

***Gendered Perspectives to City Navigation: Addressing
Birkirkara's Street Design Impact on Women's
Perceived Safety and Navigation Patterns***

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16th June 2025

*A dissertation presented to the Faculty for the Built Environment, University of Malta in part
fulfilment of the requirements for the attainment of the degree of Master of Architecture
(Architecture & Urban Design)*



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I dedicate this dissertation to my late father, Martin Zarb, whose belief in striving for greatness, chasing knowledge and growth continues to inspire me, even though he is no longer here to witness this milestone.

I also wish to extend this dedication to all young girls and women who have experienced gender-based harassment. This research, in part, is a commendation to their strength, resilience, and the urgent need for their voices to be heard.



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Acknowledgements

This dissertation was made possible by the encouragement and guidance of many people, to whom I am extremely grateful.

Firstly, I would like to express my sincere gratitude to my supervisor Dr. Scheiber, for her unwavering support, guidance and encouragement throughout this research process. Your thoughtful feedback, patience, and understanding of the subject matter have been vital in assisting me refine and shape this study.

I would also like to extend my sincere appreciation to all the participants who made time to contribute to this study. Their willingness to share their experiences and perspectives made this dissertation possible and meaningful.

Finally, I am deeply thankful for the constant support of my friends, family and boyfriend. Your encouragement, patience, and belief in me, have been a constant source of motivation and strength.

Abstract

This dissertation investigated the correlation between street design and women's perception of safety. It particularly explored how social, spatial and psychological factors contribute to these perceptions. Moreover, it explored how different street typologies and elements such as alleyways, subways, main roads, street lighting and visibility affected women's safety perceptions.

By using the case study of Birkirkara, this research aimed to address the gap in literature in the local context and initiate a discourse on gender-based perceptions of street harassment and navigations patterns. In the Maltese context, distinct socio-cultural elements such as patriarchal systems and women still playing a predominant role as homemakers, considerably shape women's experiences in the urban sphere. Thus, it is vital to understand how urban design influences women's perception of safety and navigation patterns in such contexts.

A sequential exploratory mixed-method approach was employed with a two-phase methodology process. The first method employed was a quantitative online survey, addressing all genders who reside, work or frequently visit Birkirkara. Consequently, women aged 18 to 44 years old were invited to participate in a qualitative semi-structured interview. The interviews included mapping exercises to investigate how women navigate Birkirkara during the daytime and nighttime.

Findings demonstrated that, certain street typologies such as alleyways and subways and street elements such as poor lighting and signs of neglect were perceived as high-risk, especially among women. This resulted in women adopting coping mechanisms, highlighting clear behaviours which differ between the day and nighttime. Women alluded to taking longer routes and at times avoiding walking alone to mitigate risks.

This research underscores the need for gender-sensitive urban planning and design to promote equitable and safe cities for women in Malta's urban environments.

Key words:

Morphology, street design, sexual harassment, women's safety, perceived threats, navigation, patterns

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Chapter 1—Introduction

1.1 The Gendered Fabric of Urban Space

Urban settings have a significant impact on how their inhabitants experience their daily lives. One of the most vital yet under-researched aspects of urban living is how gender influences the perception of safety and the navigation of transient spaces.

Research finds the urban environments are intrinsically gendered, rooted in traditional gender role periods where women were confined to household duties and thus, limiting their exposure in the urban realm (Khiabani & Panahi, 2024).

However, in contemporary times, women's presence in the urban environment has increased due to economic shifts and an increase in education and employment opportunities. Nonetheless, women are still the main caregivers, and thus, their navigation patterns are far more complex than men's (Mauch and Taylor, 1997; Korsheed et al., 2018).

1.2 Street Sexual Harassment

Linked to one's experience when navigating the urban environment is street sexual harassment, the exposure to which is highly gendered. Women are predominantly targets of such instances when navigating public spaces, while men are typically the perpetrators (Bowman, 1993; Fileborn & O'Neill, 2021; Kearl, 2014; Vera-Gray, 2016; Gatt, 2023).

Street harassment may present itself as physical, verbal, and non-verbal behaviours (Bartolo, 2021). These may include sexually explicit comments, whistling, stalking, among others (Ali & Naz, 2018; Kearl, 2014; Fileborn & O'Neill, 2021; Gatt, 2023) (see Section 2.2.2). In whatever form, whether verbal, physical, or non-verbal, street harassment restricts women from fully practicing their right to occupy urban spaces without feeling threatened or the need to be cautious of their surroundings. Thus, this results in spatial inequality (Bartolo, 2021).

1.3 Factors Shaping Women's Navigation Patterns

Perceptions of safety in urban settings is another important aspect when considering navigation of the urban environment. Such perceptions are influenced by interrelated reliance on psychological, social, and physical elements.

For instance, media coverage on sexual harassment incidents in public spaces has been proven to heighten perception of unsafety among women. This creates a heightened feeling of unease in women, where they might relate to these situations when navigating through similar areas where the incident happened (Ceccato & Loukaitou-Sideris, 2022). Thus, such media coverage can extenuate risk perceptions and thus influence their navigation experiences (Lupton, 1999; Roberts et al., 2022).

Furthermore, demographics and socioeconomic factors play a vital role in the frequency of sexual harassment in public settings (Lu et al., 2024). A study by FRA (2015) shows that women who were currently studying or in possession of a tertiary level of education, as well as homemakers and unemployed individuals among other minority female groups, were more likely to avoid certain areas or situations, drawing parallels to their young age or economic status (see section 2.3.1).

These experiences are further intensified by environmental factors. Factors such as poor lighting (Beebeejaun, 2016) and overgrown vegetation (Lu et al., 2024) that may obscure visibility and signs of neglect and abandonment produce heightened feelings of unsafety among female commuters. Streets that lack visibility and pedestrian presence, such as alleyways, cul-de-sacs, and subways, heighten anxiety levels among women due to fear due to limited exit routes should they be threatened (Roberts et al., 2020).

1.4 Consequences of Perceptions of Safety among Women

Studies show that women's navigation behaviours are significantly impacted by the factors mentioned in Section 1.3 (Valentine, 2001) especially due to the fact that women are seen using the public realm at nighttime (Taylor et al., 1996; Hanmer and Saunders, 1984). Consequently, women adopt coping mechanisms to mitigate risks when navigating urban environments. For instance, women tend to choose well-lit streets, inform others of their location, or refrain from walking alone, particularly at night (Roberts et al., 2019). Furthermore, women favour lengthier routes that they perceive to be safer over the most efficient ones, whereas men typically take more direct routes (Nenci & Troffa, 2006; Korsheed et al., 2018).

1.5 The Maltese Context

The link between the urban environment and perceptions of safety among women remains significantly underexplored in Malta. Bartolo (2021), provides insight into the occurrence of sexual harassment in public spaces locally. The study illustrates that women aged between 21 and 30 were among the majority experiencing street harassment. These included unwanted physical and verbal communication. However, research regarding how the physical environment, e.g. street lighting, street aesthetic conditions, and various street typologies, may contribute to fear and unease when navigating urban environments in Malta, remains insufficiently addressed.

Meanwhile, Malta has the highest rate of female caregivers (41.2%) (FRA, 2015) in the EU. Drawing from the literature, such socio-economic roles may have an effect on women's mobility and navigation patterns, and thus, locally, it is important to investigate how the built environments influence women's perceptions of safety.

1.6 Research Overview

The aim of this study is thus to identify correlations between street design (typologies) and street elements and their effects in shaping perceptions of safety across different genders but predominantly in women. The research focuses specifically on the case study of Birkirkara, which was chosen due to the nature of its physical and social characteristics (as described further in 3.2.2) which allow for a comprehensive analysis of how such factors play a role in shaping women's perceptions of safety when commuting on foot.

Consequently, the following research questions were developed:

- How do different street designs influence women's perceptions of safety while navigating Birkirkara?
- To what extent do women in Birkirkara alter their travel routes based on the perceived safety of different street design elements?

More specifically, the following research objectives were identified:

- To further understand how street morphology influences women's navigation choices and travel patterns within the city.
- To identify how different genders perceive safety when navigating urban

1.7 Dissertation Structure

After giving an overview of the research study in Chapter 1, Chapter 2 delves into a deeper understanding of the theoretical literature on the evolution of the presence of women in the urban realm over time.

Moreover, the occurrence of sexual harassment in public, particularly against women, and the forms it may take are discussed, along with both tangible (physical environment) and intangible factors (socioeconomics, behaviours, and media), specifically focusing on their role in influencing the lived experiences of women who inhabit these urban environments.

Mechanisms and strategies adopted by women to ensure their safety and mitigate risks of potential threats are also discussed, providing a snapshot of the realities of women inhabiting such areas. The literature was utilised to develop a theoretical framework, which served as a basis for the development of the online survey and semi-structured interviews.

Chapter 3 discusses the methodology employed while also providing further insight on the different data collection techniques used. Furthermore, this chapter draws insight into ethical considerations taken and the potential limitations the study.

Chapter 4 presents the results obtained through the quantitative survey, using descriptive statistical analysis, and the qualitative semi-structured interviews, which were thematically coded, outlining the emerging themes. The results were then further discussed in Chapter 5, relating the research questions to the literature, serving as a conclusion for this study.

Chapter 2 – Literature Review

2.1. Women in the Urban Environment Over Time

Urban environments play a vital role in shaping daily lives. In relation to this understanding women's experience in navigating cities and their perception of safety is extremely relevant. This research explores how street design influences this demographic's navigation patterns and their perception of security, with a focus on sexual harassment occurrences. Over the years, literature (United Nations, 2017), has highlighted the need for more gender-responsive urban planning and design to create more holistic and safer public spaces for women.

Traditionally, women were largely absent from the public urban environment, being limited to domestic duties in the home while men asserted a stronger presence in urban environments (Khiabani & Panahi, 2024). However, economic shifts, emancipation movements, and broadening educational opportunities have elicited significant changes. Women are increasingly moving from traditional caregiving roles to active participation in the workforce, which has enhanced their visibility and engagement within urban settings.

Nevertheless, Mauch and Taylor (1997), as cited by Khorsheed et al. (2018), assert that women's navigation patterns are far more complex than those of men. They contend that women, although having entered the workforce in contemporary times, are still the main providers in carrying out household duties such as taking children to school and back, shopping, etc., resulting in a combination of different trips throughout their day.

Bharucha & Khatri (2018) maintain that, in India's predominantly patriarchal society, women are seen as caregivers and are sexually objectified. Economic crisis and better access to education have made them enter the urban space and leave their houses. Though women in India are excelling in their careers and improving their social status, they are still seen as inferior to men due to cultural biases casting men as the primary providers while women take a supporting role within the family unit (Bharucha & Khatri, 2018) and often are subject to sexual harassment. This deep-rooted societal belief restricts women's sense of autonomy and limits their safe access to public spaces.

India's National Crime Records Bureau (2015), as cited by Bharucha & Khatri (2018), states that around 26 reports per hour of crimes against women were reported in 2015. It is

important to state the latter is excluding sexual crimes against women that have not been reported due to fear of stigmatisation, societal judgement, and women not being well educated enough to practice their rights (Bharucha & Khatri, 2018).

The response to street harassment often widely differs from region to region and is often shaped by the local cultural attitudes towards public space. For example, women in more conservative societies are increasingly using driving as a form of empowerment, thus offering women a sense of control over their mobility and freedom to navigate the city (Francu, 2023).

Meanwhile, western cities such as Vienna and Amsterdam are experiencing navigation patterns where women actively reclaim public spaces for social participation, leisure, and self-expression (Francu, 2023). Moreover, Francu (2023) in her study, contends the distinct ways in which the Western and the Eastern cultures view public spaces. For Western countries, streets are perceived as places for enjoyment and self-expression, while in the East they are perceived as simply transitory routes that allow you to get from one place to another as opposed to a destination in their own right.

Women's navigation through the city is frequently impacted by societal norms, family obligations, and cultural standards, leading to more complex daily travel routines compared to men (Hasson & Polevoy, 2011; Khorsheed et al., 2018). Many women must juggle multiple roles such as work, childcare, and chores, often combining several tasks into a single trip. This occurrence reflects gender-based preconceptions about caregiving and household obligations that continue to influence how women interact with urban surroundings, resulting in travel behaviours that differ from those of males (Mauch & Taylor, 1997; Khorsheed et al., 2018).

Additionally, the division of the public and private spaces between genders is heightened due to deep-rooted beliefs in traditional gender roles. Women's roles are often confined to indoor spaces or family-related activities, while men typically are seen engaging freely in the public realm while working or taking part in outdoor activities in many Middle Eastern countries (Khorsheed et al., 2018). This belief maintains the view of public spaces as male-oriented, which may lead to anxiety among women, particularly in urban locations believed to be unsafe (Chafai 2017).

Females, from a very young age, are told to avoid public spaces at nighttime or that they should travel with someone else after dark to avoid risks of being targeted and harassed. Such

early conditioning instils a profound association of public space with danger, reinforcing women's feelings of unease and vulnerability when encountering harassment in urban settings (Chafai, 2017).

2.2. Sexual Harassment in Streets and Public Spaces

2.2.1 Defining Street/Public Space Harassment

Sexual harassment is a widespread issue that may manifest itself in various forms, and it takes place in particular in public spaces, where it is often referred to as street harassment (Bowman, 1993; Ali & Naz, 2018; Gatt, 2023).

Bowman (1993), as cited by Gatt (2023), uses the term street harassment to describe the act committed by men in targeting women in public settings. Research contends that typically women are the victims of such acts while man is the perpetrator and thus, highlighting the gendered nature of street sexual harassment (Bowman, 1993; Fileborn & O'Neill, 2021; Kearl, 2014; Vera-Gray, 2016; Gatt, 2023).

Moreover, it is deduced that it is one of the least understood by individuals but yet is the most common type of sexual harassment encountered by women (Vera-Gray, 2016; Gatt, 2023). Regardless of the victim's age or the setting, street harassment can manifest as unwanted verbal, physical, and nonverbal actions that cause them to feel uncomfortable, humiliated, or fearful (Bartolo, 2021).

2.2.2 Forms in Which Sexual Harassment May Occur on Streets

Street sexual harassment may present itself in various forms such as staring, remarks of a sexual nature, inappropriate touching, whistling and unwanted gestures which are typically directed towards women based on their perceived gender or gender identity (Ali & Naz, 2018; Kearl, 2014; Fileborn & O'Neill, 2021; Gatt, 2023). According to Nagindrappa and Radhika (2013) and Bharucha and Khatri (2018), *eve-teasing* is the term used in Southeast Asia to refer to acts of sexual harassment committed by men against women in public settings. These acts which especially take place in high-traffic areas and on public transit, usually involve inappropriate stares, unwanted remarks and pinching, resulting in discomfort and unease among women, infringing on their right to navigate freely in urban environments.

Furthermore, street harassment can also take the form of non-verbal abuse, such as stalking, exhibitionism, and the display of sexually explicit materials, while verbal forms of harassment can include acts such as jeering, insults, or intrusive questions regarding sexual activity (Ceccato & Loukaitou-Sideris, 2022).

Moreover, it can be exhibited in more serious forms, such as rape, unwanted kissing and physical contact (Ceccato & Loukaitou-Sideris, 2022). Such behaviours towards women in urban settings are not only invade their personal safety and create anxiety and unease, but they also limit their ability to freely navigate and feel safe in the urban environment.

At a global scale, many women and girls around the globe report encountering various instances where they faced one or more of the forms of street harassment mentioned in their lifetime, which ranged from unsolicited comments to groping and, in more extreme instances, gender-based murders (UN Global Initiative, 2021).

Such incidents and types of harassment are further influenced by the cultural context. For example, ogling, unsolicited sexual remarks, vulgar statements regarding physical attractiveness, and physical gestures like pinching or brushing are frequent in Pakistani society (Ali & Naz, 2016). Street harassment poses a target on women by restricting their freedom of movement and emphasises their vulnerability, thereby undermining their safety in urban environments. Consequently, it is fundamentally rooted in power dynamics, regardless of cultural or geographic contexts. (Chafai, 2017).

Street harassment, whether it presents itself as verbal, nonverbal, or violent, can be defined as a kind of gender-based victimisation that undermines women's freedom of movement in the urban realm and thus, contributes to spatial inequality (Bartolo, 2021). Therefore, understanding such challenges is vital in shaping urban environments which promote spatial equity and safety in urban environment navigation.

2.2.3 Global Statistical Data

Numerous studies reveal the high prevalence of sexual violence faced by women in urban environments such as streets. This global issue poses severe restrictions on women's freedom of mobility and navigation. A national survey in Morocco found that 63% of women aged between 18 and 65 have reported being victims of gender-based violence. This included

sexual, physical, and psychological abuse, which had a strong impact on their daily lives (Chafai, 2017). Single women, particularly, feel vulnerable, with the majority reporting heightened senses of feeling threatened in most public environments (Bharucha & Khatri, 2018).

A baseline study from the Quito Safe City Programme in Ecuador concluded that 91% of women and girls had encountered gender-based violence in public spaces such as streets or public transportation (UN Global Initiative, 2021). Within the same group, 79% experienced sexual violence during peak commuting hours. Contributing factors included congested buses, lack of enforcement against gender-based violence, and certain street designs and typologies. Moreover, areas with higher density and lack of surveillance increased risks, making daily urban navigation difficult and triggering anxiety among women (UN Global Initiative, 2021).

Similar instances were observed globally. In Rabat, Morocco, 62% of women reported experiences with sexual harassment at least once (UN Global Initiative, 2021). Over half of women vendors in Port Moresby, Papua New Guinea, faced violence and harassment in public markets. Meanwhile, in Kigali, Rwanda, 55% of women recorded feeling unsafe on their commute to schools and other destinations during the evening, resulting in limitations to access services and social spaces. (UN Global Initiative, 2021).

In a recent study by Stop Street Harassment, 81% of women experienced sexual harassment, with 38% recounting instances that happened at their workplace and 66% occurring in public spaces, (Chatterjee, 2018; Bartolo, 2021). Correspondingly, Osmond and Woodcock (2015) reported that 38% of women felt uneasy on public transportation, while 75 women reported harassment while jogging, walking, or commuting from social spaces. (Woodcock & Osmond, 2015) (Bartolo, 2021).

A 2015 Fundamental Rights Agency (FRA) study revealed that 53% of women across the 28 EU Member States, avoided particular areas due to fear of physical or sexual assault. Specifically, 37% of women reported avoiding spaces, and 40% opted to completely avoid secluded spaces and car parks (FRA, 2015). Furthermore, as Figure 2 shows, the fear of victimisation positively correlated (+0.702) with avoidance of certain places.

Figure 8.4: Worry about being victimised and risk avoidance behaviour (%)

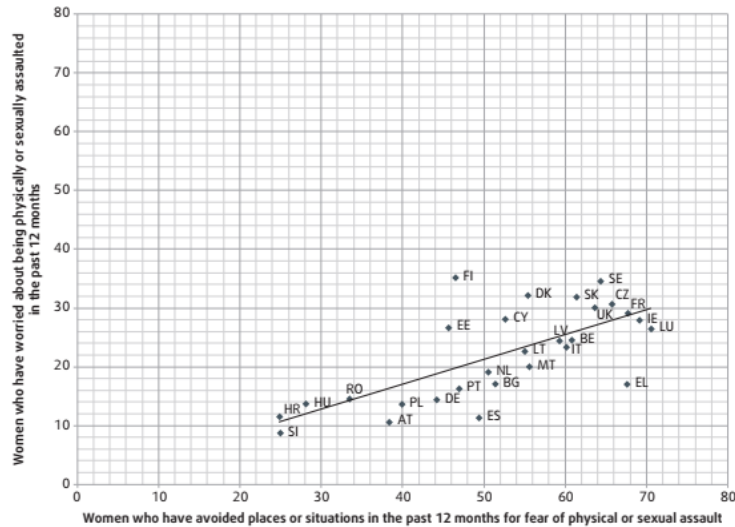


Figure 2 FRA Results: Fear of Victimization vs Avoidance of Places and Situations (FRA, 2015)

2.3 External Factors Influencing Perceptions of Safety

In urban settings, sexual harassment stems from a number of overlapping characteristics, including age, gender, ethnicity, and disabilities. Socioeconomic and demographic factors have a significant impact on women's susceptibility to harassment, increasing their anxiety and limiting their mobility.

Additionally, media coverage further impacts women's perception of safety in urban environments. While on one hand it can positively contribute to raising awareness, it also reinforces feelings of fear. Thus, this section explores how intersectionality and media contribute to women's navigation behaviours and risk perceptions within urban environments.

2.3.1 Demographic and Economic Factors

Research shows that socioeconomics and demographics play a vital role in the likelihood of the occurrence of sexual harassment in public urban environments (Lu et al., 2024). For example, women come face-to-face with sexual harassment more frequently than the opposite gender, drawing attention to certain factors such as race, social class, disability, and sexuality that further influence exposure due to vulnerability (Kearl, 2014; Gatt, 2023).

Moreover, according to Bondi and Rose (2003), as cited by Frâncu (2023), factors of identity such as race, gender, sexuality, and class are intrinsically interconnected factors that influence

the geographies and spaces in which such groups live. Thus, it reinforces how social identity is “always constructed through lived geographies of placement” (Francu, 2023, p. 550).

A study for Violence Against Women: An EU-wide Survey by the Fundamental Rights Agency (FRA) (2015), showed shared characteristics of women who have avoided specific locations or situations in the last 12 months of which the data was collected. Respondents were more likely to be in possession of tertiary education or currently in school, which generally reflects their younger age. Additionally, the most commonly represented were also single mothers, non-residents or those with at least one parent who is a non-citizen and those unemployed or are homemakers (FRA, 2015). Moreover, women who are under the age of 40, and even more so women under 30, are more likely to express more concern about being at risk of violence from strangers (FRA, 2015).

The notion of ‘*intersectionality*’ is essential to deduce the multiple manners in which individuals experience gendered harassment. A framework developed by Crenshaw (1991) aids in showing how intricate intersections of social class, race, age, and other identities affect these gendered experiences (Beebeejaun, 2016). Beebeejaun (2016), accentuates that spatial and social contexts shape gendered experiences.

Furthermore, she notes that cities themselves are agents for reflecting social dynamics through daily actions and interactions between their inhabitants. Consequently, women coming from lower socioeconomic backgrounds or from socially marginalised groups are generally at a higher threat of harassment, with such vulnerabilities magnified in urban environments (UN Global Initiative, 2021).

2.3.2 The Media

Media coverage plays a significant role in shaping women’s perception of safety in urban environments. To illustrate how street harassment is often minimised by individuals, communities, the state, and the media, Chafai (2017) discusses a 2016 incident of harassment near a Moroccan school. The issue gained traction during events like the Arab Spring and Egypt’s 2011-2013 assaults (Chafai, 2017). Consequently, the media attention spurred activism in Morocco, including the documentary *Breaking the Silence* (2023) and grassroots movements like Women-Shoufouch, where with the aid of digital platforms, discourse is amplified (Chafai, 2017).

Moreover, social media has played a vital role in raising awareness on spatial equality by bringing to light precautions women must take, especially when commuting alone at nighttime (Moreno et al., 2022).

Moreno et al. (2022), contend that, for instance, women are often given advice such as *“hold your keys between your fingers like spikes when walking through the subway at night,”* *“pretend to talk on your phone,”* *“keep the emergency number on speed dial,”* or *“avoid streets where no one would hear you if you screamed.”* *“Walking in the middle of the sidewalk to avoid being dragged into a car or doorway”* or *“acting as though they’re greeting someone to appear less isolated”* are strategies that women recount taking (Moreno et al., 2022).

Media coverage does not only shed light on these issues, but it also formulates how threats are perceived and often asserts reinforcing narratives of control and fear. Walby (1990), suggests that media depictions of violence against women can be used as instruments of social regulation, where sensationalised accounts of sexual violence turn into a type of communal discussion that indirectly governs women's actions and engagements in the public realm (Walby, 1990; Roberts et al., 2022).

According to Jewkes (2015) and Walklate (1997), stories about sexual harassment are often distorted, misinterpreted, and overemphasised in media just because they are “newsworthy.” This tendency to repeatedly present sexual violence through common stereotypes, such as the *“classic rape”* scenario of a stranger attacking a woman on a poorly lit street (Kelly, 1988; Roberts et al., 2022), impacts women’s sense of safety. It does so by illustrating certain public spaces as dangerous (Roberts et al., 2022). These representations may also lead to stereotypes, particularly in the urban landscape where brief and superficial interactions occur among diverse social groups. Media reinforces the stereotypes surrounding certain demographics of people, further leading to generalisation, and the unfamiliarity with said groups may lead to the reinforcement of perceived threats (Roberts et al., 2022).

Lupton’s study (1999), conducted in Australia, concluded that women often fear sexual assault by strangers when commuting at nighttime, and is amplified due to frequent encounters of harassment in public spaces by unfamiliar men. Women who have encountered frequent harassment in public spaces may assert an increased sense of risk associated with public spaces (Lupton, 1999; Roberts et al., 2022).

Frequent media coverage may heighten perceptions of risk, thereby reinforcing the notion that urban environments are fundamentally unsafe for women (Lupton, 1999; Mehta and Bondi, 1999; Roberts et al., 2022). Consequently, media representations can intensify everyday experiences of fear, subtly influencing how women navigate and perceive urban spaces (Lupton, 1999; Roberts et al., 2022).

Furthermore, the media coverage has been demonstrated to enhance feelings of personal vulnerability through what Winkel and Vrij (1990), as cited by Ceccato & Loukaitou-Sideris (2022), describe as "*stimulus similarity*." This occurrence arises when individuals relate to the victims in reported events, creating a sensation of "*it could have been me*," especially in familiar settings like public transport or urban areas. This process of identification can result in increased fear and modified behaviours in public spaces (Ceccato & Loukaitou-Sideris, 2022).

2.4 Spatial Factors

2.4.1 Social Exclusion and Gendered Perspectives

The representation, or lack thereof, of women in urban settings plays a role how safe women feel in public settings. When towns neglect to cater to the needs and interests of women, it often fosters a sense of alienation and "non-belonging." Consequently, women may start to perceive themselves as outsiders within their own communities, which in turn it may discourage them from accessing certain areas within the urban environment. Thus, leading to women from being less present in the full spectrum of the urban city life. Without urban planning that directly responds to women's needs, women may opt to avoid public spaces altogether, and thus, decreasing their engagement in economic and community activities (Francu, 2023).

Research on gender perspectives, accentuates that men and women have distinct perceptions on their surroundings (Kunieda & Gauthier, 2007; Korsheed et al., 2018). While men tend to shift their attention to factors such as traffic speed and accident risks, women, predominantly prioritise their personal security. Furthermore, women view urban unsafety from a verbal and physical harassment perspective. Such concerns underscore the need for more inclusive

designs that account for varied perceptions of urban safety (Kunieda & Gauthier, 2007; Korsheed et al., 2018).

2.4.2 Street Typologies, Neglect and Isolation

Underutilised and disconnected spaces, for instance, cul-de-sacs, alleyways, and blank walls, are frequently found in urban environments where natural surveillance is lacking (Francu, 2023). In Frâncu's (2023) research, she further notes that these spaces reduce visibility and are contributors to perceptions of unsafety. Therefore, such areas are especially vulnerable to criminal activity. They are also often neglected and isolated, fostering an unwelcoming feeling among all residents, but particularly among minority groups in the city, such as women.

The absence of active frontages such as stores and garages, in urban environments discourages casual on-foot traffic, resulting in the lack of natural surveillance, which can help mitigate the risk of crime. As a result, such design choices create environments where women and other vulnerable populations feel unwelcome or unsafe, often avoiding them altogether (Frâncu, 2023; Khalid et al., 2020).

2.4.3 Lack of Visibility and Areas of Entrapment Risks

Natural elements such as dense or poorly vegetation, are among street factors that may contribute to feelings of unsafety and limit visibility when commuting in urban environments (Lu et al., 2024). Overgrown vegetation, alleyways, and isolated paths can create isolated areas where potential perpetrators may observe or trap victims, further increasing perceptions of risk.

Unkept areas and dense vegetation may signal the presence of derelict and neglected areas, which in turn show a lack of community care, apart from only hindering visibility. Consequently, women may decide to avoid such areas due to fear of risk based on their aesthetical conditions, (Gaertner et al., 2016; Lu et al., 2024).

2.4.4 Public Transit Environments and Crime Related Areas

Public transit environments, including streets, which are essential part of urban navigation, can present conditions that amplify perceptions of fear among women. Sexual harassment incidents are often influenced by environmental factors. For instance, locations that are of poor visibility, such as secluded parks and alleyways, are more prone locations for sexual

crimes to occur, as they provide cover to the perpetrator without alerting any bystanders (Myhill & Allen, 2002; Lu et al., 2024).

Signs of disorder in a city, such as litter, graffiti, or boarded vacant plots, tend to convey a feeling of absence of order or safety, and thus, they may deter individuals from using these spaces freely. Women are particularly mindful around such areas, which limits their transit zone as they opt to avoid these spaces.

Areas exhibiting visible signs of neglect can limit on women's access to city utilities and social engagement, as they may alter their navigation patterns to avoid locations which they perceive to be risky or unsafe (Loukaitou-Sideris et al., 2009; Ceccato & Loukaitou-Sideris, 2022). Moreover, high-crime areas, poorly maintained streetscapes, and socioeconomic disparities, discourage women from feely navigating urban environments Thus contributing safety concerns among women and reducing their visibility in the urban environment (Tandogan & Ilhan, 2016; Arjmand, 2016; Khalid et al., 2020). As a result, perceptions about women's constricted participation in public life are amplified, leading to a self-fulfilling prediction in which urban planning unintentionally limits women's freedom of movement.

Areas such as parking lots, subways, and alleys, where visibility is diminished, are seen as high-risk areas by women, reducing their safety reassurances when navigating them unaccompanied. Furthermore, research suggests that such typologies with lack of escape exists, or "*clear lines of sight*" exacerbate anxiety among women, who fear being trapped if confronted with threats in these areas, (Roberts et al., 2022).

2.4.5 Urban Safety Models (Jacobs vs. Newman)

Divergent perspectives on the implementation of '*defensible space*' in urban planning illustrate different strategies for promoting safety.

By encouraging a feeling of shared ownership and communal guardianship, Jane Jacobs (1992), promoted spatially connected, active-use spaces that naturally discourage crime through ongoing public engagement and visibility.

Oscar Newman's (1973) concept, in contrast, supported compartmentalised designs, including cul-de-sacs, which restrict entry points to improve mobility control.

Although improving urban safety is the goal of both models, they provide distinct approaches to resolving the issues that certain groups, particularly women, experience.

Women typically see areas that encourage frequent pedestrian traffic and community involvement as safer than remote areas where there may be less natural surveillance, which might lead to harassment or criminal activity (Mohammed & Van Nes, 2017)

2.4.6 Poor Lighting and Social Threats

Poorly street lighting is an additional factor that heightens perceptions of unsafety among women. A project led by the Women's Design Service in Bristol (Beebeejaun , 2016) found that women felt unsafe navigating particular areas such as parks located adjacent to highways. Additionally, physical and social barriers such as poorly lit pathways and intimidating strangers also restricted their freedom of movement (Beebeejaun , 2016).

In this context, the absence of both physical safety features and supportive social elements compounded women's fears, limiting their participation in public spaces. Poorly lit areas reduce visibility and obscure them from identifying risk or detecting potential threats.

Moreover, the absence of pedestrian activity, which limits natural surveillance, fosters fear among women in urban areas. Consequently, studies concluded that such elements deter women from utilising public spaces and, hence, pose a threat to their freedoms of mobility and access to social and economic opportunities (Day, 1999; Roberts et al., 2022).

2.4.7 Perceived Threats in Public Spaces Resulting in Change of Navigation Patterns

A research paper conducted by Roberts et al. (2022) aimed to explore the changes in women's behaviour when navigating public spaces, in particular streets, as a reaction to perceived and actual threats of the sexually violent behaviours. The paper, focusing on women's experience on and off campus in Northern England, concluded that the most common themes among the participants that made them feel unsafe navigating the urban landscape were "*darkness, being alone, desolate places/spaces, strangers, 'drunks,' and stories/experiences of sexual attack*" (Roberts et al., 2022).

Women's fear of harassment on the street not only affects their freedom of mobility but also makes them adopt defensive strategies. These strategies include navigating through well-lit

spaces, notifying friends and family about their whereabouts and often sharing locations, and conceal their personal belongings (Roberts et al., 2022).

The perception of threats and fear of harassment and crime play a significant role in influencing how women navigate urban environments and often shape their travel behaviours (Loukaitou-Sideris, 2016; Ceccato & Loukaitou-Sideris, 2022). While most grievous instances of sexual violence, such as rape and sexual assault, are carried out in private spaces by men known to the victims (Ministry of Justice, 2013; Calkins et al., 2015; Pain, 1991; Waterhouse et al., 2016; Roberts et al., 2022 verbal and physical sexual abuse in public spaces is more often perpetrated by strangers.

Furthermore, feminist researchers have concluded that spaces and mobility are notably gendered, where women adapt their navigation routes, pace, and time of the day they travel in order to reduce their exposure to perceived threats (Ceccato & Loukaitou-Sideris, 2022). The latter makes women use longer routes that are less efficient to ensure their safety. Women in the Global North and South alike report altering their travel behaviours based on location, motivation, and safety considerations (Law, 1999; Tanzarn, 2008; Ceccato & Loukaitou-Sideris, 2022).

2.4.8 Coping Mechanisms

Valentine (2001), remarks that when navigating urban environments, women's behaviour becomes a complex response to perceived threats and violence, and such behaviours dictate how they use certain public spaces, especially after sundown. Research by Taylor et al. (1996), and Hanmer and Saunders (1984), women are significantly seen less using outdoor spaces during dark hours of the day, mainly due to feelings of unsafety.

However, in some cases, women in public spaces may not feel intimidated by men. For instance, Paul (2011) highlights that some women who partook in his study based in India remarked that they did not feel unsafe despite these challenges. In contrast, a UK study based on women navigating UK campuses and, in the city, remarked that they took precautionary measures to ensure safety, especially at nighttime (Roberts et al., 2020). These women alluded that they opt for well-lit streets, inform and share locations with their friends or avoid walking alone altogether, avoid consuming alcohol, and conceal their belongings (Roberts et al., 2020).

Though these measures pose restrictions on the freedom of navigation, they provide women with safer access to public space and navigation.

The need for defensive mechanisms when navigating urban environments is further supported by the social and psychological repercussions of harassment. Sánchez-Díaz (2018) as cited by Gatt (2023), alludes to the fact that street harassment represents a form of violence that typically remains unaddressed. Meanwhile, globally, circa 80% of women have reported experiencing street harassment at least once in their life, (Kearl, 2010) .Meanwhile, another study by Kearl (2014), further cited by Gatt (2023), found that women are more likely to experience sexual harassment when navigating urban areas than men.

Environmental factors play a significant role in women's navigation choices. Nenci & Troffa (2006), as cited by Korsheed et al. (2018), concluded that women, unlike men, consider environmental aspects when navigating cities, often choosing longer and more visually appealing routes they are perceived as being safer. Meanwhile, men opt for more efficient routes and direct pathways (Nenci & Troffa, 2006; Korsheed et al., 2018).

2.5 The Maltese Context

Existing research shows vital critical issues when it comes to women's safety and navigation patterns when using urban streets. However, several gaps persist in the understanding of the correlation between urban design and gendered experiences, in particular in the Maltese context.

A study conducted by Bartolo (2021) with the Faculty for Social Wellbeing identified that the most common forms of sexual harassment on Maltese streets include sexual comments and unwanted physical contact. Bartolo (2021) asserts that such incidents are most prevalent among women aged 21 to 30, occurring on streets, in bars, and in clubs. These instances included incidents regarding unwanted physical contact and verbal harassment. Moreover, such findings call for a deeper exploration of how specific urban design elements, such as poorly lit streets, alleyways, parking lots, and narrow sidewalks, contribute to the perception of fear in walking and safety when they navigate public spaces.

Moreover, Malta has the highest percentage of women homemakers in the EU, with 41.2% from a representative sample of women aged between 18 and 74 years old (FRA, 2015).

Consequently, this could pose an influence on women's navigation patterns and their interaction with the public spaces (FRA, 2015). Yet, due to limited research regarding the relationship between socio-economic status and street urban design, and how it creates adverse reactions to women's access to public spaces and impacts their perceptions of safety. Furthermore, existing literature does not sufficiently provide insight into the experiences of diverse women, such as migrants, women with disabilities, and elderly women, whose navigation patterns may be different due to correlated forms of discrimination.

Patriarchal structures add another layer of complexity. In the Maltese context, the UN Working Group on Discrimination against Women and Girls, recognizes a robust constitutional guarantee and legislative frameworks for gender equality. Nevertheless, Malta's patriarchal views continue to assert hurdles in women's freedom for public and private life. Moreover, the disproportionate burden of women's caregiving duties, also poses constraints in women's participation in public spaces, reflection broader inequalities rooted in family structures (United Nations, 2023). These patriarchal beliefs influence the experiences and design of the urban environment, which prioritizes male-dominated planning that fail to account for women's needs in public spaces.

These gaps in literature call for a localised study. Birkirkara was selected as a case study due to its central location and it being the second most populated locality in Malta (NSO, 2023), with diverse social demographics in terms of race, economic status, and gender. Furthermore, Birkirkara's urban morphology allows for a thorough analysis of how different street typologies and elements play a role in shaping safety perceptions when commuting on foot.

Thus, it is important to investigate how such street design elements correlate to the perceptions of safety and navigation patterns of women. The purpose of this research is to fill this void by advancing the conversation on gender-sensitive urban design, which may create safer and more inclusive cities and allow women to fully engage in urban spaces.

2.6 Theoretical Framework

Table 1 underscores the theoretical framework developed from the key principles outlined by academic contributions pertaining to the gendered perspectives of urban safety in Sections 2.3 and 2.4. The framework was organised into five themes that encompass how gendered navigation experiences are shaped by spatial, social, and psychological factors. The following

categories informed the design of the online survey and subsequently the interview guide as outlined in Chapter 3.

