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Research Article

**THE ASSOCIATION OF BLOOD PRESSURE LEVEL WITH
SOCIODEMOGRAPHIC FEATURES AND CULTURAL
CHARACTERISTICS OF THE PATIENTS STUDIED AT
SERVICES HOSPITAL, LAHORE**¹Dr Abdul Wahab Haider, ²Dr. Bisma Sajid, ²Dr. Lubna Mushtaq¹House Officer, Allama Iqbal Memorial Teaching Hospital, Sialkot., ²House Officer DHQ
Teaching Hospital Gujranwala**Abstract:**

Objective: By using Giger and Davidhizar transcultural assessment model what is the effect of personal space in blood pressure

Method: This study was carried out at Services Hospital, Lahore from February to August 2017 while hospitalizing all women in the OB/GYN clinic. This experiment was performed by two nurses (male and female). The question was rise that why there are sub-dimensions of the Giger and Davidhizar transcultural assessment model.

Result: We included a total of 115 women with a mean age of (26.50 ± 4.86) years. The family type included 81 nuclear families (70.4%) and 43 primary qualified women (37.4%). No significant difference was found in male and female students ($p > 0.05$). The difference was found in systolic blood pressure between male and female students ($p < 0.05$).

Conclusion: systolic blood pressure was an increase in female and compare to male nurses. The increase was correlated with ethnicity and income level.

Keywords: Blood Pressure, Transcultural Nursing and Personal Space.

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INTRODUCTION:

Factors which are important in a therapeutic relationship are distance, space and touch. The cultural difference in Giger and Davidhizar model involves six phenomena; environmental control, biological variations, social organization, communication, space and time orientation. Type equation here variation, social organization, communication, space and time orientation [1 – 3]. The area includes in personal space is an individual issue. Situation and dimension are also varying from culture to culture [1]. It has four different zones of interpersonal space (0.46 – 1.22m) [4]. Humans are like the cat's family as they want to make their own out the land, they become disturbed when someone covered their outland. The amount of territorial space is based on the individual and their cultural preferences [3]. According to cardiovascular physiology of the cardiovascular system, specifically addressing the physiology of the heart (cardio) and blood vessels (vascular). These subjects are sometimes addressed separately, under the name's cardiac physiology and circulatory physiology [1, 5 – 7]. This kind of studying cannot be found in both local and international literature.

The personal space perception of female and male in their own cultural context are different [8]. Identification of the blood pressure with the effect of culture and gender is of great importance for healthcare professionals to provide appropriate care [9]. The local female holds them self at a distance from males according to their culture and upbringing [10]. In the local study, the things are noticed that patients being shy and feel uncomfortable when they are cared for by a male nurse [11]. The current study was planned to fill that gap. The study used Giger and Davidhizar's transcultural assessment model, and the focus was mostly on its personal space dimension.

SUBJECTS AND METHODS:

This study was carried out at Services Hospital, Lahore from February to August 2017 while hospitalizing all women in the OB/GYN clinic. This all setup was made to observe and under control the study. Those persons who are under study don't have any reason for hospitalization and that one who could have an effect on blood pressure whether they are from high school or from the lower status. Some of them has been excluded as they are already been diagnosed, persons who didn't understand the language and who didn't participate in this study. The sample size was calculated by a prior power analysis using G-Power based on Alpha level (0.05), Power of (0.99) and Assumed size (0.53).

This experiment was performed by two nursing students (male and female). Generally, clinics don't

employ male nurses. By using sphygmomanometer and stethoscope blood pressure was measured on the left arms. Some of the precocious has been made:

- 1- Participants were seated and rested for at least five minutes
- 2- Environmental noise was reduced during the measurement of blood pressure.

Blood pressure was measured thrice a day (9 am, 12noon, 3 pm) of both male and female by using both sphygmomanometer and stethoscope. As it is important to wait for two minutes between the two measurements just to ensure venous congestion, the second measurement was taken after five minutes [13]. The measurement on the whole day was taken by the same student:

- 1- The distance between student and patients must be 0.3m
- 2- Each of the three-value obtained from measurement was recorded in the data- collection form.

The data collection form was a questionnaire that contains several questions related to blood pressure measurement from. The questions were created by researchers in reference to sub-dimensions of the Giger and Davidhizar transcultural assessment model [14]. The questions addressed the participants' sociodemographics, cultural characteristics and their view on personal space and gender of the nurses.

The data-collection form was filled out after the blood pressure measurements were completed. The questionnaire was applied to patients by the students via face-to-face interview. Permission was obtained from the institutional ethics committee, and verbal permission was obtained from all the subjects.

