

Research Article

Impact of Psychiatric Internship on Medical Graduates: Quasi - Experimental Study

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Abstract

Background: Physical health is incomplete without mental health; despite this fact Psychiatric teaching and training of medical health professionals is an undermined area especially in developing countries like Pakistan.

Objective: This study is aimed to determine the impact of knowledge, attitude and perception towards Psychiatry and also possible change in the career choice of medical graduates (house job interns) of public sector hospital of Karachi after doing internship in Psychiatry

Methods: This quasi-experimental study was conducted in 40 medical graduates house job interns who were doing 12 weeks internship in Psychiatry department of Dow Medical College & Dr Ruth K.M.Pfau Civil Hospital Karachi from April 2020 to March 2021 on quarterly basis. A Self synthesized pretested questionnaire was employed twice at pre internship and post internship levels and two semi structured questions were also administered to qualitatively compare their responses. SPSS-19 was applied to statistically analyze the result and paired sample t-test was used to compare both pre and post internship scores

Results: There was found statistically significant impact of psychiatric internship on medical graduates (preinternship; M=52.2, SD=10.8 and post internship M=60.6, SD=8.3); $t(39)=-4.6, p<0.001$. The possibility of choosing psychiatry as a career increased from 15% to 57.5%. These results suggest that psychiatric internship actually makes certain degree of difference in the individual's knowledge, attitude and perception

Conclusion: This study has found the remarkable impact of 12 weeks Psychiatric internship on medical intern's knowledge, attitude and perception. It emphasized the essential role of structured teaching, training and exposure to patients for mitigation of misperceptions and development of genuine concepts towards psychiatry.

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Introduction:

Psychiatric disorders are ranked in the list of first twenty disorders of the global burden of diseases. They cause significant increase in morbidity and mortality when comorbid with physical illnesses. Many physical and psychiatric disorders share certain common causal factors like sedentary life style, smoking or illicit

drug use, poverty or stress.¹ World Health Organization in its action plan (2013-2020) recommended promoting mental health by providing timely psychiatric care globally. In contrary lack of awareness, stigma and disrupted health beliefs are consistent in the public and that also prevails in the medical health professionals due to unstructured to no training in mental health

domain since undergrad level.² People in South east Asian countries like Pakistan usually approach faith healers for psychiatric disturbances that they explain under sociocultural, religious and supernatural factors.³ These stigmatized beliefs are not confined to the psychiatric illness and patients but also affect the mental health professionals. In general, student's attitude towards psychiatry as a subject is moderately positive, they find it different and interesting but they don't prefer to keep Psychiatry as a potential career choice due to perceived society beliefs including their family, close friends and teachers. Those are far away from research and patient exposure rather based on discriminatory attitude and stereotyped thinking.⁴ Farooq K et al⁵ conducted a comprehensive international survey on final year medical students in 20 countries and found that, only 4.5% were definitely considering psychiatry as a career. There are widespread factors that incorporate in career selection, like personal factors; (gender, ethnicity, academic aptitude, family influence, economic factors, personality) and institutional/organizational factors (Teaching practices and degree of clinical exposure).⁶ Merely the inclusion of psychiatry in the medical curriculum is not sufficient because most of the students either do not attend the class or take it optional due to its minor weightage in the exam.⁷

Psychiatry internship is often the first exposure of medical students to mental health services and that is itself an optional choice for them. Those who refute that choice, found interacting with psychiatric patients daunting and overwhelming throughout their practice. The university student's age is the most productive and harbors a lot of demands and expectations by the society that consequently bring stress and often onset of psychological problems if not timely addressed. The lack of awareness to the field of psychiatry and its practical implications in daily living, coping and interpersonal relationship make the youth deprived of learning essential psychological principles and functions that may protect them from distress and empower them to deal with the burnout or frustration due to inevitable stressors.⁸ Therefore, it is significant to promote mental health and inculcate Psychiatry in the medical curriculum with true spirit i.e teachers and methods of teaching both need to be modified and updated to keep teaching practice more effective. Internship in psychiatry is a good opportunity for students to enrich with both academic

and clinical teaching to broaden their career choice. Psychiatry can be the potential career option for those who are looking forward to flourish professionally with harmony of personal life prospects. There is dearth of local literature; no one worked on medical graduate and studied period of psychiatric clerkship exposure has also been for short time. However this study is intended to be done in medical graduates because they are in a better position when they seriously contemplate about making career choice, learning clinical skills and readily aspire by genuine teaching and training. It is aimed to determine the impact of knowledge, attitude, perception and also possible change in the career choice of medical interns of public sector hospital Karachi after 12 weeks internship in Psychiatry.

