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Place Attachment and Locus of Control

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Honours Psychology Thesis
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Abstract

This study investigated the association between place attachment and locus of control in students during the COVID-19 pandemic. Specifically, it examined how students' attachments to Brescia University College and London, Ontario predicted internal versus external locus of control, the link between year of study and attachment to Brescia and London, and the correlation between students' attachments to London and their hometown. A sample of 20 students completed questionnaires which measured attachment to Brescia, attachment to London, attachment to hometown, and locus of control. Brescia attachment and London attachment were not found to be significant predictors of locus of control and there was no significant difference in attachment to Brescia and London between first and upper-year students. Hometown attachment and London attachment were not significantly correlated. Future research should investigate links between place attachment and locus of control in students with a larger sample size.

Keywords: place attachment, locus of control, undergraduate, COVID-19 restrictions

Place Attachment and Locus of Control

The COVID-19 pandemic has dramatically disrupted the educational experience of students entering university for the 2020-2021 academic year. Both students' sense of control over their lives (Zhu et al., 2020) and their social connections (Elmer et al., 2020) have been significantly impacted, ultimately creating an entirely unprecedented set of challenges for first-year students.

The concept of locus of control (LOC) can be applied to the ways an individual adapts to challenges in their life. According to Rotter (1954), those with an internal locus of control believe themselves to be in control of their own lives. In contrast, individuals with an external locus of control believe that their destiny is outside of their influence of control (Rotter, 1954). Research has shown that being equipped with an internal locus of control allows individuals to handle difficulties and uncertainties within their career (Ariza-Montes, 2017). Ryon and Gleason (2013) challenged the concept of locus of control as being constant and stable, demonstrating that daily events could impact the locus of control in participants. In couples expecting their first child, it was found that daily anxiety and negative experiences, such as day-to-day stressors, were correlated with locus of control changes within the day of the negative experience and the day after. This showcases that locus of control is malleable and associated with circumstance. Results also showed that individuals engaged in more positive health behaviours on days when locus of control was internal. Based on this research, one can conclude that locus of control may be more malleable than once thought and that stressful events may make an internal locus of control less accessible.

Locus of control can be applied to university students' specific challenges, as seen in a study of students at Selcuk University in Turkey (Dilmaç et al., 2009). It was found that

individuals with higher locus of control scores (indicating external locus of control) were more likely to experience insecure attachment styles. In the aforementioned study, insecure attachment styles were characterized by avoidance of close relationships or high levels of dependence. In contrast, individuals with more internal locus of control were more likely to experience secure attachment, characterized by a healthy formation of relationships with high levels of trust. Dilmaç et al. (2009) also found that those with insecure attachment styles had higher levels of trait anxiety (defined as anxiety without a precipitating event) than participants with secure attachments. These results indicate that an external locus of control is associated with negative traits (anxious attachment and trait anxiety), whereas internal locus of control is associated with positive protective factors against stress (secure attachment and low anxiety).

Positive effects of internal locus of control in students can also be seen in relation to academic achievement. A 2006 study of first-year university students found that an internal locus of control was positively correlated with end of year GPA, therefore indicating that students with an internal locus of control adjust better academically than their peers (Gifford et al.). These results suggest that an internal locus of control could be an important protective factor for individuals undergoing a large life transition, such as moving away from home and beginning a new academic career.

The disruption of the COVID-19 pandemic on the educational experience of students also has the potential to effect students' perception of university as a stable and safe place. The sense of the university as "home" could be very different when in-person instruction is replaced with online classes. This can be experienced as "place attachment", a concept with an extensive presence in the academic literature. Place attachment can be defined as a measure of bonding between an individual or group and a specific location or residence (Morgan, 2010). Scannell

and Gifford's tripartite model describes place attachment as being made up of three components: the person, the place, and the process. Firstly, the person dimension is focused on the concept of the formation of affective bonds with locations by both individuals and groups. The place dimension consists of the social and physical characteristics of a location. The process dimension is the psychological component that allows an individual or group to bond with a location (Scannell & Gifford, 2009). This sense of "home" or attachment to a specific place can be considered almost universal; only 5% of individuals did not select a favourite place when asked to in a Finnish study (Korpela et. al, 2009). The question remains, whether measures of place attachment are likely to be sensitive to the new "on-line reality" of virus restrictions, whether changes could be rapid, and how they could be mitigated.

