Beyond the Bubble: McMaster Students' Fear of Crime in Downtown Hamilton

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Abstract

Previous research has examined fear of crime within university campuses as opposed to the surrounding city. This study aimed to fill this gap by examining students' fear of crime beyond the university campus, using the idea of familiarity to guide the hypotheses. We explored the difference between local and domestic McMaster students' fear of crime in downtown Hamilton Ontario. Additionally, we investigated the role of meaningful time spent downtown as a factor that impacts students' fear of crime. Using a mixed-methods approach, 261 students completed an online survey about their fear of crime in downtown Hamilton. Quantitative findings revealed no statistically significant difference between the two groups, and meaningful time spent downtown did not moderate the relationship between group status and fear of crime. However, qualitative findings suggested that meaningful time may influence qualitative differences in fear of crime. These findings indicate that the relationship between meaningful time spent in a specific area and fear of crime is more complex than previously assumed, with familiarity alone being insufficient in reducing fear without deeper place attachment. Ultimately, the findings contribute to theoretical discussions on fear of crime while underscoring the importance of community integration strategies in enhancing students' overall sense of safety in their university's city.

Theoretical Models

A variety of theoretical perspectives help explain how fear of crime is elicited among the general population (Wu & Wen, 2014). The Community Environment model is a substantial framework that consists of both the Disorder Model and the Social Ties Model, also referred to as the Social Integration Model (Wu & Wen, 2014). The latter focuses on an individual's feeling of connectedness to their neighbourhoods and communities as it relates to the fear of crime (Alper & Chappell, 2012; Franklin et al., 2008). The Social Integration Model suggests that those who feel well-integrated into their communities experience less fear of crime compared to those who do not feel integrated (Franklin et al., 2008; Lockey et al., 2019). Based on this model we believed that students attending their local universities felt more integrated with their city and, therefore, would have a lower fear of crime compared to students from another town.

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The Disorder Model explains how those who perceive their neighbourhood as in a state of disarray, including a prominent street population, vandalism, and neglected establishments, experience a heightened fear of crime (Camacho Doyle et al., 2021). This model is in direct association with the broken windows theory, which states that obvious signs of disorder within communities inherently suggest to people that crime is occurring in the area– a belief that contributes to one's fear of crime (Kelling & Wilson, 1982; Sas et al., 2022). Experiential evidence from researchers and anecdotes of peers reveal that downtown Hamilton exhibits a lot of obvious physical disorder. From a large homeless population in the Jackson Square area, to vandalized and deteriorating businesses on main streets like King and Main Street, one does not have to look hard to see why students may feel fearful based on the Disorder Model. Together, the Community Environment model explains how those who do not feel integrated into their communities and perceive them as being in a state of disorder experience a heightened fear of crime (Franklin et al., 2008). We found this model to be ideal to use as a framework in developing our research.

We additionally considered the vulnerability model to analyze the prevalence of students' fear of crime. This model states fear of crime can be encouraged by both that real and perceived risk of vulnerability (Alper & Chappell, 2012). For example, women are more fearful of crime because they believe they are less able to defend themselves from offenders (Wu & Wen, 2014). In this way, individuals believe that a personal aspect of their identity makes them particularly vulnerable to crime. This concept is particularly relevant to student populations who may have limited access to resources, live away from familiar support networks, and/or belong to diverse and historically marginalized groups. Intersecting factors such as these may contribute to an increased sense of perceived vulnerability. Franklin and colleagues (2008) divided this concept of perceived vulnerability into two categories–physical and social vulnerabilities. The earlier example of women would fall into the category of physical vulnerabilities, as it pertains to how a lack of mobility or strength causes one to believe they cannot sufficiently defend themselves from violent attacks. Social vulnerabilities, on the other hand, refer to a variety of factors that contribute to one's victimization, such as living in economically distressed neighbourhoods, being in a marginalized group, or being unfamiliar with a certain space (Alper & Chappell, 2012; Franklin et al., 2008). These two categories heavily influence each individual's various feelings and perceptions of crime.