By using statistical methods, we calculate the meaning of the three values taken by both male and female students for each patient. The data analyses involved means score, frequencies, independent-samples, t-test and repeated measure analysis of variance (ANOVA). $P < 0.05$ was considered statistically significant.

RESULT:

We included a total of 115 women with a mean age of (26.50 ± 4.86) years. The family type included 81 nuclear families (70.4%) and 43 primary qualified women (37.4%). No significant difference was found in male and female students ($p > 0.05$). The difference was found in systolic blood pressure between male and female students ($p < 0.05$). Participants which want to be taken cared by female nurse 108 (93.9%). Who believe that male nurse should stay at a distance one meter 59 (51.3%). And participants who withdraw with male nurse 48 (41.7%). The nurse takes care of them too closely.

Table – I: Women's socio-demographics (115)

Demographics		Number	Percentage
Age	20 to 24 Years	51	44.3
	25 to 29 Years	27	23.5
	30 to 34 Years	37	32.2
Family Type	Nuclear	81	70.4
	Extended	34	29.6
Gender	Female	108	93.9
	Male	7	6.1
Educational Status	Illiterate	11	9.6
	Primary	43	37.4
	Secondary	16	13.9
	High	39	33.9
	Under Graduate	6	5.2
Income	479 to 800	33	28.7
	801 to 1200	38	33
	1201 and Above	44	38.3
Ethnic Origin	Local	100	87
	Others	15	13

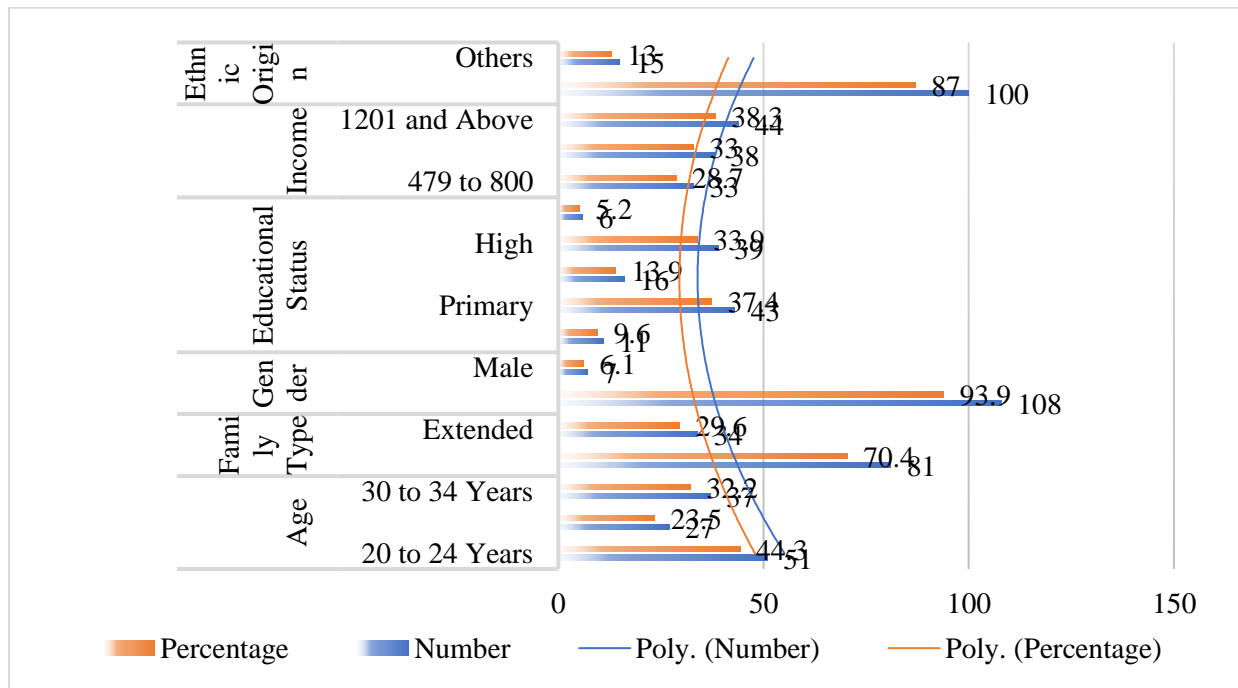


Table – II: Cultural Features (115)

