

Medical Students Perception about Doctor's Body Image Using Stunkard Figure Rating Scale (FRS) Method

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ABSTRACT

Doctor as health workers are obliged to be role models, especially in healthy and active life style projected as having an ideal body image. It beneficial to increase self confidence, improve success in counseling and health service satisfaction and as well as gaining patient's trust. Body image sometimes considered unnecessary, however it could be quite disturbing in health service. This research used descriptive survey study with quantitative data. A total of 576 medical students were enrolled in this research, they are from medical, pharmacy and nursing grade 2011 to 2014. Triangulation data collected from 16 doctors working in medical school, and 7 doctors from Tanjungpura University Hospital. Sample was chosen by purposive sampling and analyzed by descriptive statistic. As many 93.06% of respondents stated that body image is important for doctor and it will influence the therapy. 67.2% chose picture 4 (normal nutritional status) in Stunkard Figure Rating Scales the ideal body images for doctors. Nevertheless, 17.01% choose picture < 3 (underweight) and 15.8% choose picture > 5 (overweight and obesity) as the doctor's ideal body images. Doctors that work in Educational field were the most important field that needs a good body image (42.88%), followed by doctor in hospital (24.83%). Based on triangulation data, suggested that body image will not impact the therapy (82.6%) and the most important field that needs ideal body images was in hospital (43.5%). Body image is very important and it will influence doctor therapy. Doctor in educational field should have an ideal body image with normal nutrition status.

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1. INTRODUCTION

The prevalence of obesity and overweight cases keep increasing every year [1]. At an estimated 73% of health workers suffer from obesity and overweight [2], where 44.4% of them are women and 7.9% are men. This data is supported from a research conducted by Abbate *et al.*, [3] which showed 13.6% of women and 13.3% men suffered from obesity and overweight. Research done by Nunez *et al.*, [4] showed that the female health workers are more at risk of suffering from obesity and overweight by 75% than men.

Body image is physical appearance associated with body weight, which assessed in at least three separate components of the body image that are the perception of body size, the components of subjective and behavioral aspects that will determine the results of the subjective assessment [5]. Body image from a health perspective is still considered to be a sensitive issue [6].

Body image could reflect the health status of a person, while for health personnel, body image may portrayed professionalism, could increase the positive relationship between counselor and client and the success in providing therapy especially for body weight control [7]. Hartati and Darmarini [8] conducted a research on the nutritionists suggested that body image will determine the quality of nutrition services to be provided, especially in the provision of direct evidence (tangibles) and guarantees (assurance).

Health worker is regarded as a role model, especially as a form of good medical image that has good impact to the community. Although this issue remains sensitive to talk about, however, the results of the study found that awareness of health personnel of good body image will affect health worker empathy on issues related to the patient's body shape [9],[10].

Therefore, this study aims to analyze the assessment of body image of the doctors with Stunkard Figure Rating Scale to the students of the Faculty of Medicine, University of Tanjungpura and also to describe the results of the importance of body image to the doctors, the effect of body image to the therapy and doctor's field of work that requires body image and also to compare the perception of physicians' body image between Medical students, Pharmaceutical students and Nursing students in the Faculty of Medicine University of Tanjungpura.

2. RESEARCH METHOD

2.1. Ethical Clearance

The ethics approval has been issued by the Division of Ethics Review of the Faculty of Medicine with registration no.3986/UN22.9/DT/2014. Data collected from the subject was anonymously meaning that does not include the name of the subject only using the code describing study program and students' number. All data is confidential and will not be disseminated. The research does not give rewards/any intervention to the subject, because it is voluntary.

2.2. The Study Design and Subject

The study design used is descriptive survey with quantitative data. Subjects in this study were students of the Faculty of Medicine class of 2011 to 2014 at the University of Tanjungpura. Triangulation of data was done on professional doctors who work in the Faculty of Medicine of University of Tanjungpura and Tanjungpura University Hospital. The sample selection using purposive non-probability sampling, in which the subject criteria are willing to participate in the study and not being an academic leave.

