

# Research Operation Plan Report

## College of Pharmacy

1445 H

Prepared by

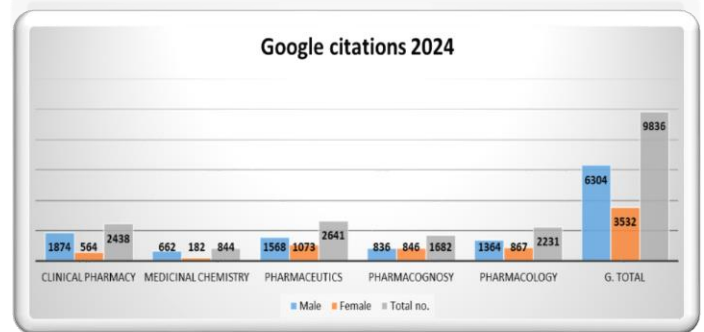
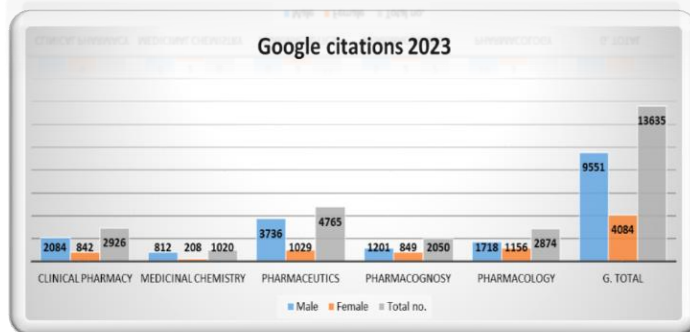
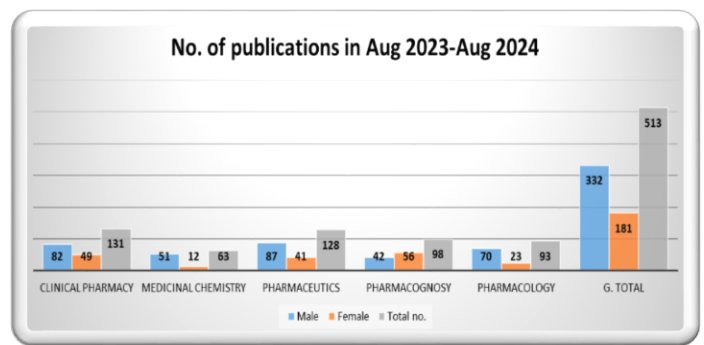
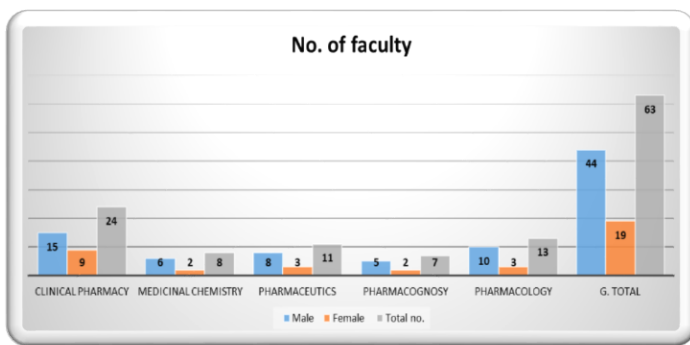
Vice Deanship for Research and Postgraduate Studies (VDRPS)

