# Evaluation of Workload and its Impact on Satisfaction Among Pharmacy Academicians in Southern India

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# **ABSTRACT**

Pharmacology Section

**Objective:** The purpose of this study was to determine the level of workload among pharmacy academicians working in public and private sector universities in India. The study also aimed to assess the satisfaction of academicians towards their workload.

**Materials and Methods:** A cross-sectional study was conducted for a period of 2 months among pharmacy academicians in Karnataka state of Southern India. Convenience sampling was used to select a sample and was contacted via email and/or social networking sites. Questionnaire designed by thorough review literature was used as a tool to collect data on workload (teaching, research, extracurricular services) and satisfaction. **Results:** Of 214 participants, 95 returned the filled questionnaire giving the response rate of 44.39%. Private sector academicians had more load of teaching (p=0.046) and they appeared to be less involved in research activities (p=0.046) as compared to public sector academicians. More than half of the respondents (57.9%) were satisfied with their workload with Assistant Professors were least satisfied as compared to Professors (p=0.01).

**Conclusion:** Overall, private sector academicians are more burdened by teaching load and also are less satisfied of their workload. Revision of private universities policies may aid in addressing this issue.

# INTRODUCTION

The pharmacy education and profession in India is regulated by the Pharmacy Council of India (PCI) and the All India Council for Technical Education (AICTE). Currently, nearly 1500 pharmacy schools offer a variety of pharmacy degrees like diploma in pharmacy (D.Pharm), bachelor of pharmacy (B.Pharm), master of pharmacy (M.Pharm), doctor of pharmacy (Pharm.D) and doctorate degrees (PhD) with annual intake of more than one hundred thousand students [1,2]. More than million people in India are pharmacists working in community pharmacy (55%), in hospitals (20%), in pharmaceutical and other industries (10%), and in regulatory agencies (1%), and academia (2%) [2].

Pharmacists working in academia play a vital part in training future pharmacists by imparting technical skills to students, facilitating the potential pharmacy graduates with best possible resources to treat patients. Teaching pharmacists can work full-time or part-time and perform administrative and research related duties, besides teaching. Thus a career in pharmacy teaching is creative and competitive not only in terms of systematic discovery but also in terms of education, research, practice and professional development [3]. Each pharmacy academician's duty is outlined based on basic tasks such as teaching, holding lab sessions or working in hospitals. Pharmacy academicians are also expected to obtain research grants from external and internal funding sources, supervise undergraduate, post graduate and graduate students in their research projects, publish their research findings in research journals, present papers in seminars, carry out administrative duties, provide consultations and involvement in different committees or organizations at the departmental, university, national and international level. Academicians also have to perform many duties other than academic activities like organizing cultural events, helping students establish chapters for professional societies/organizations (ISPOR, IHPA, IPC, IPGA, APTI etc), running a journal, being part of an editorial team of a journal and reviewing articles for journals and for scientific events from time to time [4,5].

# Keywords: India, Job satisfaction, Pharmacists

Job satisfaction is the degree of favorableness with which employees view their work and is an important factor impacting a person's motivation and productivity [6,7]. Lower level of job satisfaction is directly associated with lower life satisfaction and has an effect on an individual's life [8]. Researchers have also reported that increase in work load among pharmacy educators, the quality of work delivery and job satisfaction will get influenced [9,10].

In India, most of the pharmacy schools are run by trusts or private ownerships since the establishment of pharmacy schools is primarily viewed as a profit making venture [11]. Most of the private pharmacy institutes hire faculty at the time of PCI inspections for approval of their institutions or hire faculty part time or even rent faculty [12]. Previous studies have shown low level of satisfaction among pharmacists working in different sectors in developing countries, including India [13-17]. We conducted a survey based study to determine the actual workload and their job satisfaction with regards to their workload among pharmacy academicians working in private and government pharmacy institutes of India.

# MATERIALS AND METHODS

A cross-sectional study was conducted for the period of 2 months from March to April 2014. All pharmacy academicians working in private and government pharmacy schools in Karnataka state Southern India were considered eligible to take part in this study. Convenience sampling approach was used to select a sample. The sample size was calculated on the basis of Raosoft calculator in which the population size was kept as 1000, power as 80%, response distribution as 50%, while confidence interval and margin of error was set at 90% and 5% respectively [18].The generated sample size (n=214) was adequately powered to estimate the process parameters [18].