Category	Key Principles	Authors Cited
Perceived Safety	Safety perceptions in women shaped by fear of harassment, lack of light, isolated spaces, travelling alone, and presence of strangers or intoxicated individuals.	Roberts et al. (2022); Lupton (1999); Mehta & Bondi (1999); Ceccato & Loukaitou-Sideris (2022)
	Women perceive public spaces from a perspective of personal security, whereas men focus on traffic risks.	Kunieda & Gauthier (2007); Korsheed et al. (2018)
	Social identity (gender, race, socioeconomic) plays a role on perceived safety.	Bondi & Rose (2003); Frâncu (2023)
	Intersectionality is vital in understanding complex experiences of perceived threats.	Crenshaw (1991); Beebeejaun (2016)
Environmental Factors	Elements such as dense vegetation, poor lighting, and visible signs of neglect in streetscapes areas, contribute to higher perceptions of risk.	Lu et al. (2024); Gaertner et al. (2016); Beebeejaun (2017); Day (1999); Roberts et al. (2022)
	Signs of disorder and abandoned dwellings (litter, graffiti, vacant plots) contribute to sense of danger and avoidance.	Loukaitou-Sideris (2009); Ceccato & Loukaitou-Sideris (2022)
	Media coverage amplifies risk perception and reinforces fear.	Walby (1990); Jewkes (2015); Walklate (1997); Kelly (1988); Roberts et al. (2022); Lupton (1999); Moreno et al. (2022)
Experiences with Harassment and Social Interactions in Public Spaces	Stories pertaining sexual harassment in specific areas contribute to a heightened sense of fear among women.	Winkel & Vrij (1990); Ceccato & Loukaitou-Sideris (2022)
	Women from marginalised groups and lower social status experience heightened vulnerability in public environments.	UN Global Initiative (2021); Gatt (2023); Kears (2010, 2014)
	The media often downplays instances of harassment unless amplified by major political events.	Chafai (2017)
	Instances of harassment in public is more likely to include an estranged perpetrator. However, ones which happen in private are typically familiar individuals.	Ministry of Justice (2013); Calkins et al. (2015); Pain (1991); Waterhouse et al. (2016); Roberts et al. (2022)
	Verbal and physical abuse is influenced by space. Secluded parks and alleyways are common spaces in which they might occur due to lack of natural surveillance.	Myhill & Allen (2002); Lu et al. (2024)
Coping Mechanisms and Strategies	Women adopt coping mechanisms to minimise risks such as avoiding dark or isolated areas, notifying close individuals of their whereabouts, and protect their belongings.	Roberts et al. (2022, 2019); Valentine (2001); Taylor et al. (1996); Hanmer & Saunders (1984)
	Women decide on altering their navigation patterns and thus, resulting in longer commute time by choosing well lit routes and travel during certain times of the day.	Cresswell & Loukaitou-Sideris (2022); Law (1999); Tanzarn (2008); Korsheed et al. (2018); Nenci & Troffa (2006)
	Some women report feeling safe despite threats, suggesting variability in personal experience.	Paul (2011)
Street Typologies and Street Elements	Underutilised, disconnected, or dead-end spaces reduce visibility and increase fear and unease.	Frâncu (2023); Khalid et al. (2020)
	Absence of active frontages (stores, residences) leads to lack of natural surveillance which contributes to heightened feelings of unsafety among women.	Frâncu (2023); Khalid et al. (2020)
	Alleyways and subways are among street typologies which create a heightened sense of fear due to lack of alternative routes.	Roberts et al. (2022)
	Jacobs vs. Newman: active-use vs. defensible space models affect women's safety perceptions.	Jacobs (1992); Newman (1973); Mohamed & Van Nes (2017)

Table 1 Theoretical Framework

2.7. Conclusion

This chapter outlines how perceptions of safety in urban environments are influenced by a combination of socioeconomic, spatial, and psychological factors. Moreover, it illustrates how these perceptions are deeply influenced by gender biases and explores the varied experiences of men and women. Environmental features such as inadequate lighting, signs of abandonment or neglect, and specific street typologies such as subways and alleyways are identified as features which amplify a sense of risk among women. Past personal experiences or stories of harassment happening to others also contribute to such feelings. Consequently, women often adopt coping mechanisms when commuting, such as altering navigation patterns and informing others of their location and hence limiting their freedom of movement in urban environments.

Furthermore, five major interconnected themes were extracted from the literature review. These themes informed the data collection methods described in Chapter 3 and as well as the photomontages used in the online survey and the semi-structured interviews as outlined in Chapter 4.

Chapter 3 - Methodology

3.1 Introduction

This chapter presents the methodological approach used in this study to investigate street design and urban conditions in Birkirkara, examining their relationship with women's perceptions of safety and its effect on their navigation patterns.

Moreover, this chapter provides a detailed rationale for the adoption of a sequential explanatory mixed-methods approach, specifying the methods used for the data collection and the fundamental considerations taken, including validity and ethical considerations. Furthermore, this chapter it justifies the selection of the case study approach chosen and discusses the limitations of the adopted methodology.

3.2 Research Approach

3.2.1 Case Study Approach

This dissertation uses a case study approach, focusing specifically on Birkirkara. Creswell (2007) defines a case study approach as *“research that involves the study of an issue explored through one or more cases within a bound system...”* (Creswell, 2007, p. 73), such as its context and setting. However, in this study the choice of a case study approach falls more in line with the definition given by Stake (2005) as cited by Creswell (2007), in which the case study approach is defined as a *“choice of what is to be studied”* rather than a methodology.

Furthermore, in this dissertation Birkirkara is presented as a *“single instrumental case study”* (Creswell, 2007, p. 74) where the research focuses on a hypothesis within the bounded case study, Birkirkara. Moreover, drawing from Erickson (2012), as cited by Yin (2016), the aim of opting for a Single-Case Study, is not to treat the case study as part of a larger sample population, but rather to investigate patterns emerge from the data and use analytic generalisation to outline trends within the case study context. However, even though the study focuses on Birkirkara, the results may show similarities or coincide with other case study contexts (Yin, 2016).

3.2.2 Choosing Birkirkara as a Case Study

Birkirkara was chosen as the case study for a number of reasons. In line with the literature review, Birkirkara's urban environment presents itself with various opportunities, particularly due to its urban morphology. Birkirkara offers a variety of street typologies, both in contemporary and traditional, including alleyways, commercial streets, and arterial roads. This is important, since, as outlined in the literature review chapter, different street typologies may affect the perception of safety among women. Thus, the diverse urban morphology within Birkirkara allows for the opportunity to investigate how street design influences perceptions of safety for its users.

Moreover, Birkirkara is the second largest locality in Malta (NSO, 2023) in terms of population, thus, is inhabited by various individuals of different genders and socioeconomic statuses.

Additionally, as previously highlighted, limited studies pertaining to urban street design and women's perception of safety specific to Malta exist. Thus, this research aims to address this gap in literature using a focused case study approach and further contributes to the understanding of the local context.

Finally, drawing from Yin (2016), a specific locality allows for deeper and more robust data collection and analysis and thus makes the research manageable given time limitations.

3.3 Research Methodology Design

3.3.1 Exploratory Sequential Mixed-Method

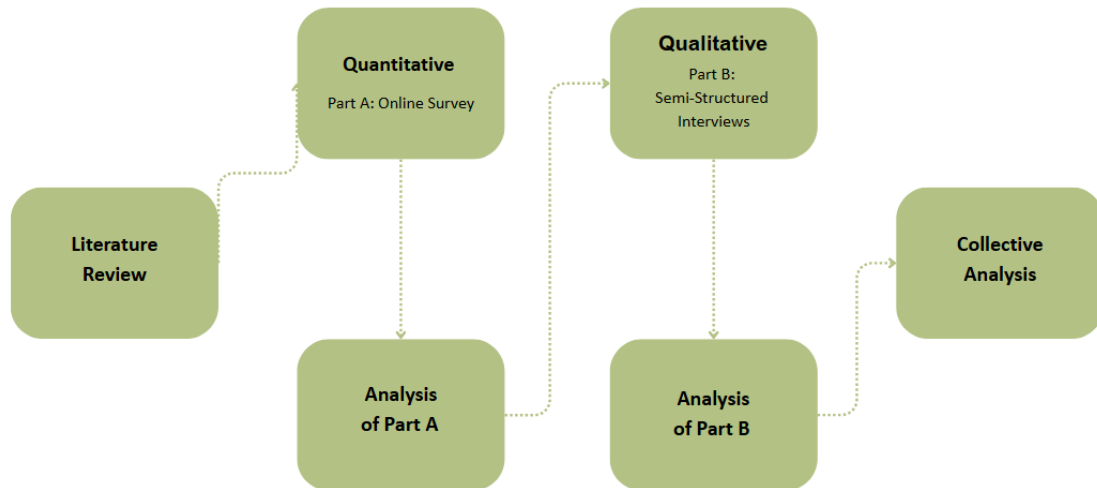


Figure 3: Sequential Mixed-Methods Approach

An exploratory sequential mixed-methods approach is adopted for this study as shown in Figure 3 above. Within this study, the mixed-method approach involves the combination of quantitative and qualitative research methodologies. Furthermore, the design of the exploratory sequential mixed-methods approach alludes to an initial quantitative data collection method, which is then followed by a qualitative part (Creswell, 2009). Thus, the qualitative data collected aids in exploring and elaborating further on the quantitative findings (Creswell, 2009). Creamer (2018), defines it as a “*development design*” were “*the results of one method are used to inform the content or design of the other method,*” (Creamer, 2018, p. 72)

3.3.2 Rationale for Using an Explanatory Sequential Mixed-Methods Approach

This study was not aimed to provide generalised findings but rather to offer a snapshot of gendered experiences in Birkirkara. Subsequently, it aims to delve deeper into understanding the personal and individual experiences of women navigating the streets of Birkirkara.

Drawing on Catallo et al. (2013), as cited by Creamer (2018), this choice of methodology is employed to use the quantitative part and use its data gathered as a foundation in designing the qualitative part and gather more insight into the data collected from the quantitative part. Catallo et al. (2013) describe this as “connecting,” where participants are selected for the qualitative part based on the results from the quantitative.

This method of collecting data is appropriate for this study as it seeks to understand complex social and environmental issues, such as women’s perception of safety when navigating urban streets. Thus, since the study is deeply rooted in the understanding of individual experiences and analysing trends emerging from them, it is appropriate to employ such a data collection method.

3.4 Part A: Quantitative Data Collection - Online Survey

3.4.1 Participant Sample

Part A of the data collection technique was aimed to provide a broad insight into the perceptions of safety across all genders, including women, men, and non-binary individuals of ages over 18. The survey was open for individuals who work/reside in or are frequent Birkirkara visitors. Furthermore, this approach was employed to gather insight into potential gender differences and the participants' experiences with instances of harassment and their feelings towards various street elements and typologies.

Random sampling was used, with participants invited to complete an online survey circulated via social media, particularly local Facebook residents’ groups. A total of 63 responses were received.

3.4.2 Design of the Online Survey

The survey was initially piloted to a small number of individuals who were informed that this was a test version and were asked to give feedback. This aimed to ensure legibility, avoid repetitions, and ensure that the length of the survey did not exceed 15 minutes to complete.

The final version of the online survey (Appendix 3) was developed into seven sections as follows, which follow the theoretical framework that emerged from the literature review:

- Profile

- General Navigation Experiences
- Perceived Safety
- Environmental Factors
- Experiences with Harassment and Social Interactions in Public Spaces
- Coping Mechanisms and Strategies
- Different Street Typologies During Different Times of the Day

The survey encompassed both open-ended and close-ended questions. The close-ended questions allowed to gather more definitive data (Yin, 2016). Meanwhile, the open-ended questions were intended to gather more personal insights from the participants.

Moreover, a set of photographs depicting (Appendix 11) different street typologies such as alleyways, subways and commercial streets in Birkirkara at different times of the day were presented in the survey. Using a Likert scale, participants were asked to rate how safe they feel walking through these streets during the day and during the night. The photographs used in the survey were taken on the same day, both in the morning and evening, to ensure that the participants are presented with the current conditions of such streets.

3.4.3 Data Analysis

The data collected was analysed manually and translated into descriptive statistics to summarise the finding, enhance clarity and identify patterns and trends for the second part of the data collection process (Creswell & Creswell, 2023). Moreover, open-ended questions were also manually analysed and grouped into thematics.

3.5 Part B: Qualitative Data Collection—Semi-Structured Interviews

3.5.1 Definition of Semi-Structured Interview

Semi-structured interviews are one of the most used data collection methods when conducting qualitative research (DiCicco-Bloom & Crabtree, 2006; Kallio et al., 2016). According to Creswell & Creswell (2023), a semi-structured interview is a qualitative tool in which the researcher asks prompt-based, open-ended questions, that are intended to trigger conversations with the participants pertaining to their opinions and experiences.

A robust theoretical framework was essential to develop an interview guide that is based on predefined knowledge relating to the research questions (Kallio et al., 2016).

3.5.2 Participant Sample

The qualitative part of the data collection methods aimed to explore a deeper insight into the navigation experiences and perception of safety explicitly of women. The semi-structured interviews allow for a more robust and detailed data collection of individual experiences based on the trends identified in part A, while ensuring that the focus remains on the research questions (Creswell & Creswell, 2023).

The participant's age group was selected based on the results of the online survey in which 18–44-year-old women expressed more concern for their safety while navigating Birkirkara.

Random sampling was initially used to recruit participants for the interviews via an open call on local Facebook residents' groups (Yin, 2016). Snowball sampling was then used to reach more participants who wished to participate in the study (Yin, 2016).

Efforts were made to recruit participants that reside in, frequently visit or work in Birkirkara and who come from different socio-economic backgrounds. This aimed to ensure a diverse representation of women, while maintaining the age group derived from part A of the study. The sample size obtained was 6 participants.

3.5.3 Design of the Semi-Structured Interviews

Prior to distributing an open call for participants, the interview was piloted to ensure legibility, rectify any repetitions and estimate the time it would take to complete the interview (Yin, 2016). Adjustments were made accordingly to the interview guide as noted from the feedback.

The structure of the semi-structured interviews follows a similar structure to the online survey, where the same themes are tackled as follows and are presented as an interview guide (Appendix 4):

- Coping Mechanisms and Strategies
- Experiences with Harassment and Social Interactions in Public Spaces
- General Navigation Experiences
- Perceived Safety
- Environmental Factors

- Different Street Typologies During Different Times of the Day

Moreover, based on the characteristics and definition of a semi-structured interview mentioned earlier, this method was chosen to allow the participants to lead the conversation, ensuring their comfort. This was intended due to the sensitive nature of the of the study. The role of the researcher in this case was to facilitate the conversation with open-ended questions which were derived from the quantitative data analysis and literature review (Creswell & Creswell, 2023).

The interviews were conducted in a comfortable setting at a time and location that was convenient for the participants. Moreover, participants were provided with an information sheet prior to the interview (Appendix 5 and 6). This included detailed information on the purpose of the study, and a consent form (Appendix 7 and 8), which they were asked to sign to document their willingness to participate in the study.

3.5.3.1 Navigation Pattern Mapping

At the start of the interview participants were provided with a map of Birkirkara (Appendix 12). This exercise served as an ice breaker between the researcher and the participant, by painting the picture of a typical essential part of the participant's daily life.

The task entailed mapping their typical route when walking in Birkirkara during the daytime and nighttime. In instances where participants drew different routes between day and night, the researcher enquired as to what led them to alter navigation pattern. This exercise served as a base for guiding the trajectory of the interview, while also serving as visual aid to investigate how varied street elements or aspects of Birkirkara's urban morphology may influence navigation choice among women. Fang et al. (2015), stresses that spatial behaviour and navigation patterns are moulded by individual and social situations, emotional states, and past experiences are not just about the most efficient navigation pattern. Furthermore, this exercise aids to assist in finding a pattern on how individuals may avoid certain areas, streets and how navigation patterns are subject to context, such as day and night.

3.5.3.2 Visual Aids

The same photographs of different street typologies were also utilised in the semi-structured interviews. These visual stimuli served to prompt more detailed feedback and thoughts in this part of the data collection beyond safety ratings. These visual stimuli aided in blurring the lines

between the abstract perceptions of safety and provided a more concrete and detailed environmental analysis.

As Page et al. (2022) contends, such exploratory visuals serve as co-elicitors in an interview setting, in which they instigate a richer response from the participants. Moreover, it also proved to be a useful tool to gather more in-depth qualitative information and gather verbal experiences to help understand better the results from the online survey.

3.5.4 Data Analysis

With participants' permission (Appendix 7 and 8), the interviews were audio recorded to make sure that an accurate transcription of what was discussed is recorded. Moreover, the recordings were then manually transcribed.

To maintain confidentiality and anonymity during the course of the interview, the use of names or identifiable factors were not mentioned, and once transcribed, the participant's transcripts were given a code and pseudonym that is only identifiable to the researcher (Creswell & Creswell, 2023).

Once the recordings were transcribed, a thematic analysis was used to identify patterns and trends in the discussions using NVivo. The coding consisted of 5 parent codes, which further subdivided into 17 child codes. Thus, this thematic analysis can help aid in understanding further the quantitative data, while also draws parallels with the literature review.

3.6 Ethical Considerations

As per the requirements of the University of Malta, the research methods and sample questions to be asked both in the online survey and the semi-structured interviews were submitted and were approved by the Faculty Research Ethics Committee (FREC) (Appendix 1 and 2).

To ensure that participants were able to make their own informed and independent decision regarding their participation in the study, the following parameters was provided to all participants in both the online survey and semi-structured interviews (Creswell, 2009):

- The identification of the researcher was made available
- The entity (University of Malta) was clearly identified

- The purpose of the research
- Any benefits for participating were outlined
- An outline of what is expected from the participants was identified
- Any risks to the participants were disclosed
- Confidentiality and anonymity were guaranteed
- It was ensured that the participant may conclude the survey or interview at any time
- A list of paid and free services that deal with sexual harassment and mental health trauma was made available.

All of the above parameters were included in the consent form and information letters, which were sent prior to the semi-structured interview, and in the case of the online survey, it was inserted in the beginning.

These ethical considerations were also abided by during the process of the interviews, where participants were explicitly reminded that they could withdraw from the interview at any time with no consequence.

3.7 Limitations

The researcher understands that there exist potential limitations to this study.

Both methods of data collection presented some limitations. The distribution of the online survey was limited to a subset of the population, which are internet users, resulting in a low response rate (Yin, 2016). The use of visual stimuli represents a subset of the street conditions in Birkirkara. Though they were carefully chosen based on parameters outlined in the literature review, certain limitations may apply.

However, as the approach taken is one of exploratory analysis, the results are still considered to be a contribution to knowledge, as they served as a first step as part of a mixed methods approach and thus served the intended purpose. Meanwhile, time constraints limited the number of interviews carried out. Additionally, given that this study was carried out in one particular locality as a case study approach, limitations in population size possibly also affected the sample size together with the study's specific gender focus.

However, since the research adopted a primarily qualitative approach, the sample representativeness was not the key aim but rather the need to gather an in-depth understanding of a particular demographic's experience.

Chapter 4 – Results

4.1 Introduction

This chapter describes the study's findings split into two key sections 4.2 Quantitative Survey Results and 4.3 Qualitative Semi-Structured Interview analysis. Section 4.2 outlines findings based on spatial factors such as quality and typologies, social demographics and intangible factors such as coping mechanisms that influence respondents' experiences when navigating Birkirkara.

Furthermore, Section 4.3, delves deeper into such spatial and psychological factors, through the personal narratives of women in Birkirkara, explored thematically based on patterns that emerged from these narratives.

4.2 Quantitative Survey Results

The data obtained was converted into an Excel sheet for analysis. Sections 4.2.1 to 4.2.7 depict the quantitative and descriptive analysis obtained from the raw data collected.

4.2.1 Demographic Data

Figure 4 to Figure 9 show participant demographic data. The majority of the participants were female (81%), (Figure 4). The most represented age group were 45-54 (29%), 25-34 (24%) (Figure 5 and Figure 6). Most of the participants held a tertiary level of education (Figure 7 and Figure 8). Figure 9 illustrates that the most frequented or resided-in areas, were Ta' Paris/Swatar (30%), Mrieħel (16%) and Bypass Area (13%).

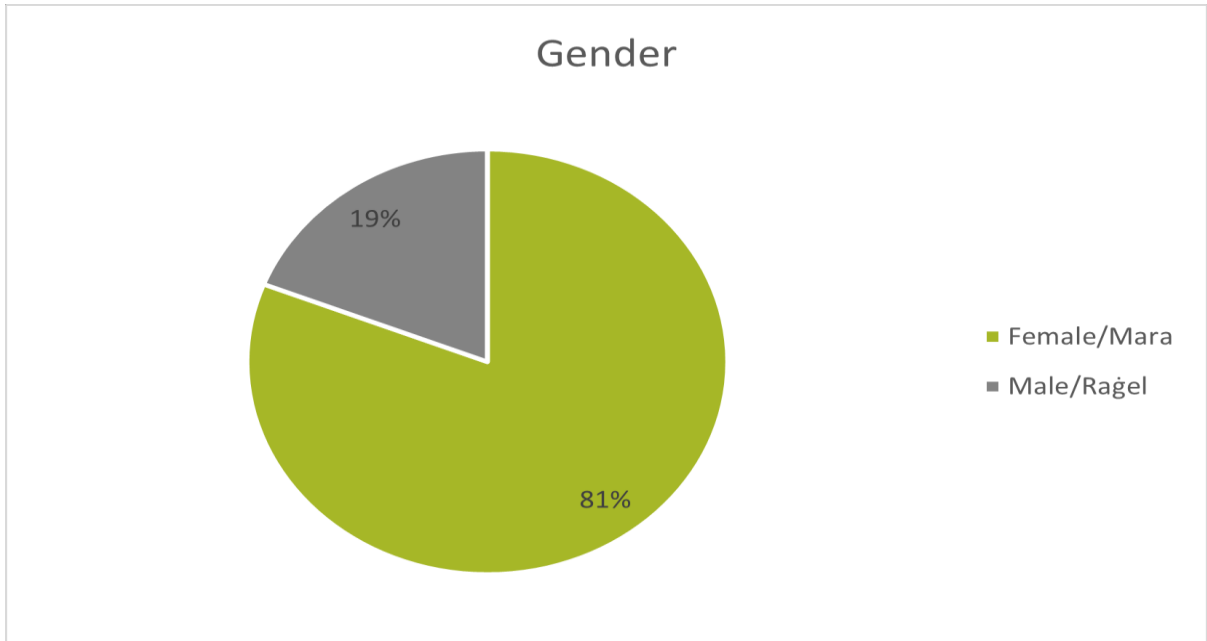


Figure 4 Gender

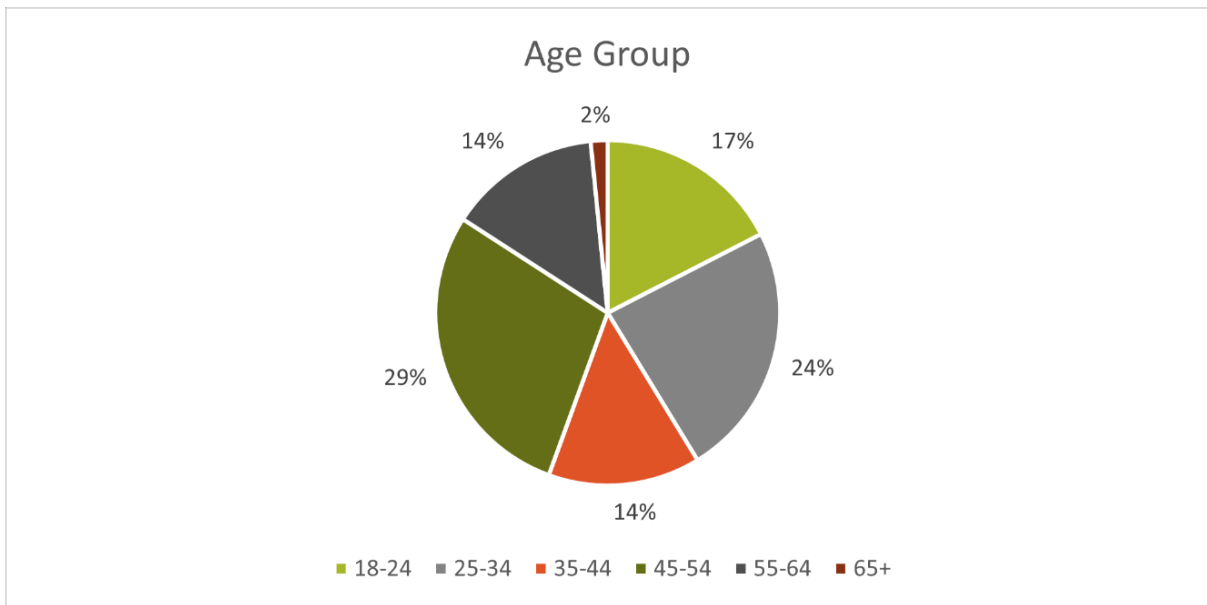


Figure 5: Age Group

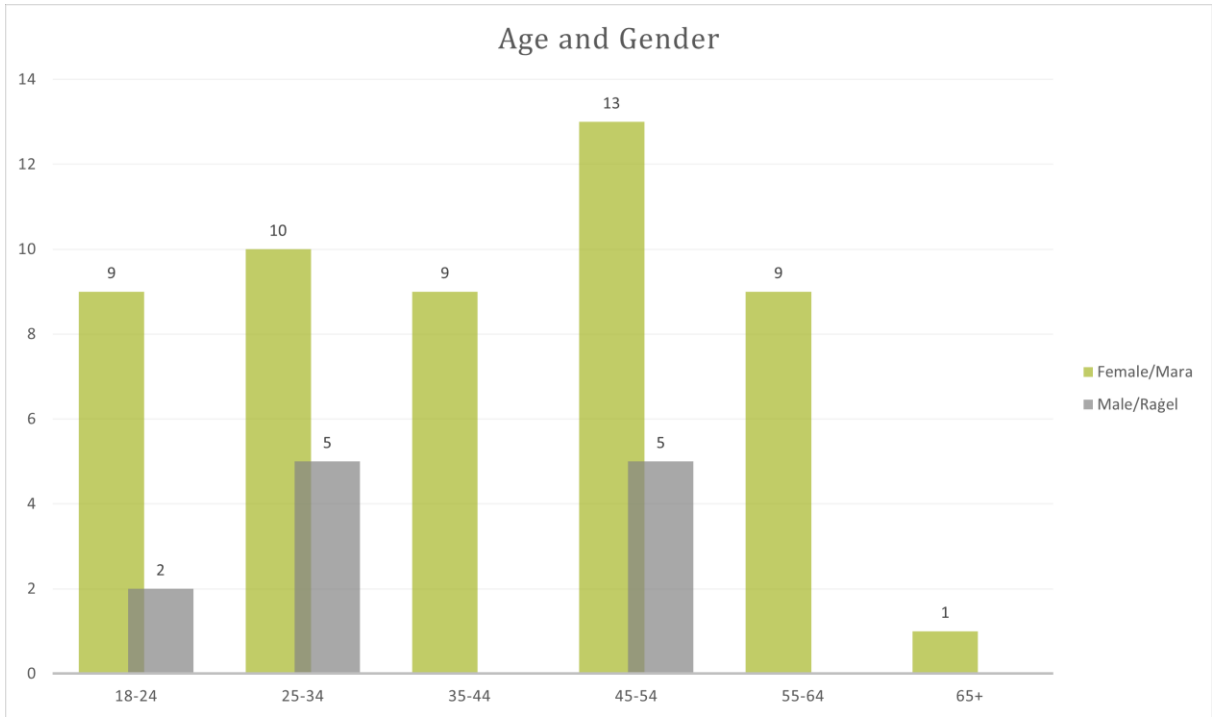


Figure 6: Age Groups by Gender

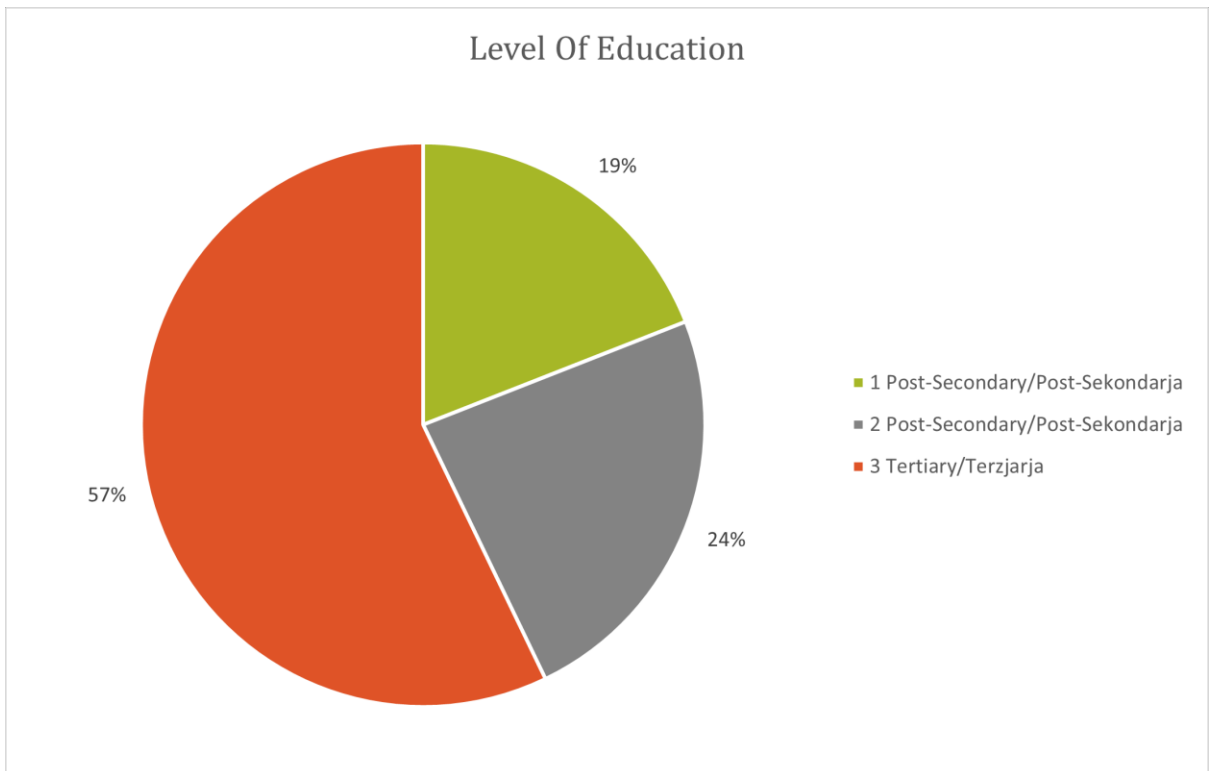


Figure 7: Level of Education Achieved

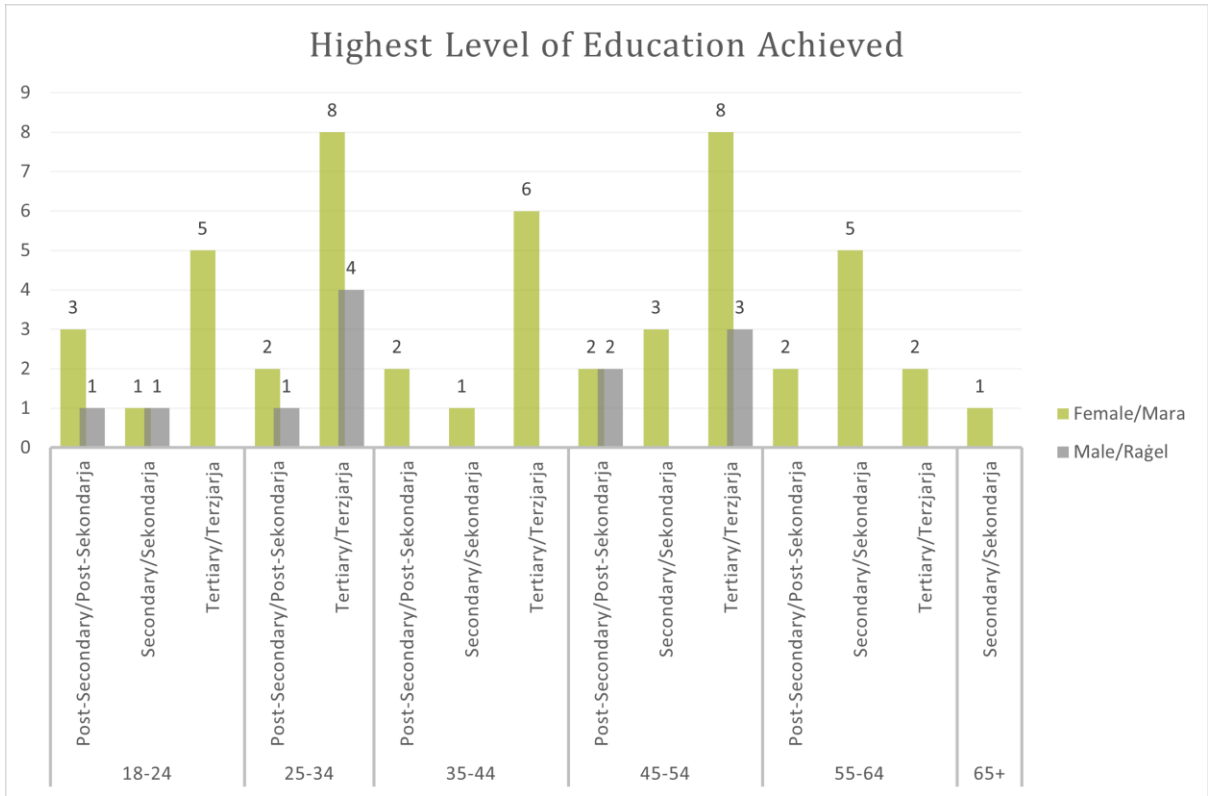


Figure 8: Level of Education Achieved by Age and Gender Distribution

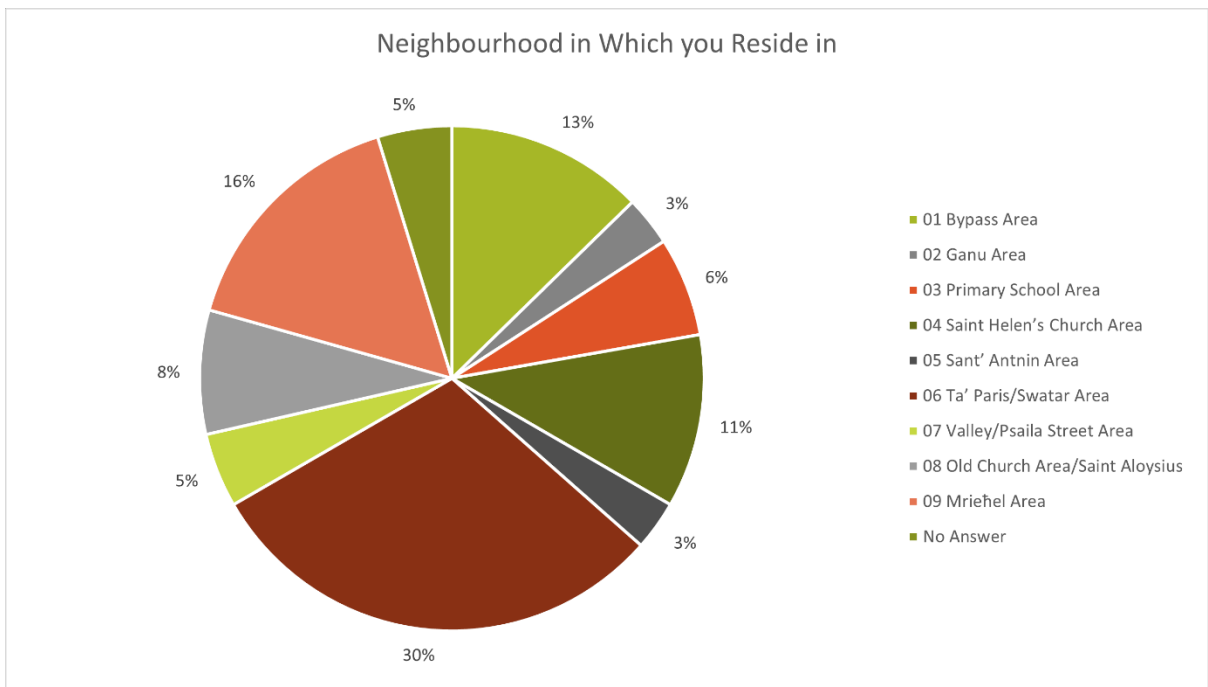


Figure 9: Neighbourhood in which Participants Reside/Work or Frequent Most

4.2.2 General Navigation Experiences

Figure 10 to Figure 13 illustrates respondents' general navigation. When asked how often they walk through public spaces, most answered 'Sometimes' (37%) and 'Often' (25%) (Figure 10). Figure 11 depicts among the frequent walkers, women aged 45-54 reported to 'Very Often', while 'Sometimes', remained the most common response within this age group.

The car was the most preferred mode of transport, due to convenience, while walking was chosen due to limited parking provision (Figure 12 and 13).

