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Factors Influences Pharmacy Students' To Elect Pharmacy Field and Their Future Career Desire



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ABSTRACT

Pharmacists play important professional roles in the healthcare sector in areas such as clinical Pharmacy service, drug development and research, academic, community Pharmacies, hospital pharmacies, pharmaceutical industries and the public service. Variety of causes influence students' select of pharmacy as field of study including interest in science fields, wish to be paid a high salary, want to help people, need for employment and/or financial security, desire to have a admired profession, influence of certain individuals. Aim of the research work was to Assess Factors Influencing Pharmacy Students' to elect Pharmacy field and their future career desire among Sharda University School of Pharmacy, U.P., and India. Methods: A descriptive cross sectional study design using quantitative data collection was employed. Quantitative methods study using structured Self-administered questionnaire to assess factors influences pharmacy students' to elect pharmacy field and their future career desire. Result: Factors influencing student's decision to study Pharmacy were considered in three ways: educational, personal, and career-related goals. Education related factors that influence Students were they mentioned subject teacher (86.73%) and careers teachers (77.55%) at school of Pharmacy as their primary motivator. Nearly one-fifth of pharmacy students intended to work in hospital/clinical/ community Pharmacy (22.5%) after graduation. Conclusions: The main factors influencing students' to elect Pharmacy were: educational, personal, and career-related goals. The main future career desires of the students after graduation were Hospital/clinical/community Pharmacies, R&D and Industries respectively.

INTRODUCTION

Background

Pharmacists play important professional roles in the healthcare sector in areas such as clinical Pharmacy service, drug development and research, academic, community Pharmacies, hospital pharmacies, pharmaceutical related industrial positions and the public service and a variety of causes influence students' select of pharmacy as a major including interest in science fields, wish to be paid a high salary, want to help people, need for employment and/or financial security, desire to have a admired profession, influence of certain individuals. (Keshishian 2010)

The traditional role of pharmacist, which focused on preparation or compounding and dispensing of medicines, is growing and currently, pharmacists are considered as the integral part of healthcare team, particularly the new generation clinical pharmacists with respect to patient centered care. (Gudi SK. 2019) Patient-focused education creates an important part of pharmacy education in advanced countries such as the United States (US) and the United Kingdom (UK). However, many undergraduate pharmacy programs in emerging countries are still dominated by traditional pharmaceutical sciences and pharmacy graduates are hardly qualified to apply their knowledge to patient care. (Al Ghazzawi 2017)

On other hand as the number of community Pharmacists increase; many graduates may not have the opportunity to work in their most preferred practice area. Based on investigating market's needs (El-Hammadi M 2013) it is necessary for pharmacy students to be aware of all specialties for achieving success in future. But, this is a fact that many students commonly do not make their preferences until they graduated from their institutions (Wright et al 2004 and Al-Haddad et al 2010).

Statement of the Problem

Pharmaceutical care is a novel concept in the training of pharmacy. Many emerging countries started the implementation of pharmaceutical care and so many universities started the Pharm.D. program and others started teaching pharmaceutical care courses for the pharmacy bachelor degree. (Al-Shdefat RI 2017)

The growing role of pharmacists in today's society needs the enrolment of students who have interest and are capable of accept the accountability of providing direct patient care and to be more aggressively involved in their societies and participate in health professional teamwork duties parallel to traditional pharmacy responsibilities. Even though pharmaceutical care role is considered as one of the most exciting and crucial professions, it comes to the gratitude, scope and the career prospects for Clinical Pharmacy and Pharm. D. Professionals are unclear in the current scenario of Indian Pharmacy. (Gudi SK. 2019)

There are weak health care systems and the shortage of a skilled health care workforce among the factors responsible for poor health outcomes seen in developing countries despite the significant advances in medicine and public health. This critical human resource shortage severely undermines equitable access to, and rational use of quality essential medicines. (James PB 2018)

As the number of pharmacists continues to increase; many graduates may not have the opportunity to work in their most preferred practice area. Based on investigating market's needs (El-Hammadi M 2013) it is necessary for pharmacy students to be aware of all these specialties for achieving success in future. But, this is a fact that many students commonly do not make their preferences until they graduated from their institutions. (Wright et al 2004 and Al-Haddad et al 2010).

