
From Casual Labour to Chamas: An Analysis of Gender
Differences Between Coping Strategies Used by Men and Women
in the Urban Informal Settlement of Kawangware

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Abstract

Residents of urban informal settlements are vulnerable to hazards because of lack of basic services, and because of individual characteristics like gender. It is argued that women are more vulnerable than others, and can thus less easily cope with challenges and disasters. Research on coping strategies often discard the importance of the gender variable, and scholars who do include this disagree on how gender affects coping. The contradiction between scholars arguing gender does not affect coping and research showing gender does influence these strategies in Kenya, combined with lack of research on coping strategies in informal settlements in the country, provides a research gap. This paper addresses the gap by uncovering challenges and coping strategies in the urban informal settlement Kawangware (in Nairobi), answering the following question; *How does gender shape the way in which individuals articulate their coping strategies in urban informal settlements in Nairobi?* via secondary analysis of qualitative data. Findings suggest that gender does shape the way in which both coping strategies and their underlying challenges are articulated. Men and women mentioned challenges from seven categories, namely: *Money, Health, Housing, Employment, Public facilities, School, and Safety, violence & substance abuse*. Not only did women focus on specific categories (like *Health* and *Safety, violence & substance abuse*) more often than men, but they were also the only ones that considered male disadvantages. Additionally, some men argued that six issues within the *Safety, violence & substance abuse* category were not present in Kawangware, while multiple female respondents stated that the issues were prevalent. The coping strategies that got mentioned by residents of Kawangware can be sorted into three categories: *seeking help from institutions or groups, seeking help from individuals and personal solutions*. Specific solutions within these categories sometimes differed per gender, which suggests that gender affects the use of coping strategies in Kawangware. Ultimately, this paper aims to contribute to the evaluation of existing coping strategies, based on which recommendations for future ways of coping can be made.

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1. Introduction

It is estimated that approximately 70% of the world's population will live in cities by 2050. This so-called urban-growth is more concentrated in developing countries, and goes hand in hand with the development of *urban informal settlements*, also known as 'slums' (Okyere & Kita, 2015). Out of the one billion people living in urban informal settlements, about 200 million live in settlements in sub-Saharan Africa (Mpanje *et al.*, 2022). These settlements are vulnerable due to inadequate infrastructures and lack of basic services. Vulnerability, or '*the potential to be adversely affected by an event or change*' (Eriksen *et al.*, 2005) is next to geographically, also socially specific. That is to say, vulnerability can also be influenced by individual characteristics (Zerbo *et al.*, 2019). It is argued that specifically women, children and people with disabilities are more vulnerable than others (Beyer *et al.*, 2016, UN Women & UNICEF, 2019), which affects their ability to deal with the stresses and disasters present in urban informal settlements.

There are various strategies to respond to both environmental and non-environmental stresses and disasters, they are usually referred to as coping strategies. These strategies allow for individuals and groups to cope with, and recover from, stresses and shocks (Mpanje *et al.*, 2022). Previous research conducted in Kenya shows that gender has an important effect on how individuals relate to coping. However, this research was not conducted in Nairobi, the capital city, but in a small farming village with different vulnerabilities compared to urban areas. Weather changes, for example, affect villages' their crop growth (Eriksen *et al.*, 2005). Existing research conducted in similar settings discard the importance of gender differences, explicitly stating that there is no difference in gender regarding coping strategies (Osuret *et al.*, 2016), or simply not mentioning any differences by focussing on groups of people, instead of individuals (Sakijege *et al.*, 2012). This goes against findings of other scholars who argue that gender does affect the ways in which individuals cope with challenges (Oldewage-Theron *et al.*, 2006). Consequently, there is a contradiction between literature arguing gender does not affect coping strategies and research showing gender does impact these strategies in Kenya. This, combined with the lack of research on coping strategies in informal settlements, results in a need to investigate how gender affects these strategies in urban informal settlements in Kenya's capital. This is also called for by professors from the University of Nairobi, who argued it could be beneficial to explore gender within the context of the informal settlement Kawangware, which is one of the fastest growing informal settlements in the city. Therefore, this research aims to uncover how gender affects coping strategies, and ways in which they are articulated, in urban informal settlements in Nairobi. Ultimately, answering the following question: *How does gender shape the way in which individuals articulate their coping strategies in urban informal settlements in Nairobi?*

There is a lack of consensus on how *coping strategies* should be conceptualised and operationalised (Eschenbeck *et al.*, 2007). The ways in which other scholars have attempted to conceptualise the concept do not seem to fit the Nairobi context. A high proportion of coping strategy research is based on the positive & negative conceptualisation (Mpanje *et al.*, 2022, Patel & Chadhuri, 2019), which would not be appropriate due to its subjectivity. Due to the importance of not decontextualising local knowledge by using an unsuitable framework to analyse the data (Budge, 2018), this study is based on an interpretive ontology and epistemology, that is to say; it focusses on people's subjective meaning and articulation of their own coping strategies. Additionally, this approach addresses the negative connotation of the term *vulnerability*, which has been previously criticised for assuming people are 'passive victims' (Ribot, 2011). This bottom-up approach might bring about a more fitting framework for analysing coping strategies (and their underlying challenges and problems) in urban informal settlements as it would allow for the inclusion of any necessary dimensions, without predetermining what these important dimensions are.

The objective of this study is to uncover coping strategies, and their underlying challenges, in Kawangware. The research is based on an interpretivist approach which allows for inclusion of factors highlighted in literature (like gender) without risking decontextualising local knowledge by using an unsuitable framework to analyse the data (Budge, 2018). This knowledge might help policymakers address social issues, or might help uncover opportunities that can be transferred to other informal settlements that struggle with similar challenges (Patel & Chadhuri, 2019). The thesis will start off with an introduction of the main concepts, including vulnerability, gender and coping strategies. Next, the context of the research will be explained briefly, which will be followed by the methodology, results, and a discussion of the results in relation to the literature. Finally, the results will be summarised in the conclusion.

2. Literature review

To understand why coping strategies are needed, it is first important to look at challenges that require coping, and to why some people are more *vulnerable* than others. Scholars argue that gender affects both vulnerability and coping (Beyer et al., 2016, Eriksen *et al.*, 2005, UN Women & UNICEF, 2019). Not only are women more vulnerable in times of crisis, but they also tend to cope with crises and challenges differently than men (Eriksen *et al.*, 2005). Therefore, these concepts will be elaborated upon in the following paragraphs.

2.1 Vulnerability

Research on disasters and risk has mainly been conducted from a western point of view. During the 1970s, however, a new *vulnerability* approach emerged, based on experiences from the Global South. This approach revolves around the notion that vulnerability reflects people's inability to access the resources that are available to others with more power, making them more susceptible to the effects of hazards. During the 90s, this notion gained significant ground in western policy and academics (Gaillard *et al.*, 2017).

Vulnerability refers to '*the potential to be adversely affected by an event or change*' (Eriksen *et al.*, 2005). These events or changes can be big events, such as disasters (Eriksen *et al.*, 2005) or daily challenges (sometimes referred to as everyday hazards (Bull-Kamanga *et al.*, 2003)). The distinction between these categories, as well as between disaster and non-disaster events, is more easily made in developed countries, where disablement and deaths caused by everyday hazards have been reduced. For example, a large group of young children dying from diseases is relatively common in informal settlements in the Global South, therefore some do not consider it to be a disaster. In the Western context, however, people would consider this to be disastrous (Bull-Kamanga *et al.*, 2003). Common everyday hazards experienced in urban informal settlements include vulnerabilities due to lack of basic infrastructure (like roads and drainage systems), living in extreme density (causing a high risk of accidental fires), living in hazardous places like on steep hillsides or floodplains (Bull-Kamanga *et al.*, 2003), crime and violence (which are not controlled due to lack of formal supervision and control), buildings collapsing, and diseases (combined with lack of healthcare) (Adelekan, 2019). Additionally, these everyday hazards can accumulate. In such instances, a large disaster is merely the catalyst (Bull-Kamanga *et al.*, 2003). For instance, informal settlements often lack facilities like sufficient sewage systems and adequate healthcare, these issues are considered daily challenges. A disaster, such as a flood, could catalyse these problems. It causes sewage to spread, which could in turn lead to more diseases, that cannot be cured due to the inadequate healthcare.

Vulnerability is both geographically and socially specific (Zerbo *et al.*, 2020), that is to say; individuals can be more vulnerable based on their geographical location (in, for example, urban informal settlements (Maobe & Atela, 2021)), and based on individual characteristics (such as gender, age, wealth status and education (Eriksen *et al.*, 2005)). It is argued that certain individuals are more at-risk during disasters and daily life challenges, these people include women, children and people with disabilities (UN Women & UNICEF, 2019), who often are dependent on others. However, it is important to not overlook the occurrence of vulnerability during day-to-day living, where gender also plays a significant role. Research shows that while men experience more daily life issues at work, women have to deal with more struggles at home, which could be explained by looking at places where each gender spends more time, according to traditional gender roles (Almeida, 2005). While most research is situated in the developed world, studies have also shown that in many cases, women in urban areas of the developing world are more vulnerable than men (Salon & Gulyani, 2010). Some of the main challenges experienced by women in informal settlements include low income, gender-related violence, physical and sexual harassment/abuse, fear of being evicted, unhygienic environment, insecurity, seasonal problems (related to weather), crime, lack of drinking water, no access to electricity or gas, and lack of health services (Al Helal, 2012).