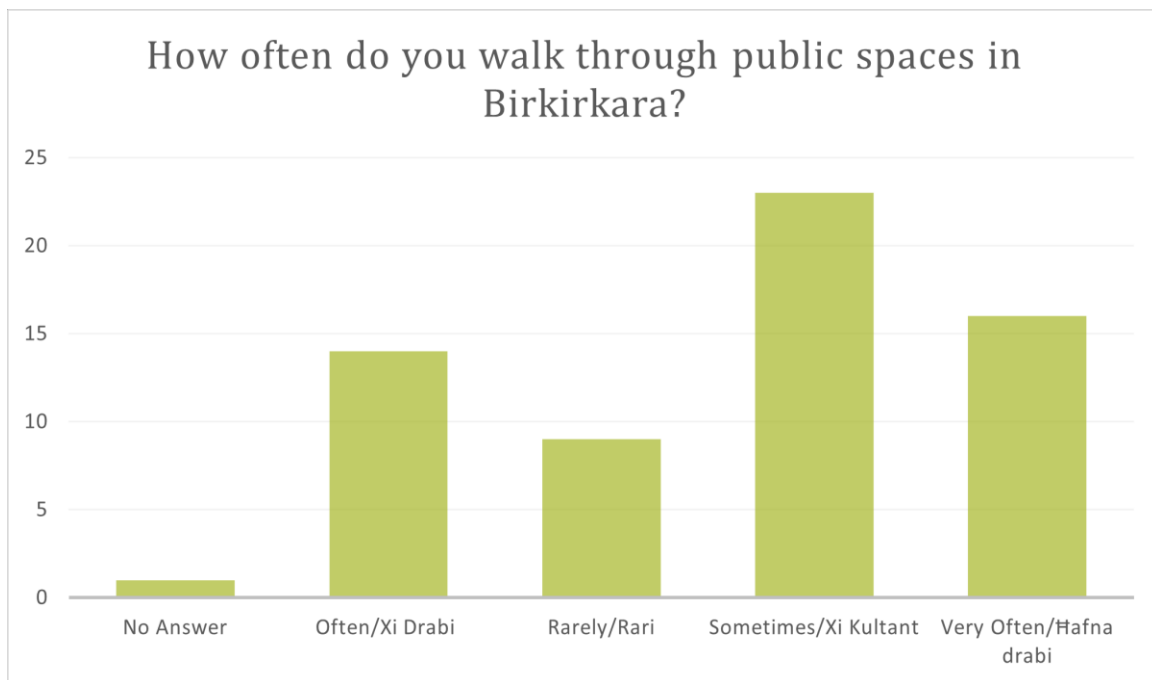


Figure 10: Frequency of Participants Who Navigate Through Public Spaces on Foot

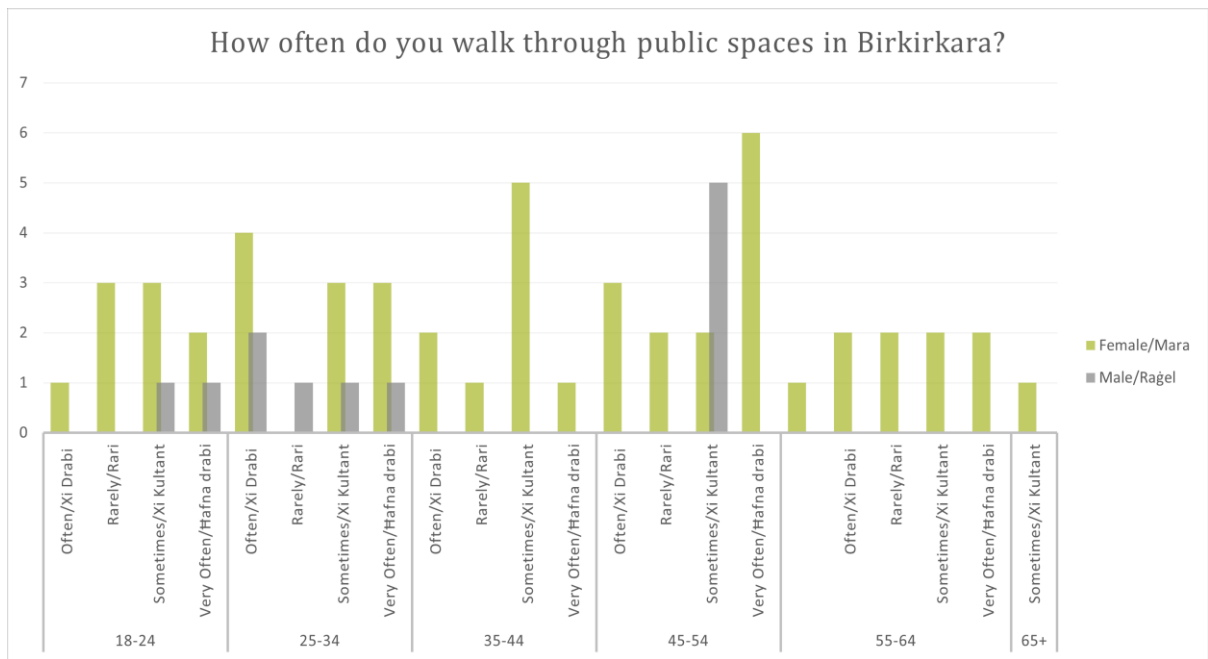


Figure 11: Frequency of Participants Who Navigate Through Public Spaces on Foot by Gender and Age Distribution

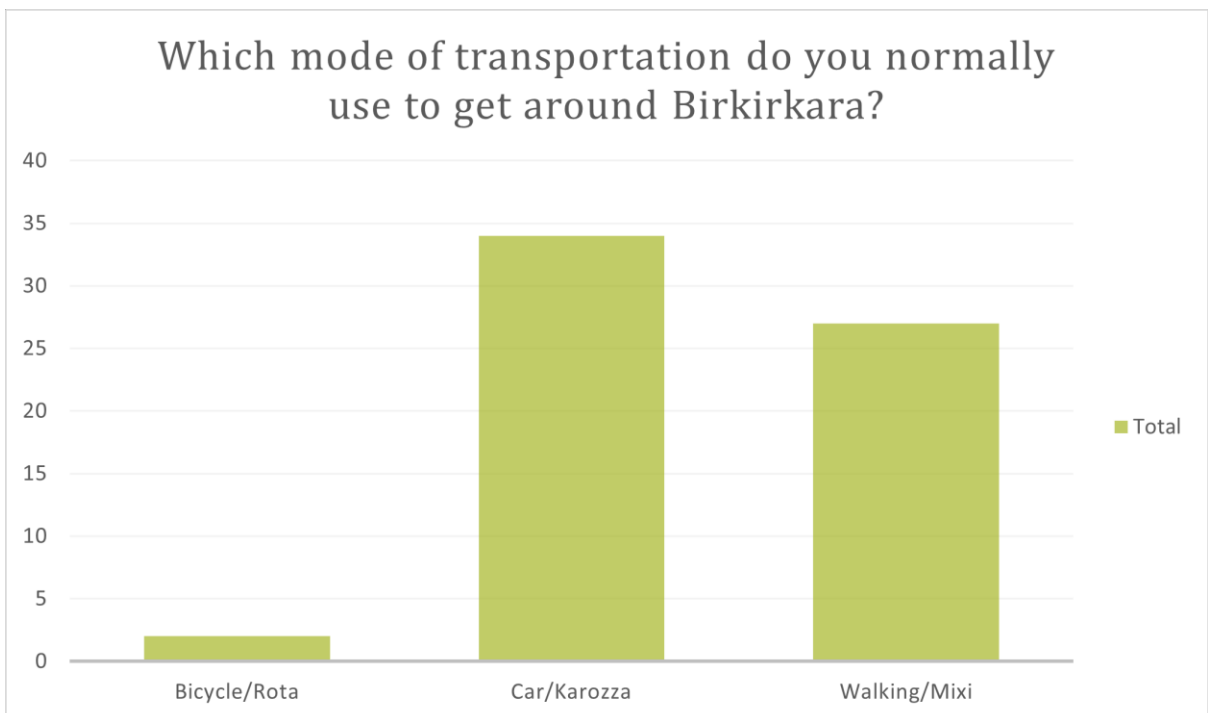


Figure 12: Mode of Transport Preferred by Respondents

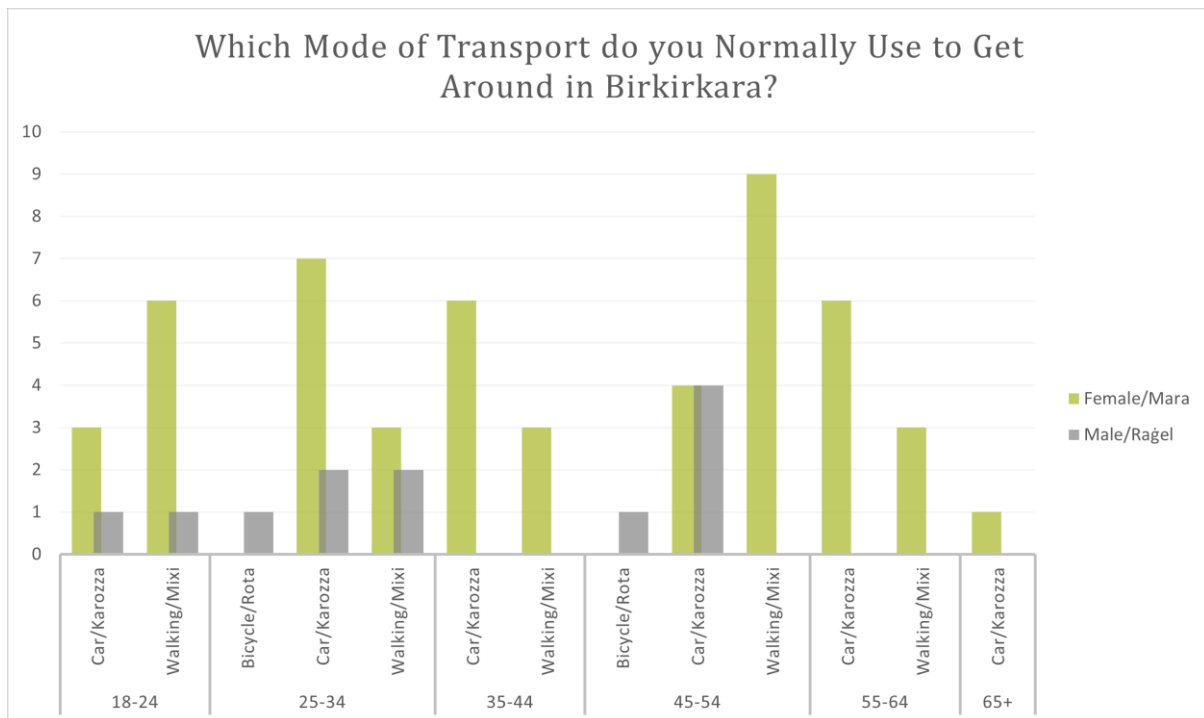


Figure 13: Mode of Transport Preferred by Respondents

4.2.3 Perceived Safety

Figure 14 to Figure 17 depict participants' perception of safety while walking during the day and night. During daytime (Figure 14 and Figure 15), the majority of both genders recorded feeling safe. However, more female participants expressed feeling 'Unsafe' at night (Figure 16 and Figure 17), though some still reported feeling 'Safe'. Male participants reported feelings of discomfort at night, though, generally felt safer than women.

Pedestrian presence, familiarity with the area and absence of past negative experiences, were associated with daytime navigation. Meanwhile, poor lighting, lack of pedestrian activity and unfamiliar individuals, elicited unsafety at night.

When approaching less frequented areas, females expressed negative feelings such as "fear", "insecurity", and describing such areas as "scary", particularly lack of street lighting.

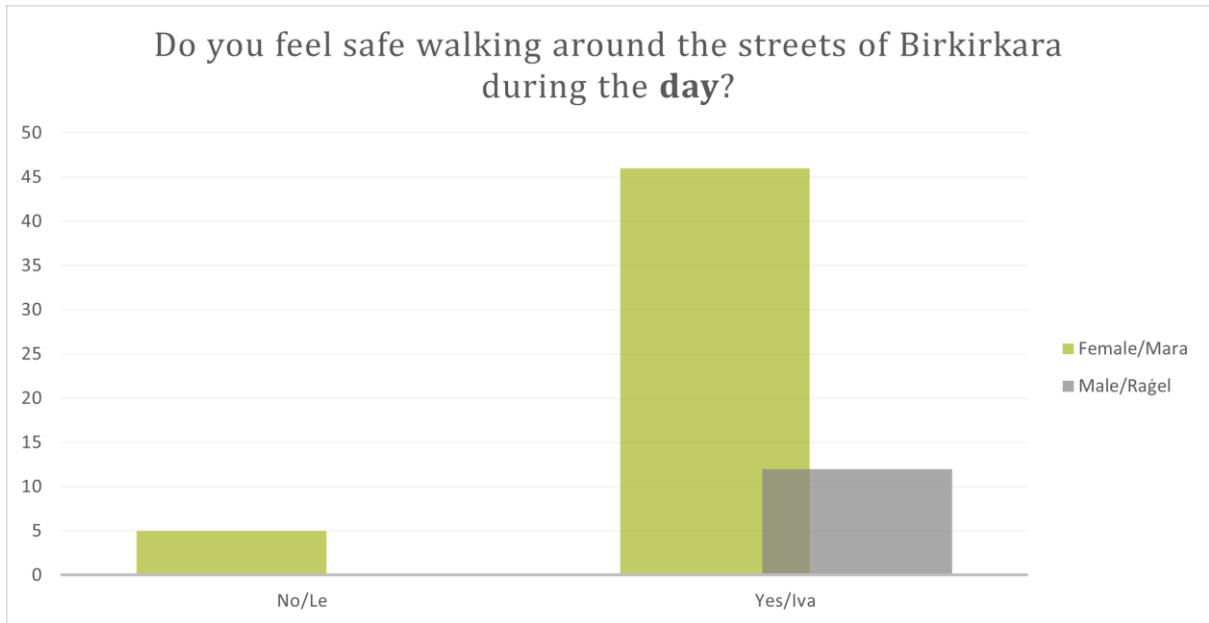


Figure 14: Respondents Perception of Safety During the Day by Gender Distribution



Figure 15: Respondents Perception of Safety During the Night by Gender Distribution

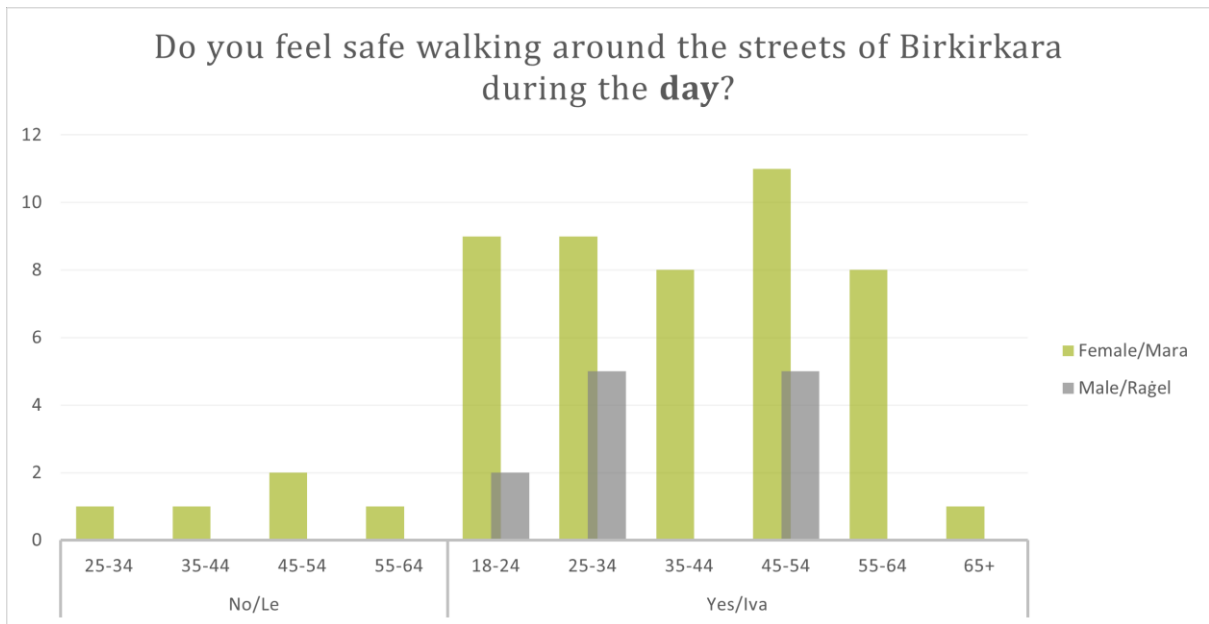


Figure 17: Respondents Perception of Safety During the Day by Gender and Age Distribution

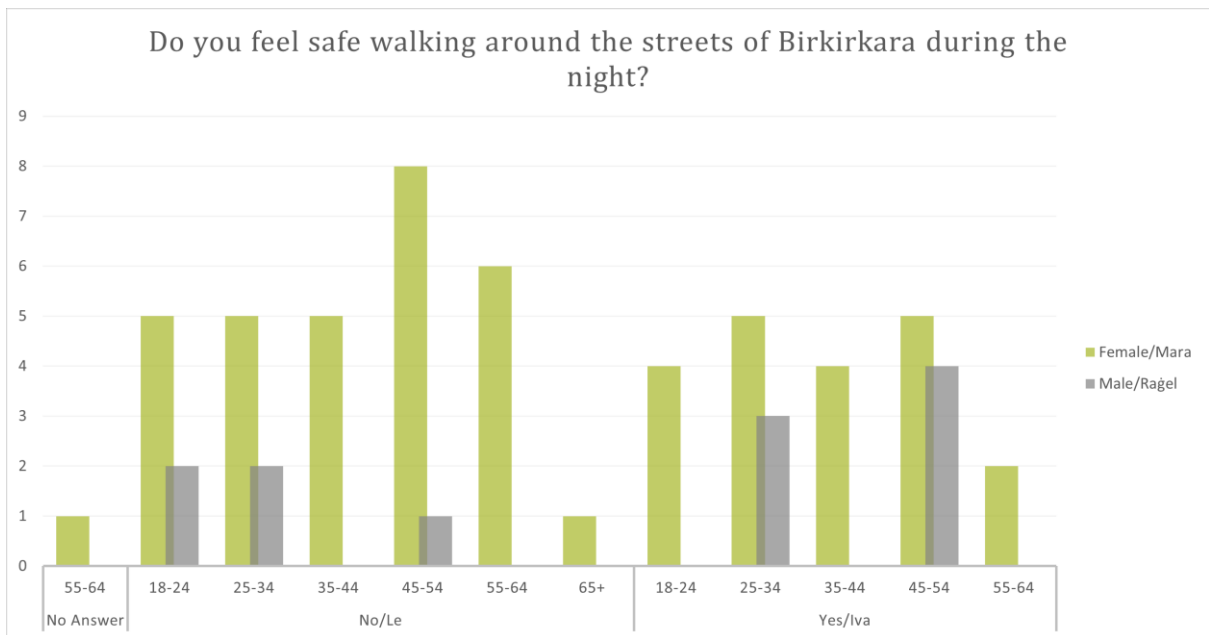


Figure 16: Respondents Perception of Safety During the Night by Gender and Age Distribution

4.2.4 Environmental Factors

Figure 18 to Figure 31 safety ratings for various street elements identified in Section 2 (on a scale, from 1 'Very Unsafe' to 'Very Safe').

Female participants rated 'Poor Lighting' (59%), 'Subways/Underground Pathways' (59%) and 'Abandoned Buildings' (49%) as being 'Very Unsafe' (Figure 18, Figure 27, Figure 23). Similarly,

around half of male respondents, also felt ‘Very Unsafe’ near ‘Abandoned Buildings’ (Figure 23).

In contrast, both female (47%) and male (50%) participants perceived ‘Shopping/Commercial Streets’ (Figure) and ‘Crowded Streets’ (Figure 30) as generally ‘Safe’ spaces.

‘Alleyways’ (Figure 20) and ‘Garage Lots’ (Figure 22) contributed to negative safety perceptions among women, with 41% responding ‘Very Unsafe’ and 29% ‘Unsafe’).

Both genders mostly responded feeling ‘Neutral’ when rating areas with ‘Graffiti’ (Figure 21) , ‘Overgrown Vegetation’ (Figure 26) and ‘Dead-end Streets/Cul-de-sacs’ (Figure 29).

For ‘Construction Sites’ (Figure 24), most female participants felt ‘Very Unsafe’ (33%) and ‘Unsafe’ (35%), while male participants’ responses were evenly distributed feeling either ‘Very Unsafe’, ‘Unsafe’ and ‘Neutral’ (33% each). Most female participants expressed that they feel ‘Very Unsafe’ (33%) and ‘Unsafe’ (31%) on ‘Motorways/Bypasses’ (Figure 25), especially on ‘Narrow Sidewalks’ (39%, Very Unsafe, 43% ‘Unsafe’; Figure 28).

Finally, ‘Streets with Little Pedestrian Presence’ (Figure 31), were rated by most female participants as ‘Very Unsafe’ (26%) or ‘Unsafe’ (40%), while male participants generally responded feeling ‘Neutral’ (42%).

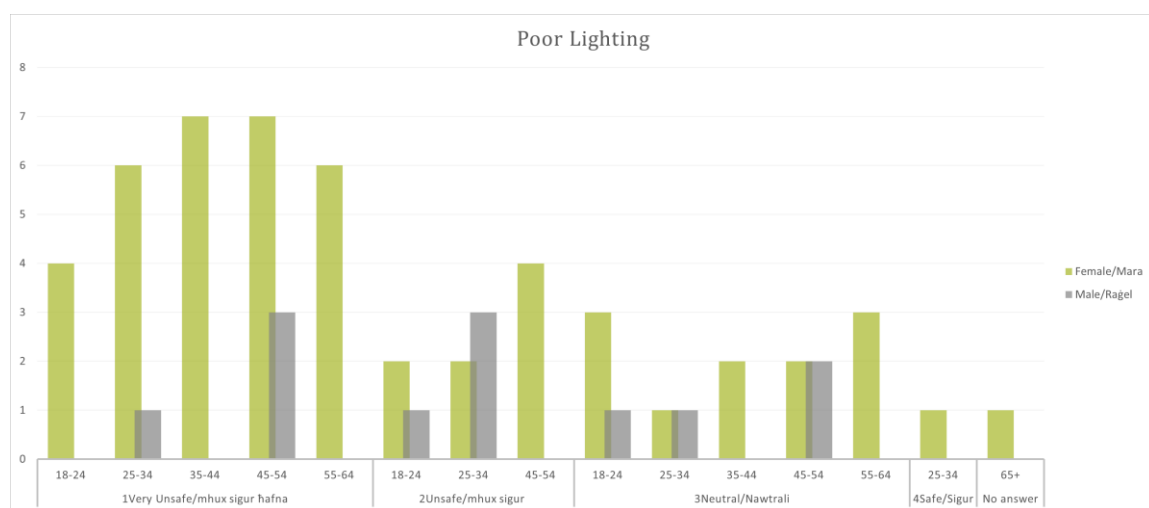


Figure 18: Respondents Ratings of Street Elements by Gender Distribution: Poor Lighting



Figure 19: Respondents Ratings of Street Elements by Gender Distribution: Shopping and Commercial Streets

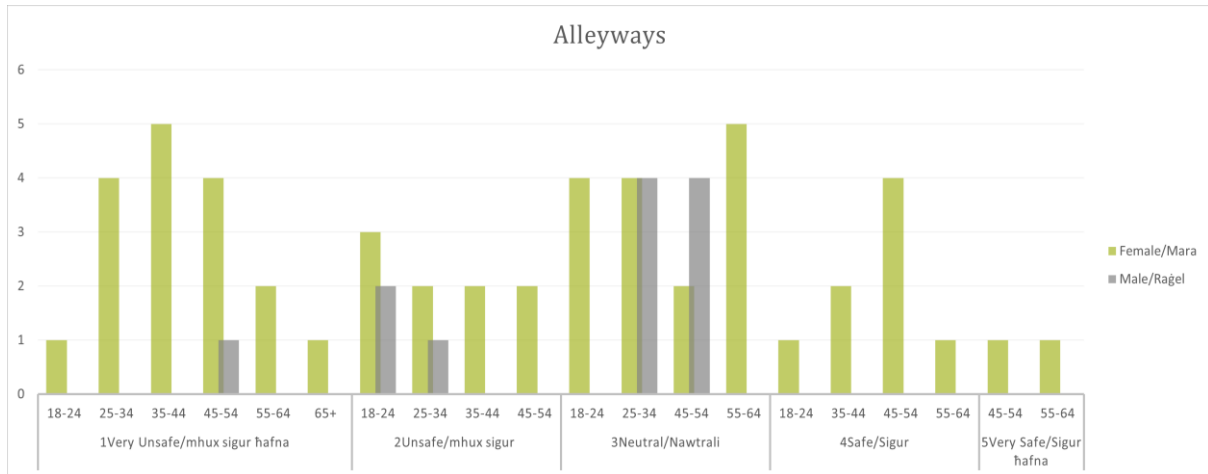


Figure 20: Respondents Ratings of Street Elements by Gender Distribution: Alleyways

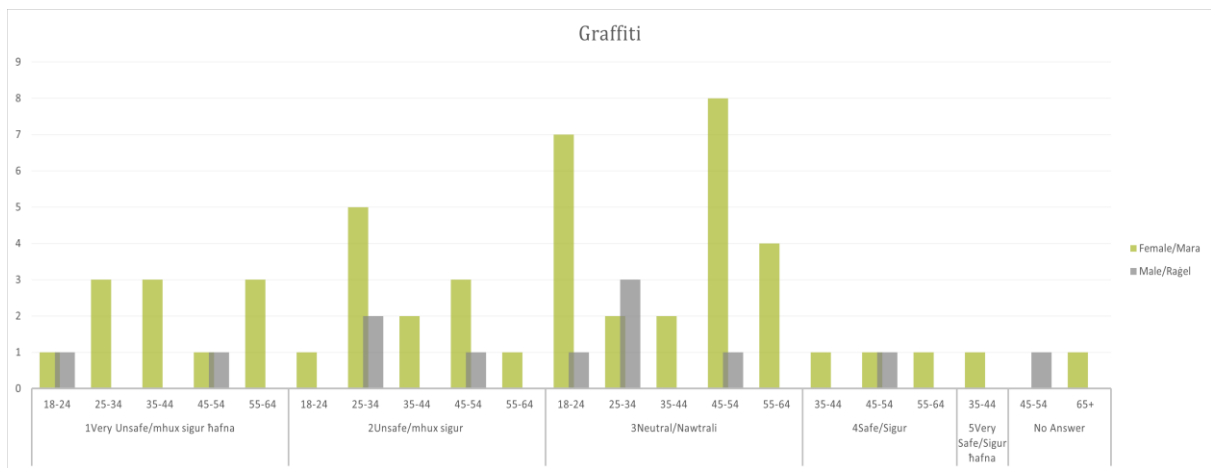


Figure 21: Respondents Ratings of Street Elements by Gender Distribution: Graffiti

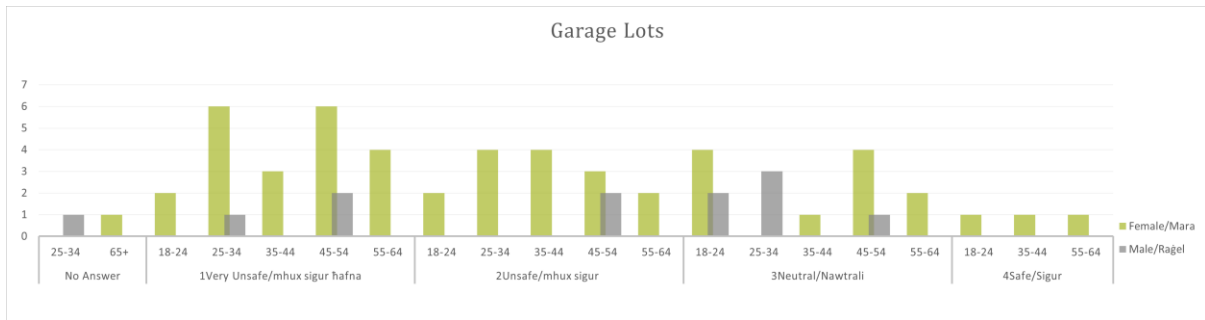


Figure 22: Respondents Ratings of Street Elements by Gender Distribution: Garage Lots

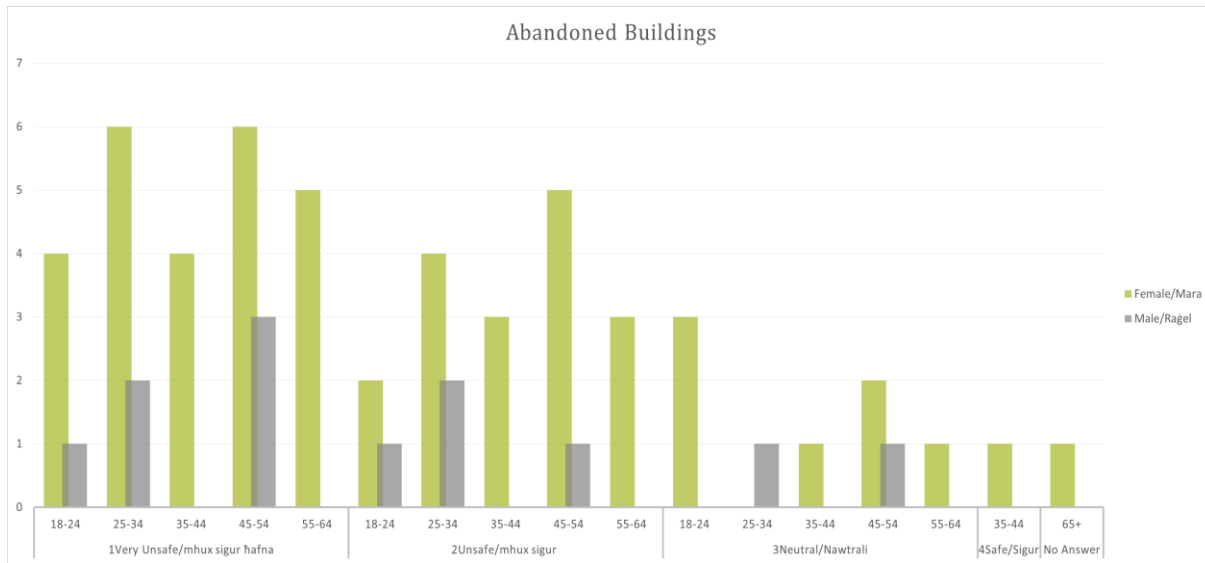


Figure 23: Respondents Ratings of Street Elements by Gender Distribution: Abandoned Buildings



Figure 24: Respondents Ratings of Street Elements by Gender Distribution: Construction Sites

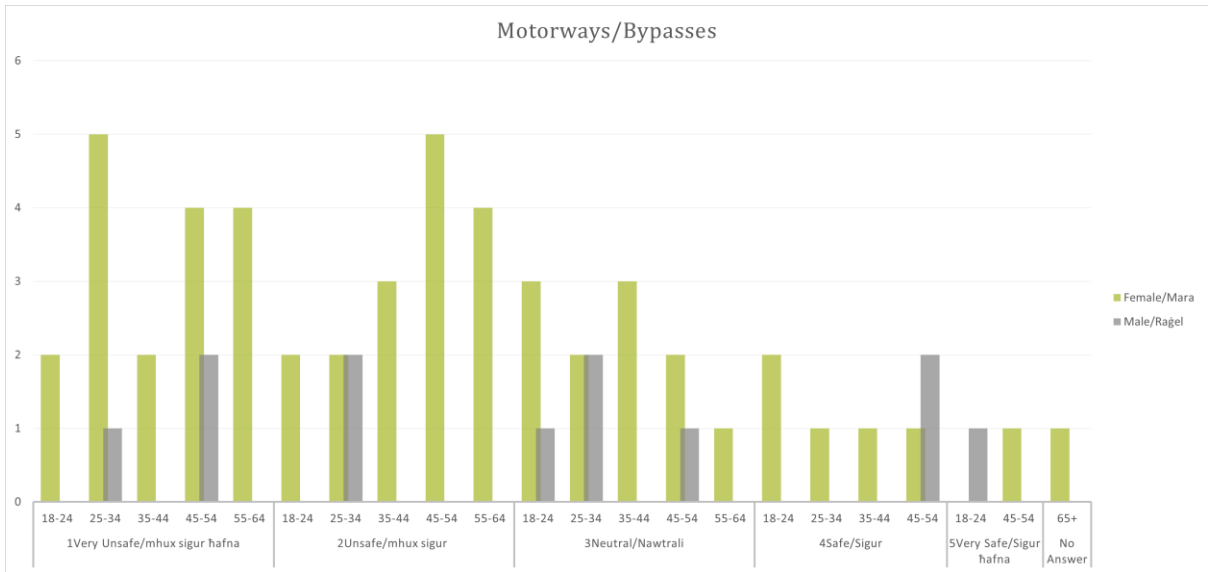


Figure 25: Respondents Ratings of Street Elements by Gender Distribution: Motorways/Bypasses

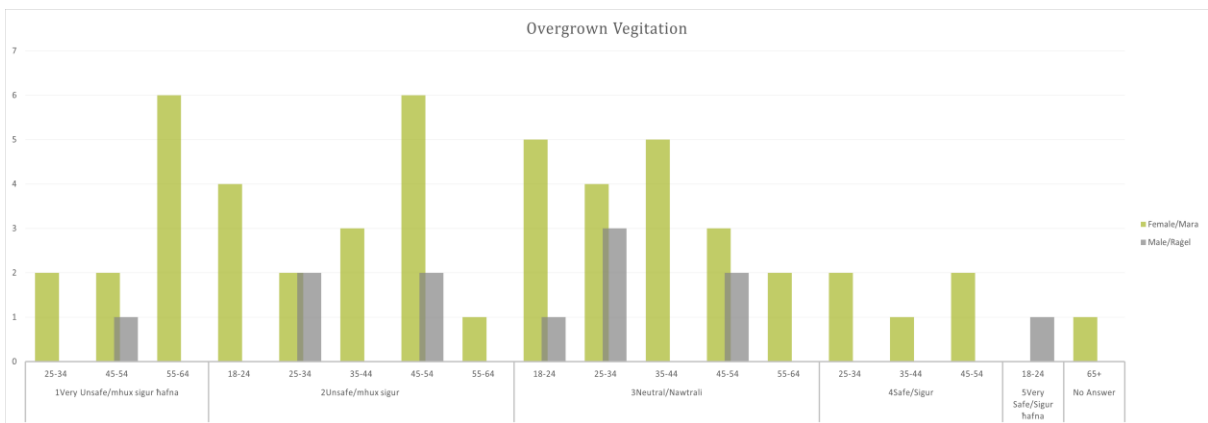


Figure 26: Respondents Ratings of Street Elements by Gender Distribution: Overgrown Vegetation

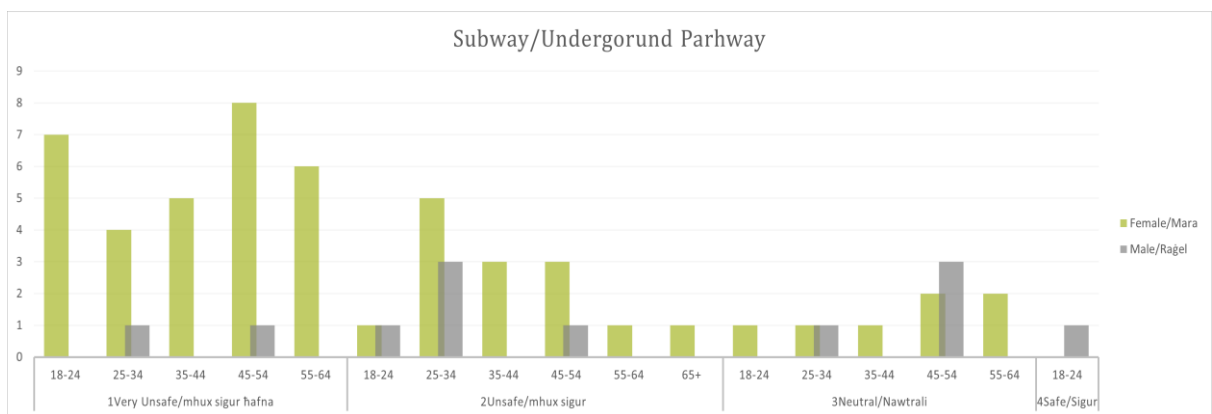


Figure 27: Respondents Ratings of Street Elements by Gender Distribution: Subways/Underpasses

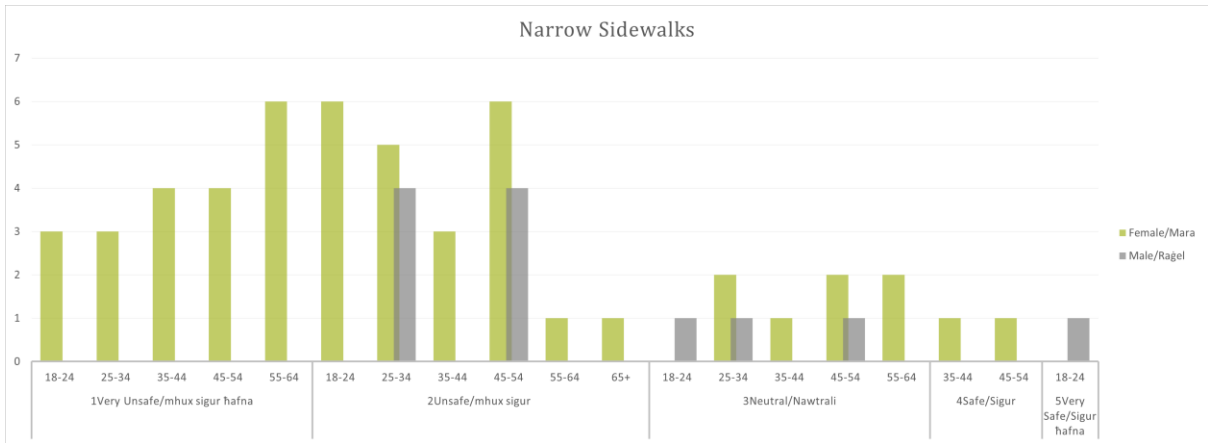


Figure 28: Respondents Ratings of Street Elements by Gender Distribution: Narrow Sidewalks

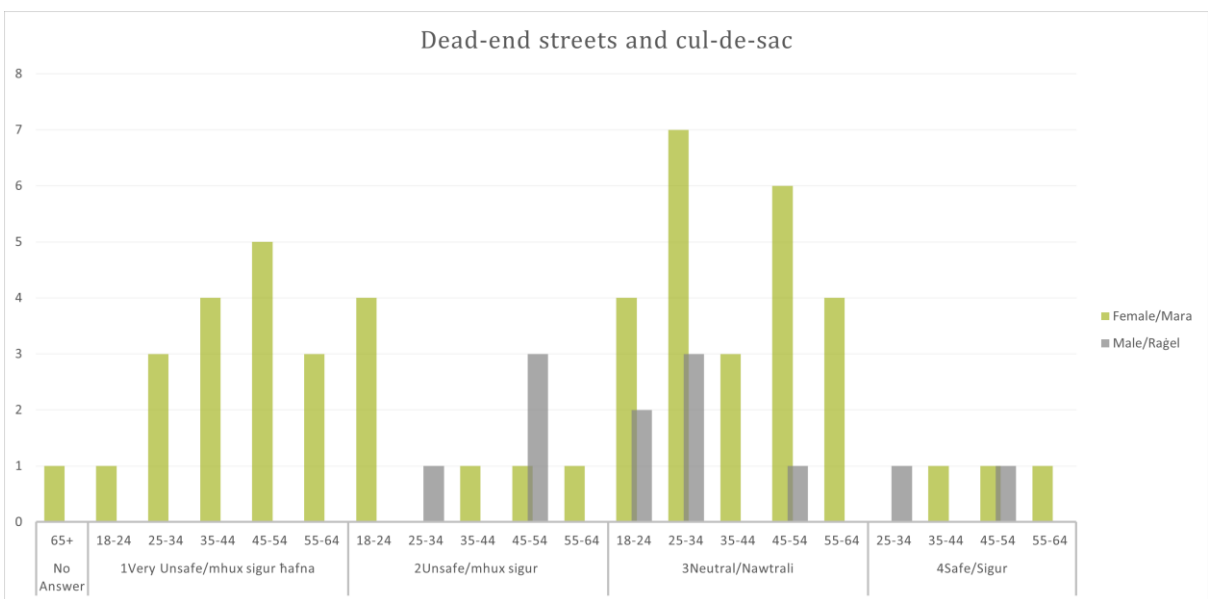


Figure 29: Respondents Ratings of Street Elements by Gender Distribution: Dead-end Streets/Cul-de-sac

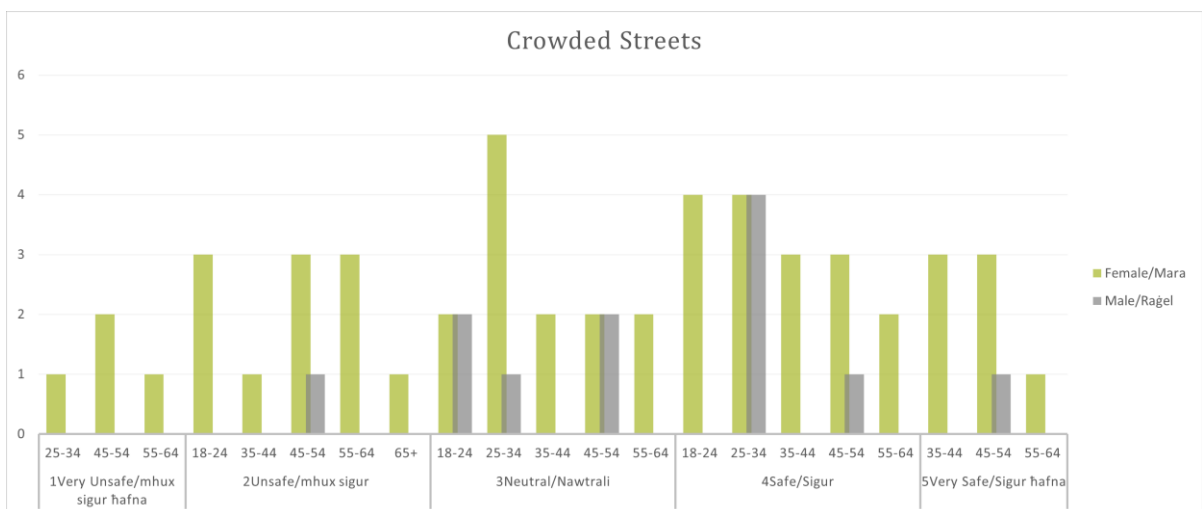


Figure 30: Respondents Ratings of Street Elements by Gender Distribution: Crowded Streets

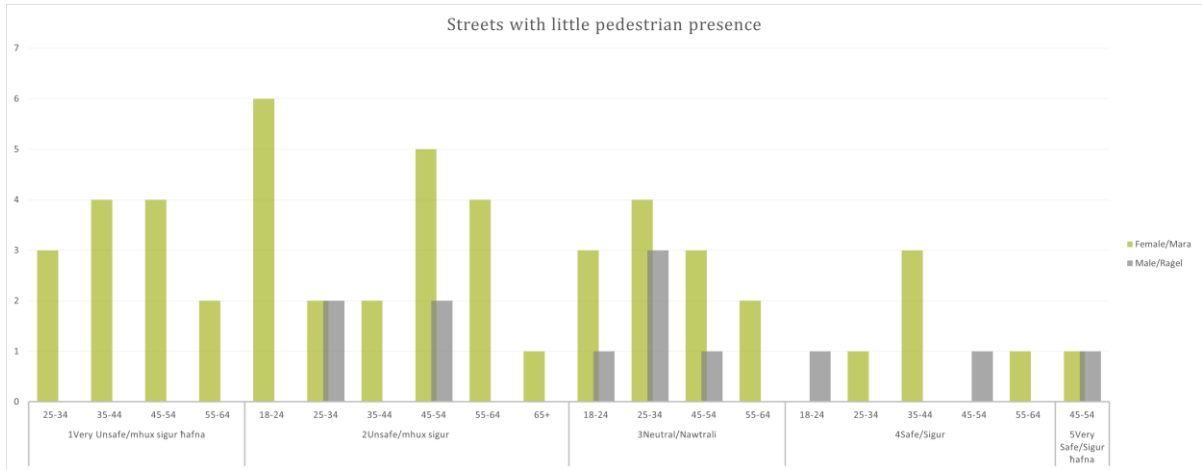


Figure 31: Respondents Ratings of Street Elements by Gender Distribution: Streets with Little Pedestrian Presence

4.2.5 Experiences with Harassment and Social Interactions in Public Spaces

Figure 32 to Figure 37 illustrate the frequency of sexual harassment experiences. Pertaining to ‘whistling’ (Figure 32), women aged 45-64, answered ‘Very Rarely’ and ‘Rarely’ (24% each), younger women (18-44) reported higher frequencies, with 20% reporting ‘Very Often’. Male participants, significantly report low frequency with 58% saying ‘Very Rarely’ and 25% ‘Rarely’.



