

Original Article

Factors generating stress in pharmacy students: A cross-sectional study

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ABSTRACT

The study was aimed to determine the factors which were generating stress in Pharmacy students in current scenario. A questionnaire based short intensive survey was conducted in the various Private Institutions of the Bhopal region. The questionnaire consists of ten questions related to the challenges and problems arise during the study and their influence on the various academic paradigms of the students that may create stress in students. In this study the questionnaire based cross-sectional survey was conducted on the 200 Pharmacy students from different institutions to assess the factors which create the stress in students. This study confirms the existing body of information about undergraduates regarding the academic stress, study habits, and academic performance. Academic environment exposes undergraduate students to stressful situations. First year students experience greater levels of stress than continuing students. In this study we find that approximately 51.63% students are highly optimistic, 34.4% students were quite neutral and 13.97% students pessimistic towards these questionnaire or challenges.

1. INTRODUCTION

The Profession of Pharmacy is an integral part of the healthcare system worldwide. Pharmacy with well-organized practice can go a long way to ensure quality health care for the patient. Pharmacy profession is always a choice of preference for the medical aspirants. There are many other medical or paramedical courses but from career opportunities point of view, the profession of pharmacy provides many job opportunities in this field. Now a day's pharma industry and profession are experiencing rapid changes due to advanced technological innovations and ideas sweeping across the world. Hence these changes give better opportunities to the pharmacy profession and it is imperative to evolve a Pharmacy academic program that suits the basic thirst of the nation like providing medicines at affordable prices, community health care etc [1,2].

Pharmacy as a profession started in India in the early 20th Century. Since then, it has undergone many changes educationally and professionally. In the past, pharmacists were responsible for dispensing medications only. Slowly, the traditional role of pharmacists is expanding and now pharmacists are playing a role as a vital team member in the direct care of patients, especially

the new generation pharmacists who have Pharm. Pharmacists comprise the third largest healthcare professionals in the world and pharmacy profession has been evolving steadily over the last decade in India. Today, pharmacists have expanded their role from dispensing to pharmaceutical care by maximizing the benefits of medications and their safety [3,4].

For many undergraduate students, university life is a major transition in their lives since they are accorded the chance to decide what to do without the undue influence of their parents. The students make various decisions regarding all aspects of their lives such as academics, social life, and leisure activities. The academic stress faced by most students is attributed to poor study habits, such as poor time management, studying for exams and coursework, which may eventually lead to poor academic performance. In order to overcome the pressure from academic stress the students have to employ suitable coping strategies like in any other stressful situation. There are various coping strategies used by students when experiencing academic stress. Some resort to avoidant coping; Alcohol/ drug abuse, denial and behavioral disengagement; While others cope actively through acceptance, planning, and positive reframing and taking the necessary steps to overcome the academic stress [5,6].

In general, stress is related to both external and internal factors. External factors include the physical environment, including your job, your relationships with others, your home, and all the situations, challenges, difficulties, and expectations you're confronted with on a daily basis. Internal factors determine your body's ability to respond to, and deal with, the external stress-inducing factors. Internal factors which influence your ability to handle stress include your nutritional status, overall health and fitness levels, emotional well-being, and the amount of sleep and rest you get. In this present context we had surveyed the various students of pharmacy belonging to different institutions with different age groups and intelligence. During the study students face a lots of problems and challenges, that's may create the stress and depression, so for the better understanding and prevention of these problems we performed a preliminary questionnaire based study on the pharmacy students.

2. MATERIAL AND METHODS

2.1 Sample size and selection

A cross sectional observational questionnaire based study was carried out among Pharmacy students (200) from different institutions.

2.2 Data collection

A questionnaire of 10 questions as given in Table 1 was design under the supervision of expertise and was pre tested internally. The questionnaire consists of 10 questions with their three optional (A, B, C) answer. The questionnaire was structure in the format of tick mark answer.

2.3 Data Interpretation

A questionnaire was drafted and circulated among 200 students and a blind study was performed. The obtained data was then processed statistically.

