Patients' Perceptions towards Nonverbal Interaction (Touch & Eye contact) in Clinical Encounter in Al-Eskan Primary Health Care Center Makkah Al-Mokarramah 2015

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Abstract. Nonverbal behaviours have a significant impact on patients during consultations. Aim of this study was to find out the perception of the patients regarding nonverbal communication during consultations with physicians, in primary health care center. Methods. A questionnaire based cross-sectional study was carried out at Al-Eskan primary health care center, Makkah. During the months of Jun to July 2015. All patients (>18 years of age). Results the present study findings 215 patients were enrolled. About 55.8% were men and 44.2 % were women with the age period were ranging between 18-68y. The mean and standard deviation was 63.786 and 12.611 respectively and 45.6% had bachelor degree. Among females 65.26% wanted supportive touch from doctors, as type of treatment (57%) or to show respect (10%) or as comfort (9%) or as respect (10%), 51.6 % of the respondents believe that establishing eye contact with the patient shows that they are much more important to the doctor. The eye contact should be brief but regular (45.6%) and frequent blinking (47.9%) makes them uncomfortable. Conclusion. Nonverbal communication helps to strengthen the doctor-patient relation as patients do appreciate positive touch and eye contact from their physicians.

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I. Introduction

1.1 Definitions

Nonverbal Communication has been defined as communication without words. It includes apparent behaviours such as facial expressions, eyes, touching, and tone of voice, as well as less obvious messages such as dress, posture and spatial distance between two or more people. (Beck et al. 2000). medical care is highly correlated with better patient adherence, and training physicians to communicate better enhances their patients' adherence. (Haskard Zolnierek & DiMatteo 2009). Previous studies have indicated that there is a decrease of high-quality research in the field of medical communicative skills (Redelmeier & Dickinson 2011). The study described explores nonverbal interactions in the clinical encounter.

2. Literature Review

Verbal interacting in medical consultations. is being important to medical care It is an ongoing process. as Stating benefit as relaying of information within medical care and is usually easy to interpret and analyze (Yager et al. 2009).

The non-verbal behaviour of doctors is a significant factor in patient satisfaction and medical interview for building successful doctor-patient relationships. It contradicts the message from verbal interacting when the two are inconsistent or contradictory, non-verbal messages tend to override verbal messages. (Marcinowicz et al. 2010).

This Shows why a closed question Leads to nonverbal interacting will often lead to an open answer, and why patients do not necessarily believe a reassuring verbal comment if accompanied by contradictory facial expressions and vocal hesitancy (Jones 2010).

Two intimately related aspects of non-verbal interactions in the interview require consideration: the non-verbal behaviour of patients and the non-verbal behaviour of doctors. As doctors, we need to know patients' non-verbal your facial expressions, body posture, gestures, tone of voice and eye contact are a few ways in which you engage in nonverbal communication.... Either way, your nonverbal communication can affect the messages you send your relationships and your cultural interactions and help you negotiate through conversations. (Jones 2010). It is important to remind us that patients are carefully they look at their doctors in consultations and they know a range of non-verbal cues. In this observational study, doctors' physical touch and degree of eye contact were particularly associated know up signs that their doctors seemed uninterested in them.

Younger and more educated patients were more likely to comment on the doctors' behaviours, either because they were more aware of them or because

they were more comfortable with reporting this to the researchers (Jones 2010). They found Maintaining eye contact and the posture of the doctor were influential in determining what the patient revealed in the consultation indicates interest, which is one way to give and receive feedback. They also found the way that the doctor used the medical records (non-computerized in those days) to be very important in the patient's satisfaction. (Benbenishty & Hannink 2015).

Major goals of an increasing body of work over the last 20 years has demonstrated the relationship between physician non-verbal interacting (in the form of eye-contact, head nods and gestures, position and tone of voice) with the following outcomes: are the establishment of a positive relationship between doctor and patient, In addition, physicians' communication styles have an impact on patients' satisfaction and even on physical outcomes such as physician detection of emotional distress. (Tschacher et al. 2014).

