



Bapusahab Dipak Patil

(B.Com.)
President

Smt. Kamaltai P. Patil

Hon. Secretary

Dr. Sunil P. Pawar

(M.Pharm., Ph. D.)
Principal

2.3.1. Students centric methods, such as experimental learning, participative learning & problem solving methodologies are used for enhancing learning experiences

Experimental Learning

Hands-on Learning:

B. Pharmacy & M. Pharmacy students are gaining the knowledge of theory & practical as a part of curriculum. Faculty has design various experiments according to the syllabus assign by KBCNM University, Jalgaon. Practical scheduled as per the scheduled time, through the experiments students gain practical knowledge about the handling of animals, UV- Visible spectrophotometer, Dissolution test Apparatus, Tablet compression machine, actophotometer etc.



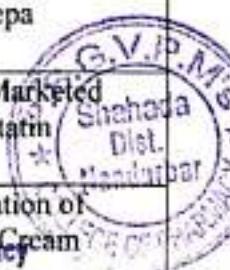
SGPAL
 SG College of Pharmacy
 P.O. Box No.41
 Shahada, Dist. Nandurbar

**Project Base learning:**

B. Pharmacy & M. Pharmacy students are gaining the knowledge through project base learning. As per the curriculum of CGPA & PCI syllabus, guide assign to group of students for respective subject research work.

Academic year: - 2022-23

Sr. No	Name of Guide	Name of Students	Title of Projects
1	Dr.J.K.Patil	Ms.Nisha Komalsing Airrao	Preparation and Evaluation of Ayurvedic Hair Care Product (Taila)
		Mr.Ansari Mohammad Aatif Ab.Rauf	
		Ms.Jayshree Sanjay Bagal	
		Ms.Snehal Sunil Borse	Microscopic, Pharmacognostic and Phytochemical Screening of Epiphyllum Oxypetalalum Haw Leaves
		Mr. Bhupedra Dipil Chaudhari	
2	Prof.H.S.Hasni	Mr.Durgesh Purushottam Chaudhari	Extraction, Identification, Evaluation and Comparative Study of Pectin obtained from various natural sources
		Mr.Kiran Vijay Chaudhari	
		Ms.Chetana Anilbhai Chaudhari	Formulation and Evaluation of Herbal Gel Peel Off Mask
		Ms.Hemangi Somnath Chaudhari	
		Ms.Mayuri Ravindra Chaudhari	
		Ms.Mitali Ambalal Patil	Formulation and Evaluation of Polyherbal Syrup for Sickle Cell Anaemia Disease
		Ms.Mitaliben Ravindrabhai Patil	
		Ms.Rutika Snil Patil	
		Mr. Manish Ishwar Patil	Formulation and Evaluation of Medicated Chocolate for Antiparkinson's Disease
		Ms.Mansi Shaileshdra Patil	
4	Dr.H.P.Suryawanshi	Mr. Mayur Subhash Patil	
		Ms.Priyanka Vinod Chaudhari	Anthelmintic Activity of Limonia Acidissima Leaves Extract on Indian Earthworm
		Ms.Rajashri Ramesh Chaudhari	
5	Dr. S.A. Patil	Ms.Riya Nandalal Chaudhari	
		Mr.Roshan Girdhar Patil	Preparation and Evaluation f Herbal Nutmeg Night Face Cream
		Mr.Satyajeet Mahendra Chaudhari	
		Mr.Tejas Dhananjay Chaudhari	
		Ms.Yachika Dipak Chaudhari	Formulation and Evaluation of Rice Face Cream
		Mr.Yash Dashrath Chaudhari	
		Mr.Yash Umakant Chaudhari	
6	Mr.S.A.Tadvi	Ms. Saloni S.chhajed	Formulation and Preliminary Evaluation of Herbal Lepa
		Ms.Aishwarya J.Gavit	
		Ms. Supriya C.Ishi	
		Mr. Bhairavsing Rajendrasing Girase	To Evaluate Different Marketed Formulation of Atorvastatin
		Mr.Gaurav Gulabsing Girase	
		Mr. Kunal Komalsing Girase	
		Ms.Pranali Pramod Patel	Formulation and Evaluation of Herbal Multifunctional Cream
7	Mr.Y.B.Rokde	Ms.Bhagyashri Ambalal Patel	Shahnara College of Pharmacy SHAHNARA - 425409 Dist. Nandurbar.
		Ms.Bhagavati Pushpalal Patel	
		Mr. Hemadra Vinod Dabral	Formulation and Evaluation of



Bapuji Shri Dipak Patil

(P. Chm.)
President

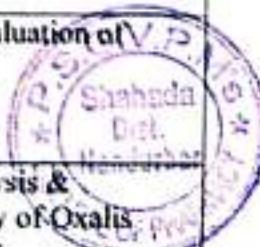
Smt. Kamalata P. Patil

Hon. Secretary

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Principal

		Mr.Latesh Yashwant Patel	herbal shampoo using Neem, Amla & Reetha Extract
		Mr.Prasad Manish Patil	
		Ms.Sayali Rakesh Patel	Cancer causes and Treatments
8	Ms.S.G.Patil	Ms.Pallavi Bhilaji Jire	Formulation and Evaluation of Peel Off Mask
		Ms. Mayuri Valmik Khairnar	
		Ms.Mayuri Vithoba Mali	
		Ms.Varsha Sanjay Marathe	Formulation and Evaluation of Herbal Face Scrub
		Ms.Akanksha Purushottam Nikam	
		Mr.Gautam Sanjay Marathe	
9	Mr.A.S.Jain	Ms. Prachi Rajaram Chaudhari	Evaluation of Anti-Anxiety Activity of Fruit Malus Domestica in Swiss Albino Mice
		Ms.Nikita Arjun Chaudhari	
		Ms. Prachi Ashok Chaudhari	Evaluation and Formulation of Diuretic Activity using Extract of Monnier on Albino Wister Rats
		Ms. Neha Ashok Chaudhari	
		Mr.Kalpesh Ravindra Patil	Formulation and Evaluation of Herbal Emulgel Cream
		Mr.Lalit Suresh Patil	
		Mr.Lalit Radheshyam Patil	
		Ms.Jagruti Kishor Patil	Formulation and Evaluation of Poly herbal Ant acne Gel
		Ms.Kaveri Rameshwar Patil	
10	Mr.A.R.Dhankani	Ms. Bhakti Shiram Patil	Formulation and Evaluation of Herbal Ant acne Face Serum
		Ms.Bhagyashri Sunil Patil	
		Ms.Bhagyashri Govind Patil	
		Mr.Bhavesh Mohan Patil	Formulation and Evaluation of Herbal Floor Cleaner
		Mr.Bhavesh Pralhad Patil	
		Ms.Bhavana Ganesh Patil	
11	Mr.D.R.Patil	Ms.Nikita Suresh Patil	Formulation, Development and Evaluation of Medicated Lollipop
		Ms.Nikita Limji Patil	
		Mr.Pankaj Nimba Patil	
		Mr.Parth Shidhar Patil	Preparation and Evaluation of Herbal Hair oil
		Ms. Pranjal Gorakh Patil	
		Ms.Payal Kishor Patil	
12	Mrs. M.A. Dhankani	Ms.Harshada Jagdish Patil	Formulation and Evaluation of Harbal Hair Gel
		Ms.Harshada Kailash Patil	
		Ms.Hetakshi Vilas Patil	Preparation and Evaluation of Antilice Hair Cream using Annona Muricata Leaves
		Ms.Hetal Pravin Patil	
		Mr. Himanshu Yogesh Patil	
13	Mr.S.R.Shaikh	Ms.Jayashri Mahesh Pawar	Formulation and Evaluation of V.P. Multi Herbal Soap
		Mr.Tejas Gokul Saindane	
		Ms.Divya Pratap Salunkhe	
		Mr.Sagar Vishnu Patil	
		Mr. Vishal Arun Patil	Phytochemical Analysis & Antibacterial Activity of Oxalis Corniculata
		Ms.Yukta Dayabhai Patil	
		Mr.Harshal Sambhaji	
14	Mrs.A.N.Patil	Mr.Rushikesh Jaganath Patil	Formulation and Evaluation of Dry Herbal Powder Shampoo
		Mr. Daksh Ishwar Patil	P.S.G. College of Pharmacy
		Mr.Bhupendra Kishor Patil	SHAHADA - Alandi - Henderbat.



