95730 - Assessment Task 3

Note: This describes a *fictitious* study whereby sample size calculations, statistical analysis and results are *not accurate*. However, for the purposes of this assignment we will assume that they are and can be taken at face value.

Wellbeing of postgraduate students: A university-wide study in Sydney, Australia

Introduction

Postgraduate university students in Australia are a group whose wellbeing has been less researched. This may be due to the assumption that they have been academically successful during their tertiary education, often have work experience after their postgraduatestudies and have a sense of purpose. However, in recent years there have been reports of poor mental health among postgraduate students due to increased levels of stress, combining study with part-time or full-time time work, and uncertainty about future employment prospects in a rapidly changing environment.

This study aims to measure wellbeing in postgraduate students at the Harold Holt University (HHU), a large public university in Sydney, Australia. Postgraduate enrolments at HHU totalled 25,071 in 2020. This paper presents measurements of wellbeing among postgraduate students at HHU and analyses the sociodemographic factors that are correlated with wellbeing.

Methods

Sampling and Recruitment

The target population were all postgraduate students enrolled at Harold Holt University in the year 2020. Students meeting the inclusion criteria could volunteer to participate in the study, which involved completing a 20-minute confidential survey. The study was promoted via targeted emails, social media and by teaching staff in face-to-face and online classes. An email with the survey link was sent to 24,089 postgraduate students who were enrolled in September 2020 (two weeks after the university census date for Semester 2). The survey was also promoted via the University's Facebook page and Twitter account, and on digital screens around the campus. All Faculty Deans were asked to request that teaching staff mentioned

the survey to all their students in face to face or online teaching during the month of September 2020 to encourage participation.

Instruments

The instrument for measuring wellbeing and sociodemographic factors was a confidential, cross-sectional online survey. The sociodemographic information collected included: age, gender, country of birth, migration/visa status, living situation, postcode of residence (from which distance away from campus was calculated), main source of financial support, faculty, and consecutiveness¹ of their degree.

The Satisfaction with Life Scale (SLS) (Diener, 1985) was used to measure wellbeing. This measure shas been shown to be a valid and reliable questionnaire consisting of five core areas (measured on a 7-point Likert-scale from 1, Strongly Disagree to 7, Strongly Agree). These five core areas are:

- 1. In most ways my life is close to my ideal
- 2. The conditions of my life are excellent
- 3. I am satisfied with life
- 4. So far I have gotten the important things I want in life
- 5. If I could live my life over, I would change almost nothing

All items are aggregated to create a wellbeing score ranging from 5 (low levels of wellbeing) to 35 (high level of wellbeing).

Analyses

A power calculation was conducted and a sample size of 1500 was deemed necessary to detect differences between groups². Descriptive analyses were conducted for sample characteristics. Analyses of variance (ANOVA) were used to detect differences between groups using wellbeing as the dependent variable³. Statistical significance was set at $p \le 0.05$.

¹ A consecutive degree is in the same area as the undergraduate qualification (e.g., Bachelor of Nursing, Master of Advanced Nursing)

² An underpowered study means that sometimes a difference may not be detected through statistical software. However, it does not change that existing differences are real.

³ Analyses of variance (ANOVA) is a commonly used statistical technique to identify differences between groups if the outcome (or dependent variable) is a continuous measurement (e.g., a variable such as a score that does not represent discrete groups). ANOVA uses difference in the mean between groups to identify these differences (see 95-%-Confidence-Intervals) – a p-value \leq 0.05 shows that there is a difference between groups. This means that there is a difference between any of the groups – it does not mean that all groups are different (e.g., there might be a difference between men and women but not between either of those and non-binary people).

Results

Sample Characteristics

A total of 1,402 students completed the survey. However, 149 responses were missing important variables (e.g., age or wellbeing). The final sample included in the analyses consisted of 1,253 students (see Table 1). Most students were from the Business School (37.6%). The mean participant age was 28.5 (SD=2.2) years. More women (52.2%) than men (46.4%) participated in the study. Most participants were born is Australia (69.8%), Australian Citizens or Permanent Residents (79.1%), lived with their parents (25.1%) and lived less than 20kms away from campus (53.3%). The main source of income for the vast majority of students included work- related income (73.2%), and most students studied a consecutive degree (79.4%).