Methods:

The Study protocol was approved by the institutional review board (IRB-1475/DUHS/Approval/2020/). The Quasi-experimental study was conducted in the Psychiatry department of Dow Medical College & Dr Ruth K.M.Pfau Civil Hospital Karachi from April 2020 to March 2021. The study Participants were the medical graduates who came for internship to Psychiatry department and selected through nonprobability convenient type sampling technique.

We included fresh graduates of both gender, aged between 20 to 35years who were doing house job in Dr Ruth K. M. Pfau Civil hospital Karachi and joined the Psychiatry department on open merit for 3months and reported to the department on the very first day of internship and given informed verbal consent for the study. While those who did not fulfil the inclusion criteria such as remained absent on first day of internship or joined psychiatry in exchange of other department or didn't give consent for the study were excluded. In one year total four sets of house job interns rotated on quarterly basis and N=40 participants were enrolled for this study.

Data were collected by the principal investigator on two occasions; first (preinternship) and last (post internship) day of internship. Participants were offered to fill up the questionnaire after giving brief description of the study instrument by the principal investigator. The questionnaires were anonymized by placing specific codes over it instead of their names to ensure confiden-

tiality and avoid biasness. Those codes were assigned by the principal investigator at the start of internship and matched in both forms (preinternship and post internship). During those 3 months of internship, they had been provided exposure to patients in OPD and ward, had observed various structured clinical and academic activities such as ward rounds, topic and case presentations and related to basic psychiatric assessments, common mental disorders and management. The filled up questionnaires were received hand to hand after assuring its completion. Further feedback was also taken to complement the questionnaire responses by administering two semi structured questions at the end of internship.

The Anonymous questionnaire of 16 items was developed and administered on study participants. It is a self-rated likert type scale where 0=strongly Disagree and 5=strongly agree. There are few items (8-13 & 15-16) with reverse scoring where 0=strongly agree and 5=strongly Disagree. It was constructed to estimate knowledge, attitude and perception about Psychiatry, psychiatric illness and patients in fresh graduates immediately before (preinternship) and after (post internship) completing 3 months house job in Psychiatry. The net score is the sum of all items i.e 80, the high scores depict high knowledge, attitude and perception or vice versa.

The content of preinternship questionnaire was almost similar to that of post internship questionnaire except addition of two qualitative items. Internal consistency of the scale items was good, verified by applying Cronbach's alpha (0.7). It was further validated by pretesting it on 12 fresh medical graduates. No one faced any problem in administration.

The data were analyzed using Statistical Package for Social Sciences (SPSS) version 19. The mean and standard deviation calculated for age, pre internship and post internship scores. While the frequency was calculated for gender and other demographic variables. Post stratification, fisher exact test was applied to observe any statistically significant association of variables with the primary outcome and point of significance marked by p-value of <0.05. The paired sample t-test was applied to compare the relationship between mean scores both pre and post in the knowledge, attitude and perception of medical graduates.

Results:

Males and Females were almost equally distributed in the collected sample, Male: Female (47.5%:52.5%). The mean age of the sample was 25 ± 1.4 years. Almost half of the interns (50%) in our sample selected medicine and allied as speciality of interest while only 15% chosen Psychiatry before doing internship.