2.2 Gender

Interest in gender arose from the vulnerability paradigm, as the fact that disasters affect women disproportionately came to the forefront. Consequently, women became the sole focus of certain vulnerability studies. This is a problem, not only because male vulnerabilities can get overlooked, but also because this research is based on a binary view on gender, and does not always fit non-Western contexts; *“the forced inclusion and marginal position or invisibility of these gender minorities in a Western man–woman approach to gender in disaster and DRR [Disaster Risk Reduction] reinforces their vulnerability and overlooks their intrinsic capacities to deal with natural hazards”* (Gaillard *et al.*, 2017, p. 433). In other words, research based on the assumption that women are more vulnerable overlooks intrinsic ways in which women can (and always have) dealt with problems. Moreover, conclusions of such research often reiterate this vulnerability, without acknowledging the ways in which women cope with challenges. An additional issue that presents itself in gender and vulnerability research is the interchangeable use of the concepts gender and sex (Snow, 2008). While biologic sex is determined by ones sex chromosomes (Torgrimson & Minson 2005), gender includes the socially constructed behaviours of individuals (World Bank, 2001). The latter of these two concepts is of importance when discussing vulnerability and coping, as both male and female roles within these concepts are based on the social construct of gender. For example, vulnerability during both disasters and day-to-day situations are suggested to be caused by women’s dependency on males, who are often the main breadwinner (Beyer *et al.*, 2016), which is caused by socially constructed roles. For men, problems at work seem to be more significant, while women more often experience challenges at home

(Almeida, 2005). This could be explained by looking at the socially constructed behaviours that are attributed to each gender. In other words, the concepts of vulnerability and coping are linked to gender, not biological sex. It is, however, important to note that the social construct of gender differs from society to society (Maobe & Atela, 2021). One must therefore acknowledge how local people view their own gender identity.

When analysing coping strategies and their underlying vulnerabilities and challenges, including the concept of gender could improve the analysis of data collected in non-Western contexts. In this research, gender refers to socially constructed roles and socially learned behaviours and expectations with being male and female (World Bank, 2001), or other. Both men and women have different experiences and resources which they use when dealing with problems (DIE, 2011), which will be elaborated upon hereafter.

2.3 Coping strategies

The various ways in which people cope with challenging situations are referred to as *coping strategies* (Eschenbeck *et al.*, 2007), which is a concept that can be conceptualised in various ways. Examples of conceptualisations include, but are not limited to absorptive & adaptive approaches (Berman *et al.*, 2012), economic & social (Yohe & Tol, 2002), positive & negative (Mpanje *et al.*, 2022), reactive, anticipatory, preventive & proactive (Israel & Briones, 2014), individual- and household-based, group-based, market-based & publicly provided (Skoufias, 2003), preventive & impact minimising (Sakijege *et al.*, 2012). In this research, *coping strategies* refers to people's abilities to cope with disasters and daily challenges, ideally both now and in the future.

There is a lack of consensus on how *coping strategies* should be conceptualised and operationalised (Eschenbeck *et al.*, 2007). The few existing conceptualisations (Berman *et al.*, 2012, Yohe & Tol, 2002, Mpanje *et al.*, 2022, Israel & Briones, 2014, Skoufias, 2003, Sakijege *et al.*, 2012) do not seem to fit the Nairobi context (Patel & Chadhuri, 2019) for various reasons. For example, a high proportion of coping strategy research is based on the positive & negative conceptualisation (Mpanje *et al.*, 2022, Patel & Chadhuri, 2019), which would not be suitable for this research due to its subjectivity. To avoid relying on a wrong or subjective perspective, this research is built on an interpretive approach and will focus on coping strategies as articulated by the local population, because it has been proven that there are gender differences in the perception and ability to cope with stressors (Oldewage-Theron *et al.*, 2006).

There is an abundance of research related to *coping*. However, as mentioned before, there is a lack of consensus on how the concept should be conceptualised and operationalised (Eschenbeck *et al.*, 2007). While the majority of research does not include a conceptualisation, those that do vary widely. Furthermore, most research on *coping strategies* is not conducted in informal settlements, and the coping

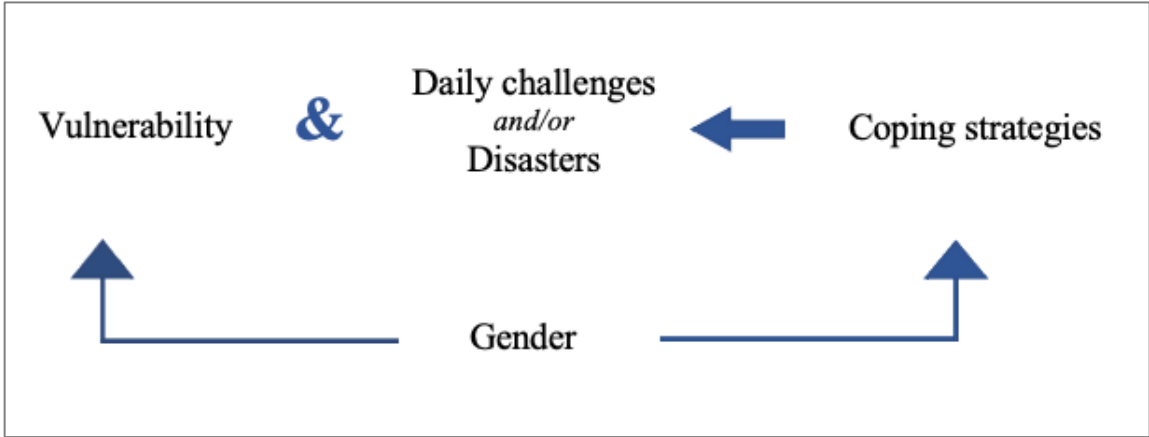
mechanisms are most often not segregated by gender. Research on *coping strategies* in urban informal settlements specifically is often based on coping with one specific challenge, such as Covid-19 (Xu *et al.*, 2022), declining health (Mudege & Ezech, 2009), how children cope with loss (Parscaline, 2003), stormwater runoff (Adegun, 2015), or forced eviction (Hackenbroch *et al.*, 2008). In other cases, scholars talk about coping in general (Yang & Andriessse, 2020, Pandey, 2020, Istiany *et al.*, 2013), or overlook the importance that gender might have. Consequently, a literature review on coping strategies in urban informal settlements did not result in a clear possible operationalisation. Interestingly, some scholars do mention that problems and challenges are gendered, (for example, during research in Ghana scholars argued “*Moreover, from a gender perspective, women bear much burden of the deteriorating conditions in slums*” (Abu-Salia *et al.*, 2015, p. 106)), but they do not include the gender dimension when trying to uncover coping strategies.

On the one hand there are scholars who ignore the gender variable, or explicitly state that there is no difference in gender regarding coping strategies (Osuret *et al.*, 2016). On the other hand, there is research that does highlight the importance of the gender variable by recognizing the fact that gender affects coping (Oldewage-Theron *et al.*, 2006). Some of this research stems from urban informal settlements, but research from Nairobi was not conducted in Kawangware, but mainly in Kibera.

It is suggested that women have unique roles in coping and recovery after disaster situations. They, for example, are sometimes forced to turn to high-risk activities (like prostitution) (Wisner & Henry, 1993). Women are often dependent on others as they are not the main breadwinner (Beyer *et al.*, 2016). Moreover, during both ‘normal times’ and times of disaster, it is more difficult for women to get loans (Wisner & Henry, 1993). During situations of gender-based violence, research conducted in Nairobi shows that women use one of three coping strategies: endurance and faith, escape, and avoiding dating (Swart, 2012). In times of food crises, men more often relied on crime and turned to substance abuse, while women tend to look for food aid. Both genders also often rely on casual labour (Masese & Muia, 2016). Additionally, women tend to deal with stressors through emotional support more often than men (Oldewage-Theron *et al.*, 2006). This overview, that can also be found in the Appendix I, shows that most gender related research on coping has been conducted a while ago. Consequently, coping strategies might have changed. For example, people now more often make use of technology. Moreover, this overview reveals that research on gender and coping often specifies specific strategies for women only, without focussing on men.

