

Safety and security concerns in relation to open leisure spaces in residential areas in Durban

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Abstract

Crime remains one of the most prominent challenges facing South Africa and more general issues pertaining to safety and security are global concerns, especially in the context of terrorism and increased conflicts. Safety and security concerns affect the leisure activities people participate in and the manner in which open leisure spaces (sports fields, parks and conservation areas) in neighbourhoods are perceived and used. This article examines how, within the context of heightened safety and security concerns, residential communities perceive open leisure spaces. A case study approach is adopted using the Reservoir Hills, Westville and Clermont residential areas in Durban. These areas are in close proximity to each other but are historically Indian, White and African residential areas but more importantly reflect different socio-economic contexts. Furthermore, there are a range of different types of open leisure spaces in the study area. This permits a comparative analysis to be undertaken in relation to socio-economic and locational variables. Three hundred households (one hundred from each area) were interviewed to examine how safety and security issues (including crime) affect leisure activity decisions. This includes how different open leisure spaces are used and perceived. The study also identifies safety and security/ crime hotspots and the types of behaviour residents are most concerned about. The main findings indicate that the safety and security concerns impact on the way in which open leisure spaces are perceived and currently used. There is increased resistance to the use of open spaces for leisure purposes in residential areas with some of the more elderly respondents recalling how spaces were used in the past but are not used currently. Key recommendations emanating from the study is to rethink the design and security measures in place in open leisure spaces in residential areas, including access control and visible security presence.

Keywords: Safety and security, crime, open spaces, leisure, Durban

Introduction

There is increasing recognition that leisure spaces are important for social cohesion and the health and well-being of community members (Murry-Rust, Dendoncker, Dawson, Acosta-Midilik, Karali, Guillem & Rounsevell, 2011). Open (especially green spaces) also provide a range of ecosystem services in urban areas (Tan, Wang & Sia, 2013). Recreational and leisure spaces are an under-researched area. There is a tendency to focus on tourism attitudes towards infrastructure, facilities and services; including natural areas which open spaces in urban locations often constitute of. Additionally, as Adebayo and Musvoto (2013) and Pillay and Pahlad's (2014) research in relation to green spaces in Durban illustratively show, most research on open spaces in residential areas tends to focus on the extent to which people use these spaces and perceptions related to usage. Very few studies (such as Perry, Moodley & Bob, 2008) in South Africa examine safety and security/ crime concerns and open spaces. Yet, crime remains one of the main challenges facing South African society and is increasingly becoming a concern worldwide as issues of safety and security in the context where heightened conflicts and terrorism have become more prevalent.

Safety and security concerns affect what people do and how they relate to spaces within their neighbourhoods as well as how they perceive potential destinations. For example, there is a growing body of literature that indicates how safety and security concerns (especially the fear of violence and crime) affect the profiling of tourist destinations (Brunt, Mawby & Hambly, 2000; Mawby, 2000; George, 2003). In terms of neighbourhoods specifically, the leisure activities people participate in and the manner in which open leisure spaces (sports fields, parks and conservation areas) are perceived and used are important to consider. This article examines how, within the context of heightened safety and security concerns, residential communities perceive open leisure spaces and the extent to which they use these spaces. The research adopts a case study approach and uses the Clermont, Reservoir Hills and Westville residential areas in Durban to examine uses and perceptions among residents of open spaces and specifically safety and security considerations.

Literature review

Peschardt, Schipperijn and Stigsdotter (2012) state that there has been a substantial increase in research that focuses on the benefits, uses and perceptions of urban green and open spaces by local residents. Open spaces in urban contexts are important to consider since they contribute to broader sustainability imperatives as well as contribute to healthier lifestyles by creating leisure and recreational opportunities, especially for local citizens residing in close proximity to these (especially green) spaces. Urban open spaces are defined by Swanwick, Dunnett and Woolley (2003: 98) as “a mixture of public (or civic) and green space, where public spaces are mainly ‘hard’ spaces such as squares, street frontages and paved areas”. Urban green spaces in particular are defined as natural, semi-natural or artificial outside ecological space that consists of both plant and animal biodiversity (M’ikiugu, Kinoshitaa & Tashiroa, 2012), and natural or human-modified (transformed) urban outdoor environments consisting of considerable amounts of vegetation (Budruk, Thomas & Tyrrell, 2009). Haq (2011) asserts that substantial research shows that accelerated urban growth has brought about numerous undesirable environmental concerns that have triggered significant stress on land cover. Urban open spaces are increasingly under stress. This is not unique to South Africa. For example, Baur, Tynon and Gómez (2013) suggest that urban development pressures worldwide as well as shrinking budgets are placing pressure on natural resource professionals to ensure that urban green spaces remain a priority for decision-makers.