The Bubble

With these models in mind, the university setting provides a unique context for analyzing fear of crime because it creates a 'bubble' where students can stay and feel safe. Due to the many security measures of the university setting such as campus security, surveillance, and highly populated areas, students may feel safer compared to the city outside of the bubble (Sas et al., 2022). This is especially true for domestic students—those who previously did not reside in their university city or who commute—as they tend to have less familiarity with these areas than local students—those who previously lived in their university area. Importantly, this bubble also has the potential to hinder students' integration into local communities because it is a self-contained environment that separates students from the rest of the surrounding city (Maier & DePrince, 2019). If students feel uncomfortable with their surroundings and remain

fearful, this can adversely impact their mental health and general university experiences (Daigle et al., 2022; Lane, 2015). With the McMaster University campus being separate and distinct from downtown Hamilton, this bubble is intensified and makes for a unique case of students' experiences and fear of crime.

Existing discussions surrounding the fear of crime in urban areas tend to focus on general populations and dismiss subgroups within the larger population (Fisher & May, 2009; Jacobsen, 2022; Maier & DePrince, 2019). Focusing on a specific group may help uncover different patterns in the of fear of crime. While fear of crime on university campuses has been studied, there is limited knowledge on university students' fear of crime in relation to their surrounding communities, as well as how time spent in the area could inform their fear of crime (Maier & DePrince, 2019). Investigating these gaps in the literature with a focus on the bubble is critical in getting a better understanding of students' fear of crime.

Current Study

This study focused on the difference between local and domestic students' fear of crime in downtown Hamilton, and whether meaningful time spent there influences their fear of crime. We wanted to understand how these different McMaster student groups perceived the city and their feelings of safety in relation to downtown Hamilton depending on their level of integration into the community, potentially fostering a sense of safety and enhancing their overall well-being. We hypothesized that local students would have a lower fear of crime in downtown Hamilton than domestic students due to their familiarity with the area, and that the more meaningful time students spend there, the lower fear of crime they would report.

Methods

Participants

Participants were 261 McMaster University undergraduate and graduate students who were either local to Hamilton, Ontario (N = 59) or domestic, meaning they lived outside of Hamilton, Ontario prior to enrollment at McMaster (N = 202). Participants were recruited through McMaster's SONA Research Participation System (N = 156) and through posts on social media (Instagram, LinkedIn). Additionally, physical posters were distributed around the Westdale and downtown communities, including inside coffee shops and on community poster boards. Inclusion criteria required that participants must be (a) a current McMaster University student, (b) 18 years of age or older, and (c) able to read and speak fluent English. Of the 296 students who entered the study, 35 were excluded from the analysis due to not meeting the inclusion criteria. The final sample size consisted of 261 McMaster University students. Participants mostly identified as female (77.4%; 11.1% male, 11.1% nonbinary) and White (53.3%; 13.8% Southeast Asian, 13.4% East Asian, 19.5% other groups). Over half of participants identified as straight (59%; 16.5% Bisexual, 8% Queer, 12.6% other sexualities). In terms of student demographics, the dominant group was second-year undergraduates (34.6%; 26.8% fourth-year undergraduates, 26.8% third-year undergraduates, 9.7% other undergraduate and graduate years). Finally, the participant sample was made up of mostly 21-year-olds (27.6%; 26.8% 19-year-olds, 19.2% 20-year-olds, 13.8% 22-year-olds, and 6.8% other ages).

Procedure

Data was collected through an anonymous survey on the website Qualtrics. Participants consented and completed the inclusion criteria questions at the beginning of the survey and then were asked a series of quantitative and demographic questions, as well as four qualitative, open-ended questions. An attention check question ("What university is the focus of this study?") was asked mid-survey to ensure that participants were not answering questions randomly. Failure to choose the right answer resulted in the dismissal of all data collected in that participant's responses. The survey took approximately 5-20 minutes for most participants to complete. Participants who took the survey through SONA received 0.5 SONA credits when they reached the end of the survey, and no compensation was provided to those who completed a survey through social media posts or physical posters.

