



Children's Education Society (Regd.)

## The Oxford College of Pharmacy

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### Active Learning Strategies for the advanced learners

As an endeavour to provide innovative teaching learning initiative, The Oxford College of Pharmacy, Bangalore, is adopting teaching methods by the following ways:

1. Experimental learning
2. Participative learning
3. Problem Based Learning

Whereas, under experimental learning faculty are given flexibility for field visit, expert talk/guest lectures.

For the participative learning, faculties are conducting group discussion, role play, assignments and quiz.

And for the problem based learning faculties are conducting journal club and case studies.

*P. Padma*

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Bangalore - 560 068



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Report on

Field visits for the academic year 2022-23

Community-based pharmacy practice is evolving from a focus on product preparation and dispensing to becoming a health care destination within the four walls of the traditional community-based pharmacy. Furthermore, community-based pharmacy practice is expanding beyond the four walls of the traditional community-based pharmacy to provide care to patients where they need it.

Pharmacists involved in this transition are community-based pharmacist practitioners who are primarily involved in leading and advancing team-based patient care services in communities to improve the patient health. These field visits had reviewed community-based pharmacy practice innovations and the role of the community-based pharmacist practitioners in the Bangalore city.



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*P. Prudhva*

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**List of students who carried out field work**

**Class: VII SEM B.PHARM, Practice School**

**Department: Pharmaceutics**

**Year: 2022-23**

Sl.no	REG.NO	Name of the student	Title	Place where Field survey was conducted	Duration
1	18P1606	Prakash. R	Market survey on Ketoconazole	1.MEDWORLD BENGALURU Salapurja satva, Bommanahalli, Bengaluru. 2. SRI SARASWATI MEDICALS Garvebhavi road Bommanahalli, Bangalore	30/3/23 and 31/3/23
2	18P1613	Ramya. A	Market survey on Metformin	1. DHANU MEDICALS, GB Palya, Hongsandra, Bangalore-68 2. SHREE DURGA MEDICALS. Nagavarapalya main road, CV Raman nagar, Bengaluru-560093	30/3/23 and 31/3/23
3	18P1632	Thangapandi. J	Market survey on Amoxicillin	1. BALAJI MEDICALS Hongasandra, Begur Main Road, Bangalore – 560068 2. DHANU MEDICALS, GB Palya, Hongsandra, Bangalore-68	30/3/23 and 31/3/23
4	18P1646	Hari Priya. S	Market survey on Cephalexin	1. DHANU MEDICALS, GB Palya, Hongsandra, Bangalore-68 2. SHREE DURGA MEDICALS. Nagavarapalya main road, CV Raman nagar, Bengaluru-560093	30/3/23 and 31/3/23



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5	19P5952	Aniket Bipin Bellad	Market survey on Metronidazole	1. BALAJI MEDICALS Hongasandra, Begur Main Road, Bangalore – 560068 2.SRI SAI LAKSHMI MEDICALS 94/2, Begur road ,Hongasandra Bengaluru 560068	30/3/23 and 31/3/23
6	19P5957	Azhar Mushtaq Bhat	Market survey on Montelukast	1. APOLLO PHARMACY 5th main road, Near Indian Overseas Bank, Bommanahalli, Bangalore 560068. 2. JAIN MEDICALS #1/2, ward No.14, Begur main road, B P Petrol pump Bommanahalli Bangalore.560068	30/3/23 and 31/3/23
7	19P5958	Balraj. M	Market survey on Albendazole	1. BALAJI MEDICALS Hongasandra, Begur Main Road, Bangalore – 560068 2. SHANTHA PHARMACY 4/369-2,Ground Floor, Hosur Main Road,Shoolagiri-635117.	30/3/23 and 31/3/23
8	19P5963	Chethan sheshadri. K	Market survey on Telmisartan	1. DHANU MEDICALS, GB Palya, Hongsandra, Bangalore-68 2. SHILPA SHREE MEDICALS, Hongasandra, Bengaluru560068	30/3/23 and 31/3/23
9	19P5964	Deepak.S	Market survey on Nifedipine	1.MEDWORLD BENGALURU Salapurja satva, Bommanahalli, Bengaluru. 2. SRI SARASWATI MEDICALS Garvebhavi road	30/3/23 and 31/3/23



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				Bommanahalli, Bangalore	
10	19P5965	Dhushyanth. G	Market survey on Pantoprazole	1. BALAJI MEDICALS Hongasandra, Begur Main Road, Bangalore – 560068 2. SRI SAI LAKSHMI MEDICALS 94/2, Begur road ,Hongasandra Bengaluru 560068	30/3/23 and 31/3/23
11	19P5966	Dinesh. R	Market survey on Pioglitazone	1. DHANU MEDICALS, GB Palya, Hongasandra, Bangalore-68 2. SHILPA SHREE MEDICALS, Hongasandra Bengaluru 560068	30/3/23 and 31/3/23
12	19P5967	Fasecha Almas	Market survey on Glimepiride	1. APOLLO PHARMACY 5th main road, Near Indian Overseas Bank, Bommanahalli, Bangalore 560068. 2. JAIN MEDICALS #1/2, ward No.14, Begur main road, B P Petrol pump Bommanahalli Bangalore.560068	30/3/23 and 31/3/23



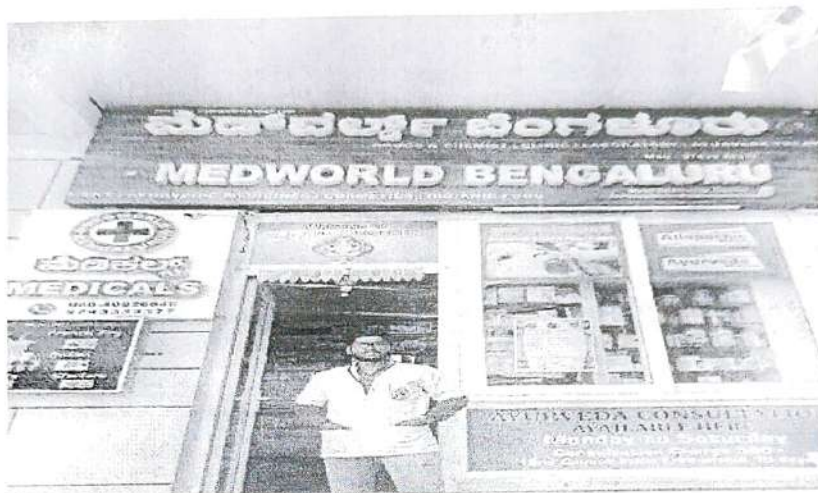
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Student Name: Prakash.R

Class: VII SEM B.PHARM

Objective: To carry out market survey on Ketoconazole commercial brands.



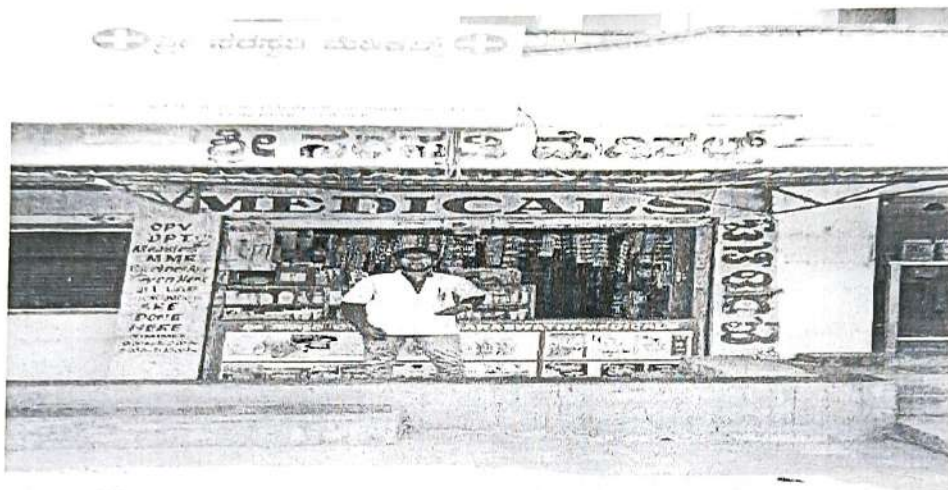
DESCRIPTION	INFERENCE
1. Different Brand Names	KZ lotion Kz cream Kz soap
2. Rapid moving	Kz soap
3. Active Ingredients	Ketoconazole
4. Expiry duration	12 months
5. Dose strength	Ketoconazole 2 per w/w
6. Cost per unit	Kz soap 75g 190rs, 125g 240 rs
7. Type of packaging	Box packaging
8. No of units sold per month	More than 30 items are sold
9. Age of prescription	It can be Prescribed for all



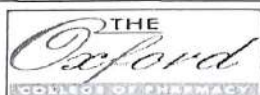
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**Conclusion:** According to above conducted survey, A case on ketoconazole in Medworld Bengaluru was investigated, the brand available was KZ soap and KZ cream which are fast moving and low cost drugs.



DESCRIPTION	INFERENCE
1. Different Brand Names	KZ lotion Kz cream Kz soap
2. Rapid moving	Kz Lotion
3. Active Ingredients	Ketoconazole
4. Expiry duration	12 months
5. Dose strength	Ketoconazole 2 per w/w
6. Cost per unit	Kz soap 75g 190rs 125g 240 rs
7. Type of packaging	Box packaging
8. No of units sold per month	More than 30 items are sold
9. Age of prescription	It can be Prescribed for all



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**CONCLUSION:** According to above conducted survey, A case on Ketoconazole in sri Saraswathi medicals was investigated, the brand available was KZ Lotion which is the fast moving and available at low cost.



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Student Name: Ramya. A

Class: VII SEM B.PHARM

Objective: To carry out market survey on Metformin commercial brands.



DESCRIPTION	INFERENCE
Different brand names.	Melmet, glyciphage, gluconorom
Which brand is moves rapidly and slowmoving	Melmat is rapidly moving drug Products and gluconorom is slowly moving drug Products
Active ingredient	Metformin Hydrochloride
Expiry date	3years from the date of manufacture.
Dose strength	500-850mg
Cost per unit	Rs. 2 for each tablet
Type of packing	Blister packing
No. Of units sold per month	10-15 sheets per month
Age of prescription	Adults ( 10-16) and people above

**CONCLUSION:** According to the above conducted survey, A case of metformin in dhanu medicals was investigated. Melmat is the brand which is more sold brand. Prescribed Adults (10-16) and people of ages above 30. It is available in tablet form.



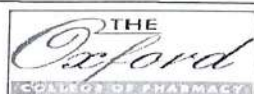
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DESCRIPTION	INFERENCE
Different brand names.	Melmet, glyciphage, gluconorom
Which brand is rapid and fast moving	Melamat is fast moving drug Product and gluconorom is slowly sold one
Active ingredient	Metformin hydrochloride
Expiry date	3 years from the date of manufacture
Dose of strength	500-850mg
Cost per unit	Rs. 2 for each tablets
Type of packaging	Blister and aluminum package.
No. Of units sold per month	12-15 sheets sold per month
Age of prescription	Adults ( 10-16) and people above 30

**CONCLUSION:** A case of metformin in Shree Durga Medicals was investigated the brand available was melmet which is fast moving and less price. It is available in tablet form only. Metformin is prescribed by doctors.



