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BACHELOR THESIS

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**The Effect of Women's Economic Empowerment on Intimate Partner  
Violence in Kibera Informal Settlement  
The Role of Intra-Household Decision-Making**

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### Abstract

The economic empowerment of women is seen as one of the main drivers for development in Kenya. However, little is known about the intra-household implications of economic empowerment. Analyzing the effect of economic empowerment programs for women on Intimate Partner Violence (IPV) is the core motivation of this particular study. The assumption is that economic empowerment produces important shifts in intra-household decision-making power, through which the degree of IPV is altered. As the informal sector in Kenya represents more than 80 % of employment and produces a particularly large research gap, the study is set in Kibera informal settlement, thereby focusing on young married women aged 18-35 living with their husbands. The study is cross-sectional in design, and both qualitative ( $n = 28$ ) and quantitative ( $n = 214$ ) data is collected. In the analysis, women that have exposure to an economic empowerment program are compared with women that do not. Glaser and Strauss' method of constant comparison is used for interpreting the focus group discussions (FGDs). The interpretation of the quantitative data is based on descriptive statistics and a linear probability model (LPM). The FGD results show that economic empowerment programs alleviate financial tensions, increase the acceptance of female agency in household decision-making, and decrease both the women's and men's likelihood of justifying IPV. The LPM outcomes demonstrate that economic empowerment reduces the likelihood for women to experience slapping, pushing, and insult in their households. It also makes women less likely to justify the experience of emotional and physical violence after refusing to have sex with their husbands. Interacting the model with reported intra-household decision-making power allocation yields mostly inconclusive results due to lack of statistical power. Nevertheless, the general pattern is that the effect of economic empowerment on the probability of experiencing physical IPV or justifying all types of IPV is most negative for women which take agency in intra-household decision-making and whose husbands agree with it. Conversely, the point estimates for the probability of experiencing emotional or physical IPV are most positive for women with disagreement over the lack of female agency in the couple. The paper ends with important recommendations for the improvement of economic empowerment programs such as increasing men's awareness about program benefits for the entire household.

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## Acronyms

**CFK** CFK Africa

**CHV** Community Health Volunteers

**FGD** Focus Group Discussions

**HDM** Household Decision-Making

**IPV** Intimate Partner Violence

**LPM** Linear Probability Model

**NGO** Non-Governmental Organization

**RRT** Randomized Response Technique

## 1. Introduction

“The seeds of success in every nation on Earth are best planted in women and children”, said the former and first female Malawian President (Joyce Banda, as cited in *Womenvoices Newspaper*, 2021). Years later, the seeds have still not been effectively planted, and women empowerment remains one of the United Nations Millennium Development Goals. Especially when it comes to economic prosperity, women globally are faced with great disparity. In Kenya, 72 % of currently married women aged 15-49 are earning less than their husbands (Kenya National Bureau of Statistic, 2015), thus being subject to poverty and dependency issues. Economic empowerment, in particular that of women, is hence widely seen as one of the most important drivers for development in Kenya. According to a McKinsey Global Institute report, reaching gender parity in the workforce could increase the country’s GDP by as much as 22 % by 2025 (Woetzel et al, 2015).

Nevertheless, little is known about the intra-household implications of economic empowerment. While it is widely believed that women’s access to financial resources increases child health and education considerably (Quisumbing and Maluccio, 2003; Kabeer and Mahmud, 2004; Roushdy, 2004 as cited in Vyas & Watts, 2009), other indicators such as shifts in intra-household bargaining are rarely studied. One of the key variables of interest in that context is the prevalence of Intimate Partner Violence (IPV). IPV “refers to behaviour within an intimate relationship that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours” (WHO, n.d., para. 1). In Kenya, 31 % of women aged 15-49 reported having experienced IPV in the last 12 months according to the latest Kenya Demographic and Health Survey report (Kenya National Bureau of Statistics, 2015). IPV, apart from apparent consequences such as pain, carries a lot of other direct costs such as legal and health costs. More indirect costs include income loss due to increased absenteeism or decreased labour productivity, increased drug and alcohol use, inter-generational transmission of violence, and behavioral problems of children (Duvvury, Callan, Carney, & Raghavendra, 2013, pp. 6). Hence, understanding the causes of IPV is crucial to reducing its prevalence and, thereby, all related costs and consequences.

This paper makes the assumption that economic empowerment produces important shifts in intra-household decision-making power. On the one hand, access to economic resources translates into more bargaining power for the woman and gives her tools to leave an abusive relationship. On the other hand, her new economic position has the potential to trigger a violent reaction from the husband, who might see his traditional position as head of household threatened. Hence, analyzing the effect of economic empowerment programs for women as an explanatory variable of IPV is the core motivation of this particular study. Economic empowerment is a broad concept, but in this study refers to increased “access to economic resources and opportunities including jobs, financial services, property and other productive assets, skills



development and market information” (OECD, 2011, pp. 6). The study is restricted to the setting of informal settlements. Due to a great urbanization trend and thereby mushrooming of informal settlements in the country, the informal sector in Kenya now represents more than 80 % of employment (World Bank, 2016, pp. ii), and produces a particularly large research gap. Additionally, it is a setting where especially young women face increased vulnerabilities. (African Population and Health Research Center, 2014, pp. 1) As 75 % of Kenya’s population is made up by youth aged 18-35 (Kenya National Bureau of Statistics, 2019), only women falling into this age range are considered. A further criterion is that of marriage, as this is considered one of the most intimate types of relationships and the most prevalent in the Kenyan context. Probably the most well-known informal settlement in Kenya, and one of the largest informal settlements in Africa, is Kibera. It is located in the South West of Nairobi city, and its composition displays a wide representation of the Kenyan ethnic, cultural, and religious diversity. It hence serves as a good point of reference for other informal settlements.

Both qualitative and quantitative data is collected for the purpose of this study. All data collection is supported by CFK Africa, a local Non-Governmental Organization (NGO) working on the areas of public health and development issues. The sample consists of 214 household survey respondents and 28 focus group discussion (FGD) participants. The qualitative analysis is based on the method of constant comparison developed by Glaser and Strauss (1967), while the quantitative analysis uses a linear probability model (LPM) for interpretation.

The overarching research question of this study is the following:

*How does the economic empowerment of women and the resulting intra-household decision-making power dynamics affect the likelihood of justifying and experiencing Intimate Partner Violence?*

In order to investigate this question, basic facts about the nature and type of the economic empowerment programs in Kibera are established. The study then proceeds by examining the effect of exposure to economic empowerment programs on intra-household decision-making power, as well as elaborating the bridge to IPV.

First, an overview over existing literature on the topic is given. Then, the theoretical framework of the study is explained, followed by a section on the methods employed. This includes detailed accounts on the data collection and methodology for analysis, as well as potential limitations. Limitations include non-random selection into economic empowerment programs, purposive sampling, cross-sectional data collection restricting statements about causality, reported rather than measured answers, lack of statistical power, attrition rates, and misclassification. Next, results are presented, and subsequently discussed by including recommendations for the improvement of economic empowerment programs. Last, a conclusion is provided.

## 2. Literature Review

In recent years, a substantial body of literature on intra-household bargaining has emerged. Intra-household bargaining mainly refers to negotiations between household members, usually between wife and husband, over a multitude of decisions such as household consumption and expenditure. There is a general consensus over the idea that family welfare is increased when women obtain greater control over financial resources, and thus more bargaining power in the household (Buller, Hidrobo, Peterman & Heise, 2016). Similarly, when a household agrees that the woman is the main decision-maker, maternal and child health care outcomes are found to improve significantly (Allendorf, 2007; Story & Burgard, 2012; Poutvaara & Schwefer, 2018; as cited in Annan, Donald, Goldstein, Gonzalez Martinez, & Koolwal, 2021).

While general family welfare outcomes have been the main focus so far, the lens has recently shifted to considering the individual implications of greater intra-household power for women, of which a key variable of interest is IPV. In this case, the evidence is mixed, with some studies perceiving women's economic empowerment as a protective factor for IPV, and other studies seeing it as a risk. Among those that hypothesize a negative relationship, Stöckl, Hassan and Ranganathan (2021) go as far as suggesting that "economic empowerment is one of the most promising interventions to reduce IPV in sub-Saharan Africa" (pp. 1). When becoming financially more independent, women have greater access to social networks, information, and support. This improved bargaining position as well as the enhanced ability to act and choose makes it easier to negotiate and credibly threaten to leave the marriage if it continues to be abusive (Kabeer, 2009). Indeed, many studies find results that support these explanations (Kelkar et al, 2004, Kim et al, 2008, as cited in Sleggh, Barker, Kimonyo, Ndolimana, & Bannerman, 2021; Haushofer, Ringdal, Shapiro, & Wang, 2019).

Nevertheless, authors agree that the results supporting a negative relationship between economic empowerment and IPV are very context-specific. Through a secondary data analysis of the cross-sectional Demographic Health Surveys in Sub-Saharan Africa, Stöckl et al (2021) come to the conclusion that IPV decreases in households where household wealth is increased due to women's economic empowerment, but that it rises when women start earning more than their partners or are the only household member employed. Similarly, after conducting a baseline survey in several urban slums in Kenya, it was found that "compared to girls who did not work, working with no regular savings was significantly associated with greater odds {...} of experiencing IPV" (Muthengi, Gitau, & Austrian, 2016), while regular savings did not produce a significant effect.

Those who find a positive link between women's economic empowerment and IPV, hence portraying economic empowerment as a risk, base their findings mainly on the relative resource theory. According to the original resource theory, men will employ violence as an alternative

form of resource to control their partner when they are lacking other means such as economic resources (Goode, 1971). Expanding this theory to consider relative power allocations within the household suggests that “economic differences favouring the woman lead to IPV as it challenges established gender norms and may be perceived to threaten the male role as a breadwinner” (Stöckl et al, 2021, pp. 2). Hence, as a woman becomes more economically empowered, this challenges the men’s status and value as head of the household, leading to violent retaliation by the husband in order to regain control and domination over the household (Vyas & Watts, 2009). Likewise, Cornish et al (2021) state that “men may use their power against their spouse when household roles, conditioned by traditional gender norms according to the social context, are either not fulfilled or transgressed by one party” (pp. 22). Due to global differences in gender norms, geography and culture are important aspects to consider. A paper by Abramsky et al (2011) based on the WHO multi-country study on women’s health and domestic violence confirms that while increased household employment and income generally tends to be reducing factor for IPV, the opposite is true in societies with more rigid gender roles.

Reviewing the studies named above highlights two aspects that appear decisive in influencing the direction and magnitude of the effect: the degree of agency-taking by the woman, as well as that of agreement between husband and wife. When it comes to agency, Peterman, Schwab, Roy, Hidrobo, and Gilligan (2015) argue that it is a necessary condition for the negative relationship between economic empowerment and IPV to hold. The sole availability of economic resources is not enough; a woman must actively assume more control and responsibility in the household in order to reap the benefits of her new economic situation. Applying this to intra-household decision-making, it is therefore pertinent that a woman who has been economically empowered takes more agency in it. This is confirmed by a paper by Annan et al (2021) examining the Demographic Health Surveys of 23 Sub-Saharan African countries, according to which “well-being outcomes are typically improved for women who say they are the main decision-maker, as well as if they say decision-making is joint, compared to when she reports the husband has all of the decision-making power” (pp. 8). At the same time, the paper emphasizes the importance of a couple’s agreement on the household power allocation: cases in which a woman takes power – i.e., assigns herself more decision-making power than her husband does to her – leads to a higher likelihood in experiencing physical or emotional violence within the household versus cases where the woman is “given” power by her husband. Hence, if a woman’s increased agency in decision-making, fuelled by her economic empowerment, is viewed as taking decision-making power away from her partner, this may trigger violent backlash (Laszlo et al, 2020, as cited in Annan et al, 2021).

From the studies related to the topics relevant to this thesis – i.e., economic empowerment, intra-household bargaining, and IPV – none has been able to connect all the dots yet. While

the need to consider the cultural context due to differences in gender norms is recognized, few studies focus on Sub-Saharan Africa, where gender inequalities are particularly prevalent, and only one solely on Kenya. Most studies do not look specifically at the effect on IPV, but rather at overall family health outcomes. Rarely do they make the link from economic empowerment to considering its consequences for intra-household bargaining as a bridge to IPV. The study from Annan et al (2021) comes closest to including the element of agency in decision-making and whether the husband agrees with the resulting power allocation, but simply breaks it down to “taking” power vs. “being given” power, thus neglecting other, more realistic scenarios. Methodology-wise, most studies either use only a qualitative approach, provide a systematic review of previous papers, or produce a new typology to clarify the term economic empowerment. From those that follow a more quantitative approach, the majority uses DHS data from various countries, and only very few in Sub-Saharan Africa have access to data evaluating an actual intervention. Haushofer et al (2019), for instance, concentrate on unconditional cash transfers as a very narrow indicator of economic empowerment.

Hence, taking all the previous literature into consideration, this thesis could provide a useful contribution in disentangling contradictory effects. By focusing on a region with a particularly strong prevalence of gender inequalities as well as the need for economic development, it strives to generate recommendations that are useful for a large part of the population. Moreover, collecting data from various economic empowerment interventions in an informal settlement will help to address the increase in informal employment patterns faced by Sub-Saharan African economies (Vyas, 2018). Further, variables on agency in household decision-making and agreement on the household decision-making power allocation will allow to make the bridge from economic empowerment to IPV in a way that takes into account the role of both the woman and the man in a relationship. Last, this will be the first study to include not only physical and sexual, but also emotional IPV.

### 3. Theoretical Framework

#### 3.1 Definitions

##### **Economic empowerment**

There has been considerable debate on how to define and measure women's economic empowerment as an essential indicator for achieving gender equality. In this study, the following OECD (2011) definition is primarily used as a reference: "economic empowerment increases women's access to economic resources and opportunities including jobs, financial services, property and other productive assets, skills development and market information" (pp. 6). This definition is combined with local specifications in relation to existing interventions in the informal settlement of interest (please refer to the analytical strategy for more detail on the variables (Section 5.2.3)).

##### **Intimate Partner Violence**

Intimate Partner Violence (IPV) has also been inconsistently applied as a term in past research. This is partly due to the fact that the perception of violence and abuse varies across cultures and contexts. In the past, most studies have reduced it to only physical violence, while modern literature takes a more comprehensive approach. The WHO (n.d.) refers to IPV as "behaviour within an intimate relationship that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours" (para. 1). While most data collection focuses on the actual experience of IPV, some also take into account attitudes on the prevalence of IPV. The Kenyan Demographic Health Survey (Kenya National Bureau of Statistics, 2015), which has played an important role in bringing light to the prevalence of IPV, includes a measure on the justification of wife beating. In this paper, both the experience and justification of various forms of IPV are considered (again, please refer to Section 5.2.3 for more information).