### College of Pharmacy Research Activities and Accomplishments:

Activities	Descriptions	Status
<b>PharmD Program-Level Research Activities and Accomplishments</b>		
<ul style="list-style-type: none"> <li>The Research Design Seminar course (1+2 credit) has been introduced in the New PharmD curriculum.</li> </ul>	This course has been proposed, and its CS has been resolved. It is proposed for the new PharmD program curriculum.	Approved
<b>College-Level Research Activities and Accomplishments</b>		
<ul style="list-style-type: none"> <li>The college successfully hosted the International Conference on Complementary Medicine – Opportunities and Challenges.</li> </ul>	The college successfully hosted the International Conference on Complementary Medicine – Opportunities and Challenges, bringing together experts and researchers from around the world to discuss advancements in the field.	Achieved
<ul style="list-style-type: none"> <li>The proposal for the establishment of the Animal House has been submitted.</li> </ul>	The pharmacology department had proposed the establishment of an animal house on the Al Faraa campus. The educational services committee and Dean approved the proposal and sent it to the University administration for final approval.	Submitted
<ul style="list-style-type: none"> <li>Instruments for the Cell Culture Lab.</li> </ul>	Instruments for the Cell Culture, including a biosafety cabinet and an incubator, have been brought to the college to enhance research and development capabilities and located under the responsibility of the department of pharmacology.	Achieved
<ul style="list-style-type: none"> <li>Inspiring Pharmacist Day 2024: Advancing Research and Showcasing Innovation through Posters.</li> </ul>	Inspiring Pharmacist Day 2023 was a remarkable event highlighting pharmacists' vital role in research and innovation. The day featured an engaging poster exhibition where students and professionals presented their cutting-edge research and innovative projects. Attendees participated in lively discussions, received valuable feedback from experts, and collaborated with peers on various topics. The event successfully inspired the next generation of pharmacists, promoting a culture of excellence in scientific discovery and professional growth within the pharmacy field. It was a day that celebrated the impact of research and the innovative spirit of the pharmacy community.	Achieved
<ul style="list-style-type: none"> <li>Outstanding Achievements: Female Faculty Members Honored with Promising Researcher and Abundance of Research Awards at King Khalid University.</li> </ul>	Three female faculty members received three prestigious awards during the annual recognition event at King Khalid University in 1445 H. These awards included the Promising Researcher Award and the Abundance of Research Award, highlighting their exceptional contributions to research and academic excellence.	Achieved
<b>Graduate Program-Level Research Activities and Accomplishments</b>		
<ul style="list-style-type: none"> <li>All the students participate in the Poster and Extracurricular Activity Day for postgraduate students, where posters are presented.</li> </ul>	The Poster and Extracurricular Activity Day for postgraduate students is an event dedicated to showcasing the research efforts and professional development of students. It provides a platform where students present their research posters, highlighting their findings, methodologies, and contributions to their respective fields.	Achieved
<ul style="list-style-type: none"> <li>Empowering Postgraduates: Professional Skills Lectures for Academic and Career Success.</li> </ul>	Several professional skills lectures were offered to support postgraduate students' development. These lectures included "Stressors and Coping Strategies," which provided valuable insights into managing academic and personal pressures effectively. The "Customer Relationship Management" lecture focused on the importance of building and maintaining professional relationships, a key skill in both academia and industry.	Achieved

### Research Statistics in 1445 H

	Department	Clinical Pharmacy	Medicinal Chemistry	Pharmaceutics	Pharmacognosy	Pharmacology	Total
No. of Faculty	Male	15	6	8	5	10	44
	Female	9	2	3	2	3	19
	<b>Total no.</b>	<b>24</b>	<b>8</b>	<b>11</b>	<b>7</b>	<b>13</b>	<b>63</b>
No. of publications in 23-24	Male	82	51	87	42	70	332
	Female	49	12	41	56	23	181
	<b>Total no.</b>	<b>131</b>	<b>63</b>	<b>128</b>	<b>98</b>	<b>93</b>	<b>513</b>
Google Scholar citations 2023	Male	2084	812	3736	1201	1718	9551
	Female	842	208	1029	849	1156	4084
	<b>Total no.</b>	<b>2926</b>	<b>1020</b>	<b>4765</b>	<b>2050</b>	<b>2874</b>	<b>13635</b>
Google Scholar citations 2024	Male	1874	662	1568	836	1364	6304
	Female	564	182	1073	846	867	3532
	<b>Total no.</b>	<b>2438</b>	<b>844</b>	<b>2641</b>	<b>1682</b>	<b>2231</b>	<b>9836</b>



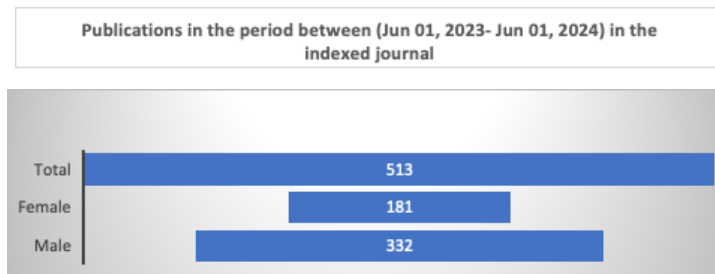
## Key Performance Indicators (KPIs) Overview and Summary

### 1- KPI-09: Percentage of Publications of Faculty members (Percentage of full-time faculty members who published at least one research during the year to total faculty members in the institution):

- Percentage of full-time faculty members who published at least one research during the year to total faculty members in the institution 96.6 % .
- Percentage of full-time **Female** faculty members who published at least one research during the year to total faculty members in the institution: 100%.
- Percentage of full-time **Male** faculty members who published at least one research during the year to total faculty members in the institution: 95%.