Several studies determine the correlation between doctors-patients' non-verbal interacting and patients' satisfaction in Outpatient. Focus on how the clinician's nonverbal behavior affects the patient's perspective, such as patient satisfaction. However, there is a growing awareness of the value of nonverbal communication: more and more studies have focused on quantitatively evaluating nonverbal behavior. Coding systems for nonverbal interaction have been developed, such as Nonverbal Communication in Doctor-Elderly Patient Transactions (NDEPT) (Gorawara-Bhat et al. 2007). Eye contact is a important point of interest in nonverbal cues related to understanding trust, empathy, and rapport. The role of directed eye contact in clinician-patient interaction has been explored in previous studies (Montague et al. 2011). Margalit et al. (2006) found that computers affected interacting patterns between patients and clinicians, and they recommended using take care regarding uses of technologies in clinical care. Another report has suggested that more than 80% of patients changed or were thinking changing their doctor due to poor communication skills (Keating et al. 2002). Quality researchers planned the relationship between empathy and other outcomes, such as patient adherence, patient positive, patient enablement, and information exchange (Khan et al. 2014; Tschacher et al. 2014). For example, emotional outcome may influence the effectiveness of behaviour change counselling for overweight and obese patients (Halpern 2007).

2.1. Rationale: 1. the doctor- patient communication remains the core of the art of medicine. 2. Physician- patient communication has a significant influence on the outcome of patient care 3.

Both verbal and nonverbal forms of communication constitute this essential feature of medical practice.

3. Aim of the study

To explore and evaluate the perceptions of patients regarding touch and eye contact by physicians during clinical encounter. Therefore, non-verbal communication will improve leading to better patient satisfaction.

3.1. Objectives

3. A - To assess the preference for touch and eye contact during consultations among patients attending Al-Eskan Primary Health Care Center in Makkah Al-Mokarramah 2015. **3. B**-To explore the preferred part to be touched by physicians among patients attending Al-Eskan Primary Health Care Center in Makkah Al-Mokarramah 2015. **3. C**- To determine the influence of gender toward the preference for touch and eye contact during consultations among patients attending Al-Eskan Primary Health Care Center in Makkah Al-Mokarramah 2015.

3.4. Hypotheses of the study

There are a significant relationship between age, gender, marital status, education level and occupation and the dependent variables regarding eye to eye contact and physical touch.

4. Materials and Methods

- **4.1Study Design**: Cross sectional Descriptive Study.
- **4.2Study Area**: Makkah has 82 PHC divided under 7 main sectors. Al-Eskan primary health care center (EPHC) is under one of this sector with estimated registered patients number of more than 3718 and 200-300 daily visitors serviced by 4 fulltime working family medicine clinics run by certified specialists and consultants. The other remaining clinic are runs by GPs. Al-Eskan primary health care center had JCI accreditation several years back.
- **4.3Study Population**: Patients attending Al-Eskan primary health care center in Makkah 2015.
- **4.4Inclusion Criteria**: All patients were above 18 years of age, male or female.
- **4.5Exclusion criteria:** Those who refused to participate in the study.
 - Patients who were mentally retarded people.
- **4.6 Sample size**: Two hundred and thirty patients with margin of error 5% at 90% confidence levelit was calculated by Rosoft sample size calculator. (Total Number of patients attending Al- Eskan Primary health care center in month 3000 half of them under the age of 18 so that why we did our calculation using total population of 1500). As the exact prevalence of the perception of nonverbal communication is unknown, so, the prevalence was considered 50%. We

used 90% confidence level to minimize the sample size for the sake of time.

- **4.7 Sampling technique**: Since the study is a cross sectional study systematic random technique was used. The sampling fraction 10 was used as the constant difference between subjects. The first patient was chosen by random number generator.
- **4.8 Tools of the study**: Validated structured self-administered questionnaire was utilized for data collection. It has been previously used in a similar study conducted in Karachi, Pakistan and has been proved to be valid and reliable. The questionnaire included questions regarding demographical characteristics of the patients including age, gender, nationality, education, marital status and occupation. Then, there were eleven questions have to be answered by the patients.
- 4.9 Data Collection technique: Selected patients attending the family medicine clinics in Al-Eskan PHCcenter attended a questionnaire session after they came out from their physician clinic. After they filled it they were instructed to put the questionnaire in a box
- **4.10 Variables**: a. **Dependent**: Perception and preference of touch and eye contact.
- b. **Independent**: The gender variation in Perception and preference of touch and eye contact.
- **4.11 Data entry and analysis:** Computer programs with SPSS version 21 was used.