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President**Smt. Kamalata P. Patil**

Hon. Secretary

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		Mr. Dipak Mohan Patil Ms. Devyani Yogesh Patil	Herbal Mouthwash
15	Mr. A.Z. Shaikh	Ms. Sayali Dinesh Patil Mr. Vikrant Yashvant Patil Mr. Vaishnavi Dharmendra Patil	Formulation and Evaluation of Herbal Handwash Tablet
		Ms. Shruti Krishnadas Patil	Formulation and Evaluation of Topical Anti-Acne Gel from Coriander and Garlic Extract
		Ms. Shivani Ishwar Patil	
		Ms. Suchita Shantilal Patil	
		Ms. Narayani Rajesh Patil	Formulation and Evaluation of Herbal Facewash Gel
		Ms. Neha Chandrashekhar Patil Ms. Nikita Kantilal Patil	
17	Mr. R.M. Chaudhari	Mr. Bhavesh Ganesh Shimpi Mr. Sumit Raju Sonawane Mr. Saurav Jagadish Patil	Phytochemical & antimicrobial investigation of Tridax Procumbens linn
		Ms. Harsha Shantilal Suryawanshi	Formulation and Evaluation of Herbal Cold Cream by using Aegle Marmelos
		Ms. Komal Vijay Sonwane	
		Mr. Rahul Bharat Tadvi	
		Ms. Ashwini Rajendra Patil Ms. Anjali Rajendra Patil	Formulation and Evaluation of Herbal Face Serum Containing Vera and Aegle Marmelos
		Ms. Ankita Sanjay Patil Ms. Sejal Tukaram Patil	Skin whitening effect of ethanolic extract of cinnamomum zeylanicum bark
18	Mr. R. B. Lovhare	Mr. Shubham Chhotulal Patel	Comparative in vivo study on quality analysis on bisacodyl of different brand
		Mr. Aakash Chhotulal Patel	

List of Projects II nd Year M. Pharm (Pharmaceutics)**(2022-23)**

Sr. No.	Name of Students	Title of Thesis	Name of Guide
1	Chaudhari Ankita Pramod	Formulation and In-vitro Characterization of Mouth Dissolving Film of Clopidogrel Hydrogen Sulphate	Mr. S. A. Tadavi
2	Ijapure Vipul Pandit	Formulation And Evaluation Of Herbal Carrier Based Floating Microsphere Of Diltiazem Hydrochloride	Mr. S. A. Tadavi
3	Patil Bhagyashri Ambalal	Formulation of Celecoxib loaded Niosomal gel to enhance transdermal delivery & its In-vitro characterization	Mr. S. A. Tadavi
4	Joshi Sohan Harishchandra	Formulation and Evaluation of Fluconazole Emulgel using Quality by Design Approach	Mrs. M.A. Dhankani
5	Patel Bilalahmed Alim	Formulation And Evaluation Of Herbal Anti-Acne Cream Containing "Nigella Sativa" And "Azadirachta Indica" Extract	Ms. S. G. Patil
6	Shaikh Zubair Saghir Ahmed	Formulation and Evaluation of Herbal Mouthwash Containing "Nigella Sativa"	Ms. S. G. Patil, College of Pharmacy, Shahada, Dist. Nandurbar (M.S.) 425 409

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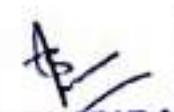
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Principal

7	Soni Ankita Kishor	Preparation, Characterization And Evaluation of Raloxifene Hydrochloride Nanoparticles	Ms. S. G. Patil
8	Patil Gaurav Rajendra	Formulation and evaluation of orally disintegrating taste masked Drotaverine HCL tablets	Mrs. M.A. Dhankani

List of Projects II nd Year M. Pharm (Pharmaceutical Quality Assurance) 2022-23

Sr. No.	Name of Students	Title of Thesis	Name of Guide
1	Patil Jayesh Dilip	Development and Validation of RP-HPLC and UV Spectroscopy Method for The Determination of Diroximel Fumarate in Bulk Drug and Pharmaceutical Dosage Form	
2	Patil Jatin Sharad	Stability Indicating Analytical Method Development And Validation Of Evogliptin In Bulk Drug And Pharmaceutical Dosage Form By RP-HPLC	
3	Patil Tejaswini Rajendra	Stability Indicating Method Development and Validation For Estimation of Febuxostat by UV & U-HPLC In Bulk and Pharmaceutical Dosage Form	Dr. S. P. Pawar
4	Patil Vedashri Ganesh	Development And Validation Of UV Spectrophotometric And UHPLC Method For The Determination Of Dofetilide In Bulk Drug And Dosage Form	
5	Pawar Tejal Motilal	UV and RP-HPLC method development and validation of Osilodrostat in bulk drug and its formulation	
6	Chaudhari Sakshiben Kailashbhai	Method development and validation of Tamoxifen by UHPLC in bulk drug and tablet dosage form	
7	Chavhan Prajakta Ganesh	Analytical Method Development And Validation Of Dapagliflozin In Bulk Drug And Pharmaceutical Dosage Form By U-HPLC Method	
8	Patil Damini Mahendra	Method development and validation of Empagliflozin in bulk drug and tablet dosage form by using UHPLC	Dr. S. A. Patil
9	Patil Kalyani Pralhad	Method Development And Validation Of Levetiracetam By UHPLC In Bulk And Tablet Dosage Form	
10	Vasave Laxmi Satish	UHPLC method development and validation of Ozenoxacin in bulk and its formulation	S.G.V.P.MandaRa College of Pharm. SHAHADA, ASARADE Dist. Nandur
11	Girase Tejasweeni Harpalsingh	Development And Validation Of UV-Spectrophotometric And RP-UHPLC Method For The Determination Of Clomiphene Citrate In Bulk Drug And Tablet Dosage Form	Dr. J. K. Patil




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 S.G.V.P.MandaRa College of Pharm.
 SHAHADA, ASARADE Dist. Nandur

पूज्य साने गुरुजी विद्या प्रसारक मंडळाचे

ओषधानिर्माणशास्त्र महाविद्यालय

पा. घटना नं. ४१

गांवां, जि. नंदुरबार, (महाराष्ट्र) ४२५४०९

II क्रमांक नामांकनार्थीला



Poojya Sane Guruji Vidya Prasarak Mandal's

COLLEGE OF PHARMACY

P. O. Box No.41

Shahada, Dist.: Nandurbar, (M.S.) 425 409

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• Fax No. 229740 Tel. No. 02565-229168 • E-mail: copshd@gmail.com • Website : psgvppharmacy.ac.in

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12	Patel Kiran Bhagwan	Analytical Method Development and Validation of UHPLC and UV Spectroscopy Method for The Determination of Gemfibrozil in Bulk Drug and Pharmaceutical Dosage Form	
13	Patil Devyani Dinesh	Analytical Method Development and Validation of UHPLC and UV Spectroscopy Method for The Determination of Obeticholic acid In Bulk Drug and Pharmaceutical Dosage Form	
14	Patil Mamta Ambalal	Stability Indicating method development and validation of Ziprasidone by using UV spectrophotometer and RP-HPLC Method	
15	Tatiya Aayushi Shantilal	Stability Indicating Method Development and validation of Calcipotriene by UV Spectrophotometer and RP HPLC method	



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SHAHADA- 425409.Dist.Nandurbar.



Distinguished Dipak Patel
(D. Patel)
Patel Patel

Smt. Kamalata P. Patil
Hon. Secretary

Dr. Sunil P. Pawar
(M.Pharm. BPharm.)
Chembur.