#### 3.2 Study Context and Setting

While economic growth in Kenya has managed to reduce poverty from 36.5 % in 2005 to 27.2 % in 2019 (\$2.15/day poverty line) between 2015-2019 (World Bank, 2023, para. 2), a significant number of the population has been excluded in the process. The current urbanization trend, consisting of general push-and-pull factors contributing to rural-urban migration such as the search for better job opportunities, has led to the increasing growth of slums, formally known as informal settlements (Mukeku, 2018). With a population of 250,000 to over one million people depending on the source, Kibera informal settlement is often considered the biggest in Africa. According to Chaffinch (n.d.), the population is predominantly comprised of young people, the life expectancy is 30 years of age skewed by high infant mortality, and the unemployment rate

is close to 50 %. These numbers must however be treated with caution, as data availability and quality in Kibera is poor, making it an interesting case for collecting own data. For the purpose of this study, this was undertaken in collaboration with a local NGO called CFK Africa (CFK), which was founded in Kibera informal settlement in 2001. CFK's activities involve among others several girl and women empowerment projects such as a comprehensive economic empowerment program. Thus, they agreed to be the basis for my data collection and offer support in the three months I spent on the ground, including covering all costs involved in the process (see Annex 2.2). Having been based in the community for a very long time and having previous experience in research studies gives them unparalleled credibility in the area. Their affiliation to a local research institution was crucial in obtaining a research licence and ethical approval from the National Commission for Science, Technology & Innovation (NACOSTI) (see Annexes 1.1 & 1.2).

### 3.3 Causal Mechanism and Hypotheses

In this paper, the following main research question is examined:

*How does the economic empowerment of women and the resulting intra-household decision-making power dynamics affect the likelihood of justifying and experiencing Intimate Partner Violence?*

There are various channels connecting economic empowerment to the experience and justification of IPV, one of which is the expected alleviation of financial pressure in the household due to economic empowerment, contributing to the mitigation of marital tensions in a setting of poverty. However, this study focuses primarily on the shift in intra-household decision-making power. The assumption is that being part of an economic empowerment program generates expectations from both the wife and the husband as depicted in Fig. 1 below:

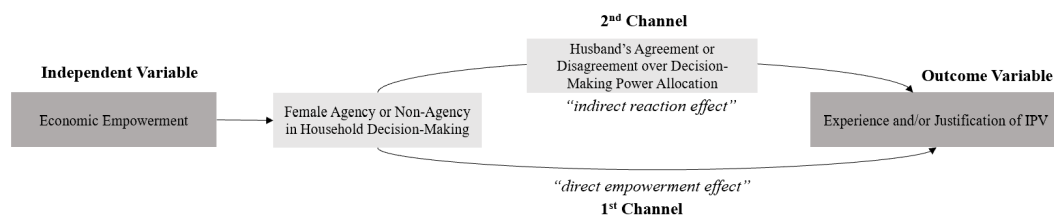


Figure 1: The shift in intra-household decision-making power as a channel between economic empowerment and IPV

On the one hand, the parties may expect that access to economic resources and know-how will translate into more decision-making agency and bargaining power in the household, giving the woman tools to stand up against the threat and use of violence in her marriage, e.g. by

threatening to leave the marriage. This is depicted as a “*direct empowerment effect*” in Fig. 1. On the other hand, increased female agency in household decision-making or the lack thereof is expected to trigger an agreement or disagreement by the husband, producing an additional “*indirect reaction effect*” to the outcome of IPV. To disentangle these effects, four scenarios can be discerned (see Fig. 2):

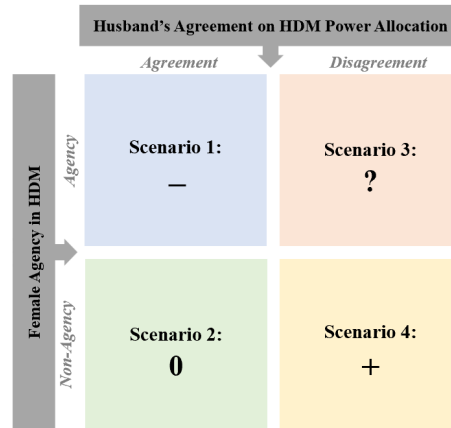


Figure 2: Four scenarios of household decision-making (HDM) allocations

In Scenario 1, the woman chooses to take more agency, and the husband accepts the new decision-making power distribution. Therefore, no new marital tensions will arise. However, previously existing tensions are expected to decrease, because the wife demonstrates that she has the means to leave an abusive relationship and is less willing to tolerate violent behaviour in general. This will provide for a negative effect of economic empowerment on IPV.

In Scenario 2, the assumption is that the wife does not take more agency in decision-making. In that case, there is no active change in household roles and authority. However, expectations may have shifted nonetheless. If the husband chooses to accept the non-existent change in decision-making power, no new marital tensions enter the relationship. This case points to a rather neutral effect of economic empowerment on IPV.

In Scenario 3, the wife takes more agency in household decision-making after economic empowerment, but this is now challenged by the husband. This will bring new tensions to the relationship, because he is willing to assert his power. Nevertheless, this effect will be somewhat reigned in by the wife’s threat of increased ability and willingness to leave the abusive relationship. According to the table above, it is hard to distinguish this scenario from Scenario 2 in its total effect, as it depends how the effects are weighted. If the husband’s violent reaction is weighted equally to the woman’s willingness and ability to leave the relationship, the total effect will also be zero. However, if one effect is stronger than the other, this could lead to both a negative or positive effect of economic empowerment on IPV, leading to an uncertain outcome for Scenario 3.

In the last scenario, the wife does not take more agency in decision-making, which is challenged by the husband. One reason may be that he is not satisfied with the fact that his wife is not bearing more responsibilities despite her new situation of empowerment. This will bring new tensions into the marriage, which are not reigned in by the woman's demonstration of being willing and able to leave the relationship. Hence, the effect of economic empowerment on IPV is expected to be positive in Scenario 4.

Although all four scenarios are possible, it is expected that Scenario 1 is the most likely. Due to an increase in confidence and financial capacity, most former participants of economic empowerment programs are anticipated to take more agency in their households. This assumption would expect Scenario 1 and 3 to drive the main effect of economic empowerment on IPV. Seeing as the partial effect of Scenario 1 is negative and that of Scenario 3 is uncertain, the overall effect between economic empowerment and IPV is hypothesized to be negative overall. This leads to the following two main hypotheses of this paper:

*H1: Everything else equal, exposure to economic empowerment decreases the likelihood of experiencing and justifying IPV.*

*H2: The negative relationship between economic empowerment and IPV is mainly driven by female agency in intra-household decision-making.*

Moreover, the following sub-hypotheses can be discerned to specify H2 according to the scenarios detailed above:

*H2.1: The effect of exposure to economic empowerment on the likelihood of experiencing and justifying IPV is negative among households with female agency in household decision-making and agreement by the husband.*

*H2.2: The effect of exposure to economic empowerment on the probability of experiencing and justifying IPV is neutral for households with female non-agency in decision-making and agreement by the husband.*

*H2.3: The effect of exposure to economic empowerment on the likelihood of experiencing and justifying IPV for households with female agency in decision-making and disagreement by the husband is uncertain.*

*H2.4: The effect of exposure to economic empowerment on the likelihood of experiencing and justifying IPV is positive for households with female non-agency in household decision-making and disagreement by the husband.*



## 4. Methods

### 4.1 Research Design

This study is cross-sectional in design. The exposure to economic empowerment and the outcome variables are measured at the same point in time. Nevertheless, it is made sure that the treatment criteria precede the outcome in time (i.e. only women which have finished the empowerment program at least six months ago are considered in the group of economic empowerment). This allows for an approximation of causal effects.

Furthermore, this is a mixed-methods study. Quantitative data is obtained through a household questionnaire with closed-ended questions ( $n = 214$ ) (see Annex 2.3). As far as possible, the wording of the 2014 Kenyan Demographic Health Survey (Kenya National Bureau of Statistics, 2015) is adhered to. The qualitative data is based on the output of four FGDs ( $n = 28$ ) following a guide containing open-ended questions (see Annex 2.4).

To pinpoint the effect of participation in an economic empowerment program on the likelihood of experiencing and justifying IPV, two groups are compared. The only difference between the groups is their exposure to an intervention, in our case having undergone an economic empowerment program. The group satisfying those criteria regarding economic empowerment is called the treatment group, and the group not satisfying the criteria the control group. The main analysis lies in measuring and assessing the difference in outcomes, i.e. their justification and experience of IPV.

### 4.2 Data Collection

#### 4.2.1 Population of Interest

Quantitative data is obtained only from women, qualitative data both from women's and men's groups. As mentioned, this study is restricted to Kibera informal settlement. Only women aged 18-35 are considered. A further criterion is that of shared-household marriage, as it implies the greatest relational dependency, and hence potential for tension and IPV. The reason is that marriage can take many forms in Kenya, with spouses potentially living miles apart or being married only on paper because divorce is not seen lightly in the prevalent culture. These cases would make it difficult to measure IPV on a degree relevant to the wife's well-being. Please see Annex 2.1 for the detailed specifications for each separate groups in both the quantitative household survey and qualitative FGDs.

The three neighbourhoods Gatwekera, Makina, and Laini Saba, which are geographically distributed over Kibera, serve as representative examples for Kibera's reality. Gatwekera neighbourhood is a predominantly Luo and Christian neighbourhood, populated by very few Muslims. The majority of NGOs can be found there. Makina is the administrative center of Kibera

informal settlement, and is inhabited majoritarily by Luhyas and Nubians, but also displays many other tribes like Kikuyu and Luo. Religion-wise, it is equally diverse, demonstrating a balanced amount of Christians and Muslims. Last, Laini Saba is predominantly Christian, and inhabited majoritarily by Kikuyu and Kamba. Due to lack of detailed statistics for Kibera, this information was obtained from inhabitants originating from the three neighbourhoods.

#### **4.2.2 Sampling Procedure**

Any fully random sampling or allocation to treatment groups of household would be too costly to implement. Instead, the aim is to intentionally select households within Kibera that fulfil the necessary criteria for a balanced and representative sample. Section 5.3 discusses how this potentially limits external and internal validity of the results.

Community Health Volunteers (CHVs) who have been working with CFK for a long time were asked for their support. CHVs know the community in their neighbourhoods very well, as they perform regular physical and mental health check-ups. Over the course of five days, from November 11 to November 16 2022, they were able to compile a list of over 200 households who fulfilled the necessary criteria as outlined in Annex 2.1, and were willing to participate as respondents in a household survey or FGD. Within the given parameters, CHVs were asked to select as randomly as possible in order to have a diverse and representative sample of respondents for each neighbourhood.

#### **4.2.3 Sourcing and Briefing**

In preparation for the data collection, enumerators, FGD facilitators, and a notetaker for the FGD sessions were sourced. This was completed through the help of a research assistant, who was able to support me in translation and coordination issues. The research assistant also offered to facilitate the men's FGDs, while a female facilitator was found for the women's FGDs. Both FGD facilitators agreed to take care of transcription and translation after the FGDs. It was important to me that the FGD facilitators and their interviewees identified with the same gender, since the discussions involved several highly sensitive topics involving a certain degree of cultural sensitivity. I decided not to insist on the same criterion for the enumerators, as the questions in the household survey are close-ended and were covered using a Randomized Response Technique (RRT), a technique which is expected to provide the same protection and anonymity to respondents as in the FGDs (explained in more detail in Section 5.2).

#### **4.2.4 Training**

The enumerators and FGD facilitators were trained separately. The enumerators were given a document with the most important information on piloting and data collection, as well as

other tools such as tablets and consent forms to be filled out by the respondent prior to the survey, and had the opportunity to train on each other. The tablets contained a data collection program named ODK Collect containing a configured questionnaire. The bulk of time was used to explain the application of and the intuition behind the RRT. When it came to briefing the FGD facilitators, they were also taken through the FGD guide in detail, with explanations on how much time should be spent on which section, and which questions would require more depth.

#### **4.2.5 Piloting**

Two days were reserved for piloting. Sourcing piloting participants was a challenging task, as no budget had been allocated to compensate them. Nevertheless, both the FGD and household pilots turned out very successful. The FGD facilitator was debriefed on aspects to improve for the actual FGDs. All of the enumerators came back with highly positive feedbacks, confirming that respondents were able to understand the RRT. Hence, only very slight changes were made to the configured questionnaire in ODK Collect before the actual data collection could start.

#### **4.2.6 Data Collection**

The FGDs took place on November 18, 2022 at CFK's office in Olympic, Kibera. To reduce the problem of reactivity, participants were only given limited information about the objectives of the study. They were required to sign a consent form before participation. The FGD participants were each paid 500 Kenyan Shillings (around USD 3,50) for travel as an incentive to show up to the sessions, and to reduce drop-out resulting from socio-economic differences. The duration of the FGDs was about an hour each, with six to eight participants.

The household surveys took place from November 21-25, 2022. Each Community Health Volunteer was allocated two enumerators, and was in charge of leading their team to the pre-selected households. Every enumerator was supposed to conduct 6-8 interviews per day. Respondents were asked to sign a consent form before starting with the survey, of which they were each given a separate copy. It was made sure that the interview was carried out in a quiet, undisturbed space, such that the respondent would not fear her husband or anyone else listening. Spot-checks were carried out to evaluate the implementation of the data collection. The CHVs were briefed to return to any household not present in order to render attrition rates as low as possible.

## 5. Analytical Strategy

### 5.1 Qualitative Data

#### 5.1.1 Motivation

While the main focus is put on the analysis of the quantitative survey data, the focus group discussions are still expected to yield valuable results that can improve the interpretation of the quantitative data for more in-depth insights and recommendations for the improvement of economic empowerment programs. This is supported by the increasing popularity of conducting focus group discussions in academic social sciences, typically with the aim “to understand, and explain, the meanings, beliefs and cultures that influence the feelings, attitudes and behaviours of individuals” (Rabiee, 2004, pp. 655). It is found that the generated group dynamics often lead to deeper and richer insights than from one-on-one interviews (Thomas, MacMillan, McColl, Hale, & Bond, 1995). The selection of participants is usually purposive, and it is recommended to have from six to ten participants per session – “large enough to gain a variety of perspectives and small enough not to become disorderly or fragmented” (Rabiee, 2004, pp. 656). Due to the large amount of data generated it is usually enough to conduct a few sessions only, lasting from 1-2h.

#### 5.1.2 Model

Despite its long research history, no unique framework has so far been specifically dedicated to the analysis of focus group discussions. Instead, the analysis is typically accomplished through a process called coding. Coding allows information to be summarized and classified in order to structure and compare qualitative data. (Thonberg & Charmaz, 2014, pp. 156) For the purpose of this paper, the coding process is based on the method of constant comparison developed by Glaser and Strauss (1967) The constant comparison analysis consists of three steps: in the first step, particularly interesting passages in the transcripts are highlighted and attached to an individual descriptor or code. This step is referred to as open coding. In a second step, axis coding is applied to allow for a comparison of the individual codes with each other. By finding commonalities and relationships, the codes are grouped into categories. Last, in the final stage (i.e., selective coding), the resulting overlapping groupings are summarized into aggregate themes expressing the content of each of these groups. (Strauss & Corbin, 1998)

Due to the limited amount of data produced by the four focus group discussions, I refrain from using a specialized tool like Atlas.Ti for analysis, instead using Excel for the classifications. In the resulting conception, I use the following descriptions to distinct each stage: *1st Order Concepts* for the participants' relevant discussion points, *2nd Order Concepts* for my detected recurring topics, and *Aggregate Themes* for the over-arching categories.