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Student Name: Thangapandi. J

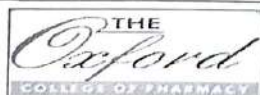
Class: VII SEM B.PHARM

Objective: To carry out market survey on Amoxicillin commercial brands.



DESCRIPTION	INFERENCE
Different brand names	Mox, Almox, Novamox, Bluemox, Pulmoxyle, Erox, Ymox
Which brand is rapid and slow moving	Mox is the rapid moving brand
Active ingredients	Amoxicillin
Expiry date	2 years
Dose Strength	125mg to 500 mg
Cost per unit	3 Rs to 11 Rs
Type of packaging	Blister packaging

**CONCLUSION:** According to the above conducted survey a case on AMOXICILLIN in BALAJI MEDICALS was investigated. MOX is the brand which is the most sold and AMOXICILLIN drug for ages 18 and above adults, as prescribed by the doctor.



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DESCRIPTION	INFERENCE
Different brand names	Mox, Almox, Novamox, Bluemox, Pulmoxylo, Erox, Ymox
Which brand is rapid and slow moving	Mox is the rapid moving brand
Active ingredients	Amoxicillin
Expiry date	2 years
Dose strength	125 mg to 500 mg
Cost per unit	3 To 8 Rs Per Unit
Type of packaging	Both Blister And Aluminum Packaging
No. of units sold per month	More than 200 units sold out per month
Age of Prescription	Adults above 18

**CONCLUSION:** According to the above conducted survey, a Case on Amoxicillin in Dhanu Medicals and Clinic was investigated, the brand available was Mox which is fast moving and available at low Cost.



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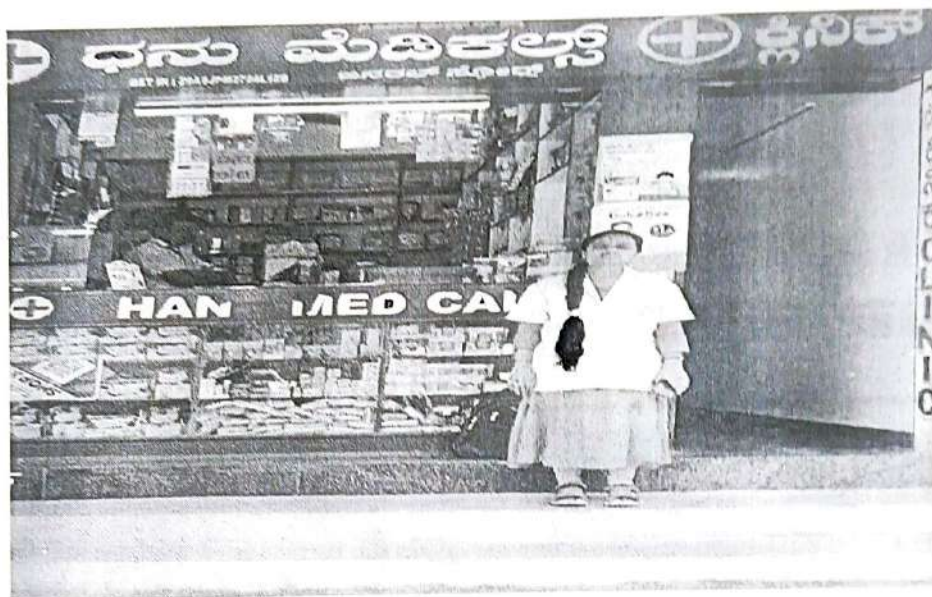




Student Name: Hari Priya. S

Class: VII SEM B.PHARM

Objective: To carry out market survey on Cephalexin commercial brands.



DESCRIPTION	INFERENCE
Different brand names	Cephadroxil, sporidex, keflex
Which brand is rapid and slow moving	Sporidex is rapidly moving
Active Ingredients	Cephalexin monohydrate, excipients,q.s
Expiry date	1-2yrs
Dose strength	1-4 grms per day
Cost per unit	RS.90 for 19 tablets
Type of packaging	Blister strip packaging
No.of units sold per month	2-3strips per month on prescription
Age of prescription	Adults, childrens above 15age and elders

**Conclusion:** According to the above conducted survey, a case of cephalaxin in Dhanu Medicals was investigated. Sporidex is the brand which is the more sold cephalaxin for age group of 15 and older people



and for childrens it is available in syrup form depends upon body weight of childrens as prescribed by the doctor.

**Student Name: Aniket Bipin Bellad**

**Class: VII SEM B.PHARM**

**Objective: To carry out market survey on Metronidazole commercial brands.**



DESCRIPTION	INFERENCE
1. Different Brand Names	Metrogyl-200mg Metrogyl 400mg Metrogyl suspension-200mg, 60 ml Flagyl-400mg
2. Rapid moving/Slow moving	All are fast moving medicaments
3. Active Ingredients	Metronidazole
4. Expiry duration	36 Months
5. Dose strength	400mg 200mg
6. Cost per unit	Metrogyl-200mg-15 tablets-13 Rs Metrogyl-400mg-15 tablets-23 Rs Metrogyl suspension-200mg, 60 ml-33.6 Rs per bottle Flagyl-400mg-15 tablets-22.84 Rs
7. Type of packaging	Tablets-Aluminum packaging Suspension-Amber coloured bottle
8. No of units sold per month	Tablets-4-5 sheets per month both the brands Suspension-5-10 bottles per month





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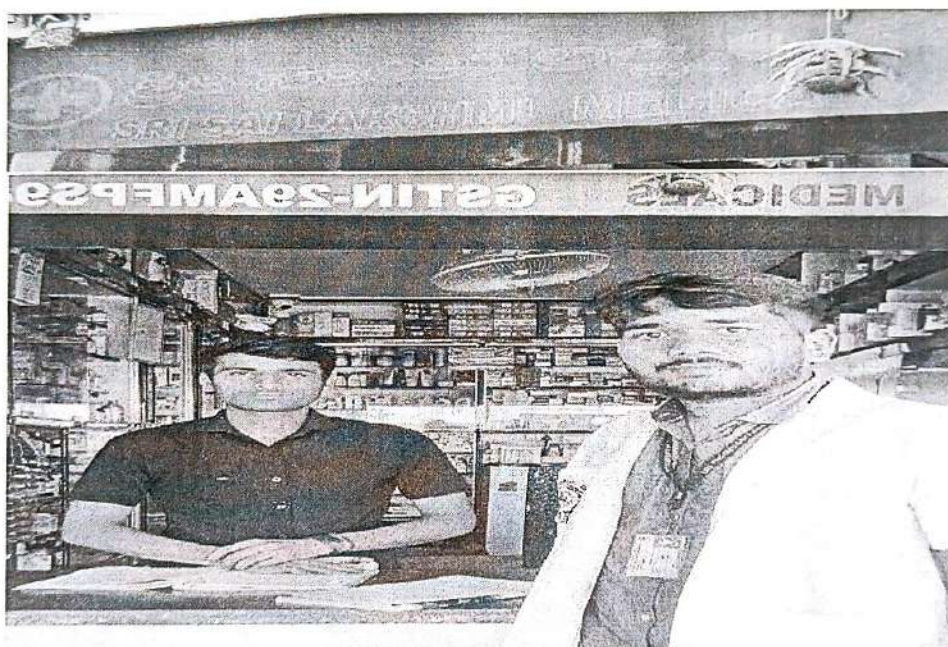
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9. Age of prescription	400mg-Above 18200mg-8-18years
10. manufacturing companies	Metrogyl-JB chemicals and pharmaceuticals ltd Flagyl-Abbott pharmaceuticals ltd

**CONCLUSION:** According the above conducted survey, a case on metronidazole in Balaji medicals was investigated Metrogyl- 200mg, Metrogyl- 400mg, Metrogyl suspension-200mg , and flagyl-400mg are the which are the brands which sell mostly Metronidazole drug for age 8 to 18years-200mg and 400mg for



adults as prescribed by the doctor.

DESCRIPTION	INFERENCE
1. Different Brand Names	Metrogyl-200mg Metrogyl-400mg Metrogel-IV- 5mg/ml
2. Rapid moving/Slow moving	All are fast moving medicaments
3. Active Ingredients	Metronidazole
4. Expiry duration	36 Months



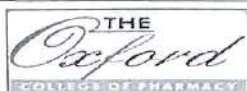
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5. Dose strength	400mg/200mg 5mg/ml-500mg
6. Cost per unit	Metrogyl-200mg-15 tablets-13 Rs Metrogyl-400mg-15 tablets-23Rs Metrogyl IV-26 Rs per bottle
7. Type of packaging	Tablets-Aluminum packaging IV Fluid-IV fluid bags or transparent bottles
8.No of units sold per month	Tablets-4-10 sheets per month both the brands Metrogyl IV-10 to 20 bottles
9. Age of prescription	400mg-Above 18 200mg-8-18years

**CONCLUSION:** According to above conducted survey, a case on Metronidazole in Sri Sai Lakshmi medicals was investigated, the brand available was Metrogyl which is fast moving and low cost



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**Student name:** Azhar Mushtaq Bhat

**Class:** VII SEM B.PHARM

**Objective:** To carry out market survey on Montelukast commercial brands.



DESCRIPTION	INFERENCE
Different brand names	Montek LC 1mg, Montek LC kid, Alnacet-M
Which brand is rapid and slow moving	Montek LC is rapid moving
Active ingredients	Montelukast sodium
Expiry date	2 years
Dose strength	5mg, 10mg
Cost per unit	Rs 200 for 10 tablets
Type of packaging	Alu Alu
No. of units sold per month	10-20 sheets per month
Age of prescription	15-60 years

**CONCLUSION:** According to the above conducted survey, A case on Montelukast in Apollo Pharmacy was investigated. Montek LC 5mg, Alnacet-M 5mg/10mg are brands sold and among these Montek LC is most sold drug for age 15-60 years and for adults as prescribed by the Doctors.



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DESCRIPTION	INFERENCE
Different brand names	Montek LC 5mg, Monticope
Which brand is rapid and slow moving	Montek LC is rapid moving
Active ingredients	Montelukast sodium
Expiry date	3 years
Dose strength	5mg, 10mg
Cost per unit	Rs 200 for 10 tablets
Type of packaging	Alu Alu
No. of units sold per month	10-20 sheets per month
Age of prescription	>10 years

**CONCLUSION:** According to the above conducted survey, A case on Montelukast in Jain Medical was investigated. Montek LC 5mg /10mg, Monticope 5mg are the brands available and Montek LC is the mostselling brand for age >10 years and for adults as prescribed by the doctors.



