



## On-Campus Student Medical Centre Between Theory and Practice: Qassim University Student Medical Centre - Case Study

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**Abstract.** Providing comprehensive health care to students on campus is essential for enhancing their overall well-being and academic performance. At Qassim University, medical services are tailored to meet the diverse health needs of students through an integrated and accessible approach. The university has established a Medical City within the campus to serve both students and employees. Its facilities are designed to effectively and comfortably address a wide range of medical needs. This research highlights the main components and benefits of on-campus health care, including its role in maintaining physical and mental well-being, supporting academic success, and creating a healthy campus environment. Qassim University offers a broad range of free health services to all students through the Medical City Centre. This centre is staffed by a multidisciplinary team of doctors, nurses, technicians, and specialists who provide preventive care,

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manage chronic conditions, and treat common illnesses. In addition to student care, the university provides employees with services such as primary care through specialized outpatient clinics, urgent care, surgical procedures, immunization programs, and vaccinations against a wide range of diseases. Mental health support is a key focus, with qualified psychologists offering counselling services to help students manage stress and maintain emotional balance. Furthermore, Qassim University implements health promotion initiatives aimed at increasing awareness on various health topics. These include educational campaigns, workshops, seminars, and campus events designed to encourage healthy habits. Additional medical services and their impact will be explored in detail throughout the research.

**Keyword:**

Sustainable campus, Qassim University, Medical Healthcare, Medical city.

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## **1. Introduction**

Health care on the university campus is one of the most important services that enhances the health of students and university staff. Through health centres that include all disciplines, studies show that the availability of these centres increases the use of primary care clinics, reduces visiting emergency clinics, and reduces the incidence of diseases among students [1].

The health care within the university campus includes many medical services such as physical health, mental and psychological health, preventive vaccinations, health education, and more.

The medical centres within the university campus play an important role in supporting mental and psychological health for students through the medical services provided, in addition to academic counselling services related to mental and psychological health provided by faculty members to students within their colleges when needing that [2].

Having nearby medical services on campus minimize time lost due to the distance or waiting, which results in reducing the time of the patient's treatment and increasing its effectiveness.

Academic progress for students is greatly affected by health care on campus. The more the student maintains his health, the more academic achievement. Health centres within the university campus must provide programs to promote healthy life for students such as, physical fitness programs, healthy nutrition, diet, and other health and mental health preservation programs [3].

The research aims to study the third goal of the sustainable development goals related to health care on campus (SDG3). It is necessary to enhance public health and luxury. This includes faculty, employees and workers. The study showed that Qasim University is aware of the importance of health care for students and university members by providing many medical services that can be easily accessible and available in time.

## 2. Methodology

The research follows the inductive approach by talking about the role of universities in achieving the third sustainable development goal related to health care by studying the principles of health care within the university campus. Then study the scientific steps that must be followed to achieve this. Then talk about all the services and activities provided by Al-Qassim University to achieve health care on the campus, on the other hand, talking about the university's cooperation with external health care institutions through organizing lectures, workshops, and health awareness campaigns. These efforts provide students with the knowledge and skills they need to live in a healthy and balanced life.

## 3. Healthcare Principles on campus

Healthcare on campus supports students and employees. It is done according to general health standards and individual employee needs. It includes the following principles:

**Accessibility.** The university must provide all its students and employees with free medical insurance and affordable in cases that need high -end surgical intervention, as well as the places of treatment are close to all university colleges, and completely [4].

**Confidentiality and Privacy.** Confidentiality and privacy must be available for all medical information for patients with clear policies stated in the university's medical regulations [5].

**Health Promotion.** The university provides healthy educational campaigns and courses to promote healthy living, prevent diseases, and quit healthy habits [6].

**Cultural Competence.** The medical services provided should respect diverse culture and social beliefs for students and employees [7].

**Integration with Academic Mission.** The medical service provided must be integrated with the academic mission. This is achieved by removing health-related barriers that prevent learning, such as providing medical documents for students and employees upon their request and announcing the legal methods of dealing with them inside and outside the university [8].

**Quality Improvement.** The health system within the university campus should undergo continuous improvements through staff medical training, seminars and conferences [9].

**Emergency and Safety.** The Campus must be ready to respond to public health emergencies, including infectious disease outbreaks, mental health crises, and environmental hazards [10].

**Mental Health.** Health care on campus must include mental and psychological care must be available with appropriate facilities ready to intervene when needed [11].

**Student Engagement.** Students -especially studying in medical colleges- must be involved in healthcare activities and services provided inside and outside the university campus [12].