Statement/Response	Number	Percentage	
Male Nurse Cure	Yes	27	23.5
	No	88	76.5
Opposite Sex Communication Gap	Easy	78	67.8
	Distressed	37	32.2
What is your feeling when a male nurse is close?	I will withdraw	48	41.7
	I stay	67	58.3
What is your feeling when cured by a male nurse in the presence of others?	Relaxed	63	54.8
	Does not Affect	41	35.7
	Disturbed	11	9.5

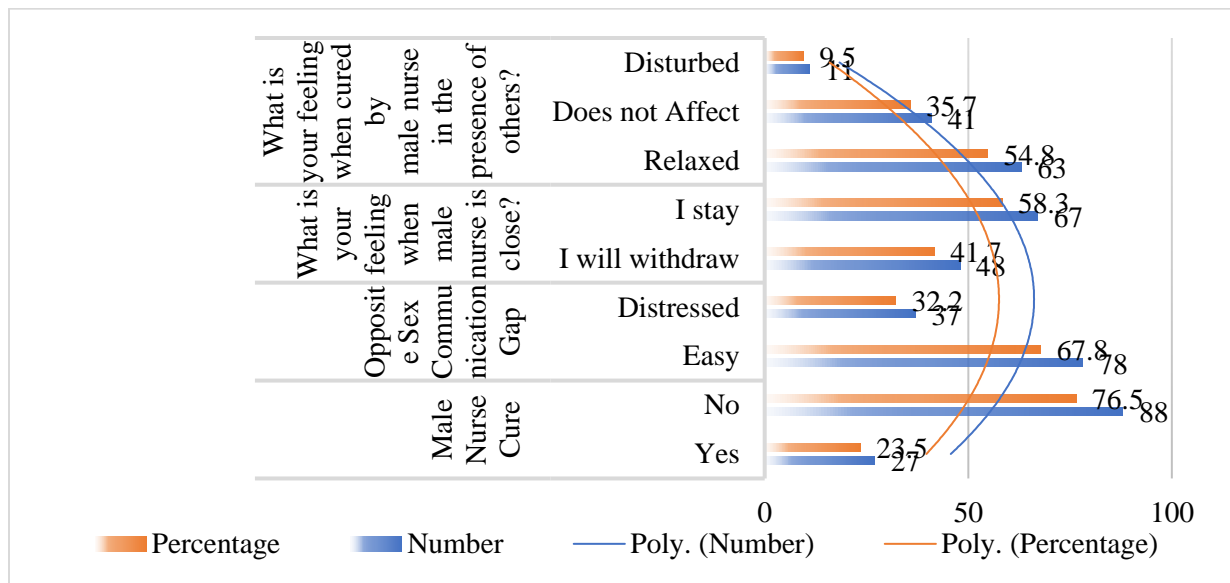
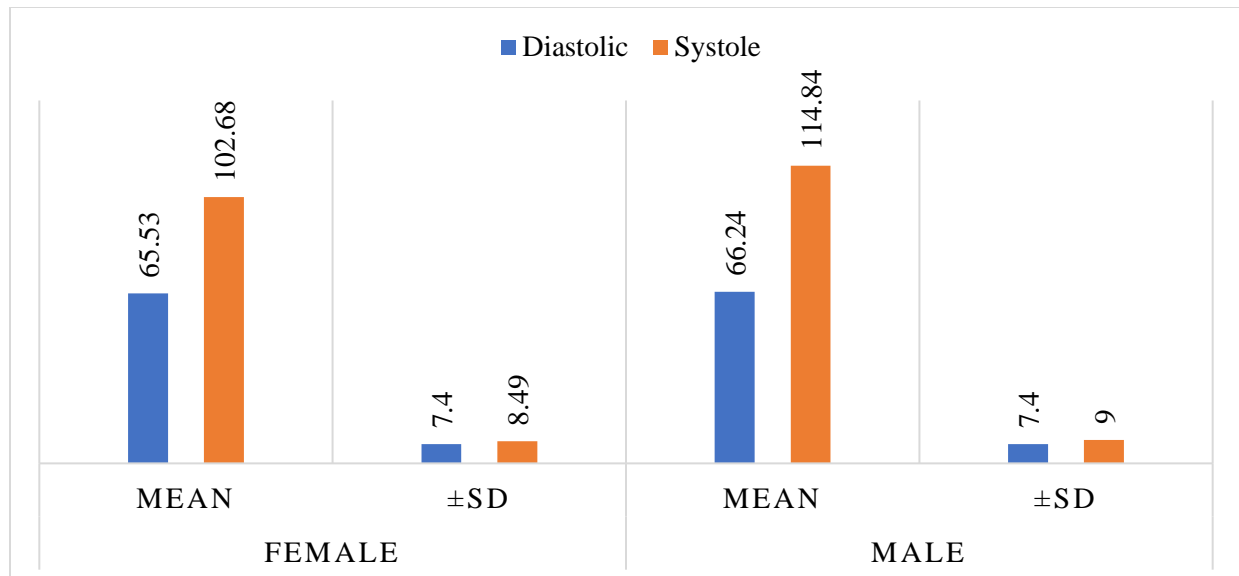