Significance: P –value < 0.05 was considered significant.

4.12 Pilot study/pretesting: A pilot study was carried out on 10% of the sample size only, among patients who aren't included in the actual study. The pilot study was carried out with the application of the full methodology and analyses of results. The method, the feasibility, and duration were assessed. No changes were made to the aforementioned methodology.

4.13 Ethical considerations

- 1. Permission was obtained from Makkah Joint Program of Family & Community medicine.
- 2. Permission was obtained from concerned authority in MOH PHCadministration.
- 3. Individual verbal consent for data collection was obtained from each participant.
 - 4. All information were kept confidential.

4.14 Limitations

- 1. Not all the patients responded to the application.
- 2. Only two elements were studied (for example gesture was not included).

5. Results

Response rate of 93.4% has been obtained (215 out of 230).

Table (1) age: shows that, the mean age period of 25-35y constitutes the most common period which regarded as 1/3 of cases. Second, the age period of 46-55y represents 20% while the age period of 36-45y represents 19%. It is important to say that 50% of participants were below 36year old. The age period were ranging between 18-68y. The mean and standard deviation was 63.786 and 12.611 respectively. (see table 1).

Figure 1 gende: Pie graph representative of gende distribution in this study.

Male gender in our study was 55.8% while females were 44.2% of cases (see figure 1).

Figure2: Marital Status: The marital status of our participants was retrieved also; 60.5 % of our participants were single, 31.2% were married while both divorce and widow constitute around 8% only (see figure 2).

Table (2) Occupation: In our study, unemployed participants constituted 33.5% of our survey. (See table 2).

1. Demographic Characteristics of the Patients

Table 1. Distribution of the Age period in this study

Age		
	N	%
<25	35	16.3
25-35	74	34.4
36-45	42	19.5
46-55	44	20.5
>55	20	9.3
Total	215	100.0
Range		
Mean±SD		

2. Genderdistribution in this study Pie graph representative of gende

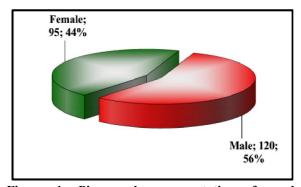


Figure 1: Pie graph representative of gende distribution in this study

3. Marital Status

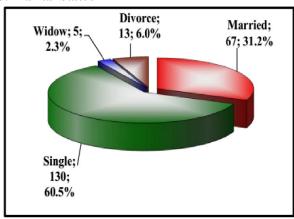


Figure 2: Marital status of our participants

Table (2) Education Level: The majority of our participants were at (or complete) university level the most illustrative finding was that illiterate participants were constitutes 1.4%. (See table 3).

Table (4) physical touching: Indeed, 77.2% of our participants support physical touching by their physician's. (See table 4).

Tables (5 & 6) Physical Touch Target

The survey was questioning also about the target organ of physical touching. This part contains two entities. First, what was the most comfortable organ which they never mind to be touched? Second, what was the most uncomfortable area during examination? The answers as revelled by tables 5 & 6. The targets of improper touch as revealed by participants were thigh and abdomen. In other word, the shoulder, hand and head were the most accepted sites were physical touch found no embracement to the participant or patient. (See tables 5 & 6)

Table (7) Intersexual variations of response to physical touch

There was a constant behave or response toward physical touch in males and females in this survey. Both gender would not mind to be touched physically or clinically by their consultants or specialists during the consultation (p>0.05). That's reflects a common sense or prior believes about the physician role. 75% of answers were "No" which reflects prior precautions and even physician selectivity upon this. Important note is, males were more resistance than females regarding physical touch. In contrast, females were more accepting than males. Slight differences in male-to-female might belong to socio-educational factors. (See tables 7)

4. Occupation

Table 3: Frequency of participants' occupation

Occupation		
	N	%
Unemployed	72	33.49
Employees	105	48.84
Retired	18	8.37
Business	20	9.30
Total	215	100.00

5. Education level

Table 4: Participants' education level.

