

Electromagnetic fields exposure in Adolescents: a survey in 11-14 y old Greek students



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BACKGROUND

Electromagnetic field (EMF) exposure has been considered a potential environmental toxicant, which may influence endocrine and other functions, while population awareness remains limited. In an earlier study, we demonstrated that EMF alters the hypothalamic-pituitary-adrenal axis in children using a 3G mobile telephone.

METHODS

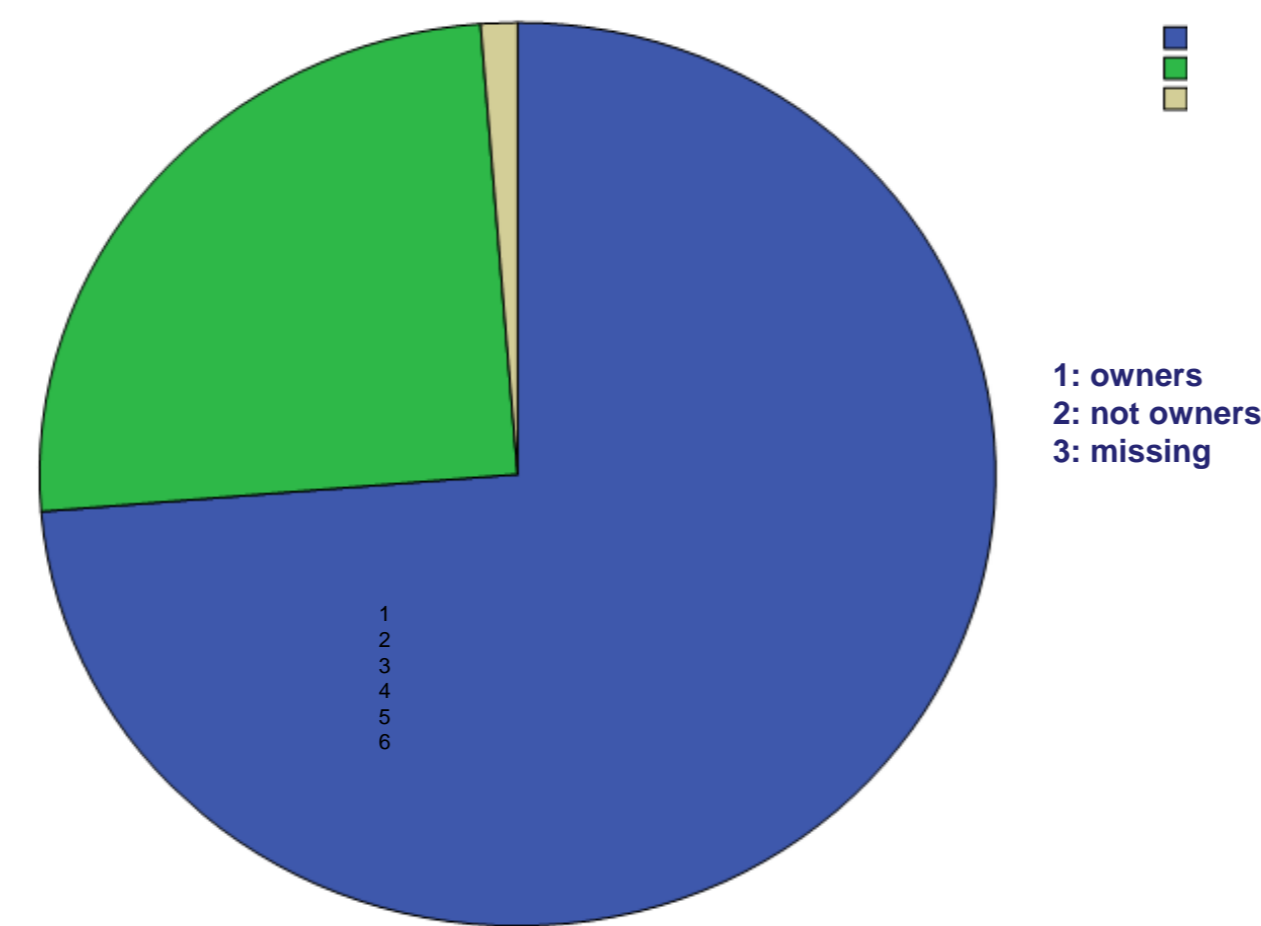
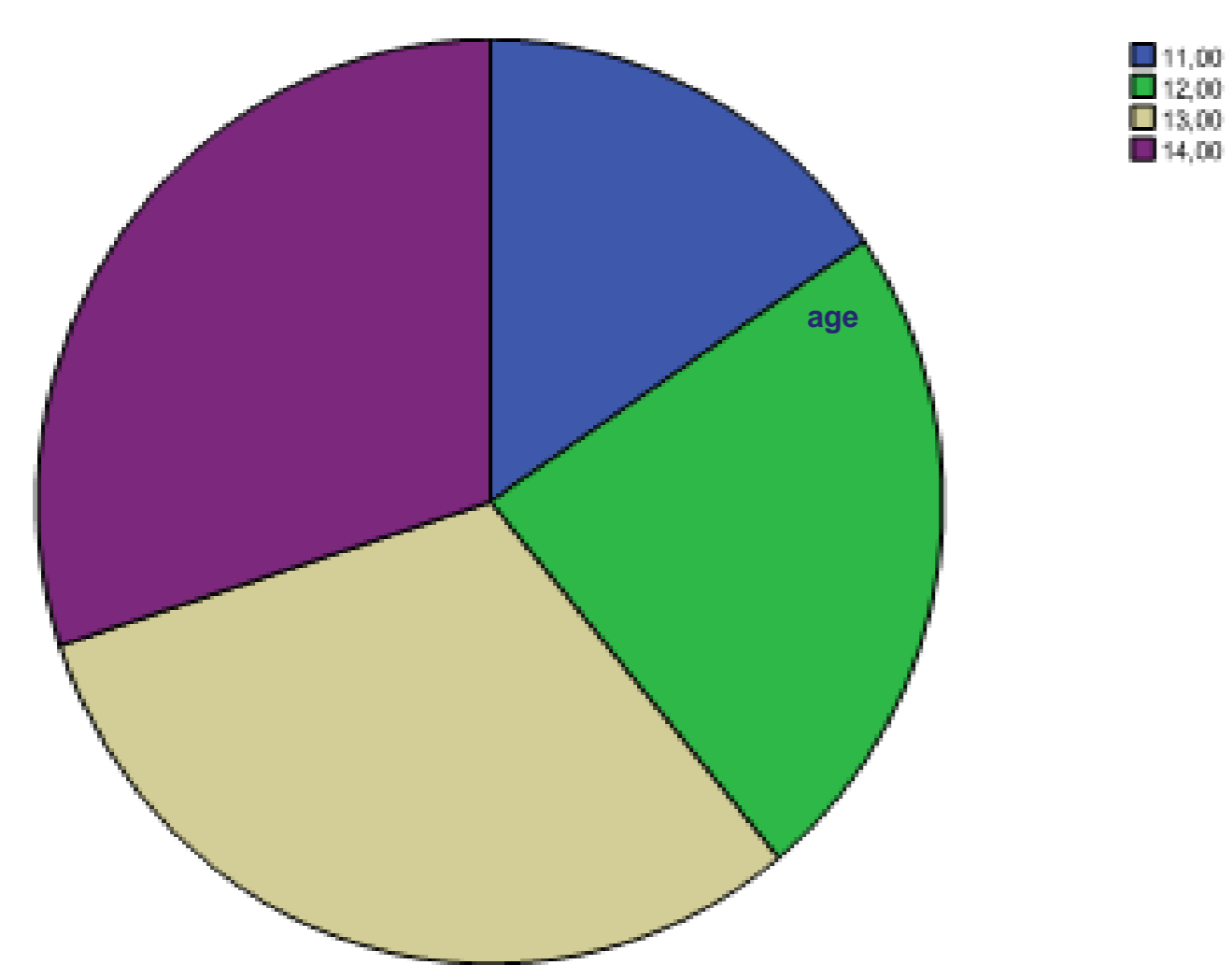
A specifically designed survey, including a 4-point Likert scale for 35 statements grouped under six dimensions (demographics, mobile phone possession, medical history, risk perception, mobile phone use self-reporting, information of domestic exposure, residence vicinity to other external sources of exposure (base stations, electric power lines) was constructed. Some of the questions were addressed to the parents. The determinants were analyzed by regression analysis. Reliability was computed using the Cronbach's alpha coefficient and size of the effects was evaluated by the Odds ratio coefficient.