The importance of open (especially green spaces) has been highlighted in the literature (Baur *et al.*, 2013; Lo & Jim, 2010; Sreetheran & van den Bosch, 2014; Qureshi, Breuste & Jim, 2013; Schipperijn, Stigsdotter, Randrup & Troelsen 2010; Wolch, Byrne & Newell, 2014). Specifically, social and environmental benefits have been highlighted. For example, Pillay and Pahlad (2014: 168) indicate that these spaces “provide a range of benefits to communities in the form of recreation, education, relaxation and aesthetic appeal”. Similar sentiments are expressed by Haq (2011) who asserts that open spaces provide several benefits which include environmental/ ecological, recreational/ leisure, social, psychological, health and aesthetic functions within urban areas. Adebayo and Musvoto (2013), Bowler, Buyung-Ali, Knight and Pullin (2010), Jim and Chen (2006), Leeuwen, Nijkamp & Vaz (2010) and Wolch *et al.*, 2014 highlight the ecological importance of open and green spaces in urban areas:

- Habitat provision and biodiversity conservation
- Air quality improvement/ removal of air pollutants
- Offsetting carbon emissions and carbon sequestration
- Erosion control

- Regulation of micro-climates/ relieve the impacts of increased temperatures and natural disaster events

Thus, green and open spaces are viewed as being critical as they have the potential to provide multiple environmental benefits, including the mitigation of climate related impacts within urban areas. However, Cilliers, du Toit, Cilliers, Drewes and Retief (2014) state that within South Africa there is a lack of awareness on how to optimally interact with these spaces whilst maximising intended benefits, resulting in concomitant under-utilisation and degradation of green spaces.

Open spaces also play a critical role in urban environments from providing different socio-economic functions ranging from production and agriculture to health and ecology (Leeuwen *et al.*, 2010). Open spaces also have several leisure and recreational uses which include parks and gardens, playgrounds, picnic areas, sport areas, etc. Dinnie, Brown and Morris (2013) indicate that these spaces provide a variety of socio-psychological benefits that contribute to human well-being by providing recreational activities, health improvements, and livelihood provision. Furthermore, the recreational benefits of open/ green spaces are portrayed by their abilities to serve as attractive and relaxing spaces where people can socialise and engage in social interactions, participate in outdoor activities and relieve stress (Dinnie *et al.*, 2013; Haq, 2011). These spaces also encourage healthier lifestyles associated with increased physical activity (Grahm & Stigsdotter, 2010; Lee & Maheswaran, 2010). Koohsari, Kaczynsk, Giles-Corti and Karakiewicz (2013) assert that public open spaces are important destinations and settings for walking in neighbourhoods. Zhou and Rana (2012) specifically note how the pursuit of recreation, leisure and excitement can often be satisfied in urban green spaces. Thus, open spaces have individual as well as community level benefits. Francis, Giles-Corti, Wood and Knuiman (2012: 401) state that “a strong sense of community has been associated with improved wellbeing, increased feelings of safety and security, participation in community affairs and civic responsibility”. Therefore, open spaces that are well used and integrated into the community contribute to broader social cohesion and interaction.

The literature also highlights a range of concerns that are associated with open and green spaces which include the upkeep and maintenance of open spaces which are often used as dumping sites by some members of the community, safety considerations (the focus of this article), and issues of equitable access to these spaces and resources therein (Pillay & Pahlad, 2014). In the South African context in particular, historical factors associated with the demarcation of open spaces (especially protected areas) remain a thorny issue since, as indicated by Cilliers, Cilliers, Lubbe & Siebert (2012), pristine and well-maintained green or conservation spaces were and generally remain accessible to the better off in society. In fact, in some cases, black people were forcefully removed to accommodate white designated and conservation areas. Thus, resistance and negative attitudes towards open and green spaces are already socio-political features in the South African context.

