Aims Birth weight (BW) and length were important indicators of intrauterine nutritional status of infants, and were also associated with long-term cardiovascular risks. There were no studies about the effects of growth trajectory patterns on the association between BW and cardiovascular risks during the childhood and adolescence. This study aimed to examine the association between BW and growth patterns in children and adolescents and to further investigate whether different growth patterns could modify the abnormal BW on cardiovascular risks.

Methods This study recruited 51,685 children and adolescents aged 6 to 18 years using data from Chinese national survey conducted in 2012. BW was determined using the medical certificate of birth. Current cardiovascular indicators included obesity, abdominal obesity, hypertension, impaired fasting glucose (IFG), abnormal total cholesterol (TC), triglyceride (TG), high-density lipoprotein (HDL) and low-density lipoprotein (LDL). Growth patterns were divided into catch-up growth, trajectory growth, and retarded growth by using the percentiles difference of birth length and current height. We used logistic regression models and generalized additive models to estimate the association between BW and cardiovascular indicators based on different growth patterns.

Results The prevalence of obesity, abdominal obesity, hypertension, IFG, abnormal TC, TG, HDL and LDL were 11.6%, 5.7%, 9.4%, 3.1%, 6.0%, 13.3%, 13.9%, and 5.3% in children and adolescents. High BW increased the risks of obesity, abdominal obesity, and abnormal TG, and low BW increased the risks of hypertension, IFG, and abnormal TC, but both of them presented no significant risks changes in abnormal HDL and LDL in childhood and adolescence. Catch-up growth and retarded growth decreased the risks of hypertension, IFG, and abnormal TC caused by high BW, as well as the IFG risks caused by low BW. But catch-up growth increased the risks of hypertension and abnormal TC caused by low BW.

Conclusion Our findings suggest that different growth patterns after birth could modify cardiovascular risks caused by the BW abnormalities in the childhood and adolescents. This study with national large data provided an obvious evidence for guiding the scientific and reasonable growth and development of children and adolescents after birth.

Methods A qualitative phenomenological study was undertaken with participants recruited from five NHS trusts across England, involving semi-structured telephone interviews, which were analysed and managed with the ATLASi software using a grounded theory approach.

Results Four categories were identified in the study, one was related to education, and three were related to the school nursing role these being; targeted interventions, encountering increased numbers of safeguarding risks such as child sexual exploitation and mental health in practice, and identifying safeguarding supervision and teamwork, as key factors of support, within their role.

Conclusion This study has provided an insight into the school nurses’ role in safeguarding adolescence; however, further research still needs to be undertaken on this multifaceted area of practice.