OBJECTIVES & HYPOTHESES

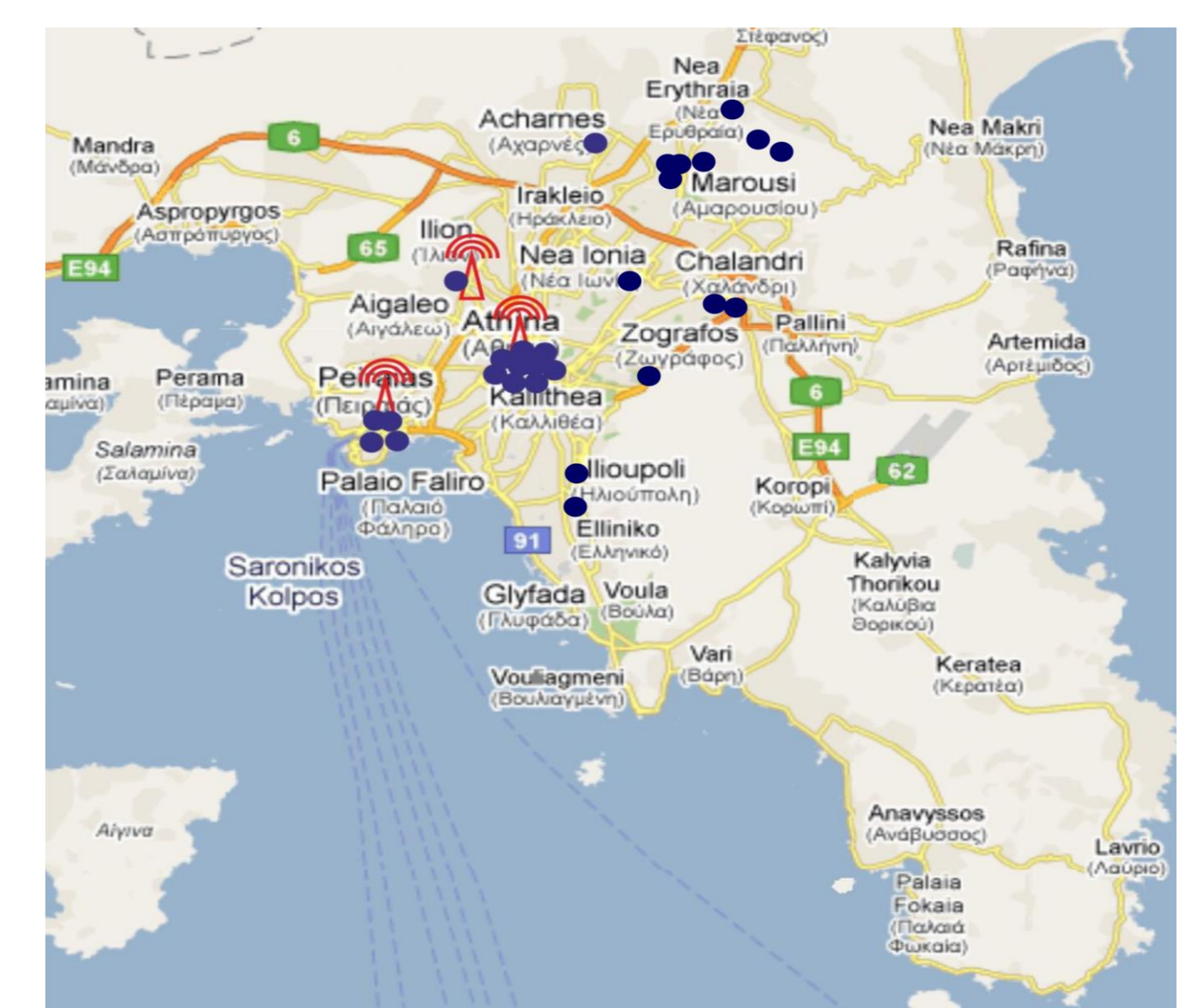
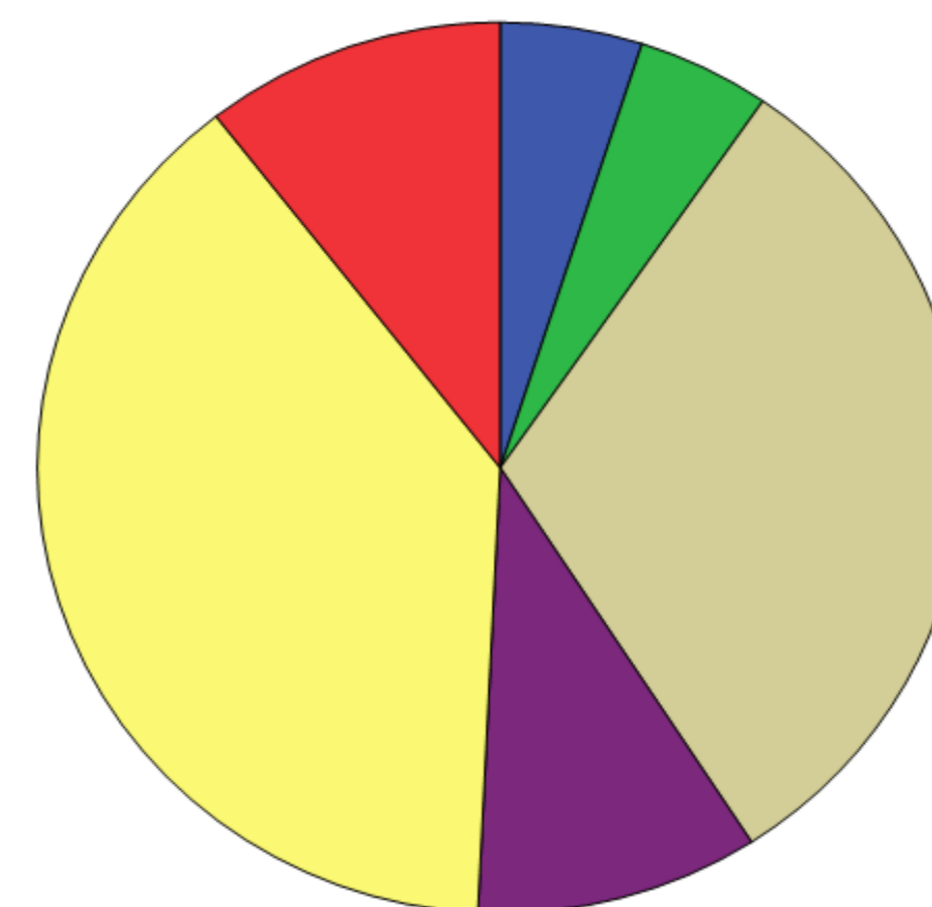
To screen and compare the motives, knowledge and status of electromagnetic field exposure in Greek pupils aged 11-14 years.