The literature highlights concerns associated with open and green spaces in residential areas as being linked to issues pertaining to safety and security as well as maintenance and aesthetics. For example, Pillay and Pahlad (2014) specifically show that many of the recreational grounds and conservation areas within the South Durban Area (SDA) are under-utilised or not utilised at all by local residents due to poor maintenance. Several studies also support assertions that local residents increasingly view open and green spaces in residential areas as unsafe and insecure (Jim & Chen, 2006; Sreetheran & van den Bosch, 2014; Omoleke, 2012; Perry *et al.*, 2008). Sreetheran and van den Bosch (2014) point out the

negative side of urban green spaces as generating fear of crime in communities. The above issues also have gender dimensions, especially in relation to the social quality of green spaces (maintenance, aesthetics, recreation and crime) which is a more important factor for women than for men (Pillay & Pahlad, 2014; Sreetheran & van den Bosch, 2014).

Safety and security concerns have major impacts on support for open or green spaces in communities. Perry *et al.* (2008) conclude in their study that in residential areas there is increasing resistance to any form of open spaces linked to concerns pertaining to safety and security. Residents generally support development in these areas in the form of building of homes, shopping areas or offices. This indicates that concerns over safety and security undermine the social and environmental importance of protecting open spaces in urban areas. Whitmarsh (2009) indicates that understanding local residential perceptions and use of green spaces provide local municipalities with critical information when determining which areas should be given more attention and when considering the expansion of these spaces.

Methods

Research design and case study description

This study adopts a mixed methodological approach, more specifically three purposively chosen communities were used as case studies to examine and reflect on community perceptions of safety and security issues in open leisure spaces. The case studies include Clermont, Reservoir Hills and Westville residential suburbs located in the eThekweni Municipality/ Durban region. The eThekweni Municipality/ Durban has a population of 3.5 million people and spans 2 297 km². Furthermore, these suburbs are located within the Maputaland-Pondoland-Albany region which is one of 34 biodiversity hotspots acknowledged globally by Conservation International and one of the most ecologically diverse regions in the world (Roberts, 2008). Durban has the Durban Metropolitan Open Space System (D'MOSS) programme which is designed to protect and enhance the city's open green spaces and the various ecosystem goods and services they provide (Roberts, Boon, Diederichs, Douwes, Govender, McInnes, Mclean, O'Donoghue & Spires, 2012). It is important to note that Clermont, Reservoir Hills and Westville are residential areas that are located in close proximity to each other and reflect historically African, Indian and White areas, respectively. They also reflect predominant socio-economic groups: Westville is upper-income, Reservoir Hills is middle income and Clermont is lower income. In both Reservoir Hills and Clermont there are informal settlements as well. Furthermore, there are a range of different types of open leisure spaces in the study area which include recreational parks/ playgrounds, nature conservancies and sports fields. Thus, the case study permits a comparative analysis to be undertaken in relation to socio-economic and locational variables.

Sampling framework and data collection

Three hundred households (one hundred from each area) were interviewed to examine how safety and security concerns affect leisure activity decisions. This includes how different open spaces are perceived. The study also identifies crime hotspots and the types of behaviour residents are most concerned about. A systematic sampling approach was adopted. Every tenth house in designated localities which were purposively chosen in Westville, Reservoir Hills and Clermont were interviewed. It is important to note that if households selected were not available or refused to participate, the interviews were conducted with the neighbouring household. Data collected from the questionnaire was captured and analysed using the Statistical Package for Social Sciences (SPSS).

Results

In terms of the socio-economic profile of the respondents, slightly more respondents (51.7%) were female compared to males (48.3%). The average age of the respondents was 38.4 years and ranged from 21 to 78 years. Most respondents in Westville (78.3%) had post-schooling qualifications with 47.7% in Reservoir Hills and 23.3% in Clermont having post-schooling qualifications. Additionally, only a few respondents in Westville (3.3%) and Reservoir Hills (17.7%) were unemployed with a higher percentage (34.3%) in Clermont.

