



# ***College of Pharmacy*** ***Experiential Education Newsletter***

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*Experiential Education Newsletter*

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*College of Pharmacy, QU Health, Qatar University*

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## Editorial Board

We welcome you to the College of Pharmacy (CPH) Experiential Education Newsletter. The aim from this letter is to shed the light on the activities and updates of the experiential program and to showcase the skills and abilities of CPH students during their SPEP and PharmD rotations and their preceptors.

The newsletter will cover different highlights from the experiential team, preceptors and CPH students.

### **Hazem Elewa**

Dr. Hazem Elewa (Editor-in-Chief)

Dr. Monica Zolezzi (Assistant Editor)

Dr. Ziad Nasr (Assistant Editor)

Dr. Stephanie Atweh (Associate Editor)

## Preceptorship Insights:



### **Enhancing Pharmacy Education through Interprofessional Collaboration**

Interprofessional Education (IPE) in the healthcare sector fosters collaboration among various professions, facilitating shared learning experiences to enhance collective expertise and, ultimately, improve health outcomes. This article delves into the significance of IPE, its core competencies, and the pivotal role of pharmacy preceptors in shaping future healthcare professionals.

In both education and practice, IPE addresses systemic failures in healthcare systems stemming from poor coordination, excessive waste, errors, and a lack of quality. The evolving landscape of healthcare, emphasizing quality over quantity, necessitates a shift toward team-based care. Teams must be trained effectively to function in this collaborative environment.

Formed in 2009, the Interprofessional Education Collaborative (IPEC) aims to develop and implement meaningful IPE experiences. IPEC identified four core competencies crucial for achieving this goal.

#### *Values and Ethics:*

- Foster a climate of mutual respect and shared values with individuals from diverse professions
- Prioritize the interests of patients and populations
- Respect the unique cultures, values, roles, and expertise of other health professions
- Act with honesty and integrity

### *Roles and Responsibilities:*

- Utilize knowledge of one's own role and others to assess and address healthcare needs
- Clearly communicate roles and responsibilities to patients, families, and professionals
- Recognize limitations and engage diverse healthcare professionals complementing one's expertise

### *Team and Teamwork:*

- Apply relationship-building values and principles of team dynamics for effective performance in various roles
- Plan and deliver patient-/population-centered care that is safe, timely, efficient, effective, and equitable
- Engage other health professionals in shared, patient-centered problem-solving

## **Team-Ready Pharmacy Professionals**

Pharmacy students and practitioners must be equipped with interprofessional teamwork skills. Recognizing this, international accreditation bodies for pharmacy colleges emphasize interprofessional team education as a crucial competency. The journey begins in early pharmacy study years, incorporating team practice and dynamics that lay the foundation for IPE. This progresses through experiential training years, focusing on team-based practices.