The collection of data were done by using a closed question questionnaire consisting of 3 questions concerning the subjects' opinion about the importance of body image for doctors; the effect on the doctor's treatment; and the field of jobs which are most in need of a good body image. The questionnaire also included Figure Rating Scale (figure 1) which is developed by Stunkard et al (1983). Score 4 is an idealized image in Stunkard figure rating scale based on where the limit of 50% of normal weight, and score ≤ 3 shows the nutritional status of underweight whereas score ≥ 5 is the limitation of nutritional status overweight to obese [11].

Results of the study will be illustrated in the form of tables and graphs using univariate and the comparison between students and general practitioners will be shown in the table. The collection of data carried out since September 22nd, 2014 until October 6th, 2014 by distributing questionnaires.

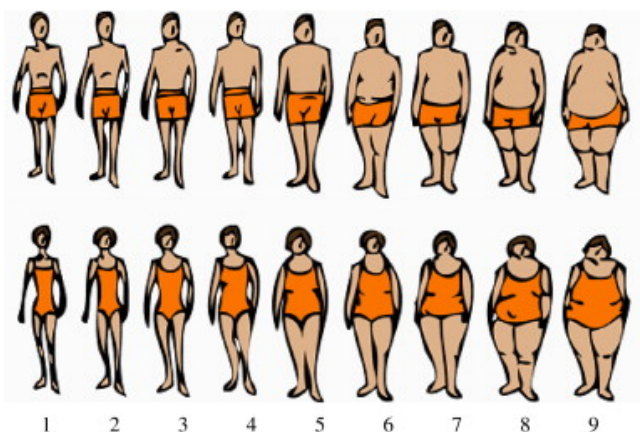


Figure 1. Body Shape Figures Scale [12]

3. RESULTS AND ANALYSIS

The total subjects in this research were 576 students from three study programs at the Faculty of Medicine, which consists of 268 students of Medicine ranging from class of 2011 to 2014, 160 students of Pharmacy ranging from class of 2012-2014 and 148 students of Nursing ranging from class of 2012-2014. While the subject of triangulation obtained was from 16 doctors who worked at the Faculty of Medicine and 7 doctors who worked at the Tanjungpura University Hospital.

3.1. The Importance of Body Image to Doctors

Figure 2 shows the proportion of subjects who consider the importance of body image to the doctors. Evidently as much as 93.06% of the total subjects stated that body image is very important to the doctor and only 6.94% said that the doctor's body image is not important. Apparently, nursing students are the highest with 97.3% stated that body image is important. On the other hand, medical students found to be the highest stating that body image is not important to the doctors with a value of 9.7% although 90.3% still stated that body image is important. This assessment can be seen in Figure 2.

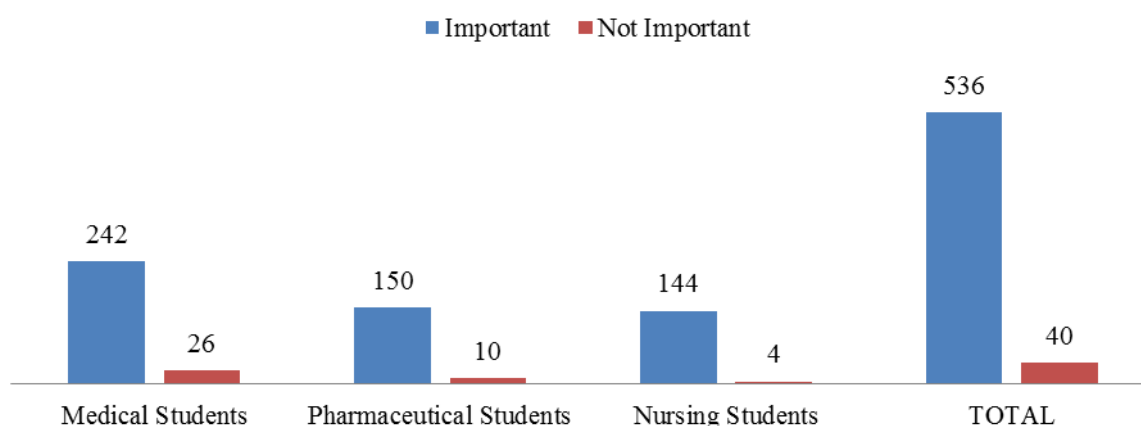


Figure 2. Bar Diagram of The Importance of Body Images to Doctors

3.2. The Effect of Body Image to The Therapy Given

Based on the results of the assessment of the student view of the effects of body image to the therapy provided by physicians have quite varied answers. Of all students, there is a 53.99% stated that body image will affect the therapy, and the remaining 46.01% of the subjects stated body image will not affect the treatment given. The difference of the two is 7.99%.

