

# **The determinants of justification on social norms regarding intimate partner violence among Nigerians**

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## **Abstract**

Several determinants of justification on social norms regarding intimate partner violence among Nigerians were investigated in this study, think of gender, age, religion and living area. An online survey is used to gather data on demographic characteristics and the individual beliefs and community norms on justification of intimate partner violence (IPV) from the respondents (N=98). Results from this study, first of all, show that IPV is almost never justified in Nigeria. However, from this study it can be concluded that men more often justify IPV than women. This is in contradiction with earlier studies. Moreover, people who live in the North Central geopolitical zone expect that their community is more likely to justify IPV than people living in South South. Policy recommendations on the measurement framework are discussed. Further research is needed to find all determinants of the justification on social norms regarding IPV.

*Keywords: intimate partner violence, social norms, individual beliefs, Nigeria.*

## **Preface**

This master thesis is the result of five interesting months of being an intern at the PMEL department of RNW Media to complete the master Sociology: Contemporary Social Problems. Although I didn't participate much in the daily routine, partly due to the covid-19 circumstances, I did learn a lot about their working methods and processes. It was interesting to get a glimpse of the NGO sector.

First of all, I would like to thank my colleagues at RNW Media for their help and advice, in particular my internship supervisor Elianne Anemaat. She was a pleasant supervisor and gave a lot of new insights and support to successfully complete this thesis. Secondly, I want to thank Anne Brons, my graduation supervisor from Utrecht University, for her motivational words and constructive feedback.

Finalizing this thesis cost me blood, sweat and tears, but Andre Hazes is one of my favourite singers, so that makes up for everything. Have fun reading!

Maureen Heijmen  
Utrecht, 26 June 2020

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# 1. Introduction

Covid-19 has spread around the world, causing a major impact on the global health and economy, but also on safety and violence. The United Nations issued a statement on the 27th of March 2020, warning that rates of intimate partner violence (IPV) will increase worldwide due to the pandemic (United Nations, 2020). Home is often a place of fear and abuse for people who experience IPV. Measures as isolation and lockdowns to decrease the spread of the virus, will contribute to an increased risk of intimate partner violence worldwide. For instance, Nigeria reported a 35 percent increase of IPV within four to six weeks of the lockdown (The Guardian, 2020).

Intimate partner violence is not only a complex problem during the covid-19 pandemic, but has been a global concern for years with a significant public health impact (Garcia-Moreno, Jansen, Ellsberg, Heise & Watts, 2005; Stockman, Hayashi & Campbell, 2015). The World Health Organization (2002) defines intimate partner violence as: “behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours”.

A concerning element of intimate partner violence is the social acceptance in some communities of a man's right to use violence in order to correct his wife (Visaria, 2000). The vulnerability of women to IPV has been proven strongest in societies where the use of violence in many circumstances is a socially accepted norm (Jewkes, 2002). Because of these factors, this thesis focuses on female victims, although men can be victims of IPV as well. Scholars have found a significant direct effect between justifying attitudes towards intimate partner violence and the actual prevalence of IPV. This influence is greater than other determinants such as demographic characteristics and economic factors (Faramarzi, Esmailzadeh & Mosavi, 2005; Hanson, Cadsky, Harris & Lalonde, 1997; Gage & Hutchinson, 2006).

The focus of this research is the justification of social norms regarding intimate partner violence in Nigeria. Twenty-five percent of ever married Nigerian women between the age of 15 to 49 years old have ever experienced intimate partner violence. Forty-five percent of these women have never sought help or never told anyone about the violence (NDHS, 2013). IPV can be covered by social norms that accept violence within relationships, which creates the ability to influence the response of the community in which the violence takes place (McDonnell, Burke, Gielen, O'Campo & Weidl, 2011). Nigeria has a strong patriarchal culture wherein many men dominate over their subordinate women. This is why Nigerian women often see partner violence as a normal part of marriage, which has been stated as culturally accepted in preceding

research (Antai & Antai, 2008; Uchem, 2001). The following research question will be addressed in this study: *“To what extent is intimate partner violence justified in Nigeria?”*

This research is carried out in collaboration with RNW Media. RNW Media is a non-governmental organisation (NGO) that builds digital communities for social change in multiple countries across the world. The organisation wants to understand how their online interventions relate to changes within social norms and is currently exploring ways to measure this. Therefore, this research is a pilot study, to test a measurement framework to examine social norms in one of the countries RNW Media is active in, namely Nigeria. Nigeria is chosen to conduct the pilot study because of practical considerations concerning language and capacity of the local team.

