Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 8, 4422-4429

A Comparative Study Of Knowledge, Attitude And Behavior Towards Mental Illness Between Consultants And Resident Doctors Of Various Medical Specialities In A Tertiary Care Teaching Hospital

Avisha Mahla[1]* , Rakesh Gandhi[2]

*[1]*Senior Resident, Department of Psychiatry, Dr Baba Saheb Ambedkar Medical College and Hospital, Rohini, Delhi.*
*[2]*Professor and Head, Department of Psychiatry, Baroda medical College.*
**Corresponding Author: - Avisha Mahla*

Abstract:

Aim of the study-To compare the knowledge, attitude and behavior towards mental illness between consultants and residents of different medical specialities. The study also compares the knowledge, attitude and behaviour of various medical specialities towards mental illness.

Material and method: This was a comparative cross sectional study which was conducted on post graduate resident doctors and consultants of various medical faculties of Medical College, Baroda. Each participant was given MAKS (Mental Health Knowledge Schedule), MICA (Mental Illness Clinician's Attitude Scale) and RIBS (Reported and Intended Behaviour Scale) along with the socio demographic data sheet for age, sex, medical speciality, years of experience to be filled in their respective departments and two reminders were given for filling the data sheets at an interval of two days each. Those who did not return the data sheets after two reminders were considered dropouts.

Results: - The study enrolled 200 participants out of which 147 were resident doctors and 53 were consultants. The mean score for MAKS, MICA-4 and RIBS for consultants was 23 +/-2, 48 +/-6 and 14 +/-2 respectively. The mean score for MAKS, MICA-4 and RIBS for residents was 24 +/-3, 45+/-10 and 15 +/-4 respectively. Consultant doctors had a more negative attitude towards mental illness than the resident doctors. Department of medicine, Anesthesiology and OBG had more knowledge while department of Pulmonary medicine had least knowledge about mental illness.

Conclusion: From this study we can conclude that contrary to the common belief, the more senior doctors (consultants) have a more negative attitude towards mental illness than the resident doctors. This demonstrates the need for more mental health awareness program directed towards doctors.

Abbreviations – OBG: Obstetrics and Gynecology.

Key words: Knowledge, attitude, behavior towards mental illness, consultants, Resident doctors.

Introduction:

According to World Health Organization (WHO), mental, neurological and substance related disorders contribute to 14% of the global disease burden measured in disability-adjusted life years (DALYs).[1] Despite the fact that mental illnesses are so prevalent and are found in all societies in the world, people hold negative/biased attitude towards them. Negative attitude to mental illness is found in all societies in the world. The belief that mental illness is incurable or self inflicted can also be damaging, leading to patients not being referred for appropriate mental health care.[2] What is surprising is that even medical professionals who are trained /exposed to Psychiatry during their MBBS training also hold this negative attitude towards mental illnesses.

A substantial number of patients attending health care settings suffer from psychiatric disturbances. A majority of these cases are handled by non-psychiatrists where majority of them go unrecognized and are subjected to unnecessary

investigations leading to inconvenience and financial loss. Inability to correctly identify the psychiatric ailment compounded by social stigma attached to mental illness is thought to be a major factor in this regard.[3]

It is now well established that around 15-50% of patients attending various medical care settings suffer from psychological disturbances which often remain unrecognized leading to unnecessary hardship on the part of patients[4] These hardships could be avoided if doctors who are the primary level of contact for these patients are not biased and have an open mind towards psychiatric patients and mental illness.

For future planning of Psychiatry and need for reforms in psychiatry training during under graduation, it is important to know the degree of awareness of clinicians of different specialities about mental illnesses and their attitude towards psychiatry as large number of people with mental illness tend to visit their primary clinician before visiting a Psychiatrist. The purpose of this study is to assess and compare the knowledge, attitude and behavior towards mental illness between consultants and resident doctors and amongst various medical specialities.

Method

Study setting and design:

This is a cross sectional comparative study conducted on post graduate resident doctors and consultants of various medical faculties of Medical College, Baroda.

Study population:

All consultants and post graduate resident doctors of various clinical branches of Medical College, Baroda College who gave written informed consent, were selected for the study. Those subjects who were not willing to give informed written consent were excluded.