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**Student Name:** Balraj. M

**Class:** VII SEM B.PHARM

**Objective:** To carry out market survey on Albendazole commercial brands.



DESCRIPTION	INFERENCE
1. Different Brand Names	Bandy ABD, Zentel
2. Which drug is Rapid and Slow moving	Bandy is rapidly moving drug Products
3. Active Ingredients	Albendazole
4. Expiry duration	24 Months
5. Dose strength	Albendazole-400mg, Ivermectin -12 mg
6. Cost per unit	Rs:12 to 28
7. Type of packaging	Tablet: aluminium packing



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8.No of units sold per month	More than 50 strips can be sold out
9.Age of prescription	Adults above 18 years

**CONCLUSION:** According the above conducted survey, A case on Albendazole in Balaji medicals was investigated are Bandy are the brand which sell mostly Albendazole drug for ages 18years and above adults, as prescribed by the doctor.



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DESCRIPTION	INFERENCE
1.Different Brand Names	Bandy,ABD,Zentel
2.Rapidmoving/Slow moving	Bandy is rapidly moving drug Products
3.ActiveIngredients	Albendazole
4.Expiryduration	24 Months
5.Dose strength	Albendazole-400mg Ivermectin -12mg
6.Cost per unit	Tablets:10Rs Syrup:20 Rs
7.Type of packaging	Tablets-blister packaging Syrup -bottle packaging
8.No of units sold per month	More than 50 strips can be sold out
9.Age of prescription	Adults above 18 years above

**CONCLUSION:** According to above conducted survey, A case on Albendazole in Shantha Pharmacy was investigated, the brand available was Bandy which are fast moving and low-cost drugs.



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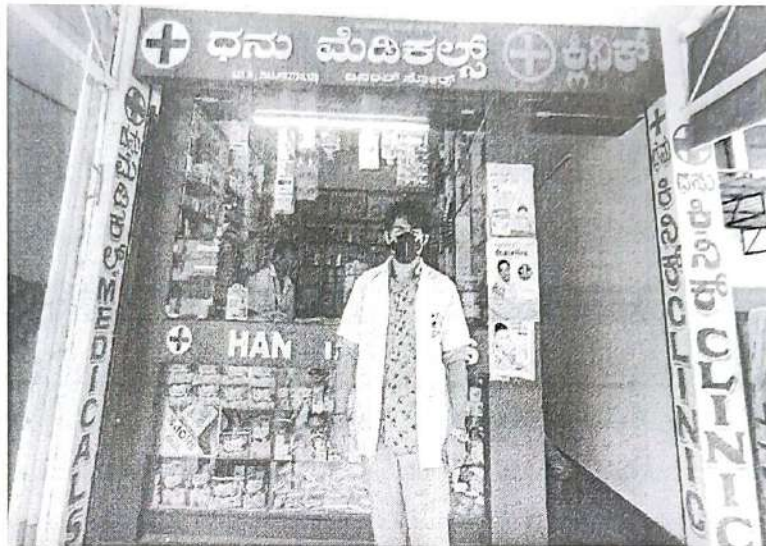
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Student Name: Chethan Sheshadri. K

Class: VII SEM B.PHARM

Objective: To carry out market survey on Telmisartan commercial brands.



DESCRIPTION	INFERENCE
1. Different Brand Names	Telmate, Telemar, Telme, Tazloc
2. Rapid moving	Telma Taizlac Telista
3. Active Ingredients	Telmisartan
4. Expiry duration	24 Months
5. Dose strength	Telma H - 40mg/day For high BP- 80mg/day
6. Cost per unit	Each tablet of telmisartan 40mg-5rs
7. Type of packaging	Tablets-Aluminum packing, blister packing
8. No of units sold per month	Approx. of 50 strips
9. Age of prescription	Adults above 30



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**CONCLUSION:** According to the above conducted survey, A case on Telmisartan in Dhanu medicals was investigated where telma, taizlac, telistaare the brands which sell mostly telmisartan drug for age above 30 years- 40mg for adults as prescribed by the doctor for Hyper tension patients.

DESCRIPTION	INFERENCE
1. Different Brand Names	Telmikind-20mg,40mg Telmikind H TelmikindAM Telma Telma H TelmaAM Telmica- 40 Telmica20
2. Rapid moving	Telmikind20mg,40mg
3. Active Ingredients	Telmisartan
4. Expiry duration	24 Months
5. Dose strength	Temikind-20mg, telma40mg
6. Cost per unit	Telmikind 40 -38 rs Telma-5rs per tablet



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7. Type of packaging	Telmikind – blister packing TelmaAM – aluminium packing
8. No of units sold per month	Telmisartan-40mg, approx 10 strips
9. Age of prescription	Above 30yrs

**CONCLUSION:** According to above conducted survey A case on Telmisartan in Shilpashree Medicals and Dhanu Medicals was investigated, the brand available was Telma and Telmikind which are fast moving and low cost drugs.



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Student Name: Deepak. S

Class: VII SEM B.PHARM



**Objective:** To carry out market survey on Nifedipine commercial brands.

DESCRIPTION	INFERENCE
1. Different Brand Names	Nicardia Retard sustained Release tablets 20mg Nifewell SR20mg
2. Rapid moving/Slowmoving	Nicardia Retard is fast moving
3. Active Ingredients	Nifedipine
4. Expiry duration	18 months
5. Dose strength	Nicardia Retard-20mg Nifewell SR-20mg



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6. Cost per unit	Nicardia Retard 20mg-20 tablets-55 Rs NifewellSR 20mg-10Tablets-25Rs
7.Type of packaging	Aluminium packaging
8.No of units sold per month	Nicardia Regards 10-20 strips per month Nifewell SR-5-10strips

**CONCLUSION:** According the above conducted survey, A case on Nifedipine in Medworld Bengaluru was investigated. Nicardia Retards, Nifewell20 are the brands which sell mostly Nifedipine drug for age 18 years- 20 mg as prescribed by the doctor.



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DESCRIPTION	INFERENCE
1. Different Brand Names	Nicardia Retards sustained Release-20mg Nicardia 10 mg capsule
2. Rapid moving/Slow moving	Nicard Retard is Fast moving medicaments
3. Active Ingredients	Nifedipine
4. Expiry duration	18 Months
5. Dose strength	Nicardia Retards- 20mg Nicardia capsule- 10mg
6. Cost per unit	Nicardia Retards-20 Tablets- 55Rs Nicardia capsule-10 capsules- 10Rs
7. Type of packaging	Aluminium packaging
8. No of units sold per month	Nicardia retards-20 to 25 strips per month Nicardia capsule-10 Strips

**CONCLUSION:** According to above conducted survey, A case on Nifedipine in Sri Saraswati Medicals was investigated, the brand available was ~~Nich~~ Retards and Nicardia capsule-10 in which Nicardia Retards is moving drug.





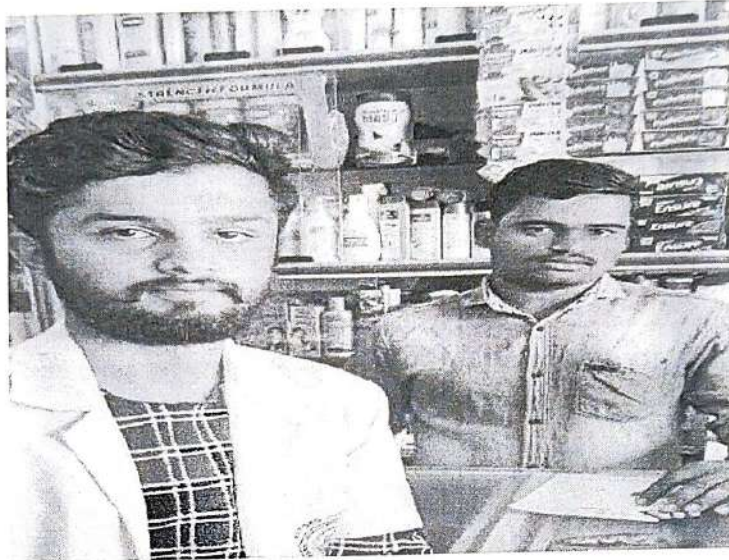
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**Student Name:** Dhushyanth. G

**Class:** VII SEM B.PHARM

**Objective:** To carry out market survey on Pantoprazole commercial brands.



DESCRIPTION	INFERENCE
1. Different Brand Names	Pantosec P40 PantacidDSR
2. Rapid moving/Slow moving	All are fast moving medicaments
3. Active Ingredients	pantoprazole
4. Expiry duration	24 Months
5. Dose strength	Pantosec-40mg pantaprazole and 30mg domperidone P40- pantaprazole-40mg PantacidDSR- pantaprazole-40mg
6. Cost per unit	Pantosec-15 tablets-130Rs P40-10 tablets-100 Rs Pantacid-15 capsules-215Rs per sheet



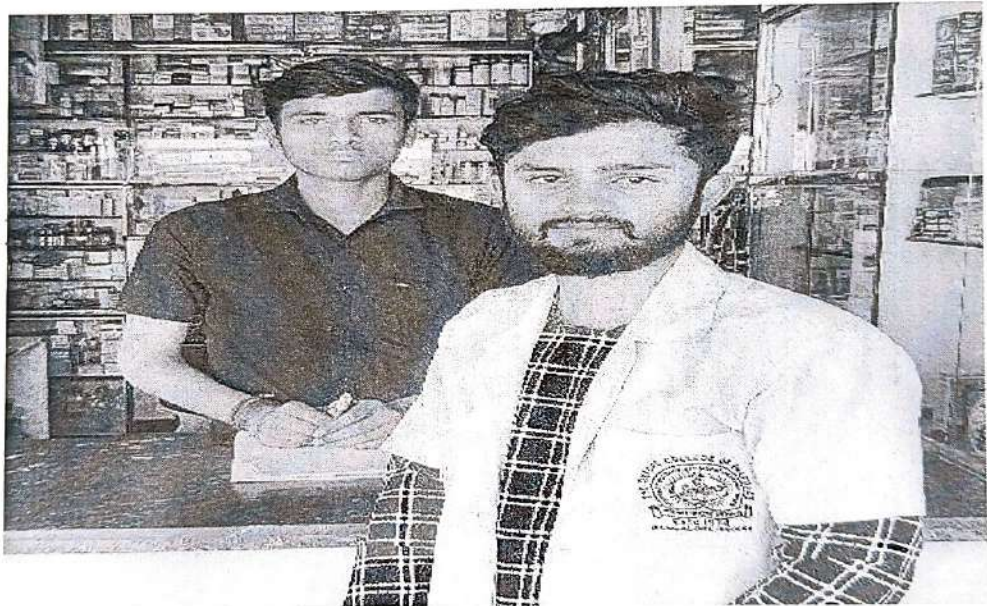
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7.Type of packaging	Tablets-Aluminum packaging capsule-strip packaging
8.No of units sold per month	Pantosec-10-20sheets P40- 10-15 sheets PantacidDSR-10-20shectsv
9. Age of prescription	20 years above

**CONCLUSION:** According to the above conducted survey, A case on Pantoprazole in Balaji medicals investigated were pantosec,P40, pantacid are the brands which sell mostly pantoprazole drug for age 20years-40mg for adults as prescribed by the doctor.