(Table-1)

Table 1: Descriptive Characteristics of Demographic and Other Study Variables

| Variables | N=40 n(%) |
|---------------------------------------|------------|
| Gender | |
| Male | 19(47.5) |
| Female | 21(52.5) |
| Age (Mean±SD) | 25.3 ± 1.4 |
| Specialty interest | |
| Medicine and allied | 20(50) |
| Surgery and allied | 7(17.5) |
| Pediatric | 1(2.5) |
| Psychiatry | 6(15) |
| Other | 6(15) |
| Psychiatry electives | |
| Yes | 5(12.5) |
| No | 35(87.5) |
| Doctor in family | |
| No | 16(40) |
| Yes | 24(58) |
| Psychiatric illness in family | |
| No | 31(77.5) |
| Yes | 9(22.5) |
| Personal psychiatric problem | |
| No | 31(77.5) |
| Yes | 9(22.5) |
| Mental health service exposure | |
| No | 33(82.5) |
| Yes | 7(17.5) |

There was found a remarkable difference in knowledge, attitude and perception after psychiatry internship in most of the questions (Figure-1).

While in few question items, interns had already selected good responses even at preinternship level that improved further on post internship (Table-2b)

A paired sample t-test was applied to compare preinternship and postinternship scores. There was statistically significant difference found in these scores, (preinternship; $M=52.2, SD=10.8$ and post internship $M=60.6, SD=8.3$); $t(39)=-4.6, p<0.001$. These results suggest

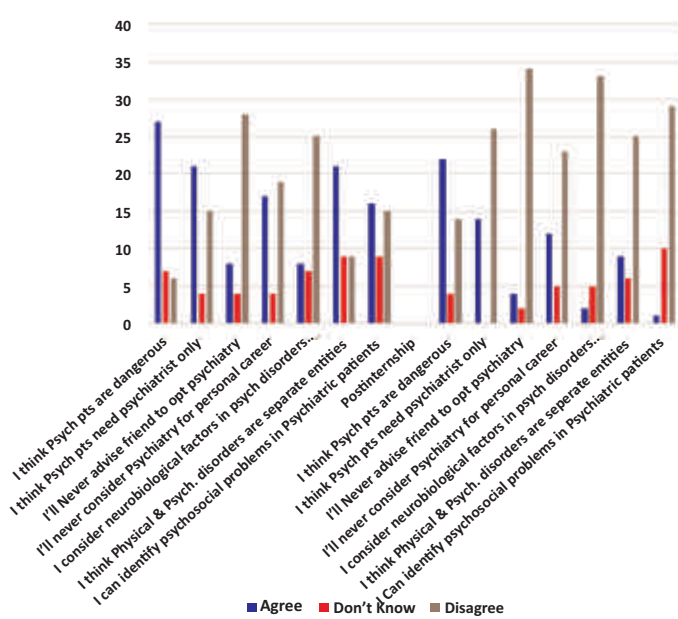


Figure1: Impact of Psychiatric Internship on Knowledge Artitude and Perception of Medical Graduates

Table 2a: Difference in Knowledge, Attitude and Perception on Postinternship

| Questions | Internship status | Responses N(%) | | |
|--|-------------------|----------------|------------|----------|
| | | Agree | Don't Know | Disagree |
| I think Psychiatric Patients are Dangerous | Pre | 27(67.5) | 7(17.5) | 6(15) |
| | Post | 22(55) | 4(10) | 14(35) |
| I think Psychiatric Patients need Psychiatrists only | Pre | 21(52.5) | 5(12.5) | 14(35) |
| | Post | 14(35) | - | 26(65) |
| I'll never advice friend to opt psychiatry | Pre | 32(80) | 2(5) | 6(15) |
| | Post | 4(10) | 2(5) | 34(85) |
| I'll never consider Psychiatry for personal career | Pre | 23(57.5) | 6(15) | 11(27.5) |
| | Post | 12(30) | 5(12.5) | 23(57.5) |
| I consider neurobiological factors in the causation of Psychiatric disorders | Pre | 32(80) | 7(17.5) | 1(2.5) |
| | Post | 38(95) | 2(5) | - |
| Physical and Psychiatric disorders are separate entities | Pre | 21(52.5) | 9(22.5) | 10(25) |
| | Post | 9(22.5) | 6(15) | 25(62.5) |
| I can identify Psychosocial problems in psychiatric patients | Pre | 24(60) | 13(32.5) | 3(7.5) |
| | Post | 39(97.5) | - | 1(2.5) |

that psychiatric internship actually makes certain degree

of difference in the individual's knowledge, attitude and perception(Table 3). Fisher exact test was applied to see the association of possible confounders