The concept of place attachment can be considered to be fairly stable. In a 2009 study which surveyed the same group of participants 10 months apart, 44% of participants selected the same favourite place at the time of each survey (Korpela et al., 2009). Further, 64% of participants selected the same 'type of place' (e.g. "Indoor and outdoor urban areas" or "Waterside environments") at the time of each survey. Although individuals seem to maintain an attachment to place over a fairly long time period, individuals are clearly capable of forming attachment to new locations and becoming less attached to old ones. Scannell and Gifford (2017) measured sense of belonging, self-esteem, meaningfulness, and sense of control when visualizing different types of places. They found that visualizing places with high attachment facilitated increased levels of belongingness, self-esteem, and meaningfulness, which indicates that place attachment is associated with a positive effect. Interestingly, a sense of control was consistent in conditions where participants visualized both familiar neutral locations and locations which they were highly attached to. This demonstrates that although familiarity is a key component for

feeling a sense of control, attachment to a location can facilitate a more emotional response and heightened levels of belonging, self-esteem, and meaningfulness.

Place attachment is an especially important part of identity for post-secondary students (Scopelliti & Tiberio, 2010). The beginning of university is a significant transition for students, particularly those living away from home for the first time, and this personal and academic transition can be measured via attachment to students' new place of residence. A group of students in the United Kingdom who had moved to a new town for university indicated that they actively tried to connect to their new environment as quickly as possible in order to minimize homesickness (Holton, 2015). This indicates that attaching to a new place may be an active strategy utilized by students to aid with the adjustment to post-secondary education. Research shows that this can be an effective strategy; an Italian study found that higher attachment to a new city was correlated with lower levels of homesickness (Scopelliti & Tiberio, 2010). Finally, Choi et al. (2018) measured place attachment of students living away from their families and found that high levels of place attachment encouraged a heightened sense of safety, achievement, and belonging, as well as fostering interpersonal relationships. Taken together, these studies indicate that place attachment may function as a protective measure during the transition to university.

Social connections are an important factor in place attachment for students. According to Chow and Healy (2008), the prevalence of important relationships in a particular place is a key component in place attachment, and one way to facilitate place attachment is through forming these social connections. Hidalgo and Hernández (2001) found that social connection is an even stronger component of place attachment than physical attachment to a location. One way that post-secondary students create these social connections is through living in residence, which has

even been found to have benefits independent from attachment and relationship formation, including both intellectual and cognitive growth that enhances what students learn in the classroom (Pascarella et. al, 1992). Conversely, changes in the hometown environment of first-year students (such as friends moving away) were found to decrease attachment to students' places of origin (Chow & Healy, 2008).

Undergraduates also form attachment to their universities through events such as choosing a major, joining Greek life, joining a student organization, attending activities on campus, and attending lectures (Spooner, 2019). For these students, time spent in their university town was also found to be an important factor in attachment to their town (Chow & Healy, 2008). However, some students indicate that their attachment to their university's town was purely due to the convenience of location (i.e. they are attached to the university town simply because it is where their university is), rather than an emotional or social connection (Chow & Healy, 2008). A 2019 study by Spooner gave surveys measuring attachment to students in each year of their undergraduate degree. The findings indicated that although students expected their attachment to increase throughout their degree, it actually peaked during their third year of study (Spooner, 2019). However, there was a large increase in attachment between first and second year, with the upper year's attachment levels remaining relatively the same. This indicates that attachment to a university in the upper years of study is much greater than in first year. In further support of this theory, Smaldone (2007) found that study participants reported "attraction" to their towns initially, but it took significant time to develop a deeper attachment characterized by emotional and social connections.

During the 2020-2021 academic year, students were unable to socialize as they would have in prior years due to the COVID-19 pandemic. Only one quarter of Western University

courses took place in-person (Western University, n.d.), limiting first-year students' ability to form connections with their university community through on-campus classes and activities. In addition, social distancing measures were taken within the residence community and resident guest policies were limited. It is currently unclear how these measures may have affected the formation of attachment between first-year students and their university campus, as this situation is entirely unprecedented.