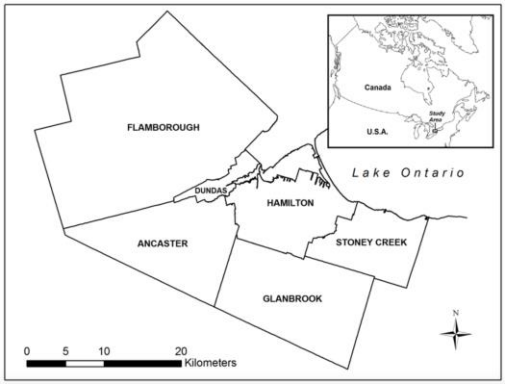
Measures

Local or Domestic

The primary independent variable in this survey was whether a student was local to Hamilton prior to their enrollment at McMaster University, or whether they were domestic and lived outside of Hamilton prior to enrollment. To obtain this information, the singular item "Did you live in Hamilton prior to enrollment at McMaster University?" was asked. A boundary map (Spinney, 2011) was provided that indicates the areas researchers defined as Hamilton. This boundary map included Ancaster, Dundas, Flamborough, Glanbrook, and Stoney Creek (see Figure 1). Response options were "*Yes*", "*No*", and "*Prefer not to answer*".

Figure 1

Map of Hamilton taken from Spinney (2011).



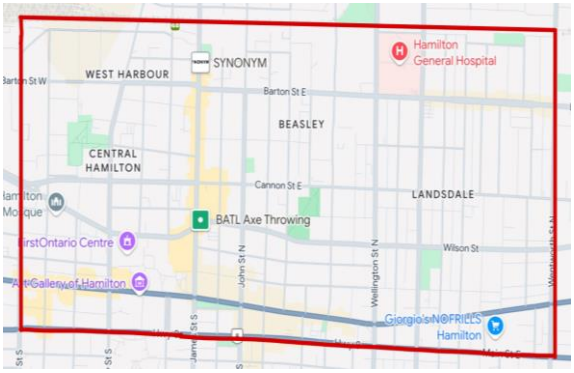
Meaningful Time Spent

Participants also indicated how much meaningful time they spent in downtown Hamilton (M = 3.89, SD = 1.53). A boundary map of what researchers considered to be the downtown core was provided (see Figure 2). Participants were allowed to define meaningful time for themselves, which was an intentional choice made to assess what each person considered to be their subjective idea of meaningful time. This independent variable was measured through a single-item statement, "During the duration of my time enrolled at McMaster University, I have spent a considerable amount of meaningful time

in downtown Hamilton," with responses rated on a 6-point Likert scale (1 = "*very untrue for me*", 6 = "*very true for me*").

Figure 2

Downtown Hamilton Boundary Map retrieved from Google (n.d.).



Fear of Crime

Participants completed a modified version of the Fear of Crime scale (Etopio & Berthelot, 2022) to assess their fear of crime in downtown Hamilton (e.g., "I'm afraid of a crime happening to me in downtown Hamilton", "I feel at risk of being victimized in downtown Hamilton"). The modified scale included nine items rated on a 6-point scale (1 = *Very untrue for me*, 6 = *Very true for me*; α = .945). The original scale included an additional item that could not be modified to logically involve downtown Hamilton ("Crime worries me in my day-to-day life") and therefore was not used in the fear of crime scale. Items were scored such that higher scores indicate a higher fear of crime, and an overall fear of crime score was created by averaging all nine items (*M* = 3.77, *SD* = 1.09).

Additional Qualitative Measures

Participants had the option to answer four open-ended qualitative questions at the end of the survey. These questions asked participants to elaborate beyond their quantitative responses and provide more insight into their fear of crime score. Qualitative questions included:

1) "Considering your experiences in downtown Hamilton, how would you describe your feelings of safety while you were there? If you have never been to downtown Hamilton, please write "N/A"."
2) "Has your fear of being a victim of crime ever prevented you from doing something you wanted to do in downtown Hamilton? Please elaborate if you feel comfortable."
3) "What influences your feelings about personal safety and fear of crime in downtown Hamilton?"
4) "Since coming to McMaster, how have your feelings about personal safety and fear of crime in downtown Hamilton changed? What do you think caused that change? If they have not changed, please elaborate on why."