Significance of Study

Undergraduate Pharmacy student choose of field of Pharmacy depending on different issues. They have not informed well about the aim the field and the job opportunities they will be faced in the future. The increment in number of pharmacy personnel and little new job opportunities in the field is other problem. Pharmaceutical care the newly emerging role of Pharmacist has no clear scope to apply. The salary is also no giving good motivation to professional.

Hence, it is fundamental to assess Factors Influences Pharmacy Students' to elect Pharmacy field and their future career.

LITERATURE REVIEW

Pharmacy is a multidisciplinary profession, has different career futures like clinical pharmacy, drug development and research, academic duties, hospital pharmacy, industrial pharmacy, drug regulation, community and retail pharmacy. Thus 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. (Wright et al 2004 and Al-Haddad et al 2010).

Several studies were conducted to identify factors that motivate students to choose pharmacy as their academic major. Studies from the USA stated that encouraging motivating factors consist of the vision of having many career opportunities, serving others, receiving inspiration by family members, pharmacists or pharmacy students. Motivational factors also included career respect and earning potential. Study done in Australian stated that pharmacy has transitioned from a focus on dispensing and delivering of medications to the health facility of a range of health services bridging prevention to palliation, to address patients' needs and diagnoses over the last two decades. (Shen G 2014).

Past research studies have shown that students choose pharmacy as a major for a variety of reasons. These may include an interest in science, wanting to earn a high salary; a desire to help people; gaining job or economic security; obtaining a respected career; and the influence of individuals such as a family member, pharmacist, relative, or friends. (Keshishian F 2011)

The majority wanted to work as hospital clinical pharmacists (83%) and numerous (68%) thought that Pharm.D graduates are well respected by the general community. Results indicated that students are uninformed of the existing Pharm.D salaries and have greater expectations than what is being currently offered in the country. (Nadine et.al, 2014)

Family reinforcement (84.5%), individual interest (71.0%), and to get a medical professional degree (79.0%) were reported by the majority of the students under investigation as a personal reason to join pharmacy as a career.

Remarkably, when participants were asked to show their view about the association between what they had studied and reality of the practice, almost half (47.2%) told "no" (Abduelkarem et.al 2016).

Study done in Japan, on three batch cohorts who completed the six-year pharmacy programme (students who enrolled for their sixth year in April 2011–2013 graduated in March 2012–2014, respectively), 40% went to work as community pharmacists, 30% became hospital pharmacists, 12% went to work in a pharmaceutical related industry, 8% became drug wholesalers or retailers, and 12% pursued other areas of interest. (Nakagomi K et.al 2016)

Study done in New Zealand showed that Pharmacy students were deciding their future professional career depending on their socio-economic and health care systems all over the world. There have been several previous international attitude surveys conducted on pre-career pharmacy students. These studies also examined career preferences on graduation and the factors that influenced these final career choices. (Capstick et al., 2007)

Studies from the Jordan stated that mean age respondents were 21.96 +/-5.38 years and 68.8% were females. Students mentioned family support (60%) and willing to work in reputable profession (83.5%) as reasons to study pharmacy. Female students (30.8%) preferred to work in academia and hospital ($P=0.043$) while male students preferred working as medical sales representative (16.7%) and in the pharmaceutical industry (14.1%). Almost 50% agreed that the university provided sufficient information and work experience that influence their career selection. (Raja'a 2019)

The poor pay rates offered by the community pharmacies in the KSA, which showed that 41.7% of community pharmacists received a salary of less than 5,000 SR and that there existed a high degree of dissatisfaction about this payment, compared to pharmacists working in a pharmaceutical company, who receive SR15,000 as their monthly salary. About half of the respondents (47.4%) expected to receive a salary of more than 3200 USD per month (SR = 12,000), 28.5% anticipated a salary ranging from 2667 to 3200 USD (SR = 10,000–12,000), and 9.5% predicted receiving less than 2667 USD (SR = 8000) as their monthly salary.

This could be a factor that led the students to prefer to work in any other sector than in a community pharmacy. Personal interest and experience of working in a hospital, community pharmacy, etc., were the two most important factors that influenced the students' future career selection. (Farah K A, 2019)

MATERIALS AND METHODS

A descriptive cross sectional study design using quantitative data collection method was employed. Quantitative methods study using structured Self-administered questionnaire to assess factors influences pharmacy students' to elect pharmacy field and their future career desire.