The influence of the online platform Love Matters Naija on the justification of IPV is studied in this research. The platform, part of RNW Media, focuses on topics related to Sexual and Reproductive Health and Rights (SRHR) and provides pleasure-positive and non-judgmental information about often taboo or censored topics. One of the aims of Love Matters Naija is to change harmful norms around sexual and reproductive health and rights, including intimate partner violence (RNW Media, n.d.). The platform is active on multiple social media channels and their own website. It is growing in popularity, for instance their Facebook page has gathered more than 800.000 likes since the creation of the page by June 2018.

Media-based solutions are the best approach according to Lundgren and Amin (2015), who reviewed 142 articles and documents on 61 offline interventions which aimed to prevent IPV. Scientific research is needed to provide evidence for the effect of internet and social media use on social norms, as the use of social media started in the early 2000s and the amount of users is still rising all over the world (Data Reportal, 2020). This study employs a quantitative design to explore this concept by examining if visiting the online platform Love Matters Naija has an effect on the justification of IPV. Enhancing scientific knowledge on this topic will not only prove useful for RNW Media, but may also strengthen current scientific theory, knowledge, research and practice on the usefulness of online media in interventions to change harmful social norms.

Moreover, the influence of other determinants on social norms with regard to IPV, besides visiting Love Matters Naija, will be examined in this study. Nigeria is the most populous country in Africa, with 206 million inhabitants. Fifty-two percent of the population lives in urban areas, so living in urban or rural areas is almost equally divided (United Nations, 2019). About roughly half of the population is Muslim (52%), 47 percent is Christian, and some citizens follow indigenous religious practices as well (Central Intelligence Agency, 2019). Nigeria is a federalist country and therefore consists of 36 states in six geopolitical zones and a Federal Capital Territory.

Each state has their own statutory regulations and the cultural, political and economic context differ greatly between the states. Islamic (Sharia) law is implemented in twelve states in the Northern geopolitical zones, where the majority of the inhabitants are Muslim and civil and customary law is practiced in the other states, of which a large part of the population is Christian (National Population Commission, 2008). It is expected that social norms regarding IPV would vary by religion, geopolitical zone and living in a urban or rural area, and that the prevalence and related justification of intimate partner violence are not the same for the entire country (Linors, Slopen, Subramanian, Berkman & Kawachi, 2013). Other demographic characteristics such as gender, age and educational level might influence social norms on intimate partner violence as well. Gender is relevant to examine, since most of the existing studies on attitudes towards IPV are based on women's perspective while men's responses may also play an important role (Campbell et al., 2002; Faramarzi, Esmailzadeh & Mosavi, 2005; Hindin, 2003; Oyediran & Isiugo-Abanihe, 2005). Most studies concluded that people who are young and uneducated or low educated are more likely to justify IPV (Waltermaurer, 2012). It is interesting to test whether this is also the case in Nigeria.

This current study is not the first study on social norms regarding IPV conducted in Nigeria. Antai and Antai (2008) conducted a study on attitudes of rural Nigerian women towards intimate partner violence and Okenwa-Emegwa, Lawoko and Jansson (2016) conducted research on attitudes towards physical IPV in Nigeria. The added value of this current study in Nigeria is that both men and women and living in both urban and rural areas are included. This research looks at physical, sexual and emotional abuse and controlling behaviours, rather than just physical violence. Testing the influence of all the determinants will answer the following research question: *“To what extent do several demographic characteristics and determinants influence the justification of social norms that accept intimate partner violence in Nigeria?”*

NGOs worldwide, like Oxfam International, CARE, RNW Media and PLAN International, try to change harmful human behaviour by focusing on the prevailing norms in the countries they work in. Professionals need to understand which people justify intimate partner violence and which people do not in order to transform the harmful social norms corresponding to justification into positive or less harmful norms. NGOs more often adapt social norms theory into practical design and measurement tools to better equip practitioners who work on addressing social norms (Care, 2016; Institute for Reproductive Health, 2020; Stefanik & Hwang, 2017). This pilot study is one of the approaches in which RNW Media is concerned in researching social norms, following up other NGOs. It is relevant, since the results can be used to develop an accurate measurement framework for future research. Therefore, this research aims to answer the



following research question: *“How can RNW Media use the findings of this study when designing an accurate measurement framework for social norms research?”*

The findings of this research are based on data from a survey distributed on the social media platforms Facebook and Twitter. People who already knew the platform Love Matters Naija as well as people who were unfamiliar with it completed the survey. In total, 98 respondents are included in this study.

