Protocole of the pilot study : Adolescent screen time and unhealthy food consumption in the context of the digital development in New Caledonia

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ABSTRACT

For several years, the Pacific Island Countries and Territories (PICTs) have been undergoing digital developments that have had an impact on the time adolescents spend in front of screens. The association between screen time and the overconsumption of unhealthy foods has been observed but little studied in New Caledonia. The twofold aim of this research was to analyze adolescent screen time based on the number of screens at home, gender, place of living, ethnic community and family socio-professional category and determine the link with the consumption of unhealthy food and drinks.

MANUSCRIPT CITATION please remember to cite the following publication along with this protocol

In this study, quantitative data were obtained from questionnaire responses. Our study was part of a community-based food culture project conducted in eight selected representative school sites in the three provinces (Northern Province, Southern Province and Loyalty Islands) of New Caledonia. The schools were selected on the basis of the following criteria: (1) a representative repartition of the schools between rural and urban areas (respectively, 37% and 63% of the population) and (2) sufficient school size (n > 200). Selected schools were then randomly drawn from among these eligible schools: five in Southern Province (urban), two in Northern Province (rural) and one in Loyalty Islands Province (rural).

MATERIALS TEXT

📎 **Questionnaire fréquences alimentaires.doc**

📎 **Questionnaire sur l'équipement, le temps d'écran, les usages et le lien avec l'alimentation chez les adolescents calédoniens..docx**

Methodology

In this study, quantitative data were obtained from questionnaire responses. Our study was part of a community-

1   based food culture project conducted in eight selected representative school sites in the three provinces (Northern Province, Southern Province and Loyalty Islands) of New Caledonia. The schools were selected on the basis of the following criteria: (1) a representative repartition of the schools between rural and urban areas (respectively, 37% and 63% of the population) and (2) sufficient school size ($n > 200$). Selected schools were then randomly drawn from among these eligible schools: five in Southern Province (urban), two in Northern Province (rural) and one in Loyalty Islands Province (rural).

2   Data were collected before the Covid-19 epidemic, between July 2018 and April 2019, from 1060 school-going adolescents (11–15 years old) during class time. In each school, two classes per level (6th, 5th, 4th, 3rd) were chosen to respond to the anonymous questionnaire, which consisted of two parts lasting 30 minutes each and was carried out in two stages. In each school, 95% of the expected participants responded due to absences or parental refusal. We removed questionnaires with incomplete responses and obtained 867 completed questionnaires with parental permission. The students answered online via digital tablets or, if necessary, directly on computer stations in classrooms

3   Concerning media use, questions were asked about the number of devices with digital screens in their families (e.g., number of computers, tablets and mobile phones and connected fixed screens) and the time they spend on them during the week and on weekends. Screen time was assessed through the following two questions : *"How much time do you spend in front of the computer or tablet during the week?* and *"If you have a mobile phone, how much time are you logged in on your phone during the week?"*.

4   To assess diet, a food frequency questionnaire (FFQ) consisting of 28 questions was set up to obtain data on the frequency of food consumption, but we used only the responses regarding unhealthy food and drinks: foods high in salt, sugar or saturated fat (french fries, processed salted meats, chocolate and confectionery, cakes, pastries and cookies) and beverages that are not recommended. We complied with the Pacific Community (SPC) standards for unhealthy products, which advise a maximum of one unit per day. In addition to food and drink consumption, additional questions on food purchases on the way to and from school and at the school canteen were included in the questionnaire. The intake frequencies for the individual food items of the FFQ were first converted to daily frequency equivalents (DFEs), calculated by allocating proportional values to the original frequency categories with reference to a base value of 1.0, equivalent to once a day.