

Cross sectional study of health profile of Interns of 2014 batch of Terna medical college, Nerul

Kanchi P¹, Pandit D², Behera A³, Ghorpade K⁴

¹Dr Padmaja Kanchi
MD, DPH
Associate Professor, Department of
Community Medicine
padma202@yahoo.co.in

²Dr Daksha Pandit
MD, DPH, MIPHA.
Professor & Head, Department of
Community Medicine
drdaksha@yahoo.com

³Mr Abhiram Behera
MA,(Stat.) LLB, MPS
Lecturer cum statistician,
Department of Community
Medicine
abhirambehera98@yahoo.com

⁴Dr Kanchanmala Ghorpade
Professor & Head, Department of
Pathology
Dean, Terna Medical College Nerul
Navi Mumbai, Maharashtra, India

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Correspondence to:

Dr Padmaja Kanchi
padmamddph@gmail.com
+91 9869038475

ABSTRACT

Background: Health check-up of M.B.B.S. interns is not done routinely. They expose themselves to the hospital environment for a longer time than their student days. It results in a higher rate of contracting and transmitting infectious diseases in a hospital setting than their student days.

Objectives: To study the health profile of interns of 2014 batch of Terna Medical College.

Materials & Methods: A predesigned pre tested questionnaire was developed to collect the information on identification data, socio economic & demographic data, and current morbidity. Anthropometric measures including height, weight, waist circumference & hip circumference were taken. Accordingly, BMI, Waist/ Hip ratio were calculated. General examination, systemic examination inclusive of refractory error was conducted. Interns were investigated for haemoglobin estimation, random blood sugar examination. Observations & results were tabulated & subjected to statistical analysis.

Results: It was found that, 41.38% female interns & 28.57% male interns were anaemic. We observed that 60% of male interns & 27.59% female interns were pre obese & obese. 80% of the male interns & 37.93% of the female interns had increased waist/hip ratio. Out of 22 anaemic interns, 45.45% were pre obese & obese. None of the interns have hypertension, diabetes mellitus.

Conclusion: Awareness regarding life style modification habits namely proper & timely diet, exercise should inculcate in the interns.

Key words: Anaemia, interns, health profile, obesity, waist/hip ratio

Introduction

Health check-up of MBBS interns is not done routinely. Internship is the crucial phase where student days are gone & they start doing patient care. They expose themselves to the hospital environment for a longer time than their student days. It results in a higher rate of contracting and transmitting infectious diseases in a hospital setting than their student days. To know the health status and wellbeing of interns during their professional training period is the need of the time. In order to deliver high quality health care to the patients and the community, and to experience medicine as a rewarding and satisfying career, these budding doctors

need to be well. ^[1] Research has consistently shown that doctors with healthy personal lifestyle habits are more likely to impart healthy behaviour to their patients. ^[2] Providers who disclose their healthy personal health practices are perceived as more credible and motivating. ^[3]

Such study of health profile of interns, have never done before. So we would like to make an attempt to examine the interns of 2014 batch so that the diseases can be prevented at the beginning of their professional career as doctors.

Materials & Methods

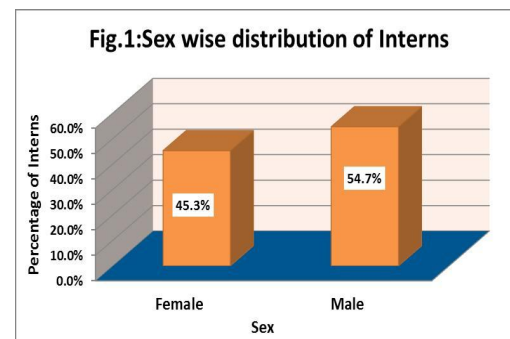
A comprehensive health profile of interns doing internship in the hospitals under a Private Medical College was undertaken. It is a descriptive cross sectional study. There were 65 interns doing internship in the year 2014 in THRC hospital, NMMC hospital which are under Terna Medical College and also urban health centre & primary health centre which are the field practice areas of Community Medicine Department of Terna Medical College. Approval of Ethics committee, approval of Research Society, Terna Medical College were taken. Written consent was filled up by each one of them with name, signature & date of the investigator, impartial witness and the participant. Out of 65, 1 intern was not willing to participate. Hence 64 interns were included in the study.

Inclusion criteria: all interns of 2014 batch

Exclusion criteria: Interns who are not willing to participate

A predesigned pre tested questionnaire was developed to collect the information on identification data, socio economic & demographic data, and current morbidity. Anthropometric measures including height, weight, waist circumference & hip circumference were taken. Accordingly, BMI, Waist/ Hip ratio were calculated. Waist-hip ratio is defined as ratio of the abdominal circumference at the navel to maximum hip and buttocks circumference. The interns were examined thoroughly. General examination, systemic examination inclusive of refractory error was conducted. They were investigated for haemoglobin estimation, random blood sugar examination. Observations & results were tabulated & subjected to statistical analysis. Chi square tests were applied for the associated dependent & independent variables. SPSS Package of version 20 was applied for the same.

Results



There were 29 (45.3%) female interns & 35(54.7%) male interns working in Terna & NMMC Hospitals in the year 2014. (Fig. 1) Out of which, 70% interns were of 22 & 23 years of age. 18% interns were of 24 years, 3% interns were 25 years & 7.8% interns were 26 years of age.