## 5.2 Quantitative Data

### 5.2.1 Overview

The quantitative data is collected through the use of a questionnaire consisting of three main parts: economic empowerment, household decision power, and the justification and experience of IPV. Preliminary questions are asked covering sociodemographic variables. All sensitive questions are addressed by using the Randomized Response Technique (RRT).

### 5.2.2 Introducing the Randomized Response Technique

The Randomized Response Technique (RRT) is a technique introduced by Warner (1965) to avoid bias resulting from social desirability or non-response. It is increasingly used when sensitive features are measured, i.e. attitudes or behaviours that the respondents prefer not to be publicly associated with. In the most common version of this technique, a randomization device is given to the respondent, who is then asked yes or no questions. Only if the randomization device takes on a certain value is the respondent supposed to answer the sensitive question. In this study, the randomization device is a deck of cards with red and black poker cards, and comes to use whenever questions related to IPV are asked. The respondent is asked to pick one from a random place in the deck. If she picks a red card, she is supposed to answer the sensitive question; if, however, the respondent picks a black card, she is required to answer an unrelated non-sensitive question (see Fig. 3 below).

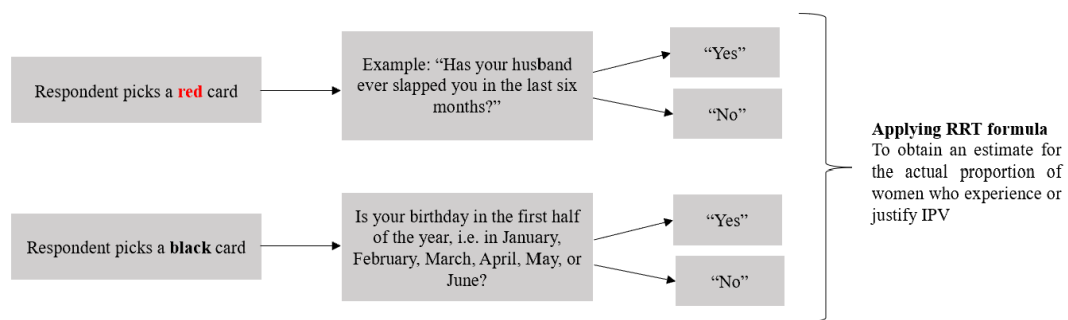


Figure 3: Overview of the RRT mechanism

The Unrelated Question Design was developed by Greenberg, Abdul-Ela, and Horvitz (1969), as well as by Greenberg et al. in 1971, and was applied to a great number of studies involving data collection from human subjects (Chi, Chow, & Rider, 1972; Lara, Garcia, Ellertson, Camlin, & Suarez, 2006; Stubbe, Chorus, Frank, Hon, & Heijden, 2014). In this study, the following unrelated question is used: “is your birthday in the first half of the year, i.e. in January, February, March, April, May, or June?”. The proportion of red cards is set at 0.7, the proportion of black cards at 0.3. Whether the respondent picks a red or black card is shielded from the enumerator, making it impossible for them to know whether the respondent

is affirming the sensitive question or the birthday question. The random noise introduced by the unrelated question thus aims to enhance the level of anonymity and privacy for the respondents, and is generally said to increase the likelihood of truthful reported answers (Chi, Chow & Rider, 1972; Rosenfeld, Imai, and Shapiro, 2015; Stubbe, Chorus, Frank, Hon, & Heijden, 2014). To obtain an estimate for the actual proportion of women who experience or justify IPV, a formula is applied, which is described in Section 5.2.4.

### 5.2.3 Variables

#### **Independent Variable: Economic Empowerment**

Initially, many criteria were defined to restrict the variable to a clear and uniform understanding of participation in an economic empowerment program. These criteria were communicated to the Community Health Volunteers for pre-selection of the survey respondents and entailed the following requirements:

1. The economic empowerment program must have included at least one of the following activities or interventions: receipt of cash transfer, facilitation of access to loans, credit, or microfinance, linkage to employment market, access to savings groups, capacity building of entrepreneurial skills, or building of financial literacy skills.
2. The program must have reached a certain duration and frequency in order to have had a significant impact on participants. The minimum program duration was set to four weeks. Any program between one and three months was required to have taken place at least once in the week, while once every two weeks was deemed enough for programs above three months duration, and once a month for a program duration of at least six months.
3. Furthermore, the starting point of the program had to lie between January 2020 and May 2022. The first cut-off point was chosen to ensure that the impact of the program did not lie too far back, and the respondents remembered the specifics around it. The second cut-off point was chosen to ensure the temporal priority of the independent variable. Seeing as the household survey was completed between November 21 and November 25, and the outcome variable was restricted to the last six months, deducting six months from the date of completion of the survey yields May 2022 as the cut-off point for the allowed completion of an economic empowerment program.

Unfortunately, since the Community Health Volunteers did not implement the requirements as expected, too many of the data points ended up not respecting the thresholds named above (specifically, there was a significant number of respondents having participated in a program less than six months ago). Therefore, all data points are included in the main analysis, while

robustness checks are conducted with the smaller, more concise sample. This is to ensure enough statistical power in the main analysis and that no women benefitting from empowerment programs end up in the control group.

### **Interaction Variable: Intra-Household Decision-Making Power Allocation**

The conditional variable for the effect of the independent on the dependent variable consists of the wife's report on her own attitude and that of her husband on how decision-making power should be allocated within the household. Initially, the husbands were also supposed to be participating in the surveys to report on their own attitudes, but this idea was abandoned due to the possibility of instigating tensions in the household. As it is likely that women would tend to underplay disagreement in their household, this requires a certain amount of caution when interpreting the results.

Three decision areas are included in the questionnaire: family planning decisions, such as whether to use contraceptives or not; decisions about the children when it comes to school fees and health care costs; and decisions on major household purchases beyond 10,000 KES (roughly USD 75). Common major household purchases in Kibera include buying a TV, a motorcycle, or furniture. Respondents are asked to think about the above-mentioned household decisions, and to say who they feel should be responsible for taking them in their household. Answer options are "mainly the husband", "jointly", or "mainly the wife". These questions are formulated in accordance to the last KDHS questionnaire. First, women are required to answer according to their own views. Then, they are asked to report on their husband's views on the same situations. The variable is re-coded according to the two dimensions "agency" and "agreement" (see the table below):

<b>Wife's attitude</b>	<b>Husband's reported attitude</b>	<b>Resulting outcome</b>
Mainly husband	Mainly husband	Agreement over non-agency
Mainly husband	Jointly	Disagreement over non-agency
Mainly husband	Mainly wife	Disagreement over non-agency
Jointly	Mainly husband	Disagreement over agency
Jointly	Jointly	Agreement over agency
Jointly	Mainly wife	Disagreement over agency
Mainly wife	Mainly husband	Disagreement over agency
Mainly wife	Jointly	Disagreement over agency
Mainly wife	Mainly wife	Agreement over agency

If the wife allocates at least as much decision-making power to herself than to her husband, i.e., she selects "jointly" or "mainly the wife", this is considered as taking agency. Conversely, if she selects "mainly the husband", this is treated as non-agency. Next, it is analyzed whether the husband's reported attitude is aligned with that of his wife. If the husband reportedly allocates the same amount of decision-making power to his wife than she has selected, this is considered

agreement over the resulting power allocation. If, however, he reportedly allocates more or less decision-power to her than she has selected, this case is treated as disagreement. This leads to four possible end scenarios: 1) agreement over agency, 2) agreement over non-agency, 3) disagreement over agency, and 4) disagreement over non-agency. No average is produced over the three decision areas, as it is impossible to find a common denominator in the case that a respondent produces a different decision-making allocation outcome for each decision area.

### **Dependent Variables**

For all the questions covering the dependent variables, the RRT as previously described is applied. Two dependent variables are analyzed: the justification of IPV, and the experience of IPV over the last six months. The reason for collecting data on two dependent variables is an expected decrease in measurement error. Although asking about experience is the more direct measure of IPV, it has high chances of being underestimated, because of its highly personal and sensitive nature. Justification of IPV, in contrast, is a more indirect proxy for IPV, and more likely to be admitted. The assumption is that women who are more willing to accept the use of violence in their society are less likely to stand up to violence in their own household, hence displaying a higher experience of IPV.

The section on the experience of IPV includes thirteen questions on emotional, physical, and sexual types of violence. For each of the violence types, the respondent is asked whether their husband had ever exerted this type of violence in the last six months. In the part on the justification of IPV, the respondent is asked to imagine a random young married couple living together in Kibera, and is presented with three situations. In the first situation, the wife of the imaginary couple goes out with her friends without telling the husband. In the second situation, the wife neglects the children by forgetting to cook them dinner. In the last situation, the wife refuses sexual relations with her husband. For each of the three situations, the respondent is asked to imagine that the husband reacts to the situation either by: A) insulting his wife, B) hitting his wife, or C) forcing her to have sex with him. For each of the nine combinations, the respondent is asked whether they agree with the husband's reaction. The only answer options are yes or no, which is in line with the requirements for applying the RRT.

Due to the nature of the RRT, it is impossible to aggregate the separate questions into one composite variable, as it cannot be discerned on an individual level whether the respondent has answered the sensitive question or the RRT birthday question. As an example, imagine that a respondent answers "yes" to the justification of emotional violence in scenario one, "no" to the justification of emotional violence in scenario two, and "no" to the justification of emotional violence in scenario three. One way to aggregate the data in order to obtain an average for emotional violence would be to treat one "yes" as enough to classify the respondent as justifying



emotional violence. But what if this single “yes” is simply due to the fact that the respondent has picked a black card for this particular sub-question? In this case, the respondent would have been falsely classified. Hence, the noise of RRT may lead to a disproportionately high amount of justification of emotional violence. Therefore, I regress over all of the sub-questions separately. While this unfortunately reduces statistical power, it allows to detect patterns over all regressions nonetheless.

### **Control Variables**

The following questions are included in the survey questionnaire to test the balance in terms of observable characteristics between treatment and control: age, length of marriage, place of origin, educational attainment, ethnic group or tribe, religion, number of children, living situation, duration spent living in Kibera, employment situation, type of employment, weekly income, and relative income compared to the husband’s income.

While the last four variables may be an effect of the treatment and are therefore not included in the regressions, the others all have the potential to be important confounders. For instance, educational attainment may be a criterion for gaining access to an economic empowerment program, and is simultaneously a leverage for women to leave an abusive relationship by finding employment and becoming independent. It is not expected to be an effect of the treatment because the time frame of the study is too short and the women are often at an age too advanced to complete primary or secondary education. As another example, the number of children may be a barrier to women for participating in an economic empowerment program. A higher number of children may also provide for additional tensions between husband and wife. Furthermore, the duration spent living in Kibera is relevant because it may increase the potential for women to build a network and gain access to economic empowerment programs, while also increasing the exposure to vulnerabilities in a slum area. As these are all assumptions, balancing tests are conducted to confirm the final inclusion of confounders into the regressions (although two types of regressions are run to ensure that the inclusion of more confounders does not significantly change the results).

### **Other Variables of Interest**

In order to address the first objective of this study, namely to find out more about the nature of economic empowerment programs in Kibera, the treatment group is asked additional questions about the name of the program, which organization is behind it, whether the program is specifically for women only, whether the participants’ employment status changed during or after the program, and whether the participant feels that the program has economically empowered her with regards to different factors such as settling expenses at home or being less indebted.

## Test Variables

In order to test how well the RRT has worked, two questions are added at the end of the survey. The first is directed at the respondent, who is asked how easy it had been to understand the RRT. The second is an assessment by the enumerator, who is asked to evaluate how well the respondent had understood the technique. Last, the duration of completion of a household interview is recorded to make sure that no external factors have come into the way.

### 5.2.4 Statistical Model

#### Balancing

To test how balanced the sample is, i.e. how similar the treatment and control groups are in terms of other, potentially confounding characteristics, chi-square goodness of fit tests are conducted for the categorical variables, and t-tests for the continuous variables. A Levene's test is used to test variance, followed by Welch's t-test if the variance is not equal. A Wilcoxon unpaired two-sample t-test, a non-parametric test, is used when the normal distribution cannot be guaranteed, which is tested through a Shapiro-Wilk test. Last, a Yuen Two-Sample t-test is used when outliers are present.

Based on these results, it can be determined which confounders to include in the regressions. A variable thus has to fulfill the following criteria in order to be treated as a confounder:

1. Statistically significant t-test or chi-square test
2. It is ruled out that the variable is an effect of the treatment, i.e. change in income

#### RRT Outcomes

In order to measure RRT estimates in the descriptive statistics, i.e. the actual proportion of women who experience or justify IPV, a formula must be applied over the survey data. The total proportion of "yes" answers in the sample is denoted by  $\lambda$ . From this, the probability that respondents answer "yes" due to receiving an unrelated question must be subtracted. This is obtained by multiplying the proportion  $\pi_y$  of women expected to have their birthday in the first half of the year, i.e. 0,5 as more specific statistics are not available for Kibera, with the inverse probability that respondents receive the sensitive question by picking a red card (denoted by  $\rho$ ). As seven out of ten cards in the pile are made sure to be red,  $\rho$  lies at 0,7.

Hence, the estimate of the proportion of women who experienced or justified IPV, denoted by  $\pi_1$ , is approximated with:

$$\pi_1 = \frac{\lambda - \pi_y(1 - \rho)}{\rho}$$

### Linear Probability Model

A linear probability model (LPM) is used to regress over the relevant variables and measure their effects. Despite the known limitations of LPMs such as out-of-bounds predicted probabilities, I decided to use it due to its interpretational disadvantages. Since this study is mainly interested on the rough magnitude and direction of the effect rather than final predicted probabilities of experiencing or justifying IPV, using a LPM for the analysis is appropriate. The OLS estimates are further improved by applying heteroscedasticity-consistent and robust standard errors. A 90% confidence interval has been chosen for indicating significance.