Education						
	N	%				
Illiterate	3	1.4				
Can read and write	10	4.7				
Primary	4	1.9				
Intermediate	20	9.3				
Secondary	60	27.9				
University	98	45.6				
Higher studies	20	9.3				
Total	215	100.0				

Physical Touching

Table 5: Participants support of physical touching.

Do you support physical touching of your body by doctor during consultation?					
	N	%			
Yes	166	77.2			
No	25	11.6			
Don't know	24	11.2			
Total	215	100.0			

Physical Touch Target

Table 6: Participants opinions about comfort ability of physical touch.

Which part of your body you would be more comfortable to be touched by the doctor?							
v	N	%					
Hand	52	24.2					
Head	28	13.0					
Shoulder	80	37.2					
Knee	8	3.7					
Abdomen	16	7.4					
Thigh	10	4.7					
Upper back	12	5.6					
Others	9	4.2					
Total	215	100.0					

Table 7: Participants' opinion about the physical touch target

Which part of your body you feel less comfortable if touched by the doctor?					
	N	%			
Hand	21	9.8			
Head	13	6.0			
Shoulder	11	5.1			
Knee	10	4.7			
Abdomen	54	25.1			
Thigh	83	38.6			
Upper back	8	3.7			
Others	15	7.0			
Total	215	100.0			

Intersexual variations of response to physical touch

Table 8: Both genders response to physical touch

Do you mind physical	Gender				Total		
touching of your body by			Female	e	Totat		
the doctor during consultation?	N	%	N	%	N	%	
Yes	15	12.50%	16	16.84%	31	14.42%	
No	96	80.00%	67	70.53%	163	75.81%	
Don't know	9	7.50%	12	12.63%	21	9.77%	
Total	120	100.00%	95	100.00%	215	100.00%	

Table (8) Intersexual variation of physical touch emphasis

A total of 65% surveyed participants regarded physical touch as "type of treatment" with males and females voting as 70% and 57% respectively. Empathy was the second choice for our participants to explain the importance of physical touch (13%) with male and female percentages as 15.8% and 9.47% respectively. By using Chi square test, the null hypothesis has been rejected due to statistical difference between either gender in exploring the aim behind the physical touch. (See table 8)

Table (9) Intersexual variation of physical touch target

Thigh and abdomen were the major targets of concern or avoidance when participants nominate the most frequent uncomfortable organ for both genders. Males as unexpected were more than females regarding avoidance of physical touch. In contrast, hand was the third organ avoided during examination for females. Regions other than mentioned previously were equal for both genders. By using Chi-square test, the null hypothesis was rejected and alternative hypothesis was accepted. There was statistical difference between males and females regarding which part of their body might be avoided during physical touch (p=0.005) (see table 9).

intersexual variations on physical touch emphasis.

Table 8: intersexual variations on physical touch emphasis.

Table of intersexual variations on physical touch emphasis.						
Do you consider a touch by a	Gender			Total		
doctor during consultation as			Femal	'e	101111	
a gesture of what?	N	%	N	%	N	%
Empathy	19	15.83%	9	9.47%	28	13.02%
Type of treatment	85	70.83%	55	57.89%	140	65.12%
Respect	5	4.17%	10	10.53%	15	6.98%
Comfort	4	3.33%	9	9.47%	13	6.05%
Communication with doctor	6	5.00%	9	9.47%	15	6.98%
Others	1	0.83%	3	3.16%	4	1.86%
Total	120	100.00%	95	100.00%	215	100.00%

Eye contact

Table (10) Patients' Feedback towards Eye to Eye Contact

In this study, participants' feedback about the integrity of eye to eye contact and in what entity does they regard physician's eye contact was retrieved from questionnaire. 51.6% of participants felt that eye to eye contact was much more important for them. Second to this, 18.1% of participants regarded eye contact to be of value in communication.11.2% of them felt secure and "their nervousness get down during consultation. 11.6% of them stated different feelings to the question. 7.4% of participants only felt confident when they establish eye to eye contact with their physician during consultations. (See table 10).