Places (such as urban informal settlements) and individuals (like women) can be more vulnerable to daily challenges and disasters than others (Zerbo *et al.*, 2019, Beyer *et al.*, 2016). To cope with, or counter the vulnerabilities and disasters, people make use of coping strategies. Coping strategies can help reduce vulnerabilities by, for example, increasing gender equalities. Additionally, coping strategies can be used to cope with challenges or disasters, such as droughts, via strategies such as relocation or importing water from institutions outside of the affected area. Gender affects both vulnerabilities, since women are usually more vulnerable (Beyer *et al.*, 2016) and coping strategies, because some scholars suggest that women sometimes cope in different ways than men (Oldewage-Theron *et al.*, 2006). Both daily issues, as well as disasters that can sometimes function as a catalyst, have been included in this research, as visualised in figure 1. Because term *vulnerability* has been criticised for its negative connotation and for assuming people are ‘passive victims’ (Ribot, 2011), this research focusses on how people articulate the challenges they face while living in an informal settlement, how they articulate their own potential to be adversely affected by events or changes, and what coping strategies they argue they make use of.

Figure 1: Visualisation of the relation between concepts



Source: Figure made by Dikkerboom

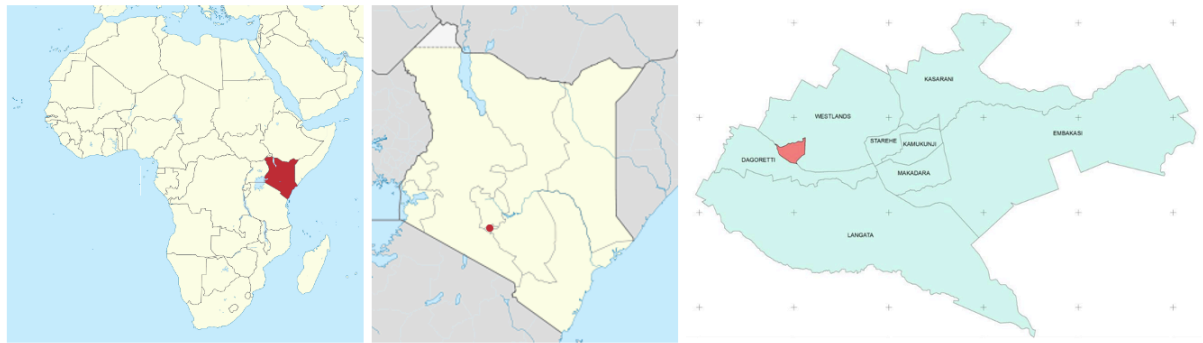
3. Context

3.1 Location: Kawangware

Urban informal settlements, sometimes referred to as ‘slums’, are areas in cities that are characterised by (legal and illegal) informal living and informal activities, that is to say; living and activities are largely not regulated by the state. Therefore, the settlements are often politically and socially excluded (Okyere & Kita, 2015). People living in these settlements are vulnerable and struggle with challenges such as lack of basic infrastructure, living in extreme density and in hazardous places (Bull-Kamanga *et al.*, 2003), crime, and infectious diseases (Adelekan, 2019). Nairobi's informal settlements experience the most significant magnitude disasters happening in the region (Maobe & Atela, 2021), which makes it an interesting site for research.

This research is based on a case study of Kawangware (see figure 2), one of the many informal settlements in the Kenyan capital of Nairobi. It is one of the fastest growing informal settlements in the city and is located 15 kilometres west of the city centre. The settlement is very ethnically diverse, housing people from various tribes such as Kikuyu, Luo and Luhya. This diversity causes issues, both during daily life (for example, when job-seeking) and during bigger events such as national elections (Njogu, 2013). Over 290.000 people live in Kawangware, about 147.000 of whom are registered as male, and 145.000 as female (KNBS, 2019b). Housing in Kawangware includes a combination of the well-known huts with sheet roofs, and newer concrete apartments (McDermott *et al.*, 2021). It is argued that the settlement struggles with issues similar to the aforementioned challenges present in most urban informal settlements, like lack of access to permanent jobs, limited access to education, lack of access to safe drinking water and lack of drainage infrastructure (leading to diseases) (Mpanje, *et al.*, 2022). All these factors add to the fact that people living in these settlements are more vulnerable, and can less easily cope with challenges. Individuals within these settlements can also be more vulnerable, as studies show that women in urban areas of the developing world are ‘worse off’ than men (Salon & Gulyani, 2010). For example, it is not uncommon for there to be high levels of sexual violence against women and girls in urban informal settlements (Beyer *et al.*, 2016), highlighting the importance of the concept of gender in contexts such as Kawangware. Gender is also considered to be an important variable to include when trying to alleviate poverty (Raqib, 2015), which is one of the main issues present in urban informal settlements. More than 50% of adults in Kawangware have no permanent job and are forced to survive on less than one dollar a day (McDermott *et al.*, 2021).

Figure 2: Kenya (in Africa), Nairobi (in Kenya) and Kawangware (in Nairobi), all depicted in red.



Source: Wikipedia Commons (2010 & 2011) and Muli (2013), edited by Dikkerboom

3.2 Gender in Kenya

While women in Kenya are facing issues, they have always played an important role in Kenyan society, like during the *Mau Mau* movement against British colonial rule. Not only did some fight besides the male soldiers, but many women also helped men hiding from the British army and gave them food (Lichuma, 2017), emphasising women's' important role during challenging times.

Including the gender dimension in research on coping strategies in Kenya seems to be suitable as there is increasing awareness of gender related challenges in the country. Kenya is a deeply inequitable society, where complex structural and historical issues are prevalent. Challenges for women include gender biased inheritance laws, gender-based violence and low access to the labour market (Unterhalter & North, 2011), limited participation in public policy and relying on men to receive information (Maobe & Atela, 2021). Women fulfil different social roles than men, like taking care of children and housekeeping, which may expose them to different issues such as indoor pollution from cooking. Moreover, women also lack skills like swimming, running, and climbing, which are useful during disasters (Maobe & Atela, 2021). The Government of Kenya recognised the gender related issues and launched various programmes to empower women, such as the Women Enterprise Fund (Government of Kenya, n.d.). In 2016, President Uhuru Kenyatta was one of the few African leaders who signed the UN HeForShe Movement, which focusses on including both men and women in the process of increasing gender equality. This is important because gender equality has moved away from solely empowering women, but now revolves around addressing issues involving both men and women (Maobe & Atela, 2021). Despite the efforts, gender related issues remain prevalent.

Recent research conducted in Nairobi shows some women more vulnerable than others (Madhavan *et al.*, 2021), it is therefore important to recognize that potential intersectionality with other variables (such as age) could lead to different vulnerability patterns. However, the various Kenyan programmes that

aim to empower women suggest that there could be ways of coping that women undertake individually, decreasing their dependency.

Data published by the Kenyan Government in 2019 suggested that out of the about 4.4 million people living in Nairobi, approximately 2.19 million citizens were registered as male, and 2.20 million as female. Only 245 residents got listed as other, or intersex. Kawangware is part of the sub-county Dagoretti, which houses 434.000 residents, 31 of whom are registered as neither male or female (KNBS, 2019a). Specific data from lower scales (like individual neighbourhoods such as Kawangware), however, only included a binary registration; residents are listed as either male or female (KNBS, 2019b). This affects the research design of this thesis, which will be elaborated upon hereafter.

4. Methodology

As mentioned before, according to the most recent data, 245 of the registered residents of Nairobi got listed as neither male nor female (KNBS, 2019). Due to lack of data about Kawangware, the researcher chose to focus on solely two genders. This focus, which might suggest a binary, stemmed from the respondents own identification as male or female. In other words, solely two genders participated in the research, resulting in an analysis of coping strategies of men and women only.

4.1 Research design

To uncover how gender shapes the way in which individuals articulate their coping strategies in Kawangware, specific coping strategies (and their underlying challenges) had to be analysed thoroughly. Therefore, a qualitative research project, focussing on the narratives of individuals, got carried out. Because these narratives are closely linked to perceptions of individuals, the study got based on an interpretive ontology and epistemology, that is to say; it focussed on people's subjective meaning and articulation of their own coping strategies. This interpretivist approach also addressed the issue of lack of consensus on how *coping strategies* should be conceptualised (Eschenbeck *et al.*, 2007). The various ways in which the concept has been conceptualised before did not seem to fit the Nairobi context for various reasons. For example, conceptualisations like 'positive & negative' were considered to be unsuitable due to their subjectivity.

In order to avoid a wrong conceptualisation, and relying on subjective approaches, this research was built on an interpretive approach, namely a narrative analysis. By not choosing a way to conceptualise the concept beforehand, an important risk, namely decontextualising local knowledge by using an unsuitable framework to analyse the data (Budge, 2018), was mitigated. A specific focus got put on the

similarities and differences between male and female articulation of challenges and coping strategies, because the gender dimension repeatedly gets mentioned in vulnerability and coping research.

4.2 Sub-questions & methods

To uncover how gender shapes the ways in which individuals articulate their coping strategies in urban informal settlements in Nairobi, both the cause of required coping strategies (disasters and day-to-day issues) as well as coping strategies themselves were analysed. Moreover, complaints regarding the success of existing coping strategies were included in the research design. Therefore, this research included the following sub questions:

1. How does gender affect the ways in which challenges are articulated in Kawangware?
2. How does gender affect the ways in which coping strategies are articulated in Kawangware?
3. What lessons can be learned from, and what recommendations can be made based upon, how coping strategies are articulated by residents of Kawangware?