The statistical model to test H1 looks as follows:

$$\textit{Experience or justification of IPV} = \beta_0 + \beta_1 * \textit{economic empowerment} + \textit{confounders} + \epsilon$$

To address H2, including H2.1-H2.4, this is expanded to the following:

$$\begin{aligned} \textit{Experience or justification of IPV} = & \beta_0 + \beta_1 * \textit{economic empowerment} \\ & + \beta_2 * \textit{agreement over non-agency} \\ & + \beta_3 * \textit{disagreement over agency} \\ & + \beta_4 * \textit{disagreement over non-agency} \\ & + \gamma_2 * \textit{economic empowerment} * \textit{agreement over non-agency} \\ & + \gamma_3 * \textit{economic empowerment} * \textit{disagreement over agency} \\ & + \gamma_4 * \textit{economic empowerment} * \textit{disagreement over non-agency} \\ & + \textit{confounders} + \epsilon, \end{aligned}$$

where  $\beta_0$  is the intercept or reference category, in this case the average probability of IPV among the women who are not economically empowered and have agreement over female agency. The indicator variables capture the following four decision-making power allocation scenarios:

- Agreement over agency: referring to households in which the woman takes agency in decision-making and the husband agrees with the situation, resulting in the following estimated probability of IPV:

$$\beta_0 + \beta_1 * \textit{economic empowerment} + \textit{confounders} + \epsilon$$

- Agreement over non-agency: indicator for a household in which the woman does not take

agency in decision-making and the husband agrees with the situation.

$$(\beta_0 + \beta_2) + (\beta_1 + \gamma_2) * \text{economic empowerment} + \text{confounders} + \epsilon$$

- Disagreement over agency: indicator for a household in which the woman takes agency in decision-making, but the husband disagrees with that situation.

$$(\beta_0 + \beta_3) + (\beta_1 + \gamma_3) * \text{economic empowerment} + \text{confounders} + \epsilon$$

- Disagreement over non-agency: indicator for a household in which the woman does not take agency in decision-making, with which the husband is not satisfied.

$$(\beta_0 + \beta_4) + (\beta_1 + \gamma_4) * \text{economic empowerment} + \text{confounders} + \epsilon$$

Instead of focusing on the predicted probabilities of experiencing and justifying IPV, I am interested in depicting the estimated marginal effects of participation in economic empowerment programs by sub-group, i.e. comparing economically empowered women living in a household with a certain decision-making power allocation with non-economically empowered women of the same sub-group. Therefore, only coefficient plots are shown to facilitate the interpretation of results. Full regression tables can be found in the appendix (Annex 4.2).

## 5.3 Limitations

### 5.3.1 External Validity

External validity in a study is respected if potential causal effects are representative for the entire population of interest and can be ported to other settings. A crucial factor for a successful study is the avoidance of sampling biases, as those can lead to a potential under-coverage of certain groups within the target population, thus impeding the generalization of results to the population of interest.

Sampling biases are a likely concern in this study as respondents or participants are chosen in a non-random way. Although the CHVs were told to identify households within their neighbourhoods as randomly as possible within the given parameters for the population of interest, it cannot be guaranteed that they refrained from favouring households that they had had previous contact with, that were not lying too far from each other, and who were known to be willing to participate, especially when it came to finding participants for the FGD. The time constraint of identifying a big enough sample in a short time may have further contributed to the issue of convenience sampling. Linked to this is also a potential self-selection bias: when people are given a choice to participate in a study, it might neglect those who have

lesser means to participate. It may also favour those with the strongest opinions, skewing the results in more extreme directions. Nevertheless, the CHVs reported very little hesitation in participation from identified households. In Laini Saba, every single person was motivated to be a part of the study. In Makina, a few FGD men had their reservations, so their wives were chosen for the household survey instead. In Gatwekera, only four women chose to opt out from the study from the start.

Additionally, attrition (not showing up to the FGD sessions) may have affected external validity to a certain extent, as Kikuyu and Muslims may have been slightly under-represented in the FGD sample. While the issue of differences in socioeconomic status was targeted by promising the participants a compensation of 500 KES (roughly USD 3,50), the amount may have been too low to completely make up for the differences. Unfortunately, no data was collected on FGD participants' income situation.

The goal of this study is that results of this study can also be ported to other settings, i.e. to households outside of Kibera. Generally, Kibera is thought to be representative for other informal settlements throughout the country. One limitation is the small share of Kikuyu living there, despite being the largest tribe on a national level. Another may be that Kibera has gained more attention and international media coverage over the last 20 years than other informal settlements, leading to an unproportional mushrooming of NGOs all over the slum.

### **5.3.2 Internal Validity**

The internal validity of a study is compromised when the data includes factors distorting the causal relationship between the dependent and independent variable. One of the main concerns relates to non-random selection, i.e. the treatment group only including people who have already undergone some sort of selection process before becoming a part of the treatment group. Indeed, many economic empowerment programs within Kibera focus on the most vulnerable and motivated among candidates. Most program institutions report simply having taken in any participant willing to be a beneficiary and showing up at the right time or with the right connections. Therefore, our treatment group might exclude people who were not told of such programs, did not show enough initiative, were not ambitious enough to be selected, or did not have a socioeconomic status deemed low enough to benefit from the program. As no comprehensive data was collected on motivation level and socio-economic status prior to the treatment, this may have produced a bias that could go in both directions: more motivated individuals may be more inclined to take agency in their life in general, becoming less likely to experiencing IPV. At the same time, more vulnerable individuals may be more prone to marital tensions due to financial restrictions.

Another Omitted Variable Bias may be created by a lack of knowledge on the husbands' attitudes on egalitarian outcomes prior to their wives' opportunity to participate in an economic

empowerment program. It is conceivable that men who are more conservative, violent, insecure and/or power-hungry from the outset would prevent their wives from participating in either the economic empowerment programs or a research survey connected to the same topic. This also points to a potential endogeneity problem, as the outcome variable, i.e. degree of IPV experienced in a household, may very well affect a woman's willingness to participate in an economic empowerment program, as she may risk increased threat by her husband.

Turning to measurement bias, it is possible that the variables chosen are inaccurate proxies for the phenomenon they want to measure. For example, a woman can be economically empowered without having participated in an economic empowerment program, i.e. by starting a business on her own initiative, completing a degree in finance, or inheriting money from a parent. This type of measurement error in the independent variable typically leads to attenuation bias, i.e. bias towards zero. As for the dependent variable, measuring IPV was limited to three scenarios and three types of violence and is not exhaustive. Using the RRT on it may have increased a certain error-in-variable: for instance, randomized response procedures have the potential to "confuse respondents and yield noncompliance, requiring more experienced interviewers for successful implementation" (Blair, Imai, & Zhou, 2015, pp. 1305). Connected to the risks of RRT also comes the importance of statistical power. Since only the answers from the proportion of respondents assumed to have picked a red card can be used for data analysis, this significantly reduces the sample size, especially if both the probability of answering the sensitive question and the frequency of the sensitive event in the population of interest is low. The issue of low statistical power is reinforced by the challenge of overcoming granularity. Therefore, applying a RRT carries certain trade-offs. All in all, it is important to note that although errors in the dependent variable lead to loss of precision, they do not produce a systematic bias.

The same cautionary tale applies to the design of the interaction variable. It is conceivable that the proxies used for agency-taking and agreement within a couple on decision-making allocations are inaccurate. This is mostly due to the missing time component of this study: instead of measuring the actual shift in decision-making power by asking women at two different points in time, this study is restricted to cross-sectional data. Generally, although it is made sure that the treatment criteria precede the outcome in time to allow for an approximation of causal effects, all variables are reported in their nature, meaning there is a certain limit to ascertaining whether the input indeed preceded the output.

Another common source of lack of internal validity can be attributed to a misclassification bias. In the FGDs, one male control participant and one female control participant turned out not to be married, i.e., they were not able to answer the questions on decision-making and IPV. Additionally, every session was cohabited by one or two misclassified participants, i.e., two participants of the treatment women's FGD did not fulfill the criteria related to economic

empowerment, and one male control accidentally participated in the men's treatment FGD. Potential explanations include imprecise briefing by the Community Health Volunteers on FGD times, or insufficient checking of criteria during pre-selection. However, the misclassification only becomes a problem if no difference in the outcome variable can be detected between the treatment and control groups. If a difference in the likelihood of the outcome variable can be detected, the effect is simply expected to be underestimated due to the dampening effect of misclassified participants.

Attrition rates are another important factor to consider. If differential attrition is high, i.e., attrition rates differ vastly between the treatment and control group, this can affect the relationship between dependent and independent variables. When it comes to attrition rates for the women's FGDs, 18 participants were invited, of which three failed to show up. This results in an overall attrition rate of about 16,7 %. All of the drop-outs were controls, leading to an even higher differential attrition. This is worrisome, as those controls may have provided different outcomes than the ones remaining if they had showed up. Zooming in on the men's FGD attrition rates, 18 participants had been pre-selected, but only 13 showed up. This leads to an overall attrition rate of about 27,8 %. Two of nine treatments failed to show up, resulting in an attrition rate of about 22,2 %, while the number lies at 33,3 % for the controls. The differential attrition therefore lies at 11,1 %, which is relatively high (US Department of Education, 2022, pp. 150). With regards to socio-demographics, those who did not show up did not significantly differ from their counterparts. The differences in drop-out rates may instead be explained by a lower ability for people in the control group to leave one's family, job or business. As mentioned above, it cannot be excluded that the control women's husbands are generally more conservative and do not allow their wives to leave the house or participate in a research study. Turning to the household surveys, attrition rates were lower. In Makina, only one person dropped out in the course of the week, disappointed by the fact that she would not get any compensation. In Laini Saba, six women were not present when the enumerators visited their households. The same applies to Gatwekera, where seven missing respondents had to be replaced. There does not seem to have been a significant difference in drop-out between treatments and controls.

Another measurement error may emanate from a confirmation bias on the side of the FGD facilitators when conducting the sessions. Personal opinions may have steered the discussion in a sense that didn't allow the participants to share as freely. Similarly, an enumerators' gender may have influenced results. For example, in the household survey, a respondent may have felt more comfortable to share the truth about sensitive attitudes or behaviours if the enumerator was female. However, applying the RRT is assumed to have reduced the influence of opposite-gender enumerators to a great extent, as it provided a certain extent of anonymity to the respondents.

## 6. Results

In this section, the resulting outcomes from the analysis shall be discussed. First, the qualitative data resulting from the focus group discussions is analyzed. Second, an interpretation of the quantitative data is presented and complemented with robustness checks.

### 6.1 Qualitative Data

Four focus group discussions were conducted in total ( $n = 28$ ); two for the women, and two for the men, each of which was further divided into a control (women:  $n = 7$ , men:  $n = 6$ ) and treatment group (women:  $n = 8$ , men:  $n = 7$ ). Transcripts of the data output can be found in Annex 3.1.

Much of the structure of the qualitative data analysis is given by design. This is due to the structure of the guide that was handed to the facilitators for the focus group discussions. Hence, the over-arching *Aggregate Themes* are the same for all groups: 1) economic empowerment, 2) household decision-making allocations, and 3) the justification and experience of IPV. The main process revolves around detecting *2nd Order Concepts* being repeatedly brought up in the majority of focus group discussions, and attributing any discussion points, notions, and relevant topics – i.e., *1st Order Concepts* – to each of these. This facilitates any comparison between the groups considerably, and allows new themes to be discerned which were not included in the questionnaire, but which the participants apparently feel a need to talk about. In the following paragraphs, detailed descriptions and according quotes of the results are presented (see Annex 4.1 for a graphic representation and overview).

#### Economic Empowerment

The first over-arching theme found in the focus group discussions is that of economic empowerment, including all questions related to available programs in Kibera, program selection and specifications, perceived benefits and support by husbands.

All groups acknowledge the existence of various programs. Recurring names are Shofco, CFK, and Dreams girl. Others include WATU credit, Kibera green, table baning, Kibera Girl Soccer, Amani Kibera, wave, and Urban Organization. Program content ranges from entrepreneurship to microfinance, waste management, masonry and building, computer programming, and the support of female sex workers. Entrepreneurship programs often focus on the development of a single skill or product category such as soap making, tailoring, beauty, or the selling of second-hand clothes. People in Kibera typically hear about the programs by interacting with people in their community, by seeing ads on posters or social media, or by being related to former or current beneficiaries. All focus group discussion participants agree that three to six months is the usual program duration. One obvious selection criterion is gender, another is showing



interest, or being at the right time and place in order to be recruited for a program according to the women. The men additionally mention application requirements such as motivation and a certain education level, as well as a certain degree of vulnerability. Benefits of economic empowerment are clearly said to include reducing financial burdens in a household, as well as the learning of new skills. Treatment women add that they feel like it enables them to become their own boss and develop confidence. All women agree that economic empowerment allows women to be more comfortable in making decisions in the household, because “at least now you’re bringing something to the table.”

When the women are asked about how supportive husbands are with regards to their wives’ participation in economic empowerment programs, the treatment group is slightly more positive than the control group. One woman says that her husband encourages her “to push forward and go for my dreams”. Both groups indicate additional income as the main reason why men would be supportive. However, participants also widely acknowledge the possibility of little to no support. One issue is the husband’s alleged insecurity about the possibility that the wife may do better than him: “he’s okay with yall suffering as long as you don’t get to earn more than him.” Another issue that is named is that the husband will start “complaining over the smallest of issues e.g., me coming home late or my dress code changing”. Both the control and the treatment women, independently from each other, state the occurrence of active sabotaging of economic empowerment opportunities, i.e. their husbands convincing their wives’ boss to fire them or hiding their work essentials. Still, the women seem to think that economic empowerment can bring more good than harm to a marriage, particularly the treatment women.

A bigger difference can be noticed among the men. The control men are against any support for women to become economically empowered. They fear being disadvantaged and thus challenged as the head of the household. They even express the fear of being left by their wives or having their marriage ruined in another way. “As an African man I know that I’m always the head of my family but now the wife will want to be the head or compete for equal powers in the family. ... Spirit of feminism will be instilled in them and that is what destroys marriages.” Criticism about feminism is a recurring theme among the control men. They state that “this kind of empowerment coming from the west, I don’t like it.” A participant claims that economically empowered women will start asking their husbands to help in household chores “in the name people should help one another in the house”, which according to him is “absolute nonsense”.

Compared to the control men, the treatment men recognize the advantages of economic empowerment to a greater extent. Several men state that they feel good and happy about the fact that their wife attends economic empowerment sessions, “because when she attends those sessions she gains knowledge, and in one way or another, that knowledge will be helpful to

our household”. Nevertheless, the men do recognize certain problems related to their wives’ economic empowerment: “at some point in decision-making, when the wife is having a lot of money than the husband then they will tend to make all the decisions by themselves thus belittling the husband. When that happens then problems in the family starts.” This clearly shows the channel between economic empowerment and decision-making. In that sense, the majority of men seem to agree that the advantages of economic empowerment are greatest when women stay submissive in the household dynamics. While the control men agree that the disadvantages outweigh the advantages when women are economically or even generally empowered, the treatment men see more good than harm for a marital relationship. Interestingly, both men’s groups mention that even if they are okay with their wife contributing financially, they do not want her to pay in front of the children (without being specifically asked about that). They mention that when the father is not the one paying fees, the children will “see that the dad is not providing and thus they will not love him for that.” This shows in how much of a man’s worth is defined through his ability to be a strong financial provider, and partly explains where their insecurities about losing respect and authority come from.

