namara Mariam Chowdhury, Eshaba Karim and Easin Uddin Syed