ORIGINAL ARTICLE

IMPACT OF SOCIO-ECONOMIC STATUS ON DETERMINANTS OF MEDICAL CAREER

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Background: Research on determinants of Medical profession has established some constant factors with universal impact and appeal. However, the dramatic changes in the dynamics of medical profession and medical education over the past years have necessitated a revisiting of the established conclusions. The knowledge of impact of economic status on these determinants would pave way to greater interest and research on the subject, especially in Hazara Division where it is practically non-existent. **Methods:** This exploratory research followed deductive-inductive approach and was conducted upon 550 respondents from four public and private colleges in Hazara Division. Extensive study of related literature yielded 20 broad determinants of medical career. Pre-research pilot testing verified the reliability of a self-designed instrument. The data collection method adopted was a single shot survey. Personal data of respondents was collected during administration of the instrument. The sample was extracted through systematic random sampling technique giving due weight to proportional representation of each college as well as to the gender distribution. **Results**: The results revealed a significant difference in the impact of reassuring social perceptions and social status and prestige of medical profession between upper middle class and lower middle class. The results also showed that the students of upper middle class faced significantly greater domestic and familial pressure to enter the medical profession than those from lower middle class. **Conclusion**: The findings showed that the upper middle class is under greater influence of societal forces and wider impressions about the medical profession. The students hailing from upper middle class enter the Medical career motivated by urge for social status and prestige and are most compelled by domestic and familial pressures to enter medicine.

Keywords: Medical career; Career choice; Determinants; Economic status

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INTRODUCTION

Socio-economic status encompasses such sub-elements as the financial status of the student's neighbourhood, his access to academic, technical, private and public Colleges, and availability of technological and educational-cum-recreational facilities.[1] The relationship between the choice of career and anticipated salary is positively correlated[2] and it has been found that medical students consider good income as one of the major compulsions.[3] About 1/3rd of Pakistani medical students take up medical career to ward off past economic deficiencies[4] and for most, the future direction of the medical career is predominantly guided by monetary considerations,[5] especially among the males[6]. Studies have also substantiated the primacy of monetary-based lifestyle expectations among the students.[7] It has been established that income projection and debt-pressure may lead the students to choose a career pattern different from one earlier anticipated[8] and, in turn, lead them to economize their education according to their parent's income[9]. While it has been discovered that overseas Pakistanis seek medical education in Pakistan for their wards because of lower outlay on medical education in the country,[10] there is an enduring aspiration among medical student in the country to move abroad, primarily for pecuniary reasons[4].

It is generally believed that doctors enjoy good living standards[11] an assumption corroborated by the fact that an average doctor gets a salary much higher than the per capita income of the population[12]. Studies have found that till 1970's, majority of the medical students came from strong financial background with high social standing.[13] There was palpably less representation of students from low income bracket. Moreover, the parents of most medical aspirants enjoyed a higher level of educational attainment than parents of other students.[14] This may have been because the rich parents were able to have their children continue with better education and sustain the ambition to join medicine, as opposed to children of poor parents. Hence, the social cycle of education bringing finance and finance facilitating education. With doctors coming traditionally from the privileged class, a natural consequence was their distancing from patients, leading to the inability to relate to the clientele.[15] Also, such demographics held significant bearing on the system of health care, the chief being a resistance to reforms in the health sector by a defined class protecting their interests. However, after 1970's, a sizeable urban upper middle class has also been also heavily represented in the medical institutions of Pakistan, thus leading to improvement in its living conditions. Today, the

majority of students in the best public medical colleges (with affordable tuition fee) hail from middle or lower middle class.[4] Such statistics constitute a redemptive feature of medical education in Pakistan whereby diligent students with the right aptitude are provided opportunity to enter the medical field beyond the considerations of class or background (the aspirations for socio-economic climb notwithstanding). Nevertheless, the economic underpinnings have been seen to exercise their pull on all strata of society. It would be amiss to imagine that any advent of poor class in medical field would bring about a fundamental change, since as a means of production in a capitalist system, its economic character would be immune to any change of composition of its constituents.[16] It has been observed that among doctors from poor class, there is a strong urge to rise and join the affluent class, instead of harbouring welfare-based life objectives. Therefore, there is little evidence that doctors from poor class will eventually not acquire the rich class' attitudes.[17]

MATERIAL AND METHODS

The exploratory research focused on exploring the determinants of medical career and providing answers to questions regarding influence exercised by socio-economic status on these determinants. The data-collection technique adopted was one-shot cross-sectional survey. The population for the study comprised of 2750 MBBS students of four public and private colleges in Hazara region, viz. Ayub Medical College (AMC), Frontier Medical College (FMC), Women Medical College (WMC) and Abbottabad International Medical College (AIMC). The sample of the study was derived through systematic random sampling technique. The proportional representation of the institutions and gender was ensured. The physical contiguity of the institutions and socio-cultural affinity of respondents lent homogeneity to the sample, precluding chances of mutually disparate or skewed findings.