Table (11) Intersexual Variations of Patients' Response towards Physician Eye contact

This round of statistical analyses will study the impact of gender upon patients' response, duration,

and causes of negative eye to eye contact and finally whether there will be different reactions stated by gender toward such inadequate communication. From table 11, both genders feel always comfortable when physician communicate with them good by fixed eye contact during consultation with slight difference. In all decisions there was compatible idea between males and females (except "Never" which has been assigned by only 2.5% of males versus 8.5% for females.

By using Chi square t-test, the null hypothesis of equal chance of response towards physician eye to eye contact was tested and accepted (p=1.0). (See table 11).

Intersexual variation of physical touch target

Table 9: Intersexual	variation	to physical	touch target

Which part of your body	Gender			T - 4 - 1	Takal		
you feel less comfortable			Femo	ale	Total	i Oiai	
if touched by the doctor?	N	%	N	%	N	%	
Hand	7	5.83%	14	14.74%	21	9.77%	
Head	7	5.83%	6	6.32%	13	6.05%	
Shoulder	5	4.17%	6	6.32%	11	5.12%	
Knee	3	2.50%	7	7.37%	10	4.65%	
Abdomen	36	30.00%	18	18.95%	54	25.12%	
Thigh	55	45.83%	28	29.47%	83	38.60%	
Upper back	3	2.50%	5	5.26%	8	3.72%	
Others	4	3.33%	11	11.58%	15	6.98%	
Total	120	100.00%	95	100.00%	215	100.00%	

Table (12)Intersexual Variations of Patients' impact about Physician Eye to Eye Contact

By using chi square t-test, a strong relationship has been discovered between gender and individual impact (p<0.001). There were different responses for each category. But, certain choices reflect the nature of the gender. For example, 21.05% of females (versus 3.33% of males) feel "secure" when the physician makes an eye contact. Similar, males feel more confident (10.00% versus 4.21%) and important (62.50% versus 37.89%). (See table 12).

Table (13) Causes of Negative Contact Emphasized by gender

By using chi-square t-test, null hypothesis of "no" difference existed between gender and assigning what makes the eye contact bad (i.e. either gender shared the same judgment idea and criteria) (p value= 0.14). Both genders regarded neither frequent blinking nor long time contact as good marks of physician communication capability. (See table 13).

Eve contact

Patients' Feedback towards Eye to Eye Contact

Table 10: Patients' Feedback toward Eye to Eye Contact.

What do you feel when a doctor makes an eye contact?				
	N	%		
Confidence in yourself	16	7.4		
Confidence in communication	39	18.1		
Secure	24	11.2		
Much more important	111	51.6		
Others	25	11.6		
Total	215	100.0		

Intersexual Variations of Patients' Response towards Physician Eye contact

Table 11: Frequencies of intersexual variations in responce to physician eye to eye contact.

Do you feel comfortable	Gender				Total	Total	
with appropriate eye				Totat			
contact by your doctor?	N	%	N	%	N	%	
Always	30	25.00%	22	23.16%	52	24.19%	
Sometimes	72	60.00%	47	49.47%	119	55.35%	
Rarely	15	12.50%	18	18.95%	33	15.35%	
Never	3	2.50%	8	8.42%	11	5.12%	
Total	120	100.00%	95	100.00%	215	100.00%	

Intersexual Variations of Patients' impact about Physician Eye to Eye Contact

Table 11: Frequencies of different patients' impact on eye contact and role of gender in Causes of Negative Contact Emphasized by gender

What do you feel when a doctor makes an eye contact?	Gender				Total	
	Male		Female		Total	
	N	%	N	%	N	%
Confidence in yourself	12	10.00%	4	4.21%	16	7.44%
Confidence in communication	22	18.33%	17	17.89%	39	18.14%
Secure	4	3.33%	20	21.05%	24	11.16%
Much more important	75	62.50%	36	37.89%	111	51.63%
Others	7	5.83%	18	18.95%	25	11.63%
Total	120	100.00%	95	100.00%	215	100.00%

Table (14) Intersexual Variations of judgment regarding Inadequate Eye Contact

By using chi-square t-test, null hypothesis of "no" difference existed between gender and their feeling about inadequate physician eye contact (

pvalue= 0.078). Both genders exhibited a lack of confidence to the physician and little or no attention from the physician to patient when they were asked about inadequacy of eye to eye contact (see Table14).