An extensive review of the literature on pharmacy academicians' workload and its effect on satisfaction was conducted at the beginning of year 2014, to identify questions previously used to measure workload and satisfaction among pharmacy educational employees [3-10,17]. After an initial draft of the questionnaire was designed, it was validated in 2 steps.

The study instrument was sent to three experienced pharmacy academicians from India as well as abroad for their expert opinion about its simplicity, relativity and importance. A pilot study was conducted by selecting a small sample of pharmacy teachers who gave their opinion in making the questionnaire easier to follow and concise. Amendments from the participants were considered and integrated into the questionnaire. After a sequence of discussion by the authors, the validity of the questionnaire was ascertained and then distributed to the participants for their response. Reliability coefficient was found to be 0.74. The pilot study data was not included for the final analysis of the study.

The questionnaire evaluated the workload, satisfaction and its impact on the performance of pharmacy educators. The questionnaire consisted of total 31 questions. The questions were classified into 4 categories: 6 questions were about teaching workload, 6 questions were about research and grants, 5 questions were about other services and 8 questions were about satisfaction. Open ended questionnaire was used to measure the workload while satisfaction responses were measured on a 4 point likert scale of agreement. Six questions were also included to collect demographic data of the participants.

The approved questionnaire was made available to the pharmacy faculty (n= 214) through e-mail and via social networking sites such as Facebook, Linke din and Researchgate. Data was statistically analysed using SPSS version 20. Descriptive analysis was conducted and data was reported in percentage and frequency. Chi square test was applied to find the association between dependent and independent variables. P-value of less than 0.05 was considered as statistically significant. Inferential statistics (Mann–Whitney U test and Kruskal Wallis tests, p < 0.05) were also used to assess the significance among study variables.

The study was approved by Association of Community Pharmacist of India. It was also clarified to the participants that the completion and submission of the questionnaire would be taken as their consent to participate in this study. High level of confidentiality and anonymity was maintained throughout the study.

# RESULTS

Out of 214 questionnaires, 95 were returned giving a response rate of 44.39%. Male faculty accounted for 87.4% of the sample. Majority of the respondents held Masters (54.7%) and Doctorate (38.9%) qualification. Similarly, majority of the respondents belonged to the Pharmaceutics department (41.1%) and more than half of the participants were Assistant Professors (57.9%). [Table/Fig-1] shows the complete demographic breakdown of the sample.

The result of this study showed significant difference between teaching workload of private and public sector universities as private sector academicians taught more number of courses ( $2.5\pm0.83$ ) per week as compared to their public sector ( $1.81\pm1.17$ ) counterparts (p=0.046). The results also showed that academicians of pharmaceutics department ( $3.23\pm0.74$ ) had more number of courses to teach compared to other departments (p=0.008). Data suggested that lecturers spent more time on lecture preparation than professors ( $16.37\pm2.53$  vs  $9.5\pm1.5$ ). Academicians from pharmaceutics department spent more time in meeting students for discussing class related queries ( $4.04\pm2.03$ ; p=0.005). The complete description of teaching workload of pharmacy academician is tabularized in [Table/Fig-2].

Another important finding of this study was the variation of time spent on research activities by private and public sector academicians as latter appeared to be more involved in research ( $9.12\pm5.67$  vs  $14.51\pm5.87$ ; p=0.001). The key feature of this study also revealed that professors were more involved in co-authoring books and chapters. The results about research related activities among academicians in summarized in [Table/Fig-3]. This study also highlighted on the extracurricular services provided by academicians. It was apparent