These questions form the base of the result sub-chapters, 5.1, 5.2 and 5.3 respectively. All sub-questions were answered with the help of *secondary analysis of qualitative data*, a method that is becoming an increasing focus of interest and discussion (Bryman, 2016). It is still, however, an uncommon method in qualitative research (Dufour & Richard, 2019).

Benefits of *secondary analysis of qualitative data* include that it is both cost and time effective, allows the researcher to make use of high-quality data, allows for subgroup analysis, grants more time for analysis, allows for analysis using an emerging theoretical framework or new analytical tools, allows for outsiders to analyse data, relieves the burden of participation from research participants and makes it possible to do research on vulnerable or hard-to-reach populations without further intrusion (Bryman, 2016, Dufour & Richard, 2019, Ruggiano & Perry, 2017). This research was conducted in little over a month. Because of this limited time frame, doing secondary analysis of qualitative data seemed to be a suitable option. It allowed for in-depth analysis, without having to visit the area and collect data again. Concerns regarding *secondary analysis of qualitative data* include that the researcher is not as familiar with the data as those who collected it, lack of control over data quality, a possible absence of key variables, and a risk of decontextualising the data. Lastly, there are various ethical issues in terms of consent, data sharing and responsibility. These potential issues will be elaborated upon in paragraph 4.3. There are certain concerns that could not be mitigated, like the absence of key variables, lack of certainness of ethical responsibility during the data collection phase, and lack of control over the data quality (Bryman, 2016, Dufour & Richard, 2019, Ruggiano & Perry, 2017). These final ethical issues turned out to be minor, as the transcripts were of high quality, and because the researcher contacted those who collected the data (who eventually verified, and elaborated upon, the ethical responsibility during the data collection). As a result, *secondary analysis of qualitative data* seemed fitting; the benefits

outweigh the drawbacks of secondary analysis of qualitative data, and many of the concerns were mitigated through contact with those who were involved in the data collection, and with people who are familiar with the context.

When doing *secondary analysis of qualitative data*, three recommendations, identified in research on whether this method would be suitable, are of extra importance. Firstly, transparency and clarity have to be increased by describing if and how the researcher was involved in the parent study, and by being clear about whether primary and secondary analysis differ from each other. Secondly, a significant focus has to be put on ethics, including a description of whether ethical approval was obtained and by paying attention to protection of respondents' identities. Finally, limitations have to be clarified clearly (Ruggiano & Perry, 2017). All three aspects have been included in this research, explanations and justifications can be found in paragraph 4.3, 4.4 and the conclusion.

A total of 83 transcripts, including 12 focus group discussions and 71 interviews, were made available by the Preparedness and Resilience to address Urban Vulnerability (PRUV) project. 40 of those discussions were held with respondents from Kawangware, out of those 40, 38 were suitable for this research project (two transcripts had to be discarded for anonymity reasons). An overview of attributes of the respondents of the 38 transcripts can be found in the Appendix II. The transcripts were analysed in ATLAS.ti, based on an inductive coding process, which corresponds to the interpretive research paradigm of the thesis. Inductive codes were crucial to cover context specific factors that did not come forward in literature. Moreover, it allowed for understanding of the participants' articulation of both challenges and coping strategies in their own words. Various steps of inductive coding from two interpretivist research projects in urban informal settlements (conducted in Kenya, Ghana, Zambia and South Africa) were combined to form a clear outline for the coding process of this thesis. In stage one, transcripts were read to identify key challenges and coping strategies. In stage two, the transcripts were read again (with identified strategies in mind) and were formally coded. Moreover, all relevant stakeholders (both individuals and institutions) were listed. Stage three revolved around clustering strategies into themes (and possibly connecting them), the focus was put on both coping strategies themselves, as well as the way in which they were articulated (Behnke *et al.*, 2017, Nyashanu *et al.*, 2020). The secondary analysis of transcripts in ATLAS.ti got supplemented with meetings with, and feedback from, professors at the university of Nairobi. Not only were the professors more familiar with the research context, some of them were also involved in the data collection process, which will be described hereafter.

4.3 Data collection

To answer the research question, data collected in Nairobi (specifically in the urban informal settlement Kawangware) as part of the EU funded PRUV project (EU, 2020) project was used. This project ran from 2016 to 2019, and was coordinated by the National University of Ireland. An EU fund of €1.129.500 allowed the PRUV researchers to conduct research in three cities, namely Bogotá, Jakarta and Nairobi (EU, 2020). Their aim was to uncover how humanitarian action and development aid is undertaken in urban areas, and could be reshaped, to address the challenges posed by urban vulnerability. While the focus vulnerability of the PRUV project and this thesis overlaps, the gender dimension and the focus on articulations of challenges and coping strategies differs. The primary (PRUV) and secondary (this thesis) projects thus differ from each other.

The data used in this thesis got collected in June 2018. The fact that data was collected pre-Covid does not only affect the results (because the identified challenges and coping strategies are expected to be affected by the Covid pandemic), but also the setting in which data got collected (as researchers were able to travel abroad and groups were still allowed to get together to have discussions). The researchers were thus able to conduct research more freely than would be possible in 2022. All researchers were trained, made use of clear guidelines and extensive informed consent forms. Interviewers made sure the respondents were as comfortable as possible, by providing private interview locations and by allowing respondents to choose the language in which the interviews and focus group discussions were conducted.

As mentioned before, and overview of the respondents' characteristics (as well as the sampling criteria) can be found in the Appendix II. The gender distribution of documents was not completely even, but relatively balanced, as it included 17 male, and 21 female transcripts. The transcripts included three kinds of interviews: four were focus-group discussions (which were conversations with about six respondents per group), 21 were in-depth interviews (with 18- to 24-year-olds, specifically aiming to have a balance between male and female respondents) and there were a total of 13 key informant interviews (with community or organisation leaders and members of local organisations). Respondents were grouped into two age groups: "under 24 years old" indicated that a respondent is between 18 and 24 years old and thus belongs to the youth category, "over 24 years old" means they belong to the adult category and are older than 24.

4.4 Ethics and positionality

Research ethics were placed at the forefront of this research. While almost all research projects must deal with ethical considerations, this case is unique because it made use of data from other researchers. The main ethical issues in *secondary analysis of qualitative data* revolve around consent, data sharing and responsibility (Bryman, 2016, Dufour & Richard, 2019, Ruggiano & Perry, 2017). These several ethical concerns got addressed throughout the entire research process. First, the consent form was examined previous to the research, to find out whether the PRUV data would be transferable. After official approval, the transcripts got shared in a password-protected folder via Unishare and were anonymized completely. The transcripts that included minors were not made available due to additional ethical concerns. Following the data-sharing process, the transcripts got put into ATLAS.ti, and were deleted after the analysis. The content of the transcripts could not be discussed with people who were not involved with this research project, therefore the supervisor and researcher discussed possibilities of what to do if sensitive topics came up. The transcripts included many sensitive personal stories, some of which were discussed during supervisor meetings. A last major ethical concern revolved around the responsibility of giving back, therefore the researcher aims to create additional output, possibly in collaboration with the university of Nairobi.

Other ethical issues associated with qualitative research were beyond the reach of this project, as they relate to the process of data collection. These issues, however, were considered during the data selection process. When conducting secondary analysis of qualitative data, it is important for the researcher to verify if the data got collected ethically. Luckily, the PRUV project adhered to strict guidelines in terms of data collection and data sharing, as described in section 4.3. Those who collected the data were trained and made sure all the information remained confidential. Next to that, they made use of a clear consent form, and only made data available of parts of the project that allowed for this. For this reason, the focus groups with minors were not included in this research.

All transcripts were analysed by one female researcher from the Netherlands, who was not involved in the primary PRUV research project and therefore had minimal knowledge about the Nairobi context. This lack of knowledge supported the choice for the interpretive epistemology and ontology of this thesis, and allowed for analysis from an outside perspective, which is considered to be one of the main benefits of *secondary analysis of qualitative data* (Ruggiano & Perry, 2017). The thesis supervisor, on the other hand, was involved with the PRUV research project. To limit subjectivity, the supervisor was not involved in the coding and analysis process of this thesis. Sensitive topics that arose during the analysis, however, were discussed by the researcher and supervisor. The researcher does not encounter extreme risks in daily life, and never has to resort to what could be considered ‘shocking’ coping strategies, as opposed to young women in urban informal settlements in Kenya. When needed, the supervisor offered to help process thoughts related to sensitive topics that got mentioned in transcripts.