Tools used:

1) A semi structured self-report questionnaire including socio-demographic profile, medical speciality, post, year of residency, years of experience in the speciality, past history, family history, and substance use.
2) Mental Health Knowledge Schedule (MAKS)
   The MAKS is a mental health knowledge related measure which comprises domains of relevant evidence based knowledge in relation to stigma reduction. Part A comprises of six items covering stigma related mental health knowledge areas (help seeking, recognition, support, employment, treatment and recovery) and part B comprises of six items that enquires about classification of various conditions as mental illnesses. The total score is calculated so that higher score indicate greater knowledge. [5]
3) Mental Illness: Clinician's Attitude Scale (MICA-4)

The MICA-2 scale was developed to assess medical student's, psychiatry resident's and psychiatrist's attitude including their view and knowledge of mental illness.MICA-4 scale was developed by adapting the MICA-2 items to apply to most health and social care professional groups. The scale has 16 items which are completed as a self-administered survey. MICA version's scores range between 16 and 96 and represent the sum of individual item scores. A high overall score indicates a more negative attitude. [6]

3) Reported and Intended Behaviour Scale (RIBS)
The RIBS is a measure of mental health stigma related behavior, based on The Star Social Distance Scale. It is an 8 item scale containing four intended behavior items and 4 reported behavior items. Four intended behavior items assess the level of intended future contact with people with mental health problems and four reported behavior items assess past or current contacts. The total score for each participant is calculated by adding together the response values for items5-8.'Don't know' is coded as neutral (3) for the purpose of determining a total score. As items 1-4 only calculate the prevalence of behaviours and respondents may or may not have engaged in those behaviours, they are not given a score value. [7]

Data collection

All the consultants were approached individually in their respective departments after taking due permission from the Dean, Medical college, Baroda. They were briefly explained about the study in detail and all their queries were resolved. They were informed that participation in the study is completely voluntary and they can withdraw from the study at any given point of time and confidentiality will be maintained. After receiving written informed consent, they were requested to fill the socio demographic data sheet and the scales i.e. MAKS, MICA-4 and RIBS which were collected the next day. Those who could not fill the form by next day due to their busy schedule were given two reminders at an interval of two days each. Those who did not return the filled form after two reminders were considered as drop outs. Likewise the resident doctors of each department were contacted during their free time which was inquired prior and were explained the purpose of the study and after receiving written informed consent, were asked to fill the data sheet during their leisure time. They were asked to handover the sheets to one particular resident doctor in each department from whom the sheets were collected after two days. Those who could not return the filled sheets after two days were sent two reminders telephonically at an interval of two days and those who did not return the filled forms after two reminders were considered as drop outs.

Analysis

Data was entered in MS Excel sheet and statistical analysis was carried out using Epi-info software. Descriptive statistics were done for clinical variables. The response rate for various responses on MAKS, MICA-4 and RIBS were calculated. The mean scores for the three scales were calculated for the overall participants. Independent t test and Pearson correlation coefficient were applied.

Results

Total 311 doctors were approached, out of which 83 were consultants and 228 were Resident doctors.

CONSULTANTS

Out of 83 consultants, 74 gave consent for the study while 9 refused to give consent.
53 out of 74 returned filled forms while 21 consultants dropped out.

RESIDENT DOCTORS

Out of 228 resident doctors who were approached, 218 gave consent for the study while 10 refused to give consent.
147 out of 218 returned filled forms while 71 dropped out of the study and didn't return the forms.
Response rate of residents: 64.4 %
Response rate of consultants: 63.8 %

Table 1: Residents Response to the survey:

Residents Response to the Survey	Frequency
# Returned filled form	147
# Refused for the study	10
# Drop out	71

Table 2: Consultants Response:

Consultants Response to the Survey	Frequency
# Returned filled form	53
# Refused for the study	9
# Drop out	21

Table 3: Response-Post wise

Post	Frequency
Jr. Resident	134
Sr. Resident	13
Asst. Professor	35
Asso. Professor	15
Professor	3

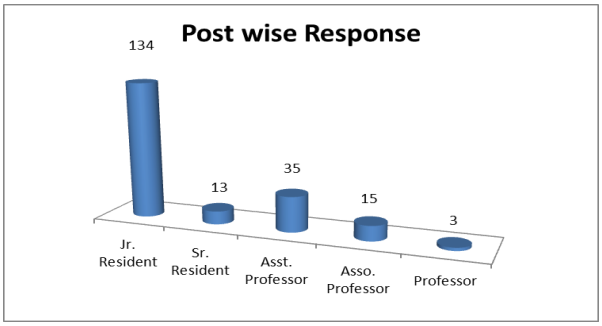

Table 4: Mean Score for Consultants and Residents with Standard Deviation:

Group	MAKS	MICA-4	RIBS	STDEV		
Avg. Consultants	23	48	14	2	6	2
Avg. Residents	24	45	15	3	10	4

The mean score for MAKS, MICA-4 and RIBS for consultants was 23 +/-2, 48 +/-6 and 14 +/-2 respectively.
The mean score for MAKS, MICA-4 and RIBS for residents was 24 +/-3, 45+/-10 and 15 +/-4 respectively.