**Environmental Health.** Campus should provide a healthy educational climate for students such as clear air availability, safe water, and green places [13].

#### 4. Healthcare process on Campus

This process indicates the curriculum that the university follows in providing medical services to its students and employees as follows:

**Needs Assessment and Health Surveillance.** Health care inside campus begins with data collection about the health needs of university employees. Then analyse the health features of students, identify risk factors, and common diseases [14]. Then the evaluation process is carried out through specialized concentration groups and feedback sessions.

**Planning and Program Development.** Based on the results of the previous evaluation, strategic plans for health services are presented by specialists and officials. After studying, health programs and services that will be provided within the university are determined. These programs must correspond to the university's mission and available resources [15].

**Service Delivery.** At this stage, health checks are offered to university employees, which include [16]: Public Health Services: by general medical examination, preventive treatment, and general diseases. Emergency Services: by rapid medical intervention of emergency cases and sudden injuries. Psychological and psychological health: through specialists and mental and mental health centres. Health awareness: by holding courses, seminars, health campaigns inside and outside the university.

**Referral and Coordination.** It takes place in health cases that need special care. This is done after examining the general doctor. Coordination must be made between the General Medical and the specialized care departments, as well as cooperation between the university and specialized medical agencies outside the university [17].

**Evaluation and Improvement.** Constant evaluation and improvement guarantee the quality of medical services provided on campus. This is done by measuring [18]: Satisfaction: by evaluating patients for the services provided to them. Performance: by measuring the patient's waiting time, work regularity, quality of service provided. Quality: through quality accreditation programs.

**Health Education.** Increased health culture among students through seminars, courses, and workshops. In addition to physical health enhancement programs, disease prevention, smoking, and drugs [19].

**Crisis Response.** This is done by the university's readiness to face crises such as outbreaks of infectious diseases, normal inheritance. The medical staff and employees inside the university should train in dealing with these matters through training courses and workshops provided for them. Health care provides students with the progress of academic results, reduce leakage rates, and health sustainability for university campus [20].

#### 5. The Medical City of Qassim University

The Medical City at Qassim University is the first specialized academic medical city in the Qassim region. See Figure 1. It provides advanced healthcare services to both citizens and residents. Strategically located, it serves all governorates of the region and is considered one of the largest emerging medical clusters.

The city aims to attract highly qualified professionals in various medical and health fields. It seeks to provide comprehensive and specialized healthcare services that meet the growing demand in the region. In doing so, it upholds the principles of service adequacy and high

quality for all patients.

The hospital aspires to deliver world-class medical care and to be among the best globally. It follows the highest standards set by the Joint International Accreditation Commission, which is responsible for establishing, monitoring, and maintaining excellence in the healthcare industry [21].

Established in 2017, the Medical City of Qassim University also provides healthcare services to students and staff on campus. Its facilities are designed to address student health needs efficiently and conveniently.

Through its medical centre, Qassim University offers extensive free healthcare services to all students. A dedicated team of 729 staff members delivers these services, including 303 physicians, 64 nurses, 27 technicians, and 135 healthcare professionals. This team can manage chronic conditions, offering preventive care, and diagnosing and treating common illnesses [22].



Figure 1. Qassim University Hospital in Medical City

**The Doctors.** The team of doctors and dentists includes a substantial number of highly qualified consultants and specialists. Many of them have completed fellowship programs and earned memberships in professional medical boards, supported by years of accumulated experience. To advance medical knowledge and professional development, the administration invests in continuous training programs and workshops. These initiatives ensure that doctors remain up to date with the latest medical techniques and innovations. Additionally, the institution organizes lectures and conferences and provides open electronic access to a wide range of renowned medical references and resources at the highest academic level.

**Nursing Team.** Following a comprehensive assessment and evaluation, the multicultural nursing team demonstrated excellence in both clinical skills and patient care. This achievement was the result of applying exemplary medical practices that align with the highest international standards in nursing. Patient-centred care was placed at the core of the team's mission. The prioritization of patients and their families became a key benchmark for measuring the team's professionalism and commitment to service excellence.

**Technology and equipment.** Patient information and medical records have become easily accessible using advanced computer technologies. This is complemented by the availability of state-of-the-art diagnostic radiology equipment and well-equipped laboratories.

**Medical facilities and specialities.** In January 2017, Qassim University Medical City established a private healthcare centre with a capacity of 751 beds. The centre is supported by a highly trained and professional medical team committed to delivering quality care.