Table – III: Comparison of the meaning bloody pressure values measured by the female student and the male student (115)

Blood Pressure	Female		Male		T-Value	P-Value
	Mean	±SD	Mean	±SD		
Diastolic	65.53	7.4	66.24	7.4	1.25	0.213
Systole	102.68	8.49	114.84	9	5.73	0.001



Mean of diastolic blood pressure value taking by a female student was (65.53 ± 7.49) mmHg and male student was (66.24 ± 7.47) mmHg ($p > 0.05$). However systolic blood pressure value measured by a female student was (102.68 ± 8.49) and value measure by a male was (114.84 ± 9.00) mmHg ($p < 0.05$).

Compared both systolic blood pressure measures by female student and value which was measured by the male student according to women's socio-demographic and cultural characteristics. The other socio-demographic and cultural characteristics didn't lead to a difference in systolic blood pressure value ($p > 0.05$).

DISCUSSION:

In this study there's not statistically significantly different between diastolic blood pressure value measured by both male and female students, this difference between the systolic blood pressure value measured by both students ($p < 0.05$). As this measurement varies with the gender of the person who takes the measurement and measurement which was taken by male student yielded high value.

The thing is that participants' systolic blood pressure was high when it was measured because of the male nurse student. It was observed that systolic blood pressure was normal under the influence of cultural norms of personal space but when they are viewed by the male student as an attraction on their personal space [1, 9, 14, 15]. Moreover, some women think that it was in for a woman to be touched by unknown men in Islam.

In the present study, some of the participants said they would withdraw if a male nurse touches them too closely had significantly higher blood pressure value

($p < 0.05$). There was a change if we violate the personal space, if there's a shorter interpersonal space through insignificant, in blood pressure level as well as increases in anxiety and tension [7]. Similarly, it was noticed that there's a significant increase in their systolic blood pressure value when they suffered from psychological stress [5, 6, 16]. In the present study, some of them may be regarded that their blood pressure was measured by a male nurse for they didn't know him. As described in the Giger and Davidhizar transcultural assessment model, space is one of the six cultural phenomena in this model which refers that there should be a personal space when they interact and communicate with each other. Because of this, there's a level of comfort, feeling at ease in conversation, proximity to others, perceived. It may be disturbing when their personal space is attracted by some stranger.

In this study, there was also observed that the increase in systolic blood pressure value among those women who were not local, have lower income and also who were secondary school graduates. As for Iranian women they rather moribund interpersonal space while they are sitting or walking with Northern women [17]. As women played a role in establishing the survival of racial groups and in maintaining their tradition [18]. Religious values believes and roles are closely related to culture and ethnicity origin. In a social organization which is another cultural phenomenon in the Giger and Davidhizar transcultural assessment model, as cultural heritage is because of religion and racial background during the process of socialization [19].

In this study, those women who're having lower income level, as well as high systolic blood pressure value, could be assumed to experience such feelings

faster than others. Furthermore, it can be discussed that women with low socioeconomic status are more good in maintaining their cultural traditions. This idea was considered the sample of the present study and was entirely composed by a woman participant. Refer to another study, socioeconomic inequalities in hierarchical societies cause people to feel shy, aggressive and hopeless [20]. Shyness is the combination of fears, attention, tension and desirability. Physiologically the feeling is producing by the increase in heart rate and blood pressure [21]. This result could represent the status of local culture. This may be replicated in different cultural setting. All the participants being Muslim could be a limitation. Nurses should be remembering the anxiety level of patients which already increased during hospitalization. By neglecting some communication problems, a nurse can easily lower the tension and anxiety. If there's a problem in blood pressure than a male nurse should be replaced by a female nurse and she needs to check it again. Moreover, make nurses should take certain cultural value into account and avoid invading personal space unless necessary.

CONCLUSION:

Systolic blood pressure of the patients increases when it was measured by a male nurturing student and it was because of discomfort of another gender disturbing their personal space which was correlated with ethnicity and income levels.

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