Table 2b: Responses with Good Reflection Knowledge, Attitude and Perception on Preinternship

| Questions | Internship status | Responses N(%) | | |
|--|-------------------|----------------|------------|-----------|
| | | Agree | Don't Know | Dis-agree |
| Psychiatric patients are unproductive | Pre | 6(15) | 5(12.5) | 29(72.5) |
| | Post | 4(10) | 2(5) | 34(85) |
| Psychiatric illnesses are incurable | Pre | 4(10) | 3(7.5) | 33(82.5) |
| | post | 3(7.5) | 1(2.5) | 36(90) |
| Family & friends perception about Psychiatry affects | Pre | 19(47.5) | 9(22.5) | 12(30) |
| | Post | 21(52.5) | 4(10) | 15(37.5) |
| Psych illness indicates personal weakness | Pre | 5(12.5) | 8(20) | 27(67.5) |
| | Post | 3(7.5) | 1(2.5) | 36(90) |
| I can disclose Comfortably about my Psych. Internship to friends and family | Pre | 32(80) | 1(2.5) | 7(17.5) |
| | Post | 36(90) | - | 4(10) |
| Psychiatric internship is necessary to learn certain crucial clinical skills | Pre | 35(87.5) | 1(2.5) | 4(10) |
| | Post | 36(90) | - | 4(10) |
| I can manage physical problems in psychiatric patients | Pre | 21(52.5) | 13(32.5) | 6(15) |
| | Post | 34(85) | 4(10) | 2(5) |
| I understand the role of psychosocial factors in the occurrence of psychiatric disorders | Pre | 32(80) | 5(12.5) | 3(7.5) |
| | Post | 37(91.5) | 2(5) | 1(2.5) |
| Physical investigation in Psychiatric patients is important | Pre | 35(87.5) | 2(5) | 3(7.5) |
| | Post | 39(97.5) | - | 1(2.5) |

including age, gender, psychiatry electives, doctor in family, Psychiatric illness in family, personal psychiatric problem, mental health service exposure and specialty of interest. It was found to be significantly associated(P< 0.001) with all of those variables except age and gender.

Besides administering structured questionnaire, two semi structured interview questions were also administered to further verify their quantitative response. Majority of the interns gave common positive response first on agreement of uniqueness of Psychiatry as a subject

Table 3: *Psychiatric Internship Impact on Knowledge, Attitude and Perception*

| | Mean± SD | t | df | p |
|-----------------------|----------|-------|----|--------|
| Preinternship scores | 52±10.8 | | | |
| Postinternship Scores | 61±8.3 | < 4.6 | 39 | <0.001 |

and secondly suggested it should be improved further for considering it as a career by offering; i) structured psychiatric rotations for undergraduates and internship for graduate on compulsory basis in order to improve their career choice options and overall general acceptance for the field. ii) Good and accessible mental health services provision at community level is also necessary for general acceptance of mental health issues among public. iii) Awareness programs for general public and even health professionals through enrichment courses, workshop, seminars, conferences, surveys, documentaries and mass media.

Discussion:

In this study remarkable improvement was noticed in almost all the items of the questionnaire at post internship level that was further confirmed by administering few qualitative questions. Previous work related to such subject mostly being done in undergraduates⁹ while we selected fresh graduates in order to see the impact of psychiatric internship on their basic level of Knowledge acquired through undergraduate education. In our sample both male and female gender was equally distributed which speculates greater likelihood of both genders to opt psychiatry as their future career without any predominance. In this study we constructed an anonymous questionnaire while in most previous studies ATP-30 scale was used, that was constructed by Burra et al 10 to observe attitude towards Psychiatry in medical undergraduates irrespective of cultural context. However our questionnaire meant to assess knowledge, attitude and perception of fresh medical graduates in the local context for Psychiatric; illnesses, patients, causes and management.