Table 5: Mean Score for Departments with Standard Deviation:

Dept	MAKS	MICA-4	RIBS	STDEV		
Anaesthesiology	25	46	15	3	7	4
Emergency Medicine	24	45	14	3	7	4
ENT	23	47	13	3	8	5
General Medicine	25	45	14	2	11	3
General Surgery	23	48	14	3	6	3
OBG	25	45	15	3	8	3
Ophthalmology	23	47	15	2	9	3
Orthopaedics	24	46	16	3	12	3
Paediatrics	24	48	14	3	8	3
Pulmonary Medicine	21	52	16	1	6	1
Radiodiagnosis	24	42	16	3	10	3
Skin & VD	24	46	13	3	3	5

Comparisons

Table 6: Comparison between the mean of MAKS for consultants and Residents.
T-Test: Two-Sample assuming unequal variances for MAKS

	MAKS_Consultants	*MAKS_Residents*
Mean	22.69811321	24.45578231
Variance	6.022496372	8.537414966
Observations	53	147
Hypothesized Mean Difference	0	
df	109	
t Stat	-4.241698106	
P(T<=t) one-tail	2.33525E-05	
t Critical one-tail	1.658953458	
P(T<=t) two-tail	4.6705E-05	
t Critical two-tail	1.98196749	

Conclusion: Since t Stat is less than t Calculated (Critical) we do not reject the null hypothesis and conclude that average score of consultants and Residents are same i.e there is no statistically significant difference between the mean score of MAKS for residents and consultants.
Consultants and residents had the same knowledge regarding mental illness.

Table 7: Comparison between the mean of MICA-4 for consultants and Residents.
T-Test: Two-Sample assuming unequal variances for Mica-4

	MICA-4_Consultants	*MICA-4_Residents*
Mean	48.37735849	45.15646259
Variance	41.4317852	99.88631069
Observations	53	147
Hypothesized Mean Difference	0	
df	143	
t Stat	2.664509812	
P(T<=t) one-tail	0.004297967	
t Critical one-tail	1.655579143	
P(T<=t) two-tail	0.008595933	
t Critical two-tail	1.976692198	

Conclusion: Since t Stat is greater than t Calculated (Critical) we reject the null hypothesis and conclude that average score of consultants and Residents are not same i.e. there is a significant difference in MICA-4 score between consultants and residents.

Consultants had a more negative attitude towards mental illness than the resident doctors.

Table 8: Comparison between the mean of RIBS for consultants and Resident

T-Test: Two-Sample assuming unequal variances for RIBS:

	RIBS_Consultants	*RIBS_Residents*
Mean	14.35849057	14.85034014
Variance	5.311320755	13.8815581
Observations	53	147
Hypothesized Mean Difference	0	
df	149	
t Stat	-1.114832423	
P(T<=t) one-tail	0.133358586	
t Critical one-tail	1.655144534	
P(T<=t) two-tail	0.266717173	
t Critical two-tail	1.976013178	

Conclusion: Since t Stat is less than t Calculated (Critical) we do not reject the null hypothesis and conclude that average score of consultants and Residents are same i.e. there is no statistically significant difference between the score of consultants and residents.

Consultants and residents have equally favourable intended behavior towards people with mental illness.

Table 9: Comparison between the mean score of MAKS of different departments

F-Test for comparing the mean score between Departments for MAKS:

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Anaesthesiology	15	371	24.73333	10.92381
Emergency Medicine	6	143	23.83333	10.96667
ENT	7	161	23	6.333333
General Medicine	55	1375	25	6
General Surgery	31	705	22.74194	9.664516
OBG	11	276	25.09091	11.89091
Ophthalmology	12	274	22.83333	4.69697
Orthopaedics	28	666	23.78571	7.878307
Paediatrics	11	262	23.81818	6.963636
Radiodiagnosis	12	283	23.58333	8.628788
Skin & VD	10	240	24	11.11111

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	152.374	10	15.2374	1.890088	0.048798	1.88162
Within Groups	1507.545	187	8.061739			
Total	1659.919	197				

Conclusion: Since F-cale<F-tab, we reject the null hypothesis and conclude that there is a significant difference in the average score for MAKS between department with General Medicine, OBG and Anaesthesiology having more knowledge and Pulmonary Medicine having the least knowledge about mental illness.