Extensive review of literature yielded 20 broad determinants representing the most significant motivations and compulsions for entering a career in medicine. These included nobility and reverence of profession; reassuring social perceptions; social status & prestige; domestic & familial pressures; broader societal compulsions; future growth prospects; emulating prosperous examples; overcoming past deprivations; job market competitiveness; future economic uncertainties; personal drive and determination; ambition and aspiration; talent and aptitude for medicine; initiative and resourcefulness; altruism and compassion; gullibility & lassitude; myopic and disorganized; indecisiveness and reluctance; diffidence and reserve; and yielding despite different aptitude. A questionnaire, framed to meet the specific requirement of study with due consideration for Pakistani ethos, was developed to measure the respective impact or influence of career determinants. Each determinant was represented by three manifestations (statements), making it a self-report inventory of 60 multiple-choice questions based on Likert Scale. The instrument was treated to a pilot study upon mix-gender group of medical students (n=40), considering their affinity to the ones in the actual sample. The pilot testing results gave a good reliability figure of 0.965 on Cronbach Alpha, thus validating the instrument as reliable through test-retest procedure and valid through internal consistency method. Data regarding the students' socio-economic status was gathered through a 'Personal Data Form' administered along with the instrument. SPSS-17.0 was used for data analysis. ANOVA and Post-Hoc were used to find significant differences in response to career determinants on the basis of economic status. Results were worked out in relation to 20 earmarked determinants.

RESULTS

The students belonged to all stages/years of MBBS study and aged between 18–25 years. The cross-gender sample comprised 257 males and 293 female students, ensuring a healthy mix-gender representation (53% females to 47% males). Also, appreciable representation from both public and private medical colleges made the findings broadly applicable to both categories of medical students (45.5% public to 54.5% private). Fifty four percent of sample came from urban areas, while about 24% and 22% belonged to suburban and rural areas respectively. The majority belonged to upper-middle and lower-middle class.

The three determinants were cross tabulated with the socioeconomic class of the students. ANOVA showed significant differences in response in 3 determinants by respondents of different socio-economic status. Further Post hoc tests to confirm groups between which the significant differences existed with respect to the three determinants. As the following tables 3–5 show, in the case of all three determinants (i.e., reassuring social perceptions, social status and prestige, and domestic and familial pressures), there is a significant difference between the upper middle class and lower middle class.

In all three cases, it is revealed that during the process of career choice, the upper middle class is more influenced by the reassuring social perceptions regarding medical perceptions than the lower middle class. The upper middle class also enters medicine because of the pull of social status and prestige of the medical profession. Finally, the students form the upper middle class face significantly greater domestic and familial pressure to join the medical profession, than those of lower middle class.

Table-1: Sampling Frame (n=550)

College	Pop	Sample (20%)	Enrolled Males		Enrolled Females	
			Total	20%	Total	20%
Ayub Medical College	1250	250	812 (65%)	162	438 (35%)	88
Abbottabad International Medical College	500	100	125 (25%)	25	375 (75%)	75
Frontier Medical College	500	100	310 (62%)	62	190 (38%)	38
Women Medical College	500	100	-	-	500 (100%)	100
Total	**2750**	**550**	**1247 (45%)**	**249**	**1503 (55%)**	**301**

Table-2: ANOVA to determine the effect of economic status on career determinants (n=550)

Determinant	SES	Mean	Std. Deviation	F
Reassuring social perceptions	U/E	10.75	2.527	**2.29***
	UM (wc)	9.97	2.958	
	LM (wc)	9.82	2.742	
	W (sbc)	9.33	3.077	
	W (us)	6.89	3.408	
	PC	9.40	2.881	
	Total	9.88	2.906	
Social status & prestige	U/E	9.58	3.118	**2.54***
	UM (wc)	9.18	3.271	
	LM (wc)	8.40	3.436	
	W (sbc)	7.67	3.327	
	W (us)	6.89	3.408	
	PC	10.80	3.421	
	Total	8.90	3.349	
Domestic & Familial Pressures	U/E	8.67	2.146	**2.88***
	UM (wc)	7.51	2.982	
	LM (wc)	6.69	2.703	
	W (sbc)	7.50	3.450	
	W (us)	6.33	2.121	
	PC	8.60	3.209	
	Total	7.27	2.899	

