Early-life stress has been linked to changes in telomere length, which serves as an indicator of accumulated stress and aging, as well as a potential risk factor for psychiatric conditions.The observed relationships between adult telomere length, adolescent insulin resistance, and elevated pGLP-1 levels may signify an adaptive compensatory mechanism following exposure to early-life stress.We utilized regression modeling to assess the associations between adult telomere length and adolescent fasting pGLP-1 or insulin resistance, while controlling for sex, weight, and age.Furthermore, telomere length was positively correlated with pGLP-1 levels (p = .0009) and inversely associated with insulin sensitivity (p.0001) across both sexes, independent of rearing group.Prior research has indicated elevated levels of plasma glucagon-like peptide 1 (pGLP-1) alongside insulin resistance in this context.It appears that insulin resistance may elevate pGLP-1 levels during adolescence, potentially safeguarding telomere length in VFD offspring as they mature.The maternal variable foraging demand (VFD) model in nonhuman primates is a recognized early-life stress paradigm that leads to anxiety and depressive-like behaviors in offspring.Methods involved measuring adult leukocyte telomere length in VFD-reared (12 males, 13 females) and non-VFD-reared (9 males, 26 females) bonnet macaques.