Ethics

This study has been reviewed by the McMaster Research Ethics Board and received ethics clearance under project #7231.

Results

Hypothesis 1

An independent samples t-test was conducted to examine the differences between local and domestic students' fear of crime in downtown Hamilton. Results showed no significant difference between local (M = 3.75, SD = 1.19) and domestic students' (M = 3.78, SD = 1.07; t (258) = -.15, p = .878) fear of crime.

Hypothesis 2

A univariate ANOVA was conducted to investigate whether meaningful time was a moderator of the relationship outlined in Hypothesis 1. Results demonstrated that meaningful time spent in downtown Hamilton did not moderate the association between the two variables (F (1, 256) = .001, p = .976).

Exploratory Quantitative Research

A bivariate regression was conducted to examine whether meaningful time spent in downtown Hamilton, regardless of being a local or domestic student, predicted fear of crime. Results revealed that meaningful time spent accounted for 0.7% of the variability in fear of crime in downtown Hamilton. Additionally, the model predicted a 0.062 decrease in fear with every one-unit increase of meaningful time spent, though this effect was not significantly different from zero (t (1) = -1.389, p = 0.166).

Exploratory Qualitative Research

Exploratory qualitative analyses were conducted to gain deeper insights into participants' beliefs and feelings about their fear of crime beyond the limitations of the quantitative scale. A combination of content analysis and thematic analysis was conducted on the four open-ended, exploratory questions.

Researchers began with an approach more consistent with content analysis, where responses were coded for the more binary options they could choose to discuss for each question. For the first question, "How would you describe your feelings of safety while you were in downtown Hamilton? [...]" responses were categorized into "Safe" and "Unsafe" based on the main indication of the response. Far more participants responded that they felt unsafe while in downtown Hamilton. Answers to the second question indicated that slightly more participants had not been prevented from doing something they wanted to in downtown Hamilton due to their fear, while less than half had been prevented. The third question investigated the factors that influence participants' fear in downtown Hamilton; very few noted positive influences, whereas most responses discussed negative influences. The final question asked how participants' feelings about downtown Hamilton had changed throughout their time at McMaster. Three categories for responses emerged rather than two, with most participants expressing that their feelings about downtown Hamilton had not changed, fewer reporting their feelings improved, and the least saying their feelings had worsened. Table 1 displays these categorizations, with the first column of values indicating how many responses in total were coded into each category. This

type of coding allowed for an understanding of the main leanings of participants' responses, which created a more holistic picture of the data.

Table 1

Primary Codes for Qualitative Responses

Q1: "How would you describe your feelings of safety while you were in downtown Hamilton? If you have never been to downtown Hamilton, please write "N/A"."		
Safe	91	35.8%
Unsafe	163	64.2%
Q2: "Has fear of being a victim of crime ever prevented you from doing something you wanted to do in downtown Hamilton? If you are comfortable, please elaborate."		
Has prevented	92	40.7%
Has not prevented	134	59.3%
Q3: "What factors influence your feelings about personal safety and fear of crime in downtown Hamilton?"		
Positive influences noted	41	17.8%
Negative influences noted	189	82.2%
Q4: "Since coming to McMaster, have your feelings about personal safety and fear of crime in downtown Hamilton changed? If so, what do you think caused that change? If they have not changed, why do you think they have not changed?"		
Feelings improved	71	30.5%
Feelings worsened	52	22.3%
Feelings stayed the same	110	47.2%

The next step in the coding process examined response details using a thematic approach to get a broader understanding of themes. These codes were applied across all questions because similar themes arose regardless of the question. Some of these sub-codes were grouped into larger categories for ease of interpretation, for example, codes such as "nighttime/dark," "alone," "minority identity," "gender", and "specific area" were grouped into the "Conditional" category, indicating that a participant's fear was dependant on a certain condition being fulfilled. Responses sub-coded as "nighttime/dark" expressed that participants' feelings of fear in downtown Hamilton had to do with whether or not it was dark out, for example,

> [...] I'm fine with going to downtown during the day, but it definitely gets scarier at night with limited visibility and fewer people around. For example, if I wanted to get food at a restaurant downtown but the sun was setting soon, I would decide against it.