### **Household Decision-making**

The second *Aggregate Theme* in the focus group discussions is related to household decision-making. A household in Kibera faces many decisions in every-day life, the most common revolving around basic necessities such as food and clothing, the children’s education, rent, as well as major purchases or investments such as buying land. When asked about who is responsible for taking these decisions in their household, the women’s and men’s views differ significantly. Interestingly, both female groups express a generally equal share of decision-making between husband and wife in a household: “nowadays, the one with enough money to make the purchase does it.” When asked about the decision area of family planning specifically, the women feel that they have the main right to decide, since it is their body. They know “that a chain of children will be hard for me to bring up properly. ... Looking at the future it will be hard to educate children with a small age difference.” Additionally, “men won’t allow you to use the contraceptives but in turn leave you when the babies increase rapidly”, such that they feel obliged to go to the clinic for contraception even if the man has not agreed. The women thus appear very empowered when it comes to family planning. On the other hand, school fees and health care costs are said to require joint decision-making, while decisions on major purchases pertain mostly to the man because “most of the time, he is the one who funds the purchase”, although treatment women are slightly more open about joint decision-making in this area. Regardless of whether they are economically empowered or not, the women admit that they feel bad when they are being left out of decision-making. At the same time, they recognize the inability to do something about it. “I’ll ask him about it first but if he becomes angry and firm on the decision, I’ll have no other choice but to let it be”, says a control

woman. Similarly, a treatment woman states that “inquiring about the decision may bring about disagreements which result to violence, so if the decision is right, just let things slide to avoid violence.”

The men’s focus group discussions yield a very different view on who is responsible for taking decisions about family planning. On the one hand, some participants, mostly husbands of economically empowered women, believe it is a joint decision-making process, because “...maybe raising many kids might be a burden. Therefore, it is wise to discuss and know how many kids you can raise together before deciding on family planning and contraceptives.” On the other hand, several men clearly state that they cannot allow family planning in their house, because they “believe in the African culture where women were to give birth freely”. A slight difference between the control men and treatment men can be seen when discussing responsibilities around major purchases: control men clearly see themselves as the main decision-makers, while the husbands of economically empowered women have mixed opinions. In contrast to this, decisions revolving around kitchen food are clearly seen as a woman’s job. The men argue that it is their “natural duty” and “it actually takes understanding for all these to take place smoothly.” This feeling of the importance of clear household roles comes up several times: “according to me, I think that it is always good for everyone in the family to know their roles so that they don’t have to always consult their partners whenever they want to do something.” In the end, both the control and treatment men still agree that “in the family, the man will always be the head with or without money.” A treatment man explains: “that is what we say being a man is, you don’t have to consult your wife always at some point just make a decision and that will be final.” When asked how they feel when being left out of decision-making, there is a general agreement, especially among control men, that a man has to fight to regain his position, and “if the wife is not ready to submit then that marriage will come to an end”.

### **Experience and Justification of IPV**

All four groups are clearly aware of the fact that IPV exists widely in the community. However, the men’s control group agrees that people should not talk about it as that would be meddling in a couple’s affairs. This group also very much justifies the use of violence in a marriage. “Some scenarios may just force you as a man to hit her, for e.g. you come home with friends and then she talks to you rudely in front of friends. That feeling is so bad that at least a slap will pass.” “Once you avoid hitting a woman then that’s the moment you’ve lost her sanity, the hitting is meant to mold her.”

The treatment men express more mixed views. One respondent speaks up strongly against violence at several instances and recommends dialogue instead: “in our African traditions, men used to beat and insult wives, but now we are in a different era, ... instead dialogue should work.” Others from this group believe that some slapping from time to time is a good

means to discipline the wife: “sometimes when a wife misbehaves, it’s always good to discipline her because they are like our children, so when you just slap her a bit, you remove that bad behavior in her and she will always respect your position as man in the house.” It is specified that misbehaviour justifying such reaction includes cheating and sometimes child neglect. For the control men, rudeness is enough to justify a slap. Interestingly, both groups do not see insults as a justified means of violence, for the simple reason that insults are “effeminate” and women “will always overpower you in that”.

Discussing sexual violence yields even bigger differences between the men’s attitudes. The treatment men agree that a woman should not be forced, but some think she should at least explain herself. For the control men, sex in marriage is generally expected and women rarely have a good reason for not wanting to. “Why should she refuse, that is why she left her parents?” “To me sex is a must every night, ... and that is what actually brings what people say is rape in marriage, while in real sense it isn’t.” Only one participant explicitly says that he won’t force his wife, “because it won’t be fun when she is feeling forced.” A topic that is brought up in both male groups without being directly asked about is the notion that violence is a two-way issue. “Both men and women suffer equally the same, since some women nowadays beat up their husbands. People only talk when wives are beaten up or insulted but don’t care when a man is beaten up.”

Differences with regards to attitudes on IPV can be also be detected between the women’s groups. The majority of treatment women do not justify IPV under any circumstance, although one participant says that it depends on the situation: “the little beating will knock some sense into the wife’s head and she will start acting accordingly.” The control group does not justify IPV in general, but when prodding, most appear to justify emotional violence, and some express the belief that beating is justified when they have done something wrong. “If he finds me cheating on him, he has a right to beat me. I’ll understand because that will be a mistake on my end.” The same respondent states that if she forgot to feed the children, “I know I’ll have wronged him and I definitely deserve the beating. And also, I’ll be too ashamed to tell anybody.” All women acknowledge the reality that IPV happens relatively quickly in a couple. “Some are temperamental and will hit you before you even get the chance to explain yourself.” They specify: “let’s say for instance, I have an emergency and I leave my phone home. When I come back, he won’t know where I was, it’s a slap first and I end up quiet.”

Another topic that comes up repeatedly is the lack of support between women. All women seem to agree that sharing difficult experiences with their friends or neighbours is not a good idea, as they are expected to spread the gossip and meddling instead of helping. “Some women will find a topic to backbite you with.” “Some will probably even be happy.” “Friends is a no.” Similarly, standing up to the husband is not seen as a viable option to control women as it can be very dangerous. “A man will brutally beat you if you try standing up to him.” “He

can even murder you.” While getting the chief to help with conflict solving is one suggestion, a woman argues that “at times the chief might have been eyeing you and will start saying you’re his now the moment you guys get there”, eliminating this as a safe option. Instead, seeking legal help, turning to a religious leader, calling a GBV hotline, or turning to family are the preferred solutions. Nevertheless, family rejection is a possibility, and leaving the relationship is rarely an option with the kids at stake.

### **Short Summary of Results**

In summary, the women’s groups are more aligned on the impacts of economic empowerment programs, household decision-making power allocations, and the experience and justification of IPV than the men’s groups. Still, the treatment group suggests a slightly higher supportiveness of their husbands with regards to women’s participation in economic empowerment programs, and are slightly less likely to justify IPV than those who are not. Similarly, the treatment men are less likely justify IPV, and tend to recognize the advantages of economic empowerment programs to a much greater extent.

Overall, the qualitative data suggests a firm confirmation in direction of the first hypothesis, namely that economic empowerment is beneficial to women as they are less likely to face IPV in their marriage. While there is no big difference in female decision-making agency between the women’s groups, men tend to agree with female agency more if they are married to women who are economically empowered. This points to agreement as the main driver in the negative relationship between economic empowerment and IPV rather than female agency. Still, the second hypothesis is harder to test than the first one, as the answers cannot be clearly distinguished according to the degree of female agency-taking and disagreement in household decision-making within the particular couple.

## **6.2 Quantitative Data**

### **6.2.1 Descriptive Statistics**

#### **Economic Empowerment in Kibera**

The initial sample consists of 214 women aged 18-37 years. Due to the focus on youth aged 18-35 years, values above are excluded, reducing the sample to  $n = 209$ . From the remaining sample, 126 women or 60.29 % report having undergone an economic empowerment program, thus making them part of the treatment group. Conversely, 83 women or 39.71 % of the sample do not consider themselves to be economically empowered.

Although the criteria for the starting point of the program was to lie between January 2020 and April 2022, it can be seen that 67 respondents do not fulfill the criteria, which is more

than half of the treatment group (see Fig. 4). Hence, it does not make sense to exclude them at this stage due to loss of statistical power. Instead, this is done in a robustness check.

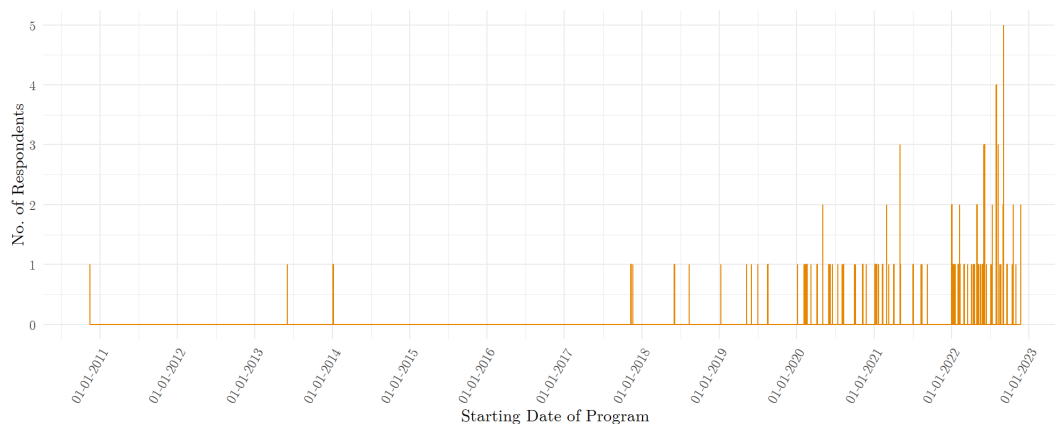


Figure 4: Program start by group

Taking a look at the duration of the program yields a similar degree of variation. The vast majority of women belonging to the treatment group participated in a program lasting from one to three months ( $n = 72$ ). Nine respondents indicate a duration of less than four weeks, 45 respondents indicate a duration of more than three months (of which around two thirds have participated in a program that lasted over more than six months). More than 60 % of the treatment group specify a program frequency of multiple times a week.

Various organizations are responsible for the economic empowerment programs attended by the treatment women. Most frequently, Shofco is named ( $n = 42$ ), followed by CFK ( $n = 20$ ) and the Superb Community Base Organization ( $n = 5$ ). Other organizations are named less than three times, including: Amani na nguvu, Arise and conquer, Asa, Bacteria foundation, Beyond zero, Biashara Esmine, Cedi, Chama ya wamama, Christco, Co-operative Bank of Kenya, Dalton, Destiny Queens, Dream Girl, Dreams Foundation, Hope care givers, Hope church, International Needs at Homecare Spiritual Fellowship, Inuabiz, Joseph Kang'ethe Primary School, Kikoship, Kipotek, KYEOP, Lea Toto, Little Angel, Maendeleo ya wamama, Merigo round, Mirror of Hope, National Youth Service, Ndeyia Africa, Tauni CBO, Tumikia Mtoto, Umamde Trust, Upendo group, Vision members, Wayo Wayo CBO, and Young Divas. There are 13 women who say that they do not know which organization was behind their program.

Slightly more than half of the treatments indicate that their program was targeted at women exclusively. The majority of programs include cash transfers, facilitation of access to loans, credit, or microfinance, access to savings group(s), capacity building or entrepreneurial skills, and the building of financial literacy skills. 38.10 % of programs provided linkage to employment market(s), and 11 programs offer other activities or interventions such as soap making,

team building, interview preparation, bead work, and mentorship. There is big variation in the comprehensiveness of the programs, i.e. how many of the services are simultaneously provided by a program. Over 75 % of treatment respondents indicate that the program has helped them make more informed and better economic decisions as well as settle their expenses at home. On the other hand, only slightly over half feel more in control of their livelihoods after the program, and 57.14 % feel less indebted after the program.

Last, a new variable is created to measure whether the program improved a participant's employment situation. If the respondent does not have a job before the program, but reports being employed after, this is deemed an improvement. An improvement is also attributed to individuals who change jobs and whose income increases in the process. Conversely, if the individual loses their job, or changes jobs but faces reduced income, this is deemed a deterioration. If the individual's employment status does not improve, this is classified as no change. As a result, out of the 126 treatments, 66 do not experience a change in their employment situation, while 50 experience an improvement, and 10 a deterioration.

### **Sociodemographic Differences**

Turning to the sociodemographic variables, the control group is compared with the treatment group to detect potential confounders with the main effect.

A slightly higher percentage of treatments live in Makina village compared to Gatwekera and Laini Saba. Nevertheless, Pearson's Chi-squared test does not indicate a statistically significant difference between the two groups ( $p$ -value = 0.56). The age distribution is relatively similar between both groups, with a mean of 28.3 years and 27.6 years for controls and treatments, respectively. Applying a Wilcoxon unpaired two-sample  $t$ -test does not demonstrate statistically significant difference between the treatment and control group.

Considering that respondents are not older than 35 years, it is impossible that they have been living in Kibera for longer than this time span. Yet a respondent indicates 45 years of sojourn. To correct for this inconsistency, the variable is winsorized at 99.5 % percentile, leading to the distribution as shown in Fig. 5. Neither a Wilcoxon nor a Yuen two-sample  $t$ -test indicate a statistical difference between the two groups. The same applies to the reported duration of marriage, for which the mean is 7.31 and 6.02 years for the control and the treatment group, respectively.

Respondents tend to live with their husbands and children only. Three controls and eight treatments live apart from their husbands, two controls and five treatments live with their own parents or their husband's parents. Some women live with relatives and very few with friends. Nobody lives alone or with their grandparents. None of these results differ significantly between the two groups. Since no further loss in statistical power shall be caused in the main

analysis, the initial criterion of shared-household marriage is neglected at first, but taken up later in the robustness checks.

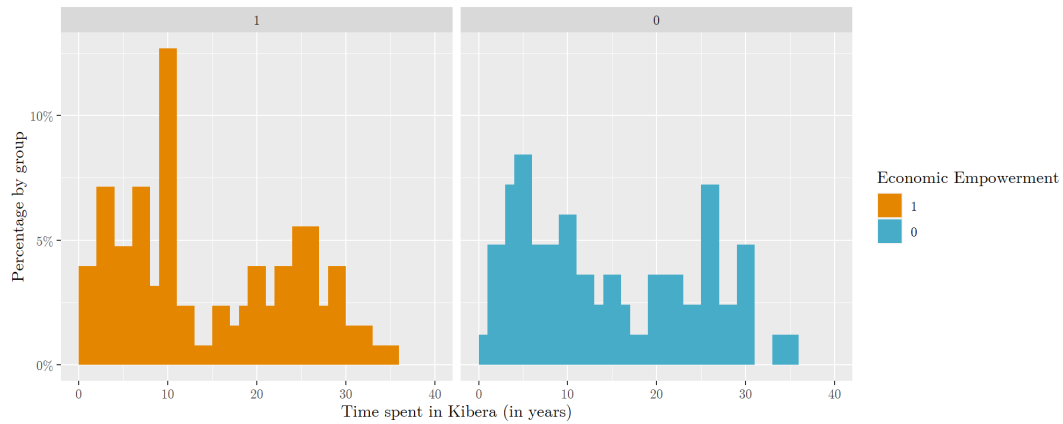


Figure 5: Time spent in Kibera by group

Neither the number of children, nor the religion or the tribe yield any statistical difference when applying Chi-squared tests and t-tests. The mean number of children is 2.34 for women who are not economically empowered, and 1.99 for those who are. Nine children is the maximum. When it comes to the religion, the large majority is Christian, while only 5-12 % of women are Muslim depending on their economic empowerment situation. Most women in the sample consider themselves Luhya or Luo, which is representative for Kibera but less so for Kenya overall, which is made up of a majority of Kikuyu (Fig. 6).