**Medical specialities.** Qassim University Medical City offers a wide range of medical specialties, including (internal medicine, cardiology, neurology, neurosurgery, psychology, kidneys, gastroenterology, pulmonology, dermatology, children, obstetrics and gynaecology, endocrinology, endoscopic and general surgery, plastic surgery, urology, orthopaedics, oral and dental medicine, ophthalmology, otolaryngology, anaesthesia and pain management, audiology, emergency medicine, and radiology).

**The laboratory and radiology departments.** The laboratory and radiology departments are fully equipped with state-of-the-art technology and are managed by highly qualified specialists in radiology and pathology. These departments provide continuous support to all clinical units within the Medical City, ensuring accurate diagnosis and effective treatment.

## 6. Setting and Infrastructure

It is essential for students to be familiar with the health services available at their university, including clinic operating hours and appointment procedures. This information is typically accessible through the university's official website or provided during orientation programs for new students. Below are the key health services offered at the Medical City of Qassim University.

**Primary Health Care.** Qassim University provides primary healthcare services to students through specialized outpatient clinics. These services include: General medical care for common illnesses and injuries; Preventive healthcare; and Management of chronic conditions [23]. Figure 2.



Figure 2. Outpatient clinics in Qassim University

**Urgent Care.** Urgent care services address non-life-threatening medical conditions that require immediate attention. These may include the treatment of minor wounds, infections, or sudden illnesses that cannot wait for a scheduled appointment.

Qassim University provides 24/7 urgent medical support for its students. This includes access to a medical helpline or hotline that students can contact in case of urgent health concerns. Figure 3.

**Diagnostic Facilities.** The Medical City at Qassim University is equipped with advanced diagnostic facilities that support the accurate diagnosis and treatment of various medical conditions. These include a wide range of laboratory tests and imaging services such as: X-

rays; Computed Tomography (CT) scans; Magnetic Resonance Imaging (MRI); Ultrasound; and Mammography. See Figure 4.



Figure 3. Medical City urgent care building and services



Figure 4. Diagnostic Facilities in the medical city of Qassim University

Qassim University Medical City obtained an unconditional license for medical radiation diagnosis, granted by the Nuclear and Radiological Regulatory Authority. This license reflects the Medical City's excellence in the use of radiology equipment and its adherence to national regulatory standards.

As part of its commitment to safety, the Medical City implements a comprehensive radiation protection program. This includes: An emergency response plan for the radiology department; Continuous monitoring of personal radiation doses for staff; and Monitoring patient exposure during radiological examinations. These measures ensure both patients and staff benefit from enhanced radiation safety in accordance with the highest international standards. This achievement highlights the Medical City's ongoing commitment to providing safe, high-quality healthcare services and continually improving patient care.

**Surgical Interventions.** Qassim University Medical City offers a broad range of surgical interventions, from minor outpatient procedures to complex operations requiring advanced equipment and expert medical teams. Over the past two years, several advanced surgical interventions have been successfully implemented at the facility.

Qassim University Medical City has launched comprehensive dental rehabilitation procedures for children under general anaesthesia at its university hospital. This initiative is the first of its kind at the Medical City and serves as an effective treatment option for: Children suffering from severe dental decay or infections; Children with dental phobia or fear of local anaesthesia; and Patients with special needs who require full sedation for treatment.

The Head of the Department of Orthodontics and Paediatric Dentistry at the College of Dentistry explained that these procedures offer an ideal solution for complex paediatric dental cases. Treatment is delivered safely under general anaesthesia, followed by appropriate post-operative care. The University Dental Hospital also provides a variety of



dental services to all segments of society, supported by highly qualified and specialized medical staff across its departments. Figure 5.

It is worth noting that the Medical City has performed over 1,000 surgical operations across multiple specialties-reflecting the dedication and effectiveness of its healthcare teams in delivering exceptional medical care [24].



Figure 5. Comprehensive dental rehabilitation operations for children under full anaesthesia in the medical city Qassim university hospital

#### **6.1. Successful Implantation of the First “Ahmed Valve” for Glaucoma at Qassim University Medical City**

A medical team at Qassim University Medical City successfully performed the region’s first implantation of the **Ahmed Valve** to treat glaucoma. Figure 6. The procedure was carried out on a 60-year-old patient who had been suffering from severe eye pain and retinal disease.

The team leader explained that the operation involves placing a small valve inside the eye under local anaesthesia. This valve helps drain excess aqueous fluid, reducing the high intraocular pressure that causes glaucoma. He emphasized that the Ahmed Valve is an innovative medical solution and a highly effective alternative to traditional glaucoma surgery, allowing patients to resume their normal activities soon after the procedure.