The source population of this study was the entire first, second and third year's B. Pharm students at Sharda University, School of Pharmacy from May 13th to May 31th 2019.

The study population of this study was B.Pharm students at Sharda University, Who were present at School of Pharmacy during the study period.

Questioners that don't completed with data on any of the following variables; Independent variable (age, sex) and dependent variable (elect Pharmacy, Choice of School of Pharmacy, Career Image, Future career ambitions, school experience of students).

Systematical random sampling was used and the data was filled by respondent his/her self. After introducing the aim of the study questioner was distributed to each student that agreed to fill the questioner. The questionnaire was developed based on articles written on factor affecting pharmacy flied chooses of student and future career choose.

Data quality control issues will be ensured by giving orientation to student before starting filling data. When the questionnaire returned, rough observation to all pages of questioner will be done. The data was processed and analyzed using Statistical Package for the Social Sciences (SPSS) version 20; the findings were presented using figures and tables.

Ethical Consideration A letter was written by Sharda University, School of Pharmacy To Whom It May Concern after Ethical committee approval. The name and identity of a respondent was excluded from the questionnaire for the sake of confidentiality and to acquire reliable information. The purpose of the study was described to the respondents that the study is only for academic purpose and it might contribute to improvement of health care system.

RESULT

Socio demographic

The response rate was 79.67% (98/123). Most of the students were male (61.22%), above half of the respondents age were between 20 and 21, about 42.86% were 3rd year B. Pharm. Most Students (73.5%) Hinduism in religion and 84.7% are Indians in nationality.

Table No. 1.Socio demographic of respondents

Variable	Categories	Male (N=60)	Female (N=38)	Total (N=98)	P-value
Batch	2018-19	21	9	30	0.445
	2017-18	14	12	26	
	2016-17	25	17	42	
Age	17-19 Years	9	10	19	0.429
	20-21 Years	37	19	56	
	22-23 Years	13	9	22	
	24-25 Years	1	0	1	
Religion	Hinduism	45	27	72	0.788
	Islam	12	6	18	
	Christianity	3	5	8	
Nationality	Indian Nationality	52	31	83	0.788
	Asian (Other than Indian Nationality)	1	1	2	
	African Countries Nationality	7	6	13	

5.2. Motivations and Influences

Student mentioned subject teacher (86.73%) and careers teachers (77.55%) at school of Pharmacy as their primary motivator. Visit to careers fairs/conference and careers leaflets (77.6%) and booklets (62.2%) were also important cause motivation. Batch (P=0.047) of the respondents and religion (P=0.006) were statistically significance associated to a careers teacher at School of Pharmacy, Nationality (P=0.016) of respondents significant with a visit to a careers fair / conference. Batch (P=0.003) of the respondents and religion (P=0.036)

significant to Indian Pharmaceutical Society literatures. Other all listed below were not significant ($P > 0.05$) to batch, gender, age, religion and nationality of respondents. (Table 2)

Students were influenced by their family members (53.1%), pharmacist they know (39.8%) and mostly made self-decision (63.3%) to join Pharmacy. (Figure 1)

Personal career goals influences student need to have a job with good career opportunities (81.6%) and work in profession with good respected were personal career reason for study pharmacy (77.6%), and ambition of own their own business (76.5%) are the main reason of students to choose pharmacy as their study field. Batch of the respondents were significant ($P < 0.05$) with most of statement mentioned below in (Table 3).