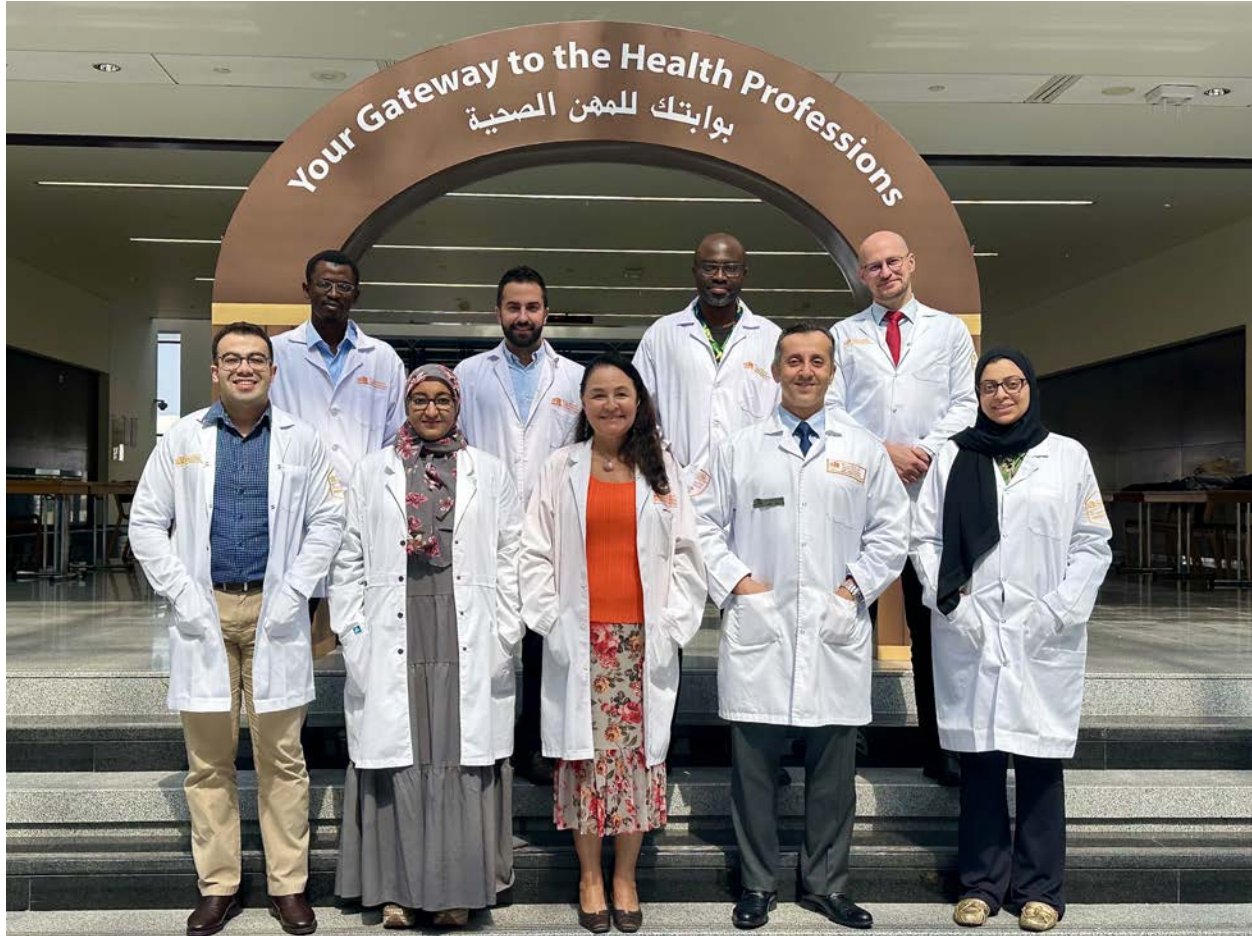
Pharmacy preceptors play a vital role in guiding students towards IPE competence. They are encouraged to engage in conversations with students about IPE, identify learning gaps, and provide opportunities to bridge them. Preceptors instruct, model, coach, and facilitate IPE experiences, nurturing the development of well-rounded healthcare professionals. Preceptors are encouraged to explore various settings where pharmacy students can engage in interprofessional activities, such as: Collaborative case studies; Simulation exercises; Interprofessional rounds; and Community outreach programs.

At the College of Pharmacy (CPH), Qatar University, students undergoing their undergraduate experiential training are expected to complete a mastery level IPE reflection assignment. It targets one of three possible activities: 1) shadowing or interviewing a team member; 2) analyzing interprofessional interaction of team members; 3) collaborating with team members. This reflection assignment represents a capstone for all IPE activities that CPH students have undergone throughout their study years.

In conclusion, fostering collaboration through IPE is imperative in the ever-evolving landscape of healthcare. Pharmacy preceptors stand as key influencers in preparing students for the complexities of modern healthcare, ensuring they graduate as team-ready professionals ready to contribute to a collaborative and patient-centered future.

*Dr Hazem Elewa – Head of clinical education*

## PharmD Program Insights



As a part of our Student Exchange Program, College of Pharmacy at Qatar University welcomed two visitors, Dr. Ellen Schelhase and Dr. Monica Miller, from the experiential team at the College of Pharmacy, Purdue University, USA. The visit took place on the 28th to the 30th of August 2023.



1 - Visit with pharmacy directors at Hamad Medical Center

Dr. Schellhase, Clinical Professor of Pharmacy Practice & Director of International Engagement at Purdue University College of Pharmacy said:

"The Purdue visit to CPH – QU was a great opportunity to explore how our two universities can collaborate to advance education and training. Exploring the local practice sites, meeting with faculty and students, and discussing opportunities was a great way to move forward.

Everyone that we met was enthusiastic and ready to share the role of the pharmacist in Qatar and the training process. It is clear that QU is dedicated to advancing pharmacy practice and Purdue looks forward to identifying ways to collaborate to move our profession forward.

We really appreciated the hospitality and warm welcome that made our visit special."