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DESCRIPTION	INFERENCE
1. Different Brand Names	PentowokD Pantodac40
2. Rapid moving/Slow moving	All are fast moving medicaments
3. Active Ingredients	Pantoprazole
4. Expiry duration	24 Months
5. Dose strength	Pentowok D-Pantoprazole40mg+Domperidone 10mg Pantodac 40-Pantoprazole40mg
6. Cost per unit	Pentowok D-10 Tablets-91Rs Pantodac40-15Tablets-178Rs
7. Type of packaging	PentowokD-Tablets-Aluminum packaging Pantodac40-Tablets-Aluminum packaging
8. No of units sold per month	Pentowok D Tablets-18-20 sheets Pantodac 40 Tablets-15-18 Sheets
9. Age of prescription	20 years above

**CONCLUSION:** According to above conducted survey, A case on Pantoprazole in sri sai Lakshmi medicals was investigated, the brand available was Pantodac40 and Pantowok D which are fast moving and available at low cost.



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Student name: Dinesh. R

Class: VII SEM B.PHARM

Objective: To carry out market survey on Pioglitazone commercial brands.



DESCRIPTION	INFERENCE
1. Different Brand Names	Pioz -15mg Pioglit -7.5mg Glizone -30mg Pologlip-15mg
2. Rapid moving	Pioz-15mg
3. Active Ingredients	Pioglitazone
4. Expiry duration	24 Months
5. Dose strength	Pioz-30mg, pioglit-7.5mg
6. Cost per unit	Pioz-15mg 85 rs per strip Pioglit-69 rs per strip



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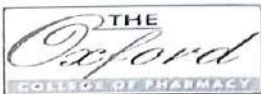
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7.Type of packaging	Tablet aluminium packing and blister packing
8.No of units sold per month	Very few strips are sold approx 2 to 3 strips per month
9.Age of prescription	Prescribed to adults and may vary

**CONCLUSION:** According to the above conducted survey, A case on Pioglitazone in Dhanu medicals was investigated and the brands were pioz,pioglit,glizone which sell mostly Pioglitazone drug for age 30 years and above of 15mg or 30mg for adults as prescribed by the doctor.



DESCRIPTION	INFERENCE
1.Different Brand Names	Piosafe Pioglar Pioz
2.Rapid moving/Slow moving	All are slow moving



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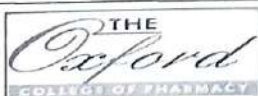
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3.Active Ingredients	Pioglitazone
4.Expiry duration	24Months
5.Dose strength	Piosafe-30mg Pioz -15mg
6.Cost per unit	Piosafe Tablets 90Rs PioglitTablets-70Rs
7.Type of packaging	Piosafe-Tablets-blister packaging Pioz Tablets-blister packaging
8.No of units sold per month	Pioz Tablets-2 -3 sheets Piosafe Tablets-2 Sheets
9.Age of prescription	30 years above and may vary in some cases

**CONCLUSION:** According to above conducted survey, A case on Pioglitazone in Shilpa shree medicals was investigated, the brand available was Pioz, piosafe and pioglar which are slow moving and low cost drugs.



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**Student name:** Faseeha Almas

**Class:** VII SEM B.PHARM

**Objective:** To carry out market survey on Glimperide commercial brands.



DESCRIPTION	INFERENCE
Different brand names	Glimy 1mg, Glimy 2mg, Glucomet 250mg
Which brand is rapid and slow moving	Glimy 1 mg is more rapidly moving
Active Ingredients	Glimeperide
Expiry date	2 years
Dose strength	1mg, 2mg
Cost per unit	Rs 56 for 14 tablets
Type of packing	Aluminum Packing
No. Of units sold per month	5-20 Sheets per month
Age of prescription	= /> 25 age

**CONCLUSION:** According to the above conducted survey, A case on Glimperide in Apollo Pharmacy was investigated. Glimy 1mg, Glimy 2mg is the brand which is most sold Glimepiride drug for age 25 and above, and for adults as prescribed by the Doctors.



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DESCRIPTION	INFERENCE
Different brand names	Glimy 1mg, Glimy 2mg, Glucomet 250mg
Which brand is rapid and slow moving	Glucomet 250 mg is more rapidly moving
Active Ingredients	Glimeperide
Expiry date	2 years
Dose strength	1mg, 2mg
Cost per unit	Rs 56 for 14 tablets
Type of packing	Aluminum Packing
No. Of units sold per month	5-20 Sheets per month
Age of prescription	= /> 25 age

**CONCLUSION:** According to the above conducted survey, a case on Glimepiride in Jain Medical was investigated. Glimy 1mg, Glimy 2mg, GP 1, Glucomet is the brand which is most sold Glimepiride drug for age 25 and above, and for adults as prescribed by the Doctors.



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**OUTCOME:**

Community-based pharmacist practitioners in the Bangalore city are developing and delivering services that meet the needs of patients within the communities they serve. However, there are challenges to overcome but which may be accomplished through policy change, education and training, collaboration, and technology. Community-based pharmacist practitioners are well prepared to educate patients about medications, wellness, and prevention and medical conditions. Community-based pharmacist practitioners are playing an even larger role within their community by promoting health and wellness programs. Pharmacists are coaching on healthy eating habits, assisting with smoking cessation, and combating sedentary lifestyles

P. Padma  
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Date: 12/06/2023

### CIRCULAR

All the teaching staff and UG, PG students of The Oxford College of Pharmacy are hereby informed that Expert talk on "Career Opportunities in Pharmaceutical Industry" for the academic year 2022-2023 will be conducted on 14/06/2023. We look forward for the active participation for the same. All interested students are requested to give your name to the event co-ordinator.

*P. Padma*

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REPORT ON EXPERT TALK ON

“CAREER OPPURTUNITIES IN PHARMACEUTICAL INDUSTRY”

ORGANISED BY DEPARTMENT OF PHARMACOLOGY

**CHIEF PATRON**

**SHRI S. N. V. L NARASIMHA RAJU**

CHAIRMAN

THE OXFORD GROUP OF INSTITUTIONS

**PATRON**

**DR. PADMAA M PAARAKH**

PRINCIPAL

THE OXFORD COLLEGE OF PHARMACY

**ORGANISING SECRETARY**

**DR. NOOPUR SRIVATSAVA**

ASSOCIATE PROFESSOR

THE OXFORD COLLEGE OF PHARMACY

**RESOURCE PERSON:**

Mr. SRIHARLY, Associate Professor,

G. PULLA REDDY COLLEGE OF PHARMACY,  
HYDERABAD

DATE: 14 JUNE 2023

TIME: 3:00 PM - 4:00 PM



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### PREAMBLE:

The Oxford College of Pharmacy, Bengaluru, organized "Expert talk on Career Opportunities in Pharmaceutical Industry" with an aim to educate our staffs and students about the career in Pharmaceutical Industry. The program was conducted on June, 14<sup>th</sup> 2023. The pharmaceutical industry creates and produces the medications we use to stay healthy. Because medicine and research are important to the advancement of medicine, there are many high-paying jobs within the industry. If you work in the pharmaceutical industry or you want to, it can be beneficial to learn more about which roles offer the highest salaries. The pharmaceutical industry is the combination of those who research, develop, test, produce and distribute medical substances, products, devices and services. This includes researchers, Marketing specialists, Data analysts and sales professionals.

### THE EXPERT TALK DELIVERED AS FOLLOWS:

The program was started with a welcome note by Dr. Muthu Kumar, Program organizer followed by the inaugural address from Dr Padmaa M Paarakh, Principal, The Oxford College of pharmacy. Dr. Noopur Srivastava, Incharge HOD of Department of Pharmacology introduced the speaker Mr. Sridhar.Y.

Mr. Sridhar, Associate Professor, Department of Pharmacology, G. Pulla Reddy College of Pharmacy, was invited to talk about the Career Opportunities in Pharmaceutical Industry. He had delivered lecture about the opportunities in pharmaceutical industry. He explained about what is the importance of Pharmacy and about the opportunities in pharma sector, Insurance sector and banking sector.

The students of M. Pharm I year Pharmacology, I year Pharmaceutics, I pharm D, I B. Pharm students were participated in the Programme.

The organizer Mrs.Joyce Arokiaselvi concluded the program with vote of thanks. She thanked chairman Shri S. N. V. L Narasimha Raju, The Oxford Group of Institutions, Dr. Padmaa M Paarakh, principal, the oxford college of pharmacy for organizing such an event and Dr. Noopur Srivastava, HOD, Department of Pharmacology. And to all the other faculties and students who participated in the event and helped in its successful completion of the event.



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No. of Participants :- 50 Participants

Schedule on :- 14 June 2023

Time Schedule	Programme
3.00PM - 4.00PM	"CAREER OPPURTUNITIES IN PHARMA INDUSTRY"



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### LIST OF STUDENTS PARTICIPATED

S.NO	NAME OF THE CANDIDATE	SIGNATURE
1.	ANIL KUMAR. R	Anil
2.	ANKITHA NIDHI REDDY	Ankitha
3.	BINDU. K	Bindu
4.	C. MOHAMMED YASEEN	Mohammed
5.	GOWDA MAHANTESH	Mahantesh
6.	HAMSA C.B.	Hamsa
7.	KUSHAN RAJ. P	Kushan
8.	MADHU CHANDRA	Madhu
9.	MAHESH GOWDA. B .N	Mahesh
10.	MANOHAR. S	Manohar
11.	SANJAY H. K.	Sanjay
12.	AMIT SINGH	Amit
13.	BADEPALLI REDDAIAH REDDY	Badepalli
14.	RAMESH TEJASWINI	Ramesh
15.	HARSHA K. M.	Harsha
16.	JAWAHAR MANIYARASAN S	Jawahar
17.	MANOJ A.N.	Manoj
18.	MOHAMMAD AMIN YATOO	Mohammad
19.	MULLA UJMA RIYAZ	Mulla
20.	NALAGATLA SUNANDHA	Nalagatla
21.	R. NAVYASREE	Navyasree
22.	RANJITA RAMESH SHETTY	Ranjita
23.	SNEHA. M	Sneha
24.	SONALI MILAN NALAWADE	Sonali
25.	SWETHA YOGANANDAN	Swetha
26.	VIJAY KUMAR. R	Vijay
27.	HARINI. V	Harini





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28.	HARISH KUMAR. K	HK
29.	JANHAVI ARYA	Janhavi
30.	KAILASH CHANDRA. C	Kailash
31.	KARTHIK. M	Karthik
32.	KAVIARASU .S	KAS
33.	KAVYA. N	KVN
34.	KAVYA SHREE. S	KVS
35.	KAVYA. M. PARI	Kavya
36.	KAVYA .M	KVM
37.	KOWSALYA. V	KVS
38.	NAMITHA. M	Namitha .M.
39.	NANDISHA. V	Nandha
40.	PALLAVI. A	PVA
41.	PAVAN KUMAR. C	Pavan
42.	POOJA .H.J	Pooja
43.	PRIYA RAJKUMAR	Priya
44.	RACHITHA S. V	Rachitha
45.	RAMYA. D	Ramya
46.	RITHIK H. R	Ritha
47.	SAGAR. M	Sagar
48.	SANJAY. B	Sanjay
49.	SHAIK BAJI	Shaiq
50.	SHARATH. J	Sharath





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### OUTCOME OF THE PROGRAMME

Students had got a brief idea regarding the various opportunities in various of pharmaceutical sciences and various job roles in research, develop, test, produce and distribute medical substances, products, devices and services of Pharmacy. Students had got a basic job opportunities in research, Marketing specialists, Data analysts and sales professionals.