The Head of the Ophthalmology Department noted that this achievement is part of a series of advanced surgeries performed by the department, which includes a team of expert consultants and specialists across different eye care disciplines. This reflects the Medical City's ongoing commitment to enhancing healthcare services in the region.

It is worth noting that the **Ahmed Valve** is named after its inventor, Dr. Mateen Ahmed, and is considered one of the most advanced technologies currently used to treat glaucoma [25].

##### **6.1.1. Comprehensive dental rehabilitation for children under general anaesthesia**

Qassim University Medical City has launched comprehensive dental rehabilitation procedures for children under general anaesthesia at its university hospital—marking the first initiative of its kind within the Medical City. These procedures provide an effective solution for children suffering from severe tooth decay or dental infections, especially those with extreme dental anxiety or who cannot tolerate local anaesthesia. This includes children with special needs.





Figure 6. The first “Ahmed valve” transplant to treat glaucoma in the Qassim University Medical City

The Head of the Department of Orthodontics and Paediatric Dentistry at the College of Dentistry explained that this approach offers a safe and effective solution to various dental problems. The procedures are performed under full anaesthesia, followed by appropriate postoperative care. The University Dental Hospital in the Medical City delivers comprehensive dental treatments to all segments of society, supported by highly qualified and specialized medical staff across multiple departments.

It is noteworthy that Qassim University Medical City has performed over 1,000 surgeries in various specialties, highlighting the ongoing efforts of its healthcare teams to provide high-quality medical care [26].

#### **6.1.2. Successful treatment of haemorrhoids using interventional radiology**

A specialized interventional radiology team at Qassim University Medical City successfully treated a young man suffering from persistent haemorrhoids that were unresponsive to medication.

The head of the medical team explained that the patient had endured long-term symptoms, and after thorough evaluation, interventional radiology was identified as the best treatment option. The patient opted for this non-surgical technique, performed under local anaesthesia—used for the first time in the Qassim region. The procedure was successful, and the patient was discharged shortly afterward with significant improvement.

This minimally invasive technique, involving a catheter inserted through a 2 mm incision at the top of the thigh, uses imaging guidance to reach the arteries feeding the haemorrhoids. It offers high success rates comparable to traditional surgery, minimal complications, and quicker recovery [27].

#### **6.1.3. Innovative Treatment of Urethral Stricture Using the "Optilume" Therapeutic Balloon**

A urology team at Qassim University Medical City successfully treated a patient suffering from severe urethral stricture and urinary difficulty following a previous surgery, using the advanced Optilume Therapeutic Balloon.

The treating physician noted that this modern technology features a drug-coated balloon that effectively treats the stricture and significantly reduces the chance of recurrence.

Urethral stricture is a common condition among men that can lead to serious complications if left untreated. The Optilume balloon offers a safe and effective solution with long-term benefits [28].

**Physical therapy and rehabilitation at the Medical City.** Physical therapy and rehabilitation services were among the first departments to begin operating at the University Hospital within Qassim University Medical City. Figure 7. These services are designed to deliver structured rehabilitation programs with the following features [29]: Utilization of modern equipment and highly trained specialists; Emphasis on therapeutic exercises and injury awareness; Provision of educational and clinical training services; Availability of a certified clinical practitioner in accordance with American Society standards; A collaborative work environment focused on safety, quality, and excellence; Use of advanced therapeutic devices for patient recovery; and Educational support for internship trainees.

- **Objectives of physical therapy and rehabilitation.** Supporting individual health in a professional care environment, delivering patient-centred care, and designing customized rehabilitation plans based on each patient's condition.
- **Services provided.** Treatment of musculoskeletal injuries and disorders, Provision of splints and prosthetics, and Rehabilitation for sports injuries, burns, ICU recovery, women's health, cardiopulmonary cases, neurological conditions, cancer patients, children, and the elderly.



Figure 7. Some physical therapy and rehabilitation rooms at the Medical City

**Immunizations.** To comply with university immunization requirements, student medical facilities at Qassim University offer a range of vaccinations against common diseases such as meningitis, human papillomavirus (HPV), and seasonal influenza. These immunizations help safeguard the health of the student population and prevent the spread of infectious diseases on campus.

Since the beginning of the COVID-19 pandemic, Qassim University has been committed to safeguarding the health and well-being of its international students, more than 1,200 students representing 90 nationalities. Figure 8. The university, through the Deanship of Student Affairs, sustained its support for nearly four months, ensuring that students received both medical care and essential living services. This effort included the establishment of health quarantine facilities and specialized medical clinics, in collaboration with the Medical City, the Health Cluster, and the General Directorate of Health Affairs. Key measures implemented by the university included: Establishing 3 quarantine centres; Assigning 15 medical staff; Providing 8 dedicated mobile phones for communication and service coordination; and Engaging 10 student volunteer clubs. Additionally, the university

distributed: cover 4,000 face masks; 1,000 prayer rugs; 5,000 gloves; 1,800 meals daily; and over 10,000 sanitizing and cleaning supplies.