Industrial Learning:

Industrial training, students undertake a period of training at an organization usually during a semester, act as an important part of curriculum to preparing a student for a professional carrier. With actively involved participated, students learn about the operational process of industry & skill set.

Every student admitted to B. pharmacy courses must have experience of industrial training & should have know about operational process of industry & gain information about various department like distillation process department, quality control department where analysis of product have been carried out.

Sr. No.	Name of students	Date of Training	Place of Training
1.	Tejal M. Pawar	16/02/2023	Reliable's Shree Industrial Training Center, Jalgaon
2.	Jayesh D. Patil		
3.	Jatin Patil		
4.	Laxmi S. Vasave	01/02/2023	Reliable's Shree Industrial Training Center, Jalgaon
5.	Damini M. Patil		
6.	Kalyani P. Patil		
7.	Prajakta G. Chavan		
8.	Sakshi K. Chaudhari		
9.	Tejaswini Girase	15/01/2023	Reliable's Shree Industrial Training Center, Jalgaon
10.	Kiran B. Patil		
11.	Aayushi S. Tatiya		



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SHAHADA- 425409.Dist.Nandurbar.

**Participative learning:**

Students Participated & make a poster presentation in various programmes such as Avishkar, conference, Seminars & webinars etc.

Title of Activity/Event: Two Days Research Methodology Workshop and Poster Presentation Competition.

Date: 10-11/03/2023

Venue: PSGVPM's College of Pharmacy, Shahada.

Resource Person: Hon. Dr. R. D. Wagh (Principal, A. R. A. College of Pharmacy, Dhule), Hon. Mr. M. K. Bhamare (Founder Chairman, Gaurav Foundation, Shirpur), Hon. Dr. S. B. Bari (Principal, H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur.)

Evaluators: Hon. Dr. Avinaash Nikam (HOD, Department of Economics, P.S.G.V.P.M's, Art, Science & Commerce College, Shahada), Hon. Dr. M. M. Patil (Assistant Professor, P.S.G.V.P. M's, Art, Science & Commerce College, Shahada)

In Charge of Activity: Ms. Sulbha Patil and Mrs. Mansi Dhankani

Objective of Activity: To guide students about Research Methodology and how to carry out research.

No. of Participants: more than 100

Brief Description of Event: The PSGVP Mandal's College of Pharmacy, Shahada jointly with the Student Development Section of KBCNMU, Jalgaon has conducted the Two Days Research Methodology Workshop and Poster Presentation Competition on 10 and 11 March 2023.

On First day of Research Methodology Workshop and Poster Presentation Competition, workshop was conducted. Principal Dr. Sunil P. Pawar introduced the PSGVP Mandal to the distinguished guest and audience of the workshop. Hon. Dr. R. D. Wagh Principal, A. R. A. College of Pharmacy, Dhule, Hon. Mr. M. K. Bhamare, Founder Chairman, Gaurav Foundation, Shirpur, Hon. Dr. S. B. Bari, Principal, H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur were invited as Resource persons. All the Resource persons guided students about Research Methodology, how to prepare and present research work for poster competition and encourage students to participate in Avishkar. The student participated for the workshops were more than 100.

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प्र॒धा नंतरे पुस्तकी विद्या प्रशासन मंडळारे

प्र॒धा नंतरे पुस्तकी विद्या प्रशासन मंडळारे

प्र॒धा, एवं अंगठा, अंगठा, उंतवाड, महाराष्ट्र

गोपनीय श. एवं अंगठा, अंगठा, उंतवाड, महाराष्ट्र

गोपनीय श. एवं अंगठा, अंगठा, उंतवाड, महाराष्ट्र

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(M.Pharm., Ph.D.)
Principal

On Second Day participants presented the posters in three different themes namely Arts & Commerce, Science & Technology and Education. Hon. Dr. Avinaash Nikam HOD, Department of Economics, P.S.G.V.P.M's, Art, Science & Commerce College, Shahada, Hon. Dr. M. M. Patil, Assistant Professor, P.S.G.V.P. M's, Art, Science & Commerce College, and Shahada evaluated the posters in competition. The student participated for the competitions were more than 70.

All the winner participants were awarded with Trophy and certificates. All the registered participants who attended the workshop and participated in poster competition were given certificates.

The teaching Staff have collectively put their efforts under the leadership of Ms. Sulbha Patil and Mrs. Mansi Dhankani Coordinator of the event and Dr. H.P. Suryawanshi, Student Development Officer, Mrs. A. N. Patil Assist.SDO. Anchoring was done by Mrs. Mansi Dhankani and Vote of thanks was delivered by Ms. Sulbha Patil. The program was concluded by National Anthem.

Outcome of Activity: Students encourage about research and poster making.

Photo-



Inauguration ceremony of workshop &
poster presentation competition "Date-
10th March 2023"



"Registration counter"




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Lecture Delivered by Dr. R. D. Wagh"

Lecture Delivered by Mr. M. K. Bhamare"



"Inauguration Of Poster Presentation Competition" Date – 11th March 2023"



Evaluation Of Posters"



"Prize Distribution"



"Prize Distribution"



पुस्तकालय विद्या प्रसारक मंडळ

पौज्यगुरुजी विद्या प्रसारक मंडळ

प.रा. नं. १८३

शहदा, डि. नंदुरबार, महाराष्ट्र ४२५४०९

Poojya Sane Guruji Vidya Prasarak Mandal's

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Date: 20/01/2013

Clarification

All the teaching and non-teaching staff members are hereby informed that the Two Day Lecture and Research Seminar, Workshop and Poster Competition organized on 20th and 21st March 2013 following schedule will commence after completion of PPTs according to the respective committees.

Sr. No.	Name of committee	Committee members	Signatures
1	Representation committee	Dr. J. K. Patil Mr. A. T. Shinde Mr. R. M. Tamboli	
2	Teach. Power, Memo, Certificate	Mr. A. S. Jave Mr. D. R. Patil Mr. S. A. Patil Mr. S. B. Shinde	
3	Accreditation committee	Mr. S. G. Patil Mr. K. N. Patil Dr. S. T. Patil Mr. A. S. Patil	
4	Fest Committee	Mr. S. G. Patil Mr. K. N. Patil	
5	Decorations committee	Dr. S. T. Patil Mr. A. S. Patil	
6	Discipline committee	Mr. R. B. Lokare Mr. V. B. Salake Mr. H. S. Hane Mrs. V. M. Patil	
7	Poster Presentation and Evaluation	Dr. S. T. Patil Dr. L. P. Savarkar	
8	Publicity committee	Mr. A. S. Jave Mr. D. R. Patil Mr. H. S. Chaudhari Mr. C. M. Patil Mr. A. P. Deshpande	
9	Technical Committee		

Dr. S. P. Pawar
Principal

Certificates:



P.S. Pawar
S.H.N.I.

Jancy
Jurbat.



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Kavayitri Bahinabai Chaudhari
NORTH MAHARASHTRA UNIVERSITY, JALGAON
STUDENT DEVELOPMENT SECTION
SPONSORED
RESEARCH METHODOLOGY WORKSHOP &
POSTER PRESENTATION COMPETITION
Organised by



P. S. G. V. P. Mandal's COLLEGE OF PHARMACY, SHAHADA, Dist. Nandurbar

Certificate

This is to Certify that Prof./Dr./M.Tech./Ms. Patil Chetana T
has participated as Resource Person / Judge / Delegate/ Poster Presenter in KBC NMU, Jalgaon
Sponsored Two Days Workshop and Poster Presentation Competition held at P.S.G.V.P. Mandal's
College of Pharmacy, Shahada (M.S.) on 10th and 11th March 2023

Prof. Mrs. M. A. Dhankani
Co - Ordinator

Prof. Ms. S. G. Patil
Co - Ordinator

Prof. Dr. H. P. Suryawanshi
Student Development Officer

Prof. Dr. S.P. Pawar
Principal & Convenor



Kavayitri Bahinabai Chaudhari
NORTH MAHARASHTRA UNIVERSITY, JALGAON
STUDENT DEVELOPMENT SECTION
SPONSORED
RESEARCH METHODOLOGY WORKSHOP &
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Organised by



P. S. G. V. P. Mandal's COLLEGE OF PHARMACY, SHAHADA, Dist. Nandurbar

Certificate

This is to Certify that Prof./Dr./M.Tech./Ms. Patel Urmila S
has participated as Resource Person / Judge / Delegate/ Poster Presenter in KBC NMU, Jalgaon
Sponsored Two Days Workshop and Poster Presentation Competition held at P.S.G.V.P. Mandal's
College of Pharmacy, Shahada (M.S.) on 10th and 11th March 2023

Prof. Mrs. M. A. Dhankani
Co - Ordinator

Prof. Ms. S. G. Patil
Co - Ordinator

Prof. Dr. H. P. Suryawanshi
Student Development Officer

Prof. Dr. S.P. Pawar
Principal & Convenor



Bapusaheb Dipak Patil
(B.Com.)
President

Smt. Kamalata P. Patil
Mrs. Sonata

Dr. Sunil P. Pawar
(M.Pharm., Ph. D.)