### 2- KPI-10: Rate of published research per faculty member (The average number of refereed and/or published research per each faculty member during the year (total number of refereed and/or published research to the total number of full-time or equivalent faculty members during the year)

- Total number of refereed and/or published research is 513 articles and the total number of faculty is 63:  $513/63= 8.1:1$  publications/Faculty members.
- Published Rate per **Female** faculty member:  $181/19= 9.5:1$
- Published Rate per **Male** faculty member:  $332/44= 7.5:1$



### 3- KPI-11: Citations rate in refereed journals per faculty member (The average number of citations in refereed journals from published research per faculty member in the institution (total number of citations in refereed journals from published research for full-time or equivalent faculty members to the total research published):

- Total number of citations in refereed journals from published research for full-time or equivalent faculty members  $13635/513= 26.5:1$  Citations/Published research.
- Total number of citations in refereed journals from published research for full-time or equivalent faculty members (**Female**):  $4084/181= 22.5: 1$
- Total number of citations in refereed journals from published research for full-time or equivalent faculty members (**Male**):  $9551/332= 28.7:1$

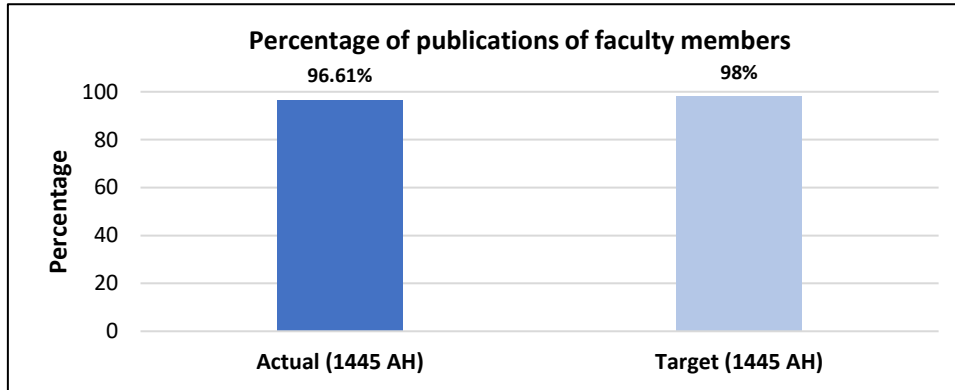
### 4- KPI-15: Average score of both research course in the program and the obligatory research rotation for the Pharmacy intern students.

- The actual score of 95.05% is quite close to both the internal benchmarks, indicating that the program is effectively preparing students for their research rotations.

## Comprehensive Analysis of Key Performance Indicators (KPIs)

### KPI-09: Percentage of Publications of Faculty members

NCAAA KPI Reference		Standard-4 KPI-P-9				
Program KPI reference		KPI-P-09				
KPI		Percentage of publications of faculty members				
Periodical Measurement		Actual (1445 AH)	Target (1445 AH)	Internal Benchmark (1444 AH)	External Benchmark (1445 AH)	Target (1446 AH)
Annual	Male:	95%	98%	97.2%	98%	97%
	Female:	100%	98%	95%	56%	97%
	Overall:	96.61%	98%	96%	86.6%	97%



#### Data Analysis

The KPI data was collected by tracking the percentage of faculty members actively engaged in research publications. The percentage of full-time faculty members who published at least one research paper during the year is 96.61% (57 out of 59). Female faculty publication rate is 100% and the male faculty publication rate is 95%. While the overall rate is approximately very closer to the target benchmark of 98%, it aligns with the internal benchmark (96%). Female faculty members achieved exceptional performance, surpassing benchmarks, while male faculty members showed room for improvement to meet the target.