As many as 51.1% of medical students stated that the therapy will not be affected from the doctors' body image, however, approximately 67.6% of nursing students expressed that the therapy given by the doctor will be affected by body image. While the Pharmacy students suggested the same view regarding the effect of body image to the therapy administered. A clearer picture can be seen in Figure 3.

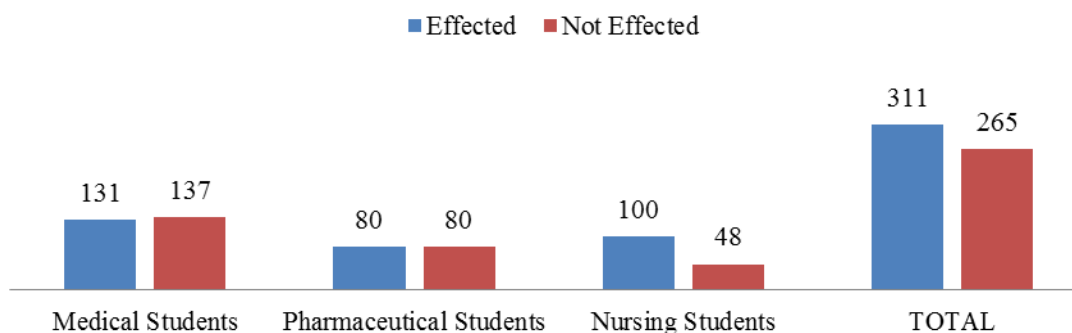


Figure 3. Bar Diagram of The Effect of Body Image to The Therapy Given

3.3. Body Image with *Stunkard Figure Rating Scale*

Assessment using *Stunkard Figure Rating Scale*, showed a fluctuating response to of the answers regarding the doctor's body shape. In general, 67.2% of students stated that the figure 4 is the ideal body image. However, the number of students who give a negative assessment of the body imaging physicians are also quite a lot. There are as many as 17.01% stated that the ideal body image is underweight with a choice of image < 3, and the remaining 15.8% said that the ideal body image doctor who is overweight-obese with a picture of > 5.

Physicians' normal body image is often stated mostly by 70.9% nursing students, followed by 66.4% medical students and 65.0% Pharmaceutical. On the other hand, negative imaging of the body most often mentioned by medical student (21.6%) where they portray doctors underweight, followed by nursing 14.2 % and 11.9% Pharmaceutical. Image of overweight and obesity was often raised by students of Pharmacy with 23.1%, followed by Nursing and Medical 14.8% and 11.9%.

Tabel 1. Body Image with Stunkard Figure Rating Scale (FRS)

Criteria of FRS	Medical Students	Pharmaceutical Students	Nursing Students
	N	N	N
1	1	0	0
2	2	1	0
3	55	18	21
4	178	104	105
5	31	36	20
6	1	0	2
9	0	1	0

3.4. Physicians' Field of Work That Needs Body Image

Based on the field work of doctors, is divided into four sections, namely Education, Health Center, Hospital and public services in relation to body image. According to students' suggestions, field of work that needs a good body image is in the field of education with 42.88%, followed by the Hospital with 24.83%. However, field of work that require less important body image is a doctor in the public service, namely 42.19%, 36.81%, followed by public health centers.

Doctors who work in the field of education are required to have good body image, where 42.88% of the students responded that it is very important, although, 25.52% of students also answered less important to have a good body image. While doctors who work in the hospital suggested that it was important and crucial need of body image (37.50%; 24.83%).

In the field of health centers and public services, the response was nearly balanced, where both are suggested quite important; important to the value of 36.81; 32.64 at health centers and 21:01; 20:49 on public services. Distribution of student assessment can be seen in Table 2 below.