The current study investigated how locus of control and place attachment are interrelated, all within the context of the COVID-19 pandemic. This study aims to discover a relationship between place attachment and locus of control, with a view toward suggesting ways to minimize the negative effects of the pandemic on students. In this study, students' attachment to Brescia is measured by the Community Attachment Scale (CAS), while attachment to London (or their home town) is measured by scores on the Place Attachment Scale (PAS). The Rotter Internal-External Control Scale (RCS) will be the measure of locus of control, with higher scores reflecting a predominantly External LOC.

We predict that students with higher place attachment to (a) London (on the PAS) and (b) Brescia (on the CAS) will have a more internal locus of control than students with lower place attachment scales. We also predict that second-year students will have higher attachment to (a) London (PAS) and (b) Brescia (CAS) than first-year students, and that students with high levels of attachment to their hometown will have lower levels of attachment to London.

Method

Participants

The sample for the present study included 20 undergraduate students (n=20) recruited from undergraduate psychology classes. One participant was male, with the remainder being

female (n=19) and ages ranged from 18 to 27 ($M = 19.88$, $SD = 2.37$). A total of 7 students indicated that they were in second (n=5), third (n=1), or fourth (n=1) year of study, with the remainder (n=13) indicating that they are first-year students. 17 participants recorded Brescia as their home campus (meaning that at least 60% of their courses are taken at Brescia), and 9 selected London as their hometown. This information was collected through a demographic questionnaire (Appendix A). All participants were awarded one research credit for their participation.

Materials

Rotter Internal-External Control Scale (Rotter, 1966). The Rotter Internal-External control scale is a 29-item questionnaire where participants are instructed to select the one of two options that they agree with most. Items that correspond with external locus of control are given a value of one point and summed by the researcher to determine a participant's score.

Community Attachment Scale (Tsong Hung, 2013). The Community Attachment Scale is used to measure participant attachment to Brescia. The instrument consists of 10 items scored with a 7-point Likert scale, with an answer of 'strongly agree' being associated with a high degree of place attachment for all items.

Place Attachment Scale – Short Form (Lewicka, 2011). Place Attachment is used to determine participant's attachment to London and their hometown. The scale is made up of 9 items that are scored on a 5-point Likert scale. Seven items correspond with high levels of place attachment, and 2 correspond with low levels of attachment. All participants completed the measure keeping in mind London, and participants not from London completed the measure a second time in reference to their hometown.

Procedure

Participants were taken directly from The Brescia Psychology Research Participation System (SONA) to Qualtrics in order to complete the web-based questionnaires. Participants were first presented with a Letter of Information and Consent form, followed by a demographics questionnaire. Upon completion of the demographics questionnaire, all participants completed the locus of control measure. Participants who indicated that Brescia was their home campus then completed the Brescia attachment measure, and all participants completed the London attachment measure. Participants who indicated that they are not from London then completed a hometown attachment questionnaire. Finally, participants were presented with a debriefing form (Appendix B) and received one credit for their participation.