#### Strengths

- The overall publication rate of 96.61% indicates that the majority of faculty members are actively engaged in research.

#### Weakness

- While the overall performance is strong, there is potential to further support faculty members to help them increase their publication output. The institution can focus on increasing the publication rate to reach or exceed the target, improving the overall research profile.

#### Recommendations

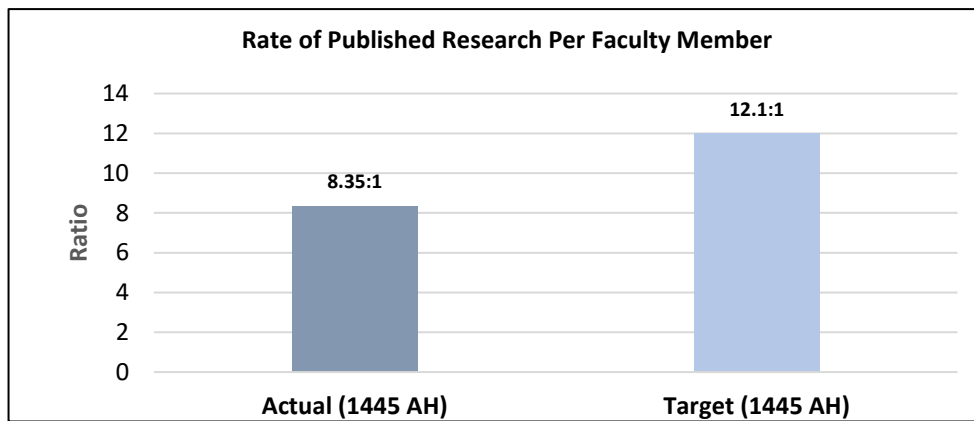
- Encourage faculty members to apply for more KKKU and external fund organizations as much as possible.
- Establishment of the research laboratory and make it accessible for all researchers (Male and Female).

#### Action Plan

- Conduct training workshops on various modern devices and technologies that can help enhance research.
- Encourage faculty members to present scientific lectures/workshops/webinars where knowledge can be exchanged and good communication can be obtained.

**KPI-10: Rate of published research per faculty member**

NCAAA KPI Reference		Standard-4 KPI-P-10				
Program KPI reference		KPI-P-10				
KPI		Rate of Published research per faculty members				
Periodical Measurement		Actual (1445 AH)	Target (1445 AH)	Internal Benchmark (1444 AH)	External Benchmark (1445 AH)	Target (1446 AH)
Annual	Male:	7.8:1	12:1	9.8:1	10.02:1	8.5:1
	Female:	9.53:1	12:1	11.7:1	3.48:1	8.5:1
	Overall:	8.35:1	12:1	10.5:1	7.84:1	8.5:1



**Data Analysis**

The data for this KPI was collected by calculating the total number of research publications published by the faculty members and calculating the publication rate per faculty member. The data was analyzed for both male and female faculty members and compared against internal, and target benchmarks. The actual publication rate per faculty member was 8.35:1 overall, with 7.8:1 for male faculty members and 9.53:1 for female faculty members. This is significantly below the target benchmark of 12:1 for both male and female faculty, and also below the internal benchmark of 10.5:1. Faculty members may be struggling to balance teaching, administrative duties, and research, leading to fewer publications. Male faculty members, in particular, show a lower publication rate, which may indicate a need for additional support or targeted interventions.

**Strengths**

- The faculty members competently participated in research and scientific production activities.
- Inspiring Pharmacist Day made an excellent impact on the faculty members' research.
- Three faculty members were awarded with the best researchers in the university.

**Weakness**

- The institution can improve overall publication rates by providing additional resources and support for faculty research efforts.
- The target was not fully achieved, primarily due to the significant increase in publication fees imposed by scientific journals this year. Despite this challenge, the college demonstrated notable progress toward its goals.

