Review Form 1.6

Journal Name:	**Asian Journal of Biology**
Manuscript Number:	**Ms_AJOB_83462**
Title of the Manuscript:	**Association of Neck Circumference with Other Anthropometric Indices and Cardiovascular Risk Factors in Healthy young Adults**
Type of the Article	**Original Research Article**

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	**INTRODUCTION** **Line 10 and 11.** Modifiable risk factors are common in all age groups however, these are lesser in young adults, these factors are also highly prevalent in male and female in young adults. **Comment:** **This is a strong statement which needs to be backed up with references. The reviewer suggests that citations are included in these sentences.** **Line 14** ……...includes hypertension 41%, diabetes 10%, high cholesterol 17.3%, dyslipidemia (males, 34%; females, 49%) prevalence of obesity is 21% (7, 8). **Comment:** **Rework sentence. There is a missing link and a resultant lack of flow while reading. After the bracket "(males, 34%; females, 49%)", the word "prevalence" should be expunged since your mentioning obesity as one of the common illnesses among Pakistani adult population.** **Line 16** Comparatively novel parameter is NC**….** **Comment:** **This abbreviation should be written in full the first time it is mentioned. Though it was written in full in the abstract. The reviewer suggests it should be written in full the first time it is mentioned in the body of the manuscript. It can then be abbreviated subsequently.** **Line 19-21** BMI and WC are used for the assessment of obesity, however, recently Neck Circumference, quick and easy anthropometric parameter have been reported for the assessment of MetS, obesity and CVD risk factors **Comment:** **The reviewer suggests reworking this sentence by including these suggestions below so as to enhance understanding** BMI and WC are widely used for the assessment of obesity, however, recently neck Circumference, which is a quick and easy anthropometric parameter have been reported for the assessment of MetS, obesity and CVD risk factors. **MATERIALS AND METHODS** **Line 1 and 2** This cross-sectional observation study was conducted on 610 healthy young adults aged 18-35 years male and females of Shaheed Benazir Abad District of Sindh. **Comment:** **The reviewer thinks this sentence is ambiguous and suggests it is reworked to the sentence below for clarity** This cross-sectional observation study was conducted on 610 male and female healthy young adults of Shaheed Benazir Abad District of Sindh who were aged 18-35 years. **Line 8-9**	

	Those who were suffering from CVD, known cases of diabetes mellitus and hypertension were also excluded from study **Comment:** **The authors should state the screening or examination procedures that were carried out before confirming and excluding these cases from the study** **Anthropometric measurements:** **Line 8 (under anthropometric measurement)** **Comment:** **The authors should include how the waist to hip ratio values were determined.** **Also, the authors should elaborate more on the anthropometric measurement procedures. Standards or guidelines that were followed for these anthropometric measurements should also be stated.** **RESULTS** **Line 3-6** Age of the health subjects were divided in three groups 18-23, 24-29, and 30-35 years, males were greater in age group 30-35 years 134(42.8%) whereas females were higher in age group 18-23 years 222(74.7%) as shown in Table 1. **Comment:** **The reviewer suggests this sentence is reworked to enhance clarity** **Age of the ~~health~~ subjects were divided in three groups 18-23, 24-29, and 30-35 years, males were greater in age group 30-35 years [134(42.8%)] whereas females were higher in age group 18-23 years [222(74.7%)] as shown in Table 1.** **Line 6-10** The mean age of male was 27.76±5.57 and mean age of female was 22.44±4.92 years. The mean BMI of males was 25.74±5.14 and of females was 24.76±4.93 Kg/m^2. The means waist circumference (WC) of males was 89.83±13.58cms and of females was 73.63±12.17cms. The mean Hip circumference (HC) of males was 96.29±11.44 and of females were 90.64±10.05cms. **Comment:** The unit of measurement should be included for the highlighted mean values **Line 12-18** Table 2 Shows Pearson's correlation between NC and others continuous variables including body weight, Height, BMI, WC, HC and Waist-hip Ratio **(WHR)**. In male participants, Neck circumference was positively and significantly correlated (P<0.05) with weight (r=0.785), Height (r=0.188), BMI (r=0.816), WC (r=0.801), HC (r=0.773) and **WhR** (r=609). In female all other parameters were significantly (P<0.05) correlated such as Weight (r=0.701), BMI (r=0.763), WC (r=0.784), HC (r=0.686), **WhR** (r=0.463), however, height was not significantly correlated (P>0.05) with NC. **Comments:** **The reviewer suggest that the authors maintain consistency in the highlighted abbreviations. Also, the extent of correlation obtained for the r values should be stated in the results i.e low, moderate or strong correlation** **Line 15-18** In female all other parameters were significantly (P<0.05) correlated such as Weight (r=0.701), BMI (r=0.763), WC (r=0.784), HC (r=0.686), WhR (r=0.463), however, height was not significantly correlated (P>0.05) with NC. **Comments:** **The reviewer suggest that this sentence is reworked to the sentence enhance clarity.**	

