In the human species women lose their fertility after menopause around fifty years of age. Although men continue to produce germ cells till late in life, due to social constraints it is rare for a man too, to father a child after fifty years. The increasing life expectancy especially of the women has led anthropologists to speculate whether there was a selective advantage in having grandmothers around even in the stone age with a hunter gatherer life style. The hypothesis is that the older women did the gathering while the men did the hunting. The younger women bore children and looked after them. However the life expectancy of both sexes keeps on increasing even though life styles have changed dramatically. Human young when compared to those of other mammals have to go through a prolonged maturation period of psychosocial development before they themselves can become parents. Most of this maturation involves learning. The hypothesis made in this study is that having grandparents more mature than the younger parents may be of selective advantage in the human species in contributing towards the psychosocial development of the human young.

A study was designed to elicit the role of grandparents in the maturation period form preschool through primary and secondary schooling in the 2nd year medical undergraduates at Peradeniya. A questionnaire to elicit the role of the four grandparents, maternal and paternal grandmothers and maternal and paternal grandfathers was prepared. Information regarding the number of grandparents alive at the birth of the undergraduates, the number living at home and the number of years of association during the formative years was also elicited. Eighty three males and forty females entered the study.

Eighty percent were from rural backgrounds and in 80% at least one parent was a teacher. Fifty percent of the mothers worked away from home. The average age of the undergraduates was 23 years with a range of 19-25 years. Eighty two percent of the maternal grandmothers, 69% of the paternal grandmothers, 62% of the maternal grandfathers and 56% of the paternal grandfathers were alive when the undergraduates were born. Of these 86% lived in the same house or close by. The average years of association was seven for the maternal grandmother, six for paternal grandmother, four for the maternal grandfather and three for the paternal grandfather. In general the grand parents contributed to a considerable extent in the "upbringing" of the undergraduates as reflected in the positive responses to the test item. The greatest involvement was by the maternal grandmother. The paternal grandmother and maternal grandfather in that order also contributed significantly. The least involved was the paternal grandfather.

Definite involvement of grandparents in non-formal education and helping in caring for the grandchildren has been shown. More in depth studies are required to confirm that the increasing life expectancy of grandparents reflects a selective advantage in the socio-biological evolution of the human species.