Respondents were asked about what they considered as open spaces in their communities. Across all the respondent communities, main types of open spaces identified were playgrounds/ recreational areas, (73.3%), natural/ green/ conservation areas (67.3%), sport fields/ grounds (45.7%), residential plots that do not have a building or are abandoned (10.7%) and dumping areas (9.3%). Basically, these areas were associated with having no buildings/ industries with the exception of recreational facilities and infrastructure such as benches, play equipment, sports facilities and toilets. Natural/ green/ conservation areas in particular were associated with parks and gardens; areas containing plant life, trees and wildlife; and nature reserves, conservancies and protected areas. The respondents expressed similar sentiments about what constitutes open and green spaces as those identified in the literature.

The Table below indicates types of open spaces that are used by the respondents. The findings confirm those in the literature that local residents use open spaces for a variety of reasons (Qureshi *et al.*, 2013). However, a notable difference unlike studies such as Hunter, Hatch and Johnson (2004) is that in this case study (irrespective of the different geographical locations and economic groups), more than half of the respondents did not use open or green spaces which is contrary to other research which asserts that the majority of respondents in residential areas utilise open spaces and facilities. The main areas were sports fields (40.7%) and playgrounds/ recreational areas (36%). These were followed by golf course (16.3%) and nature reserve (15%). Of concern is that 10.3% of the respondents (mainly in Reservoir Hills and Clermont used the open spaces (mainly the nature conservancies and abandoned residential plots for dumping waste). Discussions with respondents revealed that playgrounds and recreational areas were frequented by families with younger children. Additionally, it was mainly men who used sports fields and golf courses. The gender dimensions of green spaces were examined by Pillay and Pahlad (2014) who also found that a greater proportion of men used existing green spaces within their community. They also assert that gender differences should be considered in the planning of urban spaces. Furthermore, it is important to note that there was higher usage for the different types of open spaces (with the exception of dumping areas) among respondents in Westville compared to Reservoir Hills and Clermont). As discussed later, this is linked to the quality of the facilities and perceptions of safety associated with open spaces in Westville.

Table 1: Use of open spaces within the communities (multiple responses, in %)

Uses	RH (n=100)	W (n=100)	C (n=100)	T (n=300)
Playgrounds/ recreational areas	32	43	33	36
Sports field	35	45	42	40.7
Nature reserve	13	24	8	15
Golf course	22	25	2	16.3
Dumping areas	11	2	18	10.3

(RH: Reservoir Hills; W: Westville; C: Clermont; T: Total)

Respondents were also asked why they do not use open spaces and the main reasons are presented in Table 2 below. The reasons are areas are unsafe (42.3%), unruly behaviour

(29%), frequented by criminals and drug addicts (28.7%), unclean and badly maintained (22.3%) and females are unsafe (20.3%). Some of the respondents (18.3%) stated that they had no interest in using open spaces in the area and a few (less than 5%) identified time constraints, distance and transport. The key reasons were associated with areas being perceived to be unsafe or linked to persons of unruly/ unsavoury behaviour that undermines safety and security in these areas. Again, generally higher responses of the main reasons identified were noted in Reservoir Hills and Clermont. The responses therefore reveal a strong link between safety concerns and open spaces. There are strong levels of discomfort with using open spaces associated with feeling insecure and unsafe, as indicated in the literature review (Omoleke, 2012; Perry *et al.*, 2008). Unsafe places were also associated with poor infrastructure, isolated and poorly lit areas, locations with places to hide in, and dilapidated or uncared for areas. This reflects that how an area looks also contributes to perceptions of safety and security.

Table 2: Reasons for not using open spaces within the communities (multiple responses, in %)

Reasons	RH (n=100)	W (n=100)	C (n=100)	T (n=300)
Not interested	12	21	22	18.3
Areas are unsafe	45	31	51	42.3
Females are unsafe	25	21	15	20.3
Unruly behaviour (such as drugs and alcohol consumption)	31	18	38	29
Frequented by criminals and drug addicts	33	21	32	28.7
Unclean and badly maintained	26	12	29	22.3

(RH: Reservoir Hills; W: Westville; C: Clermont; T: Total)

Respondents were asked where they thought violent acts were most likely to occur. Table 3 below indicates that a range of areas in the neighbourhood were identified. The main locations identified were public spaces (38.7%), unknown/ unfamiliar environments (33%), playgrounds (27.3%), in the home (25.7%), sports fields (23.3%) and, parks/nature conservation areas (20%). Furthermore, 17.3% indicated open spaces specifically. In relation to the rest of the responses, identified areas frequented by people include, shopping centres and night clubs. It is interesting to note that there were differences with the locations surveyed with generally higher proportions of respondents in Reservoir Hills and Clermont identifying locations/ places.