While this research aimed to include other variables (such as age and ethnic background) when deemed important, not everything could be included in the analysis due to the limited time and resources. Even though these variables were included in the analysis when deemed important, there was no predetermined focus on age (that is to say, it was not included in the theoretical context) because respondents' age could not be derived from every transcript due to the anonymisation that took place beforehand. This also goes for ethnic background, this variable was not present in the majority of the transcripts. Since both age-related issues and tribalism play an important role in urban informal settlements in Nairobi, as became clear while analysing the transcripts, these variables could be included in future data collection and analysis. An additional limitation of this thesis is that only one informal settlement got analysed, even though data from two settlements was made available. Due to time constraints, the remaining settlement (Kibera) did not get included in the research. However, because challenges in Kawangware are representative for issues that are experienced in informal settlement in general (Mpanje, *et al.*, 2022), analysis of coping mechanisms and the efficacy thereof could benefit residents in other settlements too. Moreover, it is important to consider that the data of this research got collected pre Covid-19. Current challenges that require coping strategies, as well as current coping strategies itself, could be heavily affected by Covid-19. New data, collected during or after the Covid-19 pandemic, could provide additional insights on coping strategies used during pandemics.

5. Results

5.1 Challenges that require coping

Before coping strategies can be identified, it is crucial to understand what challenges are present in Kawangware. Both men and women from the settlement mainly mentioned daily challenges, while very few respondents focussed on disasters. Broadly, all issues can be categorised into seven categories: 1) Money (mentioned directly), 2) Health, 3) Housing, 4) Employment, 5) Public facilities, 6) School, 7) Safety, violence & substance abuse.

All problem categories got recognised and mentioned by male and female respondents, although specific challenges differed. Problems related to *lack of money* specifically (preventing people from accessing services or buying necessities), without linking it to other problems such as employment, got mentioned by both men and women, although more often by men. *Health* related issues such as diseases, malnutrition and lack of drinking water got mentioned more often by women. Something that stood out is the fact that 'lack of employment opportunities' (belonging to the *Employment* category) was the issue that got mentioned most often by both men and women. Interestingly, only women focussed on the

gender dimension. Sometimes female respondents stated that women are disadvantaged when entering the job market;

Interviewer: *“We have said in terms of gender; let me say male and female, who are facing many hardships to get job opportunities?”*

Respondent (Female Kawangware resident, under 24 years old): *“Females, because sometimes you get a lady that has a child at teenage stage, so it becomes difficult for you to leave your child and go to seek for jobs”*

Other women argued it is easier for them to find a job, as compared to men;

Interviewer: *“Between the men and the women, who among them find it hard to get the jobs?”*

Respondent (Female Kawangware resident, over 24 years old): *“The men, because mostly they are the ones who cannot get out of the house and go to the offices and seek for employment. You know, the girls can at least move from here and look for the jobs but the men can’t”*

When looking at *public facilities*, issues regarding garbage disposal and insufficient sewage systems got mentioned by both genders. A few individuals highlighted issues related to *schools*, like the quality of schools, the total number of public schools in the area, and crossover issues (like children inhaling glue at school, being a school- and drug-related problem). The final category, *Safety, violence & substance abuse*, seemed to be the most extensive and pressing issue, meaning that this category included the widest variety of issues. Examples of these problems include gender-related violence, theft, rape, child abuse, orphans (children living on the street, the so-called ‘bush babies’), and teen pregnancies. While both genders recognized most of these issues, women did so more often and in more detail. Additionally, there is a clear gap between the number of men and women who articulated their concerns about gender-related violence and abuse. Female respondents expressed concerns more often, and were also the only ones who focused on the potential of male victims, stating *“... a husband being beaten by wife ... they are there”* (Female Kawangware resident, over 24 years old). The problem of substance abuse seems to be the second most mentioned issue, after lack of employment opportunities. An additional interesting aspect of the *Safety, violence & substance abuse* category is that in the case of six specific challenges (safety on the street, domestic violence, child abuse, gender-based violence where women are victims, rape, and drug abuse) one or more male individuals argued that these issues were not present in Kawangware, while multiple female respondents stated that these problems were prevalent.

In addition to the seven aforementioned categories of day-to-day challenges, one woman and one man mentioned weather related disasters, which could lead to flooding. Additionally, a large number of people from both genders stated that post-election violence was considered a big problem too. Important to note is that most categories can be linked to money, either directly or indirectly: *not having money* seems to be an underlying issue which makes people incapable to directly cope with issues.

Interviewer: “*Are there obstacles when it comes to accessing these services?*”

Respondent (Male Kawangware resident, over 24 years old): “*Money*”

Interviewer: “*Money?*”

Respondent: “*Yes, money is everything*”

In short, the challenges that got mentioned by respondents in Kawangware can be sorted into seven categories: 1) Money, 2) Health, 3) Housing, 4) Employment, 5) Public facilities, 6) School, 7) Safety, violence & substance abuse. While both genders recognised issues in all categories, women were the ones who repeatedly focussed on the gender dimension and argued that both men and women can experience more issues, depending on the situation.

5.2 Coping strategies

To cope with the aforementioned challenges, individuals can make use of coping strategies (Eschenbeck *et al.*, 2007). The respondents from Kawangware mentioned a wide range of strategies that can be sorted into three categories: 1) Seeking help from institutions or groups, 2) Seeking help from individuals, and 3) Personal solutions.

5.2.1 Seeking help from institutions and groups

The largest and most frequently mentioned category is *Seeking help from institutions or groups*. Both men and women argued they often rely on support from various institutions like governmental institutions, Non-Governmental Organisations (NGOs), Community-Based Organisations (CBOs), and Faith-Based Organisations (FBOs). Many men and women emphasised the importance of the church or mosque, and church-based groups, in times of difficulty.:

Interviewer: “*Okay and when people have problems in this area, whom do they run to mostly? ... Where do most people seek help from?*”

Respondent (Female Kawangware resident, over 24 years old): “*The church*”

Reasons for this were comparable between the two genders: many argued they could go to the church for food, financial assistance, and just to talk to someone. Some also stated they go for education, to have a place to stay, and for counselling.

One of the strategies that got mentioned most often is to join, or form, a Chama (Kiswahili for ‘Group’). Chama’s are informal savings groups, of which many Kenyan residents are a part of. These groups got mentioned most often by women, and also often got linked to women or get referred to as ‘women investment groups’. There are many variations, such as merry-go-rounds (where each member contributes a fixed amount of money at a fixed time, whereafter the contributions are passed on to members in rotating turns (Chepngeno, 2014)) and table banking, as stated by a respondent: *“There are women groups consisting of merry-go-rounds and table-banking”* (Female Kawangware resident, over 24 years old), *“they help you raise a fee to cater for the funeral, School fees also, and Wedding events”* (Female Kawangware resident, under 24 years old). The same goes for taking out a loan from an established formal institution, like banks: *“Residents here usually run to equity bank as it provides loans so long as you have saved with them”* (Male Kawangware resident, over 24 years old). However, most respondents stated that the Chamas are preferred due to their low interest rate *“it is now easy to take a loan from the community groups and they have lower interest rates as compared to the banks”* (Male Kawangware resident, over 24 years old).

Other groups that got mentioned frequently in the *Seeking help from institutions or groups* category were various NGOs, such as Liverpool Voluntary Counselling and Testing (LVCT) , Federation of Women Lawyers (or Federación Internacional de Abogadas (FIDA) Kenya), Plan International, African Medical & Research Foundation (AMREF), World Vision and Red Cross. While many NGOs aimed to help all people, the few gender-specific NGOs seemed to assist women only. Interestingly, women mentioned help from NGOs significantly more often than men. The issues these organisations address vary from malnutrition to gender-related violence.

Respondent (Female Kawangware resident, over 24 years old): *“People here usually contact the NGOs for assistance”*

Interviewer: *“Which ones?”*

RES: *“Such LVCT and AMREF ... AMREF and LVCT are very accessible”*

Interviewer: *“In the organisations mentioned above, do you think there is fair representation in terms of characteristics?”*

Respondent: *“There is a mixture of both genders”*

There are cases in which women do receive help from NGOs, while men do not: *“Dreams is for only girls, though we would like any kind of help coming in for the boys for they have been neglected”* (Female Kawangware resident, over 24 years old). The need for care for young boys specifically only got mentioned by female respondents.

Respondent (Female Kawangware resident, over 24 years old): *“For instance we have such like group here we call ‘bush baby’. These are street boys, who are feared by the community ... at times we find those who have been beaten up and would tell you that they were mistaken for thieves ... The ‘bush baby’ is just like your kid, there’s no need of seeing them as being dangerous ... People would normally call them ‘chokora’ which we felt isn’t a good name, and you would observe that they like staying in the bush, and they are just like babies, the youth. So, you see ‘bush baby’ makes them feel loved, some after using the drugs would lay on the grass, that’s why we called them ‘bush baby’. ... When we go there, we tell them ‘Bush babies we’ve come to see you’ rather than using the ‘chokora’ or ‘vijana wa madawa’ (boys who use drugs) which annoys them”*

Respondent (Female Kawangware resident, over 24 years old): *“There is a bush with children we call bush babies. We changed the name because we discovered they are not really street children; they belong to us”*

Lastly, within the *Seeking help from institutions and groups* category, governmental institutions got mentioned. Not just the Ministry of Health, but also organisations it is affiliated with, seemed important to both men and women. The National Youth Service (NYS) was set up by the government, so were funding programs like the Women Enterprise Fund (WEF) and Constituency Development Fund (CDF).