	In females, ~~all other parameters were significantly (P<0.05) correlated with NC such as W~~ weight (r=0.701), BMI (r=0.763), WC (r=0.784), HC (r=0.686) and WhR (r=0.463) were significantly correlated with NC. ~~h~~However, height was not significantly correlated (P>0.05) with NC. **Line 31-33** TLC (≥200 mg/dl) 53.5%, TG (≥150 mg/dl) 51.2%, HDL (≥40 mg/dl) 29.8%, VLDL (30 mg) 51.2%. These values were increased in those whose neck circumference was ≥36.5cms in male and ≥32.5cms in the female according to the Asian cut off. **Comments: This sentence can be reworked to enhance understanding "The values of TLC (≥200 mg/dl) 53.5%, TG (≥150 mg/dl) 51.2%, HDL (≥40 mg/dl) 29.8% and VLDL (30 mg) 51.2% were increased in those whose neck circumference was ≥36.5cms in males and ≥32.5cms in the females according to the Asian cut off.** **Table 3** **Comments:** Include a footnote for table 3. **DISCUSSION** **Line 3-5** Many studies are conducted on anthropometric measurement but no any studies are conducted to compare the NC with other anthropometric measurement and its association with CVDs risk factors in Pakistan discussion. **Comments: The reviewer suggest that this sentence is reworked to enhance clarity. Many studies on anthropometric measurement have been undertaken, but none have compared NC to other anthropometric measurements or its relationship with CVD risk factors in Pakistan.** **Line 11-20** In this study, there is moderately positive correlation of NC with age in both genders (male, r=0.496 and females, r=0.469) but according to Qun Yan et al NC was negatively weak correlation with age in men (r= -0.08, *p*=009), (22), Chaitanya Patil et al has showed that there is nonsignificant weak correlation of NC with age in males (r=0.119, p=0.10) but in females it was negatively weak nonsignificant (r=0.006, p=0.92) this difference in correlations may be due to the difference in age groups <20 and >60 (20). The positive correlation of NC with height in males (r=0.188, *p*=<0.001), but it was negative correlation of NC with height in other study (r=-0.21, *p*=<0.001) (21). **Comments:** **There are plethora of grammar mistakes in these sentences. The first sentence is also too lengthy** **Consider re-working these sentences to** **"**In this study, there is a moderate positive correlation of NC with age in both genders (male, r=0.496 and females, r=0.469) but according to Qun Yan et al NC had a negative weak correlation with age in men (r= -0.08, *p*=009), (22). Chaitanya Patil et al showed that there is a non-significant weak correlation of NC with age in males (r=0.119, p=0.10) but in females a non-significant negative weak correlation was observed (r=0.006, p=0.92). This difference in correlations may be due to the difference in age groups <20 and >60 (20). A positive correlation of NC with height occurred in males (r=0.188, *p*=<0.001), but a negative correlation of NC with height occurred in another study (r=-0.21, *p*=<0.001) (21). **Line 21-30** There is a strongly positive correlation of NC with BMI in males (0.816, *p*=<0.001) but in females it is moderately positive correlation (0.763, *p*=<0.001), same results are showed by others as Ben noun et al has found that the correlation between NC and body mass index in males and females was (r=0.828, *p*=<0.000) and (r=0.710, *p*=<0.000) respectively (21),	