Based on the Table 2 above, the medical students stated that education is the area for a doctor that need good body image (44.8%), followed by the work of doctors in the hospital (38.8%) and health centers (35.4%). The answer is almost the same as the student of nursing where 52.7% said education is the most important need of body image, followed by hospitals and a significant 33.1% on 41.9% of doctors in the health center.

Another statement is suggested by Pharmacy students who stated that doctors' field of work that need a good body image mostly is in hospital with 39.4%. In the area of public health centers also considered important enough to have a good body image by 48.8%. While work that suggested as the least important to have good body image is in general service with a value of 47.0%; 43.9%; 32.5% (Medical Student; Nursing; Pharmacy).

Tabel 2. Distribution Physicians' Field of Work That Needs Body Image

Medical Students	Education	Kategori	N	%
		Very important	120	44.8
		Important	20	7.5
		Quite important	83	31
		Less important	45	16.8
	Health Center	Very important	59	22
		Important	95	35.4
		Quite important	72	26.9
		Less important	42	15.7
	Hospital	Very important	58	21.6
		Important	104	38.8
		Quite important	51	19
		Less important	55	20.5
	Public Services	Very important	32	11.9
		Important	49	18.3
		Quite important	61	22.8
		Less important	126	47
Pharmaceutical Students	Education	Very important	49	30.6
		Important	21	13.1
		Quite important	25	15.6
		Less important	65	40.6
	Health Center	Very important	21	13.1
		Important	42	26.3
		Quite important	78	48.8
		Less important	19	11.9
	Hospital	Very important	44	27.5
		Important	63	39.4
		Quite important	29	18.1
		Less important	24	15
	Public Services	Very important	46	28.8
		Important	34	21.3
		Quite important	28	17.5
		Less important	52	32.5
Nursing Student	Education	Very important	78	52.7
		Important	14	9.5
		Quite important	19	12.8
		Less important	37	25
	Health Center	Very important	13	8.8
		Important	51	34.5
		Quite important	62	41.9
		Less important	22	14.9
	Hospital	Very important	41	27.7
		Important	49	33.1
		Quite important	35	23.6
		Less important	23	15.5
	Public Services	Very important	16	10.8
		Important	35	23.6
		Quite important	32	21.6
		Less important	65	43.9
TOTAL	Education	Very important	247	42.88
		Important	55	9.55
		Quite important	127	22.05
		Less important	147	25.52
	Health Center	Very important	93	16.15
		Important	188	32.64
		Quite important	212	36.81
		Less important	83	14.41
	Hospital	Very important	143	24.83
		Important	216	37.50
		Quite important	115	19.97
		Less important	102	17.71
	Public Services	Very important	94	16.32
		Important	118	20.49
		Quite important	121	21.01
		Less important	243	42.19

3.5. The Comparison between The Assessment of Students' and Professional

Assessment of body image by student and physicians have some differences. Among them is the effects of body image to the therapy given by the doctors. As many as 54% of students stated that body image will influence the outcome of therapy to be administered by a doctor, but 82.6% of physicians did not agree with the statement. It also occurs in the field of work affecting body image, which according to the respondents, the doctors in the education area are very important to have a good body image (42.9%), but according to doctors, doctors who work in the hospital are more important to have a good body image (43.5%).

Surprisingly both respondents suggested the same thing about the importance of body image to the doctor (93.1%; 95.7%). Both groups also provide the same option on the imaging body good doctor according to *Figure Rating Scale*, namely in figure 4 (67.2%; 69.6%). While the area of public service, both groups agreed that they need less important good body image (42.2%; 65.2%).

Based on data in Table 2, it is known that they found a negative assessment of the physician imaging both the student and doctor. 17.4% of doctors choose a picture showing the three FRS body image underweight, and 13.0% chose overweight body image (image 5 FRS) as the body image of the good doctor. It also happens to students, 17% chose a picture underweight, and 15.8% chose overweight picture as the ideal body image doctor. More details can be seen in Table 3.