Table13: Intersexual variation in describing when the eye contact regarded bad.

What are the things which	Gender				Total	
would make you	Male		Female		Totat	
uncomfortable during eye contact?	N	%	N	%	N	%
Considering for a long time	47	39.17%	33	34.74%	80	37.21%
Matter with a smile	12	10.00%	19	20.00%	31	14.42%
Frequent blinking	60	50.00%	43	45.26%	103	47.91%
Others	1	0.83%	0	0.00%	1	0.47%
Total	120	100.00%	95	100.00%	215	100.00%

Table 14: Intersexual Variations of judgment regarding Inadequate Eye Contact

What do you feel if a	Gender	<u> </u>	Total				
doctor does not make			Female	2	Total		
an eye contact?	N	%	N	%	N	%	
Religiosity	5	4.17%	13	13.68%	18	8.37%	
A lack of confidence	24	20.00%	20	21.05%	44	20.47%	
Little or no attention	89	74.17%	60	63.16%	149	69.30%	
Others	2	1.67%	2	2.11%	4	1.86%	
Total	120	100.00%	95	100.00%	215	100.00%	

6. Discussion

This is a pioneer study from Al-Eskan primary health care center in Makkah to assess patient's attitudes towards nonverbal communication through touch and eye contact during consultations. The outcomes from this study should reassure several medical practitioners regarding the use of comforting touch to patients as 65% of respondents wanted sympathetic touch, especially in distressing situations.

social touch right from physician greetings and simple hand shake (Ranjan et al. 2015). However, as opposed to more distal touch, this study reveals that touch on the shoulder (37%) or hands (24%) are more acceptable.

This could reflect a picture of the individuals here who have religious obligations in a religious environment reflects the beliefs and religious obligations in a Muslim society. Our results were consistent with study by (Street & Buller 1988), who studied the non-verbal interactions in Physician-Patient communication and they also found no statistically significant correlation between the level of education of patients and their Expect them regarding the doctor touch, whereas a study from John Hopkins has shown contrasting results that physician's touch can be "dominating or controlling" to people(Hopkins & Healthways 2004), but as our results highlight it is also taken as a gesture of comfort or respect and as healing, which is in agreement with (Osmun et al. 2000).

A good physician begins to care for the patient as soon as he/she looks at him. most people out there know that if someone likes another person In this present study, around 80% of the patients eagerly wanted the doctor's attention through his/her eye contact as pointed out by (Marcinowicz et al. 2010).

Observing the patient together with listening and informative responses makes a medical interview more patients centered and thus results in better therapeutic outcome.

This research is a first step in exploring the importance of nonverbal communications among physicians in the Southwest Asian region, but it does have several limitations. First, the study was conducted at a single, hospital and needs a larger sample size to generalize the results to all private or to public sector hospitals. Secondly, only two Non-verbal modalities have been evaluated in this study, rather exploring all non-verbal means communication. Third, the attitudes and perceptions of physicians regarding nonverbal modalities were not assessed. Fourth, online literature search revealed a study by (Stepanikova et al. 2012) who concluded that racial backgrounds do play a role in influencing nonverbal communication and this aspect is not covered in the present study.

Conclusion

Positive, effective, and sensitive nonverbal behavior helps to strengthen the doctor-patient bond. This study does require further clarification and elaborations, but the results do demonstrate the importance of touch and eye contact during the physician's consultancy. Patients do require, from their doctors, a comforting touch on shoulder and regular but briefeye contacts to demonstrate his/her attention towards thepatients.

In this study males were more resistance than females regarding physical touch. Slight differences in male-to-female might belong to socio-educational factors. Hand, head, upper back and even 'other area' sector were more comfortable to be touched by physician for females than males. Only shoulder showed the most distinctive difference between females and males. Regarding eye contact both genders feel always comfortable when physician communicate with them good by fixed eye contact during consultation with slight difference.

Recommendations

We believe further research on this important subject, should be further explored, with larger sample populations and covering all aspects of nonverbal communication. We believe doctors should be encouraged for good eye contacts and for physical touch during consultations. Also doctors should be encouraged to improve their communication skills with their patients, by attending lectures and symposium that related to communication skills.

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