**Recommendations**

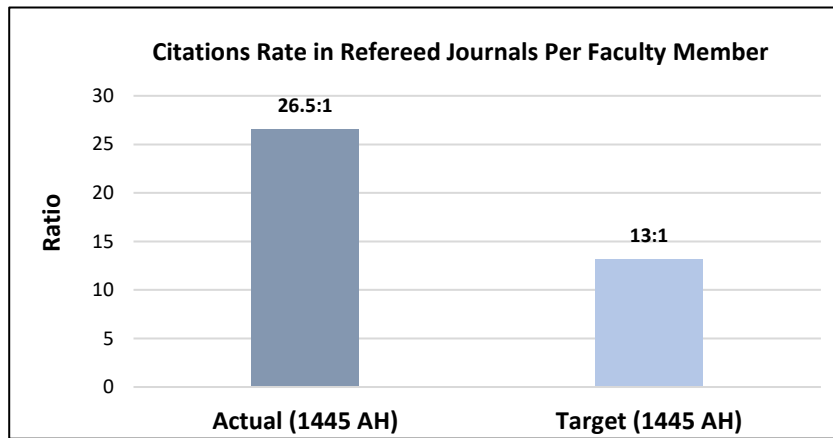
- Encourage them to get more publications, which will help them to get promotions and participate in the best researcher award competitions at the college and /or university level.

**Action Plan**

- Work on mitigating barriers to research publication, such as high journal fees, by exploring alternative funding sources or negotiating with publishers for institutional support.
- Improve the program of the research and professional development day.

**KPI-11: Citations rate in refereed journals per faculty member**

NCAAA KPI Reference		Standard-4 KPI-P-11				
Program KPI reference		KPI-P-11				
KPI		Citations rate in refereed journals per faculty members				
Periodical Measurement		Actual (1445 AH)	Target (1445 AH)	Internal Benchmark (1444 AH)	External Benchmark (1445 AH)	Target (1446 AH)
Annual	Male:	28.7:1	16:1	16:1	184.1:1	20:1
	Female:	22.5:1	10:1	7.8:1	67.0:1	20:1
	Overall:	26.5:1	13:1	12.8:1	145.1:1	20:1



**Data Analysis**

The citation rate in refereed journals per full-time faculty member was calculated by taking the ratio of the total number of citations in refereed journals to the total research published. The actual citation rate was 26.5:1 overall, with 28.7:1 for males and 22.5:1 for females. This exceeded the target benchmark of 13:1 and the internal benchmark of 12.8:1. The overall citation rate of 26.5 citations per published research demonstrates a solid research impact, indicating that the faculty's work is both recognized and valued within the academic and scientific community and the target for this academic year has been achieved. However, there may still be areas for improvement to maintain or further increase this rate, especially for female faculty, who have a slightly lower citation rate compared to males. Collaborations with international or well-established researchers could be increasing the visibility and citation rate of faculty publications.

**Strengths**

- The citation rate reflects the high quality and impactful nature of the research conducted by the faculty members of the College of Pharmacy, showcasing their contributions to advancing pharmaceutical sciences.

**Weakness**

- Developing collaborative initiatives and leveraging advanced tools to further promote research impact and broaden the reach of the College of Pharmacy's publications.

**Recommendations**

- Enhancing Research Quality: Focus on producing high-impact research by addressing emerging challenges in pharmacy and pharmaceutical sciences.
- Strengthening Collaborative Networks: Expand national and international collaborations to foster interdisciplinary research and joint publications.

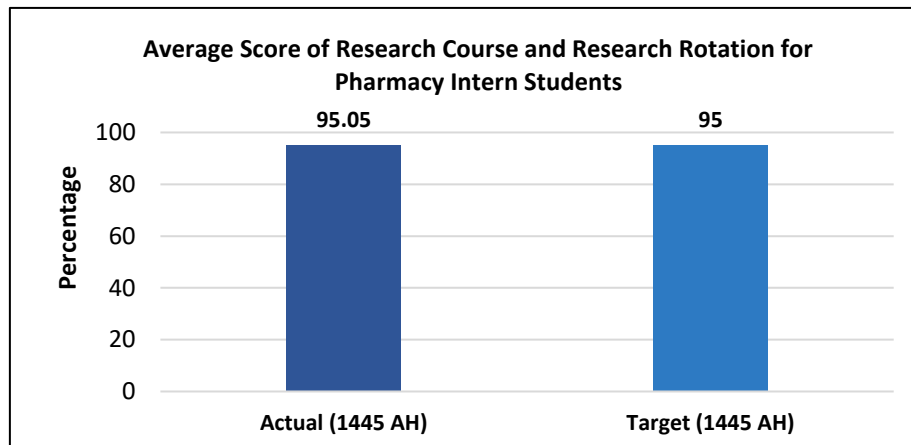
**Action Plan**

- Development of Faculty and Student Capabilities: Conduct advanced training sessions, workshops, and mentoring programs to enhance research competencies across all levels and to use of effective keywords in the research to increase the visibility.