3. RESULT AND DISCUSSION

3.1 Pharmacy as a career

As pharmacy is a multidisciplinary profession, different areas of employment like clinical pharmacy, hospital pharmacy, industrial pharmacy, drug regulation, community pharmacy, retail pharmacy etc., give the pharmacy professionals an open field of practice. It is necessary for pharmacy students to be aware of all these specialties for achieving success in future. However, this is a fact that students usually do not make their preferences until they graduated from their institutions [7, 8].

As per a recent survey done amongst under graduate pharmacy students, It was found that 74% students are highly optimistic about the field and are not affected by the discouraging and negative opinions of the people, 16% students were quite neutral about their future while 10% students pessimistic about choosing pharmacy field as their career.

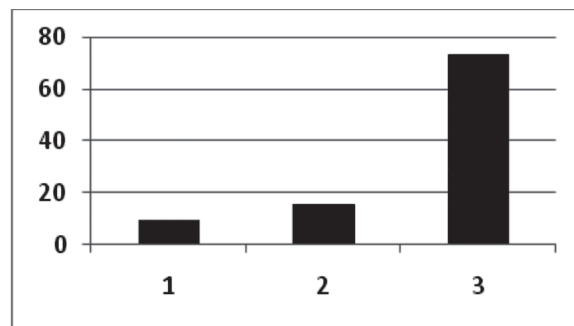


Fig. 1. Response of students on pharmacy as a career

3.2 Lack of discipline and management in college premises

Pharmacy education in India needs a drastic change. In the last decade, there has been uncontrolled spurt in number of pharmacy colleges. But only few of them have infrastructure and experienced faculty members to train and teach the students to become a quality professional. The situation is such that most college managements resort to one or other type of malpractice to seek regulatory approvals and to attract students to their institutions [9].

It is necessary to boost the total quality management (TQM) step by step within a healthy system, which will play an important role in improving the quality of pharmaceutical education [10].

When asked about undisciplined college, unsystematic lab and insufficient chemicals in college, 10% students said that they would throw their tantrums on people and would criticize the system. 51% students said that they would come forward with the help of their seniors and friends and would let the management know this fact. 39% students said that it would hardly make any difference to them because after all they too are not that serious about their current lab and college condition. Survey threw light on the fact that there is awareness and seriousness amongst Pharma students regarding their institution which is an important aspect for further development of institutions.

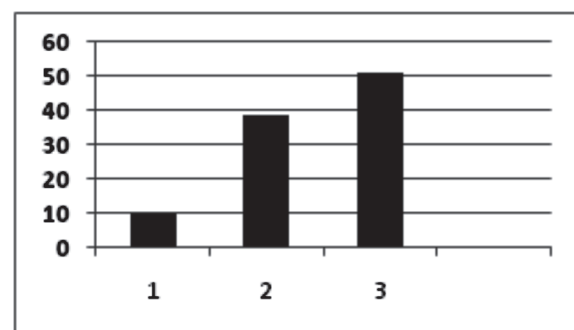


Fig. 2. Response of students on lack of discipline and management in college premises

3.3 Appraisal given to a friend instead of you

Competition and jealousy walks hand in hand. Jealousy is commonly seen in students. Some students are tightly gripped by irritation when their performance is ignored in academic front. When were asked to students about how they would feel