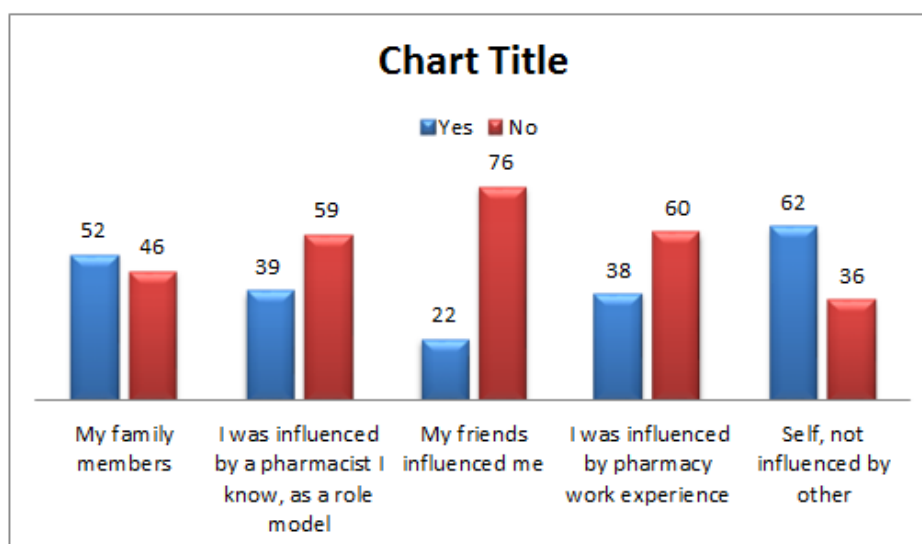


Figure No. 1. Who encouraged (influenced) student to study pharmacy

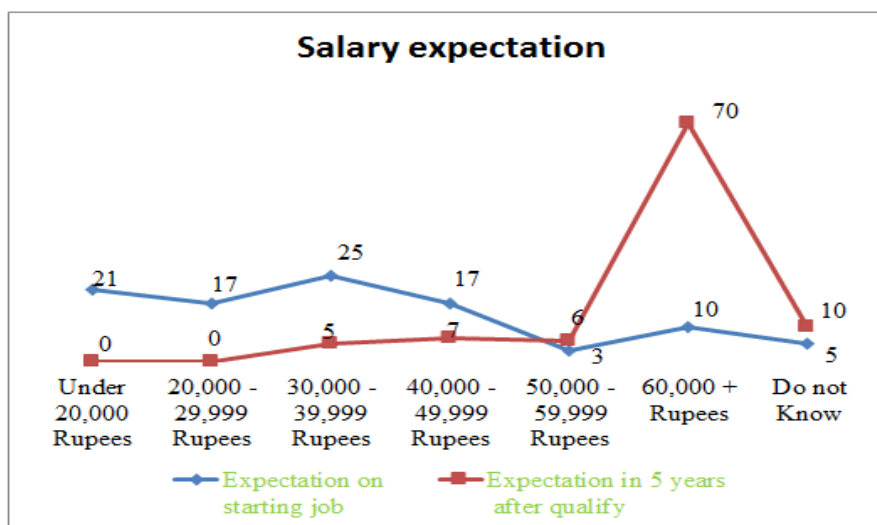


Figure No. 2. Expectation of salary after qualification in B. Pharm.

Table No. 2. Reason Level of impotency each one was for you chosen to study pharmacy.

Reason	Very important	Important	Slightly important	Not Important	P- value				
					Batch	Gender	Age	Religion	Nationality
A subject teacher at School of Pharmacy	61	24	5	8	.686	.636	.620	.104	.351
A careers teacher at School of Pharmacy	46	30	11	11	.047	.866	.843	.006	.191
A visit to a careers fair / conference	36	40	9	13	.134	.735	.537	.742	.016
A visit to a university open day	29	39	13	17	.256	.106	.555	.106	.100
A university booklet	19	42	23	14	.242	.241	.787	.823	.781
Indian Pharmaceutical Society literatures	29	42	11	16	.003	.492	.138	.036	.119
Radio and/or TV programme	19	40	20	19	.369	.531	.492	.626	.612
Careers leaflets or booklets	29	45	14	10	.174	.944	.645	.034	.267

Table No. 3. Reason(s) for student to study Pharmacy

Reason	Yes		No		P-Value				
	Count	% age	Count	% age	Batch	Gender	Age	Religion	Nationality
I liked science / wanted to study science based course	84	85.71	14	14.29	.319	.800	.883	.635	.542
I wanted a job with good career opportunities	80	81.63	18	18.37	.017	.991	.097	.009	.724
I wanted to work in a well-respected profession	76	77.55	22	22.45	.000	.816	.049	.806	.570
I wanted to own my own business	75	76.53	23	23.47	.363	.013	.500	.390	.615
I wanted a job where I am socially useful	71	72.45	27	27.55	.035	.101	.845	.206	.661
I thought pharmacy would be intellectually satisfying	70	71.43	28	28.57	.032	.600	.236	.337	.536
I wanted to work with patients	66	67.35	32	32.65	.245	.857	.131	.277	.596
I wanted flexible working hours	60	61.22	38	38.78	.383	.590	.849	.132	.788
I wanted the opportunity for part time work	41	41.84	57	58.16	.022	.223	.806	.049	.788