Table 3: Perceptions pertaining to where violent acts are most likely to occur (in %): multiple responses

Location/ place	RH (n=100)	W (n=100)	C (n=100)	T (n=300)
In the home	33	23	21	25.7
Close to the home	16	10	20	15.3
Public spaces	51	53	12	38.7
School	15	3	22	13.3
Relative or friend's home	-	1	2	1
The workplace	1	-	1	0.7
Unknown/ unfamiliar environments	36	31	29	32
Playgrounds	33	15	34	27.3
Sports fields	31	11	28	23.3
Parks/ nature conservation areas	26	9	25	20
Open spaces	18	11	23	17.3
Traffic lights	13	7	3	7.7
Nightclubs	10	6	4	6.7
Bars/ shebeens	3	-	16	6.3
Shopping centres	18	3	2	7.7
Taxi ranks and bus stops	5	-	25	10
Everywhere	3	-	2	1.7

(RH: Reservoir Hills; W: Westville; C: Clermont; T: Total)

Furthermore, Clermont in particular which is the lower income area identified areas such as taxi ranks, bus stops, bars/ shebeens and schools as locations where violent acts are more likely to occur. This is unsurprising given that these places have lower levels of security and safety present, and more people from these areas use public transport. Additionally, further probing revealed that those who identified the home indicated that this related to concern over theft/ burglaries and hijackings. Another interesting finding is that slightly more than half of the respondents identified public spaces in Reservoir Hills (51%) and Westville (53%) as places where violent acts take place while only 12% in Clermont stated public spaces. This suggests that there were higher perceptions among upper and middle income groups that public spaces were unsafe.

Respondents were also asked to identify areas in the community that they feel are unsafe. Similar responses emerged in all three case study locations with the main areas again being similar to those identified in relation to where they felt violent acts were being perpetrated. The main responses were grounds/ parks (35.7%), informal settlements (33.7%), public/ open spaces (25.3%), conservation areas/ bushes (21.7%), bars/ shebeens (20.35%), shopping areas (18.7%), parking lots (14.3%) and outside school (11.7%). Additionally, African townships (15.3%) were identified as unsafe areas mainly by respondents from Reservoir Hills and Clermont. The main reasons forwarded for identifying these areas as unsafe were that they were frequented by strangers and criminals. These areas are also considered as crime 'hotspots' or high crime zones. Additionally, the types of activities and groups that frequent these areas were also highlighted with respondents stating that these areas are associated with drinking, smoking, taking drugs and fighting. The presence of youth also seems to be linked to unsafe locations. Specifically, grounds/ parks and bushes were areas that were seen as locations where unsavoury elements in the community, particularly youngsters who take alcohol and drugs, congregate. Thus, again, there was a strong association of open spaces with drugs and alcohol as well as other types of unruly behaviour. Respondents also felt that criminals tend to hide in these areas. While further research should be undertaken to examine the reasons for the identification of specific areas (such as African townships) as unsafe, the results seem to suggest that there remains an association between poverty and feelings of insecurity (especially among middle and upper income groups, there is a discernible pattern that where poor people reside or frequent are unsafe). Additionally, unfamiliar areas are regarded as being unsafe. There is therefore fear of the unfamiliar and unknown. While not explored in detail in this study, other variables that were highlighted as influencing perceptions and use of open spaces were time of day (day time was generally regarded as being safer than night time), day of the week (weekends were regarded as being less safe than weekdays) and whether one is alone or in a group (feelings of insecurity were heightened when alone).