The “alone” conditional sub-code had to do with participants’ fears being present or absent depending on whether or not they are in the presence of others. One participant noted,

> “I try not to spend time in downtown Hamilton by myself. If I go through downtown Hamilton to do things other than go to McMaster, I usually bring a friend or I don't go at all.”

These two sub-codes were the most coded for. The “minority identity” and “gender” sub-codes were similar, both indicating a participant’s response had to do with having a vulnerable identity influencing their feelings in downtown Hamilton. The frequency of participants mentioning that their feelings came from being a gender minority indicated a need to separate the sub-codes for more detail in interpreting results. Lastly, the “specific area” sub-code labelled responses where participants expressed that their fears (or lack thereof) were associated with a certain physical space within downtown Hamilton.

Another broader category that commonly emerged was the “Visible Disorder” category, which included the sub-codes “people,” “violence,” “environment,” and “miscellaneous.” “Visible Disorder” had to do with responses that referenced themes of the Visible Disorder or Broken Windows theory. The “people” sub-code referred to responses that mentioned the more passive human elements of visible disorder, like homelessness or visible drug use. This sub-code was incredibly prevalent in the data, with responses like,

> Not to be stereotypical but there are lots of homeless and intoxicated people who often wander downtown at night. Some of which I have happened to come across or observe seem aggressive. This does influence my feelings of personal safety again as I said my friends and I would not be able to defend ourselves. [...]

Responses sub-coded as “violence” expressed concerns about active acts of violence (e.g. petty theft, etc.) or violent items (e.g. knives, guns, etc.) in downtown Hamilton. The “environment” sub-code was used to label responses which referenced the physical elements of visible disorder, like broken windows or vandalism. All other forms of visible disorder that did not conform to the previous sub-codes were classified as “miscellaneous.”

A very common code in the thematic analysis was “Vigilance.” Participants often noted that they stayed constantly alert to the possibility of crime while in downtown Hamilton, for example,

> I generally feel unsafe, I’m often on edge and frequently survey my surroundings to ensure that no one is following or approaching me. I used to have to wait downtown for the bus and I would always stand against a wall to survey my surroundings because I was scared I would be a victim of a crime[.]

Not all of these responses indicated the presence of fear, many participants expressed that vigilance allowed them to navigate downtown Hamilton without fear of crime.

Another code that frequently arose was “Meaningful Time Spent,” which was coded when participants expressed that their fear of crime in downtown Hamilton had to do with how often they spent purposeful or important time there. One participant detailed,

> I came to Hamilton and was immediately told of the dangers of downtown. I have come to love downtown and feel that personal experience over the years, becoming comfortable and familiar with the area and developing a better

> relationship with the space have contributed to the evolution of my feelings about downtown.

This code had serious implications for the study, as the secondary hypothesis revolves around how meaningful time spent in downtown Hamilton affects people's fear of crime.

The code, "Independent Personal Beliefs," was frequently coded, and it referred to comments made by participants that expressed a personal understanding of elements of crime. This often had to do with feelings about crime statistics or the likelihood of victimization, for example, a participant stated,

> I know that generally when crime occurs it's usually not random, I try to rely on statistics regarding that. People hear about all kinds of stuff, but most of the people getting stabbed or robbed downtown are wrapped up in stuff that goes far beyond that single incident. Press loves to strip these things of context.

This individual had independent personal interpretations of crime statistics and scenarios surrounding violent incidents and even had certain beliefs about media surrounding crime. This code allowed researchers to understand that participants' fear of crime was often situated within their preexisting perception of the world.