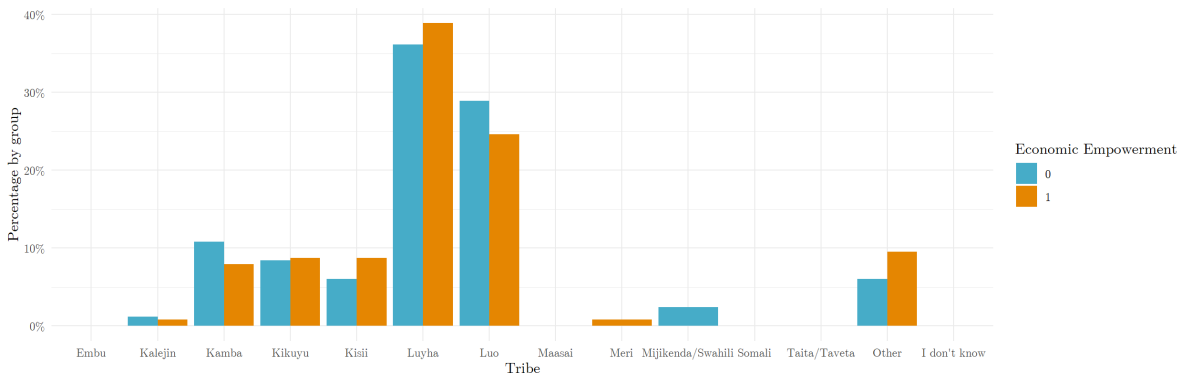


Figure 6: Tribe by group

Respondents were also asked from which province(s) in Kenya they originally come from. Over a third of both the control and treatment groups originate from Western or Nyanza province. This is interesting, as these are neither closest to Nairobi nor big in size. The more obvious choices like Eastern, Central, and Rift Valley provinces are named by less than 15 % of each group. More treatments originate from Nairobi relative to controls. While this is not enough



to yield a statistical difference when applying a Chi-squared test on this variable (p-value = 0.43), it may point to differences in urban and rural origin. Indeed, 16.67 % of treatments versus 6.02 % of controls indicate an urban origin. Running a Chi-squared test yields a p-value of 0.02, pointing to a statistical difference between women who are economically empowered and women who are not.

With a p-value as low as 0.000881, the education background also differs significantly between treatments and controls (Fig. 7). Women who are economically empowered tend to have a higher level of education than women who are not.

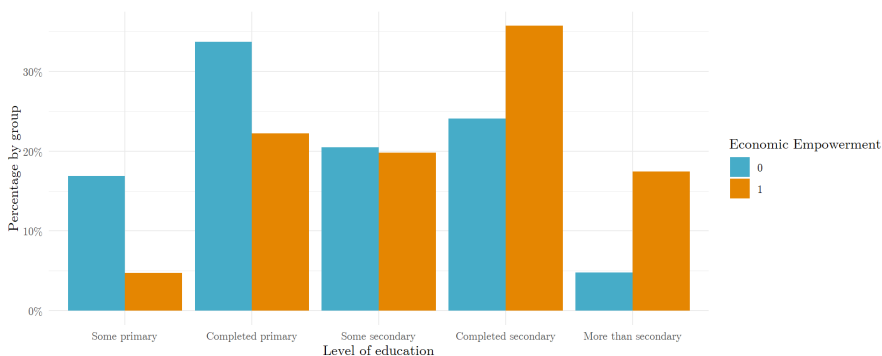


Figure 7: Education level by group

Interestingly enough, individual weekly average income does not differ much between controls and treatments. The mean is 1,909 Kenyan Shillings (KES) for controls and 1,940 for treatments, translating to a weekly average of \$15 at an exchange rate of 0.0078. The two outliers at 20,000 and 25,000 KES either point to large differences in the overall sample, or simply to a typing error by the enumerators.

Unfortunately, income measures could only be obtained from those who indicated having a job generating income. It may be that women generate income through other, more irregular activities. While this was not measured, the questionnaire does include a question on relative income independently of whether the respondent had indicated having a job. About 75 % of both groups report earning less than their husbands.

### Intra-Household Decision-Making Power Allocations

The first decision-making area analysed is family planning (see Fig. 8). Three findings stand out in relation to this decision-making area. First, the degree of agency-taking is striking: over 90 % of women indicate joint or sole decision-making regarding family planning in their household. Second, two thirds of couples in the sample seem to be aligned on the decision-making allocation in the household. Third, when comparing treatments and controls, there seems to be almost no difference between the two groups.

Turning to the second decision-making area, namely decisions concerning the children such as school fees and health costs, yields very different results regarding the degree of agency-taking (see Fig. 9). Now, only 56.46 % of the sample report having agency in this area. The number of couples agreeing on the decision-making allocation, however, has stayed roughly constant at over two thirds. Comparing treatments and controls points to more agreement over female decision-making agency for treatments.

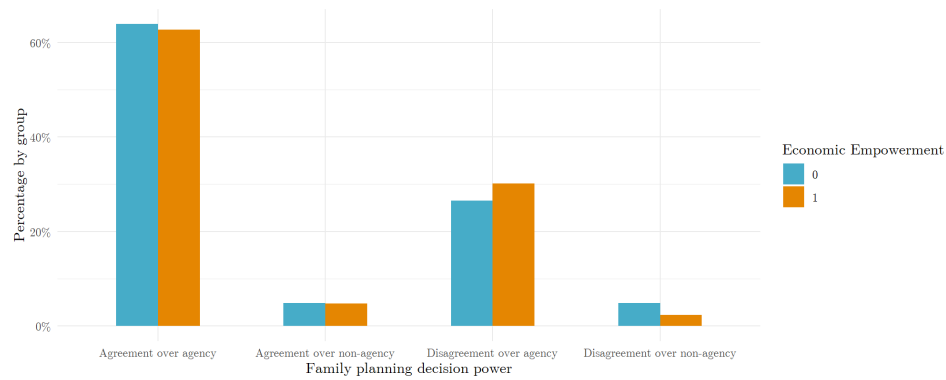


Figure 8: Intra-household decision-making power allocation for decisions concerning family planning

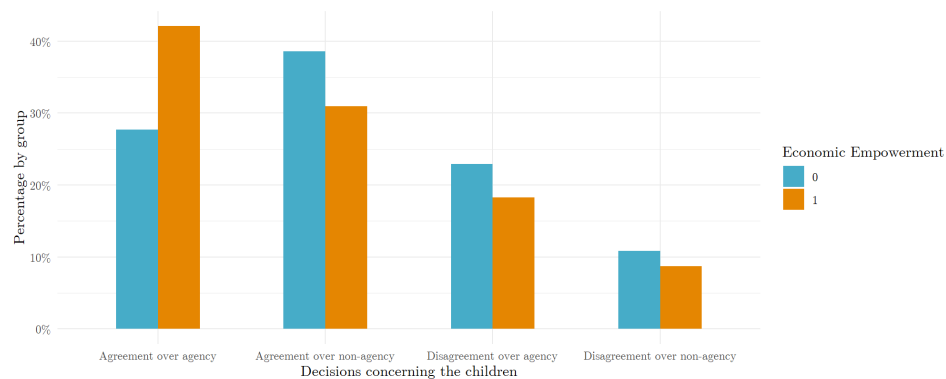


Figure 9: Intra-household decision-making power allocation for decisions concerning the children

The situation is very similar for the last decision-making area, i.e. decisions concerning major purchases beyond 10,000 KES. 45.45 % of women do not feel in charge of taking such decisions, and 72.73 % of couples are aligned about the power allocations. Again, treatments are largely found to have agreement over agency when it comes to decisions on major purchases, while controls are more likely to have other decision-making power allocations.

Despite the difference in agreement over agency, testing the correlation between each of the decision-making areas with economic empowerment through a Chi-squared test does not yield statistically significant results. This shows that the decision-making allocations are orthogonal to the treatment.

## Prevalence and Justification of IPV

In order to obtain the true measures of justification and experience of IPV, the RRT formula must be applied to each question. Note that this section only provides descriptive evidence for share of total prevalence, while the differences between treatment groups are assessed in a later section.

The first scenario used to determine the justification of IPV is a young woman in Kibera going out with her friends without telling her husband. As a proxy for emotional violence, the respondent is asked to imagine that the husband reacts by insulting his wife. After applying the RRT formula, it is found that 43.51 % of respondents agree with this reaction. In Scenario Two, the respondent is told that the imaginary woman in Kibera neglects the children one day by forgetting to cook them dinner. Now, 55.13 % of respondents agree with the husband's reaction, i.e. insulting his wife. As a last scenario, the woman refuses sexual relations with her husband. Still, 20.95 % of respondents justify the use of emotional violence by the husband in that situation.

The results for the use of physical and sexual violence are lower. 16.85 % of respondents believe that the husband is justified in hitting his wife when she goes out without telling him, while the share increases to a quarter when respondents are presented with scenario Two. Unexpectedly, however, the share turns negative for Scenario Three. This is impossible in reality, but unfortunately possible due to the nature of the formula. As for the use of sexual violence, 14.11 % of respondents perceive it as a valid measure in the situation that the wife refuses sexual relations, while the other two scenarios yield agreement in 7.28 % and 3.18 % of the cases, respectively. Rape is therefore on average the least justified measure.

The experience of IPV is again divided into the emotional, physical, and sexual sphere. Emotional violence consists of humiliating somebody in front of others, threatening to hurt somebody or somebody close to them, as well as insulting them or making them feel bad about themselves. While roughly a fifth of respondents report having experienced humiliation and threat in the last six months, this amount increases to almost 40 % for insult. As for physical IPV as another form of violence, more than a fourth of respondents experienced slapping in the last six months, and about a fifth was pushed, shaken, or being thrown at. Between five and ten percent report the experience of punching, kicking, beating, arm twisting, or arm pulling. Nobody, or in RRT terms even a negative amount of people, was choked or burnt on purpose. Last, respondents are asked about their experience of sexual IPV in the last six months. While 14.11 % of the women are found to having been physically forced to have sexual intercourse when they did not want to, this number is reduced close to zero when being asked whether they were forced to perform other sexual acts against their will, be it physically or with other threats. This may point to a cultural taboo with regards to sexuality in general, but in particular any form of sexual acts straying from the classical portrayal of sex in a couple.

## Test Variables

Two questions are asked at the end of the survey to test how well the RRT worked. Two thirds of respondents find the technique very easy to understand, and only six respondents out of the 209 had a hard time understanding the technique. The enumerator's assessment of respondent's understanding is even more positive: about half scored very well, almost as many scored well, and only three are evaluated to have understood badly. The technique works slightly better for the treatment group. An explanation might be higher literacy rates among more economically empowered women.

### 6.2.2 Linear Probability Model

#### Main Effect

In order to test the first hypothesis, a basic regression of the effect of economic empowerment on IPV is run, ignoring any interaction variables. The results are presented through coefficient plots depicting the estimated marginal effect of participation in economic empowerment programs. Full regression tables can be found in Annex 4.2. The graphic on the left always depict the regression results including only the essential control variables, comprising the rural or urban origin of a respondent, as well as their education level. On the right hand-side, a regression is run including all potential control variables, except those that are most likely an effect of the treatment. This encompasses religion, tribe, number of children, time spent in Kibera, village, living situation, origin, duration of marriage, and age.

The first type of violence analyzed is the justification of emotional violence (Fig. 10). Only the third scenario produces significant results at the .10 level: being economically empowered decreases the probability of justifying insult upon refusing to have sex by 12.05 % points, hence supporting H1. The regression including all controls depicted on the right supports this conclusion. The situation is similar for the justification of physical violence. According to the regression output, being economically empowered decreases the probability of justifying hitting upon refusing sex scenario by 12.53 % points. The other two scenarios remain inconclusive due to a lack of statistical significance. Including all relevant confounders does not point to alternative conclusions. Inconclusive results are also produced when concentrating solely on the justification of sexual violence. The regression output is insignificant for all scenarios, hindering any conclusions about a negative effect of economic empowerment as predicted in H1.

Examining the outcomes for the experience of IPV leads to equally partially conclusive results. While all three resulting coefficients for the experience of emotional violence are negative, as is predicted by H1, only the experience of insult is significantly affected (Fig. 11). More concretely, being economically empowered decreases the probability of experiencing insult by

14.40 % points. This negative effect is reduced to 11.43 % points when all controls are included, but remains significant at the .10 level. Turning to the experience of physical violence, it can be seen that two types of physical violence are connected to statistical significance at the .05 level (Fig. 12). Being economically empowered decreases both the probability of being slapped or being pushed, shaken, or thrown something at by 14 to 16 % points. Meanwhile, women belonging to the treatment group do not appear to face less sexual violence from their husbands than women from the control group. To the contrary: the coefficients are positive for the forced performance of sexual acts through physical force or other threats, albeit missing the threshold for statistical significance.