The Scholarships Department played a vital role in securing travel arrangements for students wishing to return to their home countries. This included: Booking travel tickets; Verifying and renewing expired passports in coordination with embassies; Communicating with airlines to manage evacuation logistics; and Ensuring valid residency status and visas for students planning to travel [30].



Figure 8. COVID-19 Vacation Centre in Qassim University

The Deanship of Student Affairs held several meetings with international students to identify their needs and ensure they were met. Figure 9. A command-and-control centre was established to manage the crisis. It included 15 specialized committees, a mobile unit in the student housing, and a volunteer club responsible for delivering all necessary services. Daily communication points were set up between beneficiaries and service providers to ensure that all daily needs and requirements were addressed. In addition, a 24/7 emergency contact number was provided.

The university also assisted students who wished to return to their home countries. So far, 900 students have been repatriated, and the university continues to facilitate these efforts in coordination with the relevant authorities.

All preventive and precautionary measures were implemented in accordance with the guidelines issued by the competent health authorities to effectively manage the crisis and mitigate its impact.



Figure 9. Part of the deanship's meetings and the doctors' meeting with the beneficiaries inside the crisis command centre

During the crisis, the university's Housing Administration ensured that all housing requirements were met. It closely monitored maintenance work and made efforts to provide students with essential tools and supplies, even those needed from outside the residence.

Mobile teams conducted daily inspections of both internal and external areas of the residence wings. By being stationed within the university, they were able to offer continuous, round-the-clock service. They monitored approximately seven buildings, overseeing the entry and exit processes and ensuring that there were no infected or suspected cases among residents.

The Volunteer Club played a vital role in distributing food supplies. It delivered three meals daily, totalling 1,800 meals, to all students. Student volunteers prepared and distributed the meals using designated containers, following accurate lists for each building, wing, and room.

The Medical Administration operated 24/7 in coordination with the Command-and-Control Centre. It provided treatment and medical consultations, facilitated clinic visits, delivered medications, and performed daily follow-ups and examinations in students' rooms. In addition, the Ministry of Health clinic remained active within the student housing to support healthcare needs.

Meanwhile, the Nutrition Department ensured the regular preparation and delivery of meals. Nutrition specialists supervised food safety within the kitchen and monitored the scheduled distribution of meals to all buildings.

**Health Promotion and Education Programs.** Qassim University implements a range of health promotion initiatives aimed at raising awareness on various health topics. These initiatives include campaigns, workshops, seminars, and events designed to educate and encourage students to adopt healthier lifestyles. The university has organized events focused on healthy living, such as fitness classes, nutrition counselling, smoking cessation programs, and overall well-being activities. Figure 10 and 11.



Figure 10. Comprehensive periodic inspection of university housing students



Figure 11. Place for holding seminars, courses, and health meetings.

**Counselling Services.** A crucial aspect of the on-campus student health clinics is mental health support, provided by a team of expert psychologists. These professionals offer private counselling services to help students manage emotional, psychological, and interpersonal challenges such as anxiety, depression, and substance abuse.

**Accessibility Services.** Qassim University offers accessibility services to support students with disabilities or chronic health conditions. These services include accommodations, assistive technology, and resources designed to ensure equal access to education and campus facilities.

**Pharmacy Services.** The Medical Centre at Qassim University offers convenient on-site pharmacies where students can easily pick up their prescribed medications. Figure 12.

**Collaboration with Community Healthcare Providers.** Qassim University has established strong partnerships with local healthcare providers to ensure that students have access to specialized care beyond the scope of on-campus services. These collaborations include patient referrals, coordination of care, and smooth transitions for students requiring specialized medical attention.



Figure 12. One of the pharmacies of the Medical City at Qassim University

- **Cooperation between Qassim University Medical City and Al-Faisal Hospital**  
Under the patronage of the Prince of the Qassim Region, His Royal Highness Dr. Faisal bin Mishal, a cooperation agreement was signed between Qassim University Medical City and the General Corporation of King Faisal Hospital and Research Centre. Figure 13.

The agreement outlines a partnership focused on developing and implementing policies and procedures at Qassim University Medical City to ensure the highest standards of care and patient safety. It aims to improve the patient experience, provide continuous education and training for medical staff, and address workforce challenges in healthcare.

