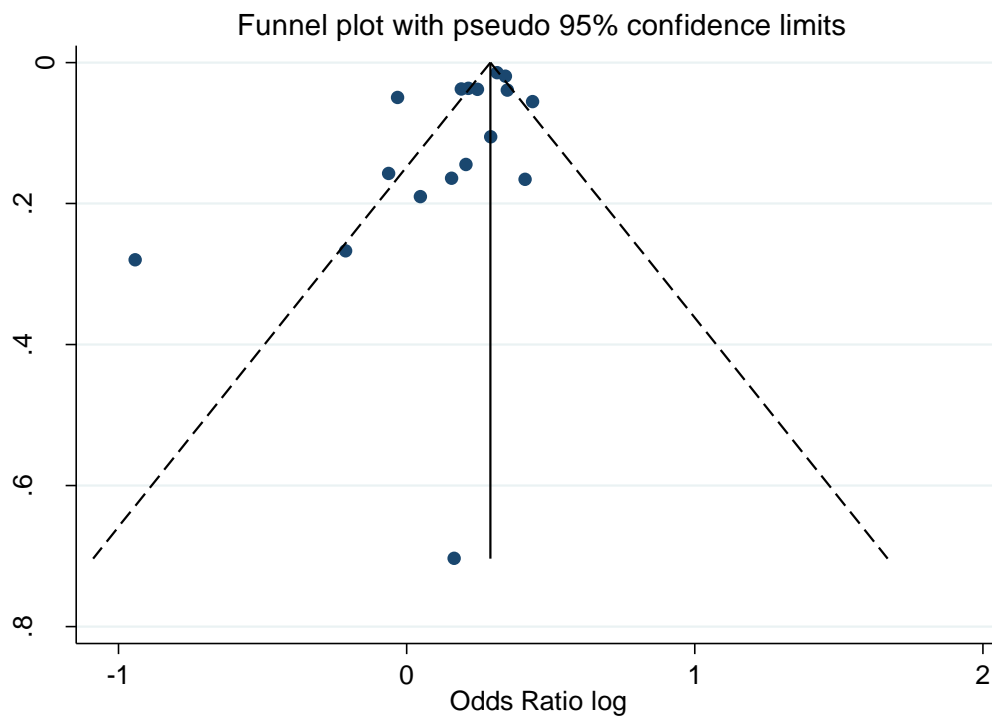
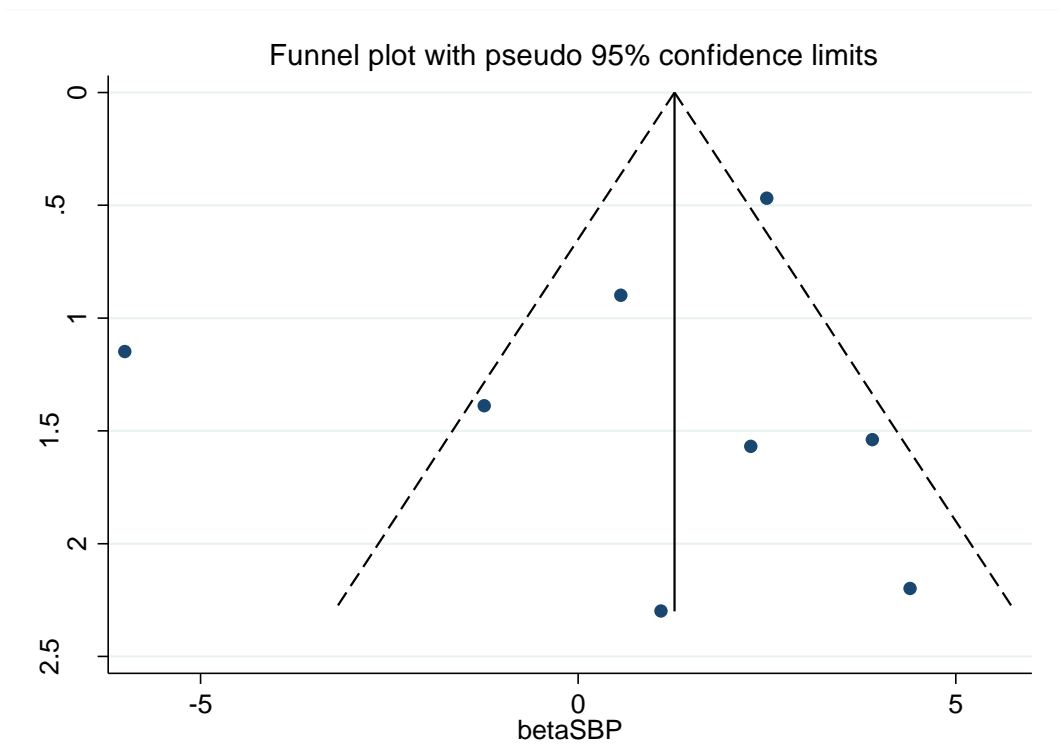