The final significant code was "Word of Mouth," which was coded when participants stated that their fear of crime in downtown Hamilton had to do with hearing other people's perspectives of the area. For example, one participant stated,

> I would say it took me a while to venture into downtown Hamilton, because of all the warnings I received from upper years I knew, so the fear and the stigma prevented me from exploring that part of Hamilton in my first year.

The frequency of this code confirmed the personal experiences of the researchers, who had frequently witnessed other students expressing disdain about downtown Hamilton. By understanding that word-of-mouth comments can influence students' fear of crime, one can begin to understand what kinds of changes in student life could help them feel safer in the city. For example, McMaster University could host a panel of alumni who chose to stay in Hamilton to share their positive experiences with current students. This depth and exploration in the findings are what motivated the researchers to engage in the qualitative side of this research.

Discussion

Despite the plethora of research studying fear of crime in urban environments (Curtis, 2012; Fox & Hellman, 1985; Maier & DePrince, 2019; Schweitzer et al., 1999), a significant gap remains in understanding how personal, meaningful engagement with specific areas shapes perceptions of safety. Moreover, while current research on post-secondary student populations focusses on their fear of crime on campus (Fisher & May 2009; Jacobsen, 2022; Maier & DePrince, 2019), there is very little which addresses off-campus fear of crime, and none which looks at differences between local and domestic students. This study attempts to address and expand upon this gap in the literature by investigating whether there are differences between local and domestic McMaster University students' fear of crime in downtown Hamilton. We additionally considered the amount of meaningful time spent in the downtown core of Hamilton as a moderating factor. Based on the Social Integration Model, which suggests a relationship between the level of integration and feelings of safety in a community (Alper & Chappell, 2012; Franklin et al., 2008), we hypothesized that local students would report lower fear of crime than

domestic students (H1) and that spending meaningful time downtown would reduce students' fear of crime (H2).

Contrary to our predictions, our quantitative results produced no significant findings for either hypothesis, providing evidence that there are no differences between local and domestic McMaster students' fear of crime. However, qualitative findings supported our second hypothesis and provided compelling insights into both students' perceptions of their safety and the social factors that influence this evaluation. Consistent with our hypothesis, some students explicitly stated that spending meaningful time downtown helped to reduce their fear of crime, even though this effect was not reflected in the quantitative data. Though these findings were ultimately exploratory, our qualitative research helps to provide a deeper understanding of how students conceptualize, experience, and discuss their fear of crime. Moreover, we believe it helps to explain and broaden our understanding of our quantitative findings and emphasizes the usefulness of taking a mixed-methods approach to research, especially when dealing with subjective and nuanced ideas such as fear.

Interpretations

The lack of significance in the quantitative data suggests that the relationship between meaningful time spent and fear of crime may not be as straightforward as we initially thought. Our study solely looked at familiarity in the context of meaningful time spent, which we found was not a significant indicator of McMaster students' fear of crime downtown. However, it is possible that if we instead looked at place attachment (Altman & Low, 1992; Ujang, 2008; Zahnow & Tsai, 2019), we may have come across more significant findings. It has become clear that a distinction between familiarity and place attachment is important to consider. Familiarity is practical knowledge that is developed passively through routines that does not include a positive or negative emotional quality and does not necessarily consist of a sense of belonging or a personal stake in the area (Felder, 2021). While simply being in an area may contribute to a sense of familiarity, this alone is not enough to decrease fear of crime. Consequently, individuals may physically go downtown but still feel unsafe while they are there. For instance, a student who frequently walks through a downtown area may feel familiar with the layout and general atmosphere but still may not develop a meaningful connection to it. A student wrote that "my feelings about personal safety have not changed, I have lived in Hamilton my whole life and I have always thought of downtown Hamilton as being less safe than Hamilton on the mountain, [...]." Despite their familiarity, this student's fear of crime remained high. In contrast, someone who actively engages with the community by attending events and participating in local culture may be able to look past negative influences such as word of mouth.