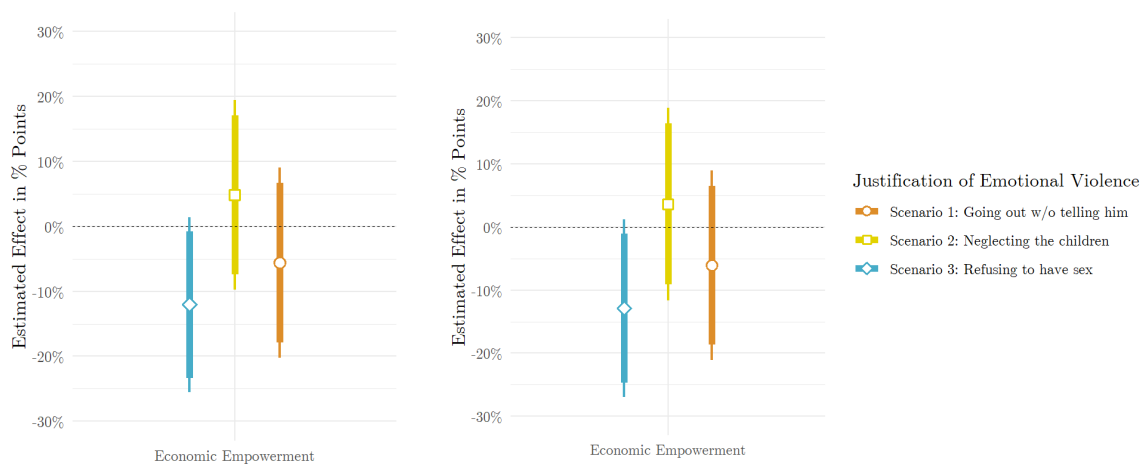


Figure 10: Effect of economic empowerment on the justification of emotional violence

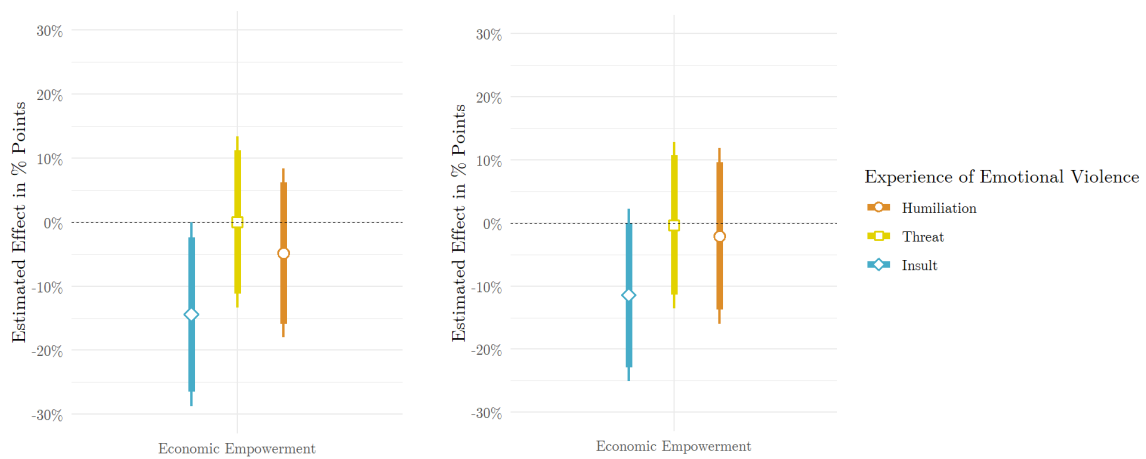


Figure 11: Effect of economic empowerment on the experience of emotional violence

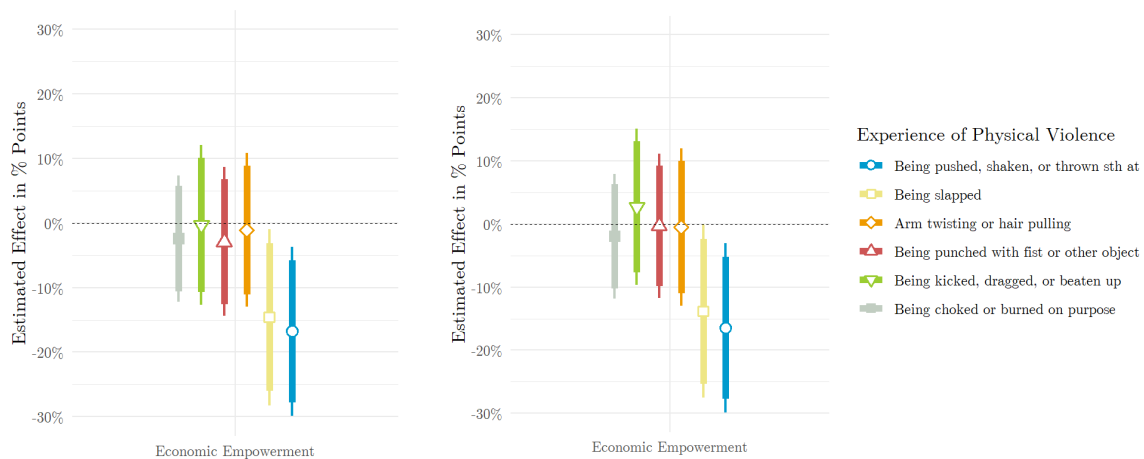


Figure 12: Effect of economic empowerment on the experience of physical violence

Overall, although many results remain inconclusive, the main hypothesis that economic empowerment reduces the experience and justification of IPV cannot be rejected. Indeed, economic empowerment reduces the likelihood for women to experience insult, slapping, and pushing in their households. It also makes women less likely to justify the experience of emotional and physical violence after refusing to have sex with their husbands.

### Inclusion of Interaction Effect

In the following paragraphs, the regression outputs obtained when including an interaction term is analyzed. This allows to test the second hypothesis, which expects that the negative relationship between economic empowerment and IPV is mainly driven by female agency in intra-household decision-making, and its four sub-hypotheses. The interaction variable is divided into three decision-making areas: 1) family planning decisions, 2) decisions concerning the children, and 3) decisions on major purchases. The focus lies on detecting patterns over all graphs, i.e. whether the decision-making areas influence the effect of economic empowerment on IPV in a similar way. Additionally, since the results for the analysis of the main effect proved so similar regardless of the amount of control variables included, only regressions including the two essential confounders of education and rural/urban origin are included in this part.

Interestingly, over all types of violence, the pattern for the decision-making area of family planning is slightly different to that of the other two areas. As seen in the section on descriptive statistics, one potential reason is that the vast majority of respondents ascribe the main decision-making role to women in family planning. The sample for couples with agreement and disagreement on non-agency is therefore very small. This can also be seen through the large standard deviation caused by these groups, and means that family planning results must

be treated with a certain amount of caution. Therefore, the analysis is focused mainly on the results produced by the second and third decision-making areas.

The first type of violence examined is the justification of emotional violence. Over all decision-making areas, including family planning, only Scenario 3 leads to conclusive results: the likelihood of justifying the use of emotional violence after refusing to have sex is significantly lower for women who are economically empowered if they also have decision-making agency in their household and a husband who agrees to their role in it. See Fig. 13 for the graphic results for the second decision-making area.



Figure 13: The effect of economic empowerment on the justification of emotional violence when considering the intra-household decision-making allocations for children-related decisions

The next type of violence analyzed is the justification of physical violence. Although the coefficients for agreement over agency are not always statistically significant, and mostly overlapping with the other decision-making power allocations, the pattern suggests that agreement over agency is the condition of a household leading most consistently to a negative relationship between economic empowerment and the justification of physical violence. When focusing only on the two latter decision-making areas (Fig. 14 and 15), the category of agreement over non-agency is on a similar level of effect, cautiously suggesting that agreement within the couple on the prevailing decision-making allocation is the most important condition for a lower likelihood of IPV in the household rather than female agency in decision-making. The results for sexual violence are aligned with the two previous types of violence in that agreement over agency is the condition producing the most negative effect according to the general pattern.

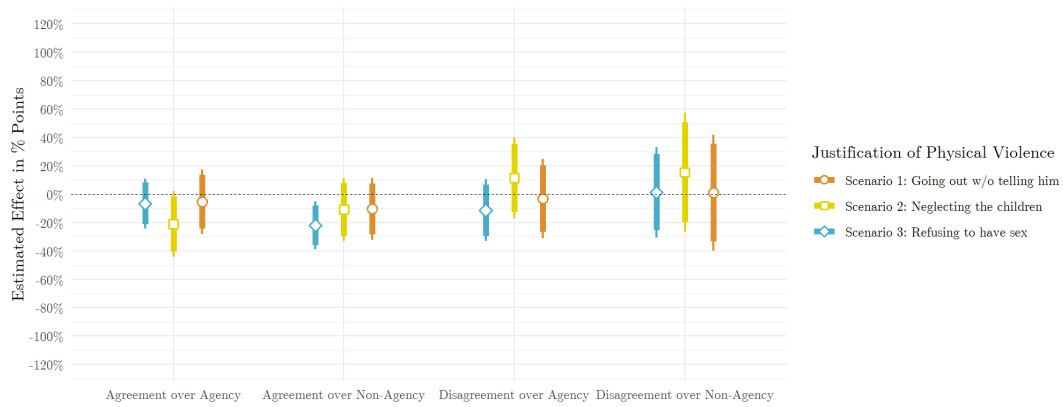


Figure 14: The effect of economic empowerment on the justification of physical violence when considering the intra-household decision-making allocations for children-related decisions

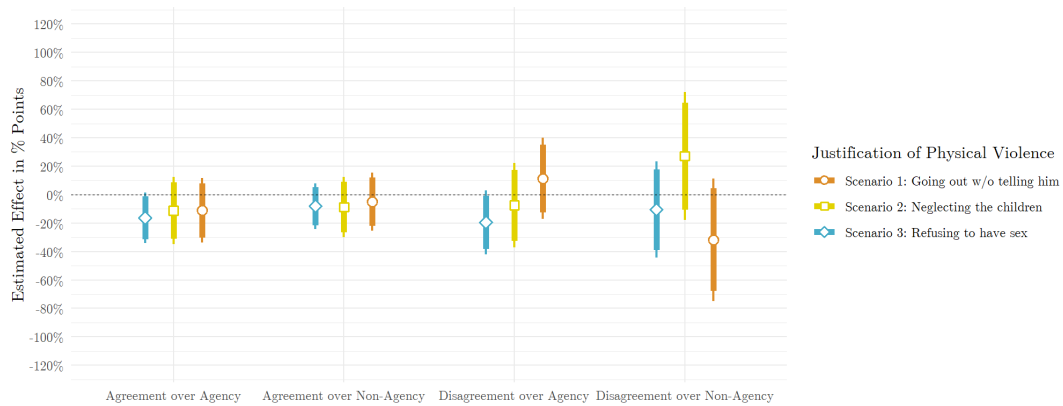


Figure 15: The effect of economic empowerment on the justification of physical violence when considering the intra-household decision-making allocations for decisions related to major purchases

Shifting the focus to the experience of IPV produces more mixed results than for the justification of IPV. Once again, family planning produces a pattern very different to the other two decision-making areas. Starting with the experience of emotional violence and ignoring this decision-making area, women who dispose of disagreement over non-agency in their households appear to be affected most positively by economic empowerment in their experience of emotional IPV (Fig. 16 and 17). Also, female agency in decision-making generally seems to be the precondition leading to a more negative effect of economic empowerment on emotional violence in the household. Examining the effect of economic empowerment on the experience of physical violence by differentiating the influence of different decision-making power allocations related to the two more relevant decision-making areas points to agreement over agency being the safest, and disagreement over non-agency the worst condition for economically empowered women to have (Fig. 18 and 19). Again, this is the general pattern and not a statement of statistical significance. Last, zooming in on the experience of sexual violence does not yield



any conclusive results. Which decision-making power allocation is present in a woman’s household does not seem to make a big difference for the effect of economic empowerment on the experience of sexual IPV.

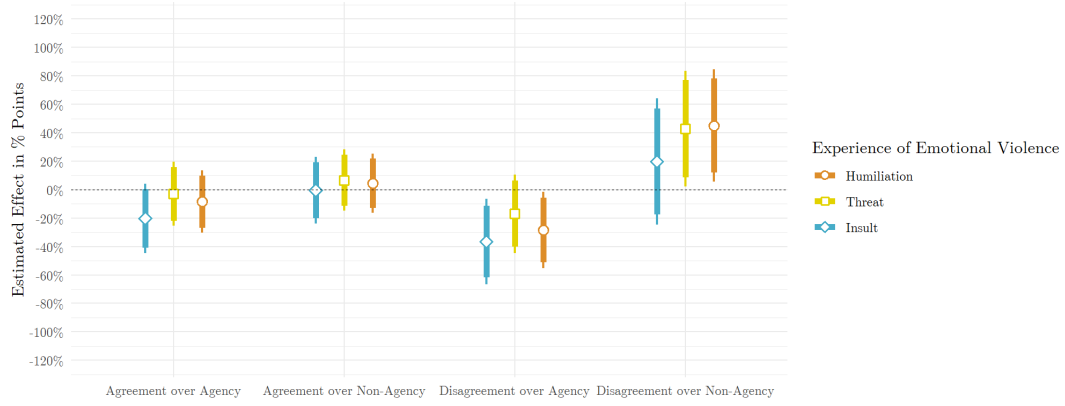


Figure 16: The effect of economic empowerment on the experience of emotional violence when considering the intra-household decision-making allocations for children-related decisions



Figure 17: The effect of economic empowerment on the experience of emotional violence when including the intra-household decision-making allocations for decisions related to major purchases

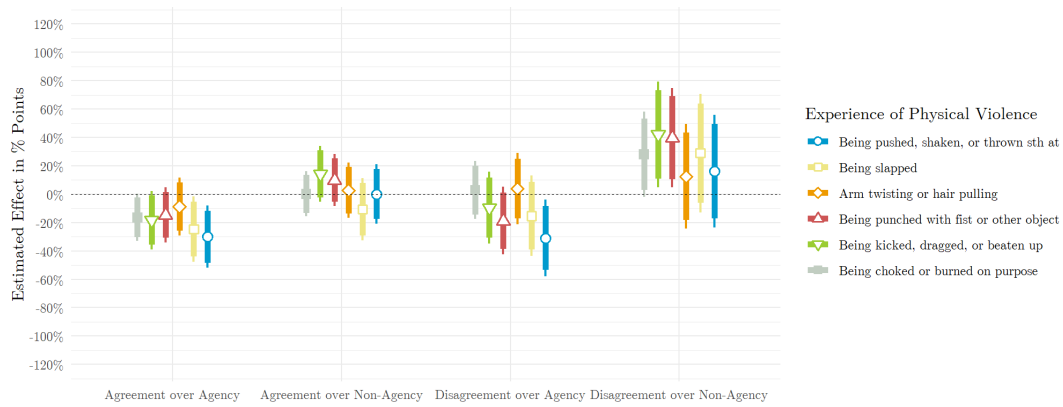


Figure 18: The effect of economic empowerment on the experience of physical violence when including the intra-household decision-making allocations for children-related decisions

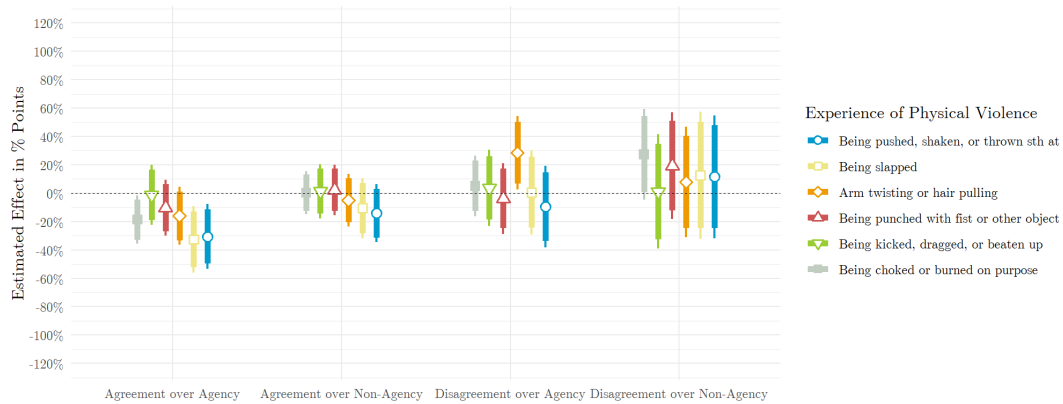


Figure 19: The effect of economic empowerment on the experience of physical violence when including the intra-household decision-making allocations for decisions related to major purchases

Overall, very few statistically significant results are found over all categories and types of violence. Nevertheless, some patterns can be seen that point to similar conclusions. For example, the effect of economic empowerment on the probability of experiencing physical IPV or justifying all types of IPV is most negative for women which take agency in intra-household decision-making and have a husband who agrees with that. Conversely, the point estimates for the probability of experiencing emotional or physical IPV are most positive for women with disagreement over female non-agency. This shows cautious support for H2.1 and H2.4. The two middle categories are more ambiguous: it is not clear whether the element of agency-taking or agreement within a couple on the prevailing decision-making allocation overweighs. Therefore, H2 cannot be fully confirmed as female agency in decision-making is only a driver of the negative relationship between economic empowerment and IPV if coupled with male agreement.