END OF REPORT

*P. Padma*

**PRINCIPAL**

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Report on Group Discussion for the academic year 2022-23

**ABSTRACT :-**

Group discussion (GD) is a **comprehensive technique to judge the suitability of an individual and his appropriateness for admission, scholarship, job, etc.** GD assesses the overall personality – thoughts, feelings and behaviour - of an individual in a group. A topic “To boost confidence in expression on a platform” is presented to the group members for discussion.

The session with a positive note on the importance of a group discussion and the way to participate in it. It is easy to acquire theoretical knowledge but one should know the techniques and art to crack a group discussion and the personal interview. And to make it to the final round i.e. the Personal interview; it is the Group Discussion that will pave the way for it.

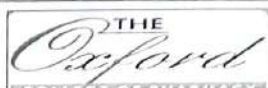
The key points which are to be taken care of by the candidates participating in a group discussion. Often people tend to forget the things that they have heard but an example would always remain in mind.

This helped the students not only to note the points to be considered while participating in a group discussion but also to watch out for all the minute things which the supervisor observes.

*P. Padula*  
PRINCIPAL

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Bangalore - 560 068





### GROUP DISCUSSION REPORT

**Date of Commencement: 14-06-2023**

**No. of Students: 25**

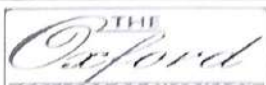
**Objective:** To boost confidence in expression on a platform

A session was held for III year B Pharm and M Pharm students on 14.06.2023. An eminent expert was called from the G .Pulla Reddy College of Pharmacy, Hyderabad to address the students. His name was Mr. Sri Hari Y. He started the session with a positive note on the importance of a group discussion and the way to participate in it. It is easy to acquire theoretical knowledge but one should know the techniques and art to crack a group discussion and the personal interview. And to make it to the final round i.e. the Personal interview ; it is the Group Discussion that will pave the way for it.

The session began with general views about group discussions of the audience. Later on the speaker concentrated on the key points which are to be taken care of by the candidates participating in a group discussion. Often people tend to forget the things that they have heard but an example would always remain in mind. So the speaker also followed a strategy which was : a team of 4 would be called and promptly a topic would be given to discuss. This helped the students not only to note the points to be considered while participating in a group discussion but also to watch out for all the minute things which the supervisor observes. The feedback of each team was initially given by the students and later on the speaker gave his reviews. This made the students analyse the situation from both the sides.

The key points which were asserted to keep in mind for every group discussion are as follows:-

1. Body language
2. Confidence
3. Listening skills
4. Audibility
5. Making the most of opportunities







6. Think like a leader
7. Where to look
8. How to conclude
9. Effective Communication

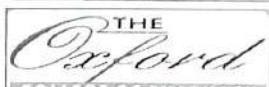
With the above key points he also made many students speak on stage, who had stage fear and later gave them confidence and motivation. Dr. Padmaa M Paarakh, Principal spoke a few words about the session and Dr. Noopur Srivatsava, HOD, Department of Pharmacology gave the insights and promise to conduct more of group discussions for the benefit of students.

Also the teaching faculties of The Oxford College of Pharmacy were there to support the students and also to encourage the initiative in shaping the future of students.

Finally the session was ended by a vote of thanks by Dr. A Muthu kumar, Associate Professor , Department of Pharmacology .

**List of students for the Group Discussion for the academic year 2022-23.**

S. NO	Register No.	Name of the students	Signature
1.	20P5605	AARTHI	<i>Aarthi</i>
2.	20P5607	AIMEN BASHIR	<i>Aimen Bashir</i>
3.	20P5620	BANU PRIYA.D	<i>Banupriya</i>
4.	20P5621	BHUVANESHWARI	<i>Bhuvaneshwari</i>
5.	20P5622	POVINDHAR	<i>Povindhar</i>
6.	20P5624	CHAITHRA .K	<i>Chaithra</i>
7.	20P5625	CHANDANA. N	<i>Chandana</i>
8.	20P5626	DEEPTHI R	<i>Deepthi</i>
9.	20P5629	GAGANA K	<i>Gagana</i>
10.	20P5630	GIRESHA NAIDU	<i>Giresha</i>
11.	20P5633	HARI KISHOR	<i>Hari</i>
12.	20P5640	KAVYA P REDDY	<i>Kavya</i>
13.	20P5650	MANOJ KUMAR	<i>Manoj</i>
14.	20P5652	MEGHANA.S	<i>Meghana</i>
15.	20P5653	MEGHANA.S.NADGIR	<i>Meghana</i>
16.	20P5654	MITHUN.N	<i>Mithun</i>
17.	20P5657	MONIKA.N	<i>Monika</i>
18.	20P5659	NIDHISHREE S	<i>Nidhishree</i>





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19.	20P5664	PALLAVI S	<i>Pallavi</i>
20.	20P5675	SANJANA	<i>Sanjana</i>
21.	22PU443	VIJAY KUMAR R	<i>Vijay</i>
22.	22PU439	RANJITHA RAMESH SHETTY	<i>Ranjitha</i>
23.	22PP266	ANIL KUMAR R	<i>Anil</i>
24.	22PP274	MAHESH GOWDA.B.N	<i>Mahesh</i>
25.	22PP277	UMME HABIBA	<i>Umme</i>

Time Schedule	No.Of Participants	Programme
3.00PM-4:00PM	25	Group discussion on "To boost confidence in expression on a platform"

Some photos from one of the session of group discussion are as follows:



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**OUTCOME:**

- It had a good way to engage the participants in a fruitful discussion. Group discussion had generated a creative thinking in all participants, something beyond the obvious answers and solution to a specific problem regarding personality development.
- Generated more ideas and a structured presentation of a topic. Students had improved analytical abilities to think on a particular given topic.
- Enabled students to profound and in-depth understanding of the subject and provided different approaches to a topic and helped to come to a concluding point or at least near solution to a problem and students had given a chance to listen, know and understand diverse opinions on a particular matter.
- Improved confidence in public speaking platform.

*P. Padma*  
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TOCP/GRC/2022-23/01

Date: 24.10.2023

To

The Principal,  
The Oxford College of Pharmacy,  
Bangalore-68.

Subject: Regarding the Internal Assessment grievances for the academic year 2022-23

Respected Madam,

It is to inform that due to the transparent internal exams and assessment system, we had not got any grievances from the students of any classes for the academic year 2022-23. In this academic year grievances like question paper leakage, Faculty partiality towards student as well as retotalling of the sessional marks were not reported. The internal assessment marks were uploaded to the university web portal in-time after informing and taking student signature.

From,

*G. Nagalakshmi*  
Dr. G. Nagalakshmi,  
Associate Professor,  
Dean Examination,  
The Oxford College of Pharmacy,  
Bangalore-560068.

*P. Padma*

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### Report on

### Case Studies for the Academic Year 2022-23

When students create teaching materials, learning can be enhanced. Therefore, a project was designed based on the traditional clinical case report and principles curriculum at The Oxford College of Pharmacy, Bengaluru in collaboration with The Oxford Medical College Hospital and Research Centre, Attibele, Bengaluru. The objectives were to increase mastery in a clinical topic, increase awareness of different patient presentations and management options, and enhance information technology skills.

Following lectures about the components of a case report related to visceral comorbidities students created a case report based on a template provided by the instructor. A survey gathered student perspectives on the exercise.

More than 90% of the surveyed students felt the project was at least moderately helpful in improving understanding of a case report, the condition investigated, their clinical reasoning, and the ability to integrate information.

Most felt that they improved their understanding of clinical aspects of a disease, use of the literature, and the practice of evidence-based care. The majority believed that they identified weakness in knowledge, improved self-learning skills, and increased confidence in managing patients. Most enjoyed it at least somewhat and 80% agreed that the project should be continued. Many believed that they were better prepared for national boards and had improved their writing skills.

P. Padma

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### Report on

### Case studies for the academic year 2022-23

#### **PREAMBLE:**

The Oxford College of Pharmacy, Bengaluru, IIC, in collaboration with The oxford medical college hospital and research Centre, Attibele, Bengaluru has organized case studies to Pharm D students with an aim to educate our staffs and students about understanding and interpreting the case reports. The case studies were conducted in various departments under the guidance of Physicians in the hospital. The Case record form was designed based on the traditional clinical cases and principles curriculum at The oxford medical college hospital and research centre, Attibele, Bengaluru.

#### **OBJECTIVES:**

The objectives of Case studies were to increase mastery in a clinical topic, increase awareness of different patient presentations and management options, and enhance information technology skills. Following lectures about the components of a case report and neurological reflexes related to visceral comorbidities students created a case report based on a template provided by the instructor. A survey gathered student perspectives on the exercise.

More than 70% of the surveyed students felt the project was at least moderately helpful in improving understanding of a case report, the condition investigated, their clinical reasoning, and the ability to integrate information. Most felt that they improved

The majority believed that they identified weakness in knowledge, improved self-learning skills, and increased confidence in managing patients. Most enjoyed it at least somewhat and 70% agreed that the project should be continued. Many believed that they were better prepared for national boards and had improved their writing skills.

In our institution here has been an increased focus on creating a pragmatic curriculum that produces critically thinking, self-directed learners. This included problem-based learning initiatives, "real practice" learning opportunities (field practice externships), and case-based lectures and laboratories. Continual improvements were desired in these initiatives, so the creation of stimulating learning strategies utilizing integrative approaches was very desirable.

With the above in mind, Pharm D course project was designed based on the traditional case report and key components of the technique and principles curriculum. The case report in particular has utility in preparing students for research and publication opportunities after graduation and has more recently been identified as a neglected but important component to evidence-based practice.



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Other objectives of this learning activity included improving utilization of the peer-reviewed and other clinical literature, improving writing and information technology skills, increasing mastery in an area of special clinical interest, and increasing awareness of the depth and breadth of clinical presentations with their associated patient management options. A final objective was to help prepare students for their senior thesis.

A case report template was designed which was given as a handout and discussed in class. It was also placed on the course Blackboard website as a Word document so that students could work from it and ultimately email their completed project. The typical components of a case report were included and each section had points assigned that were earned when that section was completed correctly.

The case report template began with the initial identifying data section, which included name, age, gender, body type habitus (ecto-, meso-, endomorph), occupation, and other pertinent information (marital status, number of children). The history section started with the chief complaint and utilized the LMNOP acronym (location, mechanism, nature of pain, onset, and palliative/provocative maneuvers), whereby students had to create information for each category.