*p<0.05, [Upper or Elite=12; Upper Middle (White Collar) =341; Lower Middle (White Collar) =177; Working (Skilled Blue Collar)=6; Working (unskilled)=9; Poor Class=5]. Note: Upper or Elite: U/E; Upper Middle (White Collar): UM (wc); Lower Middle (White Collar): LM (wc); Working (unskilled): W (us); Working (skilled blue collar): W (sbc); Working (unskilled): W(us); Poor Class: PC

Table-3: Post Hoc Test to compare the impact of socio-economic status on different groups of students with regard to reassuring social perceptions (n=550)

Determinant	(I) Group	(J) Group	Mean (I-J)	*p*
Reassuring Social Perceptions	U/E	UM (wc)	0.782	0.357
	U/E	LM (wc)	0.925	0.284
	U/E	W (sbc)	1.417	0.327
	U/E	W (us)	0.143	0.594
	U/E	PC	1.350	0.380
	UM (wc)	LM (wc)	3.861*	0.003
	UM (wc)	W (sbc)	0.634	0.594
	UM (wc)	W (us)	3.079	0.002
	UM (wc)	PC	0.568	0.663
	LM (wc)	W (sbc)	0.492	0.682
	LM (wc)	W (us)	2.936	0.310
	LM (wc)	PC	0.425	0.746
	W (sbc)	W (us)	2.444	0.109
	W (sbc)	PC	-0.067	0.970
	W (us)	PC	-2.511	0.120

Table-4: Post Hoc Test to compare the impact of socio-economic status on different groups of students with regard to social status and prestige of medical profession (n=550)

Determinant	(I) Group	(J) Group	Mean(I-J)	*p*
Social Status & Prestige	U/E	UM (wc)	0.404	0.679
	U/E	LM (wc)	1.188	0.232
	U/E	W (sbc)	1.917	0.250
	U/E	W (us)	2.694	0.067
	U/E	PC	-1.217	0.492
	UM (wc)	LM (wc)	0.783*	0.011
	UM (wc)	W (sbc)	1.512	0.270
	UM (wc)	W (us)	2.290	0.442
	UM (wc)	PC	-1.621	0.280
	LM (wc)	W (sbc)	0.729	0.598
	LM (wc)	W (us)	1.507	0.186
	LM (wc)	PC	-2.405	0.111
	W (sbc)	W(us)	0.778	0.657
	W (sbc)	PC	-3.133	0.120
	W (us)	PC	-3.911	0.035

Table-5: Post Hoc Test to compare the impact of socio-economic status on different groups of students with regard to domestic and familial pressures (n=550)

Determinant	(I) Group	(J) Group	Mean (I-J)	p
Domestic & Familial Pressures	U/E	UM (wc)	1.153	0.172
	U/E	LM (wc)	1.972*	0.022
	U/E	W (sbc)	1.167	0.417
	U/E	W (us)	2.333	0.066
	U/E	PC	0.067	0.965
	UM (wc)	LM (wc)	0.818*	0.002
	UM (wc)	W (sbc)	0.013	0.991
	UM (wc)	W (us)	1.180	0.225
	UM (wc)	PC	-1.087	0.402
	LM (wc)	W (sbc)	-0.805	0.500
	LM (wc)	W (us)	0.362	0.713
	LM (wc)	PC	-1.905	0.145
	W (sbc)	W (us)	1.167	0.442
	W (sbc)	PC	-1.100	0.528
	W (us)	PC	-2.267	0.158

DISCUSSION

The sample carried 62% students from upper middle class and 32% from lower middle class (i.e., 94% of the total sample), which affirms the assertion that, with the presence of sizeable upper middle class representation, the medical field in Pakistan is no longer the exclusive domain of upper or elite class.[4] This also reflects the validity of the findings of the study as being representative of largest section of medical students.