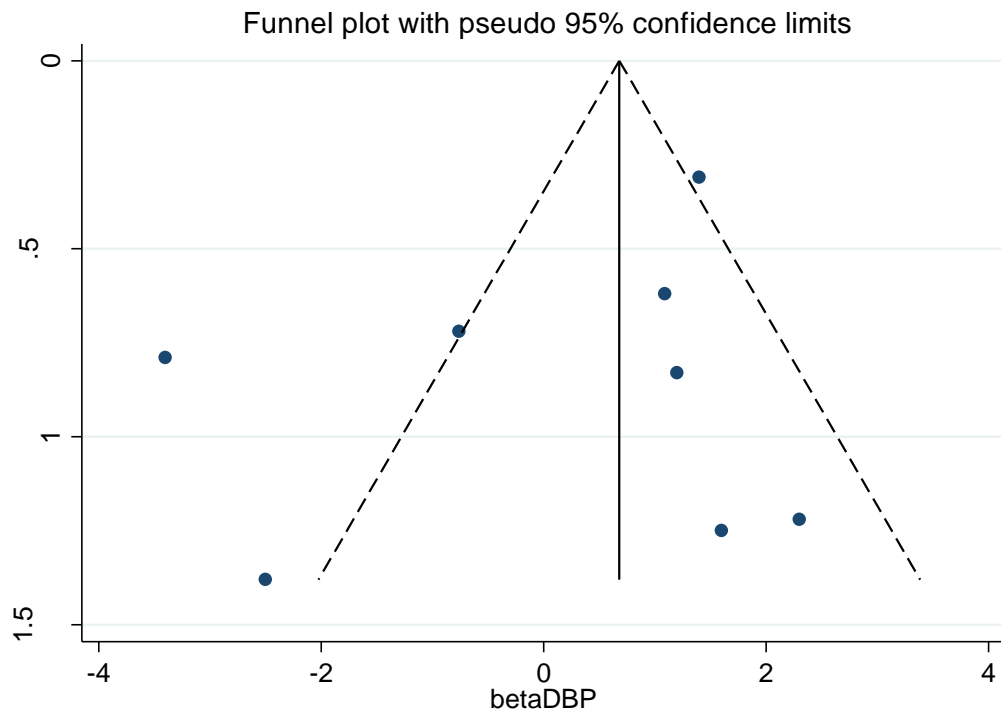
## Supplementary



**Figure 1** – Funnel plot from studies evaluating hypertension or high blood pressure and age at menarche categorical.



**Figure 2** – Funnel plot from studies evaluating continuous systolic blood pressure and age at menarche categorical.



**Figure 3** – Funnel plot from studies evaluating continuous diastolic blood pressure and age at menarche categorical.

**Supplementary Table 1** – Summary of studies excluded included in meta-analyses

First author/ Year	Sample	Study design	Origin	Age of assessment	Conclusion	Reasons for exclusion
Hulanicka, 2007	148	Cohort	Poland	50	“Independently of BMI, early maturation increased the risk of high blood pressure at age 50 in females.”	The author did not report the association between age at menarche and high blood pressure/hypertension; The age at menarche did not reported.
Bleil, 2013	650	Cross-sectional	USA	25-45	“The relation between younger menarcheal age and increased CVD risk may be attributable to post-pubertal body size”	The author reported only the association between age at menarche as continuous variable and hypertension.
Morley Kotchen, 1989	142	Longitudinal	USA	13-22	“In our study, females who reported onset menses at younger ages had higher blood pressure at the initial survey.” and “[...] in the present study, those individuals with relatively high blood pressures at the initial survey continued to have higher blood pressures over time.”	The author did not report the association between age at menarche and high blood pressure/hypertension; The results not showed in separated with adolescent and adulthood women.
Feng, 2008	3820	Cross-sectional	China	40-55	Systolic ( $\beta$ : 0,220) and diastolic blood pressure ( $\beta$ : 0,026) presented slightly elevated with increase age at menarche, but without statistical significance.	The author reported only the association between age at menarche as continuous variable and blood pressure.
Widen, 2012	2641	Cohort	Finland	31	Systolic [ $\beta$ :-0.32(0.32); p=0.32] and diastolic blood pressure [ $\beta$ :-0.86(0.29), p=3.2e-03] reduce each year later of the age at menarche	The author reported only the association between age at menarche as continuous variable and blood pressure, in the supplementary table.

Frontini, 2003	1479	Cohort	USA	18-37	"Longitudinal rate of changes in blood pressure variable did not show difference between the groups." "The mean levels of blood pressure variable in childhood, adolescence, and adulthood remained similar between the early menarche and control groups (data not shown)."	The author did not report the association between age at menarche and high blood pressure/hypertension; The age at menarche reported by categorical (<12; ≥12)
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