In our study, we observed that, out of 29 total female interns, 41.38% were anaemic & out of 35 male interns, 28.57% interns were anaemic. (Table 1) Though not statistically significant, anaemia is present in significant number of interns. It is observed that, 38% female interns had increased waist hip ratio & out of 35 male interns, 80 % had increased waist hip ratio, resulting in total 61% interns with increased waist hip ratio. The findings are statistically significant showing that waist hip ratio is increased in male interns compared to the female interns. We observed that, out of 29 female interns, 27.59% interns were pre obese & obese. Out of 35 male interns, 60 % were pre obese & obese. The results are also statistically significant. (Table 2) It is observed that, 47% underweight & normal interns had increased W/H ratio and 53% pre obese & obese interns had increased W/H ratio. 29.42% interns with increased W/H ratio were anaemic. (Table 3) Though it is not statistically significant, anaemia is noticed in the interns with increased waist hip ratio.

Table 1: Sex wise distribution of Anaemia

Anaemia	Sex		Total
	Female	Male	
Yes	12 (41.38%)	10(28.57)	22(34.38)
No	17 (58.62)	25(71.43)	42(65.62)
Total	29 (100.00)	35 (100.00)	64 (100.00)

$\chi^2 = 1.153$ df = 1 p= 0.283

Table 2: Sex wise distribution of Indicators

Indicators	Sex		Total	Chi square	P-value	
	Female	Male				
W/H Ratio	Increased	11(37.93)	28(80.00)	39((60.94)	11.791*	0.001
	Normal	18(62.06)	7(20.00)	25((39.06)		
	Total	29(100.00)	35(100.00)	64(100.00)		
Obesity	Under Weight & Normal	21(72.41%)	14(40.00)	35(54.69)	6.724*	0.010
	Pre Obese & Obese	8(27.59)	21(60.00)	29(45.31)		
	Total	29(100.00)	35(100.00)	64(100.00)		

Table 3: W/H Ratio wise distributions of Indicators

Indicators	Waist Hip Ratio			Chi square	P-value	
	Increased	Normal	Total			
Obesity	Under Weight & Normal	16(47.06)	19 (63.33)	35(54.69)	1.703	0.193
	Pre Obese & Obese	18(52.94%)	11(36.67)	29(45.31)		
	Total	34(100%)	30(100%)	64(100%)		
Anaemia	Yes	10(29.42)	12(40)	22(100%)	0.792	0.373
	No	24(70.58)	18(60)	42(100%)		
	Total	34(100%)	30(100%)	64(100%)		

Table 4: Obesity versus Anaemia

Obesity	Anaemia			Chi square	P-value
	Yes	No	Total		
Under Weight & Normal	12(54.55)	23(54.76)	35(54.69)	0.000	0.987
Pre Obese & Obese	10(45.45)	19(45.24)	29(45.31)		
Total	22(100)	42(100)	64(100)		

Values in the bracket show percentage.

Statistical significance at 5% level i.e. P< 0.05

Out of 22 anaemic interns, 45.45% were pre obese & obese as per the WHO cut off criteria for Anaemia. ^[11] Though it is not

satisfactorily significant, anaemia is seen in even pre obese & obese. (Table 4)

Discussion

Table 1 showed anaemia in significant number of interns. Rubeena Bano et al,^[4] Pandey et al,^[5] QueirozSde et al,^[6] also found similar results in their studies of anaemia in medical students.

Nutritional anaemia is a condition in which the haemoglobin level in the blood is lower than normal, as a result of deficiency of one or more nutrient, especially iron. In spite of being from affluent society, anaemia is seen in interns. Irregular timings of eating food, erratic work schedule, ignorance, eating junk food- which is devoid of iron- may be some of the reasons of disturbing figures of anaemia in interns.

Table 2 showed increased waist hip ratio in male interns. Shamail Zafar et al,^[7] also found the similar findings. We found significant number of interns with pre obesity and obesity. Gopalakrishnan S et al,^[8] Ekpanyaskul C et al,^[9] also got similar findings in their study on Prevalence of overweight/obesity among the medical students of respective medical colleges. The health of a doctor is important because they serve as health role models and because they are more likely to counsel their patients about health behaviour change if they practise healthy habits themselves.^[10] Providers who disclose their healthy personal health practices are perceived as more credible and motivating.^[3]

We found that 47% of underweight & normal weight interns with increased waist hip ratio. (Table 3) pointing increased central obesity in interns. It is a one of the pre disposing factors for hypertension and diabetes in future. Also we found that 29% interns with increased waist hip ratio were anaemic. It proves the improper nutrition of the interns. We observed that 45.45% anaemic interns were pre obese & obese further confirming the severity of the problem. (Table 4)

Conclusion

A comprehensive health profile of interns doing internship in a Private Medical College of Navi Mumbai in the year 2014 was undertaken. We found out that, 41.38% female interns were anaemic & 28.57% male interns were anaemic. 37.93% female interns had increased waist hip ratio & 80 % had increased waist hip ratio, resulting in total 60.94% interns with increased waist hip ratio. The findings are statistically significant showing that waist hip ratio is increased in male interns compared to the female interns. 60% of male interns were pre obese & obese and 27.59% female interns were pre obese & obese. Total 45.31% interns were pre obese & obese. 40% interns with normal waist hip ratio had anaemia, 29.42% interns with increased waist hip ratio had anaemia. 45.45% pre obese and obese interns had anaemia.

There is a need to inculcate the life style modification habits of healthy eating & physical exercise in the interns to stay fit.

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