નાના વિજય - એ સુપરિય પ્રોગ્રામ

औषधनिर्माणशास्त्र महाविद्यालयात संशोधन प्रकल्पावर कार्यशाळा

କଥା (ପ୍ରତିନିଧି) - ଦେଖିଲ
ପୁଅ ତାମେଗୁଣୀ ଯିବାଜାଳା
ବଡ଼ଲାକା ବୀହାରିଯିବାଜାଳା
ଯହିଲାହାଯାତ ଯିବାରିଲାନୀର
ଦୀନ ଦିଲାରି ଲୋକିମ ବ୍ୟାଳ
କାର୍ଯ୍ୟକାଳ ଏ ଯାହାପା ବ୍ୟାଳ
କାର୍ଯ୍ୟକାଳ କାହାରେ

या कार्यालय-समाज अप्रू
पत एवं निष्ठा द्वारा कर्तव्य
की कारोबारी प्राप्ति है।
जहाँ दो वर्ग ही हैं, ताकि उन्हीं
एवं आप संघ द्वारा देखा जाए
कि वे कौन से विकास-कार्यों
में विशेष विश्वास रखते हैं। एवं वे वे विशेष
कार्यों का विवरण देते हैं।



की एम.डी. प्राप्त कार्य उत्तिष्ठ होते हैं। वा कर्तव्यालेनु शोषण प्रकल्पमार्ग सारिदारी कामयाद आते। शोषण ही कालीनी गरज अद्भुत विद्याधरी नी शोषणाकांड तथा बैठी करन काम करती है। जैसे प्रशिक्षण हो। जानी का जानी के लिए कार्यालय शंखद्वार अधिक विद्याधरी महाना देखिता। शोषण प्रकल्प तादीकात्मक विद्याधरी नी शोषण शंखद्वार ६० हज़ अधिक विद्याधरी नी शोषण शंखद्वार। विद्यक शंखद्वार प्राप्त अधिक विद्याधरी नी शोषण शंखद्वार। जानी कर लाइसेंस तादीकात्मक विद्याधरी नी शोषण शंखद्वार।

**Two Days Research Methodology
Workshop and Poster Presentation
Competition- News publish in
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देवोनाटी

पूज्य साने गुरुजी विद्या प्रसारक मंडळाच्या औषध निर्माणशास्त्र
महाविद्यालयात संशोधन प्रकल्प विषयावर कार्यशाळा

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द्वारा बोला गुप्तवर्णना...
उत्तमा - यह तो गुप्ते निष
प्रस्तुत करते हैं अपनीविशेष
कलालय, जहाँ तो उन्हींने
संकलन दिया तो उन्होंने उन्हें
निष्पत्ति, यात्राका निष्पत्ति निष्प
त्तिवालय दिया तो उन्होंने उन्हें
निष्पत्ति 'संकलन इन्स्टिट्यूट' का निष्पत्ति
करवाया था 'संकलन इन्स्टिट्यूट'
निष्पत्ति अपनी वास्तविकता
है।

स्वरूपदाता द्वारा दोनों
मुद्रे बिना ही जारी नहीं किये जाते।
कालांतरे में इन दोनों मुद्राओं को बदलने का एक
संकेत दिया गया है।

विद्यालयी वर्षाका विषय
वर्षालयी सभा की अधिकारी ने
प्रतिए १ लाख रुपयांनी विद्यालयातील
सभांची बाबत को हे तापी विषय
विद्यालयाची विशिष्ट दाखले देण्यात
मागू देले.

**Two Days Research Methodology
Workshop and Poster Presentation
Competition- News publish in
Deshounnati on dated- 20/03/2023**



S.G.U.P.D. **of Pharmacy**
Mandurbar.



Bapusaheb Dipak Patil
(B.Com.)
Date _____

Smt. Kamalata P. Patil

Hon. Secretary

Dr. Sunil P. Pawar
(M.Pharm., Ph. D.)
Principal

शहादा येथील औषधनिर्माणशास्त्र महाविद्यालयात
दोन दिवसीय संशोधन प्रकल्पावर कार्यशाळा

प्राचीन भारतीय

वाकात अति व्यापकीय दिविष प्रदर्शनी जैवनीकोटी ही कर्ती प्रभावमे आहे हे नमुदेश्वर उद्घाटन देवतान संहिता एवढ कर्म.

वायातच दुप्रसाद वाचन द्वे एवढी कर्ती की जागीलन की, असाधन प्रदृष्टी सूख महाराष्ट्र आणि तांजावूर ही एवढी विषयक कायदांपत्रांमध्ये आहे. मासोंमध्ये ही कायदी न लागतानी प्रतिवाद आहे तापा अनेक अडवीकी देश असल्यान प्रत्युषितावर्तीनी तथा अद्यावधीचर तात्त्व काळान सोसाईथनावे कर्ती विवरित याच बाबू देखावे.

कायदानी नव्याचा हे अप्राप्त तात्त्वावध प्रदृष्टीने नोंदवून कराली, व्यापारावालांहीय, नगदीवालांहीय सूखी आवाहन असाधारणात ही जोडत असली व्यापारावालांहीय सूखावानुदृत तात्त्वावात. तात्त्वावध काळानाने व्यापारावालीही व्यापारावाली काळ द्वे एवढे महाराष्ट्र आणि असी तात्त्वावध सूखा दिला असल्यान तात्त्वावध काळानाने तथा व्यापारावालीकाळीनी तात्त्वावध द्वे एवढे उत्तम तात्त्वावध कर्ती तात्त्वावध खेडेवालांहीय विलापीनी कुळपापी इकात्त्वावध न ठिकावा कर नाहील व्यापारावाली असल्यान व संस्थापन करी पाहिजे. ती एके कामांमध्ये पाणी कालिकाती व॒ व॑, मार्गीकाव॒ व॑ विवरित व्यापारावालीपाहिजे.

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Janshakti**

2023-04-03
ધર્મ સિટી (૫)

औषधनिमणिशास्त्र महाविद्यालयात संशोधनावर
मार्गदर्शनासह तीन गटांत प्रकल्पांचे सादरीकरण

अस्तित्वात् । अपाप्त

କିମ୍ବା ଏହା ନାହିଁ କୁଣ୍ଡଳ ପାତା
ପାତା ଅନେକାଂଶରେ ଉପରେ ଆଖିଲାଗିଲା
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वार्ता, विषय वैकल्पिक वैज्ञानिक समाजीकरण के लिए उत्तराधिकारी बन गए। यहाँ तक कि विज्ञान विद्यालय के अधिकारी भी इस विषय पर विचार करने आगे आये। यहाँ तक कि विज्ञान विद्यालय के अधिकारी भी इस विषय पर विचार करने आगे आये। यहाँ तक कि विज्ञान विद्यालय के अधिकारी भी इस विषय पर विचार करने आगे आये।



Two Days Research Methodology
Workshop and Poster Presentation
Competition- News publish in
Dainik bhaskar . Date-03.04.2023

PRINCIPAL
P.S.G.V.R.M. College of Pharmacy
SHAHAR, Jhunjhunu - Bundi, Rajasthan.