> I didn't know much about Hamilton before coming [to McMaster]. First year they made it seem really bad but then as time went on I explored by myself and with friends and really lowkey fell in love with Hamilton. There's a lot of fun activities, cute restaurants, and art crawl!! Hamilton isn't an unsafe city in my head. I like it and I feel okay living here.

Going to events and having positive, community-oriented experiences leads to the development of place attachment. Place attachment, first conceptualized by Kasarda and Janowitz (1974), refers to the expansion of an emotional bond between an individual and a specific place or environmental setting, which is expressed through beliefs, behaviours,

and emotions (Altman & Low, 1992; Ujang, 2008; Zahnow & Tsai, 2019). Not only is place attachment more widely researched, but–as pointed out by Zahnow and Tsai (2019)–it may be particularly critical for disordered neighbourhoods. As many participants noted that downtown Hamilton contained physical disorder, it makes sense that familiarity with the environment alone would not be enough to facilitate a decrease in fear of crime. A genuinely positive place attachment may be necessary in reducing fear of crime for a disordered area such as downtown Hamilton. Ultimately, this is an important avenue to consider for future research on the integration of university students into the communities surrounding their campuses.

Theoretical Implications

Our findings contribute to and align with both facets of the Community Environment model, providing support for the dual influence of social integration and disorder. Despite previous research that indicates greater social integration is associated with lower fear of crime (Franklin et al., 2008), our quantitative results did not show a meaningful connection between these variables. However, our qualitative findings did provide evidence that supports this model, offering some valuable insights into the nuances of social integration in this context. Our finding that students who engaged in meaningful time in downtown Hamilton reported a reduction in their fear of crime aligns with the Social Integration Model's core proposition that a high sense of belonging and attachment to a community reduces fear of crime (Adams & Serpe, 2000; Franklin et al., 2008). Additionally, our research explores a potentially novel avenue by considering the concept of the campus bubble. This concept raises important questions about whether meaningful social integration with one's city can occur if people are confined to a limited environment. Our findings provide support for the idea that without venturing beyond the perceived safety of campus, students may struggle to develop the level of integration necessary for reduced fear of crime in the broader city. As one student explained, "I have a consistent belief that downtown Hamilton is dangerous and I believe that this has not changed because I have not tried going down there myself to prove myself wrong."

Our research also ran consistent with the Disorder Model of crime, including Broken Windows theory. The core premise of Disorder Models suggests that visible cues play a significant role in people's fear evaluations. We found that visible disorder was a very prevalent theme in our qualitative response set. People most notably referred to the presence of unhoused individuals, environmental conditions such as deteriorated buildings, and witnessing public acts of violence as indicators of neighbourhood disorganization and unsafety. These indications of disorder align with the broken windows theory, which suggests that signs of neglect and disorder are symbolic of the increased presence of criminal activity (Kelling & Wilson, 1982; Sas et al., 2022). This finding underscores the importance of addressing neighbourhood deterioration in improving perceptions of safety, reaffirming the concepts presented by these models.

Qualitative findings also provided support for the vulnerability model, which suggests that fear is highly impacted by both situational and contextual factors which shape an individual's sense of safety (Alper & Chappell, 2012; Brunton-Smith & Jackson, 2012; Franklin et al., 2008; Wu & Wen, 2014). A key insight from our qualitative data was that students evaluate their vulnerability as contingent on certain conditions being met. Students reported that being alone, it being nighttime or poorly lit, being part of a visible

minority group, and travelling to specific areas (e.g. Jackson Square, bus shelters, etc.) were all conditions they attached to their sense of fear. These external cues shaped students' situational fear, giving evidence to the model's premise that fear of crime is socially constructed and context-specific (Franklin et al., 2008). On the other hand, physical vulnerability is associated with an individual's perceived capacity to defend themself (Alper & Chappell, 2012; Franklin et al., 2008). Gender emerged as a significant factor in our analyses, with female students frequently identifying their gender as central to their sense of vulnerability downtown. This aligned with the vulnerability model's assertion that those who perceive themselves as less capable of defending themselves will experience heightened levels of fear (Alper & Chappell, 2012; Franklin et al., 2008). However, our results indicated that this fear went beyond the capability to self-defend. Gender was also associated with social vulnerability, as female students identified themselves as at increased risk of unwanted advances from men. Ultimately, our study's findings provide support for the vulnerability model by demonstrating that fear is context-dependent, challenging the notion that objective crime is the only influence on people's fear (Brunton-Smith & Jackson, 2012).