Subjects scored well even at preinternship level in few questions might contemplate by the fact; behavioral science inclusion in undergraduate curriculum as well as Psychiatry clinical posting in 4th year somehow help in knowledge building. However their family and friends hold their own beliefs and influence them, evident by mixed type of responses in the questionnaire. Few

interns experienced the negative influence while others remained neutral to it. Certain responses didn't remarkably improved even after psychiatric internship such as "psychiatric patients are dangerous" 67% interns agreed to it on pre and 55% on post internship. It could be explained on personal attributes or experiences like there might happen any personal adverse experience with aggressive patients.¹¹

The possibility of choosing psychiatry as a career increased from 15% to 57.5% in our study, it could be due to adequate time exposure (12 weeks) with variety of patients and concept oriented learning. This finding is inconsistent to other studies where duration of exposure was less and impact of internship was not observed on career choice.¹²

Perception about mental health and illnesses shaped by widespread factors most importantly education, cultural explanation, personal experiences, interaction with psychiatric patients.¹³ In our study 12.5% of interns did the psychiatry electives during their graduation that depicts their interest in psychiatry. That interest can be further enhanced by promoting psychiatry as an essential subject in curriculum.¹⁴ Kerebih et al¹⁵ studied various factors responsible for choosing psychiatry as a career, among which having close family relative with psychiatric illness is one of strongest predictors of making such choice. Our study also replicated those findings, we had 22.5% of interns who had positive family history of psychiatric illness and it was found to be significantly associated with career choice. Acquiring Medical education is a challenging job; complexity of studies, time restriction, demand for good grades all create continuous progressive burden on mental well-being.¹⁶ Many students suffer with mental health problems and reluctant to seek help because of poor awareness and lack of acceptance in family and friends. However being suffered with the mental health problem and seeking timely help from reliable sources improves understanding and acceptance about mental health. In our study 22.5 % of interns had suffered from mental health problem and this association is significant with career choice.

The outcome of Exposure to mental health services is usually defined by its quality; those who were satisfied by their exposure hold positive views and encourage others for help seeking. In our study only 17.5 % interns

had the mental health service exposure. The supervised exposure may help to remove myths and misconceptions about psychiatric disorders and patients among students and facilitate in constructing true image of psychiatry without any unnecessary inhibitions.

In developed countries despite of availability of standardized healthcare system they found training of healthcare workers regarding identification and management of common mental health problems very helpful towards improved delivery of care to mental health issues¹⁷⁻¹⁸ While in Low and middle income countries the healthcare system is not such organized in the delivery of care and burden of mental health issues is widespread. Moreover in Asian countries like Pakistan perception about mental illness, its presentation and treatment approach all are different from western world. Hence there is most intense need to bridge this gap by good education and culture based training of young medical doctors so that they may better able to address issues for both physical and mental health of the patients. The teaching health professionals who primarily educate the medical students and train them clinically to practice in the main stream should structure and reform their style of teaching to make it more grabbing for them. The institute should also take necessary exit exam at the end of internship to drive their active learning process. Stakeholders and policy makers should take necessary measures in provision of necessary resources and allocation of health and education budget considering the emerging crises that would otherwise result due to persistent ignorance.

It is recommended; to conduct multi-centered, interventional studies to observe persistence of long term impact of Psychiatric training in clinical practice and to determine the cost effectiveness of quality of exposure and various methods of teaching so that Standardized programme of Psychiatric teaching must be followed in all teaching centers. Continued medical education programmes must integrate Psychiatry related topics in relation to medical ones in order to have collaborative working of different specialties that will further scale up research and teaching and improved healthcare. Enrichment training programmes should be introduced in collaboration with international universities for those who have interest in Psychiatric subspecialties and move abroad to avail it.

Conclusion:

This study has speculated the role of structured teaching, training and exposure to patients for mitigation of misperceptions and development of genuine concepts towards Psychiatry. We have found the remarkable impact of 12 weeks Psychiatric internship on intern's knowledge, attitude and perception that consequently brought some change in their approach to make career choice. The medical graduates (interns) are closer to practice their acquired knowledge clinically. Hence appropriate clinical teaching and training is crucial during this period to reform their vision regarding career prospects and overall to adopt reasonable persona of medical health professional who acknowledges mental health principles and integrates it in medical practice as well.

Ethical Approval: Given

Conflict of Interest: The authors declare no conflict of interest.