Variables	Characteristics	Total n (%)					
Gender	Male	83 (87.4)					
	Female	12 (12.6)					
Highest qualification	Bachelors	6 (6.3)					
	Masters	52 (54.7)					
	Doctorate	37 (38.9)					
Type of Institution	Private	58 (61.1)					
	Public	37 (38.9)					
Department affiliation	Pharmacology	25 (26.3)					
	Pharmacognosy	9 (9.5)					
	Pharmaceutical Chemistry	6 (6.3)					
	Pharmaceutics	39 (41.1)					
	Pharmacy practice	13 (13.7)					
	Others	3 (3.2)					
Work Experience	≤5 years	46 (48.4)					
	5-10 years	43 (45.3)					
	≥10 years	6 (6.3)					
Academic Rank	Lecturers	16 (6.8)					
	Assistant Professor	55 (57.9)					
	Associate Professor	21 (22.1)					
	Professor	3 (3.2)					
[Table/Fig-1]: Demographic profile of the sample							

from data that private sector academicians were spending more time in educational and institutional related promotional activities. It is found that private university academicians, on an average, participated 1.41±0.49 times per year in extracurricular activities as compared to public sector academicians (1.08±0.27) [Table/Fig-4].

Furthermore, the study also evaluated the satisfaction of academicians regarding their workload [Table/Fig-5]. This area of study revealed that 66.3% of participants were satisfied with their profession while 57.9% were satisfied with their workload. Public sector academicians and professors appeared to be more satisfied than their peers (p<0.05). The results of this study indicated that more than 50% of academicians reported that their workload was adversely affecting their teaching capabilities while 47.3% expressed that their workload was adversely affecting their research activities. It was also observed that private sector academicians and academicians working in the pharmaceutics department were more this opinion (p<0.05). Similarly 45.3% of academicians were not satisfied with the distribution of workload. Department and academic rank were reported as a significant factor since Lecturers and pharmaceutics department were least satisfied (p<0.05)

# DISCUSSION

The issue of workload among pharmacy academicians is an interesting yet worrying issue in tertiary education. A similar concern regarding unequal distribution of work is also more frequently observed. This perception of workload equity has turned out to be a major variable related to faculty job satisfaction. This study intended to evaluate the workload of pharmacy faculty members and highlight the variation of workload among academicians of different rank, department and sector. The study also assessed the level of satisfaction of academicians with their workload.

One of the major findings of this study is the teaching workload of private sector academicians which exceeds than those who work in public sector universities. However, this difference was statistically significant only for one teaching question which asked the academicians regarding the hours of teaching they did each week. For example mean hours of teaching per week by private sector academician were 15.29±6.92 as compared to 12.22±4.46 reported by public sector. The difference in private and public sector universities could be explained by relatively less number of

Questions*	Sector	Mean	p-value <sup>a</sup>	Academic Rank	Mean	p-value <sup>b</sup>	Department	Mean	p-value <sup>b</sup>
	Private	2.5±0.83		Lecturer	3.18±1.28		Pharmacology	2.44±1.02	
				Asst. Professor	2.35±0.89	]	Pharmacognosy	2.2±0.67	]
Т1			0.046	Assoc. Professor	2.43±0.72	0.596	Pharm. Chemistry	2.5±1.5	0.008
11	Public	1.81±1.17	0. 046	:0		0.596	Pharmaceutics	3.23±0.74	
				Professor	2±0		Pharm. Practice	2.43±1.24	
							Others	2±0	
	Private	15.29±6.92		Lecturer	13.06±3.52		Pharmacology	12.88±6.97	
				Asst. Professor	13.68±5.86		Pharmacognosy	9.33±2.49	
Т2			0.43	Assoc. Professor	11.62±1.41	0.596	Pharm. Chemistry	10.5±5.5	0.075
12	Public	12.22±4.46	0.43			0.596	Pharmaceutics	15.3±4.85	0.075
				Professor	9.5±2.5		Pharm. Practice	12.15±5.90	
							Others	17±0	
	Private	14.31±6.48	Asst. Professor      11.37±6.89        Assoc. Professor      11.12±5.31        Professor      9.5±1.5	Pharmacology	14.96±8.76				
	Public			Asst. Professor	11.37±6.89	]	Pharmacognosy	12±1.63	0.417
ТЗ		10.29±5.21		Assoc. Professor	11.12±5.31	0.024	Pharm. Chemistry	8.5±5.5	
13				-		0.034	Pharmaceutics	11.84±5.62	
					9.5±1.5		Pharm. Practice	13.15±3.5	
							Others	15±0	
	Private	4.45±2.25		Lecturer	4.5±2.87		Pharmacology	4.41±2.87	
				Asst. Professor	4.68±2.78		Pharmacognosy	4.66±3.77	
Т4			0.529	Assoc. Professor	3.25±2.05	0.25	Pharm. Chemistry	2.5±1.5	0.03
14	Public	4.36±3.90	0.528			0.25	Pharmaceutics	5.56±2.5	0.03
				Professor	2±0		Pharm. Practice	4.15±3.81	]
							Others	2±0	
	Private	3.70±2.43		Lecturer	2.68±1.04		Pharmacology	2.81±2.86	
				Asst. Professor	3.18±2.12		Pharmacognosy	3.21±2.54	0.005
Т 5			0.695	Assoc. Professor	4.06±1.69	0.051	Pharm. Chemistry	1.5±0.5	
10	Public	3.27±1.94	0.090			0.001	Pharmaceutics	4.04±2.03	
				Professor	7±0		Pharm. Practice	3.07±1.81	
				Ot		Others	6±0		