**KPI-15: Average score of both research course in the program and the obligatory research rotation for the Pharmacy intern students.**

NCAAA KPI Reference	NA				
Program KPI reference	KPI-P-15				
KPI	Average score of both research course in the program and the obligatory research rotation for the pharmacy intern students				
Periodical Measurement	Actual (1445 AH)	Target (1445 AH)	Internal Benchmark (1444 AH)	External Benchmark (1445 AH)	Target (1446 AH)
Annual	95.05%	95%	94.67%	Nil	93%



**Data Analysis**

The data for this KPI was collected by tracking the average scores of pharmacy intern students in both their research courses and their obligatory research rotation. The actual average score for pharmacy intern students in both research courses and the obligatory research rotation for this year is 95.05%, slightly exceeding the target benchmark of 95%. This demonstrates that the program successfully met its expectations for student performance in these critical areas. Compared to the internal benchmark of 94.67% (last year's value), the program achieved a modest improvement, reflecting consistent progress in maintaining high academic standards.

**Strengths**

- The actual score of 95.05% is quite close to both the internal benchmarks, indicating that the program is effectively preparing students for their research rotations.
- The well-structured research rotation program equips students with essential skills for future academic and professional endeavors.

**Weakness**

- Encouraging students to focus on deeper critical analysis and interpretation of research findings.

**Recommendations**

- Organize workshops on advanced research methodologies, statistical analysis, and academic writing to strengthen students' research capabilities.
- Provide students with structured time management training and task prioritization strategies during their research rotations.

**Action Plan**



- Conduct workshops on advanced training, diversifying research topics, and improving feedback mechanisms.
- Conduct developmental workshops to enhance students' skills in creating scientific posters and effectively presenting them with confidence and clarity.



## SWOT Analysis of Research in 1445 H

Strength	Weakness
The overall publication rate of 96.61% indicates that most faculty members are actively engaged in research.	The procurement process for chemicals and research materials is experiencing significant delays.
The college came close to meeting the target benchmark for this year, 1445, with approximately eight research publications per faculty member.	The rising publication fees have hindered the ability to meet publication targets effectively.
The results show that our target benchmark for this academic year, 1445, had been achieved (target benchmark), where the citation rate per paper was assigned to be 19.5 and our actual benchmark is about 13 citations /published article	The approval process for research development proposals, such as the animal house project, is <b>delayed</b> and impacts progress.
Best Young Researcher awards from KKU were granted to three college faculty members.	There are limited opportunities for researcher positions at the university.
Good performance in the involvement of PharmD students in research through the obligatory research rotation in the final year, along with active participation in conferences.	
Excellent achievements of the master students where it was proven on the research and professional development day.	
The college successfully hosted the International Conference on Complementary Medicine – Opportunities and Challenges, attracting prominent international researchers and fostering global collaboration in the field.	
Opportunities	Threats
The initial approval for the establishment of the animal house.	Outstanding researchers might be recruited by competing universities.
The college's adoption of the "Inspired Pharmacist" strategy presents an opportunity to enhance research and development in pharmaceutical sciences, fostering innovation and collaboration within the academic community.	Limitation in well-trained technicians, a fast track system for instrument maintenance, and advanced instruments on both campuses.
Several scholarship recipients have returned after completing their PhD programs.	
Increase the number of funding projects (KKU or external funding institutions).	
Encourage the departments to start conducting research seminars where the faculty members can be met and discuss the ideas and share their knowledge.	

Areas of improvement	
	<ul style="list-style-type: none"><li>Encourage the departments to continue conducting research seminars where the faculty members can meet and discuss the ideas and share their knowledge.</li><li>There is a need to enhance the efficiency of the procurement process for chemicals and research materials to minimize delays and ensure timely access to essential resources.</li></ul>

Send by	Dr. Adel Al Fatease (VDRPS)	Approved by	Dr. Yahya I. Almuawad (Dean)
Signature		Signature	
Date	20/06/2024	Date	20/06/2024