The results showed that upper middle class was greatly influenced by reassuring social perceptions. It had been similarly discovered that upper middle class is more influenced to joining a profession because of its reputation.[11] Such perceptions are also closely tied to economic conditions and labour market. It has been observed that career choice is impacted by patterns of labour market and the transition in labour force patterns influence family structure.[18] It has been validated that economic necessities in combination with the positive perception of medicine makes medicine a compelling choice.[19]

The main agent of social perceptions are the parents, who impose upon their children the popular perceptions about medicine. Thus social perceptions make their impact through domestic and familial pressures. This reflects Chank-Keung's[20] assertion about how parents play a vital role in the social acquiescence of children. Social perceptions are also intimately linked to family's peculiar economic motivations and compulsions, and family systems interact with other social elements, such as gender, race and socio-economic status, to form career choices of the youth.[21]

The study discovered that there is a manifest difference between the motivations of upper and lower middle class with respect the urge to gain social prestige and status. The upper middle class is significantly more inclined than lower middle class to achieving social status and prestige. This could be interpreted as an urge to rise up the social ladder. It has been stated that the doctors stand a much better chance of achieving the financial stability and respectable living standards.[22] The upper middle class seems to have tied itself to the belief of joining the exclusive elite strata, thus confirming the phenomenon of upward social mobility. The urge of doctors to rise and join the affluent class has been earlier established.[23] As a result, the students of this class bear the brunt of (fundamentally economic) pressure as a part of familial effort to raise the social status.[5] It has been established that income projection and economic pressure may lead students to choose a career pattern.[8]

The customary prestige has long been found to be an attraction in joining medicine.[24] The students are prompted to appreciate the vocational prestige of medicine by family members (especially parents). Domestic attitudes about professions wield their influence on students' opinion about different vocations.[25] This implies that taking up medical career for prestige has its roots in domestic ethos.

Similarly, assumed social status of medical practitioners is one of the touchstones of community's health[24] and the aspirants to the medical field are motivated by the opportunity to touch lives at a wider scale, fascination of medical profession, chances to work with inspiring personalities, spread happiness, realization of the need for doctors in society, prestige and regard, and the allure of entering medical community.[26]

The worldwide implications of mushrooming of private medical colleges have been variously researched.[27] The standards and culture of an institution is sometimes reflected in the general social status of its alumni.[28] There is a marked difference between the socio-economic profile of students of public and private medical colleges in

Pakistan. These demographic differences, along with other factors related to the growth of private medical colleges, are sure to have major ramifications on the future of medical profession in Pakistan.

The interpretation of what constitutes economic success differs from one class to another. The richer classes equate economic success with status, fame and foreign credentials, while the poor class interprets economic prospects in terms of sustenance and support of families.[4] By revealing a significant difference in aspirations between students of upper and lower middle class students, the study concurred with earlier findings on factors that restrict the achievement of members of disadvantaged groups, like lower middle class. These include domestic background of students (poverty, unemployment, housing, Health) and cultural factors (child-rearing practices, language, family structure, parental attitudes). A past study had proved the effect of type of social class and household on academic and professional success.[29]

The comparatively greater domestic pressure faced by students of upper middle class to join medicine may be interpreted as the reaction to fears of falling from the attained social pedestal. Morra[19] had found that while all doctors are influenced by economic prospects and money-based incentives, economic motivations are fed largely by future economic fears. This finding also reiterates the conclusion that expected economic deprivations are positively correlated to future career choice.[2]

The study found that domestic and familial pressures were intimately linked with economic motivations and compulsions, especially the high monetary expectations of parents. As doctors are perceived to be among the affluent class, the domestic expectations from them are unrealistically high.[30]

It has also been emphasized that the attitudes of close family relatives towards occupations significantly affect the career choice of students.[20] This reiterates Saad *et al*[31] who found that nearly 90% Pakistani students joined medicine as a result of familial influence. The students with successful siblings in medicine bear additional parental pressure to follow in their footsteps. Siblings have been substantiated as a source of challenge and competition and also as a basis for comparison of abilities.[32]

CONCLUSION

The unabated developments in medicine have added to the occupational diversity and absorption in the field. Furthermore, new worldwide dynamics such as globalization, occupational competitiveness, eroding social and traditional controls, expanding population, inflationary trends, depleting resources and shrinking access to medical facilities, have all added an unprecedented complexityts to the individual's decision to enter or desist from medical field. The subject is ripe for research in Pakistan, particularly the Hazara Division.

AUTHORS' CONTRIBUTION

Both the authors contributed equally in the preparation of manuscript.

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