## SPEP Program Insights



We are delighted to announce a significant milestone in our undergraduate pharmacy program at the College of Pharmacy at Qatar University. For the first time ever, we have successfully secured 10 community pharmacy internships for our final professional year P4 students in the United Kingdom, Scotland, and New Zealand. Students will complete their elective rotations in the Fall semester of 2023 as part of their structured practical experiences in pharmacy (SPEP) program. This achievement marks a significant leap forward in providing our students with global exposure and invaluable practical experience. By sending our students to these internships outside of Qatar, our main objective is to broaden their perspectives, enhance their skills, and foster cultural exchange. We believe this milestone will greatly contribute to their personal and professional development, paving the way for future success in the field of pharmacy.

Additionally, we have expanded our collaboration in the 2023 14th SPEP cycle with new stakeholders, including Boots Pharmacy and Al-Ahli Hospital. Further discussions are underway for collaborations with additional public and private sector hospitals, including Aman Hospital, The View Hospital, Al-Emadi Hospital, and Hazm Mebaireek General Hospital.

*Dr Ziad Nasr – SPEP Program Coordinator*

## Highlights from International SPEP Rotations

### **Mint Pharmacy, Glasgow, Scotland**

“Our international community pharmacy internship was truly a phenomenal experience. Undoubtedly, it has been nothing short of transformative, a remarkable experience that has left a lasting mark on both our personal and professional journeys. It provided us with a unique opportunity to immerse ourselves within distinct healthcare practices in a different cultural context and helped us to gain a wealth of novel knowledge and skills. Working alongside dedicated pharmacists and engaging with patients from diverse backgrounds enhanced our understanding of global healthcare and taught us invaluable lessons about patient care and medication management. Moreover, our dedication to patient care and adaptability helped us to navigate through the new challenges that we encountered. This experience not only enriched our clinical knowledge but also expanded our cultural competence, making it a valuable and memorable part of our professional journey.”

*Laila El-Mancy and Hafsa Shehzad – P4 Students*



### **Knox Pharmacy, Dunedin, New Zealand**

“During our international pharmacy practice rotation at Knox Pharmacy in New Zealand, we were immersed in a healthcare system that emphasized patient-centered care and autonomy for pharmacists. This experience expanded our understanding of pharmacy practice, revealing how it extends well beyond traditional medication dispensing. The use of the national health identification system enhanced patient counseling and safety. Notably, the pharmacy's focus on harm reduction and medication abuse

management, including methadone clinics and needle exchange programs, showcased a commitment to public health. This experience not only provided us with a rich knowledge base but also instilled a passion for advocating positive changes in pharmacy practice, both in Qatar and on an international scale, to ensure that patients' well-being remains at the forefront of healthcare excellence.”

*Salma Said and Sara Al-Qattan – P4 Students*



## Intervention of the Month



**Drug Related Problem:**



NS is a 33-year-old male, known case of schizophrenia, suffering from multiple relapses of psychosis due to poor adherence; adjustment of therapy regimen is required.

**Clinical Intervention:**

NS presented to the hospital suffering from multiple schizophrenia relapses (>3 times/year) associated with severe psychosis (thought insertion and broadcasting, visual and auditory hallucinations). Upon review of his chart, NS appeared to have poor adherence with medications, proven by lack of refills from the outpatient pharmacy as well as the patient admitting himself to forgetting taking the pills on a daily basis, which is causing these severe psychotic episodes. NS is on paliperidone 6 mg oral once daily. The pharmacy intern recommended switching the patient from oral to intramuscular (IM) depot formulation of paliperidone. The attending physician agreed with this recommendation and hence NS was started on an initial dose of 150 mg IM paliperidone given at the hospital followed by a 100 mg IM injection given one week later. Afterwards, he will be maintained on a monthly dose of 75 mg given IM as well at the clinic (can be increased based on the patient's response).

*Adapted by Safa Al-Haneedi- SPEP student*

*Edited by Dr Stephanie Atweh*

## Drug Information Question (DIQ) of the Month





### **In women with post-partum depression (PPD) and vitamin D deficiency, does vitamin D3 supplementation reduce the severity of postpartum depression symptoms compared to placebo?**

Postpartum depression (PPD) is a major depressive disorder that occurs within 6 weeks after childbirth and can continue for up to 12 months (1). Approximately 1 in every 7 women can develop PPD. Mothers diagnosed with PPD experience variable symptoms that affect their relationship with the infant (1). The pathophysiology of PPD is not yet fully ascertained, however, there is evidence that suggests hormonal factors, genetics, and immune function, may play a role in causing PPD (2).