[Table/Fig-2]: Teaching workload of pharmacy academicians \*Questions: T 1- How many courses do you teach each semester?, T 2- How many hours of teaching you do every week?, T 3-How many hours per week do you spend on preparation of lecture materials and other course related material?, T 4- How many hours per week do you spend on grading students?, T 5- How many hours per week do <sup>a</sup> derived from Mann Whitney U test <sup>b</sup> derived from Kruskal Wallis test

Questions*	Sector	Mean±S.D	p-value <sup>a</sup>	Academic Rank	Mean±S.D	p value <sup>b</sup>	Department	Mean±S.D	p-value <sup>b</sup>
	Private	9.12±5.67		Lecturer	11.43±4.48		Pharmacology	12.52±6.11	
				Asst. Professor	11.52±6.20		Pharmacognosy	9.66±3.68	
R 1			0.001	Assoc. Professor	11.14±7.67	0.397	Pharm. Chemistry	16±4	0.071
RI	Public	14.51±5.87	0.001			0.397	Pharmaceutics	9.15±6.81	0.071
				Professor	5.4±2.1		Pharm. Practice	13.61±5.47	
							Others	12±1.2	
	Private	1.55±1.46		Lecturer	2.5±1.83		Pharmacology	2.4±2.29	
				Asst. Professor	2.18±1.96		Pharmacognosy	2.66±1.69	
			0.001	Assoc. Professor	5.28±7.77	0.000	Pharm. Chemistry	1.2±0.4	0.074
R 2	Public	4.97±3.94	0.001			0.338	Pharmaceutics	3.92±6.06	0.374
				Professor	1.2±0.45		Pharm. Practice	2.15±1.09	
							Others	1.2±0.3	
Private	Private	2.24±1.82		Lecturer	2.62±0.99		Pharmacology	3.4±3.09	
				Asst. Professor	2.58±1.61		Pharmacognosy	2.2±0.34	
		3.97±3.53	0.017	Assoc. Professor	4.14±3.71	0.100	Pharm. Chemistry	1.5±0.5	0.020
R 3	Public			Professor	2.3±1.2	0.100	Pharmaceutics	3.61±3.15	
							Pharm. Practice	1.84±0.86	
							Others	0±0	
	Private	2.56±1.65		Lecturer	2.56±0.49		Pharmacology	3.56±1.65	
				Asst. Professor	3.2±1.89		Pharmacognosy	3.66±3.29	
R 4			0.007	Assoc. Professor	2.85±1.95	0.459	Pharm. Chemistry	4±1	0.017
K 4	Public	3.70±1.64	0.007			0.459	Pharmaceutics	2.53±1.44	0.017
				Professor	3±2.1		Pharm. Practice	2.46±0.49	
							Others	3±1	
	Private	2.55±1.59		Lecturer	2.62±1.69		Pharmacology	3.16±1.93	
				Asst. Professor	2.58±1.63		Pharmacognosy	1.66±0.94	
			0.040	Assoc. Professor	3.1±1.92	0.055	Pharm. Chemistry	3±1	0.044
R 5	Public	2.83±1.83	0.640			0.855	Pharmaceutics	2.38±1.64	0.041
				Professor	1.8±0.64		Pharm. Practice	3±1.79	1
						Others	3±0.8	-	