Interviewer: *“How do you describe your [and your organisations’] relationship with the government and more so the ministry of health?”*

Respondent (Male Kawangware resident, over 24 years old): *“Let me say satisfactory because I’m avoiding the word excellent”*

Interestingly, many of the aforementioned groups seem to provide a way of coping with the issue of *lack of money* in general.

Interviewer: *“Let’s look at the CBOs, Self-help groups and the Youth groups. What are their common objectives?”*

Respondent (Male Kawangware resident, over 24 years old): *“Most of them have an objective of accessing money because people want to access money, So, it’s like a formal way of accessing money”*

In short, in the *Seeking help from institutions or groups* category, both men and women emphasize the importance of the church and church-based institutions. Acquiring money via Chamas or by loans from banks were considered to be important according to both men and women, but women articulated relying on these groups for coping relatively often. Moreover, NGOs seem to assist individuals according to the respondents, mainly according to women. However, female respondents also stated that boys should receive more help. Both genders also mentioned help from the government and governmental institutions. A complete overview of all mentioned groups and institutions is provided in Appendix III.

5.2.2 Seeking help from individuals

The second coping category revolves around men and women *Seeking help from individuals*. This category includes some gender differences. Most women argued they, in times of crises, would seek help from family, friends, the chief, the pastor or God. Men, on the other hand, state ‘people in general’ (not always necessarily themselves) turn to friends, but they themselves go to the community elder, the MP, the (sub-)chief and the imam.

Respondent (Female Kawangware resident, over 24 years old): *“You see like me, when I have a problem, I don’t tell everyone my problems. I will tell those who were my best maids in my marriage”*

Respondent (Female Kawangware resident, under 24 years old): *“If I have an emergency I will call my mother first”*

Interviewer: *“Okay and within your locality?”*

Respondent: *“No one”*

This final quote is representative of how most women felt, as there generally was little trust between neighbours: *“It’s only greetings with your neighbour; In Nairobi you have no neighbour”* (Female Kawangware resident, under 24 years old). If necessary, one could seek help from neighbours as *“You may go to someone within the neighbourhood that you can trust”* (Female Kawangware resident, over 24 years old).

The individuals men tended to turn to when in need of help partially overlap with women. Only the MP and community elder got mentioned more often by men. While women often mentioned turning to the chief, men highlighted the importance of the sub-chief because they are easier to reach, stating *“The caretaker solves the small issues. For the big ones we look for the village elders. If it exceeds, we go to the assistant chief”* (Male Kawangware resident, over 24 years old). However, the feeling of lack of trust between neighbours was also experienced by men. Similar to women, the men who said they did trust a neighbour, also said it was conditional *“[for help] I will go to the neighbour on condition they are not people who gossip”* (Male Kawangware resident, over 24 years old).

Interviewer: *“Is it true that people are concerned with their own families and not the community?”*

Respondent (Male Kawangware resident, over 24 years old): *“We agree ... People do not help each other”*

In short, within the *Seeking help from individuals* category, people such as the chief, pastor/imam, family and friends seem to be trusted and therefore are asked for help by both men and women. Additionally, multiple women explained they turn to God when seeking help. Both genders also stated they would rarely rely on assistance from neighbours as a coping strategy.

5.2.3 Personal solutions

The final category revolves around *Personal solutions* that are undertaken by individuals themselves. Women indicated that looking for a new or additional job could be helpful when in need of money: *“People are now relying on themselves more by looking for casual jobs for upkeep”* (Female Kawangware resident, over 24 years old). This strategy also seems to directly tackle the general issue of *not having money* (making people incapable to directly cope with challenges). Additionally, there are solutions that do not directly address the need for money, but can be related to it. For example, both men and women stated that young people are likely to cope in other, illegal ways. One female respondent said they were sure it was mostly boys who rely on this way on dealing with issues.

Interviewer: *“It’s commonly said that lack of basic needs lead people to crime. Is this true?”*

Respondent (Male Kawangware resident, under 24 years old): *“There’s truth in it. Most people do this to survive”*

Interviewer: *“What are some of the challenges the young people face?”*

(Female Kawangware resident, under 24 years old): *“Lack of employment opportunities which leads to the involvement of drugs and theft”*

This coping strategy, theft, warrants attention because many respondents phrased 'crime' as both a challenge that requires coping, and a coping strategy itself. This could potentially lead to a downwards spiral. While theft got phrased as a male coping strategy, prostitution seemed to be its female counterpart.

"You know, we have different levels of our...in terms of poverty. There are people who find it difficult to even get food. So, you just find a way of assisting ... some who have decided to do it like the sex workers. They survive through sexual relationships so that they get their daily needs"
(Male Kawangware resident, over 24 years old).

Additional individual coping strategies mentioned by women include relocation and protesting. Relocation seems to help women cope with issues such as post-election violence or not being able to pay rent: *"Some opt to go upcountry when paying rent becomes too much"* (Female Kawangware resident, over 24 years old). One female respondent stated that she, together with a group, would protest if it was noticeable that things are going wrong: *"when people see that things are not going on as they are supposed to, we walk together and protest"* (Female Kawangware resident, over 24 years old). Other strategies that got mentioned by both genders seemed to be very specific solutions to challenges, such as boring holes and selling water for extra income (as water is scarce). Finally, one coping strategy mentioned by one male and one female individual was to not stress about problems:

Interviewer: *"Now in terms of networks, is there a way in which our networks help us develop resilience?"*

Respondent (Male Kawangware resident, over 24 years old): *"It depends with how much you are relaxed ... being relaxed help you to be comfortable. So, these [poor] people, when you talk to them, they don't fear dying. So they are just there...they are not stressed up. They take life the way it is. So that is one way you find people who are poor don't even get sick"*

Interviewer: *"What are some of the essential aspects of social relationships that help people cope with daily challenges?"*

Respondent (Female Kawangware resident, under 24 years old): *"First of all, it is by expressing yourself for someone to help you; second is being free and being relaxed, if not you will end up being depressed and stressed"*

In short, individual actions that got mentioned by Kawangware residents include looking for a job, theft (mainly men), prostitution (mainly women), relocation, protesting, and finally: not stressing.

Summarising, the coping strategies that got mentioned by women and men from Kawangware can be sorted into three categories: First, *seeking help from institutions or groups*, which includes help from church and church-based institutions, joining a Chama (which was considered to be important for both men and women, but women mentioned this strategy more often) or taking out a loan from a bank, seeking help from the government and NGOs (that mainly got mentioned by women, who also stated that boys should receive more help as some NGO only focus on girls). Secondly, *seeking help from individuals* revolved around assistance from individuals. People such as the chief, pastor/imam, family and friends seem to be trusted and therefore are asked for help by both men and women. God was mentioned as a source of help by women only. Additionally, both genders repeatedly stated they would rarely rely on assistance from neighbours as a coping strategy. Lastly, the category *personal solutions* included individual coping strategies like looking for a job, theft (mainly men), prostitution (mainly women), relocation, protesting, and ‘not stressing’.

5.3 Perceived ‘insufficient coping’ & recommendations

Based on the experiences of individuals in Kawangware, recommendations can be made. In order to do so, it is not only important to look at the articulated challenges, but also at existing coping mechanisms: According to Kawangware residents, what coping strategies did and did not work, and were or were not considered to be positive?

Because most of the seven mentioned challenges (Money, Health, Housing, Employment, Public facilities, School, Safety, violence & substance abuse) are related to money, both strategies that allow for a safe way to acquire this, as well as NGOs who tackle underlying issues, seemed helpful. The strategies that allowed people to earn money include Chamas, taking out loans from a bank, or looking for a new or additional job. These last two strategies appeared to cause problems. Getting a loan from a bank was experienced as a difficult process by both men and women, which is why most people turned to Chamas. A problem that people find more difficult to cope with is the lack of employment opportunities. Most respondents also argued it is difficult to find a job that is not precarious and that will provide a stable income, instead they just ‘hustle’: “*I don’t have a permanent hustle, there are usually several*” (Male Kawangware resident, over 24 years old). Lack of enjoyment opportunities is seen as a big problem, especially because a lot of efforts are made to make sure both boys and girls can go to school. However, even if educated, people cannot find a job because these jobs are not available, as explained by residents: “*There are no jobs here you know even is someone has gone to school, there is no job*” (Female Kawangware resident, over 24 years old). While some argued this issue is not related to gender, stating that “*it is difficult for both men and women*” (Female Kawangware resident, over 24 years old), some women made a distinction, arguing that it could be more difficult for men or women to find a job, depending on the situation. Therefore, job opportunities have to be created for both men and women. This would also address the problem of the potential downwards crime and theft spiral, as

crime gets seen as both a challenge that requires coping and a coping strategy in itself, it is thus an endless circle. By providing job opportunities, this circle can be broken out of.