5.3. Career Image

Approximately 73.5% participants strongly agreed and 24.5% agreed that they are proud to tell others they are studying pharmacy. Also, nearly three fifth (59.2%) were strongly agreed and 38.8% agreed that they are committed to the values and ideals of the pharmacy profession. Also, nearly three fifth (59.2%) were strongly agreed and 38.8% agreed that they will be a pharmacist an important part of who they want to be. Gender, Age and Nationality of respondent ($P > 0.05$) were not significance relation with I am proud to tell others that I am studying pharmacy, I am strongly committed to the values and ideals of the pharmacy profession and Being a pharmacist is an important commitment of respondents to their future career in Pharmacy. Batch and religion of respondents ($P= 0.014$) significance to response ‘I am strongly committed to the values and ideals of the pharmacy profession’ (Table 4.)

Most of student 95.9% (strongly agreed and agreed) definitely wants a career in pharmacy. Also, 86.7% (strongly agreed and agreed) assume as Pharmacy is the ideal profession for a career for life. Approximately 29.6% of students regretted entering Pharmacy. Almost nearly fourth-fifth (78.6%) intended to undertake second degree after completion B. Pharm. Batch, religion and nationality of the respondents have no statistical significance ($P > 0.05$) with attitudes of B.Pharm students toward pharmacy as a career (Table 5).

Table No. 4. Commitment of student to career in pharmacy

Commitment of student	Strongly Agree	Agree	Disagree	Strongly Disagree	P-Value				
					Batch	gender	Age	Religion	Nationality
I am proud to tell others that I am studying pharmacy	72	24	2	0	.190	.509	.604	.086	.474
I am strongly committed to the values and ideals of the pharmacy profession	58	38	2	0	.014	.474	.363	.014	.221
Being a pharmacist is an important part of who I want to be	54	42	2	0	.803	.383	.819	.208	.557

Table No. 5. Attitudes of B.Pharm students toward pharmacy as a career

Attitudes of B.Pharm students	Strongly Agree	Agree	Disagree	Strongly disagree	P-Value				
					Batch	Gender	Age	Religion	Nationality
I Definitely want a career in Pharmacy	56	38	3	1	.610	.557	.944	.966	.512
If I could do it all over again, I would choose to study for the same profession	26	52	18	2	.304	.782	.894	.809	.539
Pharmacy is the ideal profession career for life	39	46	12	1	.590	.630	.267	.516	.220
I regret that I entered pharmacy school	10	19	56	13	.337	.586	.010	.781	.672
I intend to undertake a second degree after completing pharmacy	38	39	19	2	.123	.017	.447	.751	.968

5.4. Future career desires

Nearly one-fifth of pharmacy students intended to work in hospital/clinical/ community Pharmacy after graduation. The next most common career options were Research and Development (20.4%) and Industry (21.4%) respectively. Academic career (3%), Regulatory Affairs (4.1%) and analytic, R&D and formulation (4.1%) were the less preferred career options and they were only chosen by female respondents. Only about 5.1% of female respondents are yet not sure for their future career area. Batch, age, religion and nationality of the respondents have no statistical significance ($P > 0.05$) Attitudes of B.Pharm students toward pharmacy as a career (Table 6).

Almost one-fourth of respondent have expectation of 30,000 - 39,999 Rupees salary at point of starting career after qualify in B. Pharm and the next most expected salary as the beginners were 20,000 Rupees and below (21.4%), 20,000 - 29,999 Rupees (17.35%) and 40,000 - 49,999 Rupees (17.35%) respectively. Almost, nearly three-fourth (71.4%) of respondent expect salary more than 60,000 rupees.

Table No. 6. Future career desires of students

Future career desires	Gender		Total	
	Male	Female	frequency	%
Research & Development, R&D	9	12	21	21.4
Analytical, research and development and Formulation Development	0	4	4	4.1
QC, QA, Regulatory Affairs	0	4	4	4.1
Industry	16	4	20	20.4
Academia (University)	0	3	3	3.0
Sales & Marketing	7	2	9	9.2
Hospital / Clinical / Community Pharmacy	18	4	22	22.5
Own my own pharmacy business	10	0	10	10.2
Not sure yet	0	5	5	5.1
Total	60	38	98	100

5.5. Respondents experience as a student

About one-sixth 17 (17.3%) of students were considered to drop or change the course and 81(82.7%) have never experienced to drop or change the course. The main reason for the student to consider or change was personal problem 10.2%. Also, other reasons were mistaken choice of course 5.1% and academic difficult 2 %.