Questions*	Sector	Mean±S.D	p-value <sup>a</sup>	Academic Rank	Mean±S.D	p value <sup>b</sup>	Department	Mean±S.D	p-value <sup>b</sup>
	Private	16.24±13.80		Lecturer	30.12±22.45		Pharmacology	17.28±7.97	
			Asst. Professor	12.65±8.30	Pharmacognosy 16.66±13.27				
R6		Public 18.37±22.05 0.4	37±22.05	Assoc. Professor	21.14±12.39	0.004	Pharm. Chemistry	30±12.45	0.402
ΠŪ	Public				Professor 55±22.45	0.004	Pharmaceutics	16.61±9.4	0.402
				Professor			Pharm. Practice	16.303±8.46	
							Others	15±4.5	

[Table/Fig-3]: Research workload of pharmacy academicians

\*Questions: R 1- How many hour per week do you spent on research, R 2- How many hours per week do you spent on meeting with faculty for research work, R 3- How many hour per week do you meet with students for research work?, R 4- How many time per year do you travel related to your research (visiting other universities/colleges)?, R 5- How many times per year do you attend conferences related to your research?, R 6- How much time per year do you spend on co-authoring books/book chapters? <sup>a</sup> derived from Mann Whitney U test <sup>b</sup> derived from Kruskal Wallis test

Questions*	Sector	Mean	p-value <sup>a</sup>	Academic Rank	Mean	p-value <sup>b</sup>	Department	Mean	p-value <sup>b</sup>	
S 1	Private	235±1.56		Lecturer	2.62±0.78		Pharmacology	2.47±1.40	0.071	
			1	Asst. Professor	1.5±0.79	1	Pharmacognosy	1±0.81	1	
			0.001	Assoc. Professor	2.43±1.34	0.007	Pharm. Chemistry	1.5±1.5		
	Public	1.79±1.47	0.001			0.397	Pharmaceutics	2.07±1.20	1	
				Professor	3.4±1.1		Pharm. Practice	1.83±1.34	]	
							Others	2±1		
S 2	Private	1.41±0.49		Lecturer	1.37±0.48		Pharmacology	1.17±0.38	0.374	
			1	Asst. Professor	1.68±0.46		Pharmacognosy	1.33±0.47	1	
			0.001	Assoc. Professor	1.18±0.39	0.338	Pharm. Chemistry	1.5±0.5		
	Public	1.08±0.27	0.001			0.338	Pharmaceutics	1.38±0.48		
				Professor	1±0		Pharm. Practice	1.25±0.43		
							Others	1±0		
S3 P	Private	1.36±0.48		Lecturer	1.56±0.49	0.100	Pharmacology	1.11±0.32	0.06	
				Asst. Professor	1.5±0.5		Pharmacognosy	1.65±0.34		
			46 0.17	Assoc. Professor	1.25±0.43		Pharm. Chemistry	1.5±0.5		
	Public	blic 1.32±0.46		0.17			0.100	Pharmaceutics	1.46±0.49	
				Professor	1±0		Pharm. Practice	1.5±0.5		
					Others	1±0				
S 4	Private	2.36±0.80		Lecturer	1.81±0.39		Pharmacology	2.70±0.89	0.07	
				Asst. Professor	2.18±0.72		Pharmacognosy	2.66±0.45	1	
			0.07	Assoc. Professor	2.37±0.48	0.459	Pharm. Chemistry	2±1.2		
	Public	2.24±0.91	0.07			0.439	Pharmaceutics	2.15±1.02		
				Professor	1±0		Pharm. Practice	2.25±0.43		
							Others	2±0		
S 5	Private	28.12±14.39		Lecturer	9.56±5.29		Pharmacology	47.46±14.95	0.085	
				Asst. Professor	31.18±15.55		Pharmacognosy	24±17.04		
			0.640	Assoc. Professor	37.68±18.91	0.855	Pharm. Chemistry	15±1		
	Public	16.5±11.61	0.040			0.600	Pharmaceutics	20.46±38.3		
				Professor	0±0		Pharm. Practice	12.25±3.46		
							Others	14±3		