	according to Qun Yan, the neck circumference was correlated with BMI (r=0.70, p=0.000 and r=0.73, p=0.000) in men and women respectively (22). The study conducted by Hingorjo in Karachi has showed that the correlation of NC with BMI was strongly positive in males (r=0.861) whereas it was moderately positive in females (r=0.703), (23) almost results are comparable in this study. **Comments:** **There are plethora of grammar mistakes in these sentences. The first sentence is also too lengthy** **Consider re-working these sentences to "**There is a strongly positive correlation of NC with BMI in males (0.816, *p*=<0.001) but in females it had a moderately positive correlation (0.763, *p*=<0.001). Similarly. Ben noun et al reported that the correlation between NC and body mass index in males and females was (r=0.828, *p*=<0.000) and (r=0.710, *p*=<0.000) respectively (21). Also, according to Qun Yan, the neck circumference was correlated with BMI (r=0.70, p=0.000 and r=0.73, p=0.000) in men and women respectively (22)**"** The study conducted by Hingorjo in Karachi has showed that the correlation of NC with BMI was strongly positive in males (r=0.861) whereas it was moderately positive in females (r=0.703) (23), thereby having practically the same results with this study. **Line 37-43** Ismail Ozkaya et al has also showed positive correlation of NC with waist circumference (r=0.686, *p*=0.01) and (r=0.479, *p*=0.01) in males and females respectively in this study NC was greater in males than females this difference may be due to the to reason that number studied subjects males (319) and (838) females (16). Correlation of NC with hip circumference is significantly positive (males, r=0.733, *p*=<0.001 and females, r=0.686, *p*=<0.001), Chaitanya Patil et al has showed that there is significantly positive correlation of NC with hip circumference in males (r=0.519, p=<0.01) and (r=0.519, p=<0.01) in females (20), **Comment:** **There are plethora of grammar mistakes in these sentences.** **Consider re-working these sentences to** Ismail Ozkaya et al has also showed positive correlation of NC with waist circumference of males (r=0.686, *p*=0.01) and females (r=0.479, *p*=0.01). NC was also shown to be higher in males than girls in their study. This disparity could be attributed to the fact that there were 319 males and 838 females among the subjects investigated (16). Correlation of NC with hip circumference was significantly positive in this study (males, r=0.733, *p*=<0.001 and females, r=0.686, *p*=<0.001). In line with this, Chaitanya Patil et al has showed that there is significantly positive correlation of NC with hip circumference in males (r=0.519, p=<0.01) and (r=0.519, p=<0.01) in females (20) Ben has find out the correlation of NC with SBP and DBP as (male, r=0.53, females, r=69) and (male, r=0.55, females, r=65) *p*=0.0001for both factors (25). **ABSTRACT** **Line 8-9** The data was collected through pretested interview based structured questionnaire **Comment:** **The reviewer suggests that the authors should be specific on the category of data that was collected using this structured questionnaire.**	

Minor REVISION comments	**MATERIALS AND METHODS** **Anthropometric measurements:** Height, waist circumference and hip circumference **Comment:** **The reviewer suggests the authors include the equipment/materials for measuring height, waist circumference and hip circumference.** **RESULTS** **Line 23-26** In male participants with increased neck circumference, FBS (≥100 mg/dl) was found 109(83.8%), SBP (≥130 mmHg) 117(88.6%), DBP (≥85 mmHg) 114(84.4%). In female participants FBS (>100 mg/dl) was found 40(58.8%), SBP (≥130 mmHg) 33(62.3%), DBP (≥85 mmHg) 49(59.8%). **Comment:** **The reviewer suggests the authors rework these sentences to enhance clarity.** **"In male participants with increased neck circumference, FBS (≥100 mg/dl) 109(83.8%), SBP (≥130 mmHg) 117(88.6%) and DBP (≥85 mmHg) 114(84.4%) were observed. Likewise, in female participants FBS (>100 mg/dl) 40(58.8%), SBP (≥130 mmHg) 33(62.3%) and DBP (≥85 mmHg) 49(59.8%) were observed".**	
Optional/General comments	**The reviewer suggests the use of a professional language editor to address errors in grammar and usage, as well as to refine some words particularly in the discussion section.**	

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

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