Approximately three-fourth (70%) of respondent’s family and friends thinking about them Pharmacy has a guaranteed employment. Also (74%) respondent’s family and friends thinking as Pharmacy job is well paid. Similarly, three-fourth (73%) respondent’s family and friends thinking as Pharmacy are well respected by the general public. At least half of respondents remark their family and friends don’t think as Pharmacists work long hours (54%) and Pharmacists work under a lot of pressure (67%). (Table 7)

Students mentioned that almost three-fifth (61.2%) Medicine (Physician) has higher status than Pharmacist in general public and 25.5% general public thinking that Pharmacists have the same status with medicine. Also, Students cited about general public thinking as Dentistry (35.7%), Health service manager (21.4%), Medical Laboratory Technology (17.3%), Nursing (17.3%), and higher status than pharmacy. Similarly Students cited about

general public thinking professional like Occupational Therapy (48%), Health Optometry (49%), Podiatry Technology (50%), Radiology (51%), and Physiotherapy (57.1%) lower status than pharmacist. In other category students stated that Dentist (42.9%), Medical Laboratory Technology (38.8%) and Nursing (34.7%) have same status with Pharmacist depending on general public views. (Table 8)

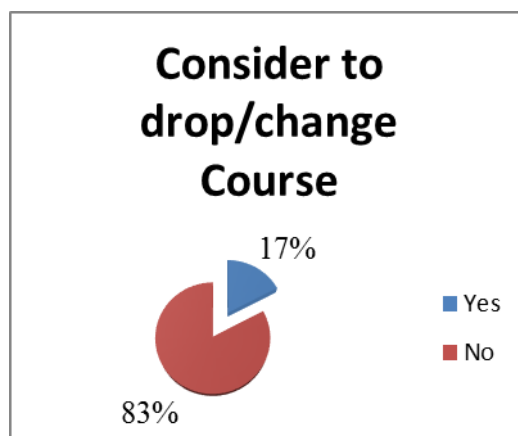


Figure No. 3. Student experience to consider drop/change course

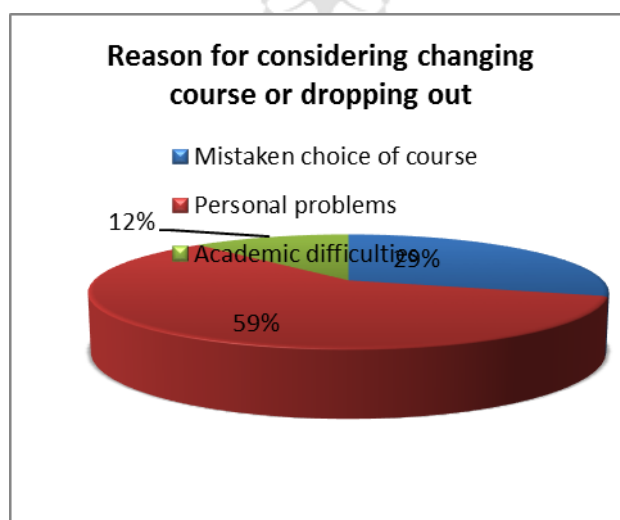


Figure No. 4. Reasons of Pharmacy students experience to consider drop/change during their study

Table 7. What Family and friends thinking about Pharmacy

	True	False	P-Value				
			Batch	Gender	Age	Religion	Nationality
There is guaranteed employment in pharmacy	70	28	.179	.600	.515	.844	.658
There are few opportunities for promotion and career development in pharmacy	41	57	.186	.101	.350	.490	.674
Pharmacy is a secondary profession to medicine	69	29	.350	.911	.649	.354	.542
Pharmacy is a well-paid job	74	24	.177	.529	.403	.025	.344
Pharmacists spend all day dispensing prescriptions	47	51	.958	.611	.483	.421	.571
Pharmacists work under a lot of pressure	31	67	.971	.662	.355	.037	.712
Pharmacists work long hours	44	54	.451	.658	.352	.070	.078
Pharmacists are well respected by the general public	73	25	.016	.884	.942	.699	.383

Table No. 8. General public status of Pharmacist compared with other health professions.