Table 1. Questionnaire

Q.1	How will you respond, When you are continuously asked that Pharmacy education/profession is not a good career option, nowadays?
Options	A. You instantly get depressed and start thinking that you have seriously spoiled your career and chain of these thoughts make you feel even more irritated. B. You don't take it very seriously and think there is enough time to decide what to do next and rest you leave on fate. C. It doesn't affect you at all because you are determined to succeed in a positive way and decided to do something innovative by putting in your 100%.
Q.2	When you see so much of indiscipline in your college, unsystematic labs, insufficient chemicals, obsolete instruments then how do you feel?
Options	A. You throw your tantrums (anger) on the people around you and keep on criticizing the system. B. It hardly makes any difference because after all, you too are not that serious about your college or current lab condition. C. With the help of your friends or seniors you will come forward and at least would try to let the management know this fact.
Q.3	When you see your friend being appreciated for the experiment, which is not performed by him, then how does it makes you feel like?
Options	A. It spoils your mood badly because it's something that you can't tolerate at all. Making argument with him for the same. B. It makes you feel sad but you keep that feeling inside. C. You feel equally happy because it hardly matters to you even if your friend is being appreciated
Q.4	When you are asked to come college on Sunday because of extra classes, then how this thing makes you feel like?
Options	A. You feel highly irritated and ask the faculty to cancel the class but if you fail to do so then you decide to bunk it for sure. B. Your mood get badly spoiled but, still you come to attend the class. C. You are satisfied and cool about the thing that they at least informed you before a day not suddenly.
Q.5	When you find invigilator constantly looking at your answer sheet during examination then in what way this irritation grips you?
Options	A. You stop writing your paper and start giving tough looks to the invigilator. B. You somehow continue to write by hiding your answer sheet. C. It doesn't affects you at all; you continuously write your paper
Q.6	You are studying for your exams with full concentration but your friend is continuously listening to music with high volume then how the way it makes You react?
Options	A. You misbehave with your friend asking him/her to stop the music because you are very irritated/ getting disturbed B. You avoid everything and just concentrate on your studies C. You tolerate for a while (10-20 min.) and request him to cooperate
Q.7	Because of your carelessness, you couldn't complete some of your important work, then in which way this irritation would grip you?
Options	A. You curse yourself and harm the things around you. B. You ignore your carelessness and later on forget it completely. C. You will try to rectify it and would learn a lesson
Q.8	Observing syllabus one night before the exam, knowing that your faculty has taught nothing, then how your reaction will be?
Options	A. Somehow you will study but will continuously curse the faculty. B. You will study topics of your choice or will do selective study. C. You will take it as a challenge and will try to finish the syllabus anyhow.
Q.9	In 1 hour lecture, when a teacher keeps on dictating for around 50 min. without explaining the topic then what will be the level of irritation?
Options	A. Target of your irritation and frustration will be your pen and notebook. You will write so hard utmost breaking the tip of your pen. B. You will just pretend that you are writing but actually you are making funny faces and drawings. C. You will keep on writing the dictating topic like a machine without knowing or understanding what you are writing.
Q.10	Intolerable smell of chemicals in lab makes you are act in what way?
Options	A. You will get highly irritated and will feel like quitting the experiment. B. By making best possible excuse, you will try to get out of the lab. C. You will somehow try to tolerate the smell because you know there is no other choice.

like if some of their friend is being appreciated instead of them for a practical that is performed by you not by him, then 8.8% students accepted that it is not at all tolerable for them while 46.16% students shared that it does make them feel sad when their friend is being praised instead of them, but they added that they keep that feeling inside. Interestingly, the percentage of girls was higher holding this feeling. While 44.54% students happily said that it hardly makes any difference to them. Survey revealed that jealousy and irritation has not completely got into nerves of students, they are still sensible.