Additionally, help from NGOs was considered to be a positive coping strategy. Respondents explained that organisations like AMREF help pay school fees and treat malnutrition cases. The positive feeling towards this organisation stems from their actions: they respond quickly and are open to suggestions from the community. The same goes for LVCT, whose activities include, but are not limited to, helping people find jobs and assisting in HIV prevention. Praise for this organisation is based on the feeling that they benefit the entire community. One respondent explained *“LVCT is important for me because it gave me a chance ... a chance to go back to school. I studied catering, it is so important. I never knew I would go to school after I delivered a baby”* (Female Kawangware resident, under 24 years old). Unfortunately, many individuals also reported that some NGOs in the area (namely Afya-Jijini, Plan International and ACCS) do not benefit the community. It is thus important to evaluate which NGOs provide what services in the area. Additional research could show which organisations actually benefit the community. Consequently, these organisations should receive funding. One final issue that affects many individuals is not being able to rely on the police in times of crisis. Many men and women argued the police could not be trusted, which is why they relied on other mechanisms of coping.

“This police cannot help you nowadays, you can go report a rape case and the only thing they will help you is filling the papers and when you tell them to get the person who did it, they say they need fuel, so I cannot say the police help in any way” (Female Kawangware resident, under 24 years old).

“You might be mistaken to be the one who committed whatever vice it is” “They [police] tend to assume you’re a troublemaker simply because of your hair” (Male Kawangware resident, under 24 years old).

A final recommendation that could benefit the community is close collaboration between NGOs that are considered most beneficial for the community and community workers. These workers could be former Community Health Volunteers, or potential ‘volunteers’. However, instead of volunteering they should get paid. Not only does this ensure that local knowledge is involved when NGOs try to provide coping mechanisms and solutions, but it also helps to solve one of the main challenges in Kawangware; lack of employment opportunities. This solution got suggested by one respondent: *“These community health workers need to be helped, they should be at the forefront, and they should be earning something ... something small even, which can pay for their rent at the end month”* (Male Kawangware resident, over 24 years old). This corresponds to the ‘time is money’ feeling that was present during many interviews.

“What I can tell you is that many would only join if it involved payment” (Female Kawangware resident, over 24 years old).

“You know people were appointed to be the heads of various houses, but then they have been reluctant because they are not paid, so it has been very hard. You know in Kenya people know that when you do a job you must be paid” (Male Kawangware resident, over 24 years old).

“This community work wants a person to sacrifice their time and that time I’m supposed to be hustling ... Only God pays for this community work, if I sacrifice for it then me and my child we are going to die of hunger” (Male Kawangware resident, over 24 years old).

Concluding, on the one hand it is important to look at, and support, coping strategies that are perceived as successful and beneficial, such as the existence of Chamas and helpful NGOs like AMREF and LVCT. Additional research could show why certain services are deemed as useful, which could lead to recommendations of the implementation of future solutions by organisations like AMREF and LVCT. On the other hand, it is crucial to listen to which coping strategies do not seem to be successful and which organisations or institutions do not benefit the community. Respondents mentioned they considered certain NGOs, as well as the police, to be unreliable. One respondent also argued that the number of organisations in the area was too high. Evaluation of institutions and organisations in the area could lead to a better understanding of who are actually supporting the community. Thereafter, close collaboration between NGOs and local workers, who should get paid for their work instead of volunteer, could ensure that local knowledge gets used and that more job opportunities are created.

6. Discussion

According to Kawangware residents, a number of challenges make coping strategies necessary. Both men and women stated that they experience challenges in seven categories: Money, Health, Housing, Employment, Public facilities, School, and Safety, violence & substance abuse. In literature, both big events (such as disasters) (Eriksen *et al.*, 2005) and day-to-day challenges (Almeida, 2005) get emphasised. However, the seven categories from Kawangware all belong to the latter: they are daily issues. This corresponds to literature that highlights the prevalence of everyday hazards in urban informal settlements, where it is difficult to make a distinction between disasters and non-disaster events, since ‘small’ issues are widespread and can accumulate and thus form a hazard (Adelekan, 2019, Bull-Kamanga *et al.*, 2003). To cope with these daily issues, respondents stated they rely on strategies from three categories: namely *seeking help from institutions or groups*, *seeking help from individuals* and

personal solutions. Specific solutions within these categories sometimes differed per gender, as will be explained in the next paragraphs. This corresponds to what a select group of scholars have highlighted in literature, namely the fact that gender affects coping (Oldewage-Theron *et al.*, 2006), but goes against another group who argue there is no difference in gender regarding coping strategies (Osuret *et al.*, 2016). It also goes against the idea of women being more vulnerable due to their dependency on men (Beyer *et al.*, 2016), because the Kawangware case shows that women undertake individual steps to earn money to cope with challenges.

While all challenge categories got recognized and mentioned by both genders, specific challenges differed. *Health* related issues such as diseases, malnutrition and lack of drinking water got mentioned more by women. *Employment* related challenges, specifically lack of employment opportunities, was the issue that seemed to impact both genders equally. This partially corresponds with the notion that low income is one of the main challenges experienced by women in informal settlements (Al Helal, 2012). Men in Kawangware, however, struggled with this too. Research shows that men experience more daily life issues at work (Almeida, 2005), but in this case, the prerequisite (securing a job) is not always met. In the urban informal settlement Kawangware, both men and women argued they struggle with low income and stable employment positions. Interestingly, only women focussed on the gender dimension, sometimes stating that men are advantaged and other times stating women have a clear advantage when entering the job market. In previous research, solely the vulnerable and disadvantaged position of women got highlighted (Al Helal, 2012), which shows a need to evaluate existing conceptualisations to include male vulnerabilities. This is important because in Kawangware, the underlying issues of *not having money* makes both men and women incapable to directly cope with problems. Within the categories *public facilities* and *schools*, issues got mentioned by both genders. These categories, and their corresponding challenges, did not come forward in literature. The final category, *Safety, violence & substance abuse*, included a wide variety of issues, like gender-related violence, theft, rape, child abuse, orphanage (or ‘bush babies’), and teenage pregnancies. Not only did women articulate these challenges more often, but they were also the only ones who focused on male victims of gender-related violence. An additional interesting aspect of the final category is that in the case of six challenges (namely *safety when being outside, domestic violence, child abuse, gender-based violence where women are victims, rape, and drug abuse*) one or more male individuals argued that these issues were not present in Kawangware, while multiple female respondents stated that the issues were prevalent. The focus on, and recognition, of these *Safety, violence & substance abuse* challenges corresponds to what is being concluded in literature. Scholars argue that gender-related violence, as well as physical and sexual abuse, are some of the main challenges women in urban informal settlements face (Al Helal, 2012). In addition to the seven categories of (day-to-day) challenges, one woman and one man mentioned weather related disasters, which could lead to flooding. This could be considered a seasonal problem related to weather, that has been recognised as an issue for women in informal settlements (Al Helal, 2012).

When looking at the coping strategies men and women from Kawangware use when dealing with aforementioned challenges, three categories can be discovered, namely *seeking help from institutions or groups*, *seeking help from individuals* and *personal solutions*. Within the first category, *help from institutions*, both men and women emphasised the importance of the church and FBOs. Additionally, acquiring money via a Chama or by taking out a loan from a bank got mentioned by both men and women, but more often by female respondents. Research shows that during both ‘normal times’ and times of disaster, it is more difficult for women to get loans (Wisner & Henry, 1993). Women in Kawangware reported a similar struggle, which is why ‘informal women investment groups’, or Chamas, are very popular. Women also stated that certain NGOs (some of which focus on women and girls only) are helpful, but that boys should receive more help too. Both genders also mentioned help from the government and governmental institutions. The next category, *Seeking help from individuals*, revolved around men and women arguing that certain individuals (such as the chief, pastor/imam, family and friends) could be trusted and therefore were asked for help. While something that resembles this category did not come forwards in the literature review, it is argued that women tend to deal with stressors through emotional support, and by expressing their own emotions, more often than men (Oldewage-Theron *et al.*, 2006). This notion came forward in the experience of female Kawangware residents through the strategy of turning to God for emotional support. The third coping strategy category, *personal solutions*, included a wide range of actions that can be undertaken by an individual. Solutions that got reported by Kawangware residents include looking for a job, theft (mainly by men), prostitution (mainly by women), relocation, protesting, and ‘not stressing’. These strategies overlap with what has been argued in literature in various ways. Firstly, in challenging times both men and women have been proved to rely on casual labour (Masese & Muia, 2016). In Kawangware, men and women stated they have to ‘hustle’, because they do not have a stable income. Secondly, previous research shows men more often rely on crime and substance abuse (Masese & Muia, 2016), while women are sometimes forced to turn to high-risk activities like prostitution (Wisner & Henry, 1993). This is similar to what the respondents argued is happening in Kawangware: men tend to turn to theft and substance abuse, and some women are forced into prostitution. A last strategy that got pointed out by a men and women is to ‘not stress’ or ‘stay relaxed’, because stressing about problems in the informal settlement would cause a permanent state of distress. This aspect also got highlighted in literature: “*The daily life of many people alive today is a ‘permanent emergency’*” (Wisner & Henry, 1993). This also corresponds to the idea of everyday hazards (Bull-Kamanga *et al.*, 2003); daily issues accumulate and cause a permanent state of disaster. An aspect that came forward in literature but that did not correspond to the situation in Kawangware is that women are often dependent on others as they are not the main breadwinner, which could cause problems because they do not have their own money in times of crisis (Beyer *et al.*, 2016). In Kawangware, many women reported that they too ‘hustle’ and belong to investment clubs and Chamas.