Students then progressed to the general history section, which utilized the AMPLE acronym [allergies, medications, past medical history (ie, hospitalizations, injuries, diabetes, tumors, operations, and youth diseases), last menstrual period/last meal, and events (personal changes, concerns with care, sleep patterns, diet, tobacco, alcohol consumption, substance abuse)], and a response had to be created for each item.

Family history followed and students had to create one issue regarding either the patient's parents, siblings, children, or spouse. The last item was a psychosocial history, which also required the creation of one issue.

For the review of systems section, a response was required for each of the following: general condition (weight change, fever, fatigue), skin, head, eyes, ears, nose and sinuses, mouth and throat, breasts (male and female), respiratory, cardiac, gastrointestinal, urinary, genitor productive; peripheral vascular, musculoskeletal, neurological, hematological, endocrine, and psychiatric. Responses could include "no abnormalities detected" but at least one clinical condition had to be created.



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### OUTCOMES:

- A student-centred learning approach utilizing fictitious self-written case reports has been described and analysed.
- Students believed that creating their own case report was a worthwhile clinical education endeavour that improved a number of abilities.
- Further investigation should be done to determine the extent that clinical knowledge, skills, and attitudes have actually improved.



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List of students for the Case studies reporting for the academic year 2022-23.

S.NO	Registration Number	Name of the students	Signature
1.	20Q0571	ABIGAIL N MOZHUI	Abigail
2.	20Q0573	ASHISH ABHRAHAM	Ashish
3.	20Q0575	DEBJIT BHAKAT	Dej.
4.	20Q0576	DEEPTI CHOUDHARY	Deepti
5.	20Q0577	DIMPLE G	Dimple
6.	20Q0585	RANJITHA REDDY S	Ranjitha
7.	20Q0586	SHASHIKALA DM	Shashika
8.	20Q0587	SHERLIN HEPZIBAH S	Sherlin
9.	20Q0588	SUBHASHINI N	Subhashini
10.	20Q0591	SYED ALSABA HUSSAIN	Syed Alsaba
11.	20Q0593	TINA LALLY	Tina
12.	19Q0571	ARINDAM DEY	Arindam
13.	19Q0573	BABISHA R	Babisha
14.	19Q0574	BHAVYASHREE N	Bhavys
15.	19Q0576	DHARUNBALA L	Dharun
16.	19Q0577	FARHANA AA	Farhan
17.	19Q0578	HARSHITHA A	Harshitha
18.	19Q0580	LIKITHA CHANDRASHEKAR	Likitha
19.	19Q0582	NEETHU TP	Neethu
20.	19Q0583	NISHANTH KK	Nishanth
21.	19Q0585	NUNGSCHICILA A JAMIR	Nt.
22.	19Q0587	RISHIKA GUPTA	Rishika
23.	19Q0588	RUDRAMBIKA M	Rudra





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24	19Q0589	SARAVANAGIRI A	<i>Saravanan</i>
25	19Q0591	SEEMA SL	<i>Seema</i>
26	19Q0592	SHREYA DATTA	<i>Sh.</i>
27	18Q0251	ADARSH KUMAR	<i>Adarsh</i>
28	18Q0265	SAFREEN TA	<i>Safreen</i>
29	17Q0711	GIRISH ADITHYA	<i>Girish</i>
30	14Q0725	SAURABH SINGH	<i>Saurabh</i>

S.NO	Case study reported
1.	Case study on Type - 1 Diabetes mellitus
2.	Case study on Hyperthyroidism
3.	Case study on Diabetic Ulcer foot
4.	Case study on Hypertension
5.	Case study on Chronic obstructive pulmonary disease ( COPD )
6.	Case study on Cardiac Arrhythmias
7.	Case study on Open angled Glucoma
8.	Case study on Urinary tract infections
9.	Case study on Chronic kidney disease
10.	Case study on Osteoarthritis
11.	Case study on Gastroenteritis
12.	Case study on Eczema
13.	Case study on Psoriasis
14.	Case study on Candidiasis
15.	Case study on Pulmonary Tuberculosis
16.	Case study on HIV



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17	Case study on Fibroadenoma of Breast
18	Case study on Meningitis
19	Case study on Systemic lupus erythematosus
20	Case study on Gout and Hyperuricaemia
21	Case study on Acute renal failure
22	Case study on Peptic ulcer
23	Case study on Gastro Esophageal Reflux disease
24	Case study on Cronhs disease
25	Case study on Hepatitis
26	Case study on Microcytic Anaemia
27	Case study on Jaundice
28	Case study on Alzheimers disease
29	Case study on Stroke
30	Case study on Trigeminal Neuralgia and Mygraine



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In collaboration with

**THE OXFORD MEDICAL COLLEGE, HOSPITAL  
 AND RESEARCH CENTRE ATTIBELE**

PATIENT DETAILS:									
NAME	AGE	SEX	IP.NO	DEPT	HEIGHT	WEIGHT	DOA	DOD	
REASON FOR ADMISSION:									
PAST MEDICAL HISTORY:									
PAST MEDICATION HISTORY:									
KNOWN ALLERGIES:	YES	NO	MARRIED STATUS		S ( )	M ( )	W ( )	D ( )	
			TOBACCO IN ANY						
SOCIAL ECONOMIC STATUS:					FORM:		YES	NO	
					SMOKER:		YES	NO	
LITERACY STATUS:					ALCOHOLIC:		YES	NO	
LABORATORY INVESTIGATIONS:									
DATE					Blood sugar (mg%)				
Temperature					F.B.S(60-90)				
BP					P.P.S(80-150)				
Pulse					R.B.S(90-110)				
Resp. rate									
BLOOD COUN T:									
Haemoglobin(g/dl)	TLC (cells/cumm) (5000-10000)		ESR (mm/hr) (M<10.F<20)		Differential Leukocyte count (%)				
					N (40-60)	L (20-30)	B (0-1)	E (1-4)	M (1-2)



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Platelets(1-3lakhs)	Clotting time(3-5min):				HCT	RBC (4.5-5.5cells/cumm)			
	Bleeding time (1-3min):								
ELECTROLYTES(m.Eq/l)					URINE EXAMINATION				
Sodium (130-150)					Colour	Sugar			
Potassium (3.5-5.8)					Pus cells	WBC			
Chloride (98-100)					Epithelial cells	RBC			
Bicarbonate (22-36)					Albumin	Casts			
					Bile salts	Bile pigments			
LIVER FUNCTION TESTS					RENAL FUNCTION TESTS				
SGPT(5-37U/L)			Alk.phosphate (84-306U/L)			Urea(mg%) (15-45)			
SGOT(5-40U/L)						Uric acid(mg%) F-2-5, M-2-7			
P.T.Time(14Sec)			Total bilirubin			Sr.Creatinine(mg%)(0.6-1.4)			

<b>SPECIAL INVESTIGATION: CHEST X-RAY REPORT</b>						
<b>PULMONARY FUNCTION TESTS: SPIROMETRY</b>						
<b>SPUTUM TEST:</b>						
YES:			NO:			
CRP TEST;						
<b>OTHER INVESTIGATIONS:</b>						
<b>DIAGNOSIS:</b>						
<b>DRUGS PRESCRIBED</b>						
SL.	TRADE NAME	GENERIC NAME	DOSE	FREQ	ROU	DATE OF TREATMENT



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### Report on Journal Club for the academic year 2022-23

Journal club is an advanced established method for providing exposure to research methodology to the undergraduate and post graduate students who are new to research work and advanced methodologies that are necessary to carry out any research. It helps the students to understand research fundamentals competently. For the Journal club all participating students are mostly advanced learners and have showed keen interest in the research work.

Mostly the students from the final year B. Pharm attended the journal club. Journal clubs are now common in medical and health education training programs. In pharmacy, journal clubs are used in the academic to develop and enhance critical skills for research work. Each club session involves an introduction to the topic followed by the methodology discussion then report presentation and at last a large-group discussion is carried out. At the end the feedback is given by the teacher in charge.

In a journal club, a group of students discuss and understand a particular research interests for a defined pedagogical purpose. The students presented study findings to the instructor and their peers, using PowerPoint presentations. Students were encouraged to make presentations fun, interesting, and engaging.

The club regularly discusses current research articles and try to understand the study design, the method of data analysis, how to draw conclusions, and the potential applications of the research to pharmacy and healthcare. In order to make sound hypothesis and suggestions, it is necessary to know the literature and interpret it properly with the results and discussion. The students in the club are motivated to carry out research and minimally to start with writing review paper.

The students were regularly informed and reminded that research methods would be essential for their future careers as health professionals. They are guided by the teachers to proceed for the literature reviews and once they have written the manuscript they are explained with the approach of selecting a journal and publication houses.

Although the students found the journal club initially challenging, but later many students understood the concepts and tried to write the paper.

Some of the papers got published. The list of the publication for the academic year 2022-23 are enclosed here.

*D. Padme*



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**List of students for the Journal Club for the academic year 2022-23.**

S.N.	Registration Number	Name of the students
1	18P1552	ADITYA J
2	19P5975	HARINI V
3	19P5976	HARISH KUMAR K
4	19P5983	JANHVI ARYA
5	19P5988	KAVYA N
6	19P5989	KAVYA SHREE S
7	19P6006	PAVAN KUMAR C
8	19P6008	POOJA HJ
9	19P6010	PRIYA RAJKUMAR
10	19P6011	RACHITA S V
11	19P6013	RAMYA D
12	19P5987	KAVIARASU S
13	19P5986	KARTHIK M
14	20P5603	KAVYA RS
15	19P6037	THANUSHREE M
16	19P6025	SHIVARAJ KUMAR B
17	19P6017	SANJAY B
18	18P1578	HEMANTH KUMAR P
19	20p5659	NIDHISHREE
20	20p5683	SHRAVYA
21	19P5966	DINESH R



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### Questionnaire for the feedback for the Journal Club.