Figure 32: Participant Responses to Instances of Harassment by Age and Gender Distribution: Whistling

Participants were also asked the frequency for which they encounter ‘Stalking’ situations (Figure 33). Overall, female participants answered, ‘Very Rarely’ (43%) and ‘Rarely’ (27%), while higher frequencies were reported by women aged 18-24.

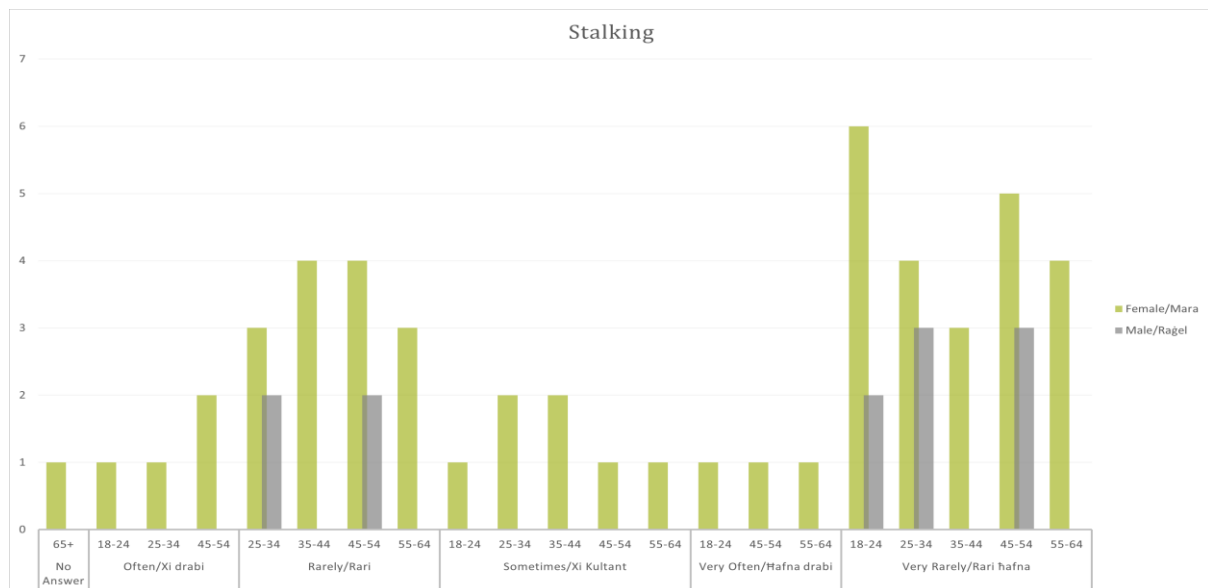


Figure 33: Participant Responses to Instances of Harassment by Age and Gender Distribution: Stalking

Regarding ‘Unwanted Comments’ (Figure 34), most male participants asserted that they ‘Very Rarely’ and ‘Rarely’ receive ‘Unwanted Comments’, while one participant answered ‘Often’. Among female participants, those aged 18-24 most frequently reported to have encountered ‘Unwanted Comments’. Although the majority answered, ‘Very Rarely’ (20%) and ‘Rarely’ (24%).

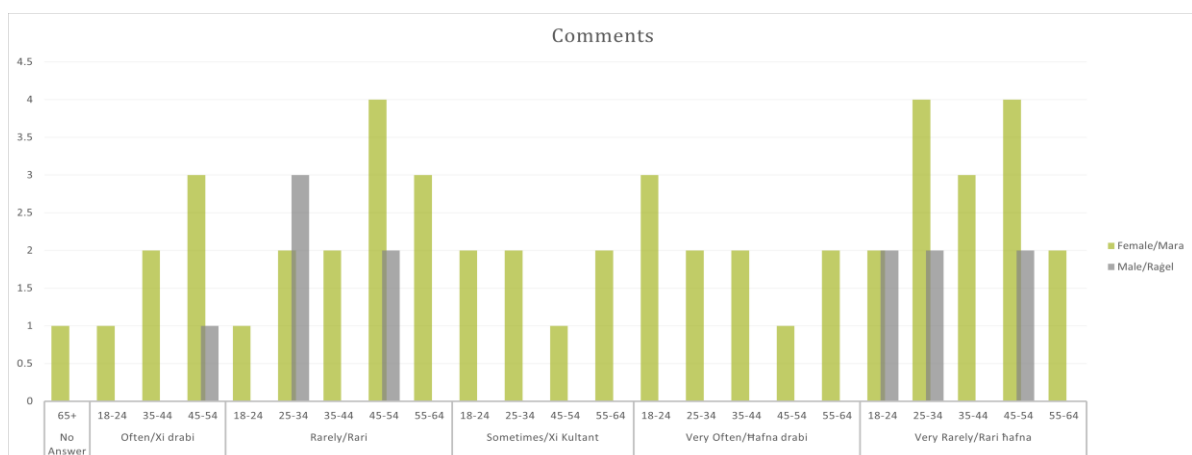


Figure 34: Participant Responses to Instances of Harassment by Age and Gender Distribution: Inappropriate Comments

Figure 35 illustrates the frequency of experiences involving 'Inappropriate Touching'. Male and female participants in general answered, 'Very Rarely' and 'Rarely'. Among women 53% reported 'Very Rarely' (25%), while women aged 18-34 and 45-64 responded 'Often'.

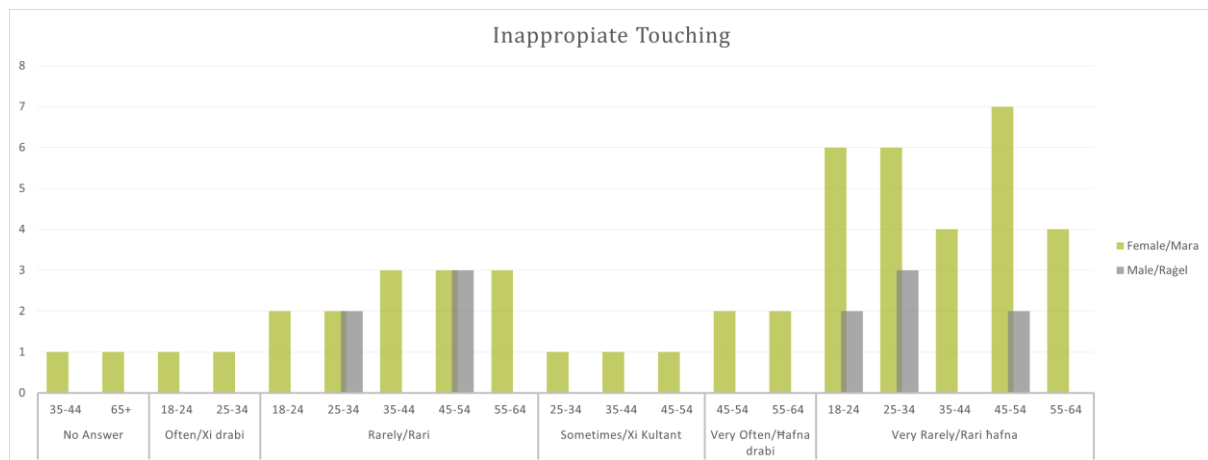


Figure 35: Participant Responses to Instances of Harassment by Age and Gender Distribution: Inappropriate Touching

Figure 36 depicts the frequency of 'Unwanted Gestures'. Most participants responded, 'Very Rarely' and 'Rarely' of which, 63% were female and 75% were male. Higher frequencies ('Often' 12% and 'Very Often' 14%), where predominantly reported by women aged 18-44, while women over 45 reported lower frequencies.

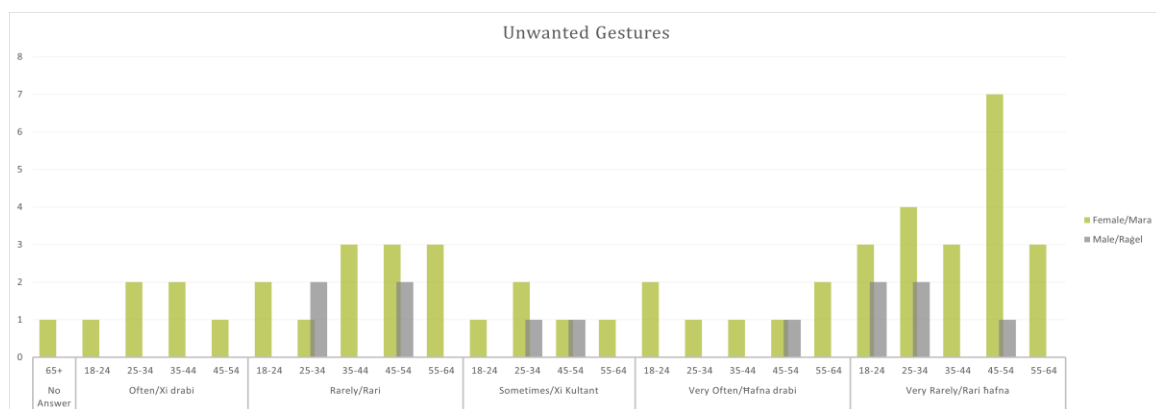


Figure 36: Participant Responses to Instances of Harassment by Age and Gender Distribution: Unwanted Gestures

Figure 37 illustrates the response frequencies of 'Intrusive Questions'. Most participants responded to 'Very Rarely' and 'Rarely' encountering such situations. Though women who reported higher frequencies, where women aged 18-34.

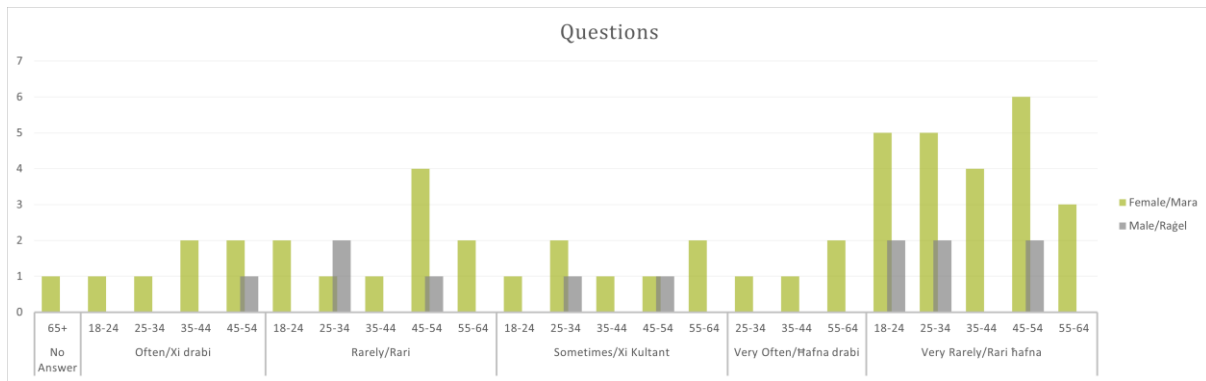


Figure 37: Participant Responses to Instances of Harassment by Age and Gender Distribution: Intrusive Questions

Participants were also asked whether there are other forms of harassment that they might have encountered to which only a few participants answered. Amongst these quite a number mentioned 'staring'.

Following this, participants were asked two more open ended questions as follows:

- *To what extent does the presence of other people affect your sense of safety?*
- *Have you ever reported an incident of harassment in Birkirkara? If yes, to whom, and why (or why not)?*

From first question the following themes have emerged:

- **Type of people**

Participants highlighted elements such as gender, race and familiarity of other pedestrians, as factors which contribute to their perceptions of safety or unsafety.

“*Skont minn ikun jekk tkun tafhom tal-madwar mod u jekk qatt ma tkun rajthom mhux ha nħossni komda.*”

Depends who. Whether if they are familiar from the abouts or if I have never seen them, I would not feel comfortable.

Female, aged 45-54

“
Greatly depends on their gender and age.
”

Female, aged 18-24

“
It depends. If there is a large group of women, I automatically feel safer. If there is a mixed group, I am still alert but not anxious. If there is a large group of men, I am automatically on guard
”

Female, aged 25-34

“
Depends the kind of people and time of the day. If it's during the day I feel very safe unless surrounded by certain types of foreigners displaying certain types of behaviours like whistling etc. At night same thing.
”

Female, aged 18-24

- **Other Street User's Behaviour**

Participants highlighted elements as physical or verbal communication.

“
Nies li ma nafx u jibgħu iħarsu u ifesfsu fil-widnejn.
Strangers who keep staring and whispering in ear.
”

Female, aged 35-44

“
Unless they are loud, roudy, dodgy or intrusive, I have no issues with other pesrsons' presence. In a way it feels better.
”

Male, aged 45-54

“
If someone who's alone starts following me.”

Female, aged 18-24

“
Li ma jtunix fastidju.”

Who doesn't harass me.

Female, aged 25-34

- **Natural Surveillance**

Participants considered that more pedestrian presence on the street gives a positive sense of security.

“
Not very much, but during the nighttime it can be nice with company during walks”

Male, aged 18-24

“
Makes me feel safer cause no one is going to attack you in front of a lot of people.”

Female, aged 25-34

“
If the area is crowded it should be safer.”

Male, aged 25-34

“
If there are several people around me, that does give me a sense of security,”

Female, aged 35-44

- **Depending on Commercial Typologies**

Participants highlighted areas in which certain commercial typologies exist.

Jiddependi ħafna fejn u kif. Pereżempju fil-vicinanze ta' bars u ċerta pastizzeriji ikun hemm ħafna kummenti mhux xierqa...

It depends a lot on where and how. For example, in the vicinity of bars and certain pastry shops there are a lot of inappropriate comments...

Female, aged 25-34

...groups of men make me nervous - especially outside of bars when the only patrons are men...where I become self-conscious to pass...

Female, aged 25-35

Participants were enquired if they ever reported an incident to a higher authority in which many answered 'No'. They contended that either the situation did not escalate to the point they felt the need to, or they have not encountered such incidents.

Most participants who have reported to authorities regarding instances of harassment did not directly pertain to sexual harassment but rather civil matters. On the other hand, a participant who responded 'Yes', reported an incident in which they were jumped by the opposite gender but managed to escape.

4.2.6 Coping Mechanisms and Strategies

Figure 38 to Figure 53 depict the frequency of use of coping mechanisms and strategies. The questioning used regarding mechanisms and strategies was derived from the literature review.

Participants were asked to respond to the frequency they make use of coping mechanisms and strategies during both daytime and nighttime.

Figure 38 depicts the results for opting to 'Walk with Someone Else' during the day. Most female participants responded, 'Very Rarely' (33%) and 'Rarely' (20%), with 21% of female participants, aged 25-54 responded to 'Sometimes'. Furthermore, the majority of male participants responded to 'Very Rarely' (42%) and 'Rarely' (33%).

During the night time (Figure 39), 41% of female participants, mostly aged between 25-54, reported 'Very Often', with 18% responding 'Sometimes'. The majority of male participants answered, 'Very Rarely' (33%) and 'Rarely' (50%).



Figure 38: Use of 'Walk with Someone Else' as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

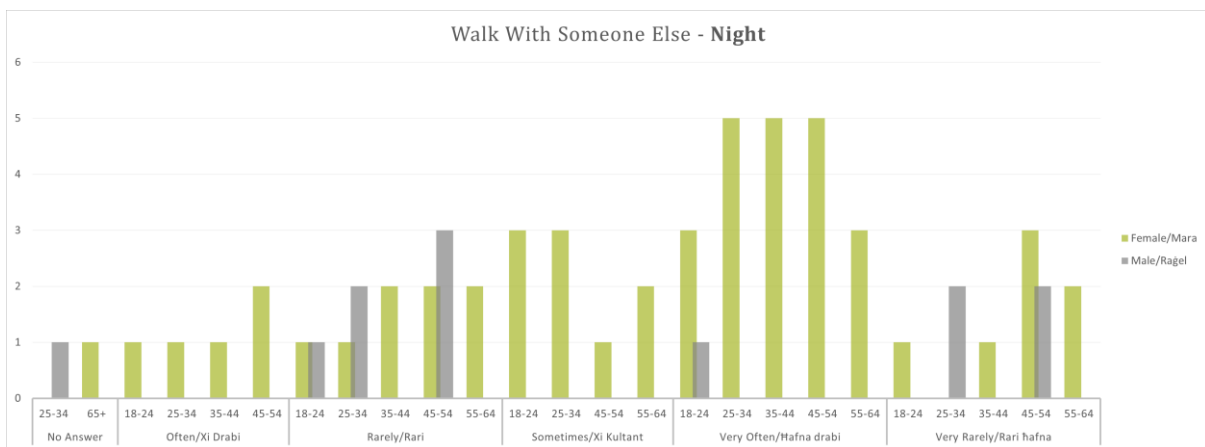


Figure 39: Use of 'Walk with Someone Else' as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

Figure 40 show the frequency of respondents changing their route during the day. The majority of female participants responded, 'Very Rarely' (27%) predominantly aged 35 to 54 years old, followed by 'Rarely' (24%) mostly aged 45-54 years. Similarly, the majority of male respondents answered, 'Very Rarely' (50%) and 'Rarely' (42%). Meanwhile, 22% of female participants, mostly aged 18–24, answered 'Sometimes', while 18%, mainly aged 45–54, answered 'Often'.

At night (Figure 41), 39% of women, mostly aged 18-44, reported 'Very Often', while 18% (mainly 45-54 years old) answered 'Often'.

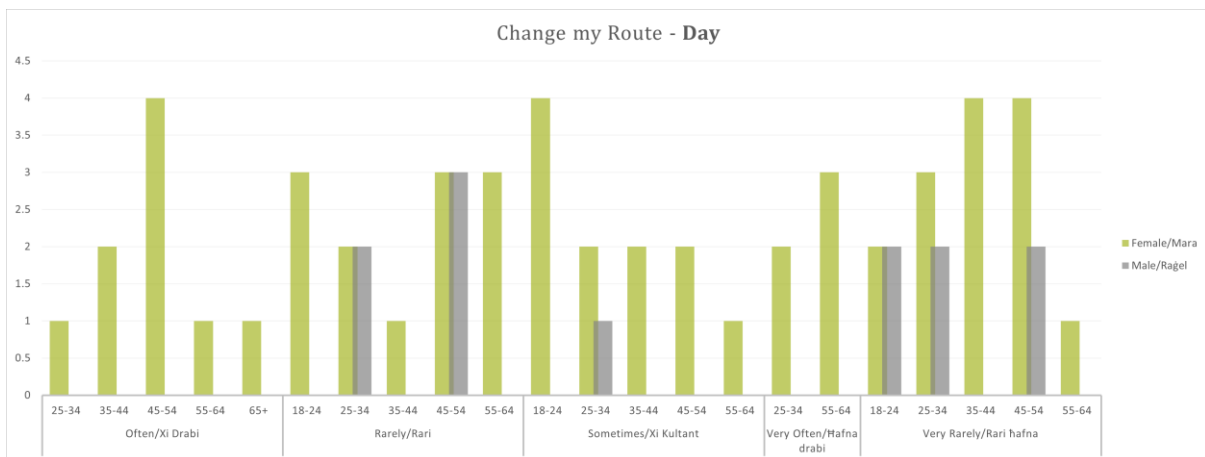


Figure 40: Use of 'Change Route' as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

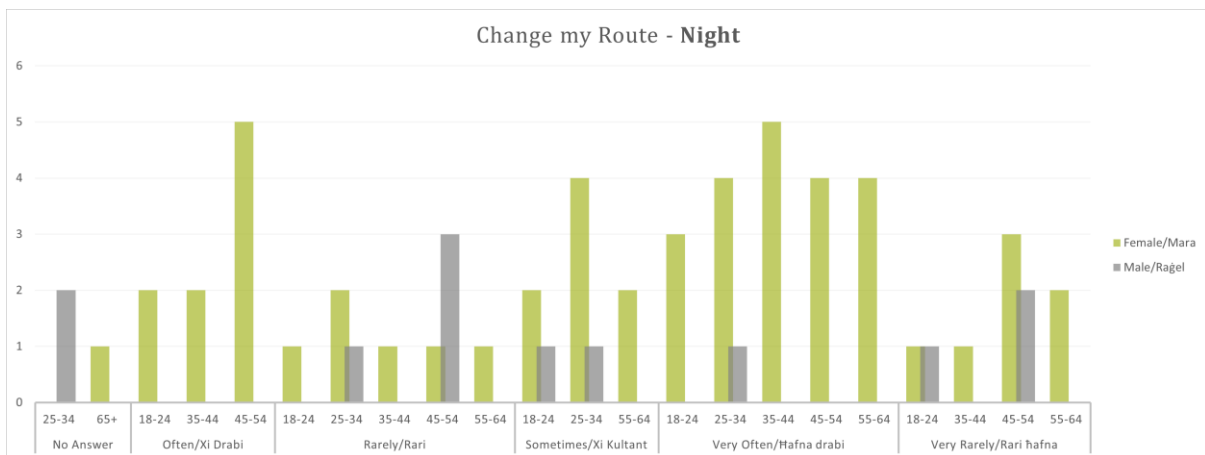


Figure 41: Use of 'Walk with Someone Else' as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

Figure 42 depicts the responses of the frequency of which they 'Pretend to be on the Phone with Someone Else' during the day while Figure 43, illustrates night time responses.

During the daytime, most female (55%) and male (92%) respondents answered to 'Very Rarely' and 'Rarely'. However, 31% of female participants responded, 'Very Often' and 'Often', collectively.

During the nighttime (Figure 43, female participants mostly answered to 'Very Often' (35%) and 'Sometimes' (24%), with higher frequencies by those aged 18-34.

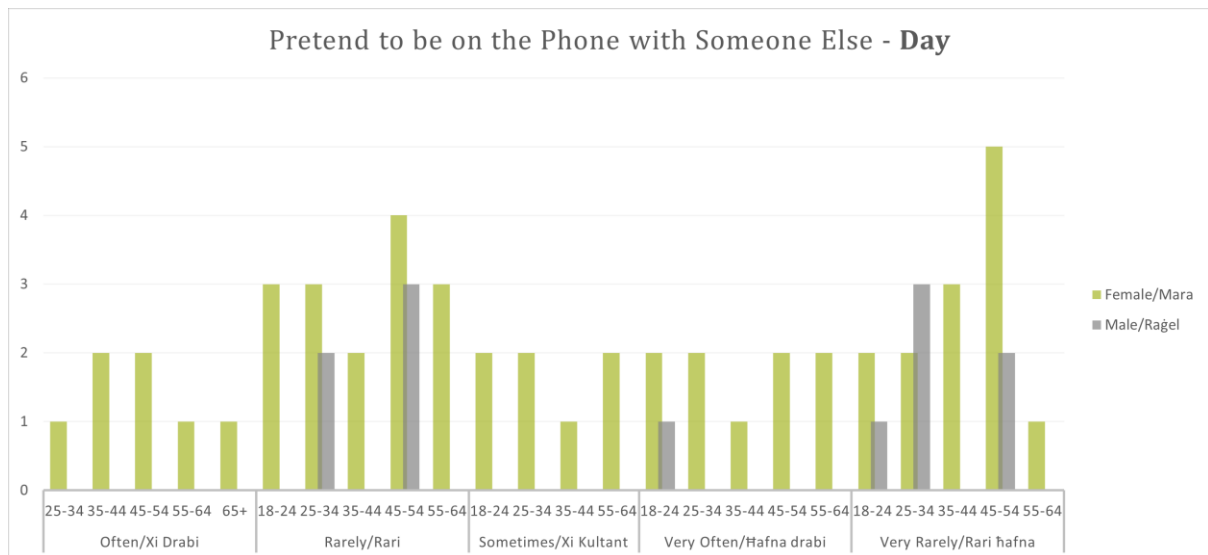


Figure 42: Use of 'Pretend to be on the Phone with Someone Else' as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

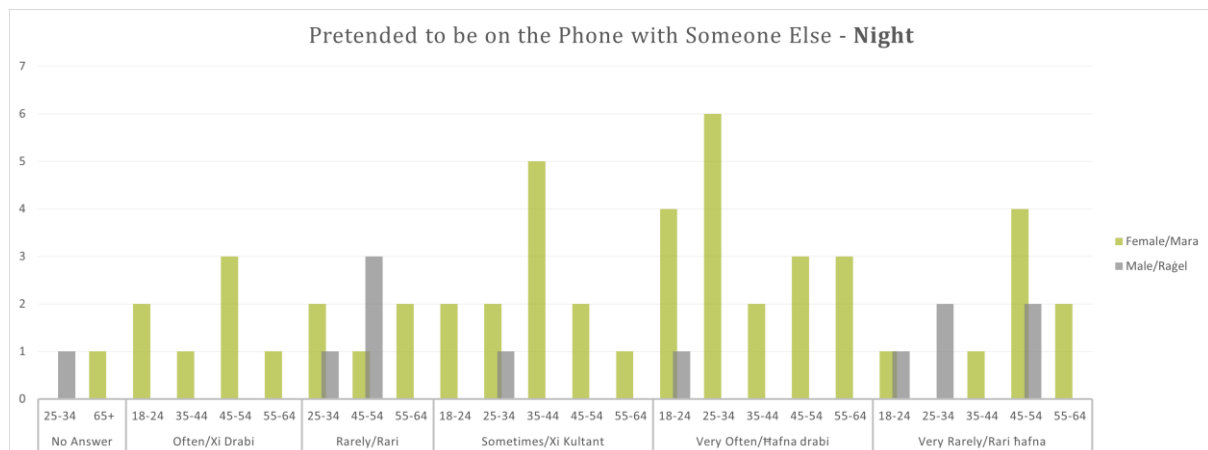


Figure 43: Use of 'Pretend to be on the Phone with Someone Else' as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

At daytime, 53% of female and 67% of male respondents rarely ‘Choose Busier Streets’ (Figure 44). However, 35% of female participants aged 18-44, reported doing so more often.

At night (Figure 45), a shift is noted, with more women, particularly those aged 18-44, choosing busier streets. Meanwhile, male responses had a dispersed frequency.



Figure 44: Use of ‘Choose Busier Streets’ as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

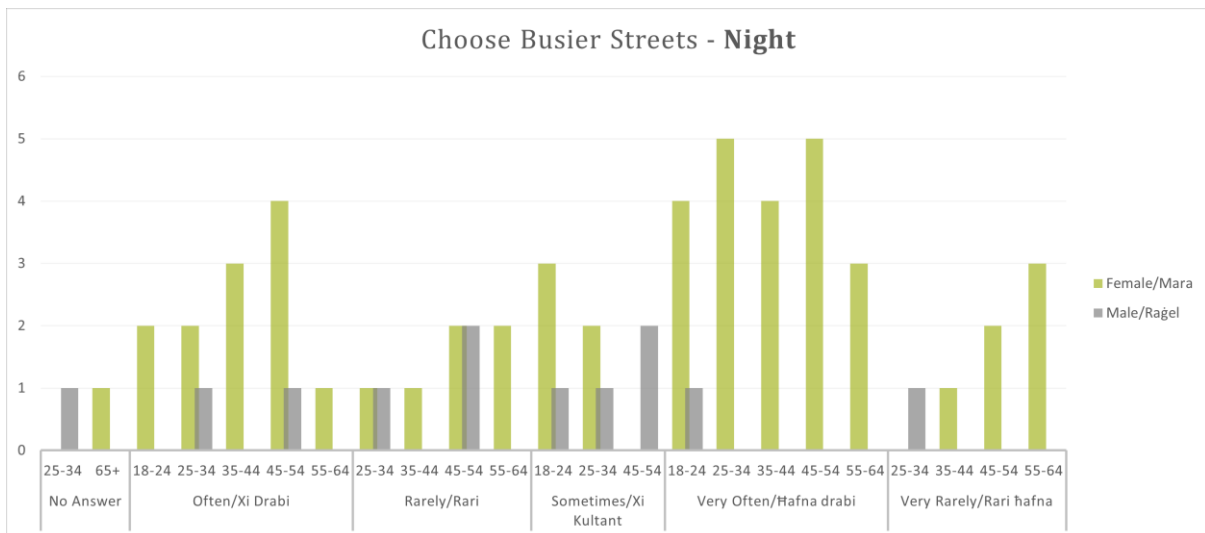


Figure 44: Use of ‘Choose Busier Streets’ as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

During daytime (Figure 46), 50% of male participants responded ‘Rarely’ for ‘Walking Faster than Usual’. In contrast, females only 24% chose either ‘Very Rarely’ or ‘Very Often’, with a combination of ages.

At night (Figure 47), women of all ages stated they were more alert. Most responded, ‘Very Often’ (39%) for ‘Walking Faster than Usual’, and females aged 18–44 mostly responded

'Often' (27%). Males mostly responded 'Rarely' and 'Sometimes'. Females aged 45–64 mainly responded, 'Very Rarely'.

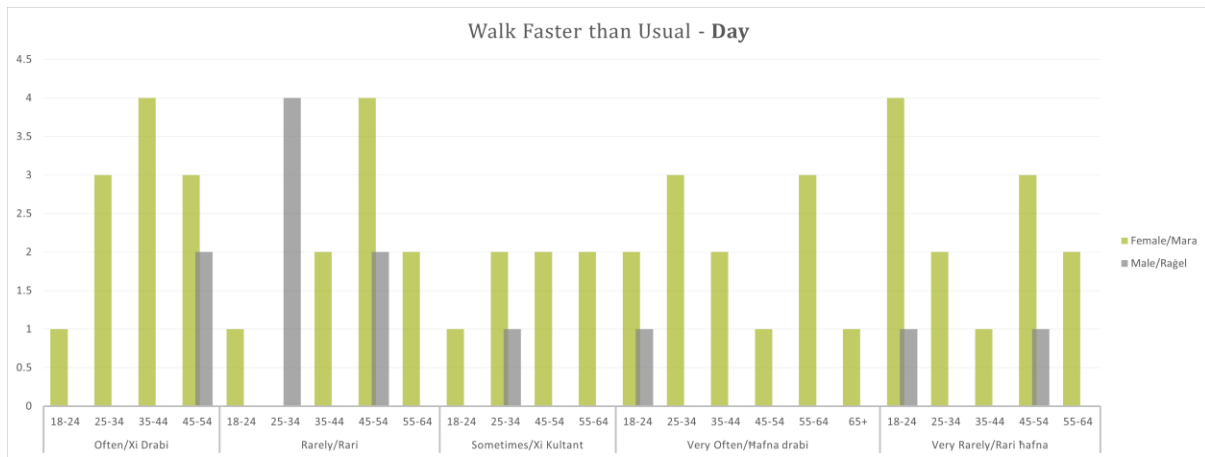


Figure 45: Use of 'Walk Faster than Usual' as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

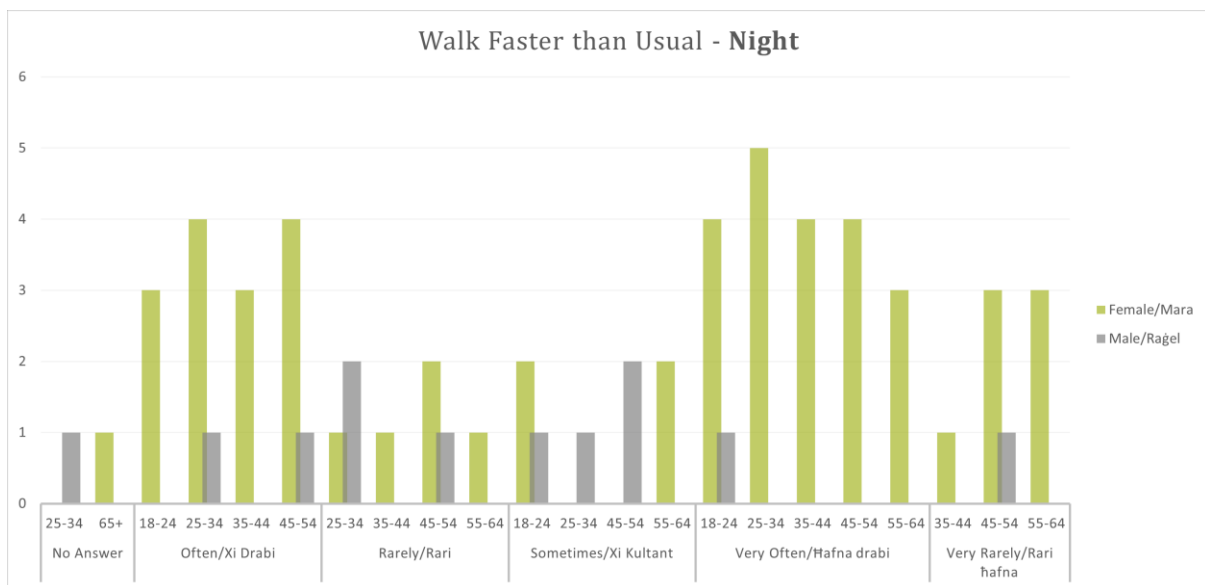


Figure 46: Use of 'Walk Faster than Usual' as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

The results indicate that women tend to avoid certain streets more frequently at night, with 37% responding 'Very Often' (Figure 49), compared to only 18% during daylight hours (Figure 48). On the other hand, also displayed a heightened awareness when walking through certain areas during the night. However, the majority of male participants (54%) answered 'Very Rarely' and 'Rarely', regarding to daytime.



Figure 47: Use of 'Avoid Certain Streets' as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

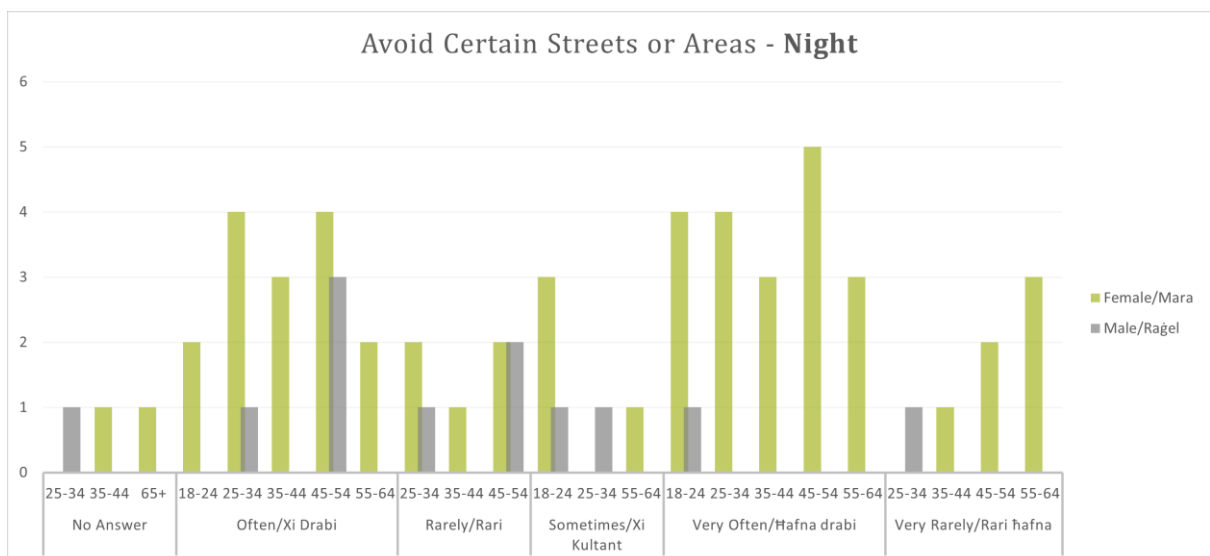


Figure 48: Use of 'Avoid Certain Streets' as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

Figures 50 and 51 illustrate the frequency with which the participants check their environment during both day and night. During the day, the majority of women aged 25–34 responded, 'Very Often' (33%), and 29% of the same age group responded 'Very Often' at night. Women aged 45-54 are next with 24% responding in either case. There are 20% of women and 31% of women who responded 'Often' with the majority aged 18-44. Male responses were more scattered with 'Sometimes' being the most common response.

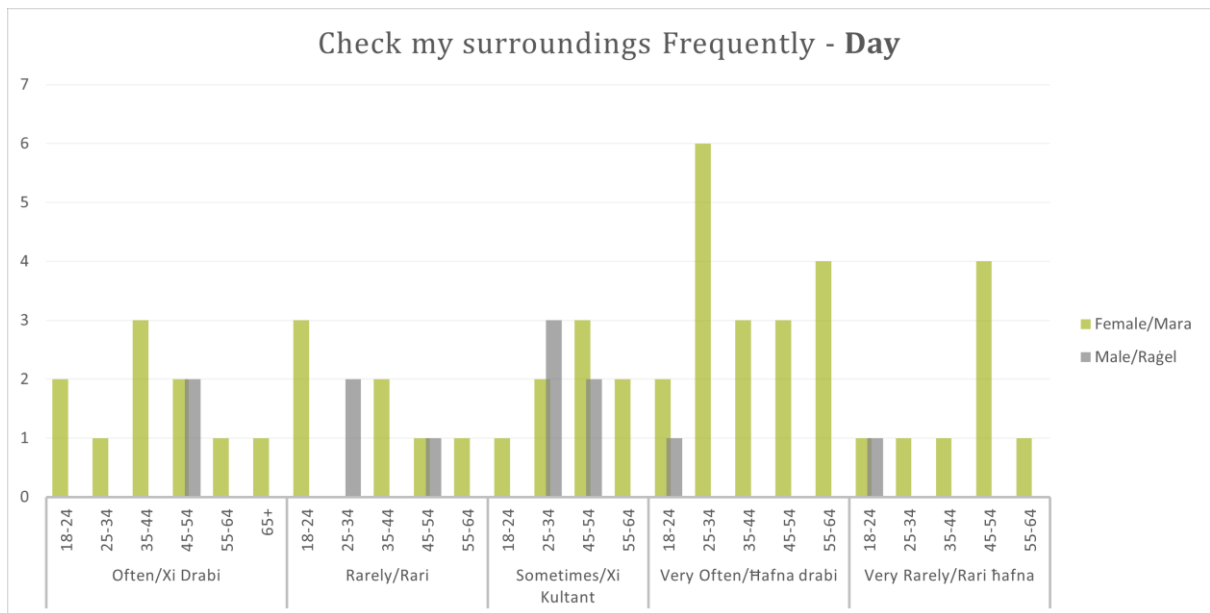


Figure 49: Use of 'Check my Surroundings Frequently' as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

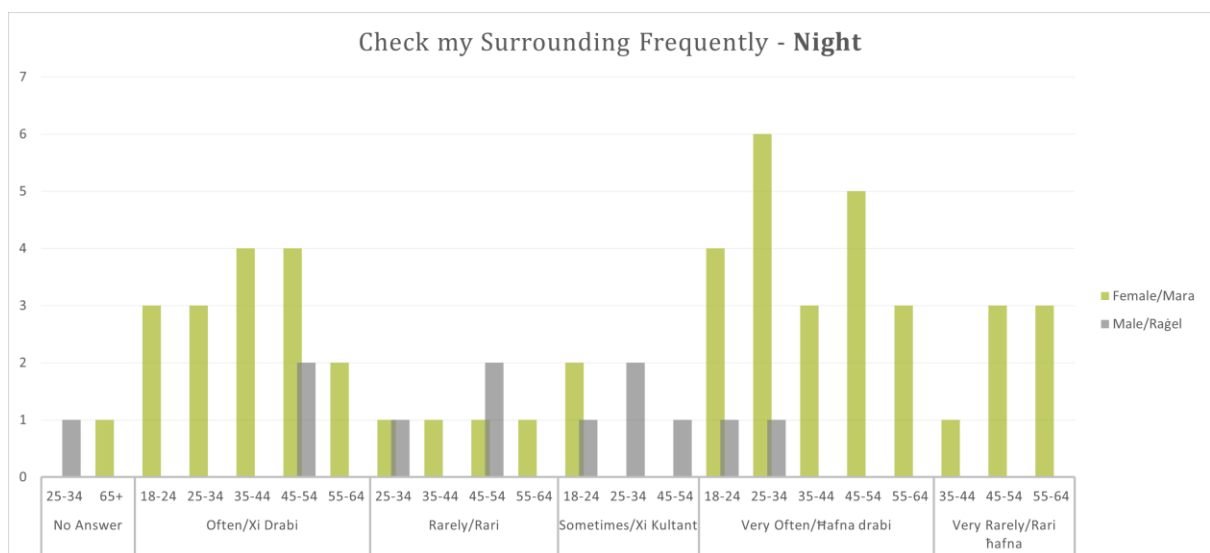


Figure 50: Use of 'Check my Surroundings Frequently' as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

Figures 52 and 53, show how often participants 'Avoid Wearing Headphones' during the day and night. At day time, 27% responded 'Very Rarely' and 31% 'Very Often', while at night, 14% responded 'Very Rarely' and 41% 'Very Often'. The majority of those who answered very often were aged 18-44, during both times of the day. Most male participants answered, 'Very Rarely' and 'Rarely' during both times of the day.