The collaboration also includes initiatives to strengthen health partnerships through joint efforts in education, clinical practice, training, technology, and research. The goal is to promote the exchange of knowledge and expertise, support health services, and enhance the professional skills of healthcare workers on both sides.

The prince emphasized that such agreements are a practical realization of coordination, which serves as a cornerstone for success and excellence. He highlighted that this cooperation would enhance the quality of services provided by the university



hospital, ultimately benefiting all its stakeholders [31].



Figure 13. The signing of a cooperation agreement between the Medical City at Qassim University, the General Corporation of King Faisal Hospital, and the Research Centre.

- **A cooperation agreement to train and qualify bachelor's and internship students.**

Sulaiman Al-Habib Medical Group signed a cooperation agreement with Qassim University to train and qualify bachelor's and internship students at Dr. Sulaiman Al-Habib Hospital in Qassim. This agreement aims to help students integrate into the professional work environment by providing them with field-based and practical experience, as well as enhancing their professional training and performance.

Under the agreement, the hospital will provide practical training for students at the bachelor's and honours levels, aiming to improve their knowledge and skills and enable them to apply their academic learning in a high-level clinical setting. The partnership also includes the exchange of academic, medical, and scientific expertise, collaboration in research and joint studies, supervision of clinical and applied research, and support for professional development and continuing medical education programs [32].

It is worth noting that Dr. Sulaiman Al-Habib Medical Group is one of the largest healthcare organizations in the Kingdom with a strong track record in training and rehabilitation. Among its key initiatives are the launch of 27 fellowship and diploma programs across various specialties and the qualification of over 2,500 healthcare practitioners from 18 universities during their internship period.

- **Cooperation agreement with Al-Dawa Medical Services Company Limited.**

Qassim University signed an educational and training cooperation agreement with Al-Dawa Medical Services Company Limited at the University City headquarters. The agreement aims to enhance effective collaboration in developing education and training methods at multiple levels. The cooperation includes experience sharing, joint community service initiatives, and student rehabilitation and training. It also focuses on collaboration in the areas of training, research, and education. Additionally, the agreement supports cooperation in equipping the College of Pharmacy laboratories and contributing to curriculum development aligned with the college's strategic goals. It includes training opportunities for pharmacy students within the company's



network of pharmacies and promotes joint research efforts related to community pharmacy practices and the educational sector. The agreement also facilitates research activities for students and faculty members in these fields [33].

- **Sustainable partnerships with the non-profit sector.** In pursuit of sustainable partnerships with the non-profit sector, Qassim University Medical City signed a community partnership agreement with the Rheumatology Society of Saudi Arabia. The agreement includes performing 50 knee replacement surgeries for patients suffering from rheumatism and osteoarthritis in the Qassim region [34].

## 6.2. Blood donation

### 6.2.1. Collaboration with the Dami Association

Qassim University Medical City, in cooperation with the Dami Association, launched a blood donation campaign titled *"My Blood for the Pilgrims of the Holy House of God."* This initiative took place at the University Hospital and aimed to support pilgrims through blood donations [35].

### 6.2.2. Blood donation initiative

As part of the Nursing Month activities, the Medical City at Qassim University-through its Laboratory Department and Blood Bank-activated a blood donation campaign in collaboration with the Dami Association. The initiative aimed to promote awareness about the importance of blood donation among Medical City staff and patients [36]. See Figure 14.



Figure 14. The Executive Director of the Medical City and some doctors donating blood inside Qassim University Hospital

### 6.2.3. "92<sup>nd</sup> Saudi National Day" blood donation campaign

The Medical City at Qassim University organized a blood donation campaign in celebration of the 92nd Saudi National Day. The event was held at the main campus headquarters in University City [37]. See Figure 15.



Figure 15. A blood donation campaign on the 92nd Saudi National Day

#### 6.2.4. World Blood Donor Day campaign

Under the slogan *"Because a drop of blood revives hopes,"* and in cooperation with the Qassim Health Cluster and the Dami Association, the staff of the Medical City at Qassim University participated in a blood donation campaign. This event coincided with World Blood Donor Day and was held at the Medical City [38]. Figure 16.



Figure 16. World Blood Donor Day in the Medical City at Qassim University

#### 6.3. Medical and awareness seminars

##### 6.3.1. Nutrition awareness campaign

Under the slogan *"Your choice of food makes a difference,"* the Medical City at Qassim University, represented by the Department of Nutrition, organized an awareness seminar focused on healthy eating habits [39]. Figure 17.