Profession	Higher status than pharmacy	Same status as pharmacy	Lower status than pharmacy	Don't know
Medical Laboratory Technology	17	38	36	7
Dentistry	35	41	18	4
Health service manager	21	42	27	8
Medicine (Physician)	60	25	12	1
Nursing	17	34	43	4
Occupational Therapy	13	27	47	11
Optometry	23	22	48	5
Physiotherapy	17	21	56	4
Podiatry	7	28	49	14
Radiology	13	30	50	5
Social work	13	32	40	13

DISCUSSION

This study to assess factors influenced Pharmacy students' to elect Pharmacy field and their future career desire among Sharda University School of Pharmacy and describe their motivations, career image, future career desires and their experience as a student also evaluated. The future career desire must take in consideration by stakeholder as the number of pharmacy new graduates increasing every year, which need more job opportunists and applicants within the pharmaceutical sector. Pharmacy undergraduates' future career choices and preparedness to enter different areas of practice within pharmacy have not as such been addressed completely in India by previous literature, which may result in the unequal distribution of pharmacist professionals across the practice areas. The study examined pharmacy students' future career choices and willingness to enter all available sectors in which pharmacy students may practice, including hospitals, community pharmacies, R&D centers, the pharmaceutical industry and etc. In addition, it provided information about which factors the students considered important or less important when selecting their future career. It also involved the students' views, perceptions and attitudes. When students prioritized their work choices, their favorites were inequitably distributed across different career paths.

Factors influencing student's decision to study Pharmacy were considered in three ways: educational, personal, and career-related goals. Education related factors that influences Students were Student mentioned subject teacher (86.73%) and careers teachers (77.55%) at school of Pharmacy as their primary motivator. Visit to careers fairs/conference and careers leaflets (77.6%) and booklets (62.2%) were also important cause motivation to study Pharmacy. Study done in Dubai shown similar result.(Abduelkarem et.al 2016). The main educational motivators were a subject teacher at school followed by career teacher. The least was radio or TV educational program on Pharmacy. The fact that radio and TV programs (60.2%) were the least mentioned educational factor indicates little public engagement about pharmacy and its role in healthcare delivery. With little public knowledge about pharmacy as in most developing countries specially most African countries (Ilodigwe EE 2010) University authorities and pharmacy professional bodies such as the Pharmaceutical Society of India should consider the frequent use of Social and mass media to increase public knowledge and awareness about the profession. Such strategy is expected to help interest potential applicants

into the profession. This result seems to be reliable with findings by Jesson and colleagues. (Jesson J 2010)

Student mentioned subject teacher (86.73%) and careers teachers (77.55%) at school of Pharmacy as their primary motivator. Visit to careers fairs/conference and careers leaflets (77.6%) and booklets (62.2%) were also important cause motivation. Batch ($P=0.047$) of the respondents and religion ($P=0.006$) were statistically significance associated to a careers teacher at School of Pharmacy, Nationality ($P=0.016$) of respondents significant with a visit to a careers fair / conference. Batch ($P=0.003$) of the respondents and religion ($P=0.036$) significant to Indian Pharmaceutical Society literatures. Other all listed below were not significant ($P > 0.05$) to batch, gender, age, religion and nationality of respondents. (Table 2)

Students were influenced by their family members (53.1%), pharmacist they know (39.8%) and mostly made self-decision (63.3%) to join Pharmacy.

Personal career goals influences student need to have a job with good career opportunities (81.6%) and work in profession with good respected were personal career reason for study pharmacy (77.6%), and ambition of own their own business (76.5%) are the main reason of students to choose pharmacy as their study field. Batch of the respondents were significant ($P < 0.05$) with most of statement mentioned below in (Table 2 & 3).

Personal related influences like interested to study science based course. Personal related influences like interested to study science based course. Most students were either influenced by their family members (53.1%), made self-decision (63.3%) and pharmacist they know (39.8%) to join Pharmacy. Also, Personal career goals influences student need to have a job with good career opportunities (81.6%) and work in profession with good respected (77.6%) and ambition of own their own business (76.5%) were the main reason for students to elect pharmacy as their study field to study pharmacy. Self-decision response to study Pharmacy with gender was significantly associated in this study ($P=0.017$). Female student is made self-decision to join Pharmacy flied than male students done. Past research studies done in USA have shown similar result with my study, that students choose pharmacy as a major for a variety of reasons.