[Table/Fig-4]: Extracurricular Service workload of pharmacy academicians

Questions: S1- How many hours per week do you spend on academic advising? S2-Have you participated in events or organized events that enhance students knowledge of the profession?, S 3- Have you participated in event or organized cultural events in your organization? S 4- How many events have you organized/participated in your institution per year? S 5- How many hours do you spend per year preparing for such events? <sup>a</sup> derived from Mann Whitney U test

derived from Kruskal Wallis test

		Respo	onses*		Institution	Department	Experience	Rank
Questions	SA	А	D	SD	p-value**			
Satisfied with profession	27 (28.4)	36 (37.9)	23 (24.2)	9 (9.5)	0.021	0.121	0.076	0.006
Satisfied with workload	28 (29.5)	27 (28.4)	37 (38.9)	3 (3.5)	0.034	0.352	0.089	0.01
Workload affecting teaching capabilities	15 (15.8)	33 (34.7)	28 (29.5)	19 (20)	0.001	0.032	0.43	0.17
Workload affecting research capabilities	27 (28.4)	18 (18.9)	34 (35.8)	16 (16.8)	0.017	0.013	0.21	0.431
Workload affecting personal life	9 (9.5)	21 (22.1)	37 (38.9)	28 (29.5)	0.008	0.001	0.037	0.003
Workload affecting creative capabilities	12 (12.6)	18 (18.9)	43 (45.3)	22 (23.2)	0.044	0.003	0.001	0.003
Workload not equally distributed	15 (15.8)	28 (29.5)	25 (26.3)	27 (28.4)	0.161	0.001	0.094	0.002
Workload has reduced overall productivity	6 (6.3)	28 (29.5)	30 (31.6)	31 (32.6)	0.457	0.001	0.404	0.017

[Table/Fig-5]: Questions related to workload and its effect on satisfaction SA= Strongly agree, A=Agree, U=Undecided, D=Disagree, SD=Strongly disagree.

academicians in private sector universities because of the financial squeeze. The other likely reason could be the increase in the number of student enrolment in private sector universities [19,20].

With regards to teaching workload, rank of academicians is an important variable to discuss. Data in our study suggested that

lecturers spent more time in preparing lectures and meeting students for class related queries. This difference could be because lecturers lack teaching experience which made them invest more time to prepare lectures. On the other hand, due to more experience, according to Harris et al., professors' and associate professors'

engaged more in research with post graduate students [21]. Likewise, teaching work load also varied among the departments of pharmacy. Statistical significance supported the findings that department of pharmaceutics spent more time teaching, grading and addressing class related queries compared to other departments. This highlights the fact that the curriculum of pharmacy in India is still industry oriented and increase in the number of industry related courses has led to an increase in the workload of academicians in the department of pharmaceutics.

Our findings indicate that academicians from public sector universities spend more time on research. We speculate that this could be the reflection of several factors including more funding, encouragement and adequate number of support staff that give public sector academicians the opportunity to excel more in research [22]. Particularly, pharmaceutical chemistry and pharmaceutics academicians spent more time on research, indicating more inclination of students towards industry based research [23]. On the other hand, we found that lecturers spent more time teaching than conducting research. Senior faculty tends to focus more on research and they supervise a large number of postgraduate students due to their expertise and experience in the field.

The results showed not much of a difference between public and private sector respondents in terms of providing extracurricular services; however results do show that private sector academicians spent more time in participating events about professional awareness and providing academic advising to prospective students. As majority of private sector universities are self-funded as opposed to public universities, this also helps private sector academicians to attract maximum students [24]. It is necessary to address the gap in view of the conflicting nature of determining the workload, because of subjectivity in measurement and quality evaluation.

The findings of this study revealed that overall satisfaction of the respondents of being in academia and the related workload was below par (66.3% and 57.9% respectively). These results are in line with study conducted by Desselle et al., about the predictors of pharmacy workload satisfaction [25]. However, Wilborn et al., reported the satisfaction of academicians with workload to be on the higher side (79%) [26]. We found that the public sector academicians and those holding higher academic ranks were more satisfied. This discrepancy was also supported by statistical significance as p-value derived from chi square test was less than 0.05. Academicians working in private universities reported that their workload was adversely affecting their teaching and research capabilities. Those working in the pharmaceutics department were also of the same opinion (p<0.05). These results are similar to the results reported by previous studies [27]. Our study also exposed the dissatisfaction of academicians regarding equitability of workload distribution as lecturers and pharmaceutics department academicians reported that they were more burdened with workload compared to others. These findings were not unusual as increased number of courses and postgraduate students in pharmaceutics could be the result of this disparity.