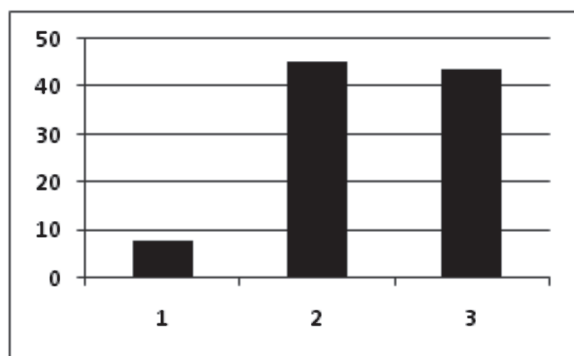


Fig. 3. Response of students on appraisal given to a friend instead of others

3.4 Sunday as an extra class day

Students cannot rely on themselves completely for cracking exams, whether they are all India level exams or mere semesters. Some sort of guidance is always needed. When students were asked about their reaction coming for extra classes on holidays then there were 26.12% students who were cool and satisfied about the thing but the number of highly irritated 37.48% students and neutral students was found 36.40%. Survey helped in discovering the fact that only studious students or book worms had no issues with the thing while to rest of the students, extra classes on holidays are one of the biggest turn offs. Highly irritated students shared that they would ask the faculty to cancel the class but if they will fail to do so then they would bunk the class for sure. Less irritated students said that they would come to the class but with a very bad mood. Survey revealed that studying on Sundays is a very mood spoiling thing for today's generation. Classes should only be held on the respective week days so as to gather a maximum number of students.

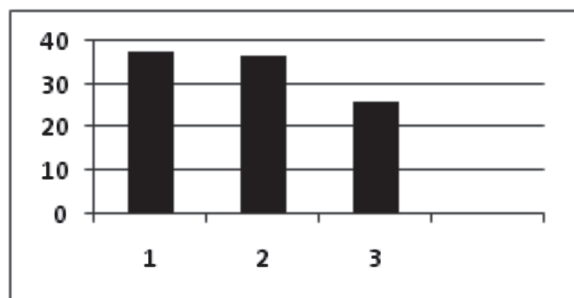


Fig. 4. Response of students on Sunday as an extra class day

3.5 Invigilator gazing at your answer sheet

It make students somewhat uncomfortable when invigilators sometime gaze at their answer sheets during exams. As per a survey done, 38% students said that they somehow continue to write by hiding their answer sheet, such students are quite under confident about themselves and about writing answers. They are so badly worried about their impression on the invigilator that what he will think if he notices that I am writing a wrong answer or something. Interestingly, 61% students said that it doesn't affect them at all. Such students are least bothered by others opinion and are highly confident about themselves and what they are writing. Class toppers were included in this collected data. 1% students shared that it is very much irritating for them and so such sort of aggressive students stop writing their paper and start giving tough looks to the invigilator.

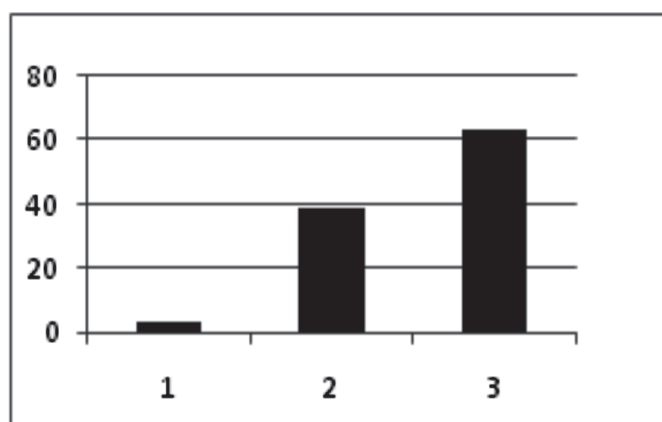


Fig. 5. Response of students on invigilator gazing at your answer sheet

3.6 Loud music played by friend at your exam time

It is pretty obvious to get irritated on small things during exam time, one of the reason is tension and fear for the exam. It is a matter of tension for students who believe in studying at last moment. Untaught syllabus and personal problems may create havoc in mind. According to a recent survey done on hostlers, when they were asked about how they would feel if they are studying with full concentration and their roommate or friend is listening to songs on high volume. To this 24.19% students said that they would simply avoid it and will study with full concentration, 11.29% students shared that they won't mind doing an argument as they are highly irritated with the thing. While 64.5 % students said that they will tolerate it for a while and then would ask their friend to cooperate without any irritation. Survey threw light on the fact that as such no irritation is caused by friends. Main reason of irritation arises from our own unsolved problems, carelessness, lack of satisfaction and because of one's own basic nature. If we are cool from inside then irritation cannot grip us and on the other hand if we are not emotionally stable then irritation arises from even small senseless things.