Table 3. Tabel of The Comparison between The Assessment of Students' and Professional

Questions		Students		Professional Doctors'	
		N	%	N	%
Importance of Body Image	Important	536	93.1	22	95.7
	Not Important	40	6.9	1	4.3
Effect of Body Image to The Therapy Given	Effectuated	311	54.0	4	17.4
	Not Effectuated	265	46.0	19	82.6
Body Image Picture With Stunkard Figure Rating Scale	1	1	0.2	0	0.0
	2	3	0.5	0	0.0
	3	94	16.3	4	17.4
	4	387	67.2	16	69.6
	5	87	15.1	3	13.0
	6	3	0.5	0	0.0
	9	1	0.2	0	0.0
Physicians' Field of Work That Needs Body Image Education	Very important	247	42.9	7	30.4
	Important	55	9.5	5	21.7
	Quite important	127	22.0	9	39.1
	Less important	147	25.5	2	8.7
Health Center	Very important	93	16.1	7	30.4
	Important	188	32.6	7	30.4
	Quite important	212	36.8	5	21.7
	Less important	83	14.4	4	17.4
Hospital	Very important	143	24.8	7	30.4
	Important	216	37.5	10	43.5
	Quite important	115	20.0	4	17.4
	Less important	102	17.7	2	8.7
Public Services	Very important	94	16.3	2	8.7
	Important	118	20.5	1	4.3
	Quite important	121	21.0	5	21.7
	Less important	243	42.2	15	65.2

3.6. Discussion

There are about 73% -75% of workers both men and women who work in the health care sector are overweight and obese [2]-[4] and cases of obesity on health workers are estimated to continue to increase in the future [13]. In the study by Lara *et al.*, [14] found that the incidence of physicians and patients that have abdominal obesity is quite the same, and suggested that doctors are more likely to suffer from cardiovascular disease. The persistently high incidence of obesity, especially in the doctor has become a hot topic for investigation. This is precisely what brings researchers conducted a study that aims to determine a picture of the perception of body image of a doctor. Researchers trying to get an overview of potential perpetrators health workers from student at the Faculty of Medicine, University Tanjungpura consisting of students of

medicine, nursing and pharmacy. Their opinion will determine the quality of a doctor and a view of health workers.

In the study conducted by Goswami et al., [15] in a new class of 96 female students in 2012 in India, found that 83.33% said their body image is good to very good and satisfied with their image. Furthermore, a study conducted at an educational institution in Israel by Korn, et al., [16] explored a relationship between self-perception and healthy body image perception of the 1574 undergraduate students. Significant results reported that the male student was found higher than female students in terms of healthy perception and the perception of the body and self-image. Most female students tend not satisfied with their body image [2]. Dissatisfaction with body image also happens to health workers in Tehran, where they perceive themselves to have more weight. These misperceptions mainly occur in women with normal BMI than women who are obese / overweight [17].

Although the method is slightly different from both of these studies, notably similarity is that most students consider a good body image could give more satisfaction for themselves. In association with the data in this study, the satisfaction with self body image will further makes it important to note.

In this study it was found that the majority of students and professional doctors as much as 93.1% and 95.7% stated that body image is important for the doctor. Weight and health status affects the perception of the patient's physician regarding health counseling by doctors [18]. If a doctor has a good health condition, the advice given by the doctor is considered more credible, to further increase motivation and reliable [19]. This statement is supported by Bleich et al., [20] suggested that the trust of patients to doctors will decrease if the doctor is overweight or obese. Moreover, they would be considered less convincing while treating the patients in regards of lifestyle changes. Bleich also stated that physicians understand and realize that they should become a role model of health. However, according to Armour [21] physical appearance of employees in the workplace, whether working in the health field or not, have an enormous influence on the success story in the work and trust in the competence of health personnel.

Although good body image of a doctor is regarded as important to the majority but this has not been an absolute 100% essential. There are still 6.9% and 4.2% of students' professional doctors who think it is not important. This is due to the ability of physicians to provide motivation communication and dietary recommendations remain an important thing that will affect the success of diet therapy [20]. This is reinforced by the results found by Puoane et al., [22] of the 44 black women health workers in one city in South Africa. Data show that 40 people out of 44 found in the category of obese and overweight category 2. Based on focus group discussions conducted in the study, most of the women stated that the shape of the body of a person shall in a 'fuller' and 'curvy' image and anyone can have a body shape like that and still be able to complete the work given to him.