7. Conclusion

This research focussed on coping strategies and their underlying challenges in urban informal settlements in Nairobi, as explained by residents of Kawangware, aiming to answer the following question: *How does gender shape the way in which individuals articulate their coping strategies in urban informal settlements in Nairobi?*

Findings showed that, in Kawangware, gender shapes both *which issues* (that require coping) get recognised, and *what coping strategies* are used, by individuals. Women articulated ways of coping that emphasised their individuality (like ‘hustling’ and joining Chamas), which goes against the idea of women being more vulnerable due to their dependency on men (Beyer *et al.*, 2016). Female vulnerabilities, however, remain prevalent in the settlement. According to the respondents, various challenges in Kawangware make coping strategies necessary, including challenges related to: Money, Health, Housing, Employment, Public facilities, School, and Safety, violence & substance abuse. In literature, both disasters (Eriksen *et al.*, 2005) and daily challenges (Almeida, 2005) get highlighted. The seven challenge categories present in Kawangware, however, all belong to the latter category: daily issues. While all categories of challenges got recognized and mentioned by both men and women, specific problems differed. *Health* related issues got mentioned more by women, while both genders focussed on the categories *public facilities* and *schools*. *Employment* related challenges were argued to affect both genders. Scholars argue low income is one of the main challenges experienced by women in informal settlements (Al Helal, 2012), but the fact that Men in Kawangware experience the same issue shows a need to include male vulnerabilities. Issues from the *Safety, violence & substance abuse* category got mentioned most often by women, who were also the only ones who focused on male victims. Moreover, some men argued that six issues within this category were not present in Kawangware, while most female respondents stated that the issues were prevalent. In addition to the daily challenges, one woman and one man mentioned weather related disasters.

To cope with the aforementioned challenges, respondents stated they rely on strategies from three categories: namely *seeking help from institutions or groups*, *seeking help from individuals* and *personal solutions*. Specific solutions within these categories sometimes differed per gender, which corresponds to what a select group of scholars have highlighted in literature, namely the fact that gender affects coping. It goes against the idea of women being more vulnerable due to their dependency on men (Beyer *et al.*, 2016), because the Kawangware case shows that women undertake individual steps to earn money and cope with challenges. Within the *Help from institutions* category, both men and women mentioned the church, FBOs, and the government. Chamas and loans from banks seemed important to both men and women, but women articulated relying on Chamas for coping more often. Additionally, women also

stated that certain NGOs (some of which focus on women and girls only) are helpful, but that boys should receive more help too. The next category, *Seeking help from individuals*, included help from individuals like the chief, pastor/imam, family and friends. Additionally, female Kawangware residents argued they turn to God for emotional support. The third coping strategy category, *personal solutions*, included solutions like looking for a job, theft (mainly men), prostitution (mainly women), relocation, protesting, and finally: not stressing.

The method of *secondary analysis of qualitative data* did not result in a comprehensive way to conceptualise these strategies, as they vary by context, which could explain why the majority of research on coping lacks a conceptualisation. However, *secondary analysis of qualitative data* did show that the inclusion of everyday hazards (in efforts to reduce disaster risk) is crucial, as these daily issues got mentioned most often by all respondents. Even though these conclusions were based on narratives from one informal settlement, the lessons learned can be useful for policymakers who want to address remaining challenges. Moreover, experiences of successful coping strategies could help uncover opportunities that can be transferred to other informal settlements that struggle with similar challenges. This is why the 'positive & negative' conceptualisation could be useful during analysis, but only if it were to be included in an interpretive way, as this would show what residents consider to be helpful. Afterwards, it is crucial to support coping strategies that are perceived as successful and beneficial, such as the existence of Chamas and NGOs like AMREF and LVCT. Respondents praised these organisations because they respond quickly, are open to suggestions from the community and benefit the entire community. Additional research could show why certain services are deemed as useful, which could lead to the implementation of similar solutions by organisations such as AMREF and LVCT in other urban informal settlements. Moreover, it is critical to consider which coping strategies or institutions did not seem to be successful. Respondents mentioned they considered certain NGOs, as well as the police, to be unreliable. Evaluation of institutions and organisations in the area could lead to a better understanding of who are actually supporting the community. Thereafter, close collaboration between NGOs and local workers, who should get paid for their work instead of volunteer, could ensure that local knowledge gets used and that more job opportunities are created. Finally, while female vulnerabilities must be considered in research, it is important to include male vulnerabilities because they too need assistance with coping with certain issues. Next to the inclusion of male vulnerabilities, it is important to recognise intrinsic skills of all genders in order to create an all-encompassing view on coping strategies, which could in turn lead to possible transfer of strategies to other contexts, ultimately reducing consequences of disasters and everyday hazards.

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9. Appendix

Appendix I: Coping strategies mentioned in literature

It is important to note that this literature review did not include all coping strategies, as this was not possible due to the time constraints. Instead, a literature review was conducted on all coping strategies (or ‘coping mechanisms’ and ‘ways of coping’) in urban informal settlements (or ‘slums’, even though this term is seen as derogatory) or in Nairobi in general.

Coping strategy	Used by men*	Used by women*	Source
Casual labour	Yes	Yes	Masese & Muia, 2016
Relying on men (for money)	No	Yes	Beyer <i>et al.</i> , 2016
Taking out a loan	Unknown	Yes	Wisner & Henry, 1993
Food aid	Unknown	Yes	Masese & Muia, 2016
Crime	Yes	Unknown	Masese & Muia, 2016
Substance abuse	Yes	Unknown	Masese & Muia, 2016
Prostitution	Unknown	Yes	Wisner & Henry, 1993
Expressing emotions	Unknown	Yes	Oldewage-Theron <i>et al.</i> , 2006
Endurance	Unknown	Yes	Swart, 2012
Faith	Unknown	Yes	Swart, 2012
Escape	Unknown	Yes	Swart, 2012

* According to literature

Source: Table made by Dikkerboom

Appendix II: Overview of used data, made available by the PRUV project

Number of Kawangware transcripts: 40

Number of used transcripts: 38 (2 could not be used because they were too anonymised (gender dimension removed))

Type of transcript	Sampling	Gender distribution	Total
Focus Group Discussion	Residents of Kawangware that could provide informed consent (both youth and adults)	2 male groups 2 female groups	4
In Depth Interview	18- to 24-year-olds, aiming for a balance between men and women	7 male individuals 14 female individuals	21
Key Informant Interview	Community leaders, NGO/CBO officials and volunteers, members local organisations	8 male individuals 5 female individuals	13

Appendix III: List of mentioned groups and institutions

The following list includes NGOs, CBOs, FBOs, governmental institutions, and individual groups (like specific Chamas) that got articulated by the respondents from Kawangware. The overview also include if the group or institution was mentioned once (by one individual), a few (by two to five individuals), or often (by more than five individuals).

Organisation, institution or group	Mentions
1190	Once
ACCS	Few
Afya Plus	Few
Ahmud	Once
AMREF	Often
APDK	Once
The bank (providing loans)	Few
Catholic Mission	Once
CDF	Few
CHAK	Once
'Chamas'	Often
Child Fund	Few
Children of promise	Once
The church	Often
Compassion Kenya	Once
Coptic	Once
CUZO	Few
Dagoretti District Welfare Association	Once
Dagoretti District Muslim Organisation	Once
Dimamu	Once
DREAMS	Few
Ekenyoro	Once
Emmanuel	Few
FIDA	Few
Furahia	Once
Generation Kenya	Once
Gussi Jamii	Once

Inka World Fare	Once
Inkaa Welfare Association	Once
Jambo Shule	Once
Jihusishe	Once
JINUE	Once
Joy 2016	Few
Joy Group	Once
Kabiro	Few
Kamuga	Once
Kawairu	Once
Kawangware Youth Strategic Unit	Once
Kings and Queens	Once
KISE	Once
Kivuli Centre	Few
KWFT	Once
Lea Toto	Once
LEILA	Once
LVCT	Often
LVCT-Dreams	Few
LVCT-Prep	Once
Maisha Poa	Few
MDM	Few
Minto Welfare Group	Once
NACADA	Once
Nairobi Women	Few
Ngong' Road Children Association	Once
Nilinde	Once
NVCT	Once
NYS	Few
Otiende Sisters	Once
Pamoja Trust	Once
Path Finder	Once
PCEA	Once
Plan International	Few
PREF	Once

Punguza Mzigo	Once
Red Carpet	Once
Red Cross	Few
Sams40	Once
SASA	Once
Umbrella	Once
UWEZO Fund	Once
Virgil Youth Group	Once
Vulala	Once
Wendani	Once
Women Group of Kawangware	Once
World Vision	Few
Young Women Generation	Once
Young Youths of Kawangware	Once