Results

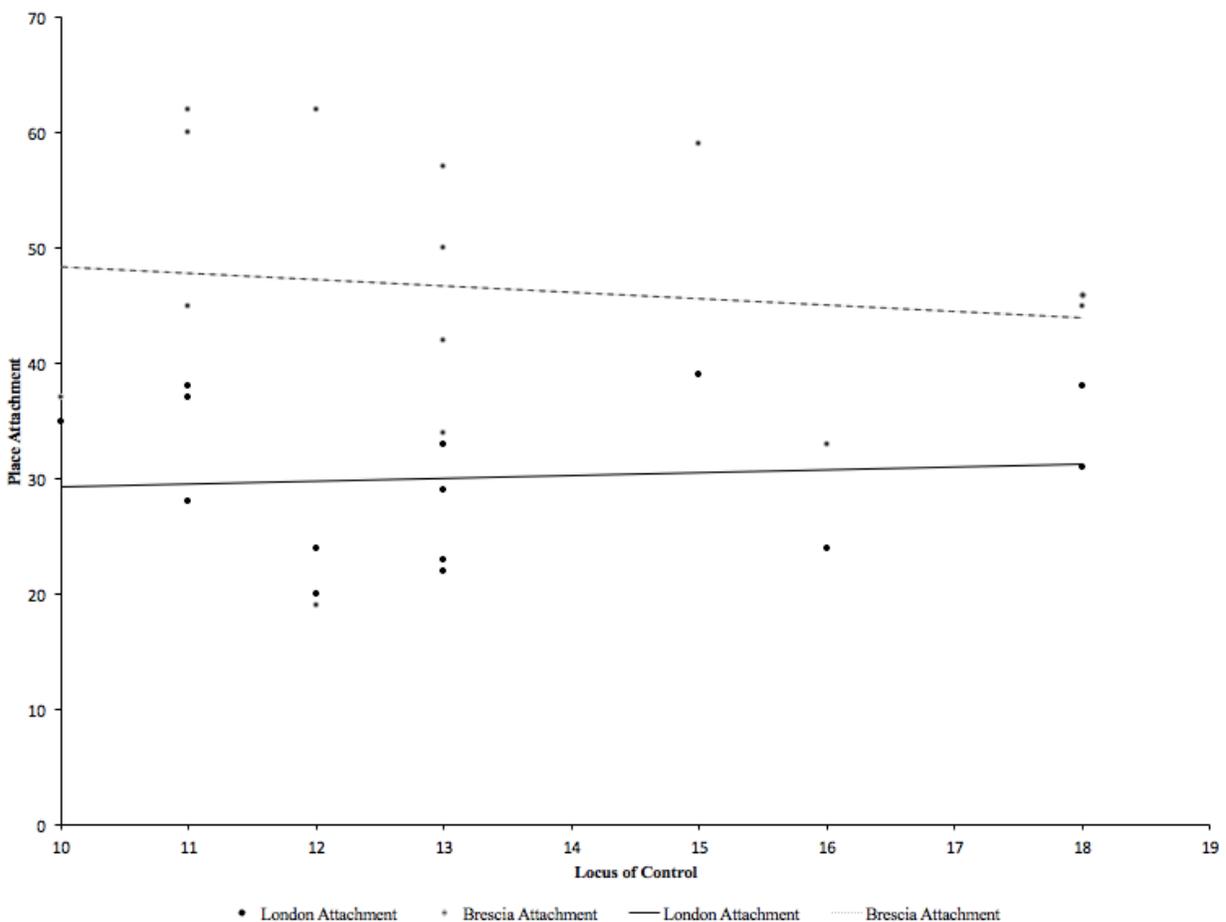
Of the 24 responses, 4 were excluded ($n = 20$) due to the fact that they did not complete any of the questionnaire sections. Of the remaining participants, only those who completed the locus of control, Brescia attachment, and London attachment measures in their entirety were included in the analyses for the first hypothesis ($n=16$), which examined connections between locus of control and attachment to London and Brescia. One participant was excluded due to the fact that they did not complete the locus of control measure, and three were excluded because they were not Brescia students and could not complete the Brescia attachment measure. These participants were included in further analyses.

A correlation analyses was used to evaluate the effects of Brescia attachment ($M = 47.00$, $SD = 12.07$) and London attachment ($M = 29.94$, $SD = 6.41$) on locus of control ($M = 12.50$, $SD = 3.22$). There was a small, negative, insignificant correlation between locus of control and Brescia attachment ($r(14) = -0.15$, $p = .582$). This indicates that Brescia attachment does not affect locus of control. London attachment was found to only have a weak, positive, insignificant

correlation with locus of control, indicating that levels of attachment to London do not effect locus of control ($r(14) = .13, p = .638$). A multiple regression found that the predictors of Brescia attachment and London attachment did not account for a significant portion of variance in locus of control ($R^2 = 0.09, F(2,13) = 0.65, p = .541$).

