Identifying and Interpreting Statistics in Research Articles

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**Paper 1:**

**Q1**

In this study, currently there are two hypothesis being tested. These hypothesis focus on the effects of Adolescent alcohol and other drug (AOD) on young adults. Furthermore, an analysis on the amount of use of these certain substances happen on different school events. So the aim of the study is to find a comparison between the how much AOD is used on events such as end of year school celebrations with use of AOD’s at other social events based on their peers. Further aim is to how the experience for the use of AOD and the harms garnered from their use. This is related to the minimization strategies employed towards reducing the harm. Out of these the Null hypothesis is high amounts of use of AOD’s happen in end of year school celebration with some use of harm minimization strategies. The alternative hypothesis is no use of AOD’s is done during this time.

**Q2**

The sampling method used for this study was a two part survey. It was designed in a self-report type of methodology. The people involved in the survey has intended to or had attended the school leavers celebration held at Rottnest Island. The reason for choosing this island as the only entrance and exit for people was through a single ferry making it the best place to facilitate information gathering for a survey. The first survey was pre-celebration and the second survey was post-celebration. The advantage of using this type of survey method is one part focuses on the intention of the candidates and the other assessing what really happens. The disadvantage would be the real intentions of the candidate would be unknown.

**Q3**

The demography studied in this study were teenagers from the ages of seventeen to eighteen. While most of the participant in this study were aged seventeen years old. The first part of the survey involved around a total of five hundred and forty one and out of those fifty six percent were female, ninety one percent were seventeen years old, and nine percent were of eighteen years of age. Out of the whole sample, eighty seven percent were enrolled in an independent school. The second part of the survey was completed by a total of four hundred and five candidates out of which fifty percent were female, ninety four percent were seventeen years old, six percent were or over eighteen years old and more than ninety two percent were enrolled in an independent school.

**Q4**

 In this study there are different type of analysis were used to analyze the data acquired for this study. In this study, series test was used such as Wilcoxon signed rank tests were performed. These tests will help in comparing the relationship between what happened in the last event and what happens at a leaver’s celebration on an average. Furthermore, logistic regression analyses to understand the effect of the different variables on the negative consequences and the reported experience related to it. Further independent variable were chosen and their effects in association with the safety strategies used in those scenarios. These will enable the study to completely take into account how the different variables affected the final result,

**Q5**

Out of the two hundred and ninety nine participants in the test there was a fifteen point thirty eight percent prevalence of sexual situation was not happy about the time. These people involved in sexual activities and were not happy about at the time they were conducting these activities. Furthermore, there was no use of safety strategy or PBSS during these activities or no attempt was made to stop these activities. Moreover, out of three hundred sample, twenty one point thirty three percent prevalence of those who indulged in sexual activities and had a sexual encounter and regretted the decision. They also did not use any safety strategy or any PBSS in their activities.

**Q6**

The sample is not a true representative of the national population of schoolies. This is because 0there are several schools all around Australia with multiple students studying within them. Some of them are on their way to colleges and it cannot be directly supposed on the basis of such a small sample population that all will indulge in these activities. Furthermore, there are other variables such as the fact that there is increased monitoring in schools regarding the use of alcohol and other drugs on school property. Making an assumption that this will all happen under the eyes of their supervisors without any interference is improbable.

**Paper 2**

**Q1**

The aim of this study is to analyze the prevalence if self-reported diabetes mellitus in terms of year 2001 to 2008. Moreover, the study aims at the evaluation of factors that may cause diabetes. The study was conducted to analyze those facts and figures that are responsible for causing diabetes because there are both external and internal factors that may contribute to causing diabetes mellitus ranging with geographical area and the lifestyle that people are adhered to. The study aim to examine urban life and urban areas including different towns and other well developed areas along with some non-build areas. It also signified the household surveys to play a major role in finding the causative agents of diabetes mellitus as well as the ratio of occurrence.

**Q2**

The geographical areas chosen for this study included, Hong Kong Population or residents who are living in both institutionalized and non-institutionalized setting. However, the geographical areas excluded persons who were residing in the board vessels, hotel transients and the foreign live in domestic helpers. However, included areas were permanent quarters, comprising of built up regions, segments in non-build up regions, along with urban areas, major developed areas and new towns. It also included the computerized network of and records of all addresses of the certain permanent quarters. About 96% of the total Hong Kong resident population that included all the eligible population. However, the appropriate response rates for each of the survey were about 75% that was consistent in terms of all four survey rounds.

**Q3**

STATA version 8.0 was employed for data analysis. However, the primary outcome variables refer to the rates of self-reported diabetes rates were defined as a positive reply to the research questions. The proportion under study and analysis included respondents that were having diabetes from the years, 2001, 2001, 2005 and 2008 and it was compared to the trends reflecting and adhered to sex, age and income. These paradigms were termed as proxy measures of socioeconomic status. The research included age and the sex adjusted prevalence rates adhering to the demographic of population across the years. The population’s age included 1-39 years as well as the sex and income, which were used as covariates while conducting regression analysis. Several other factors were also included in the analysis of regression analysis.

**Q4**

After the study, it was found that the provenance of self-reported diabetes increased with about 50% from 2001 to 2008. A rise was concluded in the female residents forming a ratio of 69.3% when it was compared with the male respondents forming a ratio of 47.9%. The study revealed that there were no significant differences in prevalence of diabetes between men and women when the respondents were divided into different groups of age and income. However, the male respondents were found to be having a steeper relationship between the prevalence of diabetes and advanced age. Moreover, it was found that there was a low household income in those who were found to be victim of diabetes and there they were more towards reporting diabetes.

**Q5**

It is asserted that the people who were having low income and having a low socioeconomic status. It was found that the people who were suffering from complex economic situations and a low rate of income had a greater rate of complaint about diabetes. Moreover, it was found that the condition of the health was poorer in some of the areas and only those areas were found to have a large number of people suffering from diabetes. It is asserted that the poor residents were found to be employed in the annual work and they had a limited access to the labor saving facilities that was also found to be one of the reasons of the prevalence of diabetes accompanied by low rate of rest and less consumption of healthy fruits.

**Q6**

There were different limitations in the research firstly, the study relied on the self-reported information that was meant to ascertain the prevalence of diabetes. In accordance with the recent studies conducted in China, it was found that three out of four diabetic patients were undiagnosed taking into account that the diagnosed population was 1.3% Vs. undiagnosed patients diabetes making a population of 4.2% . Where, there is no validity of the self-reported diabetes when it was compared with the standardized methodology. There were other variable that were found to be influencing the prevalence of diabetes that were not considered while conducting the study. These factors also include family history, body mass index and the surrounding factors. However, the impacts of these variables were found to be explained by regression analysis.