पूज्य साने गुरुजी विद्या प्रसारक मंडळाचे

प्रोफेसनल फार्मासियराल कृषिविद्यालय

पो. एकात्र न. ४८

शहादा, पर. नंदुरबार, महाराष्ट्र ४२५४००४

प्रमाणित आणि प्रवर्तनात्मक

Poojya Sano Guruji Vidya Prasarak Mandal's

COLLEGE OF PHARMACY

P. O. Box. No.41

Shahada, Dist.: Nandurbar, (M.S.) 425 409

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• Fax. No. 229740 Tel. No. 02565-229168 • E-mail: copshd@gmail.com • Website : psgvppharmacy.ac.in

Bapusaheb Dipak Patil

(B.Com.)
President

Smt. Kamaltai P. Patil

Hon. Secretary

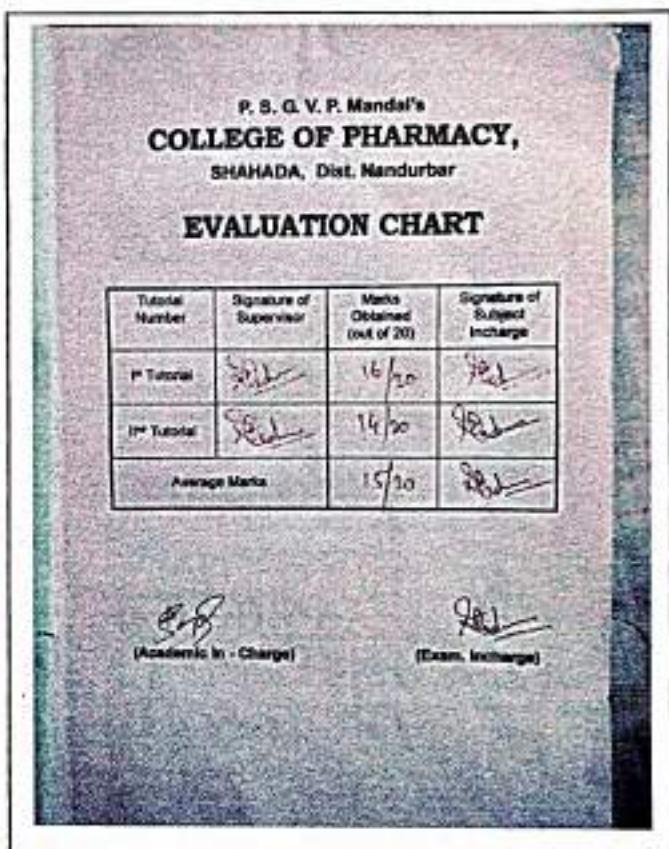
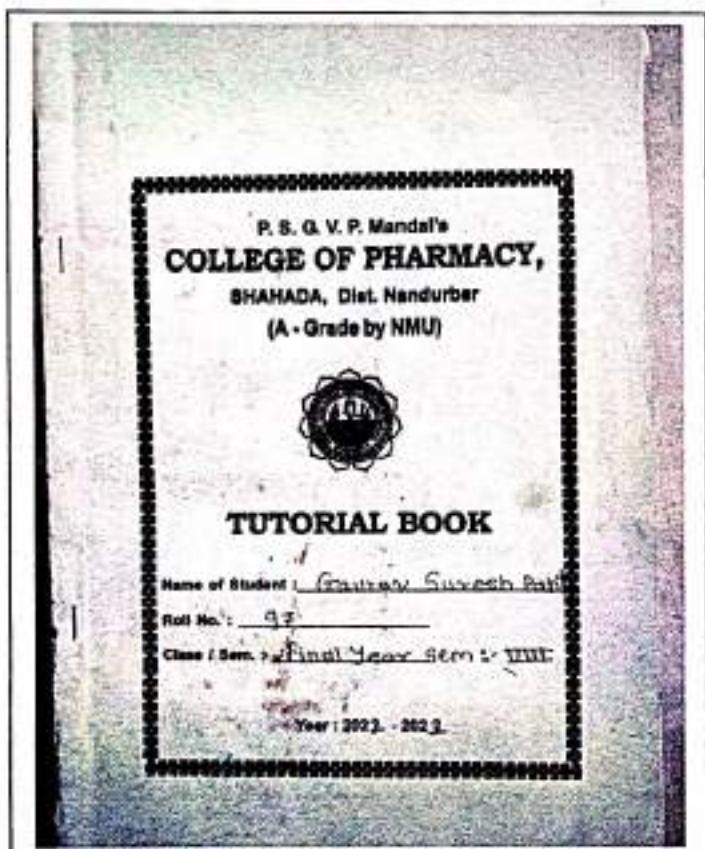
Dr. Sunil P. Pawar

(M.Pharm., Ph. D.)
Principal

Problem solving methodology

Tutorial:

Tutorials are important for your learning because it helps to solve problem in team, develop group skill, & get to know peer better & also clarify any concepts that might not understand.



[Handwritten signature]
PRINCIPAL
P. S. G. V. P. Mandal's College of Pharmacy
SHAHADA, DIST. NANDURBAR, MAHARASHTRA

**Bapusaheb Dipak Patil**(B.Com)
President**Smt. Kamalata P. Patil**

Hon. Secretary

Dr. Sunil P. Pawar(M.Pharm., Ph.D.)
Principal

Φ	<u>Cosmetic Science</u> 16-3-2021
Q.1	<u>Assignment-1</u>
	<u>Q.1 Define and classify cosmetics ?</u>
	cosmetics - As per the Drug and cosmetics act 1940 and rules 1945 cosmetics means any article intended to be rubbed, poured, sprained, sprayed or inhaled.
	They are classified into 4 types they are i /
	i) Based on widely used body parts ii) Based on original form iii) Based on their function iv) Based on various products present in market
	i) Based on various cosmetics ii) Based on personal care products
	<u>Based on widely used body parts:</u>
	i) Hair cosmetics eg:- Shampoo, hair remover, gel sprays etc
	ii) Eye makeup eg:- eye creams, eyeliners, eye liners, mascara etc.
	iii) Skin cosmetics eg:- nail lacquers, makeup remover etc
	iv) Skin cosmetics eg:- creams, powders, deodorants, lotions etc.
	v) Face cosmetics eg:- facial toners, blush etc
	vi) Lip cosmetics eg:- lipsticks, lip balms, lip gloss etc.




P.G.V.P.M.S. COLLEGE OF PHARMACY
 SHAHADA Nandurbar.



Activity Report 2022-23

Title of Activity/Event: One Week Hospital Visit

Date: 04/03/2023 to 13/03/2023

Venue: Sushrut hospital, Shahada

In Charge of Activity: Mr. S. R. Shaikh

Objective of Activity: Pharmacy students are often required to visit hospitals as part of their curriculum. The objective of such visits is to provide students with an opportunity to observe and learn about the role of pharmacists in a hospital setting, and to develop skills that will help them in their future careers. During these visits, students are interacting with patients and healthcare professionals, and to gain invaluable insight into the workings of a hospital pharmacy.

No. Of Participants/ Students: 25

Brief Description of Event: One week hospital visit is organised by P.S.G.V.P.M's College of Pharmacy, Shahada, for B. Pharmacy students. On a first day of training students are first meets with the staff and department HOD where meeting is conducted and information is provided related SOP's of hospital to students. During this meeting different department is selected for the visit & training of students. All the selected department of hospital where visited by the students during the visit very depth explanation and demonstration related handling of different machinery and equipment used in hospital was given by the department HOD. On a last day of hospital training student are meet with the hospital administrator

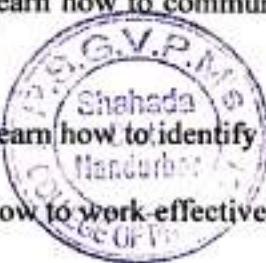
Dr. B.D Patil. During the conversation students are shared their experience and knowledge gained during this visit.