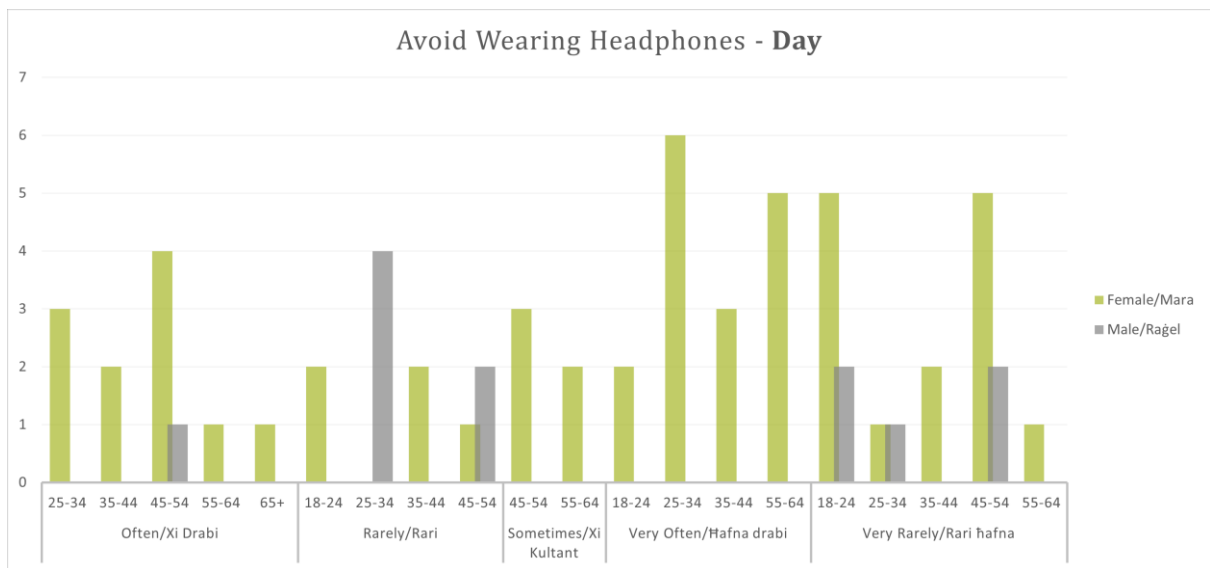


Figure 51: Use of 'Avoid Wearing Headphones' as a Daytime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

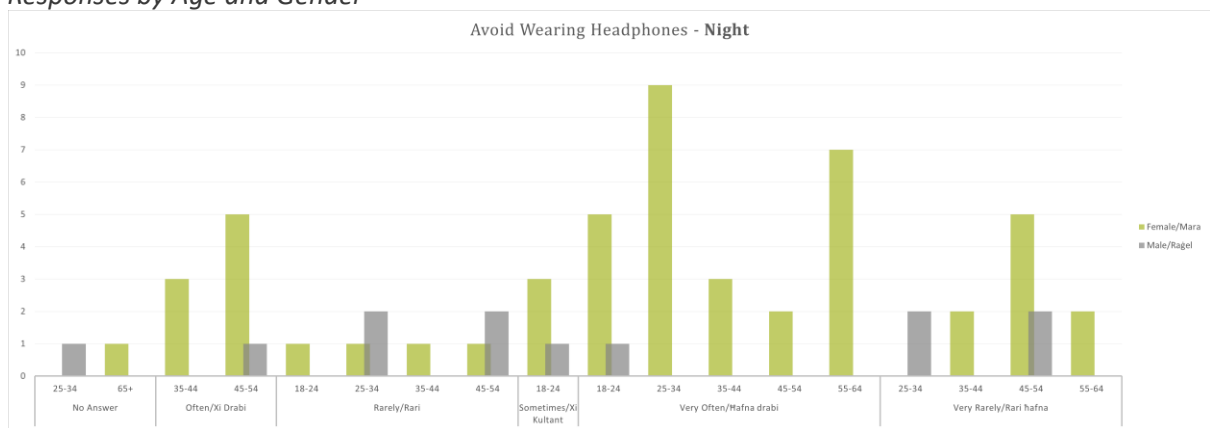


Figure 52: Use of 'Avoid Wearing Headphones' as a Nighttime Coping Strategy in Birkirkara: Participant Responses by Age and Gender

Participants were then asked, if there 'Are there any additional strategies they [you] use?'. Male participants all answered that they do not. However, four themes emerged from the female participant's responses, as follows:

— **Self-defence**

The majority of women noted that they hold their keys ready in hand for self-defence purposes.



Walk with keys in between my hands.



Female, aged 18-24



If feeling unsafe, will hold keys between my knuckles.



Female, aged 25-34



The key strategy that every women knows about - hold keys between your fingers...



Female, aged 35-44

— Keeping Mobile Phone in Hand

Female participants noted that they keep their phones within reach, call someone they are close to while they are walking and using a flashlight when street lighting is poor.



Sometimes I call someone and stay on the phone with them until I arrive.



Female, aged 25-34



I leave the mobile phone within reach. A handy torch...



Female, aged 35-44



Inċempel lil missieri jew lill-għarus meta inkun miexja filgħaxija (mhux nipretendi).



I call my father or boyfriend when I'm walking in the evening (not pretending).

Female, aged 25-34

— Share Location and Updates on their Whereabouts

Women also mentioned sharing their locations and sending updates to trusted individuals about their current location.



Let my friends know my location.



Female, aged 18-24



I also text someone when I leave somewhere and when I arrive home.



Female, aged 25-34

— Avoid Walking Altogether

Others remarked that they prefer to avoid walking alone altogether, especially in the evenings and opt to be accompanied by someone else.



Nevita li noħrog waħdi, jew xi ħadd iwassalni.



I avoid going out alone, or have someone drive me.

Female, aged 55-64



Generally, avoid walking alone at night or keep to the same safe streets.



Female, aged 34-44

The last question within this section aimed to gather insight regarding if participants tend to look for safe exists or spaces when walking through Birkirkara (Figure 54) followed by a brief reasoning. The majority of male (92%) and female (53%) participants answered 'No', while 47% of the female participants answered 'Yes'. The majority of female respondents who

answered 'No' belonged to the age groups 18 – 24, 35 – 44 and 45 – 54, while on the other hand, the most age groups who answered 'No', where 25 - 34 and 45 – 54.

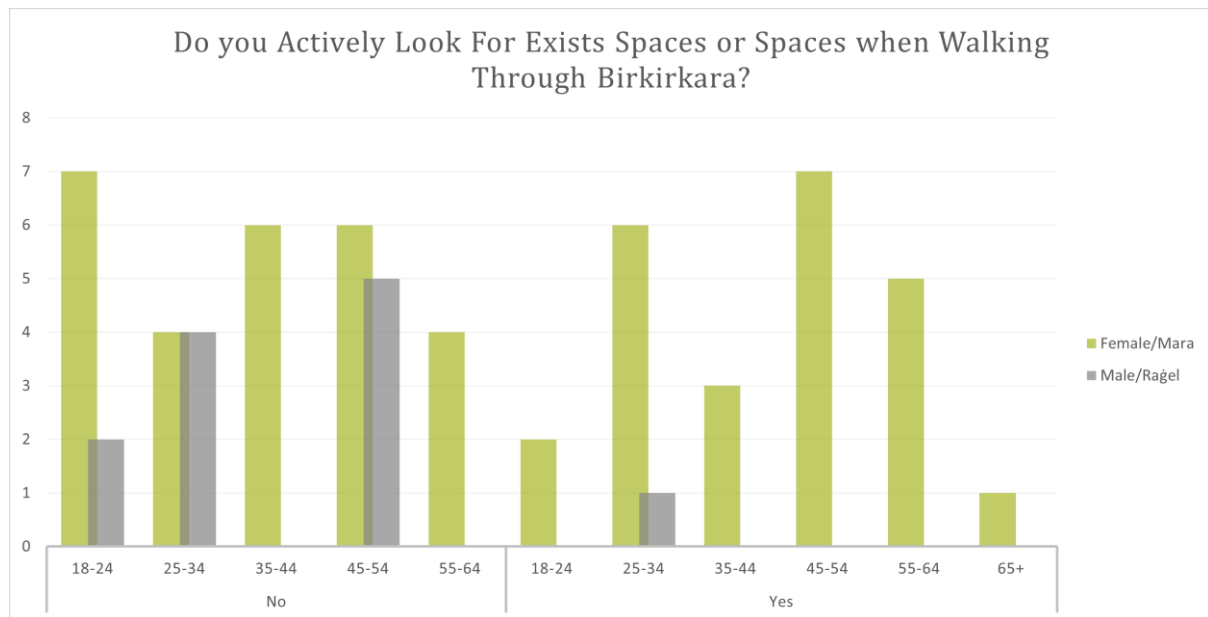


Figure 53: Participant Responses by Age and Gender when Enquired if they Look for Safey Exists or Spaces when Walking in Birkirkara.

The following thematics where derived from the reasoning as to why females decide to look for safer spaces:

— **Presence of other Pedestrians**

Areas fejn jghaddu iktar nies.
Areas where a lot of people pass by.
 Female, aged 25-34

The presence of other people, in particular women, or families with children...
 Female, aged 55-64

Inżomm aktar mal-main roads fejn jghaddu ħafna nies.
I keep to main roads where a lot of people pass by
 Female, aged 55-64

— Well-Lit Areas



Where there is light and residential areas.



Female, aged 18-24



Well-lit areas.



Female, aged 45-54



Noħrog fid-dawl t'Alla u ma dumx sad-dlam.



I go out in God's light and together with someone else and don't linger until darkness.

Female, aged 55-64

4.2.7 Street Typologies and Street Elements

This section provides a rapport for Figure 55 to Figure 81 where participants were provided with photographs depicting different street typologies during the day and night.

The following streets were chosen based on selected street typologies and street elements mentioned in Section 4.2.5. Participants were asked to rate their sense of safety when navigating through these spaces with 1 being 'Very Unsafe' and 5 being 'Very Safe'.

The first street, Triq L-Imrieħel (Figure 55), is characterised by abandoned dwellings and being an alleyway. During the day (Figure 56), the majority of female participants reported feeling 'Neutral' (45%), while only 21% reporting such at night. At night more women reported feeling 'Very Unsafe' (29%) or 'Unsafe' (25%), of which women aged 25-44, mostly answered as such. Male participants in general tended to exhibit more 'Safe' and 'Neutral' feelings and they are more evenly distributed and less extreme, compared to results obtained from women's responses.



Figure 54: Photographs Presented in the Survey of Triq l-Imrieħel

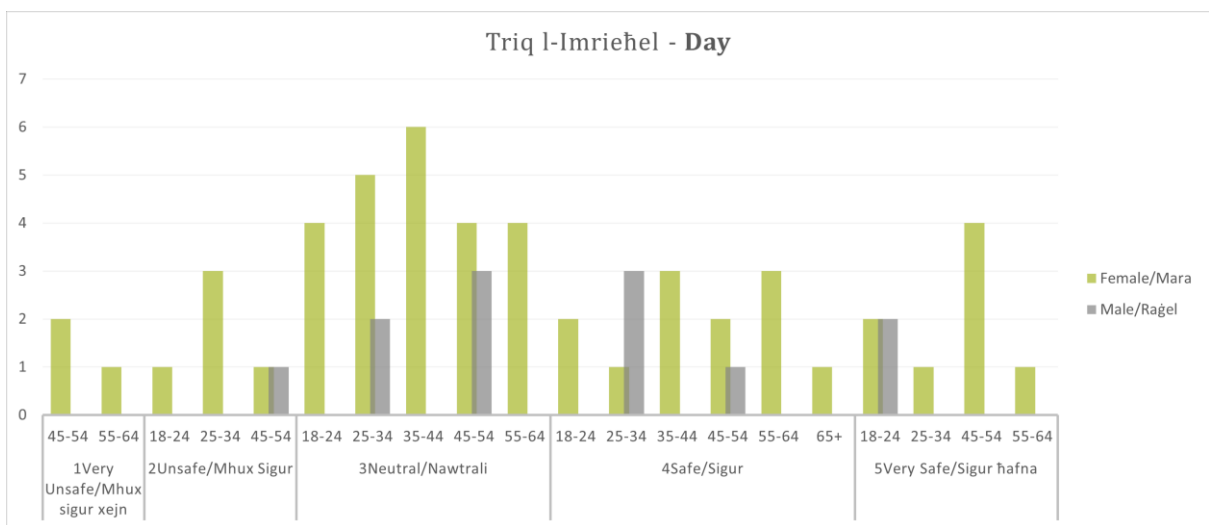


Figure 55: Survey Results: Perception of Safety on Triq l-Imrieħel: Day

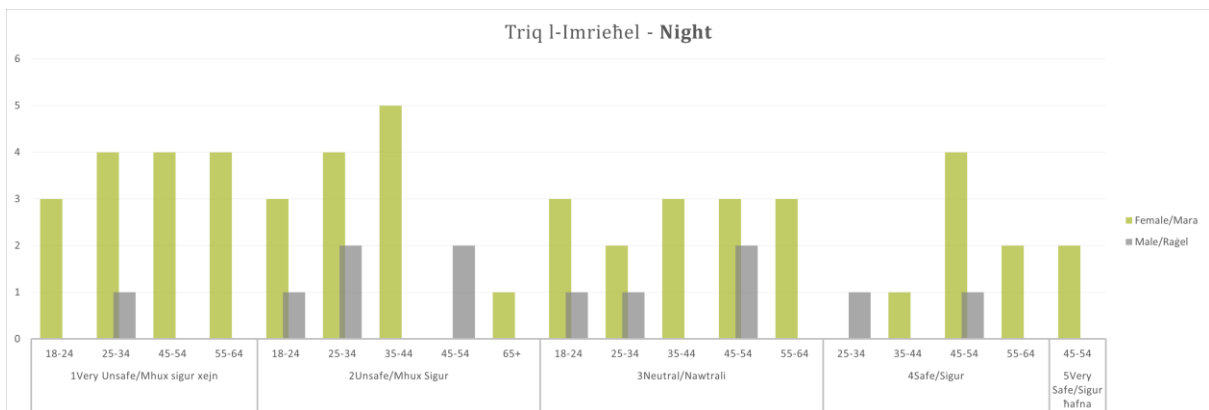


Figure 56: Survey Results: Perception of Safety on Triq l-Imrieħel: Night

The following street (Figure 58), Valley Road, was chosen due to it being a core commercial strip in Birkirkara, attracting various users both day and night. The majority of both male (42%) and female (39%) participants indicated that they feel safe during the day (Figure 59), especially females aged 18-34 and males aged 25-34. 18% of female aged 55-64 felt 'Very Safe'. A small number of participants denoted to feeling 'Very Unsafe' or 'Unsafe'. Thus, indicating a general positive perception of safety.

However, safety perceptions dropped quite evidently during the night (Figure 60). Female participants significant increase in 'Very Unsafe' (22%), most of which are aged 34 – 54, compared to during the day (12%). Male responses remained rather consistent, though some male respondents alluded to feeling 'Neutral' (33%) and 'Unsafe' (17%) during the evening.

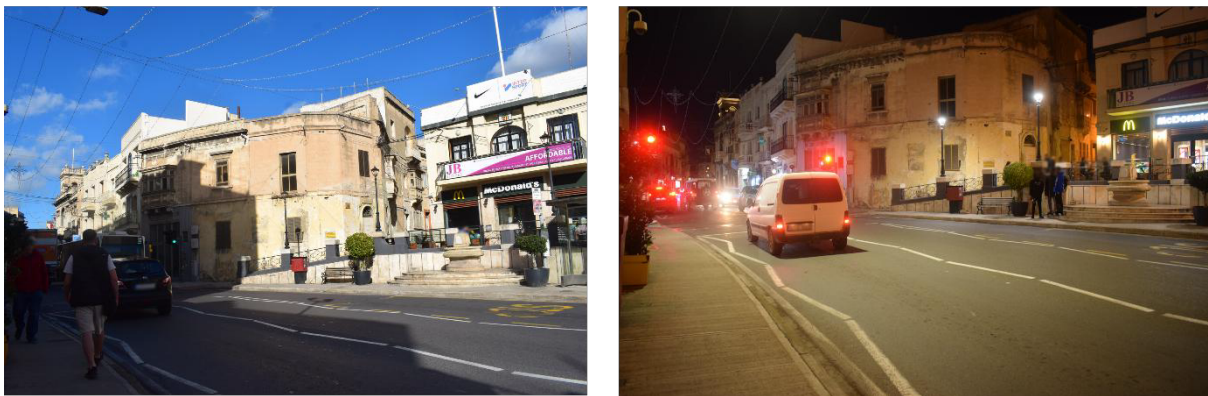


Figure 57: Photographs Presented in the Survey of Valley Road

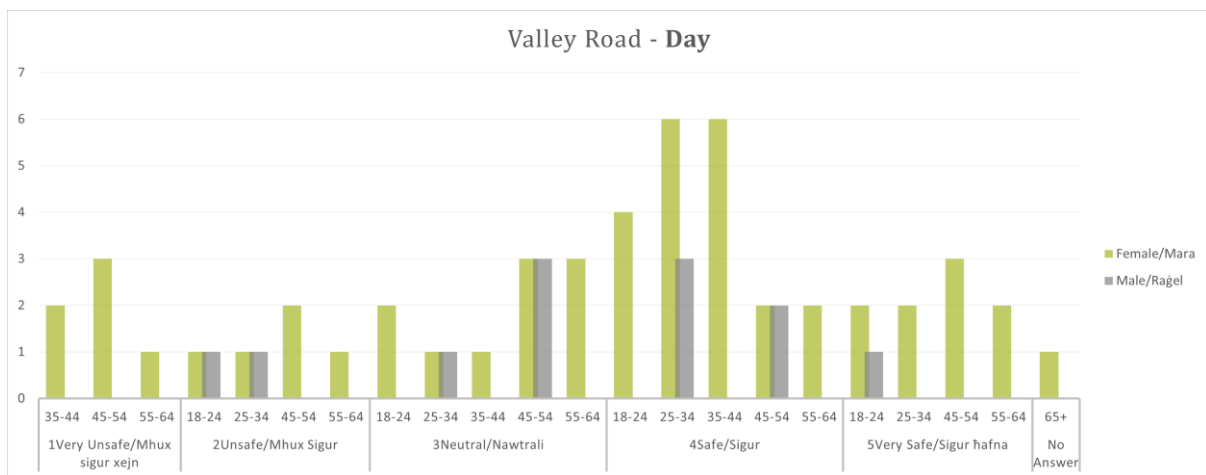


Figure 58: Survey Results: Perception of Safety on Valley Road: Day

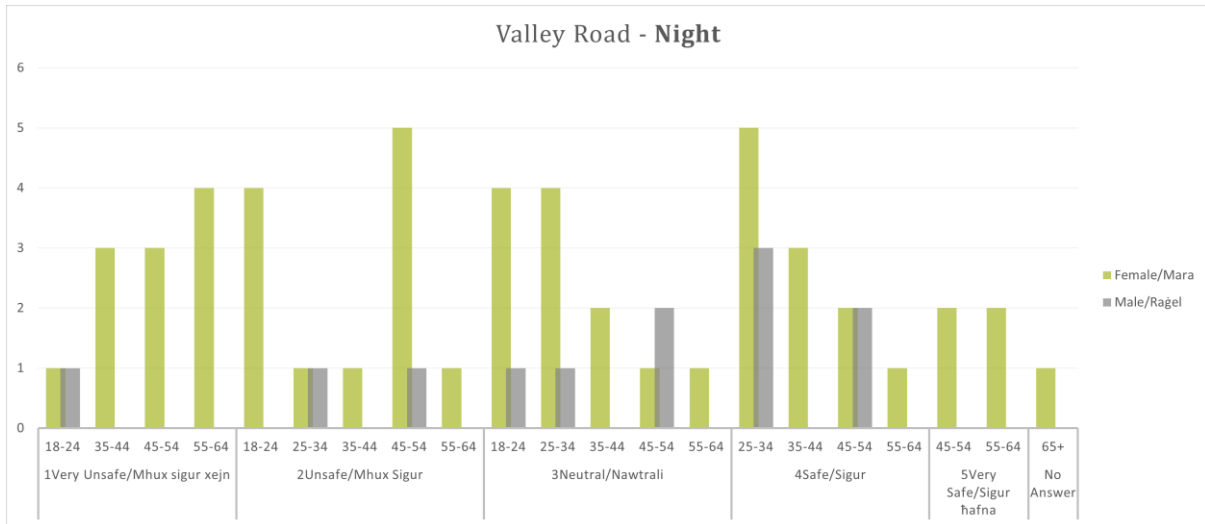


Figure 59: Survey Results: Perception of Safety on Valley Road: Night

Figure 61 represents, Triq il-Qasab, at a specific zone along it. This street was chosen for its low footfall, primarily used as a parking area by residents. The results illustrate mixed feelings about safety perceptions during the daytime (Figure 62). However, women aged 25-34, reported mostly to feeling 'Very Unsafe' as well as males aged 25-34 mostly felt 'Unsafe'. The majority of female (27%) and male (58%) participants responded 'Neutral'. Meanwhile, 18% and 12% of female participants reported to feeling 'Safe' and 'Very Safe', respectively, with the majority aged 55-64

At night time (Figure 63) perceptions shifted drastically, with no women reporting feeling 'Very Safe' and only a few reported feeling 'Safe'. The majority of women reported to feeling 'Very Unsafe' (43%) or 'Unsafe' (33%), especially in the age groups between 25 to 44 years. Though 'Neutral' responses are rather fairly spread across both genders, a decline can be noted from the daytime.



Figure 60: Survey Results: Photographs Presented in the Survey of Triq il-Qasab 01

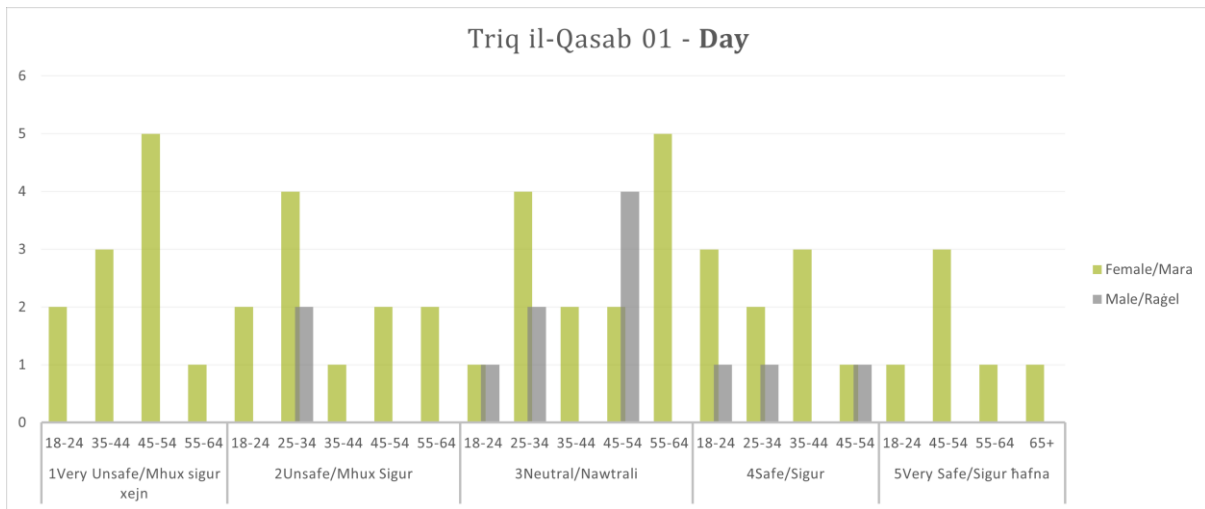


Figure 61: Survey Results: Perception of Safety on Triq il-Qasab 01: Day

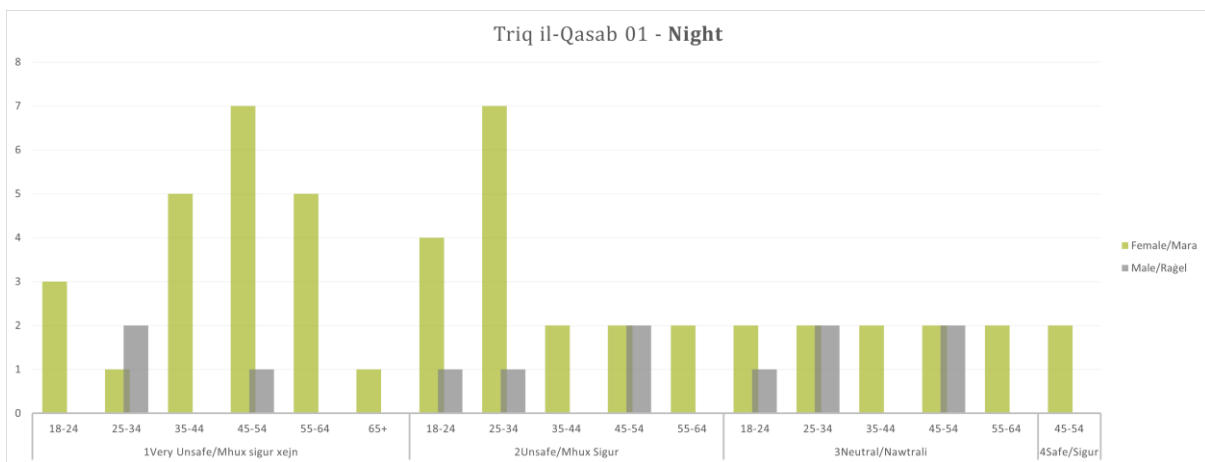


Figure 62: Survey Results: Perception of Safety on Triq il-Qasab 01: Night

Participants were shown Figure 64, illustrating another section of Triq il-Qasab 02. This segment was chosen due to lack of alternative exit routes and poor visibility from above as well as very low pedestrian presence. Both female and male participants mostly responded 'Neutral', during the day (Figure 65). However, fewer reported feeling 'Neutral' at night (Figure 66). A negative perception of safety is evident during both times of the day, especially in female participants across all age groups. Male participants generally reported feeling 'Neutral' and 'Unsafe', with slight increase of unsafe perceptions at night



Figure 64: Survey Results: Photographs Presented in the Survey of Triq il-Qasab 02

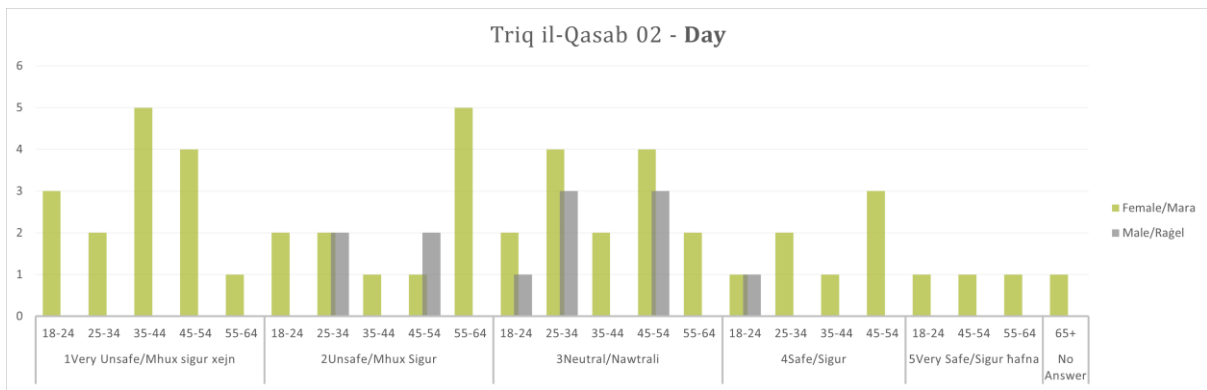


Figure 65: Survey Results: Perception of Safety on Triq il-Qasab 02: Day

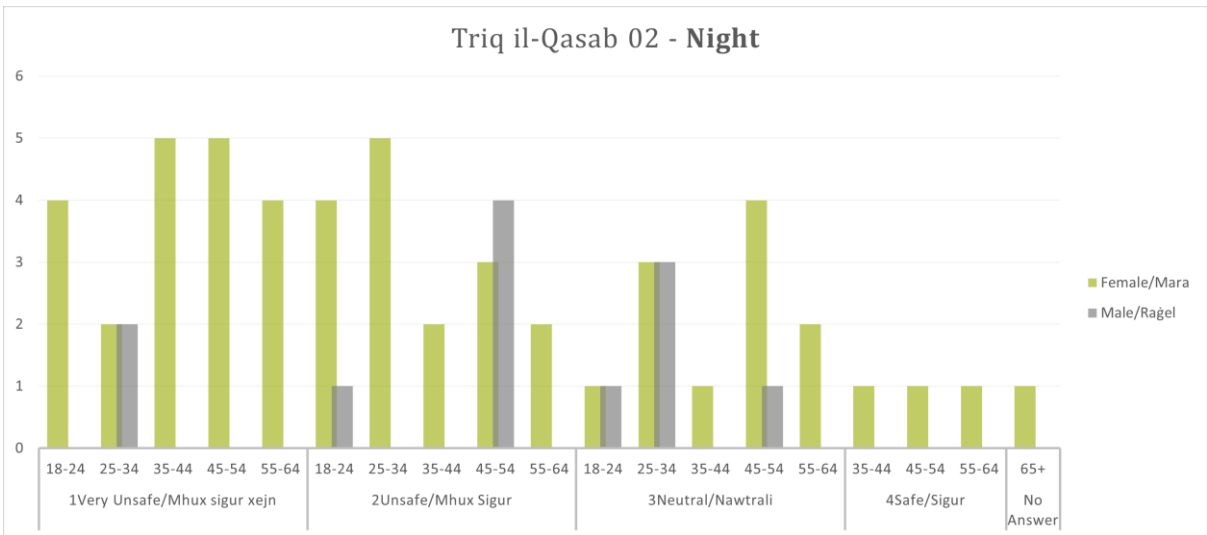


Figure 66: Survey Results: Perception of Safety on Triq il-Qasab 02: Night

Both genders perceive Triq Brared (Figure 67) as generally safe during the day (Figure 68) and night (Figure 69). This street was chosen due to its proximity to the primary school and its frequent daytime use by locals, despite being less active at night. Female participants rated it mostly 'Very Safe' (33%) and 'Safe' (39%), with the most common age groups were, 25-34 and

45-54 respectively. No participants view this street as 'Unsafe'. However, a few female participants aged 45-64 perceive it as 'Very Unsafe' during the day. A number of women rated it as 'Neutral' (22%) in daytime, with the age group 25-34 leading this category. A decrease in perception of safety among female participants is noted in the evenings (Figure 69), as more answered to 'Unsafe' (18%). More female participants report to feeling 'Neutral' (37%) during the night. Male participants generally have a positive perception of safety attributed to Triq Brared at both times, as no 'Very Unsafe' or 'Unsafe' responses are reported.



Figure 67: Survey Results: Photographs Presented in the Survey of Triq Brared

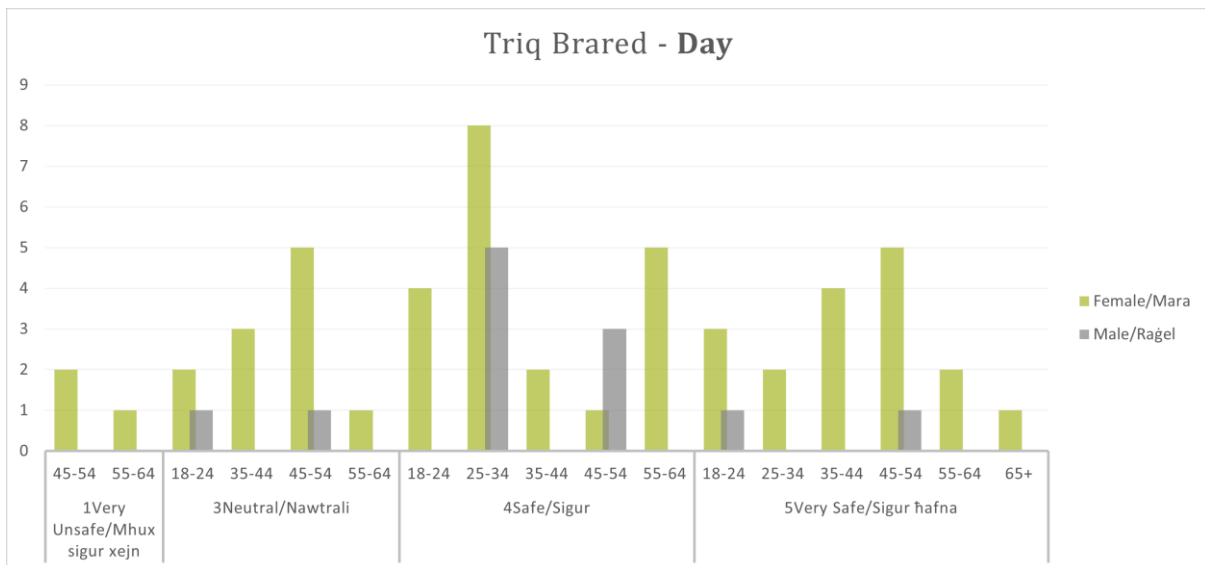


Figure 68: Survey Results: Perception of Safety on Triq Brared: Day

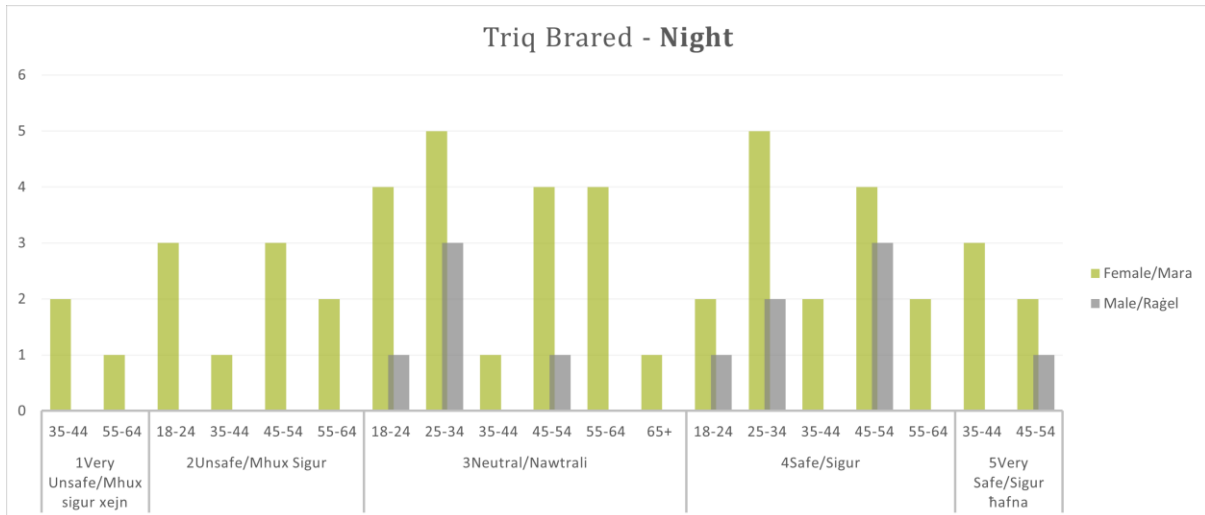


Figure 69: Survey Results: Perception of Safety on Triq Brared: Night

Pertaining to Triq Psaila (Figure 72), there is a notable change in perception of safety at different day times. It was selected because it is a bus station, has a variety of commercial types, and is adjacent to one of Birkirkara's main public green spaces. Most female participants reported to feeling 'Safe' (35%) and 'Very Safe' (27%), while males reported feeling 'Safe' (42%) and 'Neutral' (25%) mostly during the daytime (Figure 71). A notable change is reported in female perceptions as many reported feelings 'Unsafe' (27%) and 'Neutral' (31%), mostly aged 18-24, 45-54 and 55-64. Male participants illustrated a mixed feeling answering mostly to 'Neutral' during the night time (Figure 70).