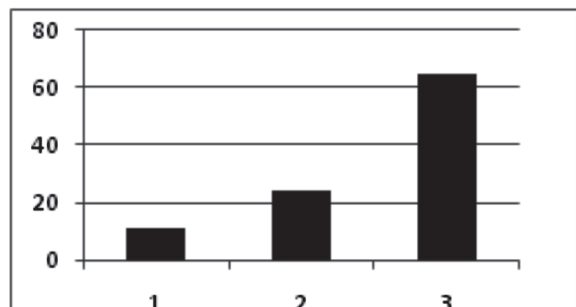


Fig. 6. Response of students on loud music played by friend at your exam time

3.7 Irritation arising from your own carelessness

Many time reasons of one's irritation and frustration are their own thoughts and deeds. When students were asked about their level of irritation arising from their own carelessness then 27.4% students said that they will ignore their carelessness and later on would forget it completely. To the same, 14.51% students shared that that they curse themselves for being the reason of their own loss and in anger would harm the things around them. Statement depicts the psychology of highly aggressive students but it is at least believable as compared to what a vast majority of students said, 58.08 % students stated that they would try to rectify their carelessness and learn a lesson. This is a practically an impossible thing for today's generation. Survey revealed a deep seated fact that students many times pretend to be something else, they hide their shortcomings and present themselves as a totally different person when it comes to them and their own committed mistakes.

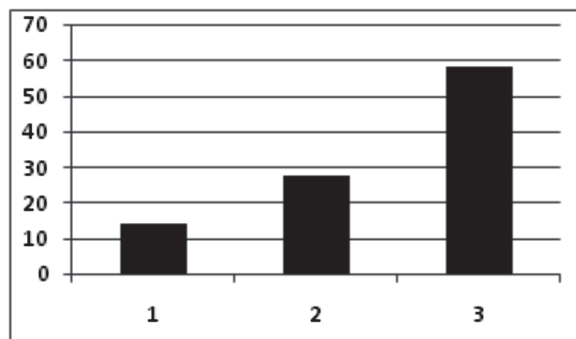


Fig. 7. Response of students on irritation arising from your own carelessness

3.8 Observing untaught syllabus before exams

Colleges are not as strict as schools in terms of finishing up the whole syllabus before exams. Some professors are able to finish it and rest are least bothered about the thing. When students were asked about their reaction on observing untaught syllabus one night before the exam then 14.90% students said that they somehow try to finish the syllabus by continuously cursing the faculty. Such students are highly irritated from inside; they are not able to put in their 100% efforts in preparation because half of their mind is busy in overcoming the irritation and frustration

by cursing the faculty. 43.17% students shared that they would study topics of their own choice and 41.93% students shared that they will take it as a challenge and would try to finish the syllabus anyhow. Psychology of such students reflects that no area of their brain is fighting with any sort of irritation and so they are solely indulged in covering up the topics for exam.

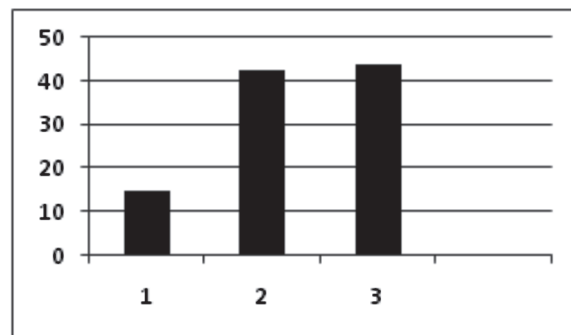


Fig. 8. Response of students on observing untaught syllabus before exams

3.9 Frustrating long dictations during lectures

Long dictations during lectures are a matter of irritation among students. On the other hand the same thing is very much irritating for college students where they are not at all dependent on their college notes and still they are supposed to write them down during lectures. As per a survey done on the same, 38.70% students said that they make funny faces and drawings instead and just pretend as if they are writing. Such students are thoughtful but are not interested to work actually. To the same, 17.80% students said they feel so irritated that they make their notebooks their target, write so hard almost breaking the tip of their pen or scratching the pages. Such students are real aggressive and they need something to throw their tantrums on. While 43.50% students shared that they keep on writing the topic like a machine without knowing or understanding what they are writing.