Table 10: Comparison between the mean score of MICA-4 of different departments

F-Test for comparing the mean score between Departments for MICA-4:

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Anaesthesiology	15	683	45.53333	45.55238
Emergency Medicine	6	270	45	50
ENT	7	329	47	63.66667
General Medicine	55	2485	45.18182	127.2256
General Surgery	31	1483	47.83871	33.60645
OBG	11	491	44.63636	69.25455
Ophthalmology	12	568	47.33333	78.06061
Orthopaedics	28	1287	45.96429	152.7024
Paediatrics	11	531	48.27273	62.01818
Radiodiagnosis	12	508	42.33333	98.24242
Skin & VD	10	463	46.3	10.67778

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	418.2614	10	41.82614	0.470629	0.907442	1.88162
Within Groups	16619.23	187	88.87291			
Total	17037.49	197				

Table 11: Comparison between the mean score of RIBS of different departments

F-Test for comparing the mean score between Departments for RIBS:

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Anaesthesiology	15	219	14.6	14.11429
Emergency Medicine	6	83	13.83333	20.16667
ENT	7	93	13.28571	22.2381
General Medicine	55	797	14.49091	10.18047
General Surgery	31	432	13.93548	8.195699
OBG	11	163	14.81818	8.763636
Ophthalmology	12	185	15.41667	7.174242
Orthopaedics	28	459	16.39286	11.72884
Paediatrics	11	156	14.18182	12.16364
Radiodiagnosis	12	194	16.16667	10.33333
Skin & VD	10	132	13.2	20.84444

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	176.978	10	17.6978	1.551119	0.124371	1.88162
Within Groups	2133.613	187	11.40969			
Total	2310.591	197				

Since F-calc > F-tab, we accept the null hypothesis and conclude that there is no significant difference in the average score for RIBS between departments i.e. intended behavior towards mental illness is same between departments

Discussion:

The response rate of consultants was 63.8 % which is comparable with the response rate of resident doctors which was 64.4 %.

10.8 % of the consultants refused to be a part of the study despite the knowledge that the results will be kept anonymous while only 4.3% of the resident doctors refused for the study.

25.3 % of the consultants dropped out of the study in comparison to 39 % of the residents who dropped out.

Our response rate is comparable to a study done by Chadda et al. who assessed psychiatric aspects of clinical practice in general hospital where the response rate was 63.9 %. [8]

Our response rate was lower than what was found among community mental health staff in a study of level of stigma in China which was 81.1%.[9]

The mean score for MAKS, MICA-4 and RIBS for consultants was 23 +/-2, 48 +/-6 and 14 +/-2 respectively.

The mean score for MAKS, MICA-4 and RIBS for residents was 24 +/-3, 45+/-10 and 15 +/-4 respectively.

We did not find any significant difference in the levels of knowledge between consultants and resident doctors.

Also there was no significant difference in the intended behavior between consultants and resident doctors I.e. both had equally favourable intended behavior towards people with mental illness.

Contrary to the common belief, we found that there was a significant difference in the attitude towards mental illness between consultants and resident doctors i.e. consultants had a more negative attitude towards mental illness than resident doctors.

This is in contrast to the finding in a study where it was found that health care providers who were older hold more positive attitudes towards mental illness compared to the younger ones.[10-11]

The finding in our study could be explained in part by the increasing awareness among general public as well as the doctors regarding mental illness as well as current changes in the medical curriculum where greater weightage is given to Psychiatry as a subject in both, Undergraduate teaching as well as post graduate entrance examination which was lacking in earlier times.

Also, resident doctors are in direct as well as prolonged contact with the patients than the consultants leading to more exposure to psychiatric patients in the wards as well as casualty leading to a more positive attitude towards people with mental illness.

Also, changing attitudes of media with better portrayal of mental illnesses has played a role in bringing a positive change in the attitude of general public as well as doctors towards mental illness. Social media has come up with mental health awareness pages and anti-stigma campaigns with famous celebrities supporting these pages which has led to a positive change in the attitude of newer generation towards mental illness since they are more active on such social platforms.

Also, the newer doctors seem to be more updated regarding the advancements in mental health field and increasing awareness of the biological nature of mental illness leading to a less stigmatizing attitude towards mental illness. It has been observed that undergraduate students and resident doctors are more open to seeing a psychiatrist if struggling with mental illness than the senior doctors who are less willing to see a psychiatrist and more concerned about confidentiality issues which again is indicative of more stigmatizing attitude of senior doctors towards mental illness.