Regarding the effect of body image on the treatment given to the patient, the students thought that the body image will affect the treatment given at approximately 54% of the respondents. Hash et al., [18] reported that patients will be looking more health services from doctors that non-obese. These results are also consistent with the data presented by Puhl et al., [23] that perception of body image who are overweight or obese are prone to get biased attitude from the patient. Excessive weight gain by health care providers or doctors can negatively affect patients' perceptions in terms of credibility; confidence level and a tendency to follow medical advice.

Look deeper and specific about the service management of obesity, the patient still consider physicians with good and healthy body image can provide appropriate health advice. If the doctor is in a healthy image, the advice given will be felt credible, motivated, and reliable. These results are consistent with previous research by Fraser et al., [19] who concluded that the weight and health status of a doctor could potentially impact on the perception of health advice. Patient's trust is indicated higher when getting advice from a doctor that the non-obese.

Instead there is as much as 46% still think it is not giving impact in the therapy management. These data reinforced by the triangulation data obtained reported that 82% doctors believe that the response will not affect the body image therapy given to patients. Body image is not the main thing in clinical aspect. This issue is very interesting due to the study report conducted by Bleich et al., [24] stated that in general the overweight and obese patients will continue to trust the doctor's care and treatment without being affected by body image of the doctor. More specifically, the study found that the patients will have more confidence in advice for diet or weight control from doctors who are overweight or obese when compared with physicians who non overweight. So the stigma is thought that the therapy can be affected by body image owned by doctors not proven significantly.

Another study suggested that patients will feel annoyed and could negatively affect the treatment that is given if the doctor did not pay full attention to the problems they experienced. Several factors put forward is that patients often find a doctor who does not show sufficient engagement with the patient; sufficient knowledge of obesity treatment services; and leave the responsibility for providing adequate

information about available referral. It can be concluded therapeutic failure is more influenced by the attitude and attention by doctors to their patients as reported in the study by Malterud et al., [25]

Moving onto the ideal body image assessment using the Stunkard Figure Rating Scale, most respondents chose the ideal body image doctor is a doctor with a normal nutritional status. Assessment with the FRS can be used as the basis for determining the supposed prediction of BMI and BMI is the most accurate way to predict a person's body size. Determination using the FRS would give the perception or view of the shape of the body of a doctor and a lot of things that will affect the outcome such as ethnic factors, interest between the sexes, social views and the mass media [26]. Physician-patient relationship is not only a therapy of diseases, but also to the problem disease prevention and settlement of personal problems of patients [27],[28] and it therefore requires a good attitude one is to apply a nourishing life and indicates the correct body image as a role model of health [29].

In the scope of professionalism which requires a good body image of a doctor, our study found that according to doctors in the education is very important to have a good body image (42.9%), but by professional doctors, hospital doctors work more important needs a good body image (43.5%) , As a doctor working in education, they will be the first image of a doctor for prospective medical students and can affect their view of the future doctors. besides it also as a health educator is expected to provide guidance regarding the true positive outlook in obese patients and overweight [30]. But in the service, the doctor will determine the image of the patient's perception of the quality of life of health workers mainly doctors. The health worker is expected able to provide advice and act as an example to the patient by running healthy living, provide health promotion and disease prevention [2].

3.7. Study Limitations

There are some limitations in the analysis of this study. First, the study was a descriptive that can only illustrate the answers of the question given to the subject. The study does not evaluate the relationship between variables. Second, poor level of participation from the students about the importance of the research conducted, thus, it does not portray the total of students in the Faculty of Medicine University of Tanjungpura. Third, the answer bias of the perception, view, rate and expectations of the ideal body image of each individual is not assessed but expected to remain objective results given in accordance with the scientific basis of health which is owned by the students. Fourth, the influence of response to therapy and the workers who require the ideal body image can be affected by the location of educational background, various types of doctors who've seen by students and lack of experience in society that affect the perception of the ideal body image. Latest, the shortages which are expected to occur in this research could be minimized by the sharp analysis and discussion of the results.

4. CONCLUSION

This study gives an overview that body image to doctor is important and will affect the treatment given by the doctor. The doctor's ideal body image is who has a normal nutritional status, and doctors who work in health education are expected to have an ideal body image as a role model of health. Further research is needed to get the perception from public and conduct anthropometric examination the doctor compared to the perception and treatment outcome of obesity / overweight given by the doctor.

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