

Article

# Rapid Decrease in HDL-C in the Puberty Period of Boys Associated with an Elevation of Blood Pressure and Dyslipidemia in Korean Teenagers: An Explanation of Why and When Men Have Lower HDL-C Levels than Women

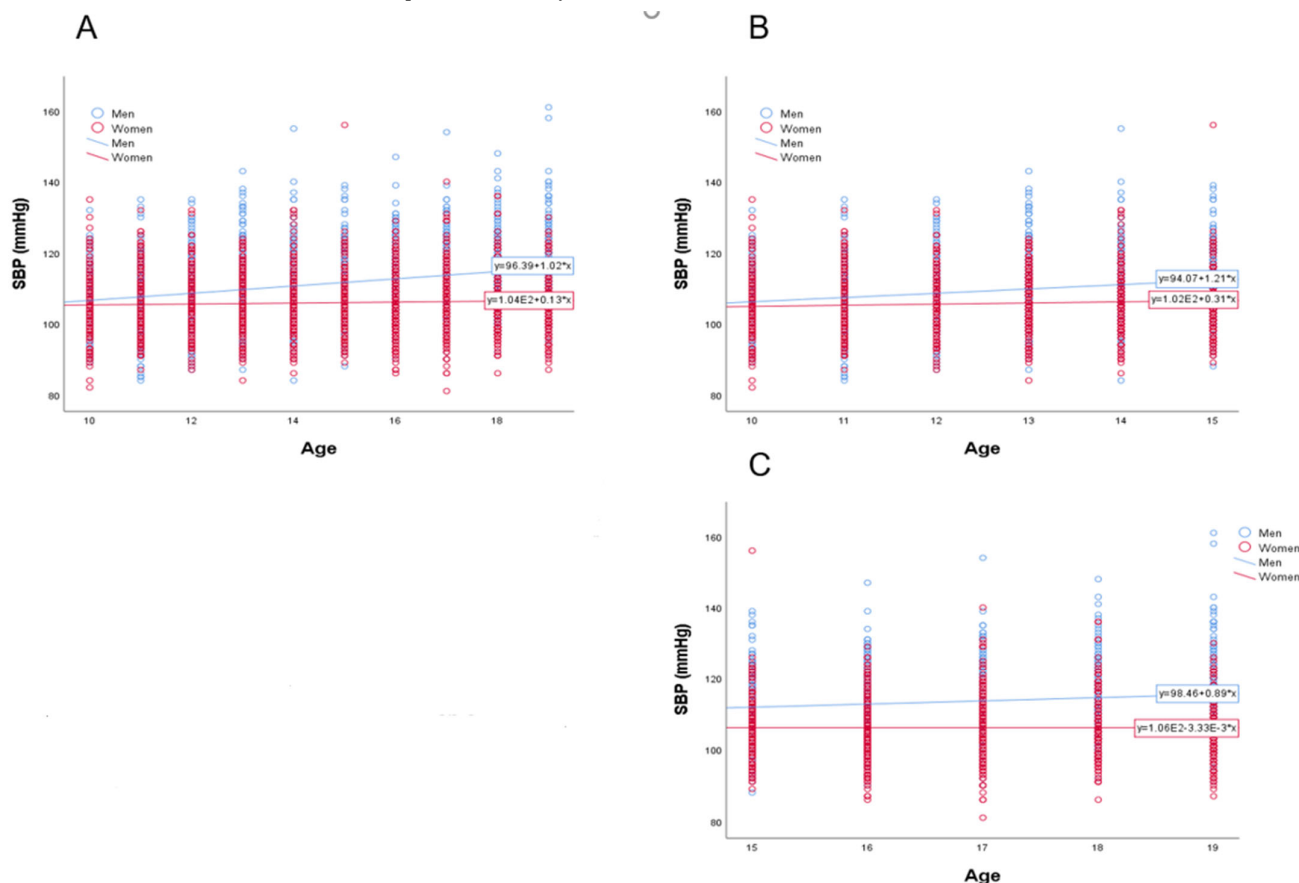
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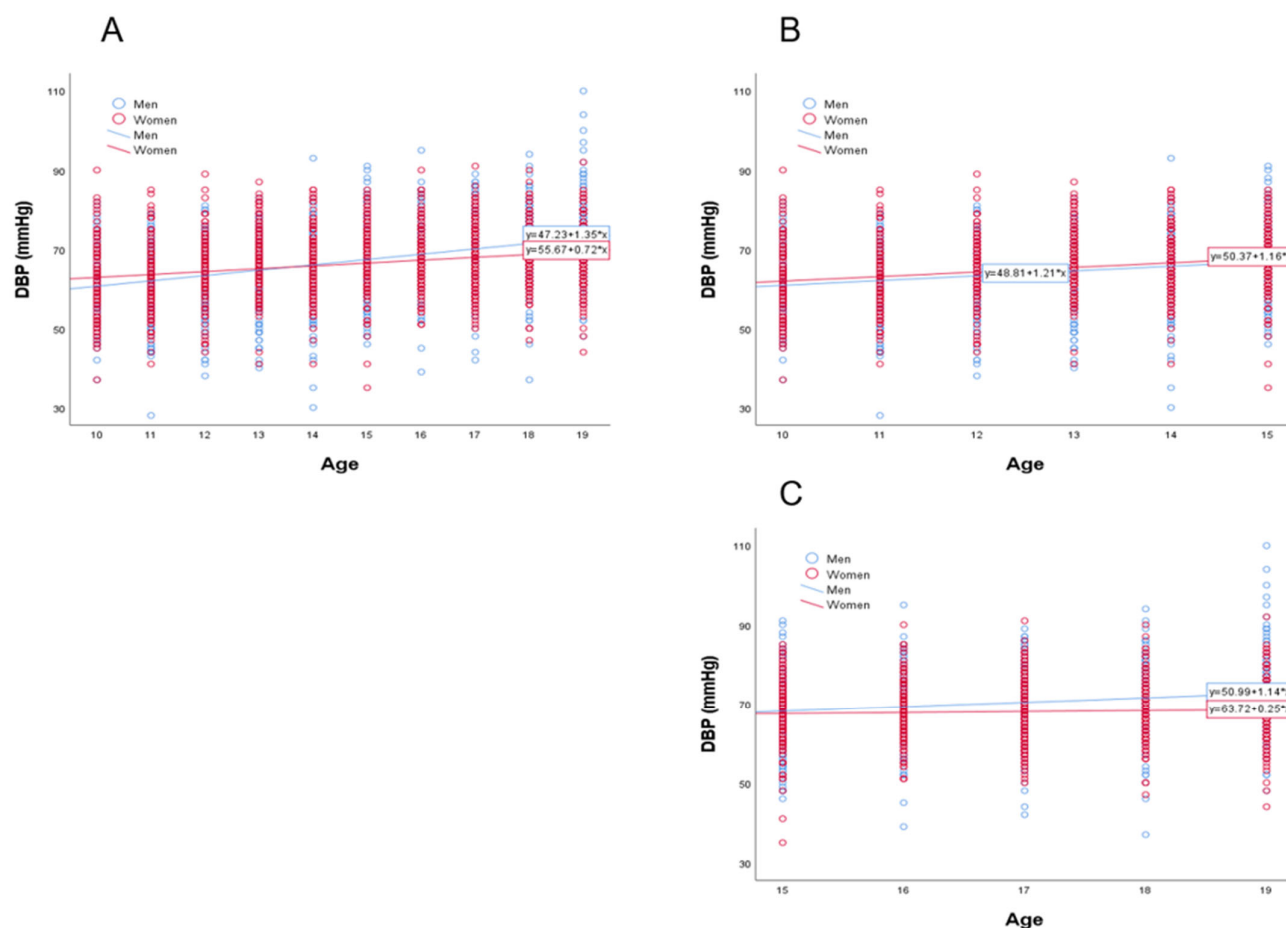
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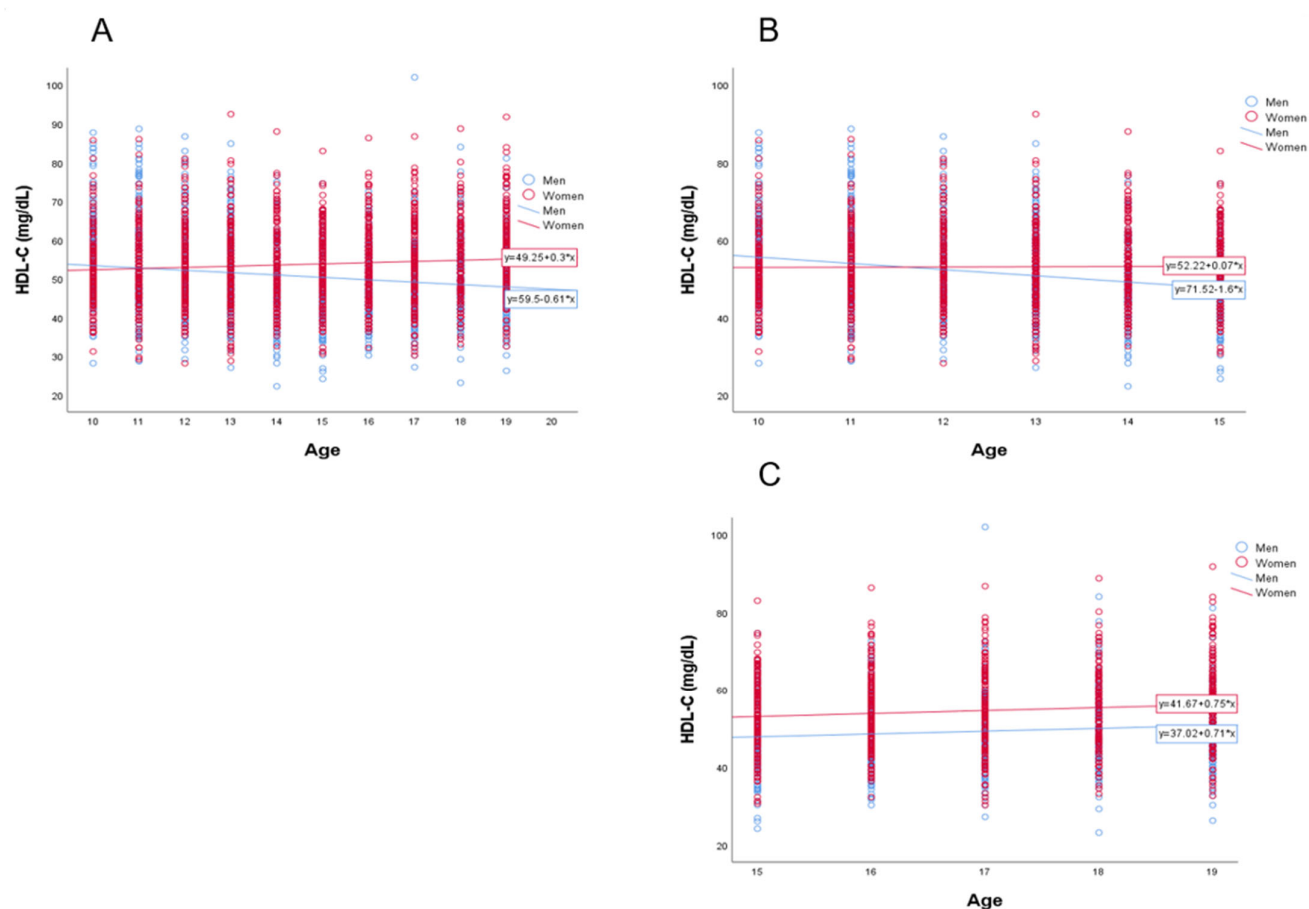
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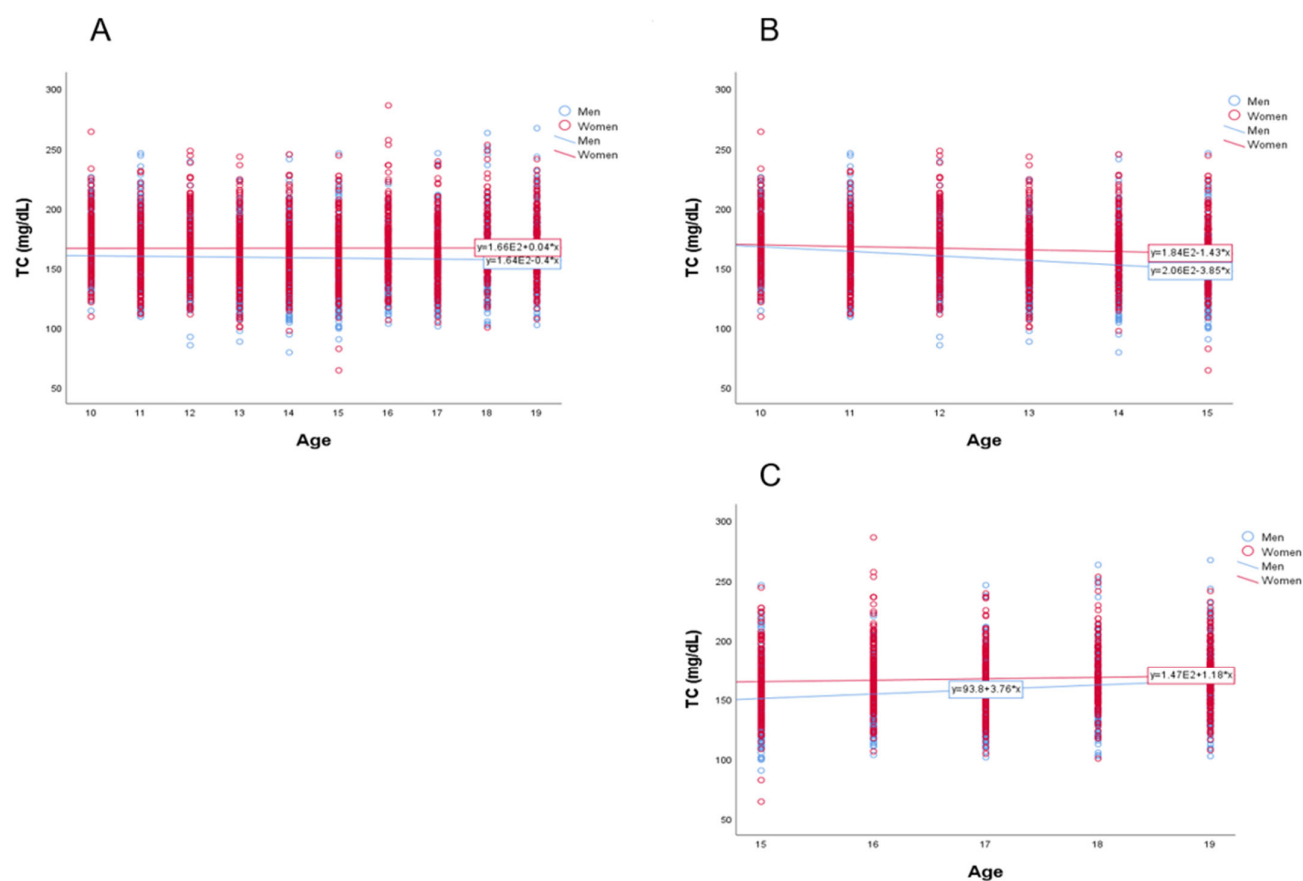
**Figure S1.** Pearson’s correlation analysis of SBP and age in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed positive correlation ( $r = 0.277$ ,  $p < 0.001$ ) and the women group showed no correlation ( $r = 0.041$ ,  $p = 0.101$ ). In panel B (10–15 years-old) the men group showed positive correlation ( $r = 0.208$ ,  $p < 0.001$ ) and the women group showed no correlation ( $r = 0.059$ ,  $p = 0.068$ ). In panel C (15–19 years-old) the men group showed positive correlation ( $r = 0.122$ ,  $p = 0.0003$ ) and the women group showed no correlation ( $r = -0.001$ ,  $p = 0.988$ )



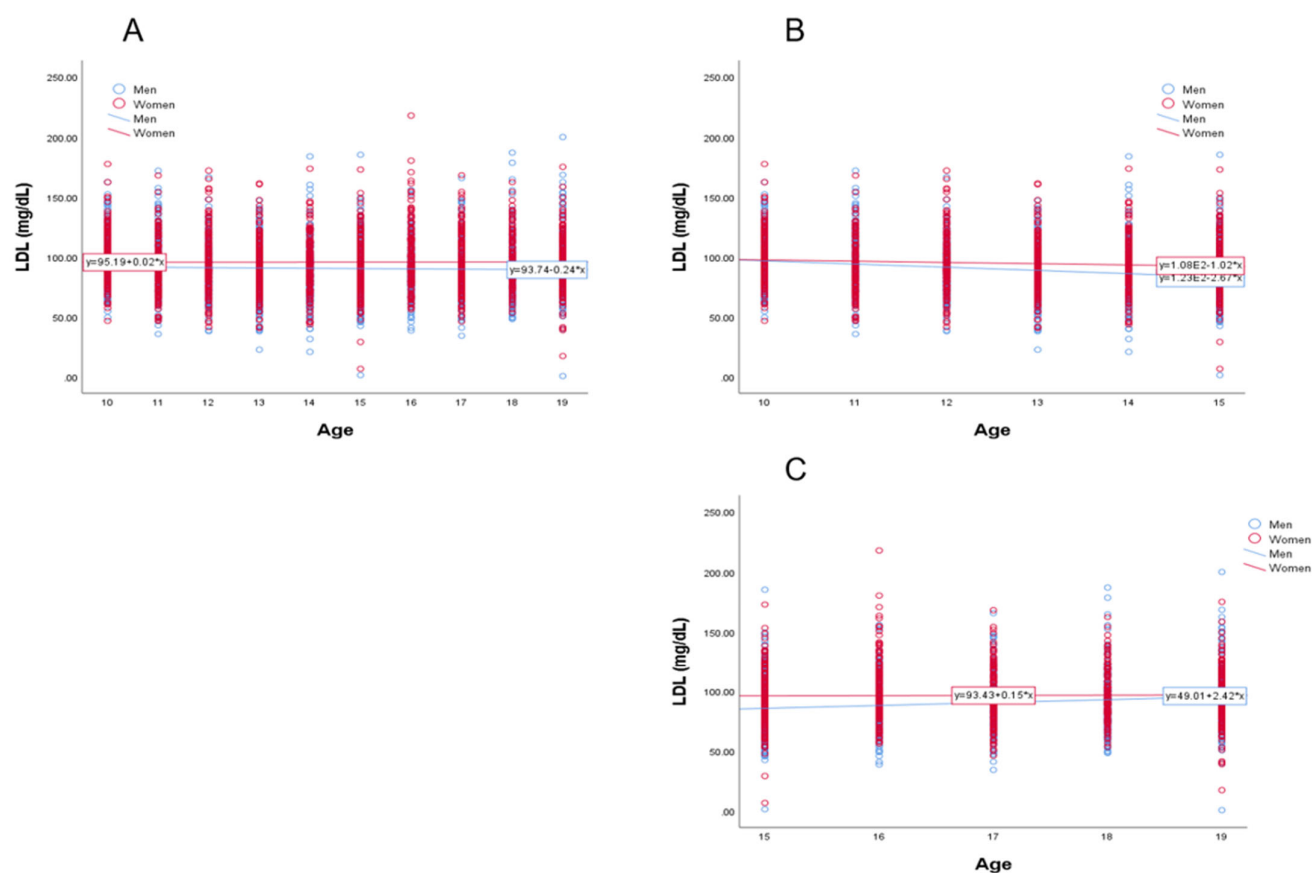
**Figure S2.** Pearson's correlation analysis of DBP and age in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed positive correlation ( $r = 0.406$ ,  $p < 0.001$ ) and the women group showed positive correlation ( $r = 