Outcome of activity: Hospital training helps students to develop a variety of skills, including:

Communication skills: Students learn how to communicate effectively with patients, doctors, and other healthcare professionals.

Problem-solving skills: Students learn how to identify and solve problems related to medications.

Teamwork skills: Students learn how to work effectively as part of a team.



P.S.G.V.P.M.
SHAHADA - 425409
Nandurbar, Maharashtra, India

PRINCIPAL
Dr. Sunil P. Pawar

**Bapusahab Dipak Patil**(B.Com.)
President**Smt. Kamaltai P. Patil**

Hon. Secretary

Dr. Sunil P. Pawar(M.Pharm., Ph. D.)
Principal

Hospital training is a valuable experience for pharmacy students. It helps them prepare for their careers and develop the skills they need to provide safe and effective medication therapy to patients.

Photo:

पूजा सांगी विद्या प्रसारक मंडळी

पौष्पनिधिनगार महाविद्यालय

पो. परिवर्तन नं. २१

शहदा, डि. नंदुरबर (महाराष्ट्र) ४२५४०००८

प्रमोत कार्यालय नं.

Pooja Sane Guruji Vidya Prasarak Mandal's

COLLEGE OF PHARMACY

P. O. Box. No.41

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President

Smt. Kamalata P. Patil

Hon. Secretary

Dr. Sunil P. Pawar

(M.Pharm., Ph.D.)
Principal



Hospital Visit Permission letter:

Contact No. 02565- 229168

<http://www.psgvpharmacy.ac.in>

Email: copshd@gmail.com

Pooja Sane Guruji Vidya Prasarak Mandal's
COLLEGE OF PHARMACY



पौष्पनिधिनगार महाविद्यालय,
शहदा डि. नंदुरबर (महाराष्ट्र),
नांदुरबर (महाराष्ट्र) ४२५४०००८, भारत

Accredited by NAAC "A" Grade With CGPA 3.15

COP/2022-23/156

Date: 02/03/2023

To,
Dr. B. D. Patel
Sushrut Nursing Home,
Khetiya Road, Shahada

Subject: Deputation of Pharmacy Students for Hospital Visit.

Respected Sir

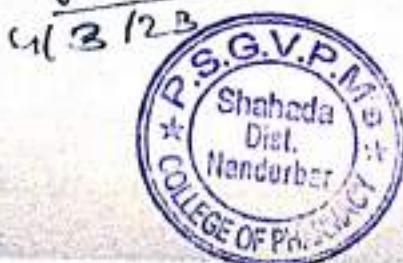
With reference to subject cited above, I'm deputing Pharmacy Students for hospital visit on 04/03/2023. It will really helpful to our students for further applications of theoretical and practical knowledge and will create interest as well as opportunity in pharmacy field. I kindly request please allow our students to visit your hospital.

Thanking you

Yours faithfully

(Dr. S. P. Pawar)
Principal

PRINCIPAL
P.S.G.V.P.Mandal's College of Pharmacy
SHAHADA- 425400, Nandurbar.



**Bapusahab Dipak Patil**(B.Com.)
President**Smt. Kamaltai P. Patil**

Hon. Secretary

Dr. Sunil P. Pawar(M.Pharm., Ph. D.)
Principal**Attendance****P.S.G.V.P.Mandal's College of Pharmacy, Shahada**

Name of Activity: Hospital Visit

Date: 04/03/2023 to 13/03/2023

Venue: Sushrut hospital, Shahada

No. of Participants/Students: 25

Sr.No.	Name of Students	Signature
1)	Patil Latesh yogesh	
2)	Kunal gokul salunkhe	
3)	Patil Jayesh Shaikh	
4)	Nithil Ashok Patil	
5)	Gaurav ganesh Chaudhari	
6)	Mayur Sanjay Patil	
7)	Kothari Tushar Sanjay	
8)	Chaudhari chunvarai Sanjay	
9)	tsh. Sanjay Dilip	
10)	Mohale Dinesh Anurag	
11)	Mahajan Savrabh Jibhai	
12)	Chaudhari Tanmay Rajendra	
13)	Chaudhari Sunil kumarom	
14)	Chaudhari Rubiksha Gopal	
15)	chadharji Rupesh Moriel	
16)	Chaudhari Rushabh J.	
17)	Chaudhari Khushal E	
18)	Shaikh muviq N.b. Nahim	
19)	Shethia Aashutosh Alarendra	
20)	Sonar Dipti Rukhsar	
21)	Sanje Anindita Dattatreya	
22)	Patil Udit Vijay	
23)	Patil Vinayak Laxman	
24)	Patil vishal Rajendra	
25)	Patil vivek khushal	

In Charge of Activity
Mr. S.R. Shankh



Dr. S.P. Pawar
Principal

PRINCIPAL
P.S.G.V.P.Mandal's College of Pharmacy
SHAHADA- 425409. M.S. Nandurbar.

**Publications:****Name of Supervisor:** Sandip Tadavi**Name of students:** Ankita Chaudhari*, Bhagyashri Patil**Class:** Second year M. Pharm**Title:** Formulation and *In-Vitro* Characterization of Mouth Dissolving Film of Clopidogrel Hydrogen Sulphate

Abstract: The purpose of the present investigation was to formulate a mouth-dispersing film of Clopidogrel Hydrogen Sulphate dosage form for a rapid onset of action, which is very easy for administration, without the issue of swallowing and using water. The mouth dissolving film of Clopidogrel Hydrogen Sulphate was prepared by Solvent Casting Method and its' in-vitro characterization was evaluated. The folding endurance of 173.6 ± 0.22 , the drug content is 96.33 ± 1.15 . The drug release rate of the optimized formula A4 is 96.00 % in 5 minutes, and it was concluded according to this result, that the film prepared by HPMC E5 polymer is forming superior film that offers rapid drug release.

Keywords: Clopidogrel Hydrogen sulphate, Mouth Dissolving Film, Solvent Casting Method, Rapid onset of action, HPMC E5.

1. Introduction

Because of all of its benefits, Mouth Dissolving Film is a popular drug administration technique. When MDF comes into contact with saliva, it dissolves instantly and doesn't require any water. As a result, the formulation is enhanced for usage in patients of all ages and patient compliance is increased [1]. MDFs are preparations that come in the form of strips and include active chemicals that have been dissolved or dispersed in materials that create films [2]. It enables fast drug solubility, absorption, and instant bioavailability due to the high blood flow and permeability of buccal mucosa of 4- 1000 times greater than skin [3]. In conditions of various peripheral vascular disease, coronary artery disease, and cerebrovascular disease, clopidogrel is an oral, thienopyridine-class Anti-platelet medication used to block blood clots and reduce the risk of myocardial infarction and stroke. For the drug clopidogrel, the preparation of a Mouth Dissolving Film has been chosen since it has a low bioavailability. By creating the film, we may boost the drug's bioavailability by avoiding first pass metabolism, which also accelerates the drug's onset of action.

2. MATERIALS

Zentiva Pharmaceuticals, Ankleshwar, provided clopidogrel hydrogen sulphate as a gift sample. Polyvinylpyrrolidone (PVP) and Hydroxy Propyl Methyl Cellulose (HPMC) E5 of Analytical-grade were used. All of the testing was conducted using Distilled water.



X
SHAHADA - 425 409
Nandurbar, Maharashtra, India

**3. Method****3.1 Method of preparation of Mouth Dissolving Film**

Solvent casting method is used for preparation of MDF of Clopidogrel Hydrogen Sulphate.

3.2 Steps for preparation of MDF of Clopidogrel Hydrogen Sulphate^[4]

Films were prepared using the Solvent casting method in accordance with the formula (A 4) shown in table. A sufficient amount of HPMC E5 was precisely weighed, then dissolved in water by continually stirring and sonicated for 15 minutes to produce a transparent solution. The required quantity of plasticizer was added to the above solution. Clopidogrel Hydrogen Sulphate was dissolved in Methanol according to requirement by continually stirring and also sonicated for 15 minutes to produce a transparent result. The remaining quantity of water was mixed with the other excipients, and the mixture was also sonicated for 15 minutes. The three solutions are combined and stirred continuously for five minutes. For 24 hours, the solution was set down to allow trapped air bubbles to get out. The solution was then poured onto a glass petri dish and allowed to dry for 24 hours in a 50°c oven. The films were carefully removed from the Petri plate after drying, cut into the required shape (2 cm²), and put on a glass Petri plate with a lid.