Figure 70: Survey Results: Photographs Presented in the Survey of Triq Psaila

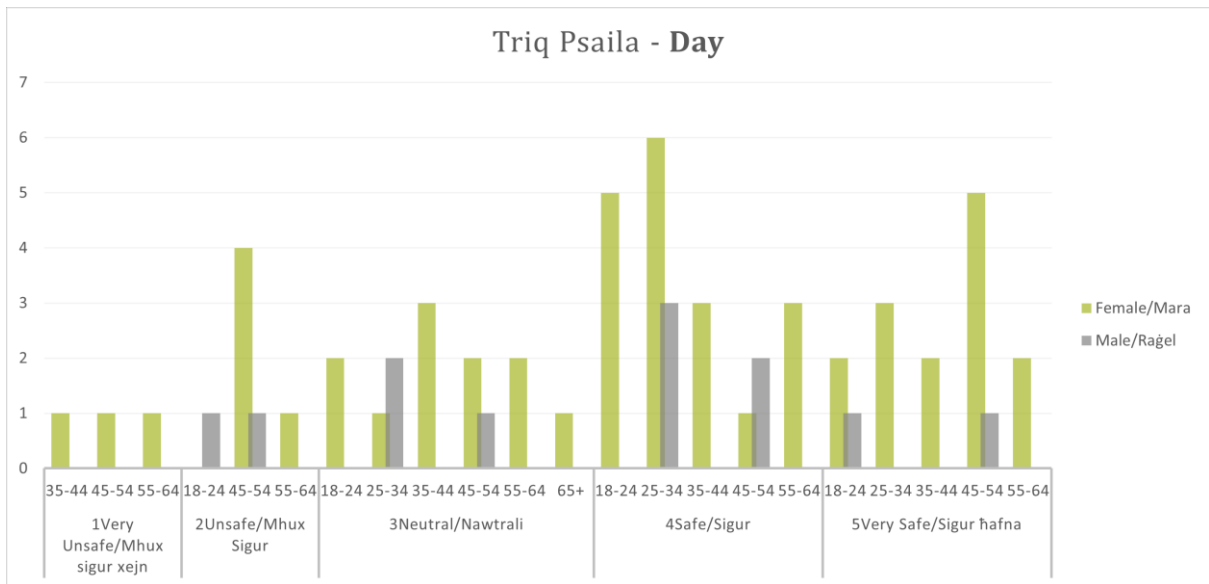


Figure 72: Survey Results: Perception of Safety on Triq Psaila: Day

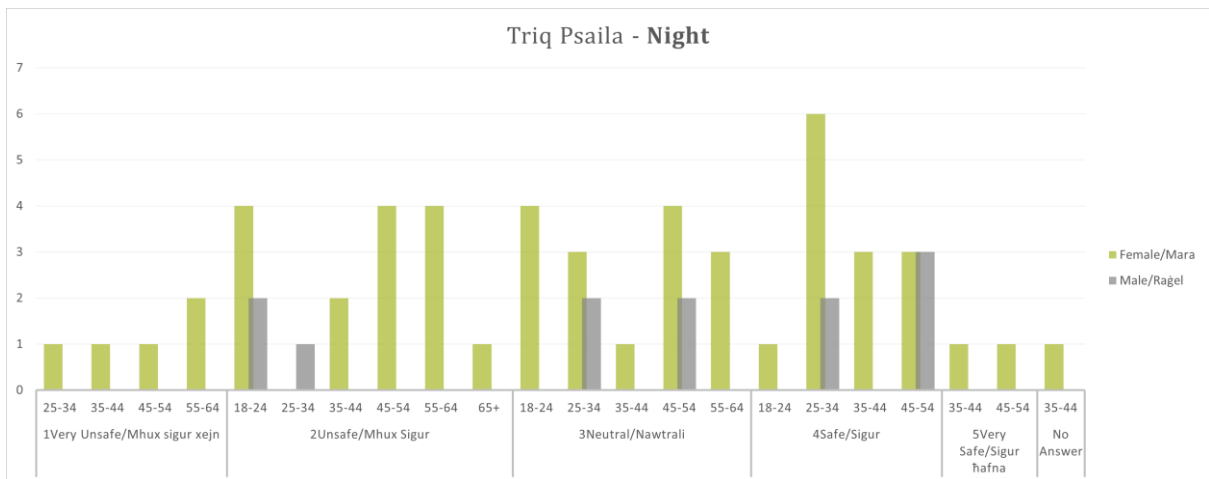


Figure 73: Survey Results: Perception of Safety on Triq Psaila: Night

Triq Tumas Fenech (Figure 73) was selected due to its daytime activity, including the weekly market, access to the parish church, government institutions, and commercial shops. It sees high footfall during the day but much less at night. Overall, participants of both genders displayed positive feelings when walking through this street, at daytime. Women aged 45-54, where among the majority who responded, 'Very Safe' (33%) during the day (Figure 74). Consequently, males mostly recorded feeling 'Very Safe' (58%). 27% of women responded feeling 'Neutral' during the day which sees a slight increase at night (39%) (Figure 75). More female participants answered to feeling 'Unsafe' (20%), with most being from diverse age groups. Male participants, mostly recoded feeling safe with only a small number feeling unsafe.



Figure 74: Survey Results: Photographs Presented in the Survey of Triq Tumas Fenech

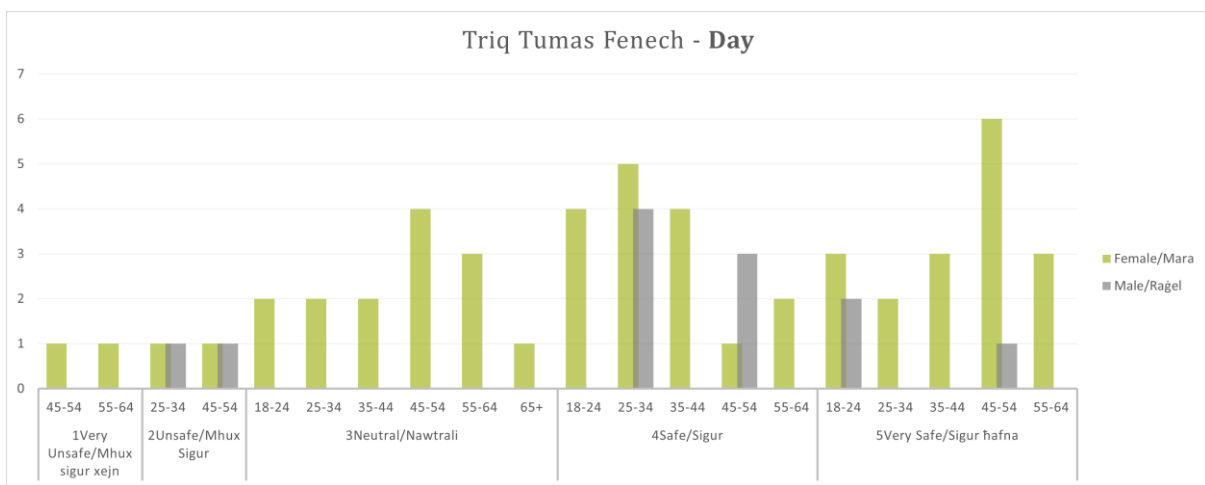


Figure 75: Survey Results: Perception of Safety on Triq Tumas Fenech: Day

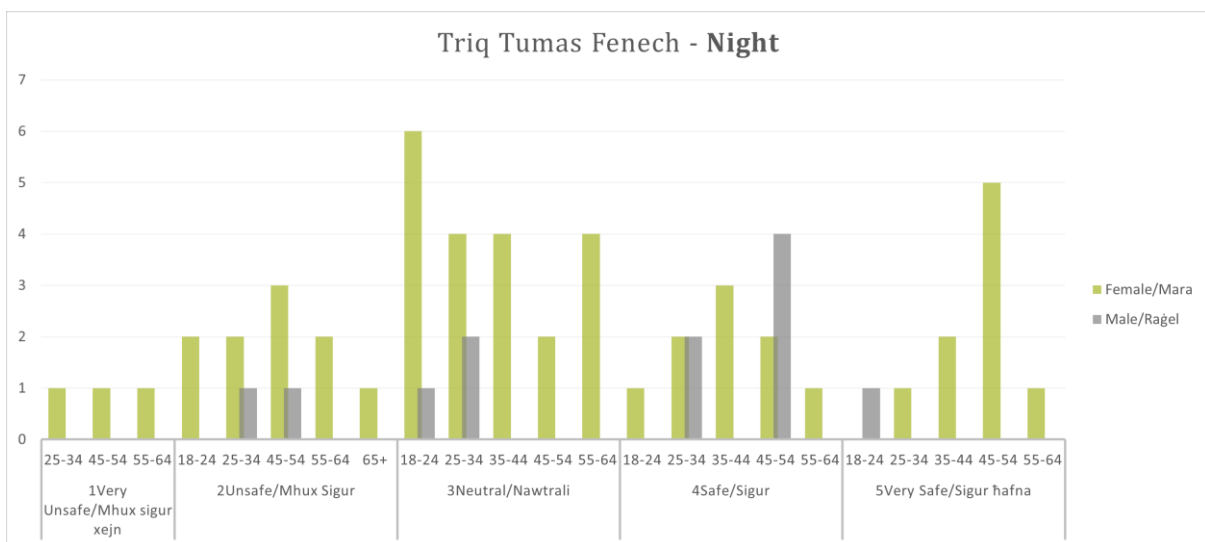


Figure 76: Survey Results: Perception of Safety on Triq Tumas Fenech: Night

Furthermore, as shown in Figure 76, this underpass was selected due to its length and winding layout, which limits visibility and increases the potential for hidden threats. Most female and male participants recorded feeling mostly 'Neutral' and 'Unsafe' when walking through the underpass during the day (Figure 77). The predominate female age groups are 35-44 and 55-64, respectively and male are 25-34 and 45-54. A few female participants reported feeling 'Safe' and 'Very Safe'.

Responses shift drastically during the evening (Figure 78), with only a few female participants feeling safe. Most women reporting feeling 'Very Unsafe' and 'Unsafe' and the majority of women are aged 18-24, 45-54 and 55-64. Male respondents also show lack of perception of safety, though not as evident as females.



Figure 77: Survey Results: Photographs Presented in the Triq Dun Karm Subway 01

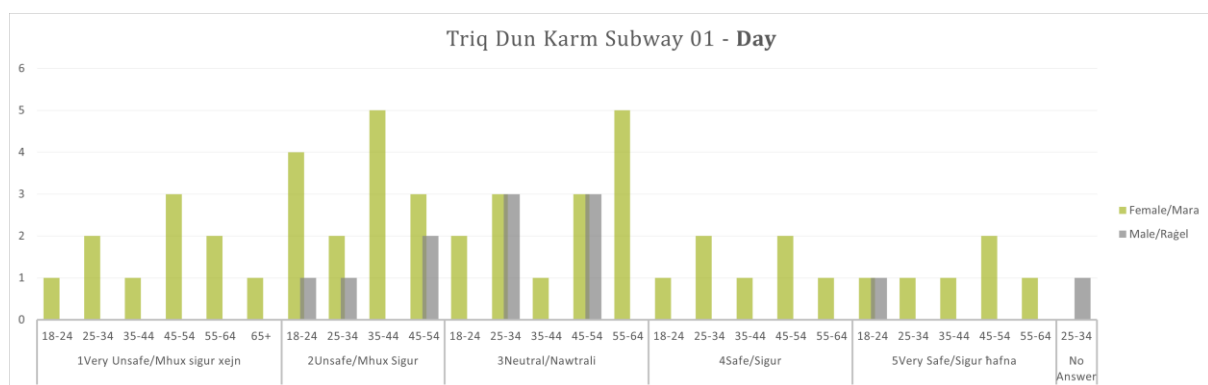


Figure 78: Survey Results: Perception of Safety on Triq Dun Karm Subway 01: Day

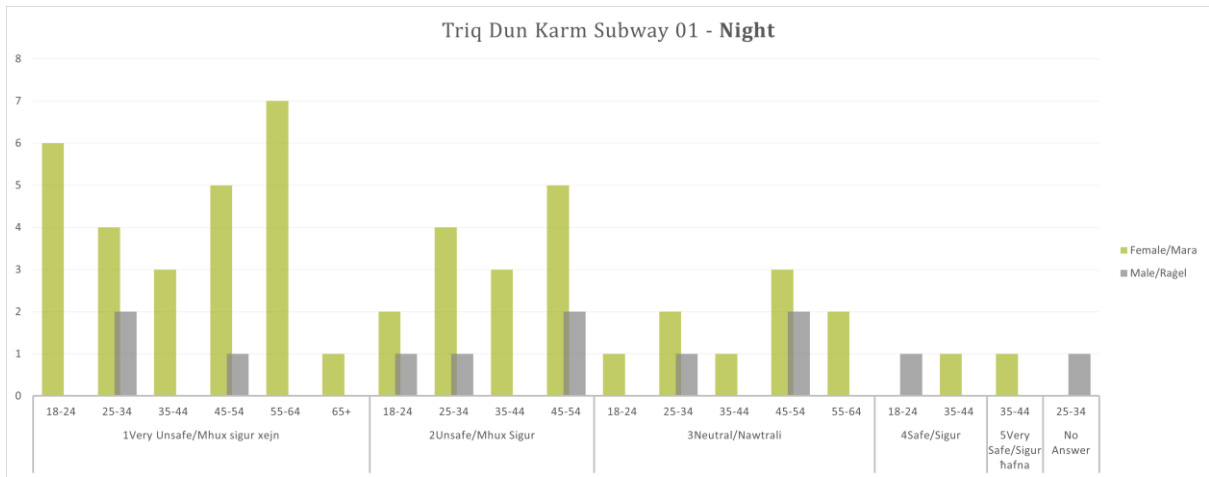


Figure 79: Survey Results: Perception of Safety on Triq Dun Karm Subway 02: Night

Figure 79 illustrates Subway 02 on Triq Dun Karm, which, in contrast to Figure 76, this subway is shorter in nature. However, it is fully enclosed, resulting it being rather dim, especially during the day. There are two rooms on either side of this subway, one of which is a snack bar, as can be seen in the picture on the right. According to Figure 80, women aged 18-25, answered most to feeling 'Very Unsafe' during the day. Others (24%) recorded feeling 'Unsafe' or 'Neutral'. Some male participants reported that they feel safe. However, most reported feeling 'Neutral' (33%) or 'Unsafe' (42%).

From Figure 81, it can be clearly deduced that both genders do not feel safe walking through the underpass. Most of female participants (51%) report feeling 'Very Unsafe', of which age groups vary. Male participants exhibit also predominantly negative feeling though not as prevalent as in females.



Figure 80: Survey Results: Photographs Presented in the Survey of Triq Dun Karm Subway 02

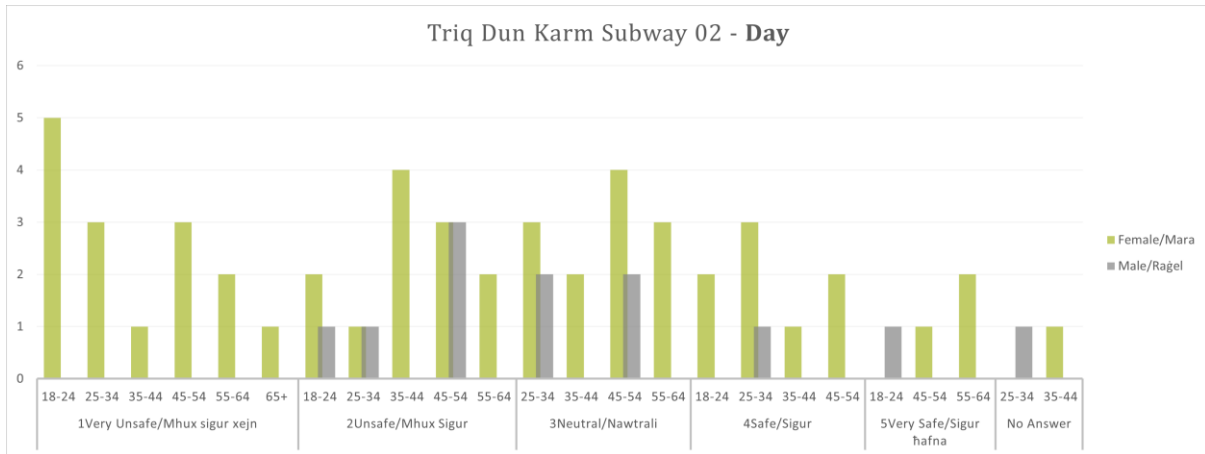


Figure 81: Survey Results: Perception of Safety on Triq Dun Karm Subway 02: Day

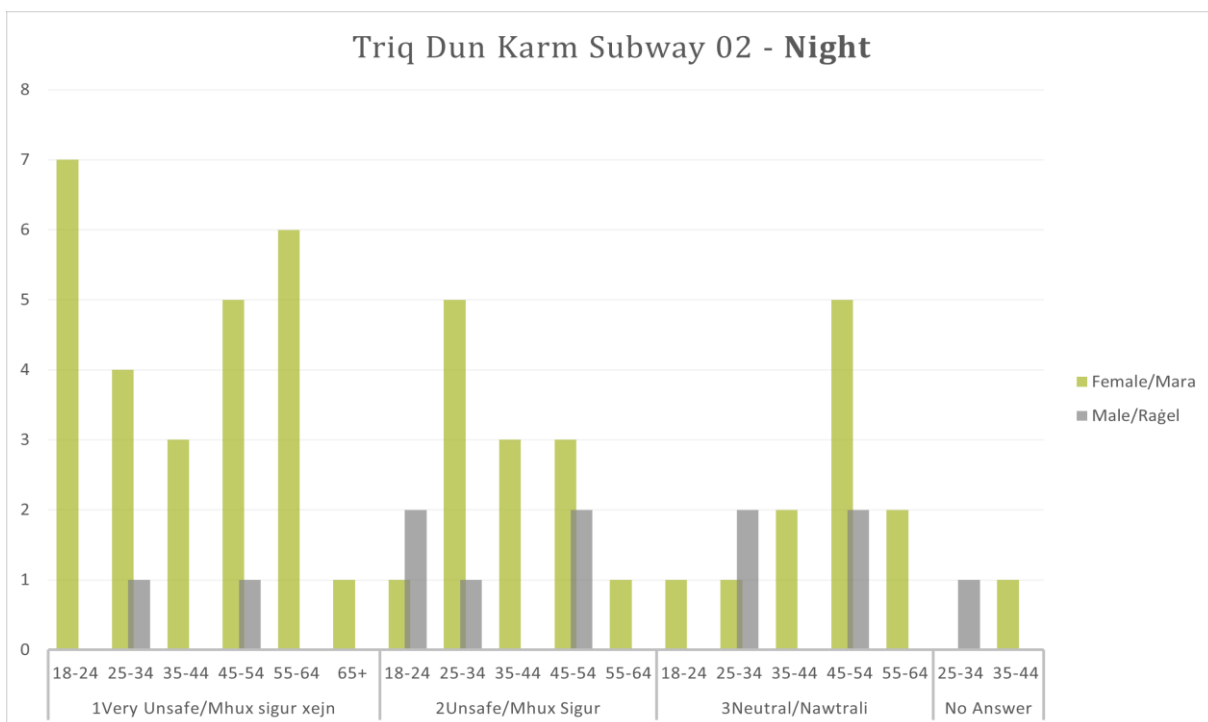


Figure 82: Survey Results: Perception of Safety on Triq Dun Karm Subway 02: Night

Participants were finally asked whether there any other areas or streets that have not been mentioned where they feel unsafe frequenting. Male participants did not mention any additional areas of concern. However, women mentioned various streets such as Triq San Ġiljan, St. Martin’s College area, Ġnien l-Istazzjon, among others, highlighting elements such as poor lighting, lack of pedestrian presence and other people’s behaviours.

4.2.8 Conclusion

Perceptions of safety in Birkirkara, significantly vary by gender and age. Women, particularly women aged 18-44, reported feeling less safe, especially at nighttime, due to factors such as

poor lighting, lack pedestrian presence, and past harassment incidents. In contrast to male participants, more female respondents expressed adopting coping mechanisms such as avoiding certain areas or walking faster. Older female respondents also expressed concern but relied more on precautionary measures. Meanwhile, men tended to feel safer and rarely altered their behaviour when navigating on foot.

Additionally, most female participants identified poor lighting and abandoned buildings as the riskiest elements on the street. Street typologies such as alleyways and subways were also identified to evoking negative feelings when navigating through them, mostly noted among women.

Similarly, Subway 01 and Subway 02 received the highest rating in terms of feeling unsafe among females. These further highlight perceived risk, when navigating through them during the night. Streets that are typically active or serve as key routes to landmarks, such as Triq Brared and Triq Tumas Fenech, were generally perceived as safe.

4.3 Qualitative Semi-Structured Interview Analysis

The qualitative survey aims to provide a deeper insight to the results obtained from the quantitative survey. Therefore, female participants aged group 18-44, who exhibited heightened negative navigation perceptions in Birkirkara, were selected for the semi-structured interviews.

Participants were asked prompt questions based on the criteria found in the 'researcher's interview guide', under Appendix 4. Appendix 4 also includes the map used for a navigation mapping exercise and photographs of different streets in Birkirkara, as those mentioned in Section 4.2.7. Six participants (A, B, C, D, E, F), took part in the study, sharing insights regarding their lived experience, coping mechanisms such as changing routes within Birkirkara's urban environment.

From the transcripts, analysed NVivo, Figure 83 and Figure 82 show how parent codes and children code emerged and grouped in relation to the theoretical framework:

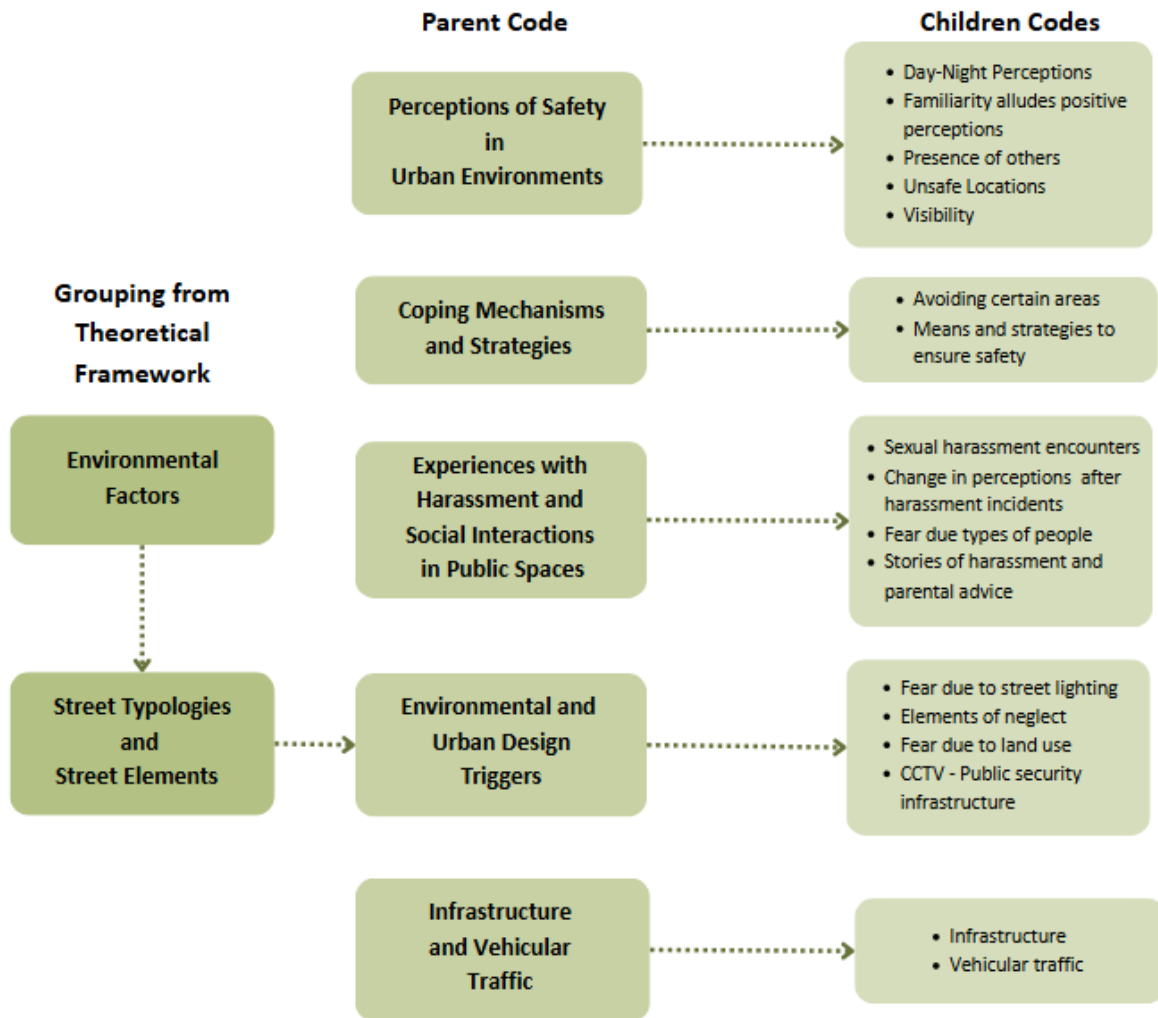


Figure 83: Diagram illustrating the grouping relating to the theoretical framework to Parent codes which then split up into their respective children codes

Name	Files	References	Created by	Created on	Modified by	Modified on
Environmental and Urban Design Triggers	6	33	MZ	28/05/2025 14:0	MZ	28/05/2025 14:11
O CCTV - Public infrastructure	2	3	MZ	28/05/2025 10:0	MZ	28/05/2025 10:58
O Elements of neglect	3	8	MZ	28/05/2025 12:0	MZ	30/05/2025 10:10
O Fear due to Land Use	1	3	MZ	28/05/2025 09:5	MZ	30/05/2025 10:31
O Fear due to street lighting	6	19	MZ	28/05/2025 09:5	MZ	30/05/2025 10:19
Experiences with Harassment and Social Interactions in Public Spaces	6	43	MZ	28/05/2025 14:0	MZ	29/05/2025 12:13
O Change in Perceptions after Sexual Harrasment incedents	2	2	MZ	28/05/2025 09:5	MZ	29/05/2025 15:42
O Fear due to types of people and their behaviours (Gender and Race)	5	22	MZ	28/05/2025 09:5	MZ	30/05/2025 10:14
O Sexual Harassment Encounters	5	17	MZ	28/05/2025 09:5	MZ	30/05/2025 10:15
O Stories about others being harassed	1	2	MZ	08/06/2025 17:4	MZ	08/06/2025 17:52
Infrastructure and Vehicular Traffic	2	3	MZ	08/06/2025 18:1	MZ	08/06/2025 18:14
O Infrastructure	2	8	MZ	08/06/2025 18:1	MZ	08/06/2025 18:25
O Vehicular Traffic	2	5	MZ	08/06/2025 18:1	MZ	08/06/2025 18:25
Perception of Safety in Urban Environments	6	68	MZ	28/05/2025 14:0	MZ	28/05/2025 14:12
O Day - Night Perceptions	6	21	MZ	28/05/2025 09:5	MZ	30/05/2025 10:14
O Familiarity alludes positive perceptions	3	4	MZ	28/05/2025 10:5	MZ	28/05/2025 11:57
O Presence of Others	5	24	MZ	28/05/2025 11:2	MZ	30/05/2025 10:15
O Unsafe Locations	3	11	MZ	28/05/2025 09:3	MZ	28/05/2025 13:35
O Visibility	4	8	MZ	28/05/2025 09:5	MZ	28/05/2025 13:37
Strategies and Coping Mechanisms	6	38	MZ	28/05/2025 14:0	MZ	29/05/2025 11:42
O Avoiding certain areas	6	14	MZ	28/05/2025 09:4	MZ	29/05/2025 15:39
O Means and strategies to reduce exposure	6	24	MZ	28/05/2025 09:4	MZ	29/05/2025 15:39

Figure 84: Screenshot of the coding done in NVivo

4.3.1 Perceptions of Safety in Urban Environments

This parent code provides an overview of participants feelings of safety across various urban settings. 68 references were recorded under this parent code divided into five child codes with ‘Day-Night Perceptions’ having most references.

- **Day – Night Perceptions (21):** Participants reported heightened feelings of unsafety during the night more than the day.

“*...prefer it [Triq l-Mrieħel during the day rather than during the night because again, during the day it’s much busier, but during the night again, it tends to be a bit creepy.*”

Participant E

“*...but at night...I definetly wouldn’t go here [Triq il-Qasab] at night. Maybe in the day I would be fine passing by, but I wouldn’t try to stay there for long either.*”

Participant B



Figure 86: Typical route during the day: Participant B



Figure 87: Typical route during the night: Participant B



Figure 88: Typical route during the day: Participant C



Figure 89: Typical route during the night: Participant C

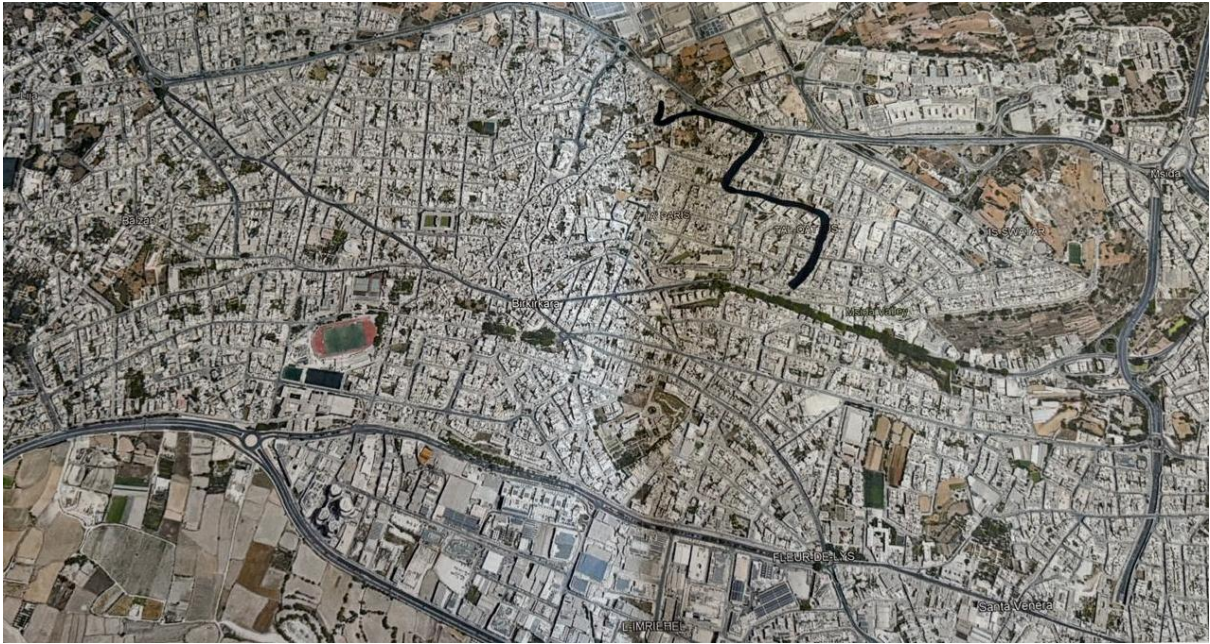


Figure 92: Typical route during the day: Participant E



Figure 93: Typical route during the night: Participant E



Figure 94: Typical route during the day: Participant F



Figure 95: Typical route during the night: Participant F

- **Familiarity Alludes Positive Perceptions (4):** Personal familiarity of certain frequented areas, increased sense of safety.

“
...I am familiar with it [Triq Brared]. So it doesn't really bother me at all.
 ”
 Participant E

“
Through the day I used to walk around this areas quite a lot when I was younger, even I went to like Mużew, pretty close to here at some point. So, during the day, I am fine. I'm comfortable at night.
 ”
 Participant B

- **Presence of Others (24):** Increased pedestrian presence alluded to feelings of security however it was dependent of types of people.

“
It helps. It helps that you see people around because if something happens, they will be they will see that I need help
 ”
 Participant C

“
Sometimes there are certain types of people... it wouldn't be be my first option to pass through here [Valley Road]
 ”
 Participant D

- **Unsafe Locations (11):** Subways where among the most mentioned areas where female participants showed heightened negative perceptions. Other areas included Birkirkara Valley and landmarks around it such as McDonald's. These perceptions where also shaped by other factors such as lack of visibility, street maintenance, land use, light and type of people.

“
McDonald's area. There is an area just...as soon as... you walk through Sapori... That is quite scary... and there is a lack of light.

”
Participant A

“
...especially when you pass through the subways. Because I'm scared and I don't find them very safe

”
Participant A

“
I feel like there is even less visibility from society in a subway somehow

”
Participant F

“
Birkirkara valley as well. Because they tend to be a bit more like abandoned most of them and not just well kept

”
Participant E

“
There are lots of bars over there as well [Valley Road], and in that road... maybe not the optimal people would help you out when the need arises

”
Participant A

- **Visibility (8):** Respondents showed more less comfort in navigating through areas where there is lack of visibility due to potential threats.

“
There is no one to see you like hidden area [Triq il-Qasab] I guess...

”
Participant B

“
[Subway 01] I think it's a bit scarier because it's longer and it's not straight to go around the corner. So, you want to know if someone is coming or hiding behind one of the corners.

”
Participant A

4.3.2 Coping Mechanisms and Strategies

The following section provides an insight into mechanisms and strategies female participants take to mitigate risks when navigating in Birkirkara. The parent code (38) was divided into 2 sub-codes 'Avoiding Certain Areas' (14) and 'Means and Strategies to Ensure Safety' (24).

- **Avoid Certain Areas (14):** Specific routes and areas were recorded to be avoided especially at nighttime.

...around here [Sant' Antnin] there is a playground and at night time I would avoid crossing the playground and cross the new street opposite

Participant C

Subway 02 I do access it quite frequently, especially in the mornings, but during the night I avoid it

Participant E

- **Means and Strategies to Ensure Safety (24):** Various coping mechanisms are employed to ensure their safety illustrating feelings of unsafety. Women reported being more aware of their surroundings, using physical materials as defensive mechanisms, walking speed and positions, pretending to be on the phone, travelling with others and use of personal vehicles over walking especially at night.

I feel safer, my car I can lock it, than when walking alone. I wouldn't say it's dangerous but it's safer with the car.

Participant D

I tend to have my EarPods during the day, but at night time I'd rather remove them, so I know what's happening around me.

Participant C

I keep a deodorant with me cause pepper spray you can't use... when I used to work at the hospital, I used to keep the scissors.

Participant A

I hold keys between my hands. I pretend that I'm on the phone speaking to someone. And then generally just walk, walk faster... I used to have a person walking with me just to keep me safe.

Participant E

I tend to go in the middle of the road... at night as well... Probably doesn't sound the safest, but I guess it's easier to get hit by a car, than touched by a man.

Participant F

4.3.3 Experience with Sexual Harassment and Interactions with Others

This parent code (41) captures insights on personal and social experiences. Furthermore, it examines how instances and stories of harassment changed perceptions and behaviours of the respondents in the urban environment.

- **Sexual Harassment Encounters (17):** Instances of catcalling and verbal harassment are prevalent experiences among the participants. Women reported that these incidents happen regardless of the time of day. Other encounters included cars stopping and honking, explicit comments, whistling, loitering, unwanted gestures.

“
One time I was walking, close to the primary school during the day and one guy started whistling at me.

”
Participant D

“
More like catcalling though... it happens a lot during the day and during the night... but during the night it's more like the looks, you know, the specific looks that they're kind of implying something.

”
Participant E

“
I remember waiting for my friend to come and pick me up for a sleepover and her dad was going to pick me up. From like the roof of somewhere there were people shouting like you, know "suck my dick". Usually, it's more like cars stopping by and like honking at me...

”
Participant B

“
Once I parked my car over there [Triq il-Qasab] and someone was literally next to my car... and once when I was around 11-12, there was a guy waiting for us [her sister] at the very end of the subway and he used to do it quite frequently. He used to pass very bad comments...

”
Participant A

- **Stories of Others Being Harassed and Parental Advice (2):** One participant alluded to avoiding certain areas when commuting alone based on stories of others being harassed and parental advice.

“
I remember when I was younger, I used to recall my father advising me to stay weary of that road [Psaila Street], because there was a tendency of men there, like catcalling girls

”
Participant E

“
...because there are a lot of stories associated with... these aspects of one street [Triq il-Qasab] of girls getting harassed...

”
Participant E

- **Change in Perceptions after Harassment Incidents (2):** Some participants who have encountered such instances recounted avoiding the area during the night or feeling afraid to walking alone.

“
Quite a little bit because I'm scared to walk by myself over there [Triq il-Qasab]
”
Participant A

“
Not really, during the day. I mean it happened during the day... But at night, maybe I try to avoid this street [Triq Brared]
”
Participant D

- **Fear Due to Types of People and Their Behaviours (Gender and Race) (22):** The behaviour of others particularly influences perceptions of safety among the participants, especially when interactions involve the opposite gender. Additionally, factors of unease include foreigners, older men, rowdy teens, individuals associated with substance abuse and those loitering or hiding in secluded areas.

“
Usually there's always what I call the 'McDonald's Perfs,' around this area. So, you feel a bit intimidated.
”
Participant B

“
There are teenagers causing trouble. People are unfortunately smoking weed in the playground, so it's not the place to be when it's dark.
”
Participant C



...many foreign people are frequenting and residing in the town... it's very difficult to identify... because of their race and colour, which will make it a bit more difficult to recognise them and identify them should anything happen.



Participant A



If the majority of the people present are men and it's not really kind of my cup of tea. I don't really feel safe.



Participant E

4.3.4 Environmental and Urban Design Triggers

This section will focus on physical characteristics and design elements, which contributed to lack of perceived safety, highlighted by women during the interviews. Such characteristics include streetscape neglect, public security infrastructure, poor lighting and lack of visibility.

- **Fear due to street lighting (19):** The majority of women highlighted poor lighting as being a primary concern when walking, especially at night. This presented heightened feelings of unsafety and insecurity in certain streets and areas, in particular in quiet areas with a lack of pedestrian presence.



Yesterday I was walking through this road [Psaila Street] over here and there was no lights at all... I think the power was out... It happens quite a lot. But then, I can get a bit sketched out, and walked the whole road with my phone torch.



Participant B



...one of the major issues, I think is the light.



Participant A

“
...I would avoid that street, it is badly lit...
”
Participant C

“
*...there is lack of lighting. Not that it is bad
but it would be better if there is more*
”
Participant D

“
It's a bit dark and then in general don't feel that safe.
”
Participant E

“
*Well, the area besides the fact I'm just a women, its a
dark street...*
”
Participant F

- **Elements of Neglect (8):** The general physical conditions of the urban environment in Birkirkara, have a direct impact on the perceived safety among women. Common concerns include the state of buildings, general maintenance of the streets, and the presence of vacant buildings. One account also highlights, certain conditions of private vehicles as a contributing factor to feeling unsafe.

“
*[Triq il-Qasab] I don't think it's really safe. There was a particular car
I used to remember. I remember now and it was covered with a bed
sheet on top. No licence plate...*
”
Participant C

“
[Triq l-Imrieħel] Because it looks abandoned, and its not habited. As in there are a few that some people live in them, but some look abandoned and that does bother me.

”
Participant D

“
...it's not well, maintained [Triq il-Qasab], so that affects it. I think if it was maintained a bit better. I would access it by myself

”
Participant E

- **Fear Due to Land Use (3):** One account highlights certain commercial uses operating certain hours and ambiguous spaces in the subway as being factors that made her feel uneasy in these areas.

“
...type of shops available and open during certain hours.

”
Participant A

“
[Valley Road] ...And during the night, yeah. I hate it because of the bars up here.

”
Participant A

“
[Subway 02] ... And it was the same place to me that once I found them open and there were people in it, and in those rooms. So, I'm not sure what their purpose is, to be honest, because I don't think there should be rooms in a subway. For me it's a little bit bizarre.

”
Participant A

- **CCTV – Public Security Infrastructure (2):** Two accounts indicated that security cameras are required in certain areas to ensure ease when walking in spaces that

lacks visibility. In another case where security cameras exist, they expressed uncertainty about them working.

I think that places like this [Triq il-Qasab] should have at least security cameras.

Participant A

And to my knowledge there are security cameras as well in this [Subway 02]. Not sure if they work.

Participant A

"[Subway 02] ... I feel like there should be like cameras always working, but I don't know if it's now equipped with cameras or not.

Participant C

4.3.4 Infrastructure and Vehicular Traffic

Participants mentioned ancillary factors such as inadequate infrastructure and vehicular traffic to negatively impacting their perception of safety. These factors did not pertain to perceptions of harassment but rather physical safety.

- **Inadequate Infrastructure (8):** Elements such as narrow and litter filled sidewalks were mentioned to heighten personal safety risks due to inadequate space to walk.

Sidewalks...can be Improved a little bit because when I had my children... you're forced to go right in the middle of the road with them because they are too small... There is garbage when garbage days, so you are forced right in the middle of the road so certain roads.

Participant C



And the sidewalks were super narrow, and it wasn't ideal for me and her [dog] to be walking.



Participant F

- **Vehicular Traffic (5):** Some mentioned factors as high vehicular traffic as a contributing factor to personal physical unsafety when commuting on foot.



And so yeah, I lived towards the main road. So, I guess just wasn't. It was just very chaotic. But again, my biggest threat, I suppose, would be just the cars are a bit of a nightmare there [referring to an area close to Triq Brared].



Participant F



I think this road [Valley Road] is quite scary, even during the night, especially due to traffic.