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References:

1. Krupchanka D et al. Mortality in people with mental disorders in the Czech Republic: a nationwide, register-based cohort study. *Lancet Public Health*. 2018; 3: e289-e295
2. Choudhry FR, Mani V, Ming LC, Khan TM. Beliefs and perception about mental health issues: a meta-synthesis. *Neuropsychiatric disease and treatment*. 2016 Oct 31:2807-18.
3. Shafiq S. Perceptions of Pakistani community towards their mental health problems: a systematic review. *Global Psychiatry*. 2020;3(1):28-50.
4. Laraib A, Sajjad A, Sardar A, Wazir MS, Nazneen Z. Perspective about mental illnesses: A survey of health care providers of Abbottabad. *Journal of Ayub Medical College Abbottabad*. 2018 Feb 13;30(1):97-102.
5. Farooq K, Lydall G, Malik A, Ndeti D, Bhugra D. Why medical students choose psychiatry - a 20 country cross-sectional survey. *BMC Med Educ*. 2014; 14:12.
6. Aslam M. et al. Psychiatry as a career: A survey of factors affecting students' interest in Psychiatry as a career. *MJM*. 2009; 12(1):7-12.
7. Prasad KN, Kumar PS, Narayanankutty OK, Abraham A, Raj Z, Madanagopal V, Balu A. "Why not psychiatry??" Interns of a medical college in Northern Kerala responds. *Indian Journal of Psychiatry*. 2016 Apr;58(2):204.
8. Heim E, Henderson C, Kohrt BA, Koschorke M, Milenova M, Thornicroft G. Reducing mental health-related

- stigma among medical and nursing students in low- and middle-income countries: a systematic review. *Epidemiol Psychiatry Sci*. 2019 Apr 1;29:e28
9. Mohammad JM, Robabeh S and Mahdi AY: The effect of psychiatric education on the attitude of medical students of Guilan University of medical sciences toward psychiatry. *Int J Pharm Sci & Res*. 2019; 10(2): 863-68. doi: 10.13040/IJPSR.0975-8232.10(2).863-68
 10. Burra P. et al. The ATP 30-a scale for measuring medical students' attitudes to psychiatry. *Med Educ*. 1982 Jan; 16(1):31-8. doi: 10.1111/j.1365-2923.1982.tb01216.x. PMID: 7057722.
 11. AlOsaimi FM, AlShehri HM, AlHasson WI, Agha S, Omair A. Why psychiatry as a career: Effect of factors on medical students' motivation. *J Family Med Prim Care*. 2019;8:648-51
 12. Hemanthkumar BG, Keertish N, Sathyanarayana MT, Hyder S. Attitude of interns towards psychiatry before and after 2 weeks of clinical rotation. *Indian J Soc Psychiatry*. 2017;33:365-9.
 13. Riffel T, Chen SP. Exploring the knowledge, attitudes, and behavioural responses of healthcare students towards mental illnesses—A qualitative study. *International Journal of Environmental Research and Public Health*. 2020 Jan;17(1):25.
 14. Seow LS, Chua BY, Mahendran R, Verma S, Ong HL, Samari E, Chong SA, Subramaniam M. Psychiatry as a career choice among medical students: a cross-sectional study examining school-related and non-school factors. *BMJ open*. 2018 Aug 1;8(8):e022201.
 15. Kerebih H, Salelew E, Hailesilassie H. Factors associated with medical students' choice of psychiatry as future specialty: a cross-sectional study. *Advances in Medical Education and Practice*. 2019 Sep 6;10:751-8.
 16. Jafari N, Loghmani A, Montazeri A. Mental health of medical students in different levels of training. *International journal of preventive medicine*. 2012 Mar; 3 (Supp 11): S107.
 17. Ayano et al. Mental health training for primary health care workers and implication for success of integration of mental health into primary care: evaluation of effect on knowledge, attitude and practices (KAP). *Int J Ment Health Syst*. 2017;11:63
 18. Caulfield A, Vatansever D, Lambert G, Van Bortel T. WHO guidance on mental health training: a systematic review of the progress for non-specialist health workers. *BMJ open*. 2019 Jan 1;9(1):e024059.