RESULTS

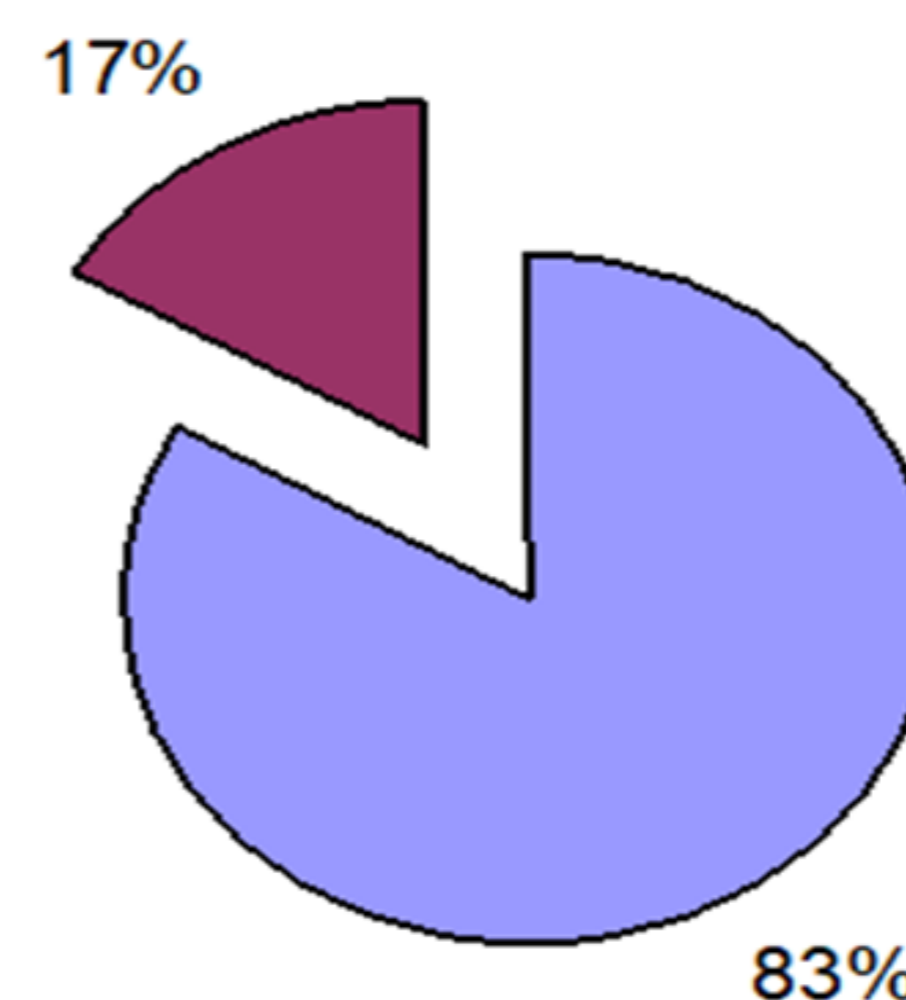
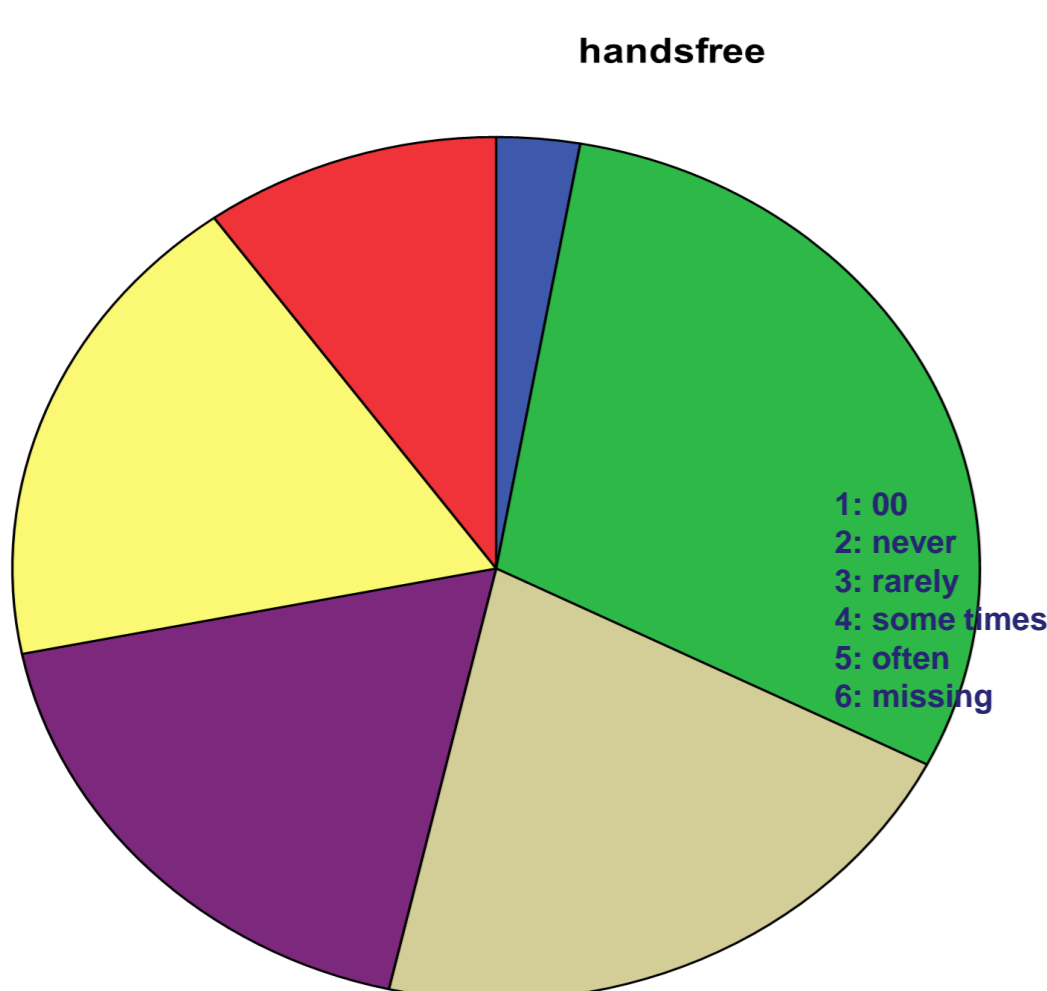
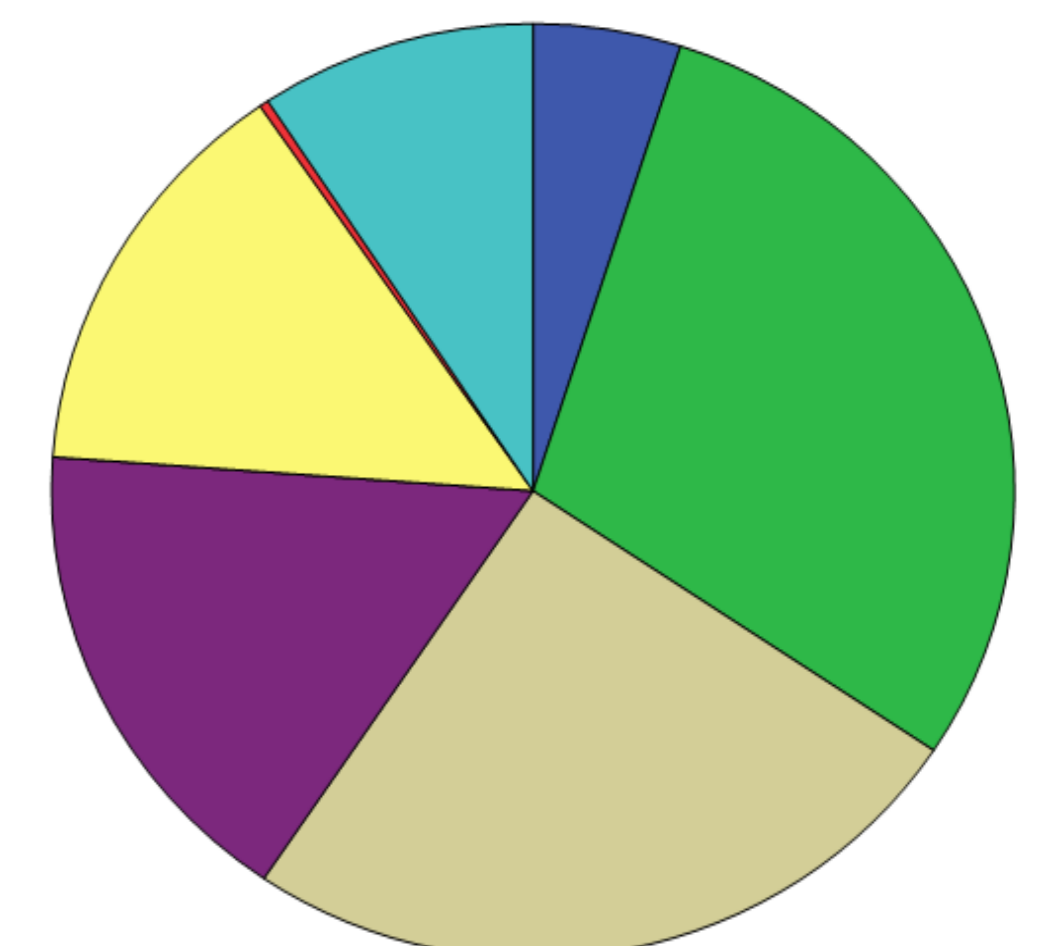
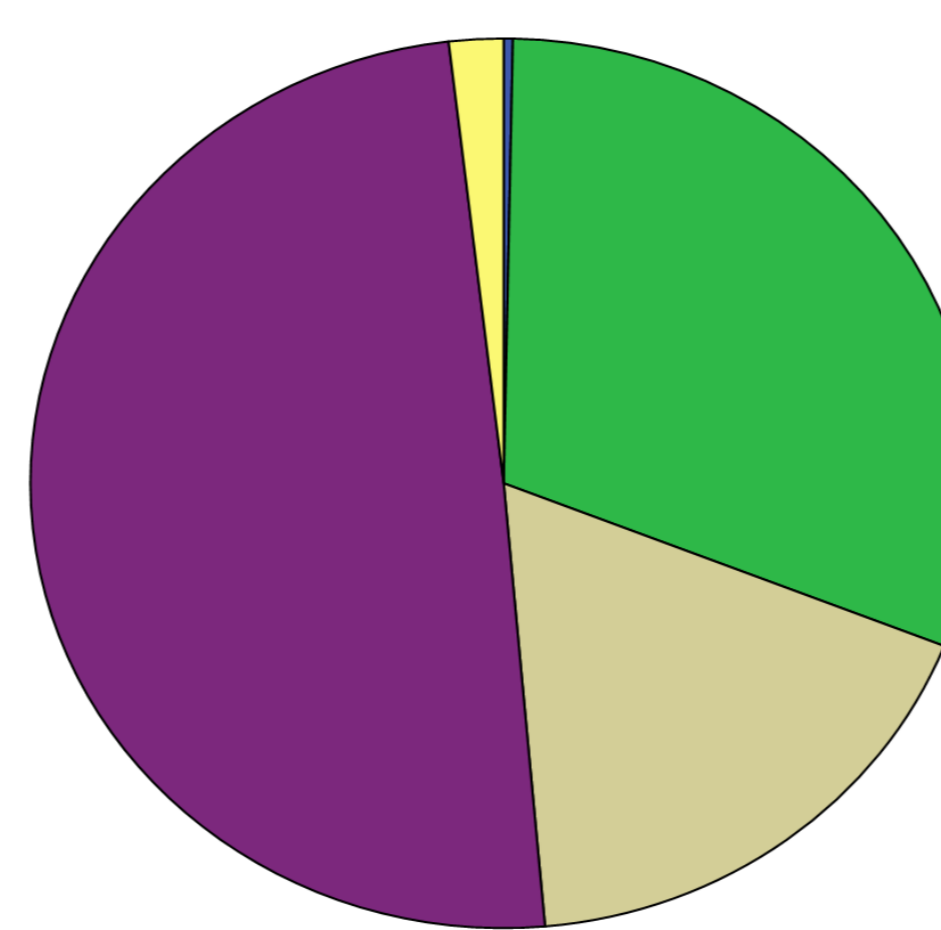
363 pupils (healthy except 8) and their parents answered the questions. Females and males were even, while, mobile telephone owners vs non-owners were 3:1. Non-owners reported scarce use. The Cronbach's alpha coefficient of the overall 20 items was 0.78, and 0.79, 0.71, 0.58, 0.73, 0.65 and 0.67 for the six dimensions, respectively. Users increased with age, family's socioeconomic status and parental education (p trend <0.05), whilst, girls showed talkativeness. Additionally, families ignored potential exposure sources surrounding them.



During sleep the phone is



Use of other person's mobile



CONCLUSION

Population education strategies, as well as future risk assessment studies, may benefit from information extracted from detailed age-specific surveys.

REFERENCES

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