Participant A

4.3.5 Conclusion

This detailed analysis, provides a comprehensive examination of the semi-structured interviews and offers a deeper understanding of the findings found from Section 4.3. Furthermore, contributing factors such as lighting, elements that provoke state of neglect and certain areas, were among of those highlighted as eliciting feelings of unease among women who participated.

Critically, environmental factors such as mentioned above and gendered incidents like catcalling and negative past encounters, particularly affect participants' perceptions of safety. Consequently, participants recorded an array of coping mechanisms shaped by their experiences in Birkirkara's urban environment. These included, avoiding certain areas and route changing, using defensive physical mechanisms and increased awareness of their surroundings particularly, during the nighttime or approaching certain streets or areas.

Furthermore, female participants also noted external factors such as inadequate infrastructure and vehicular traffic as a threat to their personal safety. Though not directly pertaining to street harassment, these factors influence how women navigate and experience urban environments.

Chapter 5 – Discussion and Conclusion

5.1 Recapitulation

This dissertation investigated the role of the built environment in shaping perceptions of safety, particularly of women, in the context of Birkirkara. Moreover, this chapter will explore the key findings from the study and the themes that emerged, which are as follows:

- Perceived Safety
- Environmental Factors and Street Typologies
- Experiences with Harassment and Social Interactions
- Coping Mechanisms and Strategies

Additionally, this chapter discusses and summarises the research findings through these thematics and further builds on the themes that are outlined in Chapter 4 in relation to the theoretical framework outlined in Section 2.6.

5.2 Answering the Research Question and Emerging Themes

The research questions this dissertation aimed to answer were:

- *How do different street designs influence women's perceptions of safety while navigating Birkirkara?*
- *To what extent do women in Birkirkara alter their travel routes based on the perceived safety of different street design elements?*

The results obtained highlighted how perceived safety is not based solely on just one of the factors mentioned but is a complex interplay between lived experiences, the physical environment, and social dynamics.

5.2.1 Perceived Safety

Perceptions of safety among men and women were notably varied. Men, though low in numbers compared to female participants, reported feeling safer when navigating Birkirkara. Perceptions of safety, especially among female participants, were significantly influenced by time of day, with the majority recording feeling less safe during the nighttime. These perceptions were noted to be further heightened in areas or streets which are poorly lit,

neglected and unmaintained and limited visibility. Consequently, the latter is notably reported pertaining typologies such as subways and alleyways.

The presence of other people was mostly positively perceived, both during the day and night, though at night less. However, it depended on other street users' behaviours (see 5.2.3.2 Behaviour of Others and Social Interactions). Furthermore, women remarked on familiar individuals, while other female pedestrians make them feel safer. In contrast, lack of pedestrian activity was noted to contribute to feelings of unsafety, especially among women.

These often resulted in women avoiding certain streets or areas due to past experiences with unfavourable behaviours or street conditions mentioned above. As a result, female participants reported adopting different navigation patterns during the day and night, taking longer routes through well-lit areas.

This corresponds with Roberts et al. (2020) and Beebeejaun (2016), where elements such as lack of light, lack of pedestrian activity, and strangers are among the factors that make women feel unsafe when navigating urban spaces. Moreover, women adopted different navigation patterns to mitigate risks, which aligned with the literature provided by Ceccato & Loukaitou-Sideris (2022) and Roberts et al. (2020). Ultimately, these can be viewed as a cause and effect where the perceptions of safety among women are shaped by interlinked factors of spatial quality and behaviours of others.

5.2.2 Environmental Factors and Street Typologies

5.2.2.1 Poor Lighting and Neglect

Environmental factors such as lack of light, neglect, and certain street typologies were highlighted as major contributors to unsafe feelings, especially among women. Men shared similar views to women. Though feelings of unsafety were more prevalent in women. Visible signs of neglect such as general street maintenance, overgrown vegetation, and abandoned buildings, heightened negative perceptions of safety.

As outlined by Beebeejaun (2016), inadequate streetlights minimise visibility at nighttime, which results in women feeling unsafe navigating certain areas due to potential threats. Lu et al. (2024) highlight that lack of visibility due to unmaintained vegetation can often reinforce perceptions of risk among women. Furthermore, Loukaitou-Sidres et al. (2009), and Ceccato

& Loukaitou-Sideres (2022) contend that signs of disorder, such as lack of general street maintenance and vacant buildings convey feelings of unsafety. Thus, these findings correspond with the literature outlined.

5.2.2.2 Lack of Visibility in Certain Street Typologies

Alleyways and subways were perceived as being also unsafe due to lack of visibility and having no alternative exit routes. Women reported either avoiding such typologies altogether or using other coping mechanisms (see Section 5.6) These perceptions also vastly differed between day and night, further emphasising time-of-day conditions as being an influential factor.

This observation is consistent with findings by Roberts et al. (2020), where such street typologies are highlighted as high-risk by women. Similarly, Francu (2023) suggests that areas that lack natural surveillance and visibility, such as alleyways, tend to contribute to negative perceptions of safety. Consequently, women feel less comfortable approaching such areas alone due to fears of being trapped and lack of visibility.

5.2.2.3 Commercial Streets and Presence of Activity

Streets with prevalent commercial activities such as Triq Tumas Fenech and connotations with familiar streets such as Triq Brared were perceived as mostly safe during the day and night. These streets are characterised by high pedestrian footfall during certain times of the day. Further emphasising that the presence of others typically corresponds to positive perceptions of safety.

However, certain land uses, such as bars, particularly mentioned for Valley Road, and ambiguous rooms in a particular subway, contribute to fear and unsafety due to attracting certain demographics. In contrast, streets with a lack of pedestrian activity were predominantly perceived as unsafe.

Khalid et al. (2020) and Francu (2023) contend that areas in which natural surveillance lacks are often conveyed as risk areas. Moreover, the literature outlines that lack of active frontages heightens these perceptions, fostering in women the feeling of being more vulnerable to threats. Thus, it can be concluded that inversely the findings from this study correlated with the literature outlined.

5.2.3 Experiences with Harassment and Social Interactions

Women, particularly those aged between 18 and 44 years of age, responded to having encountered instances of harassment when navigating Birkirkara. Though women aged over 45 years also indicated instances, they were not as prevalent. Meanwhile, in general, men very rarely experienced harassment.

5.2.3.1 Common Harassment Encounters and Change in Perceptions

The most prevalent forms of harassment recorded were catcalling, unwanted comments, and whistling. Women reported that catcalling instances happen mostly during the day. However, during the nighttime, they have experienced more unwanted gestures, specifically *“specific looks... implying something,”* further fostering discomfort and unease when navigating. Moreover, they also account for the fact that these instances happened even when they were underage girls and that the preparators were men.

Some women also reported avoiding certain areas after an incident has occurred, especially during the nighttime. Thus, due to fear of potential recurring threats and past experiences, women are hindered from freely occupying the urban space, particularly during the evening.

The literature outlines that women are often victims of such encounters based on their gender and perceived sex (Ali & Naz, 2018; Kearl, 2014; Fileborn & O’Neill, 2021; Gatt, 2023). This restricts freedom of movement among women due to feeling uncomfortable accessing certain areas and hinders them from involvement in the urban environment (Nagindrappa & Radhika, 2013; Bharucha & Khatri, 2018).

Bartolo (2021), alluded similar results in the Maltese context, where unwanted comments of a sexual nature were also prevalent in the findings. Thus, this presents a correlation between the existing literature and this study’s findings.

5.2.3.2 Behaviour of Others and Social Interactions

This section directly relates to Section 5.5.1. The behaviour of others plays a significant role in the perception of safety among women. Women reported feeling unease due to these behaviours, which were more likely to be exhibited by men towards women, results show. Female participants mentioned unwanted physical or verbal communications, such as *“staring and whispering in ear,”* people under the influence of drugs or alcohol, and unwanted

comments. Women reported that they are more wary of these behaviours during the night. However, they allude that such instances occur as well during the day.

Literature suggests that experiences of unwanted physical, verbal, and non-verbal behaviours may contribute to feelings of fear or discomfort in the individual targeted, (Bartolo, 2021). Moreover, Roberts et al. (2020), notes that certain behaviours, such as intoxicated individuals, also pose a threat to women's perception of safety in their findings. These positively correlated with the results obtained in this study.

5.2.4 Coping Mechanisms and Strategies

Based on the factors outlined in 5.2.1 to 5.2.3, women tended to adopt various coping mechanisms and strategies. A notable difference between day and night is once again recorded.

When participants were enquired about different coping mechanisms, the majority of female participants responded to taking such measures to ensure their safety during the night as opposed to during the day.

Perceptions of unsafety depending on the factors outlined before often led to women completely avoiding certain streets and changing their navigation patterns, opting for longer routes through areas that they perceived to be safer. These depended on level of activity and better street lighting. Others recorded pretending to be on the phone, increasing their pace and walking with someone else. Furthermore, women also reported equipping themselves with self-defence items such as *"keys between knuckles," "deodorant,"* and *"scissors."*

A study conducted by Roberts et al. (2020) depicts similar findings, where women navigating UK campuses alluded to opting for well-lit streets, particularly during the night. Moreover, they also remarked on letting others know of their whereabouts and avoiding walking alone. The literature also suggests that women tend to take longer routes that are better lit and more aesthetically pleasing more than men, who often opt for the most direct and efficient routes (Khorsheed et al., 2018).

5.2.5 Ancillary Factors: Infrastructure and Vehicular Traffic

Participants also identified auxiliary factors negatively impacting their sense of safety in Birkirkara, including inadequate public infrastructure and traffic. Particularly, narrow

sidewalks, which often hinder movement and force them to walk on the street, increasing their personal physical vulnerability to other threats, where mentioned. Others noted, vehicular traffic, as a factor that affects their sense of safety. While literature (Kunieda & Gauthier, 2007; Khorsheed et al., 2018) often links men's negative safety perceptions to traffic and personal risk, women in Birkirkara also identified these factors as significant contributors to their own feelings of insecurity.

5.3 Reflection and Recommendations

This dissertation revealed spatial injustice and gender disparities in Birkirkara, showing that the physical environment significantly influences perceptions of safety. Women reported feeling safer on well-lit, well-maintained streets with visible pedestrian presence.

Conversely, poor lighting, limited visibility, and signs of neglect increased feelings of vulnerability. Due to these factors, many women chose longer routes they perceived as safer. However, social interactions also impacted perceptions, such as the behaviour of others and instances of sexual harassment.

5.3.1 Design Recommendations

To contribute to the creation of more equitable urban environments, various key considerations can be deduced from this study to enhance perceptions of safety among women.

Firstly, streets should be rethought as a space for social interaction as opposed to vehicular use. By prioritizing pedestrian friendly street design and encouraging pedestrian activity in streets, natural surveillance will increase. Hence, aiding women to feel more secure to navigate these areas during any time of the day.

Secondly, improving street lighting is vital. This may include providing varied streets light intensity depending on the context, to ensure consistent visibility and reduce the risk of potential threats during the night time.

Thirdly, alternative design solutions should be explored instead of subways, which were noted to be perceived unsafe during the day and night. Thus, it is recommended that where appropriate, pedestrian crossings, pelican lights or elevated walkways should be used. This

will help to maintain personal and public visibility of the surroundings and reduce the potential of threats.

Lastly, incentives to property should be put in place to revitalise abandoned dwellings. Such incentives may include the potential repurpose of such buildings, converting them into commercial or public spaces, in order to foster a sense of presence and safety and bringing life to a once neglected space. This recommendation can play a vital role in shaping active public spaces and encourage community engagement, resulting in perceptually safer urban environments.

5.3.2 Participatory Planning Recommendations

Additionally, public engagement processes as part of the planning and design process, specifically with women and other minority groups are recommended for a deeper understanding of their daily struggles in navigating urban spaces. Thus, by acting and addressing these concerns through the physical urban environment, safer and more equitable cities may be created. Resulting in secure urban environments for all inhabitants to navigate freely.

Furthermore, for such research to achieve meaningful national impact, collaboration between policymakers, urban planners, social institutions, and academics is vital. Policymakers, along with urban planners, may contribute to improving the conditions of the urban environments by regulating standards and community-responsive designs. Meanwhile, social institutions may provide more accessible statistical data on the subject and provide deeper community perspectives. Academics must continue expanding the discourse and supply further research on the subject.

5.4 Further Research

Given the limited research on the Maltese context, further research is required to better understand how lived experiences across the Maltese Islands are shaped by social and spatial implications. While a similar theoretical framework, which underscores social, spatial, and psychological factors, should be applied, future studies must adapt the theoretical framework to address the unique context of each locality.

As recommended in Section 5.3, intrinsic collaboration between policymakers, urban planners, social institutions and academics is vital in further research. Thus, by integrating this theoretical framework into their collaborative efforts, these stakeholders can develop inclusive, and evidence-based strategies. Thus, they will not only contribute to enhancing perceptions of safety but also promote more just and equitable urban environments.

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Appendices

Appendix 1 – FREC Form: Online Survey



Research Ethics and Data Protection Form

University of Malta staff, students, or anyone else planning to carry out research under the auspices of the University, must complete this form. The UM may also consider requests for ethics and data protection review by External Applicants.

Ahead of completing this online form, please read carefully the University of Malta [Research Code of Practice](#) and the University of Malta [Research Ethics Review Procedures](#). Any breach of the Research Code of Practice or untruthful replies in this form will be considered a serious disciplinary matter. It is advisable to download a full digital version of the form to familiarise yourself with its contents (<https://www.um.edu.mt/research/ethics/resources/umdocuments/>). You are also advised to refer to the FAQs (<https://www.um.edu.mt/research/ethics/faqs>).

Part 1: Applicant and Project Details

Applicant Details

Name: Millison
Surname: Zarb
Email: i
Applicant Status: Student
Please indicate if you form part of a Faculty, Institute, School or Centre: * Faculty for the Built Environment
Department: * Architecture and Urban Design
Principal Supervisor's Name: * Dr. Sarah Scheiber
Principal Supervisor's Email: * i
Co-Supervisor's Name:
Study Unit Code: * AUD5019
Course Title: * Master of Architecture (Architecture and Urban Design)
Student Number: * i

Project Details

Title of Research Project: *
Gendered Perspective to City Navigation: Addressing Birkirkara's Street Design Impact on Women's Perceived Safety and Navigation Patterns

Project description, including research question/statement and method, in brief: *
Abstract

The aim of this dissertation is to assert and analyse the relationship between the perceived safety of women while navigating urban spaces and street design. By meticulously analysing literature in particular tackling issues of gendered experiences in public spaces as well as sexual harassment, the research draws attention on how street morphology can influence the experience and perceived safety of women.

In this dissertation it is aimed to take a closer look to Birkirkara as a case study to investigate how women feel navigating the streets at different times of the day and how the street morphology may or may not influence their feelings of safety and navigation patterns. This research will mainly focus on how elements such as lighting, permeability and visibility effect the perception of safety for women.

Due to the existing pattern of Birkirkara's streets, which includes poor lighting, parked cars obstructing pavements, and small pavements, women feel more vulnerable and are hindered from navigating around safely as much or engage in especially evening activities. While researching for local studies in relation to urban design, street morphology and women's safety in urban spaces, it was noticed that there is a lack of studies done. Thus, this dissertation aims to open a discussion to further analysis street design from a feminist perspective.

Research Questions

How do different street design influence women's perceptions of safety while navigating Birkirkara?

To what extent do women in Birkirkara alter their travel routes based on the perceived safety of different street design elements?

Data Collection Techniques

Mixed-Method Approach split into two parts using explanatory sequential mixed-methods

Part A: Online Survey (Quantitative) – Aimed to get a general idea from both genders (men and women) about their perception of safety in order to seek out differences in the way of thinking

Part B: Semi-Structured Interview (Qualitative) – Conversational questions will be designed accordingly based on the findings of part A. However, it is intended to recruit explicitly women aged between 18-40 years (to be redefined after the findings from Part A, but always 18 years or older) old who are ideally of different social status and women who live in different parts of Birkirkara.

This application is for Part B of the research.

Will project involve collection of primary data from human participants? Yes / Unsure

Explain primary data collection from human participants:

a. Salient participant characteristics (e.g. min-max participants, age, sex, other): *

Participants are aimed to be women between the ages of 18-40 years old (age group subject to change according to the results from Part A but always above the age of 18 years old), residing, working in Birkirkara or frequent visitors of Birkirkara. 5-8 female participants are aimed to be recruited.

b. How will they be recruited (e.g. sampled, selected, contacted, etc.): *

An open call will be issued to recruit participants via Facebook resident groups and Social Media platforms, local council social media pages and mail. If this is not successful convenience sampling will be used through Birkirkara resident networks.

c. What they will be required to do and for how long: *

In Part B of this data collection, participants will be invited to take part in a one-to-one, semi-structured interview. They will be asked a set of conversational questions in a participant-led format, where the researcher's role is to facilitate the discussion by posing guiding questions. These guiding questions will be refined following the completion of Part A. Additionally, participants will be asked to map a typical route they take during the daytime and another route they take at night, and to discuss the factors influencing their navigation choices. The interview is expected to last between 45 minutes to 1 hour.

d. If inducements/rewards/compensation are offered: *

N/a

e. How participants/society may benefit: *

Participants may benefit from this study by sharing their experiences and thus contributing to the improvement of the public environment in Birkirkara and empowerment by having their opinions and voices heard which may lead to a greater community awareness and safer cities for all.

f. Is the participant's identity recorded at any stage of the research (e.g. in consent forms, records, publications): *

Part B of the study, participants would be only identifiable to the researcher. An information letter will be provided to the participants and they will be asked to sign a consent form therefore their identity will be recorded in the consent form and also due to audio recording of the interviews. The participants will however be anonymised using pseudonyms for any published data.

g. The manner in which you will manage and store the data and records (including consent forms): *

Data would be stored on a password protected drive on a password protected computer device

Will project involve collection of primary data from animals (live non-human vertebrates/cephalopods, their foetuses and larvae, their tissue/samples and/or dead specimens of these animals)?

No

Part 2: Self Assessment and Relevant Details

Human Participants

1. Risk of harm to participants: Yes / Unsure

i. Some questions (e.g., about harassment experiences, feelings of safety, or coping mechanisms) may prompt participants to recall distressing or traumatic incidents of harassment or fear in public spaces.

ii. The research highlights factors on gendered experiences in urban navigation, harassment, and safety. These issues may inherently involve recalling personal and potentially sensitive experiences, which are essential to understanding the research objectives.

iii. – The research will adopt a participant centred approach. When recruited, participants will be fully informed about the topic to be discussed, and that they will be voluntarily participating in this study. The consent form will explicitly inform participants that they can withdraw from the study at any time without consequence.

- Confidentiality: Data collected will be strictly anonymised to ensure that participants cannot and will not be identified.

- Safeguards: Due to understanding the sensitive nature of the study, should the researcher sense that the participant is experiencing discomfort or becomes upset while taking part in this study, the researcher will stop the interview. The participants will also be provided with a list of professional helplines that they could get in touch with if needed such as Richmond Foundation, Victim Support Malta, and Crisis Resolution Malta and others.

2. Physical intervention: No / N.A.

3. Vulnerable participants: No / N.A.

4. Identifiable participants: No / N.A.

5. Special Categories of Personal Data (SCPD): No / N.A.

6. Human tissue/samples: No / N.A.

7. Withheld info assent/consent: No / N.A.

8. 'opt-out' recruitment: No / N.A.

9. Deception in data generation: No / N.A.

10. Incidental findings: No / N.A.

Unpublished secondary data

11. Human: No / N.A.

12. Animal: No / N.A.

13. No written permission: No / N.A.

Animals

14. Live animals, lasting harm: No / N.A.
15. Live animals, harm: No / N.A.
16. Source of dead animals, illegal: No / N.A.

General Considerations

17. Cooperating institution: No / N.A.
18. Risk to researcher/s: No / N.A.
19. Risk to environment: No / N.A.
20. Commercial sensitivity: No / N.A.

Other Potential Risks

21. Other potential risks: No / N.A.
22. Official statement: Do you require an official statement from the F/REC that this submission has abided by the UM's REDP procedures?
Yes / Unsure

Part 3: Submission

Which F/REC are you submitting to? * Faculty for the Built Environment

Attachments:

- Part_B_-_Data_Management_Plan.pdf (size: 41.7 KB, uploaded on: 11/12/2024 15:00:40)
- Part_B_Questions_for_Semi-structured_Interview_Maltese.pdf (size: 507.4 KB, uploaded on: 11/12/2024 15:00:41)
- Part_B_Questions_for_Semi-structured_Interview.pdf (size: 482.4 KB, uploaded on: 11/12/2024 15:00:41)
- Part_B_Sample_Consent_Form.pdf (size: 245.4 KB, uploaded on: 11/12/2024 15:00:42)
- Part_B_Sample_Information_Letter.pdf (size: 171.4 KB, uploaded on: 11/12/2024 15:00:42)
- Parti_B_Kampjun_Formula_takunsens_.pdf (size: 271.9 KB, uploaded on: 11/12/2024 15:00:42)
- Parti_B_Kampjun_ltra_tatagArif.pdf (size: 211.9 KB, uploaded on: 11/12/2024 15:00:42)

- Information and/or recruitment letter*
 Consent forms (adult participants)*
 Consent forms for legally responsible parents/guardians, in case of minors and/or adults unable to give consent*
 Assent forms in case of minors and/or adults unable to give consent*
 Data collection tools (interview questions, questionnaire etc.)
 Data Management Plan
 Data controller permission in case of use of unpublished secondary data
 Licence/permission to use research tools (e.g. constructs/tests)
 Any permits required for import or export of materials or data
 Letter granting institutional approval for access to participants
 Institutional approval for access to data
 Letter granting institutional approval from person directly responsible for participants
 Other

Please feel free to add a cover note or any remarks to F/REC

Declarations: *

- I hereby confirm having read the University of Malta Research Code of Practice and the University of Malta Research Ethics Review Procedures.
 I hereby confirm that the answers to the questions above reflect the contents of the research proposal and that the information provided above is truthful.
 I hereby give consent to the University Research Ethics Committee to process my personal data for the purpose of evaluating my request, audit and other matters related to this application. I understand that I have a right of access to my personal data and to obtain the rectification, erasure or restriction of processing in accordance with data protection law and in particular the General Data Protection Regulation (EU 2016/679, repealing Directive 95/46/EC) and national legislation that implements and further specifies the relevant provisions of said Regulation.

Applicant Signature: * Millison Zarb

Date of Submission: * 11/12/2024

If applicable: Date collection start date

Administration

REDP Application ID BEN-2024-00138

Current Status Approved

If a submitted application needs to be amended, it can be withdrawn, edited, and resubmitted, and it will retain the same reference number. There is no need to submit a new application.

Appendix 2 – FREC Form: Semi-Structured Interview



Research Ethics and Data Protection Form

University of Malta staff, students, or anyone else planning to carry out research under the auspices of the University, must complete this form. The UM may also consider requests for ethics and data protection review by External Applicants.

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Part 1: Applicant and Project Details

Applicant Details

Name: Millison
Surname: Zarb
Email:
Applicant Status: Student
Please indicate if you form part of a Faculty, Institute, School or Centre: * Faculty for the Built Environment
Department: * Architecture and Urban Design
Principal Supervisor's Name: * Dr. Sarah Scheiber
Principal Supervisor's Email: * :
Co-Supervisor's Name:
Study Unit Code: * AUD5019
Course Title: * Master of Architecture (Architecture and Urban Design)
Student Number: *

Project Details

Title of Research Project: *
Gendered Perspective to City Navigation: Addressing Birkirkara's Street Design Impact on Women's Perceived Safety and Navigation Patterns

Project description, including research question/statement and method, in brief: *
Abstract

The aim of this dissertation is to assert and analyse the relationship between the perceived safety of women while navigating urban spaces and street design. By meticulously analysing literature in particular tackling issues of gendered experiences in public spaces as well as sexual harassment, the research draws attention on how street morphology can influence the experience and perceived safety of women. In this dissertation it is aimed to take a closer look to Birkirkara as a case study to investigate how women feel navigating the streets at different times of the day and how the street morphology may or may not influence their feelings of safety and navigation patterns. This research will mainly focus on how elements such as lighting, permeability and visibility effect the perception of safety for women. Due to the existing pattern of Birkirkara's streets, which includes poor lighting, parked cars obstructing pavements, and small pavements, women feel more vulnerable and are hindered from navigating around safely as much or engage in especially evening activities. While researching for local studies in relation to urban design, street morphology and women's safety in urban spaces, it was noticed that there is a lack of studies done. Thus, this dissertation aims to open a discussion to further analysis street design from a feminist perspective.

Research Questions

How do different street design influence women's perceptions of safety while navigating Birkirkara?
To what extent do women in Birkirkara alter their travel routes based on the perceived safety of different street design elements?

Data Collection Techniques

Mixed-Method Approach split into two parts using explanatory sequential mixed-methods

Part A: Online Survey (Quantitative) – Aimed to get a general idea from both genders (men and women) about their perception of safety in order to seek out differences in the way of thinking

Part B: Semi-Structured Interview (Qualitative) – Conversational questions will be designed accordingly based on the findings of part A. However, it is intended to recruit explicitly women aged between 18-40 years (to be redefined after the findings from Part A, but always 18 years or older) old who are ideally of different social status and women who live in different parts of Birkirkara.

This application is for Part A of the research.

Will project involve collection of primary data from human participants? Yes / Unsure

Explain primary data collection from human participants:

a. Salient participant characteristics (e.g. min-max participants, age, sex, other): *

Participants are aimed to be over the age of 18, both men and women, residing, working in Birkirkara or frequent visitors of Birkirkara. Aiming to gather a sample of between 150 - 200 participants.

b. How will they be recruited (e.g. sampled, selected, contacted, etc.): *

Survey would be distributed online via Facebook residents' groups, asking local council to make it available on their platforms and sharing on social media.

c. What they will be required to do and for how long: *

In Part A of this data collection participants will be asked to answer an online questioner which should take between 5-10 minutes.

d. If inducements/rewards/compensation are offered: *

N/a

e. How participants/society may benefit: *

Participants may benefit from this study by sharing their experiences and thus contributing to the improvement of the public environment in Birkirkara and empowerment by having their opinions and voices heard which may lead to a greater community awareness and safer cities for all.

f. Is the participant's identity recorded at any stage of the research (e.g. in consent forms, records, publications): *

Part A of the study will be strictly anonymous. An information paragraph explaining the research, as per UREC samples will precede the survey and consent from the participants will be requested prior to proceeding with the survey.

g. The manner in which you will manage and store the data and records (including consent forms): *

Data would be stored on a password protected drive on a password protected computer device

Will project involve collection of primary data from animals (live non-human vertebrates/cephalopods, their foetuses and larvae, their tissue/samples and/or dead specimens of these animals)?

No

Part 2: Self Assessment and Relevant Details

Human Participants

- 1. Risk of harm to participants: No / N.A.
- 2. Physical intervention: No / N.A.
- 3. Vulnerable participants: No / N.A.
- 4. Identifiable participants: No / N.A.
- 5. Special Categories of Personal Data (SCPD): No / N.A.
- 6. Human tissue/samples: No / N.A.
- 7. Withheld info assent/consent: No / N.A.
- 8. 'opt-out' recruitment: No / N.A.
- 9. Deception in data generation: No / N.A.
- 10. Incidental findings: No / N.A.

Unpublished secondary data

- 11. Human: No / N.A.
- 12. Animal: No / N.A.
- 13. No written permission: No / N.A.

Animals

- 14. Live animals, lasting harm: No / N.A.
- 15. Live animals, harm: No / N.A.
- 16. Source of dead animals, illegal: No / N.A.

General Considerations

- 17. Cooperating institution: No / N.A.
- 18. Risk to researcher/s: No / N.A.
- 19. Risk to environment: No / N.A.
- 20. Commercial sensitivity: No / N.A.

Other Potential Risks

- 21. Other potential risks: No / N.A.
- 22. Official statement: Do you require an official statement from the F/REC that this submission has abided by the UM's REDP procedures?
Yes / Unsure

Part 3: Submission

Which F/REC are you submitting to? * Faculty for the Built Environment

Attachments:

- [Maltese_questions_Part_A.pdf](#) (size: 738.6 KB, uploaded on: 11/12/2024 14:59:52)
- [Part_A_-_Data_Management_Plan.pdf](#) (size: 41.4 KB, uploaded on: 11/12/2024 14:59:52)
- [Part_A_Questionnaire_Consent_Anonymous_Data_Collection.pdf](#) (size: 196.1 KB, uploaded on: 11/12/2024 14:59:53)
- [Part_A_Questions_for_Online_Survey.pdf](#) (size: 759.5 KB, uploaded on: 11/12/2024 14:59:56)
- [Parti_A_Kampjun_Kwestjunarju_Formula_takunsens-_data_anonima.pdf](#) (size: 206.8 KB, uploaded on: 11/12/2024 14:59:56)

- Information and/or recruitment letter*
- Consent forms (adult participants)*
- Consent forms for legally responsible parents/guardians, in case of minors and/or adults unable to give consent*
- Assent forms in case of minors and/or adults unable to give consent*
- Data collection tools (interview questions, questionnaire etc.)
- Data Management Plan
- Data controller permission in case of use of unpublished secondary data
- Licence/permission to use research tools (e.g. constructs/tests)
- Any permits required for import or export of materials or data
- Letter granting institutional approval for access to participants
- Institutional approval for access to data
- Letter granting institutional approval from person directly responsible for participants
- Other

Please feel free to add a cover note or any remarks to F/REC

Declarations: *

- I hereby confirm having read the University of Malta Research Code of Practice and the University of Malta Research Ethics Review Procedures.
- I hereby confirm that the answers to the questions above reflect the contents of the research proposal and that the information provided above is truthful.
- I hereby give consent to the University Research Ethics Committee to process my personal data for the purpose of evaluating my request, audit and other matters related to this application. I understand that I have a right of access to my personal data and to obtain the rectification, erasure or restriction of processing in accordance with data protection law and in particular the General Data Protection Regulation (EU 2016/679, repealing Directive 95/46/EC) and national legislation that implements and further specifies the relevant provisions of said Regulation.

Applicant Signature: * Millison Zarb

Date of Submission: * 11/12/2024

If applicable: Date collection start date

Administration

REDP Application ID BEN-2024-00137

Current Status Approved

If a submitted application needs to be amended, it can be withdrawn, edited, and resubmitted, and it will retain the same reference number. There is no need to submit a new application.

Appendix 3 – Online Survey



Gendered Perspective to City Navigation: Addressing Birkirkara's Street Design Impact on Women's Perceived Safety and Navigation Patterns

My name is Millison Zarb, and I am currently reading for a Master of Architecture (Architecture and Urban Design) at the University of Malta.

I am currently conducting research that aims to understand how different genders perceive their safety while walking through urban streets particularly in Birkirkara. The survey that you have been invited to complete forms part of this study. This will take you approximately 5 to 10 minutes to complete. Any data collected from this survey will be used solely for the purposes of this study.

If you choose to participate, please note that there are no direct benefits to you.

Your participation entails the risk of recalling distressing experiences namely harassment or feelings of fear, which may cause discomfort. In order to mitigate this risk your participation is strictly voluntary, and you will be free to refuse to continue participating at any point. The data collected will be anonymous, and at the end of the questionnaire a list of professional support contacts will be provided should they be required.

At no point will you be asked to provide your name or any other personal data that may lead to you being identified. Furthermore, you may skip any questions that you do not wish to answer.

The findings which emerge from this research may be published in a dissertation, academic journals and/or presented during conferences, meetings.

If you wish to participate in this study, please click the button that says: "I agree to participate". If not, please close the browser window, or click "I do not wish to participate". Should you have any questions or concerns, you may contact myself or my supervisor on the details provided below.

Yours Sincerely,

Millison Zarb



1. DECLARATION BY RESPONDENT/ DIKJARAZZJONI TAL-PARTEĊIPANT *

I agree to participate /
Nacċetta li nipparteċipa

I do not wish to participate/Ma
nixtieq nipparteċipa

Field is required

Profile

Profil

Press **ENTER**

2. Gender

Sess

Male/Raġel

Female/Mara

Transgender/Transġeneru

Non-binary/Mhux binarju

Other/Oħrajn

Press **ENTER**

3. Age
Età

18-24

25-34

35-44

45-54

55-64

65+

Press **ENTER**

3 / 41 7%

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4. Highest level of education achieved
L-ogħla livell ta' edukazzjoni miksub

Primary/Primarja

Secondary/Sekondarja

Post-Secondary/Post-Sekondarja

Tertiary/Terzjarja

Press **ENTER**

5. Occupation
Okkupazzjoni

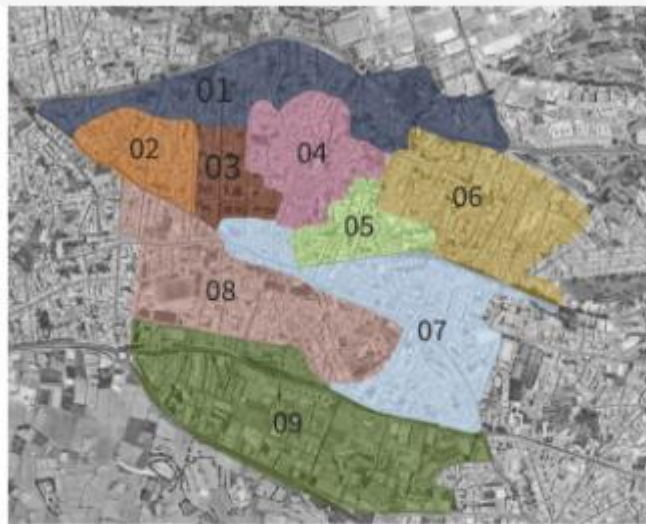
T

Press **ENTER**

5/41

12%

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6. Neighbourhood in which you reside/work/frequent often in
Viċinat li fih tirisjedí

Please select

Press **ENTER**

General Navigation Experience

Esperjenza Ġenerali tan-Navigazzjoni

Press **ENTER**

7. How often do you walk through public spaces in Birkirkara?

Kemm-il darba tgħaddi minn spazji pubbliċi f'Birkirkara?

Never/Qatt

Rarely/Rari

Sometimes/Xi Kultant

Often/Xi Drabi

Very Often/Hafna drabi

Press **ENTER**

8. Which mode of transportation do you normally use to get around Birkirkara?

Liema mod ta' trasport normalment tuża biex iddur Birkirkara?

Walking/Mixi

Bicycle/Rota

Car/Karozza

Public Transport/Trasport Pubbliku

E-scooter

Taxi

Press **ENTER**

9. Why do you prefer this mode of transport?

Għaliex tippreferi din il-modalità tat-trasport?

T

Press **ENTER**

Perceived Safety

Sigurtà Perċepita

Press **ENTER**

10. Do you feel safe walking around the streets of Birkirkara during **the day**?

*Thossok sigur miexi fit-toroq ta' Birkirkara **matul il-gurnata**?*

Yes/Iva

No/Le

Press **ENTER**

11. Do you feel safe walking around the streets of Birkirkara **at night**?

*Thossok sigur miexi fit-toroq ta' Birkirkara **bil-lejl**?*

Yes/Iva

No/Le

Press **ENTER**

12. Do you feel any particular feelings, negative or positive when approaching less populated areas or streets in Birkirkara? Why?
Thoss xi sentimenti partikolari, negattivi jew pożittivi meta tersaq lejn żoni jew toroq inqas popolati f'Birkirkara?Għaliex?

☰

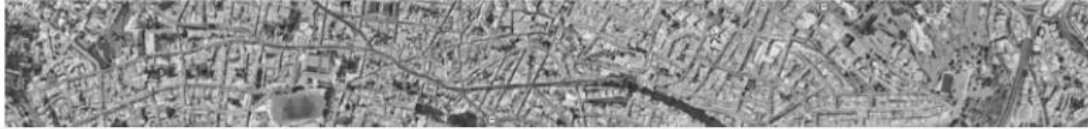
↵

Press **ENTER**

Environmental Factors

Fatturi Ambjentali

Press **ENTER**



13. How would you rate the following street features and different street types in terms of how they affect your sense of safety.

1 Being Very Unsafe and 5 Being Very Safe

Kif tikklassifika l-karatteristiki tat-toroq li għejjin u tipi differenti ta' toroq f'termini ta' kif jaffettwaw is-sens ta' sigurtà tieghek.

1 Li tkun mhux sigur hafna u 5 tkun sigur hafna

	1Very Unsafe /mhux sigur hafna	2Unsafe/mhux sigur	3Neutral/Navtrali	4Safe/Sigur	5Very Safe/Sigur hafna
Poor Lighting/Daw l Fqir	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping (Commercial) Streets/ Toroq tax-xiri (kummercjali)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alleyways/Sqaqien	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Garage Lots/Lottijiet tal-garaxxijiet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Craffiti	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abandoned Buildings/Bini abbandunati	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Sites/Siti ta' Kostruzzjoni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motorways (Bypasses)/Awtostradi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overgrown Vegetation/Vegetazzjoni li mhux mizmuma sew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Underground Pathways (Subway)/Mogħdijiet taht l-art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Narrow Sidewalks/Bankini dojq	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dead End Streets (Cul-de-sacs)/Toroq tat-Tmiem Mejjiet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crowded streets/Toroq iffullati	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Streets with little pedestrian presence/Toroq bi ftit preżenza pedonali	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13 / 41

32%

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Experiences with Harassment and Social Interactions in Public Spaces

Esperjenzi b'Fastidju u Interazzjonijiet Soċjali fi Spazji Pubbliċi

Press **ENTER**

14. How often have you ever encountered any of these instances when walking in Birkirkara?

Kemm-il darba qatt iltqajt ma' xi wieħed minn dawn l-istanzi meta kont miexi f'Birkirkara?

	Very Often/ Ħafna drabi	Often/ Xi drabi	Sometimes/ Xi kultant	Rarely/ Rari	Very Rarely/ Rari Ħafna
Whistling/Tisfir	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stalking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate touching/Mess fiżiku mhux xieraq	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate comments/Kommenti mhux xierqa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unwanted gestures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intrusive questions/Mistoqsijiet intrużivi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other/Oħrajn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

14 / 41

34%

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15. If you answered other please specify.

Jekk wegħibt oħrajn jekk jogħġbok speċifika.

T

Press **ENTER**

16. To what extent does the presence of other people affects your sense of safety?

Sa liema punt il-preżenza ta' nies oħra taffettwa s-sens ta' sigurtà tiegħek?

☰

↵

Press **ENTER**

17. Have you ever reported an incident of harassment in Birkirkara? If yes, to whom, and why (or why not)?

Qatt irrapportajt incident ta' fastidju f'Birkirkara? Jekk iva, lil min, u għaliex (jew għaliex le)?

☰

↵

Press **ENTER**

Coping Mechanisms and Strategies

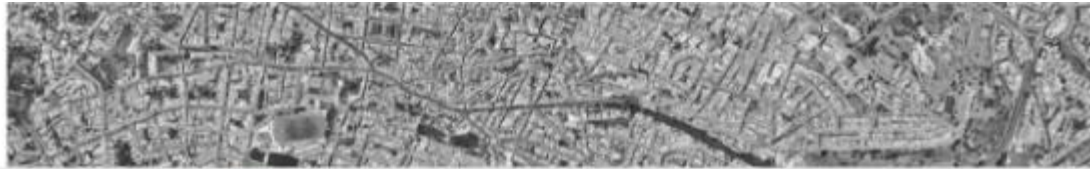
Mekanismi u Strategiji ta' Agġustament

Press **ENTER**

17 / 41

41%

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18. How often do you take any of the following actions to feel safer while walking around in Birkirkara during the *daytime*?

Kemm-il darba tiehu xi wahda minn dawn l-azzjonijiet li ġejjin biex thossok aktar sigur/a waqt li tkun miexi/mixja f'Birkirkara matul il-ġurnata?