Questions	Strongly Agree	Agree	Neutral	Disagree
Q1. The Journal Club Presentation format is an effective way to teach critical appraisal of research studies	8	5	8	0
Q2. I understand quantitative research methods	9	7	5	0
Q3. I understand qualitative research methods	11	5	5	0
Q4. I can interpret statistical tests	15	5	1	0
Q5. I can write review research papers	8	9	4	0
Q6. The class overall enhanced my critical reading skills	7	8	6	0



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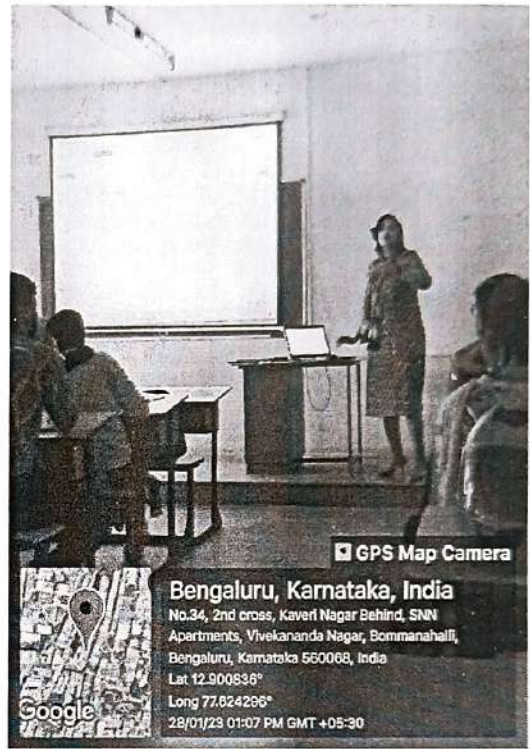
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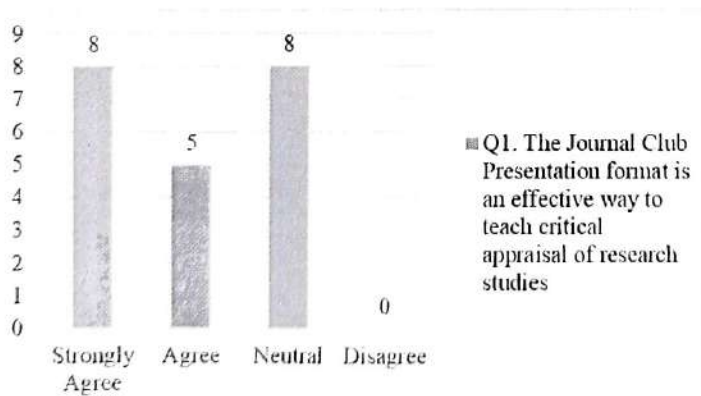
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Some of the Photos from the Journal Club are shown here:



Feedback analysis for the Journal club as received from the students.



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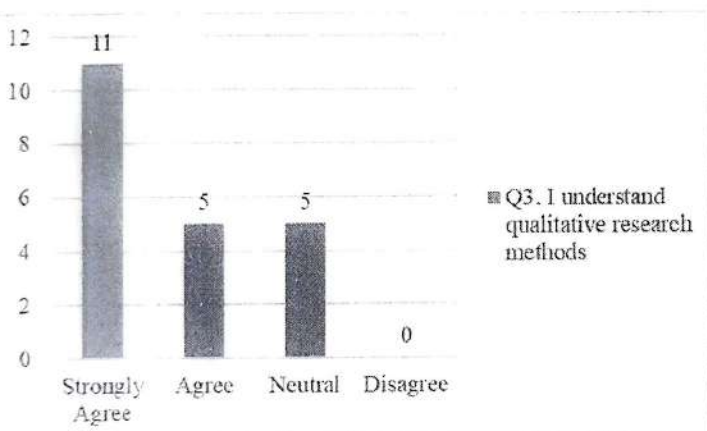
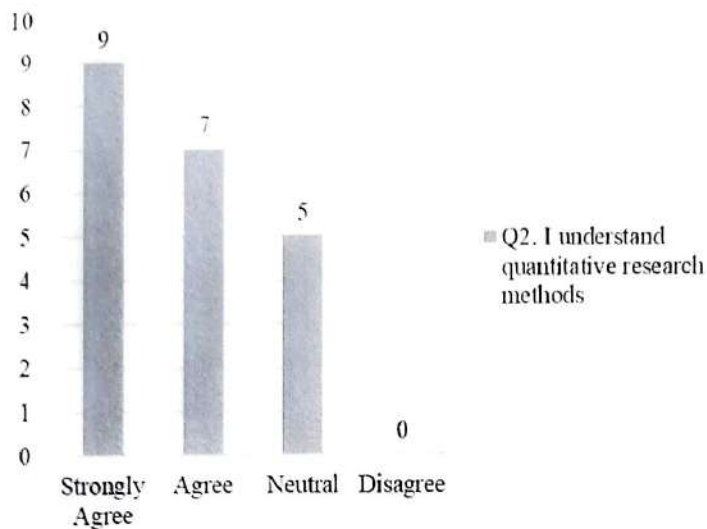
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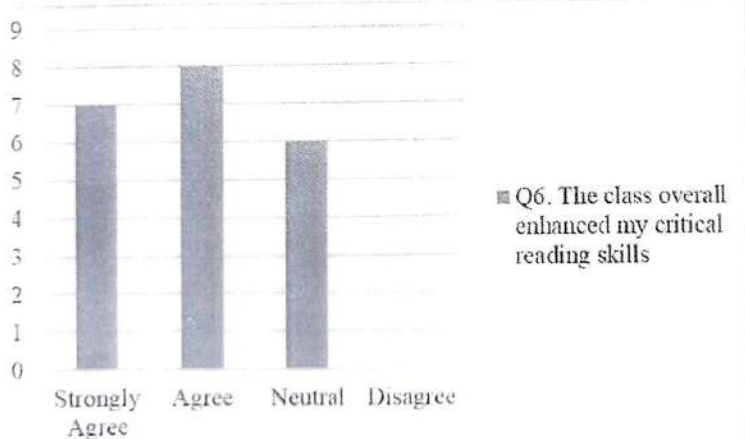
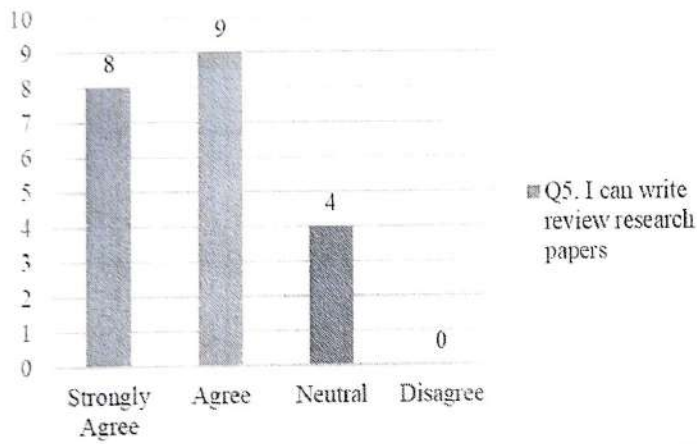
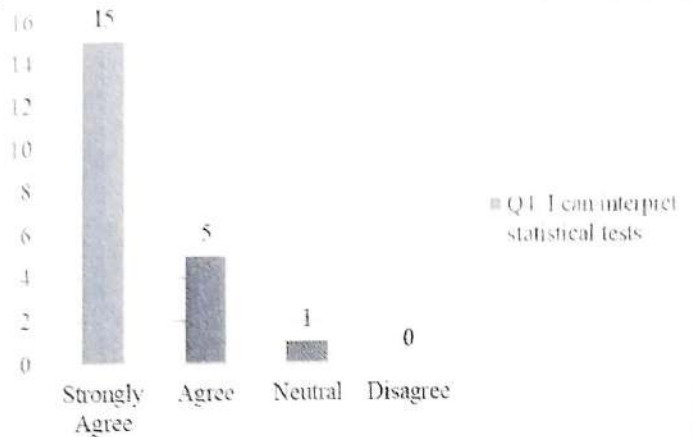


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Students gave positive feedback for the classes conducted in the Journal club. The questionnaire of the feedback analyses the lessons learnt by the students in carrying out research work.



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## Attendance of the Journal Club for the academic year 2022-23

S.N.	Registration Number	Name of the students	1	2	3	4	5	6	7	8	9	10
	Date:		7/3	28/3	18/4	9/5	23/5	30/5	2/6			
1	18P1552	ADITYA J	Adi	Adi	Adi	Adi	Adi	Adi	Adi			
2	19P5975	HARINI V	Harini	Harini	Harini	Harini	Harini	Harini	Harini			
3	19P5976	HARISH KUMAR K	HK	HK	HK	HK	HK	HK	HK			
4	19P5983	JANHVI ARYA	JR	JR	JR	JR	JR	JR	JR			
5	19P5988	KAVYA N	Kavya	Kavya	Kavya	Kavya	Kavya	Kavya	Kavya			
6	19P5989	KAVYA SHREE S	KS	KS	KS	KS	KS	KS	KS			
7	19P6006	PAVAN KUMAR C	Pavan	Pavan	Pavan	Pavan	Pavan	Pavan	Pavan			
8	19P6008	POOJA HJ	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja			
9	19P6010	PRIYA RAJKUMAR	PR	PR	PR	PR	PR	PR	PR			
10	19P6011	RACHITA S V	Rachita	Rachita	Rachita	Rachita	Rachita	Rachita	Rachita			
11	19P6013	RAMYA D	RD	RD	RD	RD	RD	RD	RD			
12	19P5987	KAVIARASU S	KS	KS	KS	KS	KS	KS	KS			
13	19P5986	KARTHIK M	KM	KM	KM	KM	KM	KM	KM			
14	20P5603	KAVYA RS	Kavya	Kavya	Kavya	Kavya	Kavya	Kavya	Kavya			
15	19P6037	THANUSHREE M	TM	TM	TM	TM	TM	TM	TM			
16	19P6025	SHIVARAJ KUMAR B	Shiva	Shiva	Shiva	Shiva	Shiva	Shiva	Shiva			
17	19P6017	SANJAY B	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay			
18	18P1578	HEMANTH KUMAR P	Hemant	Hemant	Hemant	Hemant	Hemant	Hemant	Hemant			
19	20p5659	NIDHISHREE	Nidhi	Nidhi	Nidhi	Nidhi	Nidhi	Nidhi	Nidhi			
20	20p5683	SHRAVYA	Shravya	Shravya	Shravya	Shravya	Shravya	Shravya	Shravya			
21	19P5966	DINESH R	DR	DR	DR	DR	DR	DR	DR			
Signature of the teacher												

*M. Srivastava*  
Class Co-ordinator:

Dr Noopur Srivastava

*M. Srivastava*  
HOD

Dr Noopur Srivastava

*P. Padmaa*  
PRINCIPAL

The Dr Padmaa M Paarikimacy  
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### Outcome of the program:

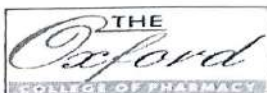
1. The students were able to understand the importance of research methodology and publication ethics.
2. Many students published their papers in reputed journals.
3. Students developed interest in research work and got the exposure of how to write hypothesis and carry out research work.