The treatment options available for PPD are psychotherapy and antidepressants (2). In addition, selective serotonin reuptake inhibitors (SSRI) specifically sertraline is the most prescribed antidepressant for women with PPD (1). Vitamin D is a fat-soluble vitamin that is obtained from sunlight, food, and dietary supplements. Currently, its labeled indication is dietary supplementation, and the off-label indications are for hypothyroidism, osteoporosis prevention, and vitamin D deficiency (VDD) (4). Vitamin D insufficiency is defined as a serum level of 25-hydroxyvitamin D 25(OH) D below 30ng/ml and VDD as less than 20ng/ml (5). In Qatar and the surrounding regions, vitamin D deficiency has been shown to be highly prevalent despite the long hours of sunlight (6). Several studies found a significant association between vitamin D and PPD where it might have a role in mood regulation, influencing the synthesis of neurotransmitters, stimulating receptors in the brain, and being involved in the intercellular neuronal signaling system (7). Moreover, vitamin D deficiency (25(OH)D < 20ng/ml) is more prevalent in women with PPD compared with women with no depression (8). Limited randomized controlled clinical trials (RCTs) have been conducted to evaluate the potential therapeutic effect of Vitamin D supplementation in women with PPD having VDD. This paper will mainly focus on the results of 2 RCTs that demonstrated improvement in PPD symptoms using vitamin D3 supplementation alone.

Amini et al., (2022) conducted a randomized, double-blind clinical trial, placebo-controlled parallel design for 8 weeks (9). The study included 81 women aged 18-45 years with PPD (EPDS >12) diagnosed as per the Edinburgh postnatal depression scale (EPDS). Patients were randomly assigned to three groups (n=27 in each group) as follows: 50,000 IU vitamin D3 fortnightly + 500mg calcium carbonate (CC) daily, 50,000 IU vitamin D3 fortnightly + placebo of CC daily, and placebo of vitamin D3 fortnightly + placebo of CC daily for 8 weeks. The primary outcomes were the evaluation of the severity score of PPD and serum concentration of 25(OH)D, estradiol, and inflammatory biomarkers at baseline and end of the study. PPD severity was measured before and after the intervention period using the Iranian EPDS questionnaire. The results of the study showed a statistically significant reduction in PPD score with vitamin D supplements in all 3 groups. However, PPD score reduction was higher among patients who received vitamin D3 alone (approximately 25% reduction) compared to vitamin D+ Ca or placebo. In

addition, serum 25(OH)D concentrations were significantly increased in the intervention groups but not in the placebo group. This study had a low risk of selection bias since the allocation was concealed and the sequence was randomly generated. Moreover, the risk of detection and performance bias was low because both patients and personnel were blinded. Also, the risk of attrition bias was low since no patients were lost to follow-up. This indicates a high internal validity since the overall risk of bias is low. However, due to the fact it was a single-centered study, and all women with comorbidities were excluded, the generalizability of the results may have been limited.

Another randomized, placebo-controlled, double-blind clinical trial done by Rouhi et al., (2018) for 6 months, included 80 primiparous women with PPD (EPDS above 13) and fatigue identification form (FIF above 20) (10). Patients either received 1000 IU of oral vitamin D3 (n= 40) or placebo (n= 40) daily for 6 months. The measured outcomes are reduction in depression (EPDS) and fatigue (FIF) scores. The results after 6 months of vitamin D3 postpartum were similar to Amini et al., EPDS significantly decreased in the vitamin D group by 7 scores (CI = 3.02- 5.35; P= 0.001) and FIF decreased by 12 points or more in the intervention group (CI= 4.38- 7.71; P= 0.001). This study had high internal validity because it had a low risk of selection, detection, performance, and attrition bias. Furthermore, the generalizability of this study is also low because the inclusion criteria were specific to primiparous women with PPD. Therefore, the results might not be applicable to all women with PPD. Both studies showed a positive effect of vitamin D3 supplements alone on the severity of PPD despite the differences in the treatment dose, frequency (50,000 IU fortnightly vs. 1000 IU daily), and duration (8 weeks vs. 6 months). In Qatar, patients with VDD are recommended to take 50,000 IU/ week until the deficiency is corrected after which they would be put on a maintenance dose (11). The exact mechanism behind the effect of vitamin D on reducing the severity of PPD is not well understood, however, it was believed that increased expression of region-specific vitamin D receptors (VDR) responsible for mood regulation in the brain is expected to be beneficial in reducing depression progression.

To conclude, RCTs with a larger sample size and better generalizability are required to prove the effectiveness of vitamin D supplementation in reducing the severity of PPD. In Qatar, patients with PPD are asked to be screened for VDD as normal women do and receive vitamin D3 for VDD as an adjunct to psychotherapy and antidepressants. However, vitamin D3 cannot replace the current treatments of PPD because of the lack of robust and sufficient evidence to confirm that.

For references, click [here](#).

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