Respondents were also asked to identify spaces in the community they considered to be safe. Substantially fewer places were identified that they deemed to be safe. This is indicative of broader concerns related to safety and security in South Africa. Mainly public or open places regarded as being safe were shopping malls (32.3%), schools (23.7%), religious places (21%) and workplaces (13.3%). Only a few respondents identified different types of open spaces such as parks/ recreational areas (5.3%) and conservation areas (2.3%). These results again reinforce earlier results that open spaces are not perceived to be safe and the pervasiveness of fear and insecurity that respondents associate with open spaces. The areas that respondents felt were safe were spaces that usually have security and controlled/ restricted access. These places were also frequented by many people and are generally enclosed. A sense of security appears to be a primary factor in determining whether a place was safe or unsafe. Furthermore, the presence of visible security such as fencing and security guards influenced perceptions of safety in these open areas.

The responses resonate with the literature review that reveal that violence is perceived to be associated with public and open spaces as well as unknown and unfamiliar environments. In terms of open spaces more specifically, there were generally high perceptions that violent acts are more likely to occur in these areas, especially in Reservoir Hills and Clermont. The results also reveal differences among the respondents and case studies in relation to their perceptions pertaining to open spaces being associated with violent acts. In particular, fewer respondents in Westville compared to Reservoir Hills and Clermont identified playgrounds, sports fields and parks/ nature conservation areas and open spaces more generally as locations where violent acts are more likely to occur or where they felt unsafe. The discussions reveal that this was linked to two main reasons. Firstly, more respondents in Reservoir Hills and Clermont recalled specific violent and criminal acts such as rape, fights and drugs in these locations. These also relate to 'signal crimes' identified by Innes (2004) that frame community perceptions of safe and unsafe places as well as function as a warning to people about the distribution of risk throughout social space. Thus, experiences of crime and violence in areas (personal or hearsay) influence how people view specific locations. Secondly, discussions and field observations revealed that in Westville parks/ conservancies, sports fields and playgrounds were better maintained. They also have better facilities and infrastructure including proper lighting, well-kept buildings and facilities, proper fencing and, in some instances, visible security present. Some of the more elderly respondents recalled how they used these spaces in the past but do not personally or permit their children in particular to frequent these areas because of security concerns. In fact, several respondents specifically indicated that open areas were unsafe places for their children to go to. Some recalled incidences of rape and murder in specific locations.

Respondents were also asked to forward suggestions for addressing safety and security concerns in open spaces within the community. The responses are presented in Table 4 below. The main suggestion forwarded by 78% of the respondents was police/ security presence in these areas. Other key challenges advanced were stopping illegal activities and unruly behaviour (31.7%), cleaning up the area (23.3%), improving infrastructure and facilities (23%) and restricting access to the area (21.7%). Other suggestions were proper lighting (16%) and beautifying area/ improving aesthetics (15.3%). Furthermore, a few respondents (5.3%) indicated educating the community. The results indicate that respondents desired more secure open spaces with infrastructure that assisted in securing these areas. The importance of security and design considerations are underscored which include restricting/ controlling access and reducing opportunities for criminal activities. Again, generally more suggestions were forwarded among respondents in Clermont and Reservoir Hills when compared to Westville. The suggestions indicate that if safety and security concerns are not adequately addressed in these communities it will be unlikely that use and appreciation for open spaces will continue or increase. There will be continued resistance to these areas as indicated by Perry *et al.* (2008) and Pillay and Pahlad (2014).

Table 4: Suggestions for addressing safety and security concerns (multiple responses, in %)

Suggestions	RH (n=100)	W (n=100)	C (n=100)	T (n=300)
Police/ security presence	88	71	75	78
Improve infrastructure and facilities	25	13	31	23
Restrict access to area	24	23	18	21.7
Clean-up area	27	13	30	23.3
Stop illegal activities and unruly behaviour	31	23	41	31.7
Proper fencing	12	4	16	10.7
Proper lighting	21	13	14	16
Beautify area/ improve aesthetics	16	18	12	15.3
Educate the community	9	3	4	5.3

(RH: Reservoir Hills; W: Westville; C: Clermont; T: Total)