Table 1. Composition of Mouth Dissolving Film.

Ingredients	A1	A2	A3	A4	A5
Clopidogrel					
Hydrogen Sulphate	125	125	125	125	125
HPMC E5	300	350	400	450	500
PVP	50	50	50	50	50
Sucralose	20	20	20	20	20
Citric Acid	20	20	20	20	10
Flavor	5	5	5	5	5
Water (ml)	10	10	10	10	10
Methanol (ml)	5	5	5	5	5

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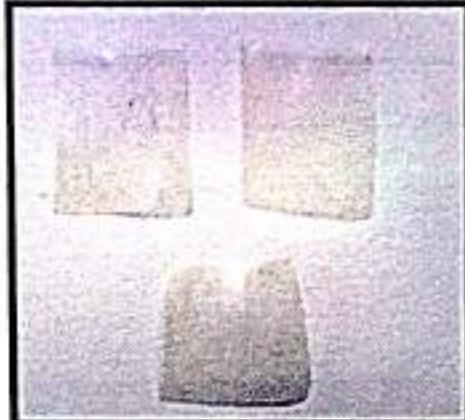
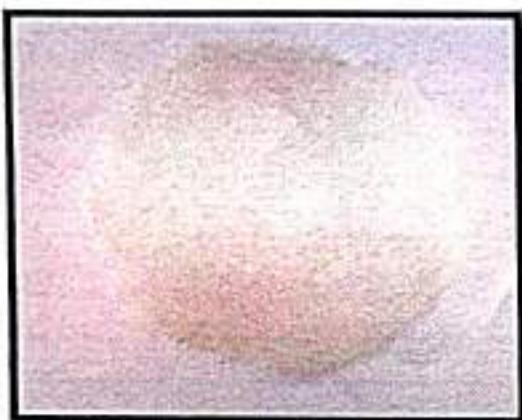
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(a)

(b)

Figure 1. a) Picture of Mouth Dissolving Film (batch A4); b) Picture of MDF cut in desired shape and size.

4. Determination of λ_{max}

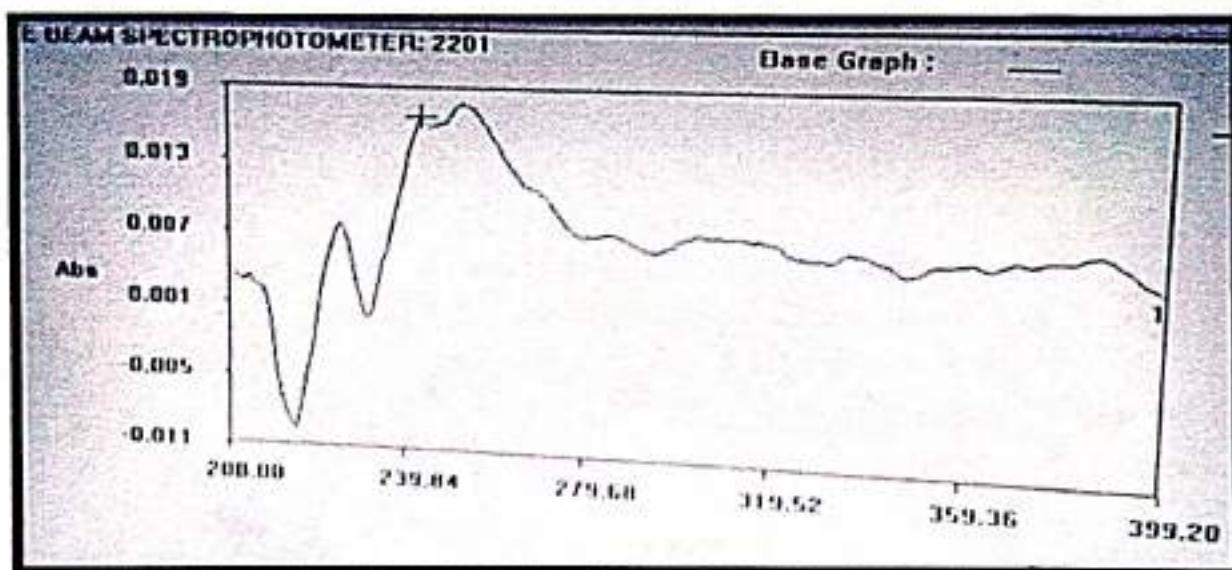


Figure 2. UV spectrum of Clopidogrel Hydrogen Sulphate.

The Clopidogrel Hydrogen Sulphate solution were prepared in 6.8 buffer solution, or pH 6.8, which is shown in Figure, had a wavelength of maximum absorbance (λ_{max}) that was consistent with the available literature. At 240 nm, the maximum concentration of clopidogrel hydrogen sulphate was noted.

5. Preparation of calibration curve ¹⁹

The calibration curves for clopidogrel hydrogen sulphate were made in phosphate buffer pH 6.8 using a UV-visible spectrophotometer. Stock solutions of clopidogrel hydrogen sulphate were prepared by

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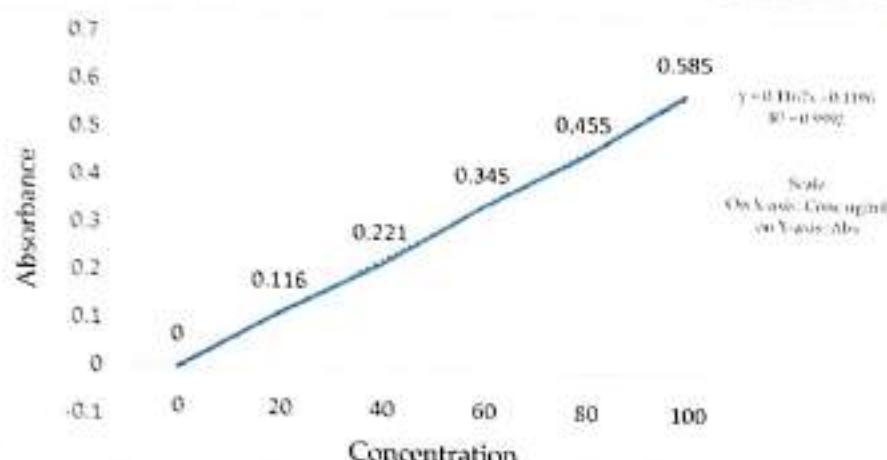
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dissolving 2 mg of drug in 10 ml Phosphate buffer (pH 6.8), 200 µg/ml of Clopidogrel Hydrogen Sulphate standard stock solution was prepared in order to make the following dilutions of 20, 40, 60, 80, and 100 µg/ml. Absorbance of all the solutions was measured using a UV-VIS Spectrophotometer in comparison to a blank at 240 nm.

Table 2. Standard calibration curve of Clopidogrel Hydrogen Sulphate in phosphate buffer (pH 6.8).

Sr. No.	Concentration(µg/ml)	Absorbance
1	0.0	0.0
2	20	0.116
3	40	0.221
4	60	0.345
5	80	0.455
6	100	0.585

**Figure 4.** Standard calibration curve of Clopidogrel Hydrogen Sulphate in Phosphate buffer.

6. Drug-polymer compatibility study^[6]

After keeping drug: Excipient sample in stability chamber at temperature of at 40° and 75% relative humidity. Drug and HPMC E5 and PVP compatibility was discovered. None of these excipients interfered with any of the peaks, according to IR data. It demonstrated that each excipient was acceptable for use with the medication.