Many students from the journal club had published the papers in peer reviewed journals. The list of the papers for the academic year 2022-23 are as follows:

S. N.	Title of the paper	Name of the author	Department of Teacher	Name of the journal	Status
1	A comprehensive review of <i>Nyctanthes arbor-tristis</i> Linn	Padmaa M Paarakh, Pavan Kumar C, Pooja H J, Priya Rajkumar, Rachitha SV, Ramya D, Muthu Kumar A	Pharmacognosy	YMER	2023
2	<i>Sida acuta</i> f: A comprehensive review	Padmaa. M. Paarakh, Karthik. M, Kaviarasu.S, Kavya. N, Kavya Shree. S, Kavya.M, A. Muthu kumar.	Pharmacognosy	YMER	2023
3	A Systematic Review of the Phytochemical Constituents and Bioactive Properties of <i>Mussaenda Frondosa</i> "	Suvarnalakshmi Gunturu, Nidhishree S, Shravya, A. Muthukumar, Jyoti Shrivasthava, Padmaa M paarakh	Pharmaceutical Chemistry	YMER	2023
4	A Comprehensive Review of Herbal Lotions for Treatment of Dermal Infections Caused by Various Microbial Strains	Gururaj S kulkarni, Aditya J, Aparna OM, Arroju Hrithik, Sreelakshmi S, Swetha G, Padma M parak, A Muthukumar	Pharmaceutics	YMER	2023
5	A Comprehensive Review of Various Mycobacterium Species	S Joyce Arokiaselvi, Gowthami G N, Harini V, Harish Kumar K, Janhavi Arya, Kailash Chandra C, Noopur Srivastava, A. Muthukumar, Padmaa M Paarakh	Pharmacology	YMER	2023

P. Padma  
PRINCIPAL

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**THE OXFORD COLLEGE OF PHARMACY**  
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# **JOURNAL CLUB PRESENTATION**

Submitted to,  
Dr. Noopur Srivastava  
Assoc. Professor and HOD Incharge  
Department of Pharmacology

Submitted by

19P6010	PRIYA RAJKUMAR
19P6011	RACHITA S V
19P6013	RAMYA D

**“Protocatechuic acid attenuates chronic  
unpredictable mild stress induced-behavioral  
and biochemical alterations in mice”**

➤ **AUTHORS-** Vishnu N. Thakare

*Department of Pharmacology, Institute of Pharmacy, Nirma  
University, Ahmedabad, 382 481, Gujarat, India.*

➤ **PUBLISHED IN-** European Journal of  
Pharmacology

➤ **RECEIVED ON-** 28<sup>TH</sup> November, 2020

➤ **ACCEPTED ON-** 1<sup>ST</sup> March, 2021



# INTRODUCTION

- Major depressive disorder is characterized by low mood, loss of interest in normal activities, anhedonia, feelings of worthlessness, sleep disturbances and increased suicidal tendencies.
- The etiopathological mechanism(s) underlying depressive disorder is documented to be a stressful factor, decreased functioning in noradrenaline and/or serotonin.
- The increased production of free radicals and consequently impaired endogenous defense mechanism (antioxidant enzymes) in the brain is due to oxidative stress are implicated in depressive-like behavior.

- Compelling evidence from preclinical and clinical studies warrants the pathophysiology of depression and neurobiology of stress is associated with hyperactivity of the hypothalamic-pituitary-adrenal axis (HPA-axis) and altered Brain-derived neurotrophic factor (BDNF), which is a common feature of stress-related disorders including depression.
- The activation of the HPA axis likely to induce production release of adrenocorticotrophic hormone subsequently increases cortisol and corticosterone production.



- Patients with major depressive disorder state exhibited increase in inflammatory cytokines response, mainly interleukin-1 (IL-1) and tumor necrosis factor- $\alpha$ (TNF- $\alpha$ ).
- Similarly, the injection of TNF- $\alpha$  found to induce depressive state in mice, thus corroborate the participation of cytokines (mainly, IL-1, IL-6, and TNF- $\alpha$ ) during depressive state.
- Chronic unpredictable mild stress (CUMS)-induced depression is routinely used for screening of antidepressant agents and understanding the pathophysiological aspects of depression and the associated therapeutic interventions.



- Protocatechuic acid ethyl ester (PCA) elicited neuroprotection through enhancing antioxidant potential of endogenous biomolecule during oxidative stress and also exerted antidepressant activity through inhibition of monoamine oxidase-A (MAO-A) and MAO-B as these enzymes are involved in degradation of serotonin, norepinephrine and dopamine respectively.
- Besides, PCA showed anti-inflammatory, antihyperglycemic, analgesic and antiapoptotic activities in experimental animals, protected brain mitochondrial function in streptozotocin-induced diabetic rats abrogated reproductive deficits in diabetic rats via mechanisms involving suppression of oxidative stress, inflammation and caspase-3 activity along with enhancement of sperm functional parameter and ameliorates neurocognitive disturbances in chronic intermittent hypoxia.

# MATERIALS AND METHODS

- **Animals-** Male Swiss albino mice 22–28 g (65–75 days old).
- **Experimental Design-** The mice were divided into various groups (7 mice per group) and treated as:
  - Vehicle (10 ml/kg) per *oral* (*p.o.*), or fluoxetine (20 mg/kg; *p.o.*) or
  - (PCA 100 and 200 mg/kg, *p.o.*) to non-stress and CUMS stress groups for 24 days. The doses of PCA (100 and 200 mg/kg, *p.o.*) and fluoxetine (20 mg/kg, *p.o.*) were selected based on literature survey, pilot studies and from earlier findings.
  - PCA and fluoxetine were prepared in a carboxymethylcellulose (1%, w/v) as vehicle and administered orally between 9,00 a.m. and 10,00 a.m. once a day for 24 consecutive days (from day 8th to 31st day).

The groups are divided as:

Vehicle + Non- CUMS

Fluoxetine (20 mg/kg) + Non-CUMS

PCA (100 mg/kg) + Non- CUMS

PCA (200 mg/kg) + Non- CUMS

Vehicle + CUMS

Fluoxetine (20 mg/kg) + CUMS

PCA (100 mg/kg) + CUMS

PCA (200 mg/kg) + CUMS



# CUMS Procedure

DAY	DURATION	STRESSOR PARADIGMS
Monday	24 h 24 h	Food deprivation Water deprivation
Tuesday	01 h 24 h	Empty bottle Foreign object
Wednesday	06 min 12 h	Forced swimming Overnight illumination
Thursday	02 h 07 h	Restraint Cage tilt (45°)
Friday	12 h 24 h	Food deprivation Soiled cage
Saturday	24 h 12 h	Water deprivation Overnight illumination
Sunday	01 h 07 h	Empty bottle Cage tilt (45°)

- **Behavioral Studies-**

- Observation of safety measures excitement, convulsion, itching, and tremors in nonstressed and CUMS mice
- Body weight and sucrose preference test
- Forced swim test (FST) in mice
- Open-field test (OFT) in mice

- **Biochemical studies-** After behavioral tests, the blood was collected from the direct cardiac puncture, serum was separated and stored (20° C) until use. Mice were killed by decapitation; brain samples were rapidly removed and immediately kept in an ice-cold saline solution. The hippocampus and cortex were dissected on a cold plate and frozen in liquid nitrogen immediately. The tissue samples were stored at 80 °C until biochemical studies.
  - Estimation of BDNF, and TNF- $\alpha$  and IL-6
  - Measurement of serum corticosterone (CORT) level
  - Determination of malondialdehyde (MDA) concentration
  - Measurement of antioxidant paradigms- Catalase (CAT) activity and glutathione (GSH) contents in the form of non-protein thiol (NPSH), (NPSH is an indirect measure of the amount of GSH) in supernatants of the hippocampus and cerebral cortex were determined.



## Results

- **Effects of PCA, fluoxetine or vehicle on body weight, sucrose preference and immobility time-** Post hoc analysis indicated PCA or fluoxetine improved the body weight partially on 28th day compared to CUMS paradigms in mice. The experimental findings revealed that CUMS subjected mice elicited lower preference to sucrose solution which was subsequently improved with PCA treatment.
- **Effects of PCA or fluoxetine on number of crossing, rearing and grooming behaviours in OFT-** In exploratory behaviors, it was found that non-significant differences for CUMS stress PCA or fluoxetine treatments and interaction of stress  $\times$  treatments for crossing numbers, rearing and grooming behaviors by OFT in mice

- **Effects of PCA or fluoxetine on BDNF levels-** The experimental findings suggested mice exposed to CUMS paradigms exhibited significant decrement in BDNF level in hippocampus when compared to nonstressed group, and subsequently administration of PCA or fluoxetine treatment improved significantly the BDNF level
- **Effects of PCA or fluoxetine on TNF- $\alpha$  level- PCA and fluoxetine treatment significantly attenuate elevated TNF- $\alpha$  compared to vehicle treated CUMS group in these tissues.**
- **Effects of PCA or fluoxetine on IL-6 level- Post hoc analysis suggested that CUMS exposed mice elicit significant elevation IL-6 as compared to vehicle treated non-stressed group in both hippocampus and cerebral cortex which were subsequently attenuated with PCA and fluoxetine treatment.**



- **Effects of PCA or fluoxetine on serum CORT level-** PCA or fluoxetine treatment noticeably attenuated serum CORT compared to CUMS vehicle group.
- **Effects of PCA or fluoxetine on MDA formation-** Post hoc results suggested that mice exposed to CUMS had a significantly increased MDA formation in hippocampus and cerebral cortex which were subsequently prevented with PCA
- **Effects of PCA or fluoxetine on CAT activity and non protein thiol (NPSH) contents-** Post hoc analysis revealed that CUMS subjected mice exhibited significant reduction in both CAT activity and NPSH contents which were significantly restored with PCA or fluoxetine treatment



# DISCUSSION

- In the present experiment we administered the PCA to animals from second week (8th day) of CUMS protocol in order to understand the effects in stressed conditions, for first week of CUMS involved various paradigms of stress and mice slowly developed anhedonic state. From second week of CUMS, experimental data suggested that mice showed low preference to sucrose solution which was improved significantly with PCA or fluoxetine. These findings are further agreements with various documented findings, in which they found that antidepressant drugs were shown to improve the preference to sucrose solution in CUMS procedure.
- In the current studies, CUMS subjected animals exhibits increased immobility time in FST indicating the appearance of depressive symptom which is subsequently attenuated with PCA or fluoxetine treatment.

- In the present studies, we did not observe any significant changes in crossing behavior in OFT in both non stressed and CUMS stressed mice treated with PCA and fluoxetine, hence it might be possible that antidepressant-like activity of PCA and fluoxetine is independent of psychomotor-stimulant action in OFT.
- The documented report enumerates that the patient with major depressive disorder showed lower BDNF expression and subsequently the antidepressants were found to restore to normal level. Further, it was found that PCA treatment could be able to enhance the BDNF expression in the hippocampus and cerebral cortex of A $\beta$ PP/PS1 mice and thus improved the spatial learning process.



- It was demonstrated PCA intake effectively diminished over-expression of TNF- $\alpha$  and IL-6, which consequently mitigated inflammatory stress response in brain. There is possible participation of TNF- $\alpha$  and IL-6 in the CUMS induces depressive behavior and their subsequent amelioration with PCA administration.
- In the present study, we found that CUMS mice exhibit increased corticosterone than normal mice and subsequently PCA treatment could be able to prevent such elevation.
- PCA is able to improve CAT and GSH activity reduced MDA formation due to stress in mice, we found that CUMS mice exhibit elevation of MDA formation and decrement in CAT activity and GSH level in the hippocampus and cerebral cortex which was subsequently ameliorated indicating antidepressants like activity of PCA and fluoxetine.



## CONCLUSION

Based on the aforementioned findings, we propose antidepressant potential of PCA in CUMS by following mechanism(s) as PCA able to prevent decrement in BDNF level, attenuated inflammatory cytokines (TNF- $\alpha$ , IL-6), serum CORT level and MDA formation and augmented CAT activity and NPSH content response thus modulate oxidative stress in mice.