More than one third of academicians revealed that their workload has decreased their overall productivity. It was also observed that pharmacy practice academicians were slightly of a different opinion. We speculate that this could be due to different roles that area part of their job such as working in hospitals, counseling patients, performing clinical duties, etc. As a result, they may feel their work to be more challenging and therefore might be more satisfied as compared to other departments. The same findings were reported by Spivey et al., which also indicated mild to moderate satisfaction among pharmacy practice academicians [28].

The strength of this study is that it addresses a major issue of workload that confronts pharmacy academicians in India. This study has explored an area where very little research has been done in the past. The findings of this study would be critical to design effective interventions to shed the workload of pharmacy academicians to improve their satisfaction with the profession. However, we do agree that convenience sampling approach and low response rate may limit the generalizability of the results.

# CONCLUSION

Overall, the study concluded that teaching workload of private sector academicians is higher as compared to public sector counterparts. This increased workload has also affected their job satisfaction level. Equitable workload distribution and institutional support towards research could result in better satisfaction among pharmacy academicians.

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Evaluation of Workload and its Impact on Satisfaction among Pharmacy Academicians in South India.

Note-Your details and information provided by you will be confidential and will be used only for research purpose. The completion and submission of the questionnaire would be taken as yours consent to participate in this study.

### **Objective**

- To evaluate the workload of pharmacy academicians
- To assess the impact of workload on the performance of pharmacy academicians.

#### Part A: Questions related to Demography of Pharmacy Academicians

S. No.	Demographic factors	Categories	Please (√) Tick
1	Gender	Male	
		Female	
2	Highest Qualification	Bachelors Degree	
		Masters Degree	
		Doctorate	
		Post Doctorate	
3	Type of Institution	Public	
		Private	
4	Department Affiliation	Pharmacology	
		Pharmacognosy	
		Pharmaceutical Chemistry	
		Pharmaceutics	
		Pharmacy Practice	
		Others	
5	Work experience	≤05 years	
		5–10 years	
		≥10 years	
6	Academic Rank	Lecturer	
		Assistant Professor	
		Associate Professor	
		Professor	

#### Part B: Questions Related to Teaching workload of Pharmacy Academicians

S. No.	Questions	Hours
1	How many courses do you teach each semester?	
2	How many hours of teaching you do every week?	
3	How many hours per week do you spend on preparation of lecture materials and other course related material?	
4	How many hours per week do you spend on grading students? (Assignments, presentations, making questions, marking)	

5 <b>C) Ques</b> t	ademicians	
S. No.	Questions	Hours
1	How many hours per week do you spend on research	
2	How many hours per week do you spend on meetings with faculty for research work?	
3	How many hours per week do you meet with students for research work?	
4	How many times per year do you travel related to your research (visiting other universities/colleges)?	
5	How many times per year do you attend conferences related to your research?	
6	Have much time per year do you spend on co- authoring books/book chapters?	

#### D) Questions related to Extracurricular Service workload of Pharmacy academicians

S. No.	Questions	Hours
1	How many hours per week do you spend on academic advising?	
2	How many events have you organised/participated in your institution per year?	
3	How many hours do you spend per year preparing for such events ?	
		Response
4	Have you participated in events or organised events that enhance student's knowledge of the profession?	Yes No
5	Have you participated in events or organised cultural events in your organisation?	Yes No

#### E) Questions Related to workload and its effect on satisfaction

S. No.	Questions	SA	Α	D	SD
1	I am satisfied with my profession				
2	I am satisfied with my overall workload				
3	Workload in adversely effecting my teaching capabilities				
4	Workload in adversely effecting my research capabilities				
5	Workload in adversely effecting my personal life				
6	Workload is not allowing me to be more creative in my approach				
7	Workload is equitably distributed between junior and senior faculty				
8	Workload has decreased my overall productivity				
SA= Str	ongly agree, A=Agree, U=Undecided, D=Disagree,	SD=St	rongly	disagr	ree

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