Comparison between different clinical departments:

We found that there was a significant difference in the level of mental health knowledge between various clinical departments with departments of General medicine, Anaesthesiology and Obstetrics and gynaecology having the highest level of knowledge and pulmonary medicine having the lowest level of knowledge. The other departments like Emergency medicine, Orthopaedics, general surgery, Paediatrics , Radiodiagnosis , Skin and VD , ophthalmology and ENT having intermediate level of knowledge.

This could be because of greater number of referrals between Psychiatry and General Medicine as psychiatric morbidity is increased in patients with various medical illnesses specially Diabetes, Cardiovascular diseases, Epilepsy, autoimmune disorders, Gastrointestinal disorders among others. Also, Psychiatry being a part of General medicine medical curriculum leading to greater exposure to it as a subject leading to more knowledge.

Obstetrics and Gynaecology also showed high level of knowledge which could also be due to greater number of overlaps between patients like those with Postpartum psychosis and depression and increased psychiatric morbidity in the peripartum period because of increased hormonal fluctuation.

Anaesthetists being involved in Electroconvulsive therapy are also more exposed to psychiatric

patients as compared to others leading to a better knowledge.

We did not find a significant difference in the attitude towards mental illness because various clinical departments.

Also, there was no significant difference between the intended behaviors towards people with mental illness between various clinical departments.

Conclusion:

We found that there was no difference in the level of knowledge between consultants and resident doctors. Also, there was no difference in the intended behavior towards individuals with mental illness between consultants and resident doctors. Our finding regarding attitude towards mental illness was contrary to the common belief and we found that Consultants had a more negative attitude towards mental illness than resident doctors.

There was no difference in the attitudes and intended behavior towards people with mental illness between various clinical departments but a significant difference in knowledge with department of General medicine, Obstetrics and gynaecology and Anaesthesiology having more knowledge and Pulmonary medicine having lower score on the knowledge scale.

References:

[1]. World Health Organization. Mental health action gap program (mhGAP): scaling up care for mental, neurological, and substance use disorder. Geneva: World Health Organization; 2008.

[2]. Kishor J. Schizophrenia: Myths and reality. Rationalist voice 2004.p.23-6.

[3]. Martin MJ. Psychiatry and Medicine. In: Kaplan HI, Sadock BJ, editor. Comprehensive Text Book of Psychiatry. 6th ed. Baltimore:Williams and Wilkins; 1995. Pp. 1637-44.

[4]. Strain, J.J. and Taintor, Z (1989) Consultation liaison psychiatry. In Comprehensive Textbook of Psychiatry,5thed(eds.H.I. Kaplan and B.J. Sadock). Pp 1272-1279. Baltimore: Williams and Wilkins.

[5]. Evans-Lacko, S; Little; Meltzer H; Rose D; Rhydderch D; Henderson C; Thornicroft G. Development and Psychometric Properties of the Mental Health Knowledge Schedule (MAKS). Canadian Journal of Psychiatry 2010 Jul; 55, 440-448.

[6]. Gabbidon J, Clement S, van Nieuwenhuizen A, Kassam A, Brohan E, Norman I, Thornicroft G. Mental Illness: Clinician's Attitudes scale-psychometric properties of a version for healthcare students and professionals. Psychiatry Res. 2013 Mar 30;206(1):81-7.

[7]. Evans-Lacko, S; Rose D; Little K, Flach C, Rhydderch D; Henderson C; Thornicroft G. Development and Psychometric Properties of the Reported and Intended Behaviour Scale(RIBS): A Stigma Related Behaviour Measure. Epidemiology and Psychiatric Sciences. 2011; 20: 263-271.

[8]. Chadda, R. K., and Shome, S. (1996). Psychiatric aspects of clinical practice in general hospitals: a survey of non-psychiatric clinicians. Indian Journal of Psychiatry, 38(2), 86-92.

[9]. Li J, Thornicroft G, Huang Y(2014). Levels of stigma among community mental health staff in Guangzhou, China.BMC Psychiatry.2014 Aug 13;14:231.

[10]. Bjorkman, T., Angelman, T., & Jonsson, M. (2008). Attitudes towards people with mental illness: a cross-sectional study among nursing staff in psychiatric and somatic care. Scand J Caring Sci, 22(2),170-177.

[11]. Hamdan-Mansour, A. M., & Wardam, L. A. (2009). Attitudes of Jordanian mental health nurses toward mental illness and patients with mental illness. Issues Ment Health Nurs, 30(11), 705-711

Ethical approval

The proposal of the study was submitted to the IECHR (Institutional Ethics Committee for Human Research). Permission of IECHR of Medical College and S.S.G. Hospital Baroda was given on 15/02/2018.

Competing interests

The authors declare that they have no competing interests.