Figure 17. An awareness seminar on healthy eating

##### 6.3.2. Low back pain seminar

The Department of Academic Affairs and Training, in collaboration with the Department of Physical Therapy and Rehabilitation at the Medical City at Qassim University, organized a seminar on lower back pain. The seminar, presented by a team of physical therapists, was aimed at educating the Medical City's employees about prevention techniques and effective treatment methods [40]. Figure 18.



Figure 18. Seminar on low back pain in Qassim University

##### 6.3.3. Medication safety and the role of health practitioners in the optimal use of medication

The Department of Pharmaceutical Services at the Medical City at Qassim University continues to host a series of periodic lectures on the topic of medication safety. The lectures

focus on the important role of health practitioners in the optimal use of medications to ensure patient safety and effective treatment [41]. Figure 19.



Figure 19. Lecture on drug safety and the role of practitioners in the optimal use of medication.

#### 6.3.4. Anaesthesia and analgesia workshop

As part of Qassim University's commitment to continuous development, the Medical City at Qassim University conducted a workshop on "*Anesthesia and Analgesia*." The workshop, led by specialists from the city's medical staff, aimed to educate healthcare practitioners about anesthesia and its different levels [42]. Figure 20.



Figure 20. Anaesthesia and analgesia workshop

#### 6.3.5. An introductory training course for the College of Nursing

The Department of Academic Affairs and Training, in collaboration with the Department of Nursing at the Medical City at Qassim University, held an introductory course for female students from the College of Nursing. This initiative was part of their ongoing scientific and training partnership. The visit concluded with a tour to familiarize the students with the services provided in the Medical City facilities [43]. Figure 21.



Figure 21. An introductory training course for the College of Nursing

#### 6.3.6. 'Field Medic' training course

To enhance the role of security personnel, the Medical City at Qassim University organized a training course titled "*Medic in the Field*." The course aimed to equip participants with the basics of first aid and the appropriate methods for handling injured individuals [44]. Figure 22.





Figure 22. 'Field Medic' training course

#### 6.4. Training courses

The Department of Academic Affairs and Training at Qassim University Medical City, represented by the Clinical Simulation Center, organized several training courses.

##### 6.4.1. “BLS” Basic Cardiac Life Support, “ACLS” Advanced Cardiac Life Support courses

The Academic Affairs and Training Department, represented by the Clinical Simulation Centre at Qassim University Medical City, hosted two courses on Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) in September 2023. These courses were repeated in December 2023 and February 2024 [45, 46, 47]. Figure 23.



Figure 23. Basic Cardiac Life Support, “ACLS” Advanced Cardiac Life Support courses

##### 6.4.2. First Aid Course

In collaboration with the Western Academic Complex at Qassim University, the Medical City provided a specialized *First Aid* training course for female employees from the complex's colleges. A total of 76 trainees benefited from this course, which was held at the College of Business Administration headquarters in Al-Rass [48].

##### 6.4.3. First aid principles course

In conjunction with World First Aid Day, Qassim University Medical City trained over 600 participants in the principles of first aid [49].

#### 6.5. Medical activities inside medical City

##### 6.5.1. Gulf Oral and Dental Health Week

The Medical City at Qassim University, in cooperation with the Saudi Society for Periodontology and Surgery, hosted the Gulf Oral and Dental Health Week event titled “*My Health Begins with My Mouth.*” This event aimed to raise awareness about the importance of oral hygiene, dental health, and how to maintain it [50]. Figure 24.



Figure 24. The event of the Gulf Oral and Dental Health Week in the Medical City

#### 6.5.2. An awareness event on World Physiotherapy Day

The Medical City at Qassim University, represented by the Department of Physical Therapy and Rehabilitation, organized an awareness event on World Physiotherapy Day. The event aimed to highlight prevention and treatment methods for knee osteoarthritis [51].

#### 6.5.3. The effectiveness of Saudi Pharmacist Day

Qassim University Medical City participated in Saudi Pharmacist Day, aiming to raise awareness about the correct use of medications, particularly for elderly patients. The event was attended by the Executive General Director, the Medical Director, and several employees and visitors in the outpatient clinics building [52]. Figure 26.



Figure 25. Water Recycling Station in Qassim University



Figure 26. Event of the effectiveness of Saudi pharmacist day in Qassim University

#### 6.5.4. Exhibition of the present and future of nursing

The Medical City at Qassim University, represented by the Nursing Department, organized an introductory exhibition discussing various topics related to the present and future of nursing, both locally and globally. The exhibition emphasized the role of nursing in the healthcare system and was attended by the Medical Director, the Director of Academic Affairs and Training, as well as several employees and visitors [53]. Figure 27.