Table 5 below captures responses pertaining to what respondents think should happen to existing open spaces in their communities. The main overall response is retain as is/ conserve (45.7%). However, the majority of the respondents in Westville (78%) supported this position while less than a third did so in Reservoir Hills (31%) and Clermont (28%). Almost equal proportions in all areas supported improving or better maintaining open spaces (41%). A substantial proportion of respondents in Reservoir Hills and Clermont indicated housing development (33% and 41%, respectively) and public services/ facilities (35% and 38%, respectively) while only a few supported these changes in Westville (12% for housing and 8% for public services/ facilities). The results indicate that in Reservoir Hills and Clermont there is considerable resistance to open spaces remaining as is and preferences for either development or at least improving and better maintenance of these spaces were noted. This reflects the apprehension among residents in these areas towards open spaces.

The resistance to having open spaces are understandable. Given the high perceptions that these spaces are considered to be unsafe (especially in Clermont and Reservoir Hills), respondents are unable to avoid these areas since they literally live and work close to these areas. The persistent problems associated with these areas expressed by some of the respondents (which include lack of security and ability to control access; inadequate maintenance and infrastructure such as fencing and lighting; and ability to stop illegal activities and unruly behaviour) suggest that government officials have not addressed the problems that respondents face. It is also important to note that in areas within Reservoir Hills and Clermont where there are higher levels of dissatisfaction and resistance, many people have limited or no access to mechanisms to increase their physical safety (including in their homes by installing security devices and infrastructure such as alarm systems). This indicates that poorer segments of society are more vulnerable to security and crime issues related to open spaces.

Table 5: Respondents' opinions on what they think should happen to existing open spaces in their communities (multiple responses, in %)

Opinions	RH (n=100)	W (n=100)	C (n=100)	T (n=300)
Retain as is/ conserve	31	78	28	45.7
Improve/ better maintain	43	32	48	41
Housing development	33	12	41	28.7
Public services/ facilities (such as clinics, schools, police stations, etc.)	35	8	38	27

(RH: Reservoir Hills; W: Westville; C: Clermont; T: Total)

Conclusion

The findings from this research show that respondents considered numerous open spaces in their neighbourhoods as either being unsafe or being in close proximity to areas that they perceived to be dangerous. The main reasons for viewing these spaces as being unsafe were linked to the lack of security presence, poor infrastructure and services, presence of criminal activities or unruly behaviour, and area not being maintained. Suggestions were forwarded to directly address these issues. Thus, key recommendations emanating from the study include rethinking the design and security measures currently in place in open leisure spaces in residential areas, including access control and visible security presence. Investments are required to maintain and keep open spaces safe and secure. If these spaces are not perceived as being valuable and are deemed to be unsafe by local communities, it is unlikely that support for them will be provided which can undermine biodiversity conservation and sustainable forms of development. It is imperative that safety and security concerns are addressed in open spaces, especially in relation to green/ conservation areas, since, as Cilliers *et al.* (2012) state,

conservation efforts worldwide are experiencing challenges and biodiversity levels continue to decline.

As indicated earlier, additional research should be conducted to examine specific locations within communities. For example, in the case study location there are several parks/recreational spaces as well as conservation areas. Further research should establish whether all these spaces are deemed to be unsafe or are there specific locations that are viewed as a source of concern. Spatial mapping of perceived open space safety and security hotspots can be used in this regard. This will also assist with targeted interventions to address points of concern. Additional research should include providing disaggregated data (and even conducting separate studies) to examine how aspects such as location and socio-economic variables (for example, gender, race and age) influence perceptions and concerns.

There is no evidence from this research that supports the contention from international studies (Kuo & Sullivan, 2001; Schipperijn *et al.*, 2010) that indicate that open and green spaces can lower crime and illegal activities. This research resonates with other South African studies (Perry *et al.*, 2008; Pillay & Pahlad, 2014) which show that residents view open spaces as places that are unsafe and where unsavoury elements congregate. The findings in this study indicate that the fear of crime impacts on the way in which open leisure spaces are perceived and currently used. Furthermore, and of concern given the ecological importance of open (and especially green) spaces, is that there is increased resistance to the use of open spaces for leisure and recreational purposes in residential areas. It is important that issues of safety and security in neighbourhoods are addressed to ensure that liveable communities are created while at the same time environmental issues are considered.

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