	Very Often/ Hafna drabi	Often/ Xi Drabi	Someti mes/Xi Kultant	Rarely/ Rari	Very Rarely/ Rari hafna
Walk with someone else/Nimxi ma' xi hadd ieħor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change my route/Inbidde l-in-rotta tiegħi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pretend to be on the phone with someone else/Nippretendi li tkun fuq il-telefon ma' xi hadd ieħor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choose busier streets/Nagħz el toroq akter traffikuzi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walk faster than usual/Nimxi akter malajr mis-soltu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoid certain streets or areas/Nevita ċerti toroq jew żoni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check my surroundings frequently/Ni ċekkja l-inħawi tiegħi ta' spiss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoid wearing headphones/Nevita li nilbes headphones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18 / 41

44%

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19. How often do you take any of the following actions to feel safer while walking around in Birkirkara during the *nighttime*?

Kemm-il darba tiegħu xi waħda minn dawn l-azzjonijiet li ġejjin biex thossok aktar sigur waqt li tkun miexi f'Birkirkara filgħaxija?

	Very Often/ Hafna drabi	Often/ Xi Drabi	Sometimes/ Xi Kultant	Rarely/ Rari	Very Rarely/ Rari hafna
Walk with someone else/Nimxi ma' xi hadd ieħor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change my route/Inbidde l-in-rotta tiegħi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pretend to be on the phone with someone else/Nippretendi li tkun fuq il-telefon ma' xi hadd ieħor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choose busier streets/Nagħz el toroq akter traffikuzi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walk faster than usual/Nimxi akter malajr mis-soltu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoid certain streets or areas/Nevita ċerti toroq jew żoni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check my surroundings frequently/Ni ċekkja l-inħawi tiegħi ta' spiss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoid wearing headphones/Nevita li nilbes headphones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19 / 41 46% Made with formalapp

21. Do you actively look for exits or safe spaces when walking through Birkirkara? If yes, what makes a space safe to you?

Tfittex b'mod attiv hruġ jew spazji siguri meta tkun miexi minn Birkirkara? Jekk iva, x'jagħmel spazju thossok sigur għalik?

Yes

No

Press **ENTER**

Street Typologies and Street Elements

Tipoloġiji tat-Triq u Elementi tat-Triq

Press **ENTER**

Rate in terms of how safe you feel navigating through these specific streets in particular times of the day – **1 being very unsafe and 5 being very safe.**

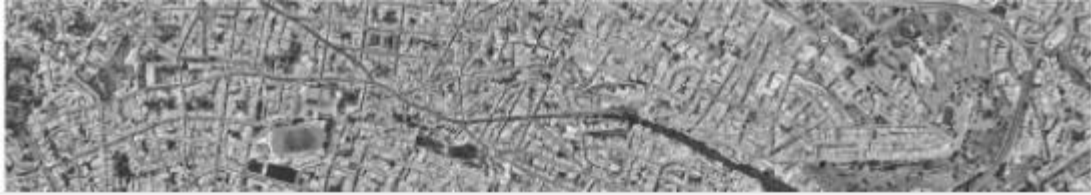
*Rata f'termini ta' kemm thossok sigur li tinnaviga f'dawn it-toroq speċifiċi f'hinijiet partikolari tal-ġurnata - **1 tkun mhux sigur hafna u 5 tkun sigur hafna.***

Press **ENTER**

21 / 41

51%

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22. Triq L-Mrieħel

	1Very Unsafe /Mhux sigur xejn	2Unsaf e/Mhux Sigur	3Neutal/Nawtrali	4Safe/Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

22 / 41

54%

Made with forms.app



23. Valley Road

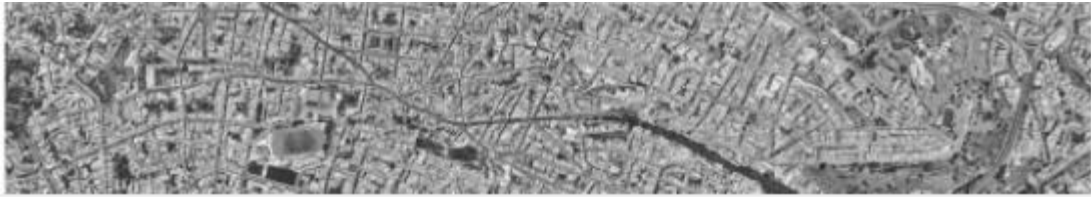
	1Very Unsafe /Mhux sigur xejn	2Unsafe/Mhux Sigur	3Neutral/Naw trali	4Safe/Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

23 / 41

56%

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24. 01 Triq il-Qasab

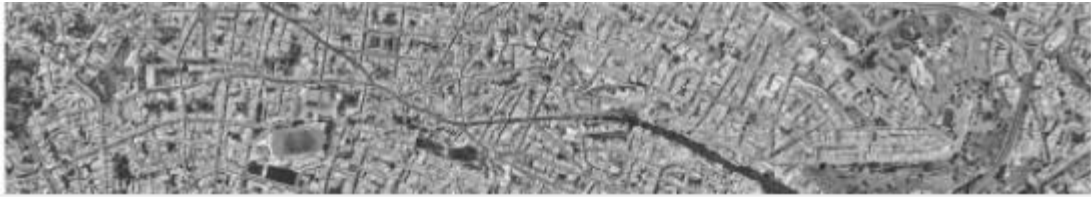
	1Very Unsafe /Mhux sigur xejn	2Unsaf e/Mhu x Sigur	3Neutr al/Naw trali	4Safe/ Sigur	5Very Safe/Si gur ħafna
During the Day/Matul il- gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

24 / 41

59%

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25. 02 Triq il-Qasab

	1Very Unsafe /Mhux sigur xejn	2Unsafe/Mhux Sigur	3Neutral/Nawtrali	4Safe/Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

25 / 41

61%

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26. Triq Brared

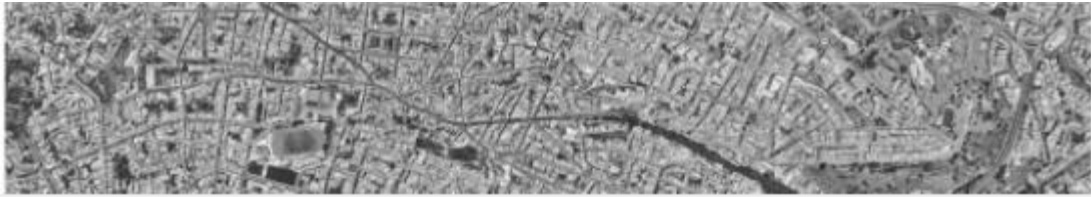
	1Very Unsafe /Mhux sigur xejn	2Unsaf e/Mhux Sigur	3Neutr al/Naw trali	4Safe/ Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

26 / 41

63%

Made with forms.app



27. Triq Psaila

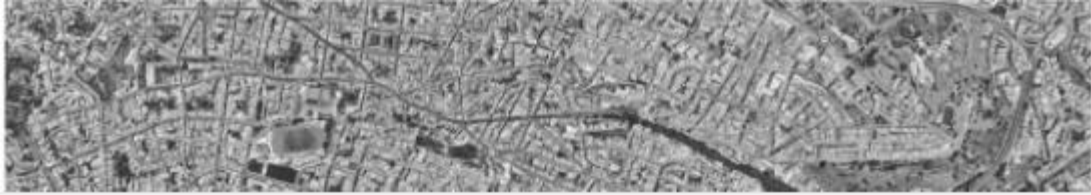
	1Very Unsafe /Mhux sigur xejn	2Unsaf e/Mhux Sigur	3Neutr al/Naw trali	4Safe/ Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

27 / 41

66%

Made with forms.app



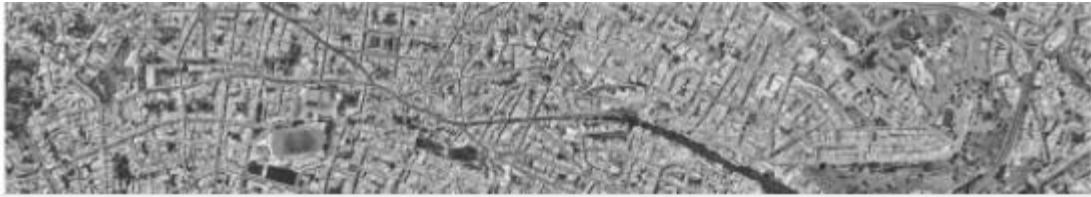
28. Triq Turmas Fenech

	1Very Unsafe /Mhux sigur xejn	2Unsaf e/Mhux Sigur	3Neutr al/Naw trali	4Safe/ Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-ġurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

28 / 41 68%

Made with forms.app



29. 01 Subway Triq Dun Karm

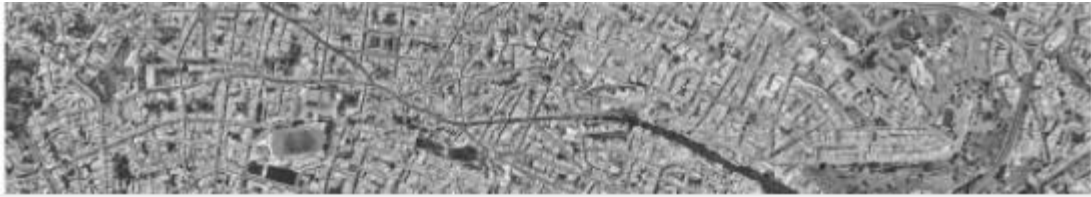
	1Very Unsafe /Mhux sigur xejn	2Unsafe/Mhux Sigur	3Neutral/Naw trali	4Safe/Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

29 / 41

71%

Made with forms.app



30. 02 Subway Triq Dun Karm

	1Very Unsafe /Mhux sigur xejn	2Unsaf e/Mhux Sigur	3Neut ral/Naw trali	4Safe/ Sigur	5Very Safe/Sigur ħafna
During the Day/Matul il-gurnata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the Night/Filgħax ija	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Press **ENTER**

30 / 41

73%

Made with forms.app



31. Apart from the examples above, are there specific streets or areas in Birkirkara where you feel unsafe? If yes, can you specify why and which street/area?

Apparti l-eżempji ta' hawn fuq, hemm toroq jew żoni speċifiċi f'Birkirkara fejn thossok mhux sigur? Jekk iva, tista' tispeċifika għaliex u liema triq/zona?

☰

↵

Press **ENTER**

31 / 41

76%

Made with forms.app



List of free and paid services/Lista ta' Servizzi Minghajr Hlas u Servizzi Bi Hlas

Free Services/Servizzi Minghajr Hlas

Phone/Numru tat-telefon: 1770 (24/7 Help Line)/+356 2122 4580
Website: <https://www.richmond.org.mt/>

Phone/Numru tat-telefon: +356 2122 8333
Website: <https://victimsupport.org.mt/>

Phone/Numru tat-telefon: +356 9933 9966
Website: <https://www.stopviolence.gov.mt>

Phone/Numru tat-telefon: 179 (24/7 Help Line)
Website: <https://fsws.gov.mt/>

Website: <https://kellimni.com/>

Phone/Numru tat-telefon: +356 2141 5183 (24/7 Help Line)
Website: <https://mentalhealthservices.gov.mt/en/>

Phone/Numru tat-telefon: 1579 (24/7 Help Line)
Website: <https://mentalhealthservices.gov.mt/en/>

Paid Services/Servizzi Bi Hlas

Phone/Numru tat-telefon: +356 9901 3629
Email: info@paths.care
Website: <https://paths.care/>

Website: <https://www.pharmacy.mt/practitioners/mental-health/>

Press **ENTER**

31 / 41

76%

Made with forms.app

Appendix 4 - Data Gathering: Interview Guide

1. Coping Mechanisms and Strategies

- Participants will be asked to illustrate their typical daily and nightly routes on a map, specifying their starting and ending points. They will then be asked to elaborate on the factors influencing their route choices at different times of the day.

(the questions below will be asked in conjunction with the mapping exercise to define the decisions participants take when choosing their routes.)



Map used for the Navigation Mapping

- Are there any strategies you take in order to ensure your safety when walking in Birkirkara during the day or during the night?
- Are there any areas within Birkirkara where you feel you require to be more alert of your surroundings and have to take precautions when walking through them? Can you elaborate on why?

2. Interactions with Others

- How does the presence of other people affect your sense of safety? Can you elaborate further?

- Have you ever experienced any incident of harassment in Birkirkara? Can you tell me more about how that made you feel and if you have taken any action in response to this incident?
- Has this incident changed your perception of the safety of the area it happened at?

3. General Navigation Experiences

- Which mode of transportation do you prefer to use when running errands/moving about in Birkirkara?
- Which factors influence your decision?

4. Perception of Safety

- What factors contribute to your feelings of safety or unsafety when walking around in Birkirkara during the day?
- Similarly, what factors contribute to your feelings of safety or unsafety when walking around in Birkirkara during the night?
- Are there any specific areas, neighbourhoods, or streets that you avoid, and does that differ between day and night? Can you elaborate?

5. Factors of the Urban Environment

- How do elements such as the condition of the lighting and maintenance of the streets make you feel when walking through certain areas? How do these elements contribute to your perception of safety?
- What feelings do alleyways, cul-de-sacs, parking lots, garage lots, and underpasses contribute when walking through them? Are these feelings different between day and night?
- Asking participants to discuss any feelings they connect with the following photographs of different streets within Birkirkara. Some photographs of the streets will also be taken during the night in order to assess the difference in perception of fear during the day and night. (These photos are the same as PART A of the data collection and for the PART B of the data collection, these photos will be revised depending on the answers from PART A)



Triq il-Qasab 01



Triq il-Qasab 02



Triq il-Wied





Triq Tumas Fenech



Triq Psaila



Triq Brared





Triq L-Mrieħel



Subway 01 Triq Dun Karm



Subway 02 Triq Dun Karm



Appendix 5 – Information Letter

Date: 2nd May 2025

Dear Sir/Madam

My name is Millison Zarb, and I am a student at the University of Malta, presently reading for a Master of Architecture (Architecture and Urban Design). I am conducting a research study for my dissertation titled Gendered Perspective to City Navigation: Addressing Birkirkara's Street Design Impact on Women's Perceived Safety and Navigation Patterns; this is being supervised by Dr. Sarah Scheiber. This letter is an invitation to participate in this study. Below you will find information about the study and about what your involvement would entail, should you decide to take part.

I am currently conducting research that aims to understand how women perceive their safety while walking through urban streets particularly in Birkirkara. The Semi-Structured Interview that you have been invited to complete forms part of this study. Any data collected from this survey will be used solely for the purposes of this study.

Should you choose to participate, you will be asked to share your experiences and feelings about walking in Birkirkara, with a focus on how the urban design of the area impacts your sense of safety and comfort. The discussion will also explore perceived threats, such as sexual harassment, and how these experiences or concerns affect your choices and behaviours when navigating the area. Specifically, we aim to understand how these factors influence your routes, the times of day you choose to travel, and any changes in your patterns of movement between daytime and nighttime. This will take you approximately 45 minutes to 1 hour to complete. The interview will be audio recorded and transcribed.

Data collected will be treated confidentially and anonymised, where it will be stored on a

password protected laptop which only the researcher has access to it. Raw identifiable data will be encrypted and stored offline on an external hard drive or flash drive, or a secure UM server (not the UM Google Drive). Any material in hard copy form will be placed in a locked cupboard. Only my supervisor and I (and in exceptional cases, examiners) will have access to this data.

The findings which emerge from this research may be published (e.g., in a dissertation, academic journals) and/or presented (e.g., during conferences, meetings). Your name (or any other identifying information) will not appear when the findings are reported pseudonyms will be used to ensure anonymity.

Participation in this study is entirely voluntary; in other words, you are free to accept or refuse to participate, without needing to give a reason. You are also free to withdraw from the study at any time, without needing to provide any explanation and without any negative repercussions for you. Should you choose to withdraw, any data collected from your interview will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.

If you choose to participate, please note that there are no direct benefits to you. However, by sharing your experiences, you may contribute to improving the public environment in Birkirkara and feel empowered by having your opinions and voice heard. Your participation may help raise community awareness and contribute to the creation of safer cities for everyone.

Your participation entails the risk of recalling distressing experiences, namely harassment or feelings of fear, which may cause discomfort. In order to mitigate this risk your participation is

strictly voluntary, and you will be free to refuse to continue participating at any point, and information regarding professional support services will be provided.

Please note also that, as a participant, you have the right under the General Data Protection Regulation (GDPR) and national legislation to access, rectify and where applicable, ask for the data concerning you to be erased.

All data collected will be stored in an anonymized form on a password protected laptop or a secure UM server (not the UM Google Drive).

A copy of this information sheet is being provided for you to keep and for future reference.

Thank you for your time and consideration. Should you have any questions or concerns, you may contact myself or my supervisor on the details provided below.

Yours Sincerely,

Appendix 6 – Ittra ta' Tagħrif

2 ta' Mejju 2025

Għażiża

Jiena Millison Zarb, studenta fl-Università ta' Malta, u bħalissa qed insegwi Master fl-Arkitettura u Disinn Urban. Ir-riċerka għad-dissertazzjoni tiegħi jisimha: Gendered Perspective to City Navigation: Addressing Birkirkara's Street Design Impact on Women's Perceived Safety and Navigation Patterns; it-tutor tiegħi hi Dr. Sarah Scheiber. B'din l-ittra nixtieq nistiednek tipparteċipa fir-riċerka. Hawn taħt issib aktar informazzjoni fuq l-istudju li qed nagħmel u fuq xi jkun l-involvement tiegħek jekk tiddeċiedi li tiegħu sehem.

L-għan tal-istudju hu biex tifhem kif in-nisa jipperċepixxu s-sigurtà tagħhom waqt li jkunu għaddejjin minn toroq urbani partikolarment f'Birkirkara. Sehmek jgħin biex ikun hawn iżjed għarfien dwar l-esperjenzi tan-nisa f'żoni urbani u intoppi li jaffaċċjaw relatatiti mad-disinn jew sigurtà fit-toroq. L-informazzjoni kollha li tingabar fir-riċerka tintuża biss għall-fini ta' dan l-istudju.

Jekk tagħzel li tipparteċipa, tintalab taqsam l-esperjenzi u s-sentimenti tiegħek dwar il-mixi f'Birkirkara, b'enfasi fuq kif id-disinn urban taż-żona jhalli impatt fuq tiegħek sens ta' sigurtà u kumdità. Id-diskussjoni se tesplora wkoll theddid perċepit, bħal fastidju, u kif dawn l-esperjenzi jew tħassib jaffettwaw l-għażliet u l-imġiba tiegħek meta innaviga fiż-żona. Speċifikament, aħna nimmiraw li nifhmu kif dawn il-fatturi jinfluwenzaw il-rotot, il-ħinijiet tal-gurnata li tagħzel li tivvjagġa, u kwalunkwe bidla fix-xejriet tal-moviment tiegħek bejn bi nhar u bil-lejl. Dan jieħdok bejn wieħed u ieħor 45 minuta sa siegħa biex jigi komplut. L-intervista ser tkun irrekordjata u traskritta bl-awdjo.

L-informazzjoni miġbura ser tiġi ttrattata b'mod kunfidenzjali u anonimizzata, fejn tinħażen fuq a laptop protett bil-password li r-riċerkatur biss għandu aċċess għalih. Kull informazzjoni miġbura identifikabbli se tkun kriptata u maħżuna offline fuq hard drive jew flash drive esterni, jew f'server sigur tal-UM (mhux fuq il-Google Drive tal-UM). Kwalunkwe materjal stampat se jitqiegħed f'armarju msakkar. Jien u t-tutor/i tiegħi biss

(u f'kazijiet eċċezzjonali, l-eżaminaturi) se jkollna aċċess għal kull informazzjoni miġbura.

Ir-riżultati li joħroġu minn din ir-riċerka jistgħu jkunu ppubblikati (eż., f'teżi u ġurnali akkademiċi) u/jew ipprezentati (eż., waqt konferenzi u laqgħat). Ismek (jew kwalunkwe informazzjoni oħra li tista' twassal biex tinkixef l-identità tiegħek) mhux se jidher meta jithabbru r-riżultati.

Il-partecipazzjoni tiegħek f'dan l-istudju tkun għalkollox volontarja; fi kliem ieħor, inti liberu/a li taċċetta jew tirrifjuta li tiegħu sehem, mingħajr ma tagħti raġuni. Inti wkoll liberu/a li twaqqaf il- partecipazzjoni tiegħek fl-istudju meta tixtieq, mingħajr ma jkollok tagħti spjegazzjoni u mingħajr ebda riperkussjoni. Jekk tagħzel li tirtira mir-riċerka, l-informazzjoni li tkun laqgħet ittiegħdet fl- intervista miegħek tithassar sakemm ikun teknikament possibbli (ngħidu aħna, qabel ma tiġi anonimizzata jew ippubblikata), u sakemm l-għanijiet tar-riċerka jkunu jistgħu jintlaħqu u ma jintlaqtux serjament. F'dak il-każ, l-informazzjoni tiegħek tintuża u tinzamm anonima.

Barra minn hekk, il-partecipazzjoni tiegħek tinvolvi r-riskju li tfakkar esperjenzi ta' dwejjaq, jiġifieri fastidju jew sentimenti ta' biża', li jistgħu jikkawżaw skumdità. Sabiex jitnaqqas dan ir- riskju il-partecipazzjoni tiegħek hija strettament volontarja, u tkun liberu li tirrifjuta li tkompli tippartecipa fi kwalunkwe punt, u se tingħata informazzjoni dwar servizzi ta' appoġġ professjonali

Jekk tagħzel li tippartecipa, jekk jogħġbok innota li m'hemmx benefiċċji diretti għalik. Madankollu, billi taqsam l-esperjenzi tiegħek, tista' tikkontribwixxi għat-titjib tal-ambjent pubbliku fi Birkirkara u tħossok imsaħħa billi jkollok l-opinjoni u l-vuċi tiegħek mismugħa. Il- partecipazzjoni tiegħek jista' jgħin biex iqajjem kuxjenza komunitarja u jikkontribwixxi għall- ħolqien ta' bliet aktar sikuri għal kulhadd. Bħala participant/a, għandek id-dritt, skont ir-Regolament Ġenerali dwar il-Protezzjoni tad-Data (GDPR) u l-legislazzjoni nazzjonali, li taċċessa, tikkoreġi u fejn hu applikabbli, titlob li l- informazzjoni li tikkonċernak tithassar.

L-informazzjoni kollha li tingabar fl-istudju ser tinħażen f'forma anonima fuq laptop

protett bil- password jew a server UM sigur (mhux il-Google Drive UM)

Qed ngħaddilek kopja ta' din l-ittra biex iżzommha bħala referenza.

Grazzi tal-ħin u l-kunsiderazzjoni tiegħek. Għal iżjed informazzjoni, tiddejjaqx tikkuntattja lili jew

lit-tutor/i tiegħi. Id-dettalji tagħna ssibhom hawn taht.

Napprezza jekk tikkunsidra din it-

talba. Tislijiet,

Appendix 7 – Semi-Structured Interview Consent Form

Gendered Perspective

to City Navigation: Addressing Birkirkara's Street Design Impact on

Women's Perceived Safety and Navigation Patterns

I, the undersigned, give my consent to take part in the study conducted by Millison Zarb. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.
2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.
3. I understand that I have been invited to participate in a Semi-Structured Interview in which the researcher will ask women about their perceived safety while walking through urban streets particularly in Birkirkara to investigate potential behaviours and

movement changes of women when walking in Birkirkara. I am aware that the Semi-Structured Interview will take approximately 45 minutes to 1 hour. I understand that the Semi-Structured Interview is to be conducted in a place and at a time that is convenient for me.

4. I understand that my participation entails the risk of recalling distressing experiences, namely harassment or feelings of fear, which may cause discomfort. In order to mitigate this risk, I understand that my participation is strictly voluntary, and I will be free to refuse to continue participating at any point and the data collected will be anonymous. If I feel that the Semi-Structured Interview has distressed me in any way, I may make use of the support services information that Millison Zarb will give me at the beginning of the Semi-Structured Interview. I am aware that this document comprises a list of free services. The document also includes fee-paying services which I understand I will have to pay for, should I decide not to use free services.
5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by sharing my experiences and thus contributing to the improvement of the public environment in Birkirkara and empowerment by having my opinions and voice heard which may lead to a greater community awareness and safer cities for all.
6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.
7. I understand that all data collected will be *stored in an anonymised form*.

8. I am aware that my identity and personal information will not be revealed in any publications, reports or presentations arising from this research.
9. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.
10. I am aware that, by marking the first-tick box below, I am giving my consent for this Semi-Structured Interview to be audio recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

I agree to this Semi-Structured Interview being audio recorded.

I do not agree to this Semi-Structured Interview being audio recorded.

11. I am aware that extracts from my interview may be published (e.g., in a dissertation, academic journals) and/or presented (e.g., during conferences, meetings), either in anonymous form, or using a pseudonym (a made-up name or code, e.g., respondent A).
12. If I feel that the Semi-Structured Interview has distressed me in any way, I may

make use of the support services information that Millison Zarb will give me at the beginning of the Semi-Structured Interview. I am aware that this document comprises a list of free services. The document also includes fee-paying services which I understand I will have to pay for, should I decide not to use free services.

I have read and understood the above statements and agree to participate in this study.

Name of participant: _____

Signature: _____

Date: _____

List of free and paid services

Free Services

Service	Phone Number	Website
Richmond Foundation	1770 (24/7 Help Line) +356 2122 4580	https://www.richmond.org.mt/
Victim Support Malta	+356 2122 8333	https://victimsupport.org.mt/
Crisis Resolution Malta	+356 9933 9966	https://www.stopviolence.gov.mt
Supportline 176	179 (24/7 Help Line)	https://fsws.gov.mt/
Kellimni.com	24/7 Online Support Help Line	https://kellimni.com/
Mental Health Services Malta	+356 2141 5183 (24/7 Help Line)	https://mentalhealthservices.gov.mt/en/
National Mental Health Helpline	1579 (24/7 Help Line)	https://mentalhealthservices.gov.mt/en/

Paid Services

Service	Phone Number	Email	Website
Paths Care	+356 9901 3629	info@paths.care	https://paths.care/
Pharmacy.com .mt			https://www.pharmacy.mt/practitioners/mental-health/

Appendix 8 – Intervista Semi-Strutturata: Formula ta' Kunsens tal-Partecipanta

Gendered Perspective

to City Navigation: Addressing Birkirkara's Street Design Impact on Women's Perceived Safety and Navigation Patterns

Jiena, hawn taht iffirmit/a, nagħti l-kunsens tiegħi li nieħu sehem fl-istudju ta' Millison Zarb Din il-formula ta' kunsens tispjega t-termini tas-sehem tiegħi f'din ir-riċerka.

1. Inghatajt l-informazzjoni bil-miktub u/jew bil-fomm dwar l-iskop tar-riċerka; kelli l-opportunità li nagħmel il-mistoqsijiet, u għal kull mistoqsija ngħatajt twegiba b'mod sħiħ u sodisfaċenti.
2. Nifhem ukoll li jiena liberu/a li naċċetta li nieħu sehem, jew li nirrifjuta, jew li nwaqqaf il - partecipazzjoni tiegħi meta nixtieq mingħajr ma nagħti spjegazzjoni jew mingħajr ma niġi ppenalizzat/a. Jekk nagħzel li nipparteċipa, jaf niddeċiedi li ma nwegibx kull mistoqsija li ssirli. F'każ li nagħzel li ma nkomplix nieħu sehem fl-istudju, l-informazzjoni li tkun laħqet ingabret mingħandi titħassar sakemm ikun teknikament possibbli (ngħidu aħna, qabel ma tiġi anonimizzata jew ippubblikata), u sakemm l-għanijiet tar-riċerka jkunu jistgħu jintlaħqu u ma jintlaqtux serjament. F'dak il-każ, l-informazzjoni tiegħi tintuża u tinzamm anonima.
3. Nifhem li ġejt mistieden/mistiedna nipparteċipa **Intervista Semi-Strutturata** u l-persuna li qed tagħmel ir-riċerka se tistaqsi lin-nisa dwar il-perċezzjoni tagħhom tas-sigurtà waqt li jkunu qed jimxu fit-toroq urbani, speċjalment f'Birkirkara, biex tistharreg bidliet potenzjali fl -imgiba u l-moviment tan-nisa meta jkunu mexjin f'Birkirkara. Jiena konxju/a li l-**intervista Semi- Strutturata** se jdum/ddum bejn wieħed u ieħor 45 minuta għal siegħa. Nifhem li **l-Intervista Semi-Strutturata** se jsir/ssir f'post u f'ħin li huma komdi għalija.
4. Nifhem li l-partecipazzjoni tiegħi tinvolvi r-riskju li niftakar esperjenzi tqal, bħall-

fastidju jew sensazzjonijiet ta' biża', li jistgħu jikkawżawli skumdità. Biex jiġi mnaqqas dan ir-riskju, nifhem li l-parteciżzjoni tiegħi hija strettament volontarja, u nkun libera nirrifjuta li nkompli nipparteċipa f'kull mument, u d-dejta miġbura tkun anonima. Jekk inħoss li l-Intervista Semi-Strutturata kkawżatli xi forma ta' tensjoni, nista' nagħmel użu mill-informazzjoni dwar is-servizzi ta' appoġġ li Millison Zarb tagħtini fil-bidu tal-Intervista Semi-Strutturata. Jiena konxja li dan id-dokument jinkludi lista ta' servizzi mingħajr ħlas. Id-dokument jinkludi wkoll servizzi bi ħlas, li nifhem li jkolli nħallas għalihom jekk nagħzel li ma nużax is-servizzi mingħajr ħlas.

Nifhem li m'hemmx benefiċċji diretti għalija milli nipparteċipa f'dan l-istudju. Nifhem ukoll li din ir-riċerka tista' tgħin lil oħrajn billi naqsam l-esperjenzi tiegħi, u b'hekk nikkontribwixxi għall-immodernizzar tal-ambjent pubbliku f'Birkirkara u għall-emanċipazzjoni billi l-opinjoni u l-vuċi tiegħi timstemgħha. Dan jista' jwassal għal kuxjenza akbar fil-komunità u għal bliet aktar siguri għal kulhadd.

5. Nifhem li, skont ir-Regolament Ġenerali dwar il-Protezzjoni tad-Data (GDPR) u l-leġislazzjoni nazzjonali, għandi dritt naċċessa, nikkoreġi u, fejn hu applikabbli, nitlob li l-informazzjoni li tikkonċernani titħassar.
6. Nifhem li d-dejta kollha miġbura se tiġi maħżuna f'forma anonima.
7. Konxju/a li l-identità tiegħi u d-dettalji personali tiegħi mhux se jiġu żvelati f'xi pubblikazzjoni, rapport jew preżentazzjoni li tista' toħroġ minn din ir-riċerka.
8. Ingħatajt kopja tal-ittra ta' tagħrif biex inżommha u nifhem li se ningħata wkoll kopja ta' din il-formula ta' kunsens.
9. Konxju/a li, jekk nimmarka l-ewwel kaxxa ta' hawn taħt, inkun qed nagħti l-kunsens tiegħi biex **intervista Semi-Strutturata** tiġi rrekordjata bl-awdjo u maqlob/a f'kitba fl-istess waqt (traskrizzjoni).

IMMARKA BISS DAK LI JAPPLIKA

- Naqbel li l **intervista Semi-Strutturata** jiġi/tiġi rrekordjata bl-awdjo.
- Ma naqbilx li l-**intervista Semi-Strutturata** jiġi/tiġi rrekordjata bl-awdjo.

10. Konxju/a li siltiet mill-intervista tiegħi jistgħu jiġu jkunu ppubblikati (eż., f'teżi u ġurnali akkademiċi) u/jew ipprezentati (eż., waqt konferenzi u laqgħat), b'mod anonimu jew bl-użu ta' psewdonimu (isem ivvintat jew kodiċi, eż., parteċipant A).
11. Jekk inħoss li **intervista Semi-Strutturata** b'xi mod iddisturbani, nista' nirreferi għat-tagħrif dwar is-servizzi ta' appoġġ li Millison Zarb se j/tgħaddili fil-bidu tal **intervista Semi-Strutturata**. Naf li d-dokument bit-tagħrif jinkludi lista ta' servizzi bla ħlas. Id-dokument fih ukoll xi servizzi bi ħlas, li jkolli nħallas minn buti, f'każ li ma nagħzilx is-servizzi bla ħlas.
12. Jekk inħoss li **intervista Semi-Strutturata** b'xi mod iddisturbani, nista' nirreferi għat-tagħrif dwar is-servizzi ta' appoġġ li Millison Zarb se j/tgħaddili fil-bidu tal **intervista SemiStrutturata**. Naf li d-dokument bit-tagħrif jinkludi lista ta' servizzi bla ħlas. Id-dokument fih ukoll xi servizzi bi ħlas, li jkolli nħallas minn buti, f'każ li ma nagħzilx is-servizzi bla ħlas.

Qrajt u fhimt l-istqarrijiet ta' hawn fuq, u naqbel li nipparteċipa f'dan l-istudju.

Isem il-parteeċipant/a: _____

Firma: _____

Data: _____

Lista ta' Servizzi Mingħajr Ffias u Servizzi Bi Ffias

Servizzi Mingħajr Ffias

<u>Servizzi</u>	Numru tat-telefon	Website
Richmond Foundation	1770 (24/7 Help Line) +356 2122 4580	https://www.richmond.org.mt/
Victim Support Malta	+356 2122 8333	https://victimsupport.org.mt/
Crisis Resolution Malta	+356 9933 9966	https://www.stopviolence.gov.mt
Supportline 179	179 (24/7 Help Line)	https://fsws.gov.mt/
Kellimni.com	24/7 Online Support Help Line	https://kellimni.com/
Mental Health Services Malta	+356 2141 5183 (24/7 Help Line)	https://mentalhealthservices.gov.mt/en/
National Mental Health Helpline	1579 (24/7 Help Line)	https://mentalhealthservices.gov.mt/en/

Servizzi Bi Ffias

<u>Servizzi</u>	Numru tat- telefon	Email	Website
Paths Care	+356 9901 3629	info@paths.care	https://paths.care/
Pharmacy.com.mt			https://www.pharmacy.mt/practitioners/mental-health/

Appendix 9 – Online Survey: Anonymous Data Collection

Date: 16th January 2025

My name is Millison Zarb, and I am currently reading for a Master of Architecture (Architecture and Urban Design) at the University of Malta.

I am currently conducting research that aims to understand how different genders perceive their safety while walking through urban streets, particularly in Birkirkara. The survey that you have been invited to complete forms part of this study. This will take you approximately 5 to 10 minutes to complete. Any data collected from this survey will be used solely for the purposes of this study.

If you choose to participate, please note that there are no direct benefits to you.

Your participation entails the risk of recalling distressing experiences namely harassment or feelings of fear, which may cause discomfort. To mitigate this risk your participation is strictly voluntary, and you will be free to refuse to continue participating at any point. The data collected will be anonymous, and at the end of the questionnaire a list of professional support contacts will be provided should they be required.

At no point will you be asked to provide your name or any other personal data that may lead to you being identified. Furthermore, you may skip any questions that you do not wish to answer.

The findings which emerge from this research may be published in a dissertation, academic journals and/or presented during conferences, meetings.

If you wish to participate in this study, please click the button that says: "I agree to participate". If not, please close the browser window, or click "I do not wish to participate".

Should you have any questions or concerns, you may contact myself or my supervisor on the details provided below.

Yours Sincerely,

DECLARATION BY RESPONDENT:

I hereby confirm that I am 18 years of age or older. I am aware that completing and submitting this questionnaire implies that I am participating voluntarily and with full informed consent on the conditions listed above.

- I agree to participate – begin survey.

- I do not wish to participate – exit the survey.

Appendix 10 – Formula Ta’ Kunsens Għall-

Kwestjunarju: Data Anonima

Data: 16 ta’ Jannar 2025

Jiena Millison Zarb, studenta fl-Università ta’ Malta, u bħalissa qed insewgi Master f’Arkitettura u Disinn Urban.

Bħalissa qed inwettagħ ricerka li tgħolli l-għarfien dwar kif il-ġeneri differenti jippersistu ssigurtà tagħhom waqt li jkunu qed jimxu fit-toroq urbani, speċjalment f’Birkirkara. Il-*questionnaire* li int mistieden tissodisfa huwa parti minn din ir-riċerka. Dan jieħu madwar 5 sa 10 minuti biex tissodisfa. L-informazzjoni kollha li tingabar fir-riċerka tintuża biss għallfini ta’ dan l-istudju.

Jekk tiddeċidi li tipparteċipa, jekk jogħġbok innota li m’hemmx benefiċċji diretti għalija. Il-parteeċipazzjoni tiegħek tinvolvi r-riskju li tiftakar esperjenzi tqal, bħal fastidju jew sentimenti ta’ biza’, li jistgħu jikkawżaw skumdità. Biex tiġi mnaqqsa din ir-riskju, ilparteeċipazzjoni tiegħek hija strettament volontarja, u tkun liberu/a li tirrifjuta li tkompli tipparteċipa fi kwalunkwe punt.

Id-dejta miġbura se tkun anonima, u fl-aħħar tal-**questionnaire** se tiġi pprovduta lista ta’ kuntatti ta’ appoġġ professjonali jekk ikollok bżonn.

Il-parteeċipazzjoni tiegħek f’dan l-istudju tkun għalkollox volontarja; fi kliem ieħor, inti liberu/a li taċċetta jew tirrifjuta li tieħu sehem.

Fl-ebda mument m’int se tintalab sabiex tagħti ismek jew kwalunkwe informazzjoni oħra personali li tista’ twassal biex tinkixef l-identità tiegħek. Barra minn hekk, tista’ taqbez kwalunkwe mistoqsija li ma tixtieqx twieġeb.

Ir-riżultati li joħorġu minn din ir-riċerka jistgħu jkunu ppubblikati (eż., f’tezi u ġurnali akkademiċi) u/jew ipprezentati (eż., waqt konferenzi u laqgħat).

Jekk tixtieq tipparteċipa f’dan l-istudju, jekk jogħġbok agħfas il-buttuna “Naċċetta li nipparteċipa”. Jekk le, jekk jogħġbok agħlaq il-browser, jew agħfas “Ma nixtieqx nipparteċipa”.

Għal iżjed informazzjoni, tiddejjaqx tikkuntattja lili jew lit-tutor/i tiegħi. Id-dettalji tagħna ssibhom hawn taħt.

Napprezza jekk tikkunsidra din it-talba.

Tislijiet,

DIKJARAZZJONI TAL-PARTEĊIPANT

Nikkonferma li għandi 18-il sena jew iktar. Jiena konxju/a li meta nimla u nissottometti l-kwestjunarju nkun qed nagħti l-kunsens tiegħi skont l-informazzjoni miktuba hawn fuq.

- **Naċċetta li nipparteċipa - Ibda l-kwestjunarju.**
- **Ma nixtieqx nipparteċipa - Agħlaq il-browser.**

Appendix 11 – Photographs of Different Street Typologies in Birkirkara



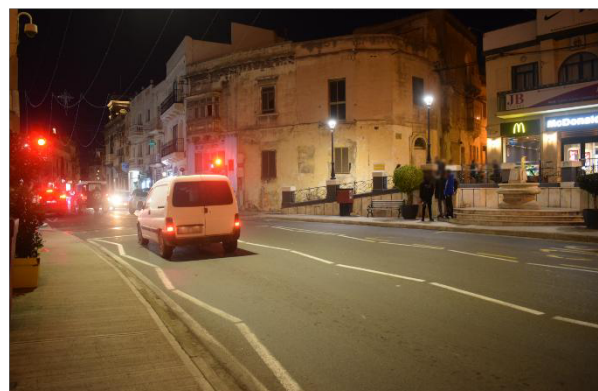
Triq il-Qasab 01



Triq il-Qasab 02



Triq il-Wied





Triq Tumas Fenech



Triq Psaila



Triq Brared





Triq L-Mrieħel



Subway 01 Triq Dun Karm



Subway 02 Triq Dun Karm



Appendix 12 – Template Map of Birkirkara



Snapshot taken from Google Earth, (Google, n.d.)