Figure 27. Exhibition of the present and future of nursing in Qassim University

#### 6.5.5. Radiology Department Exhibition

In celebration of World Radiology Day, the Medical City at Qassim University, through the Radiology Department, held an awareness exhibition. The exhibition aimed to showcase the integral role of the medical team in radiology, with the Executive General Director, directors of medical departments and divisions, and visitors in attendance. The exhibition was held in the main hospital lobby [54]. Figure 28.



Figure 28. The Event of radiology department exhibition

#### 6.5.6. “Be proud of your mouth” Gallery

Under the slogan “*Be Proud of Your Mouth,*” the Medical City, represented by the Dental Hospital, organized an exhibition in alignment with World Oral and Dental Health Day. The event aimed to demonstrate various treatment methods and emphasize the importance of oral and dental prevention [55]. See Figure 29.



Figure 29. Gallery "Be proud of your mouth" in Qassim University Medical City

### 6.6. Medical activities Outside medical City and community service

#### 6.6.1. Medical participation in Buraidah Spring Festival 44

The Medical City at Qassim University, in collaboration with the Deanship of Student Affairs, participated in the Qassim University pavilion at the 44th Buraidah Spring Festival. The participation aimed to raise awareness and educate visitors on various health topics throughout the festival period [56]. Figure 30.





Figure 30. Medical participation in Buraidah Spring Festival 44

#### 6.6.2. "How is your health?" awareness campaign?

The Medical City at Qassim University organized an awareness campaign titled *"How Is Your Health?"* The campaign included various educational corners: blood pressure and diabetes checks, medical consultations on heart health, first aid guidance, and information about natural birth. This campaign was held at the Al-Othaim Complex in Buraidah [57]. Figure 31.



Figure 31. Activities of the "How is your health?" campaign. In Al Othaim Complex

#### 6.6.3. Oral and dental health and their relationship to diabetes

In cooperation with the Unayzah Sugar Association, the Dental Hospital at Qassim University Medical City participated in an awareness event aimed at educating the public about the relationship between oral and dental health and diabetes. The event was held at Nakheel Avenue in Unayzah [58]. Figure 32.



Figure 32. The Dental Hospital participated with the Unayzah Sugar Association in an awareness corner to educate about oral and dental health and their relationship to diabetes, in Unayzah.

#### 6.6.4. Awareness exhibition for the elderly

In conjunction with International Day of the Elderly, the Department of Physical Therapy and Rehabilitation at Qassim University Medical City, in collaboration with the Wahat Al-Wafa Association for Supporting the Elderly, organized an awareness exhibition at the

association's headquarters in Unayzah. The exhibition focused on educating the elderly about movement and physical issues that may affect them [59]. See Figure 33.



Figure 33. Exhibition activities at the association's headquarters in Unayzah coinciding with the International Day of Older Persons

## 7. Conclusions

Academic success for students not only depends on the educational process but also on the health care provided to them. Therefore, these services should be complete and compatible with the advanced community needs. Medical care on campus is in several stages. It begins with determining the required health needs and specialties, then developing strategic health plans, then providing integrated medical services, then continuous evaluation and improvement, with a focus on health education for students. Academic performance is largely affected by health care on campus. Students who maintain their health with periodic follow -up in university clinics, can increase focus, productivity and general academic achievement.

Medical care in the university campus enhances public and well -being for students and employees. All colleges within the University of Qassim realize the importance of health care for students and university members. The university provides many medical services that can be easily accessible and available in time. As a result, it enhances the most positive and supportive campus culture.

Universities and healthcare facilities work on the Qassim campus together to provide lectures, workshops and awareness campaigns related to health that give students the information and capabilities they need to live a healthy life. Health facilities on the Qassim University campus support the general performance of students and employees by providing easy access to high -quality health care services, meeting public health requirements, whether physical or mental, and enhancing the atmosphere of health campus. Qassim University maintains medical care. This funding is one of the most important factors for building a vibrant student's body and ensuring the welfare of future generations.

Despite the distinction of medical services on Qassim campus, some specialties have great pressure. As it takes a long time before it, it may reach a month. Therefore, clinics and doctors must be increased in these departments.

Some medical departments, such as dental, do not have specialized surgeries, such as dental implants, therefore this service must be provided, especially for the organs of the older teaching staff.

Some of the medicines written for the patient are not present in the university's pharmacies, and some of which are done from outside the university, despite the presence of a private pharmacy, so all medicines must be provided inside the university.

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