Figure 1

Locus of Control as Predicted by Brescia Attachment and London Attachment

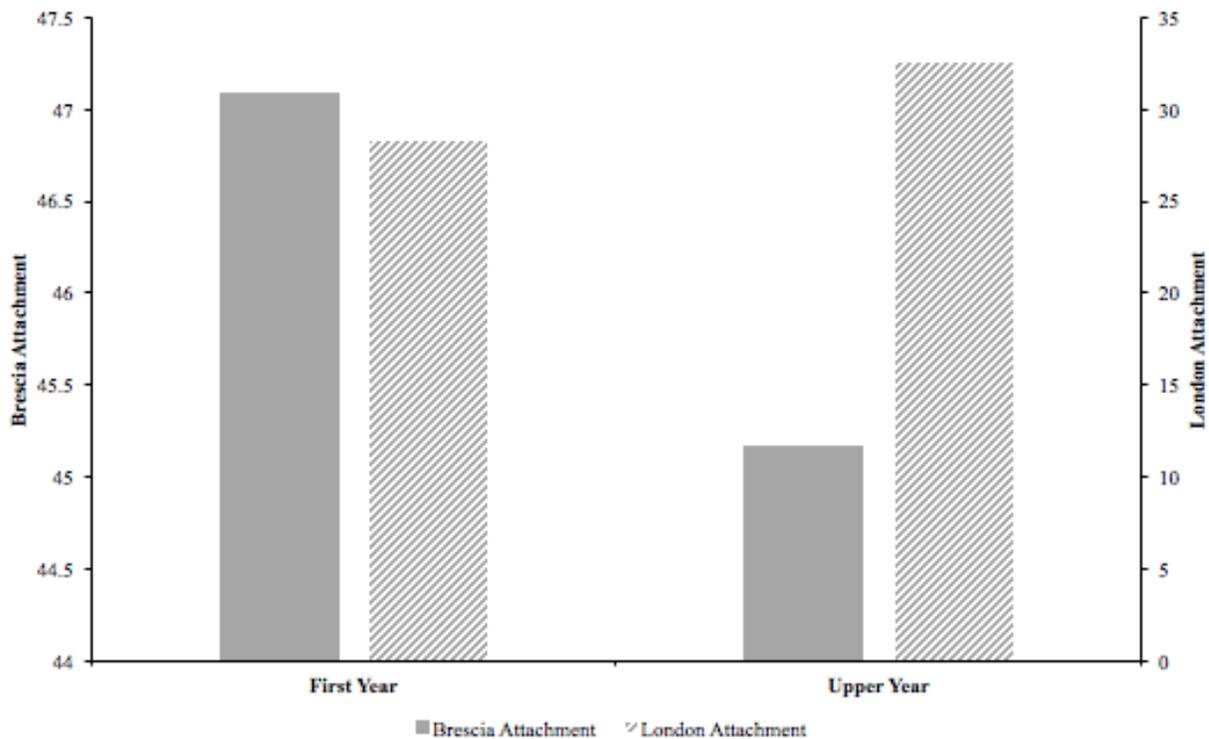


For the second hypothesis, only participants who completed both the Brescia and London attachment measures were included ($n=17$), three participants were excluded from this analysis because they were not Brescia students and therefore did not complete the Brescia attachment