Age, mean (SD)	28.5 years (2.2)
Gender	
Women, n (%)	654 (52.2%)
Men, n (%)	581 (46.4%)
Other/Non-binary, n (%)	18 (1.4%)
Country of Birth	
Australia, n (%)	875 (69.8%)
Other country, n (%)	378 (30.1%)
Citizenship/Visa Status	
Australian Citizen, Permanent Resident,n (%)	991 (79.1%)
International Student Visa, n (%)	244 (19.5%)
Other Visa Types, n (%)	18 (1.4%)
Living Situation	
With parent(s), n (%)	315 (25.1%)
Shared house (friends/peers), n (%)	311 (24.9%)
With partner, n (%)	282 (22.5%)
Alone, n (%)	306 (24.4%)
Supported housing/public housing, n (%)	39 (3.1%)

Table 1. Sample Characteristics (n=1,253)

Distance from Campus			
More than 20kms, n (%)	585 (46.7%)		
Less than 20kms, n (%)	668 (53.3%)		
Main Financial Support	•		
Family Support, n (%)	144 (11.5%)		
Work, n (%)	917 (73.2%)		
Centrelink Allowance, n (%)	192 (15.3%)		
Faculty			
Business School, n (%)	471 (37.6%)		
Arts and Social Sciences, n (%)	241 (19.2%)		
Engineering, n (%)	157 (12.6%)		
Medicine, n (%)	345 (27.5%)		
Law, n (%)	39 (3.1%)		
Consecutiveness of degree			
Yes, n (%)	995 (79.4%)		
No, n (%)	258 (20.6%)		

Wellbeing

The mean wellbeing score for the full sample was 22.8 (95-%-CI: 20.1-25.5) (see Table 2). Some significant differences between subgroups were detected for citizenship/visa status, livingsituation, main financial support, faculty and consecutiveness of degree. No significant differences were found for gender, country of birth and distance from campus.

Table 2. General wellbeing and sub-group differences

Satisfaction with life scale	Mean Score, 95 % Cl	p-value (ANOVA) ⁴
Total Sample	22.8, 20.1 - 25.5	n/a
Gender		p=0.06
Women	20.3, 18.0-22.6	
Men	24.6, 22.5-26.7	
Other/Non-binary	16.2, 12.1.1-20.3	
Country of Birth		p=0.15
Australia	23.5, 22.7-24.3	

Other country	22.6, 21.6-23.6	
Citizenship/Visa Status		p=0.02
Australian Citizen, Permanent Resident	23.1, 22.7-23.5	
International Student Visa	22.6, 21.5-23.7	
Other Visa Types	16.2, 14.3-18.1	
Living Situation	•	p=0.03
With parent(s)	22.8, 21.7-23.9	
Shared house (friends/peers)	23.9, 22.9-24.9	
With partner	24.5, 23.5-25.5	
Alone	21.0, 19.2-22.8	
Supported housing/public housing	17.2, 16.3-18.1	
Distance from Campus		p=0.10
More than 20kms	22.9, 21.7-23.1	
Less than 20kms	22.7, 20.9-24.5-	
Main Financial Support		p=0.001
Family Support	24.9, 23.9-24.9	
Work	22.0, 20.3-23.7	
Centrelink Allowance	18.5, 16.4-20.6	
Faculty		p=0.01
Arts and Social Sciences	20.2, 17.8-22.6	
Business School	24.2, 23.8-24.6	
Engineering	20.5, 19.2-22.8	
Health	23.5, 22.4-24.6	
Law	19.1, 17.9-21.3	
Consecutiveness of degree		p=0.05
Yes	23.1, 22.7-23.5	
No	22.1, 21.5-22.7	

⁴ Given for variables with subgroups only. Concentrate on 95-%-CIs and p-values. I omitted degrees of freedom and F-ratios for an easier understanding.

Write a Discussion section (1,200 words excluding reference list):

- Summarise the main findings (remember the distinction between statistically significant and clinically meaningful differences)
- Discuss the possible reasons for the findings using your knowledge of human development, social determinants of health and measurements of wellbeing.
- How do these findings compare with other studies? How can potential differences between groups be explained? Include references (Note: Studies have to be reasonably comparable not a perfect match)
- Strengths and Limitations of the study consider the sample size, sampling method, validity and reliability of the instruments/measurements. Include references
- Implications what does this mean? Has the study met its research goal? What else do you want to know and why? Use references if necessary.
- Are there recommendations you can make from these findings? For example:
 - Interventions what could be put in place to change or improve wellbeing for this population?
 - Further research to extend the knowledge gained from this study
 - What else might need to happen e.g., policy changes, funding availability
- Conclusion (usually one or two sentences). No references necessary.

Reference

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75.