### **Robustness Checks**

Robustness checks are conducted on all regressions to test whether changing certain thresholds would alter the results in any significant way (see Annex 4.3 for the tables). First of all, all women not living in the same household as their husbands are excluded in order respect the initial criteria of shared-household marriage under the assumption that this form of marriage provides the greatest relational dependence issues. This reduces the sample from 209 to 198 observations. Next, the conditions for treating participation in an economic empowerment program as such are tightened. This involves setting the program start to maximally two years before the survey date in order to respect the analysis of short-term effects only, and to minimally six months before the survey date in order to respect the temporality of the independent variable. Further, the program duration is restricted to at least one month. In addition, a program frequency of at least once per week is required for programs with a duration of one month, a program frequency of at least once every two weeks for programs with a duration of at least three months, and a program frequency of at least once per month for programs with a duration of at least six months.

After altering all thresholds, the resulting basic regressions produce very similar outputs with regards to direction and magnitude of effect. Hence, economic empowerment still reduces the likelihood for women to experience slapping and insult in their household significantly. However, significance is lost for several other types of violence, as is expected due to the lack in observations and the restriction of the treatment variable. While economic empowerment still generally produces a negative effect on all other types of violence scenarios, these results must now be treated with more caution.

The situation is similar when including the interaction variable. Generally, the pattern still suggests that agreement over agency is the condition of a household leading most consistently to a negative relationship between economic empowerment and the justification and experience of IPV. Furthermore, even with the new thresholds, disagreement over non-agency enhances the likelihood of justifying or experiencing IPV and can cautiously be considered the worst condition to achieve a reduction in IPV through economic empowerment.

## 7. Discussion of Results and Recommendations

In this section, the qualitative and quantitative data are contrasted and combined for a final analysis, as well as supplemented with recommendations for the improvement of economic empowerment programs.

### 7.1 Discussion of Results

The first objective of this study relates to the nature of economic empowerment programs in Kibera. There are numerous providers in Kibera offering economic empowerment, such that organizations are rarely named twice by the survey respondents and focus group discussion participants. Exceptions are Shofco, CFK, and Dreams girl. The focus group discussion participants name a typical program duration of three to six months, while the majority of respondents from the quantitative survey who underwent economic empowerment programs name a duration of one to three months only, but tend to participate multiple times a week.

The program content varies greatly, often involving numerous services and activities, and rarely focusing solely on cash transfers. As many people in Kibera are self-employed, it is not surprising that entrepreneurship skills are the most popular, along with access to credit and loans and market linkage. A direct question about the selection criteria was only included in the focus group discussions, who mention gender, vulnerability, and motivation as potential barriers to entry. This is partly confirmed in the quantitative survey, according to which approximately half of the programs are designed for women exclusively. When it comes to the benefits of economic empowerment programs, the learning of new skills, morale/confidence boosting, and reduced financial burdens are named by the focus group women. This is partially supported by the quantitative survey, where 75 % of the economically empowered indicate that the program has helped them settle their expenses at home, and 39.68 % demonstrate an improved employment and income situation. However, there is no difference in weekly average income between treatment and control women. One could argue that the selection criterion of financial vulnerability makes treatment women start at a lower income point than their counterparts. Also, only half of the program participants generally feel more in control of their livelihoods situation after the program. For the other half, the programs may not have been effectively implemented or targeted.

Another benefit of economic empowerment programs is named by both the focus group discussion participants and survey respondents as the improved ability to take decisions. In fact, 75 % of survey treatment women say that the program has helped them make more informed and better economic decisions. This is also reflected in the likelihood of taking agency in household decisions. In the quantitative survey, female agency in decision-making is more likely when women are economically empowered, at least in decisions concerning school fees, health care,

and major purchases. In the focus group discussions, the difference is mostly apparent between the men's groups. The control men from the focus group discussions are more reluctant than the treatment men to have joint decision-making in their households.

Another finding stands out when contrasting the attitudes on household decision-making allocations between women and men. While woman and men both largely allocate main decision-making power to the man for decisions concerning major purchases, and decision-making power to both or only the man for decisions concerning school fees and health costs, the divergence for family planning is striking. Family planning is considered by the majority of qualitative and quantitative women as the women's main responsibility, and by a minority as a joint responsibility. The focus group men, on the other side, are split between joint decision-making and making the final decision without consulting their wives. This points to a big area of tension and disagreement in the household. Interestingly, however, this does not show up in the quantitative data: just like for the other two decision areas, the number of couples agreeing on family planning remains at about two thirds. This is much higher than in the study conducted by Annan et al. (2021), which finds that "nearly half of couples in our sample express disagreement in decision-making" (pp. 11). As women were asked to report on their husbands' attitudes in the survey, one reason for the high rate of agreement may be a lack of willingness or ability by the women to accurately disclose the men's actual views or admit to disagreements in their household. On the other side, one could also argue that the dissent expressed in the focus group discussions is higher than in reality. As anonymity was granted only to survey respondents, whereas men participating in the focus group discussions were asked to disclose their opinions in front of their peers, this possibly led to an expectation to express attitudes considered typically masculine in the cultural setting.

A significant divergence between female and male attitudes can also be found in relation to IPV. Women in the focus group discussions generally see IPV as almost never justified, although the treatment women are much more adamant about this than the control women, where one respondent in particular sees violence as a means to be disciplined. The number of women justifying and experiencing violence is higher in the quantitative surveys than in the focus group discussions. Concretely, a third to half of women justify and experience insults, and up to 25 % justify and experience physical violence depending to the scenario and type of physical violence. In contrast to the women, the men largely justify the use of violence in a couple. Especially the control men see physical violence as a natural responsibility in "moulding" the wife and establishing natural power dynamics and roles in the household. The treatment men are more reluctant to admit this, although the majority also sees slapping as a necessary means from time to time. The high extent of justification from the men may point to under-reporting of experience by the women. An exception are insults, which are not considered by the men as an effective or masculine means. Further, only about 15 % of women admit to having

experienced rape in their marriage in the last six months. Yet sex is seen as a daily must in a marriage, especially by the control men, and sexual violence is most justified as a reaction to the refusal of sexual relations. Hence, this may also point to potential under-reporting by the women.

Men and women belonging to the treatment groups of the focus group discussions generally feel that economic empowerment brings more good than harm to marriage. Control women express mixed feelings in the focus group discussions, while control men make it clear that economic empowerment is mostly ruining marriages. Therefore, it seems that the benefits are recognized only during or after participation in a program. This is supported by the quantitative data, whereby economically empowered women are less likely to justify and experience certain types of emotional and physical violence, thus supporting H1 to a great extent.

As soon as the interaction variable is added to the regression analysis, statistical significance is greatly reduced. Still, the general patterns suggest a cautious confirmation of H2.1 and H2.4 that the negative relationship between economic empowerment and the experience of IPV is mostly found among couples with agreement over female agency, and that a positive effect of economic empowerment on IPV is most likely for households with female non-agency and disagreement. Unfortunately, since the individual answers from the focus group discussions cannot be allocated to the degree of agency-taking and agreement on decision-making power allocations in that couple, these results cannot be corroborated by the qualitative data.

All in all, when comparing the results of this study with those advanced by papers mentioned in the literature review, it is perhaps too ambitious to support the statement by Stöckl et al (2021) that “economic empowerment is one of the most promising interventions to reduce IPV in sub-Saharan Africa” (pp. 1). Nevertheless, similar to the studies of Kelkar et al (2004, cited in Slegh et al, 2021), Haushofer et al (2019), and others, the results do support a generally negative relationship between economic empowerment and IPV. However, the argument advanced by Peterman et al (2015), as well as the second main hypothesis in this paper that active female agency-taking in decision-making is a necessary condition or driver for the negative relationship to hold cannot be fully corroborated – unless that agency is coupled with the husband’s agreement on the resulting decision-making power allocation. This makes sense if taking into account the descriptive result that only slightly more than 50 % of economically empowered women have female agency in their households for decisions concerning the children and major purchases, which does not support the basic assumption for H2 that the majority of women take agency in decision-making after being economically empowered.

## 7.2 Recommendations for the Improvement of Economic Empowerment Programs

This study demonstrates that female agency and agreement in the couple are crucial in reducing the likelihood of experiencing IPV. Hence, economic empowerment programs should focus more on encouraging the women not only in financial and entrepreneurship management, but also in generally demanding a greater decision-making role at home. At the same time, the men must be taken on board and enlightened about the program benefits empowering the entire household. They should be involved in the program outputs throughout the whole program cycle, such that the program learnings are made tangible to them at several instances.

The involvement of the women's husbands should start even before the program selection. Seeing as the men appear very sceptical about the effects of women's economic empowerment programs, it is important to eliminate their fears from the very beginning. This may help in not only selecting women who are already living in empowered households. Beyond obstacles occurring directly from the women's husbands, child care support appears crucial in effectively targeting the most vulnerable among the women. Women are generally required to take care of the entire household work, even when they have a full-time job or are participating in a program. Therefore, if NGOs want women to be fully committed to their economic empowerment programs, they may be compelled to provide services for children who cannot be left home alone.

When it comes to violence, it is so prevalent in the community that it is not advisable for men and women to be sensitized about its consequences in joint sessions. Perhaps a session can be organized with the men alone, offering them a discussion and psychological support about how they feel when the roles at home change and their wife suddenly becomes an additional bread winner. By acknowledging their insecurities and getting to the ground of it, strategies can be developed to rebuild their confidence, and the frustration that would otherwise be directed at their wife in the form of violence can be vented in a different way. Women participating in the programs should also be warned about the insecurities that their new empowerment may cause at home. They should be trained on how to deal with these insecurities, how to respond to their husbands' potential feelings of worthlessness, and be provided access to GBV hotlines or psychological support in case violence breaks out at home.

Another issue that should be addressed, although not necessarily primarily in the context of economic empowerment programs, is the general lack of trust women seem to have in each other. It is an unnecessary additional burden for them to feel like they cannot trust their fellow female participants and neighbours with their concerns. Instead, women should be made to feel safer about sharing their challenges with their peers.

## 8. Conclusion

The economic empowerment of women is seen as one of the main drivers for development in Kenya. However, little is known about the intra-household implications of economic empowerment. While it is widely believed that women's access to financial resources increases child health and education considerably, other indicators of changes in intra-household bargaining and its effects are rarely studied. A key variable of interest in that context is Intimate Partner Violence (IPV), affecting 31 % of women in Kenya according to the Kenya National Bureau of Statistics, 2015). Analyzing the effect of economic empowerment programs for women as an explanatory variable of IPV is the core motivation of this particular study. The assumption made is that economic empowerment produces important shifts in decision-making power allocation in intimate relationships, through which the degree of IPV is considerably altered.

The results show that Shofco, CFK Africa and Dreams girl are the most widely known organizations for providing economic empowerment programs in Kibera. Entrepreneurship skills is most typically included in the program content, along with access to credit and loans, as well as market linkage. Named benefits include reduced financial tensions and the improved ability to take decisions. The focus group discussions point to high dissent among men and women concerning the main responsibility for decision-making on family planning in the household. Furthermore, women are much less likely to justify IPV than their male counterparts. Households in which the woman is economically empowered are less reluctant to female agency in decision-making, and are less likely to justify IPV.

Shifting to the outcomes of the LPM, many results remain inconclusive because of limited sample size. Nevertheless, the first main hypothesis that economic empowerment reduces the experience and justification of IPV cannot be rejected. Indeed, economic empowerment reduces the likelihood for women to experience slapping, pushing, and insult in their households. It also makes women less likely to justify the experience of emotional and physical violence after refusing to have sex with their husbands.

Adding the interaction variable of decision-making allocation only allows for the detection of general patterns, excluding the assurance of significance in most cases. The most consistent pattern is that the effect of economic empowerment on the probability of experiencing physical IPV or justifying all types of IPV is most negative for women which take agency in intra-household decision-making and have a husband who agrees with it. Conversely, the point estimates for the probability of experiencing emotional or physical IPV are most positive for women with disagreement over female non-agency. This cautiously confirms sub-hypotheses H2.1 and H2.4.

Overall, this study's contributions are many-fold. Collecting data from various economic empowerment interventions in an informal settlement increases data availability in a much-



neglected context and helps to address the increase in informal employment patterns faced by Sub-Saharan African economies. Moreover, including emotional IPV is important in acknowledging all types of violence. Both the men's and women's views are captured in the focus group discussions, allowing for interesting insights about gender group dynamics. Last, the results yield important recommendations for the improvement of economic empowerment programs, which I hope will be useful for CFK and other NGOs to apply to their programs, not only in Kibera but also when expanding to other informal settlements. For instance, economic empowerment programs should focus more on encouraging the women not only in financial and entrepreneurship management, but also in generally demanding a greater decision-making role at home. At the same time, the men must be taken on board and enlightened about the program benefits empowering the entire household. By acknowledging men's insecurities and preparing the women about tensions created by their new role, the likelihood of increased violence in the household can be prevented.

In any case, the results are only a starting point and must be complemented with other studies using more data points. Based on the limitations faced in this paper, recommendations for future studies include the following: first, the men's views shall also be included in the quantitative data collection. Second, results shall be compared with the Demographic and Health Survey results from all of Sub-Saharan Africa. Third, it would be interesting to contrast short-term effects with longer-term effects, with the assumption that they might start wearing off over time. Fourth, the data analysis can be extended to measuring the predicted probabilities of experiencing and justifying IPV instead of explaining estimated marginal effects only. Last, establishing causality can be much improved by a longitudinal research design and random treatment assignments of respondents.

In summary, hopefully this paper can make a tiny step towards effectively planting the seeds for women's empowerment as promoted by Joyce Banda, and getting closer to the United Nations Millennium Development Goal of universal gender equality.

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