Together, the findings of this study not only contribute to theoretical dialogues within the field but also hold practical significance for community integration strategies. This may be useful for student outreach programs, which could attempt to address students' fear of crime by facilitating increased student presence downtown.

Limitations and Future Directions

The lack of quantitative significance, despite notable qualitative findings, highlights several methodological issues which may have impacted our results. First, our operationalization of meaningful time did not account for different types of engagement with downtown Hamilton, which may have resulted in an ambiguity bias in our results. That is, by allowing students to self-define meaningful time, we may have inadvertently captured a wide range of interpretations, weakening the overall consistency of our data. Additionally, asking students to self-report the amount of meaningful time they spent downtown left responses vulnerable to both central tendency bias, where students opt for neutral or middle-leaning responses as opposed to the extremes, as well as recall bias, as students may have struggled to accurately estimate their amount of meaningful time spent downtown. Future research should aim to address the methodological issues associated with the current study by using more nuanced approaches which better capture the complexity of engagement while minimizing response biases.

Secondly, our initial choice of comparison groups was flawed. Our study ran under the premise that grouping students based on whether they are local to Hamilton or domestic from other areas would show substantial differences in fear of crime, but the lack of significant findings suggests that these groups were not relevant. If this study were to be run again in the future, we would advise reconsidering the groups examined or providing a more well-defined boundary for who is local to Hamilton to ensure more consistency in responses. Moreover, our sample size may not have been sufficient to detect small effect sizes between these groups.

Even further, this study's scope was very narrow and did not account for external influences such as the role of the environment or social identity on students' fear of crime. Given that the responses from our qualitative questions and both the Disorder and

Vulnerability model support the influence of context on people's experiences of fear of crime, it would be beneficial to examine these influences in future research. For example, further research may aim to broaden the scope of the study to better understand the relationship between place attachment and fear of crime. Based on our qualitative findings, we believe that examining the role of external influences, such as environmental factors and social identity, may have a meaningful impact on the significance of the results. Additionally, accounting for specific experiences such as personal victimization may provide a more comprehensive and nuanced understanding of the relationship at hand.

Lastly, the representativeness and generalizability of the sample is limited, as our study involved only students attending McMaster University, who may not accurately reflect the broader population's fear of crime or demographic makeup. Future research could address generalizability limitations by examining different university populations and considering the role of both separate and integrated campuses and downtown areas. Finally, it is our belief that longitudinal research may be the best way to measure this potential relationship, as it would enable researchers to examine whether fear of crime changes with repeated exposure.

Conclusion

This research has deepened our understanding of the McMaster University student population's fear of crime within downtown Hamilton. These new insights form a baseline for future research on university student populations and their community integration. Future iterations of this study could lead to initiatives helping students push beyond McMaster University's restrictive bubble and feel more at home in Hamilton.

Contributions

This project was completed collaboratively. All group members contributed to the development of the research question, study design and process, and final editing of the paper. Individual contributions are outlined as follows:

Amanda Atkinson led qualitative data analysis and overall data cleaning, worked on study visuals, and was responsible for the discussion section.
Ryen-Mackenzie Cameron created the qualitative question set and was responsible for the abstract.
Lisa Mulhall worked on study visuals and was responsible for the methods section.
Ana Stoicheci was responsible for the literature review and introduction.
Sarah Uden was responsible for the literature review and introduction.
Anna Wienburg led quantitative data analysis and survey creation, worked on study visuals, and was responsible for the results section.

All members contributed to idea generation, participated in weekly meetings, coded qualitative responses, and reviewed drafts throughout the writing process.

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