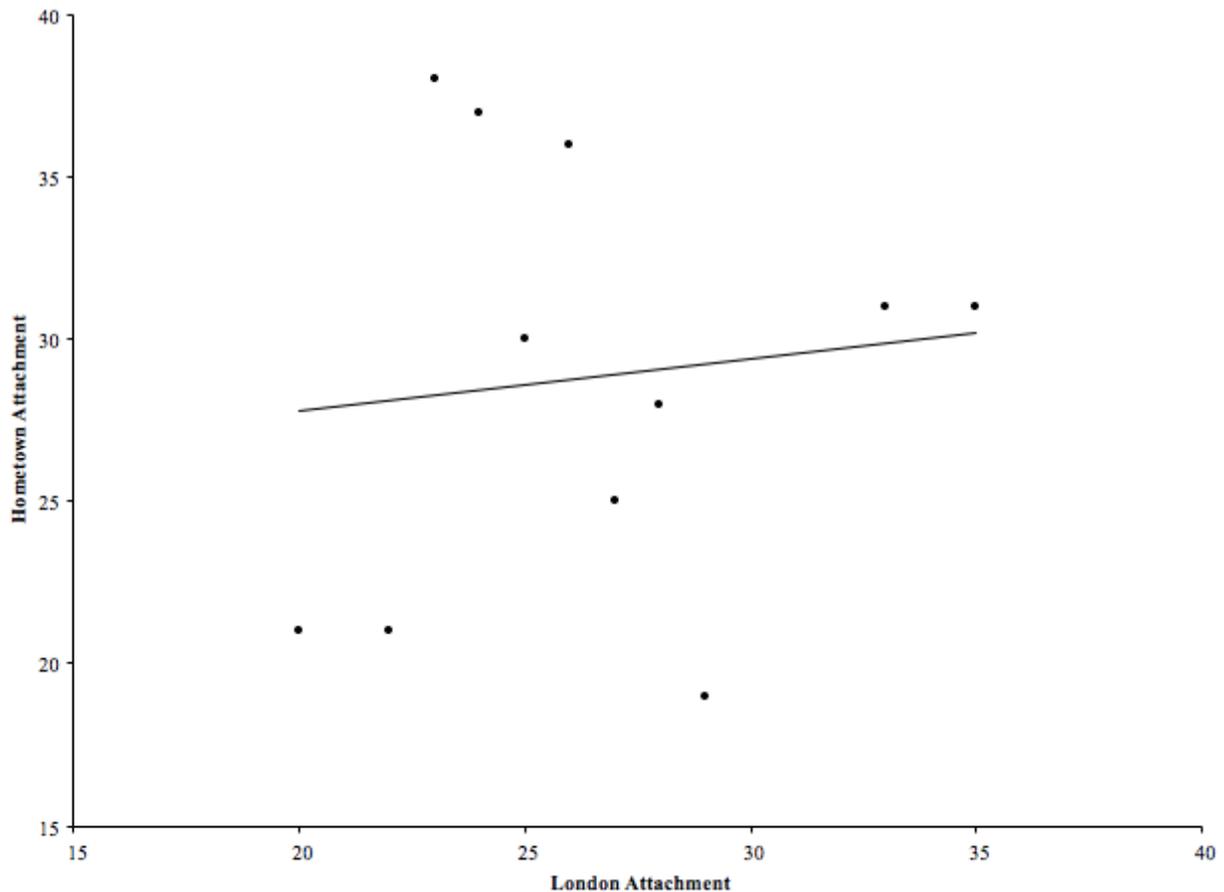
measure. A t-test determined that first-year ($M = 47.09$, $SD = 10.11$) and upper-year students ($M = 45.17$, $SD = 10.15$) did not differ on attachment levels to Brescia, $t(17) = -0.31$, $p = .762$. A second t-test determined that first-year ($M = 28.27$, $SD = 5.16$) and upper-year students ($M = 32.50$, $SD = 7.61$) also did not differ in attachment to London, $t(17) = -1.37$, $p = .191$.

Figure 2

Brescia and London Attachment by Year of Study



For the third hypothesis, only participants who completed both the hometown and London attachment measures were included ($n=11$). Nine participants were excluded from this analysis because they indicated that London was their hometown, and therefore did not complete the hometown attachment measure. A correlation analysis determined that hometown attachment ($M = 28.82$, $SD = 6.69$) and London attachment ($M = 26.55$, $SD = 4.55$) were not correlated, $r(11) = 0.11$, $p = 0.750$. This indicates that attachment to a participant's hometown was not associated with attachment to London.

Figure 3*Correlation of Hometown Attachment and London Attachment*

Discussion

The findings did not support literature that indicated internal locus of control increases resilience and adaptation (Dilmaç et al., 2009) (Gifford et al., 2006). We did not find any significant association between locus of control and place attachment, which indicates that locus of control does not support adjustment by forming an attachment to a relatively new living space. Findings also did not support literature which stated that length of time in a place will increase place attachment (Chow & Healy, 2008), as there was no significant effect when comparing

attachment of first-year and upper-year students. Overall, our findings did not support previous literature on the topic.

Our primary hypothesis, that internal locus of control would increase attachment to London and Brescia, was not supported. Although the result was not significant, internal locus of control was very slightly correlated with Brescia attachment, and London attachment was slightly correlated with external locus of control, contrary to our predictions. However, it is important to keep in mind that none of these results were significant.