0.254$ ,  $p < 0.001$ ). In panel B (10–15 years-old) the men group showed positive correlation ( $r = 0.233$ ,  $p < 0.001$ ) and the women group showed positive correlation ( $r = 0.239$ ,  $p < 0.001$ ). In panel C (15–19 years-old) the men group showed positive correlation ( $r = 0.183$ ,  $p < 0.001$ ) and the women group showed no correlation ( $r = -0.046$ ,  $p = 0.186$ ).



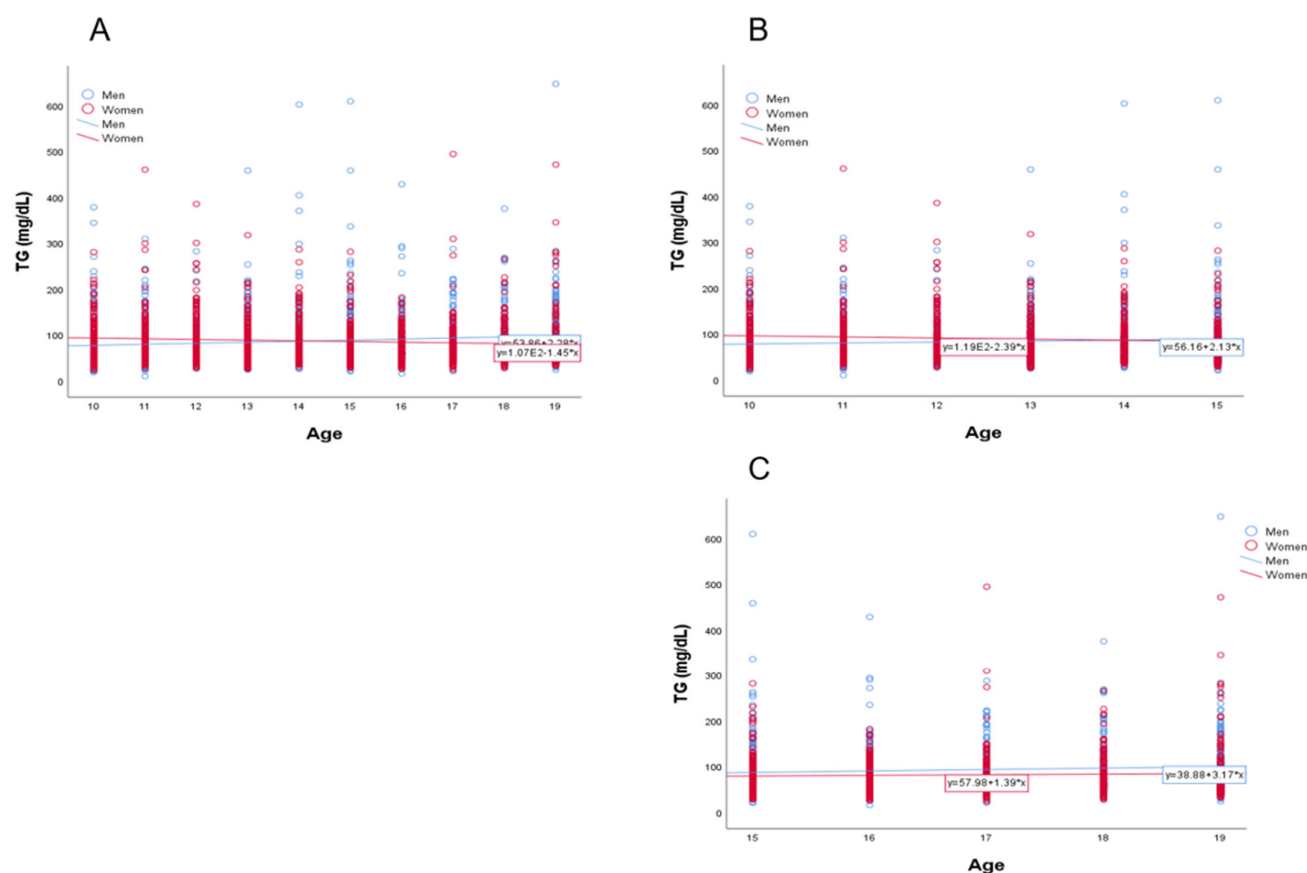
**Figure S3.** Pearson's correlation analysis of HDL-C and age in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed negative correlation ( $r = -0.171$ ,  $p < 0.001$ ) and the women group showed positive correlation ( $r = 0.085$ ,  $p = 0.0006$ ). In panel B (10–15 