Population Health
Health Promotion

unpublished

TITLE | **Absence of Seasonal Effects in Irish HBSC Data**

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INTRODUCTION

The Health Behaviour in School-Aged Children (HBSC) survey aims to obtain insight and improve the understanding of young peoples' health behaviour and well-being. Although not a purposeful feature of the study design, in 2002 the Irish HBSC data was collected towards the end of the academic year (Spring/Summer) and at the start of the next school year (Autumn/Winter).

RATIONALE

Seasonality has been documented in the literature as an influence on health status and behaviours. [1,2] On the basis of such associations, it was both necessary and opportunistic to use the dual intake of the Irish HBSC data collection, to examine the presence of seasonal effects in the self-reported health status and health behaviour of Irish adolescents.

METHODOLOGY

Samples were evenly matched for age and gender and consisted of 951 boys and 1,446 girls from intake 1 (Spring/Summer) and 951 boys and 1,446 girls from intake 2 (Autumn/Winter). Males ranged in age from 10.2 years to 18.8 years and females ranged in age from 10.5 years to 18.5 years. The categories and individual variables of interest are listed in Table 1. A univariate analysis of variance was conducted for each of the dependent variables using 'intake' as an independent variable. The analysis was conducted separately for male and females.

Table 1 - Dependent Variables

General Health
Health: How would you describe your health?
Life Satisfaction: In general, on a scale of 1 to 10 how good is your life at the moment?
Happiness: In general how do you feel about your life at present?
Smoking
Tried Smoking: Have you ever smoked tobacco?
How Often: How often do you smoke tobacco at present?
Alcohol
How Often: At present how often do you drink anything alcoholic, such as beer or wine or spirits?
Been Drunk: Have you ever had so much alcohol that you were really drunk?

Drugs
Ever Taken: Have you ever taken cannabis in your life?
Last 12 Months: Have you ever taken cannabis in the last 12 months?
Food & Nutrition
Fruit: How many days a week do you usually have fruit?
Vegetables: How many days a week do you usually have vegetables?
Sweets: How many days a week do you usually have sweets?
Coke/Soft Drinks: How many days a week do you usually have coke/soft drinks?
Breakfast Weekdays: How often do you usually have breakfast on weekdays?
Breakfast Weekends: How often do you usually have breakfast on weekends?
Lunch Weekdays: How often do you usually have lunch on weekdays?
Lunch Weekends: How often do you usually have lunch on weekends?
Supper Weekdays: How often do you usually have supper on weekdays?
Supper Weekends: How often do you usually have supper on weekends?
On A Diet: At present are you on a diet or doing something to lose weight?
Exercise
How Often: Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?
Accidents
Seatbelt: How often do you use a seatbelt when you sit in a car?
Helmet: How often do you wear a helmet when you ride a bicycle?

RESULTS

Male participants from the Spring/Summer intake were significantly more likely to have tried smoking, to eat supper on the weekends, to be on a diet and to use a bicycle helmet frequently, than those from Autumn/Winter. However, the partial Eta squared effect sizes (ES) were .004, .004, .003 and .005 respectively.

Girls surveyed in Autumn/Winter ate fruit more frequently (ES=.003) than those surveyed in Spring/Summer. Conversely girls from the first intake drank coke/soft drinks (ES=.006), exercised (ES=.002) and wore a bicycle helmet (ES=.003) more frequently than students from the second intake.

CONCLUSIONS

Although statistically significant on some items, the minute effect sizes indicate that seasonality did not have a strong influence on the HBSC data set. There are three potential reasons for this lack of influence.

- The majority of previous studies focus on seasonal effects from the perspective of Seasonal Affective Disorder, rather than a more normative cyclical change. This may be an indication that the power of seasonality in this form may not be as influential as sometimes supposed.
- The two instances of data collection occurred within the academic year. Therefore changes in health status and behaviour that would be associated with the unstructured time of summer school holidays, e.g. increase in smoking [3] may have been minimised.
- Differences in the Irish climate between Spring and Autumn are not as significant as they would be in other countries or at other times of the year. The null findings here may reflect this lack of difference.

REFERENCES

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FUNDING

This study is a part of a larger project in translating HBSC 2002 into policy and practice, which is funded by the Health Research Board.