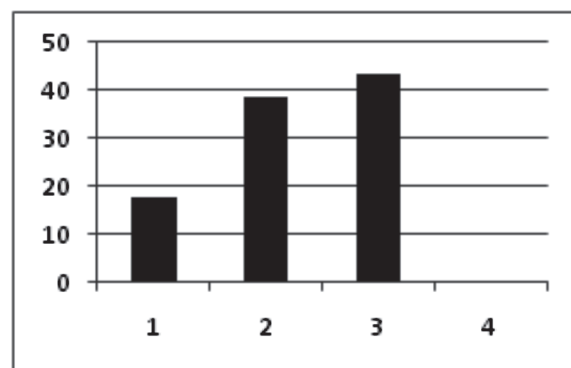


Fig. 9. Response of students on frustrating long dictations during lectures

3.10 Intolerable smell of chemicals in lab

Smell of chemicals in lab is not so good so some time students also irritate with their smell. When students were asked about their

level of irritation arising from smell of chemicals then 64.45% students said that they will not divert with the smell of chemical while 22.37% give their neutral response to ward the smell of chemicals and approx. 13.36% students were affected with smell of chemicals and they generally try to hidden for doing practical.

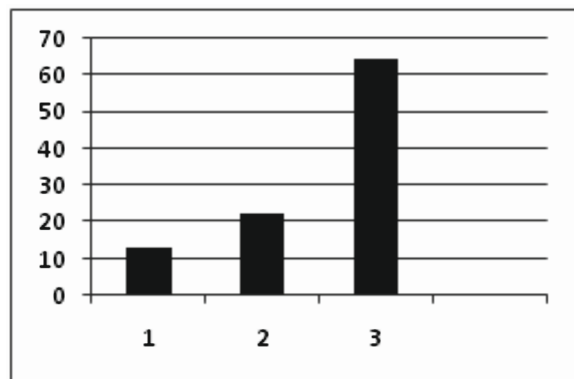


Fig. 10. Response of students on Intolerable smell of chemicals in lab

4. CONCLUSIONS

In this study the questionnaire based cross-sectional survey was conducted on the 200 Pharmacy students from different institutions to assess the factors which create the stress in students. This study confirms the existing body of information about undergraduates regarding the academic stress, study habits, and academic performance. Academic environment exposes undergraduate students to stressful situations. First year students experience greater levels of stress than continuing students [5].

In this whole study we find that approximately 51.63% students are highly optimistic, 34.4% students were quite neutral and 13.97% students pessimistic to ward these questionnaire or we can say towards the challenges which may cause the irritation to students.

It was also observed that the above mentioned factors affecting a lot and generating stress in pharmacy students. The article reflects a good understanding of situations and irritation inducing factors in pharma students, which definitely help to provide a better learning atmosphere with need of improvements to achieve their career goals in future with societal benefits.

Table. 2 Summary of all parameters and their effects on pharma students

S.No.	Parameters	Negative	Neutral	Positive
1	Pharmacy as career	10	16	74
2	Lack of discipline and management in college premises	10	39	51
3	Appraisal given to a friend instead of you	8.8	46.16	44.54
4	Sunday as an extra class day	37.48	36.40	26.12
5	Invigilator gazing at your answer sheet	1	38	61
6	Loud music played by friend during your exam	11.29	24.19	64.51
7	Irritation arising on your carelessness	14.51	27.41	58.08
8	Observing untaught syllabus before exam	14.9	43.17	41.93
9	Frustrating long dictations during lectures	17.80	38.70	43.50
10	Intolerable smell of chemicals in lab	13.36	22.37	64.45

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