years-old) the men group showed negative correlation ( $r = -0.256$ ,  $p < 0.001$ ) and the women group showed no correlation ( $r = 0.011$ ,  $p = 0.723$ ). In panel C (15–19 years-old) the men group showed positive correlation ( $r = 0.111$ ,  $p = 0.001$ ) and the women group showed positive correlation ( $r = 0.104$ ,  $p = 0.003$ ).



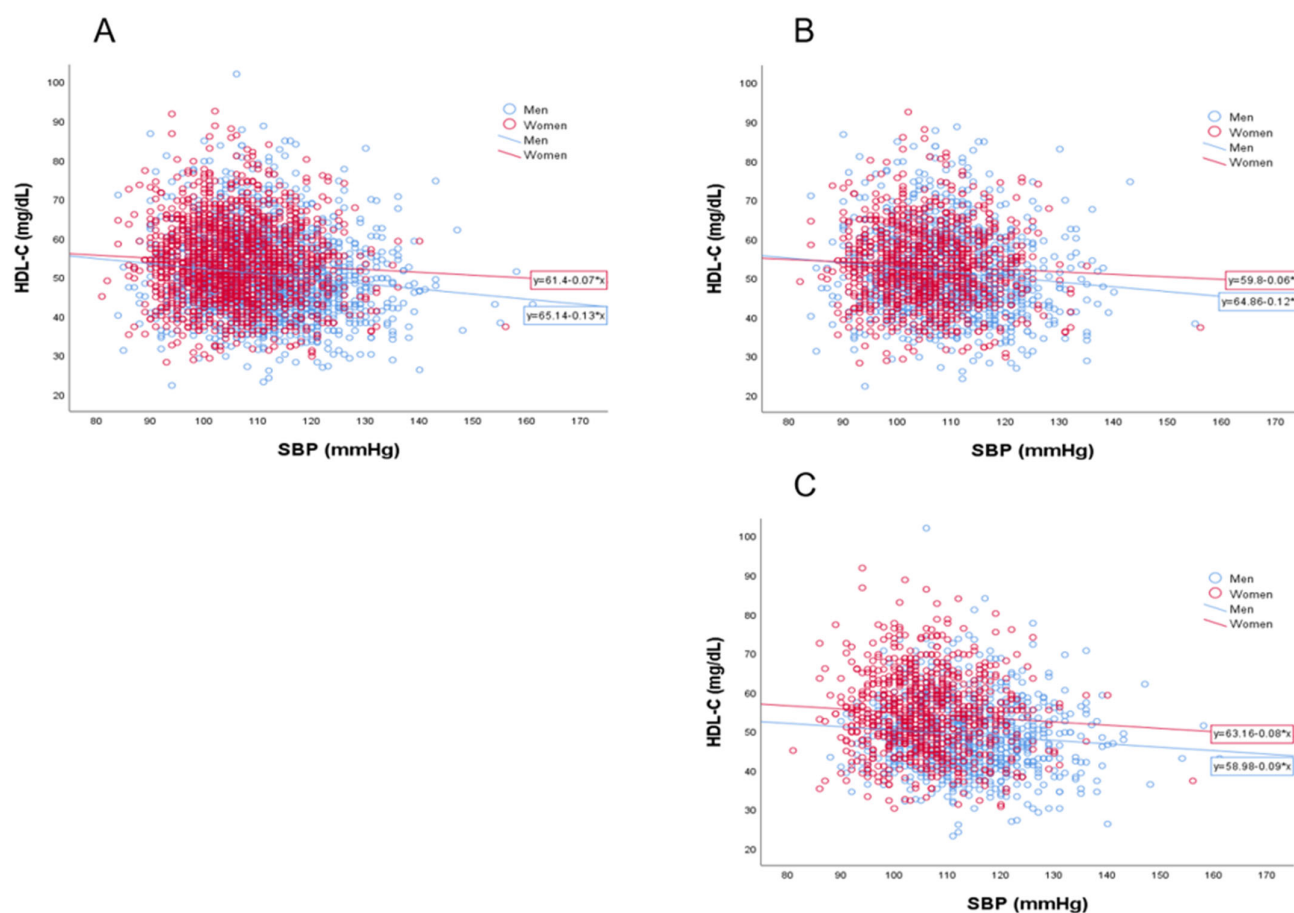
**Figure S4.** Pearson's correlation analysis of TC and age in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed no correlation ( $r = -0.042$ ,  $p = 0.076$ ) and the women group showed no correlation ( $r = 0.004$ ,  $p = 0.871$ ). In panel B (10–15 years-old) the men group showed negative correlation ( $r = -0.244$ ,  $p < 0.001$ ) and the women group showed negative correlation ( $r = -0.088$ ,  $p = 0.006$ ). In panel C (15–19 years-old) the men group showed positive correlation ( $r = 0.194$ ,  $p < 0.001$ ) and the women group showed no correlation ( $r = 0.062$ ,  $p = 0.078$ ).



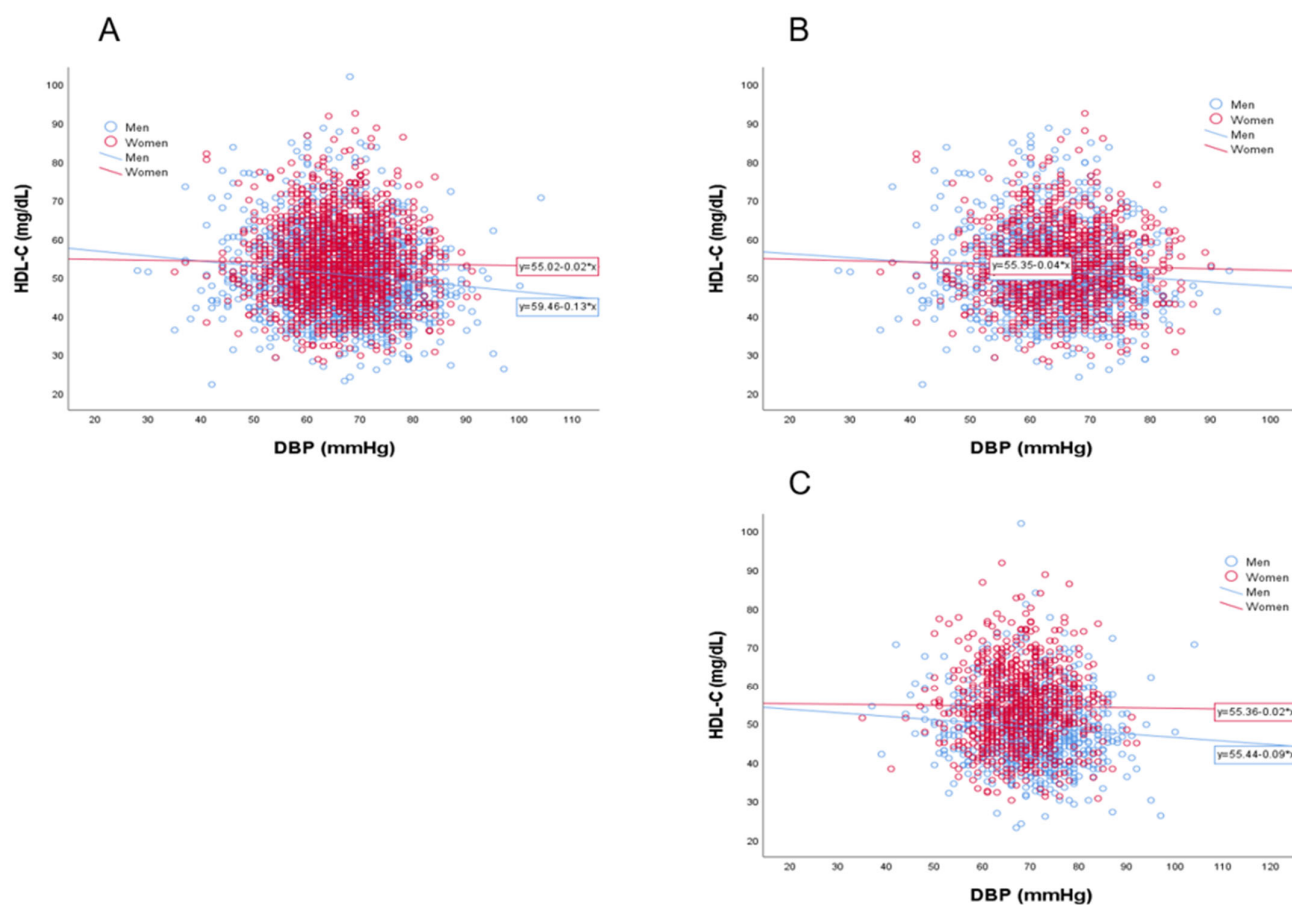
**Figure S5.** Pearson's correlation analysis of LDL-C and age in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed no correlation ( $r = -0.029$ ,  $p = 0.219$ ) and the women group showed no correlation ( $r = 0.003$ ,  $p = 0.908$ ). In panel B (10–15 years-old) the men group showed negative correlation ( $r = -0.192$ ,  $p < 0.001$ ) and the women group showed negative correlation ( $r = -0.071$ ,  $p = 0.027$ ). In panel C (15–19 years-old) the men group showed positive correlation ( $r = 0.143$ ,  $p = 0.00002$ ) and the women group showed no correlation ( $r = 0.009$ ,  $p = 0.792$ ).



**Figure S6.** Pearson's correlation analysis of TG and age in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed positive correlation ( $r = 0.111$ ,  $p = 0.000002$ ) and the women group showed negative correlation ( $r = -0.086$ ,  $p = 0.0005$ ). In panel B (10–15 years-old) the men group showed positive correlation ( $r = 0.061$ ,  $p < 0.041$ ) and the women group showed negative correlation ( $r = -0.086$ ,  $p = 0.008$ ). In panel C (15–19 years-old) the men group showed positive correlation ( $r = 0.078$ ,  $p = 0.022$ ) and the women group showed no correlation ( $r = 0.043$ ,  $p = 0.223$ ).



**Figure S7.** Pearson's correlation analysis of HDL-C and SBP in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed negative correlation ( $r = -0.133$ ,  $p < 0.001$ ) and the women group showed negative correlation ( $r = -0.065$ ,  $p = 0.009$ ). In panel B (10–15 years-old) the men group showed negative correlation ( $r = -0.115$ ,  $p = 0.0001$ ) and the women group showed no correlation ( $r = -0.058$ ,  $p = 0.073$ ). In panel C (15–19 years-old) the men group showed negative correlation ( $r = -0.100$ ,  $p = 0.003$ ) and the women group showed negative correlation ( $r = 0.074$ ,  $p = 0.034$ ).



**Figure S8.** Pearson's correlation analysis of HDL-C and DBP in 10–19 years old (A) or 10–15 years old (B) or 15–19 years old (C). In panel A (10–19 years-old) the men group showed negative correlation ( $r = -0.122$ ,  $p < 0.001$ ) and the women group showed no correlation ( $r = -0.016$ ,  $p = 0.516$ ). In panel B (10–15 years-old) the men group showed negative correlation ( $r = -0.087$ ,  $p = 0.003$ ) and the women group showed no correlation ( $r = -0.029$ ,  $p = 0.365$ ). In panel C (15–19 years-old) the men group showed negative correlation ( $r = -0.088$ ,  $p = 0.009$ ) and the women group showed no correlation ( $r = -0.011$ ,  $p = 0.745$ ).