Our second hypothesis, that upper year students would have higher attachment to both London and Brescia than first-year students, was also not supported. There was a trend of upper year students having higher attachment to London than first-year students, but not to Brescia. It is interesting to note that upper-year students would have had experience exploring London prior to the onset of the COVID-19 pandemic, whereas first-year students would have been restricted to residence. Although these results were not significant, this may be a possible explanation for this trend. This effect, however, was extremely small and insignificant, so further research would need to be completed in this area to explore this effect.

Our third hypothesis, that participants who had higher levels of attachment to their hometowns would have lower levels of attachment to London, was also not supported. The correlation between hometown attachment and London attachment was insignificant, but indicated a slight association between hometown attachment and an increase in London attachment – in opposition to our prediction. We had predicted that hometown attachment and London attachment would be negatively correlated based on literature which conceptualized place attachment as a “favourite place” (Korpela et. al, 2009). Further research could examine why attachment to multiple places was in fact slightly positively correlated.

Limitations

Due to the short time-frame of this research, sample size was the primary limitation of this study. Although a power analysis indicated that 80 participants were required for sufficient power, due to the time constraint, our sample only included 20 individuals. It is not possible to draw clear conclusions from this study due to the small data set, and further research is necessary. We also did not take into account where participants were currently living, and responses may have differed between students who are spending this school year in their hometown, in residence, or in another house in London. We also did not take into account how the living plans of students may have changed due to the COVID-19 pandemic. The study also did not consider where upper-year students had lived prior to this academic year; students who lived in residence may have differed greatly from students who lived off-campus.

Future Research

We identified a trend of upper-year students having slightly higher attachment levels to London and first-year students having slightly higher attachments to Brescia. Future studies could examine if the restriction of first-year students to residence due to COVID-19 restrictions may have been a predictor of this effect. We also saw that hometown attachment levels and London attachment levels were very slightly positively correlated, indicating that individuals can favour more than one place, although this was insignificant. Further research may explore the reasoning for this and other personality factors that may increase place attachment levels, as our findings did not support locus of control as a factor. Finally, this study design could be replicated with a higher sample size in order to make stronger conclusions with higher power.

Conclusion

Our findings did not support the hypotheses that internal locus of control would be associated with attachment to London and Brescia, that year of study effects attachment to Brescia and London (with higher attachment for upper-year students), or that hometown attachment decreases attachment to London. There was a trend among upper year students having higher London attachment than first-year students, who had higher Brescia attachment than upper-year students, and that hometown attachment and London attachment were positively correlated. These effects were insignificant, and will need to be investigated with future research. Future research would also benefit from a larger sample size, which was a major limitation of this study.

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Appendix A

Demographic Questionnaire

What is your age? _____

What is your gender identity?

- Female
- Male
- Non-binary
- Other

What year of study are you currently enrolled in?

- 1
- 2
- 3
- 4
- 5+

Is Brescia your home campus? (Select yes if you are completing a double major combined with another campus)

- Yes
- No

Which option best describes your post-secondary education?

- I have been enrolled at Brescia throughout my entire post-secondary education
- I was previously enrolled at Western, Kings, or Huron and transferred to Brescia
- I was previously enrolled at another university or college and transferred to Brescia
- Other _____

Do you consider London to be your hometown?

- Yes
- No

Which option describes where you currently live MOST of the time? (e.g. if you live in Clare Hall but visit your hometown on the weekends, select Clare Hall)

- Living in London with parents/family
- Living in London with roommates or alone
- Living Clare Hall
- Living in hometown (other than London)
- Other _____

Appendix B

Debriefing Form



DEBRIEFING FORM

Place Attachment and Locus of Control in Undergraduate Students Living Away From Home

Thank you for your participation in this study. The purpose of this study was to determine if locus of control is related to levels of place attachment in students living away from home, as well as to examine potential effects of year of study and hometown attachment levels. What we predicted was (a) students with higher attachment to Brescia and London would have internal locus of control, (b) upper-year students would have higher attachment to Brescia and London, and (c) students with high levels of attachment to their hometown would have lower levels of attachment to London. This was carried out by the completion of questionnaires which determined locus of control, attachment to Brescia, attachment to London, and attachment to your hometown.

Here are some references if you would like to read more.

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