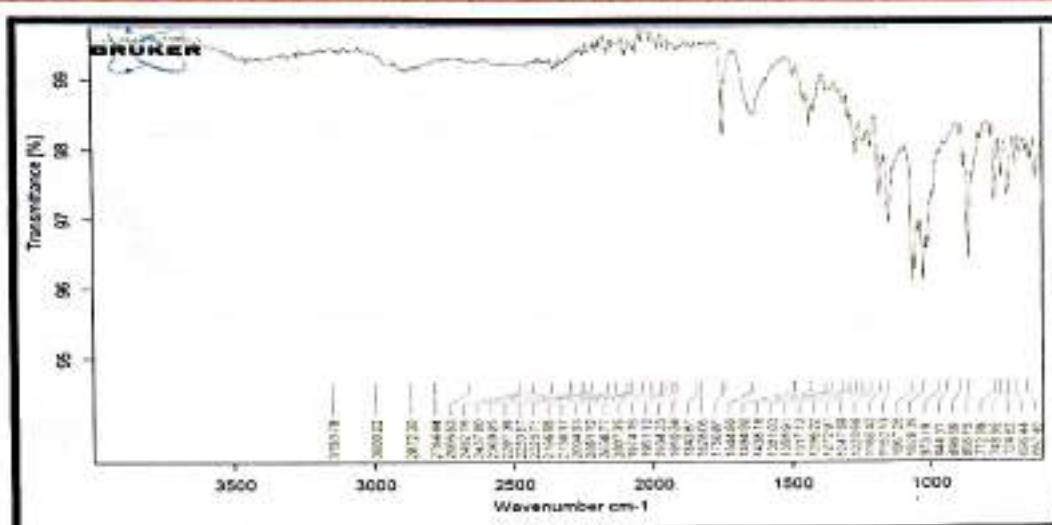
Table 3. Interpretation of IR Spectra of Physical mixture

Sample	Wavenumber (cm ⁻¹)	Functional group
Clopidogrel	1750.81,	
Hydrogen	1644.80,	
Sulphate with	1185.42,	C-O, C=O, C-O,
HPMC E5 and	1296.22,	C-N, C-O, C-O,
PVP Nandurbar.	1152.63,	O-H, C-C
	1067.25, 944.31	



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Principal**Figure 3. FTIR spectra of Clopidogrel Hydrogen Sulphate with HPMC E5 and PVP**

7. Result and Discussion

7.1 Thickness

The film's thickness was measured three different places using micrometer screw gauges and the average of those three readings was calculated.

7.2 Weight variation

One square inch sections were cut at three different positions. On an electronic scale the weight of each strip was recorded, and weight variation was calculated.

7.3 Folding Endurance

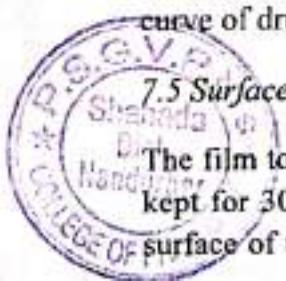
The exact value of folding endurance (a measure of fragility) is determined by how many times the strip could be folded at the same location without breaking. For prepared films 2×2 cm strip was cut uniformly, folded repeatedly on the same spot and the folding endurance was measured.

7.4 Percentage drug content

For determination of Clopidogrel Hydrogen sulphate content, complete strip (full petriplate) as well as film of known sizes (4×5 cm) were dissolved in phosphate buffer 0.2 M (pH 6.8). The amount of the drug present was determined by measuring the absorbance at 240 nm (UVVIS spectrophotometer, systronics2201, Ahmedabad). The drug content was determined by plotting a standard calibration curve of drug in phosphate buffer (pH 6.8).

7.5 Surface pH determination

The film to be tested was placed in a Petri dish and was moistened with 0.5 ml of distilled water and kept for 30 s. By using pH meter the pH was noted after bringing the electrode in contact with the surface of the formulation and allowing equilibration for 1 min. The average of three determinations

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7.6 Disintegration time

For Disintegration time, the film as per the dimension (2x2 cm) required for dose delivery was placed in 10 ml phosphate buffer. Disintegration time was noted as per time required by film to break.

Batch	Thickness	Weight Variation	Folding endurance	Surface pH determination	Disintegration time	Drug content
A1	0.03±0.003	111.33±0.577	54.66±0.577	2.66±0.577	64.66±0.577	61±1
A2	0.05±0.005	72 ± 1	75.66±0.577	3.66±0.57	59.65±0.573	83.5±4.7
A3	0.08±0.005	100.66±0.577	95.66±4.932	4.033±0.95	54.66±0.577	92.7±3.2
A4	0.09±0.005	61.33 ± 0.57	173.6±0.22	6.13 ± 0.057	22.33 ± 2.081	96.3±1.15
A5	0.04±0.004	98±1	120.33±0.57	3.76±1.594	48.33±0.577	81.3±1.06

Table 4. Evaluation of Clopidogrel Hydrogen Sulphate MDF

7.7 In vitro dissolution study

The in vitro dissolution studies were conducted using 150mL glass beaker with 125mL of Phosphate buffer as dissolution medium. Film (2x2 cm²) was placed on one side of the beaker using double-sided tape. Medium was stirred at a speed of 200 rpm using magnetic stirrer bar. 5mL samples were withdrawn at 10, 20, 30, 40, 50, 60, 80, 100, 120sec time intervals and every time replaced with 5mL of fresh dissolution medium. The samples were analyzed by measuring UV absorbance at 240nm. The dissolution experiments were conducted in triplicate. Percent of drug dissolved at different time intervals are noted.

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Time (min)	% Drug Release				
	A1	A2	A3	A4	A5
10 sec	24.01	30.25	22.68	38.20	38.59
1 min	33.46	40.25	30.85	50.49	55.21
2 min	48.25	59.26	37.10	56.18	62.01
3 min	58.45	75.15	47.01	75.14	78.63
4 min	60.20	81.21	64.72	87.12	80.20
5 min	79.21	85.20	79.60	96.00	90.15

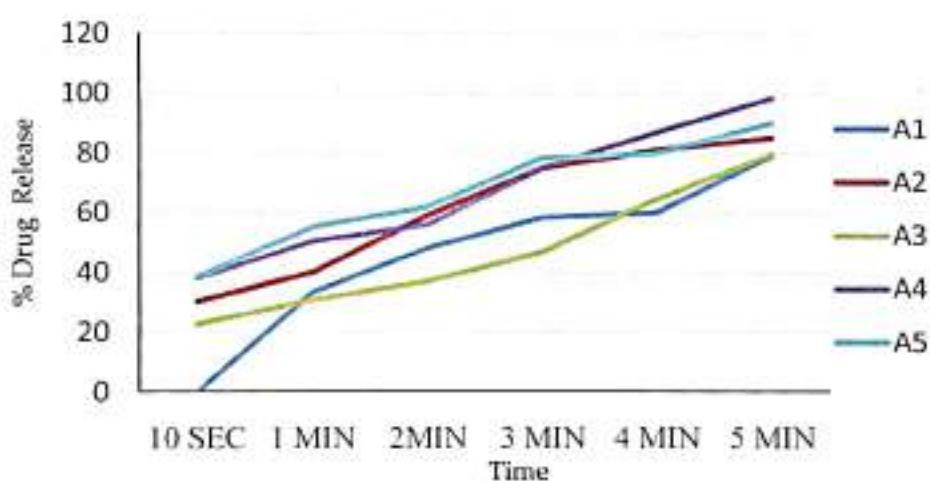


Figure 5. Drug release profile of batch A1 to A5.

8. Conclusion

According to the results of the current study, it is possible to create Clopidogrel Hydrogen Sulphate Mouth Dissolving Films using the Solvent Casting Process, which will increase therapeutic efficacy while increasing bioavailability and patient compliance. All films produced with PVP as the plasticizer and HPMC E5 as the film-forming polymer can be used as films. The enhanced formulation A4 has the quickest disintegration time of 22.33 ± 2.081 , the drug content of 96.33 ± 1.15 , a maximum folding endurance of 173.6 ± 0.22 , and the rapid in-vitro drug release of 96.00% in 5 mins. The manufactured films seem like a good alternative to conventional marketed formula.

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