These may include an interest in science, wanting to earn a high salary; a desire to help people; gaining job or economic security; obtaining a respected career; and the influence of individuals such as a family member, pharmacist, relative, or friends (Keshishian F 2011).

My finding shown that most students made self-decision to study Pharmacy followed by family and friends member were the important personal influences for choosing Pharmacy contradict with previous results stated in the UK .(Jesson J 2010) and USA (Anderson Jr 2008) but similar with reports from studies carried out in the United Arab Emirates (Sharif SI) and Malaysia (Hasan SS). With regards to career-related goals, my finding suggests that pharmacy students have reason to study Pharmacy to have job security, stability and the image of the profession, humanity public service and little on opportunity for part time work. This result also mirrors with the ones reported by Jesson and colleagues,(Jesson J 2010) but contrasted with those reported by Sharif et al. (Sharif SI 2014) and (Willis et al. 2006) Patient care, the image of the profession and community service are often mentioned as important beliefs of most healthcare professions that attract public respect. (Willis et.al., Post SG).

My finding further confirms image of medicine as the most admired and valued health care profession by the community as it is thought to save lives, promote and protect public health. That is always medicine given the first status by general public compering with other health professionals including Pharmacy field. Educational outreach platforms by mass media, school visits, college fairs that target the general public and senior high school science students are highly needed to increase awareness and transformation the general perception of the public towards the profession. However, a change in public or social belief about the profession of pharmacy goes beyond attractive the public but, also creation real actionable changes to the way in which the pharmacy profession is currently trained. A pattern shift from the traditional forms of training and practice of pharmacy to an expanded service model that is more patient-centered will go a long way in shifting the negative perception of the public. The recent change in the pharmacy curriculum from a product –focus to a more patient-centered is a step in the right path. (James et.al.) Such a change in the manner of learning will help yield capable pharmacy graduates that can contribute meaningfully to patient care and public health. This will help improve the profession's image and contribute to motivating students to select the profession of pharmacy.

Pharmacy student indicated an optimistic attitude towards the profession which is reliable with earlier studies conducted in England (Wilson K et.al.), Ghana (Owusu-Daaku F et. al.) and Ethiopia.(Beedemariam et. al.) The positive attitude demonstrated by these students might be as an outcome of their present understanding of the nature and scope of the

profession. Pharmacy instructors and other stakeholders do not only have the accountability to educate students but the community as well.

Nearly one-fifth of pharmacy students intended to work in hospital/clinical/ community Pharmacy (22.5%) after graduation. The next most common career options were Research and Development (20.4%) and Industry (21.4%) respectively. Regulatory affairs (4.1%) and Academic career (3%) were the less preferred career options and they were only chosen by female respondents. Only about 5.1% of female respondents are yet not sure for their future career area. No significance is seen in any of responses among the three batch ($P=0.372$), nationality (0.051) and age ($P=0.349$). These results are in line with previous studies of pharmacy students' preferences regarding their future career conducted elsewhere (Alhomoud FK et. al., 2019, Beedemariam et.al.,Walson et.al., Hasan SS et.al., Ubka CM et. al., Shan G et.al.) in which either hospital or community pharmacy was the preferred as first career choice. As majority most student want to work direct in health institute to implement their patient centered knowledge. Regulatory affairs jobs are only preferred by female respondents and males are the only respondents who desire to own self business in Pharmacy. In contrast study conducted university in Riyadh city of Saudi Arabia among final year students, and this focused mainly on the pharmaceutical industry as a future career (Bin Saleh, et al., 2015).

CONCLUSION

The ratio of males to female's respondents in this study was 61% to 39% in Sharda University; the proportion of male students was higher which need more investigation. The most influencing factors students on preference of student to study Pharmacy were subject teacher and careers teachers at school of Pharmacy as their primary motivator (education related influences), Personal related influences like interested to study science based course and personal career goals like student need to have a job with good career opportunities and work in profession with good respected and ambition of own their own business. Most students were either influenced by their family members, made self-decision, pharmacist and least influenced by Radio and/or TV programme they know to join Pharmacy.

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Generally, three main factors were influencing student to elect Pharmacy. The factors were educational, personal, and career-related goals. The main future career desires of the students after graduation were Hospital/clinical/community Pharmacies, R&D and Industries respectively.

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