To provide a complete overview, this thesis is structured as follows: In chapter 2, the theoretical framework is provided in which the literature regarding the relationship between dependent and independent variables is explained. Based on the literature, hypotheses are presented which will be tested in order to answer the research questions. In chapter 3, the methodological approach is explained. Chapter 4 contains the results of the analyses which will confirm or refute the hypotheses. The conclusion, discussion and recommendation for future research are written in chapter 5. The last chapter of this thesis consists of a policy recommendation for RNW Media.

## 2. Theoretical framework

### 2.1 Social norms regarding intimate partner violence

The concept of norms is one of the main topics in classical sociology (Durkheim, 1983; Merton, 1968; Parsons, 1937). Bicchieri (2006) defines a social norm as follows:

A social norm is a rule of behaviour such that individuals prefer to conform to it on condition that they believe that (a) most people in their reference network conform to it (empirical expectation), and (b) that most people in their network believe they ought to conform to it (normative expectation) (Bicchieri, 2006).

Empirical expectations are beliefs about how other people will act, specifically about how they are likely to behave in a particular type of situation. For example, when most of your neighbors use violence against their partner, you form the empirical expectation that most people use violence within relationships. It offers information people can use to orient their actions.

Normative expectations are beliefs about how other people think one should act, specifically beliefs about what a person ought to do in a particular type of situation. For example, your normative expectation is that people think you should use violence against your partner. It puts pressure on people to meet other people's expectations. The presence of both expectations makes it more likely that you will conform to the prevailing social norm. (Bicchieri, 2006; Lapinski & Rimal, 2005).

The social learning theory by Bandura and Walters (1977) states that individuals learn how to behave by observing behaviour of their role models and by initiating it. The influence of norms also operates through social comparison (Cialdini, Kallgren & Reno, 1991). People define social reality with the help of other people's behaviour as a source of information. Social norms are cognitive representations of what relevant others, often called a reference group, would typically think, feel, or do in a certain situation, which people use as reference points to guide and assess their own thoughts, feelings and behaviour (Bicchieri, 2016; Mackie, Moneti, Shakya & Denny, 2015). These reference groups can be amongst others religious groups, your family or people from the same age. Social norms are maintained, in part, by approval and disapproval of the reference group (Mackie et al. 2015). This study refers to 'your community' as the reference group of the sample population.

One of the causes of the harmful practice of intimate partner violence is social norms. Most countries prohibit intimate partner violence by law, however partner abuse will often be justified under the guise of social norms. Violence often takes place within the home, so it is easy for the

community to ignore it and difficult to do anything lawfully about it (Uthman, Lawoko & Moradi, 2009). Intimate partner violence goes hand in hand with complex interaction between the abuser and the victim and others in the community. An abuser is more likely to think he has the right to use violence, when a large part of his community thinks that intimate partner violence is justified. If a community believes that intimate partner violence is tolerated, involvement in this abuse would be normative behaviour (Waltermaurer, 2012). Mead (1956) describes the role of social acceptability of individual actions. It points out that the community around us, the generalized other, plays a crucial role in how people see themselves. This theory would argue that the victim will consider her behavior in the perspective of what the community finds acceptable. If she considers that her community thinks that IPV is appropriate, she is likely to agree with them. It then seems pointless for her to seek protection in a community that tolerates the violent behaviour (Waltermaurer, 2012).

The theory of the process of normalization of violence (Lundgren, 1993) can also be used to explain the existence of tolerant attitudes and corresponding social norms regarding IPV. The normalization theory describes the constant shifting of norms until acts of abusive take on a new meaning gradually. Within normalization, assumptions are made which illustrate intimate partner violence against women as normal. Through normalization, people start to believe in the misconception that violence is a normal part of an intimate relationship. Many women see their husband's violence as a consequence of their own mistakes and adopt the perspectives of their abusers. This is kept in place by the practice of the patriarchy (Lundgren, Heimer, Westerstrand, & Kalliokoski, 2001). Multiple social norms that may justify intimate partner violence are analysed in earlier research. This includes men being superior over women, men's right to discipline and control the women's behaviour, men's privilege to sex and appropriateness of violence to resolve conflict (Counts, Campbell, Brown & Campbell, 1999; Heise, 1998; Heise, 2011; Sanday, 1981; WHO, 2009).

## **2.2 Determinants of justification on social norms regarding intimate partner violence**

Knowing to what extent IPV is justified is relevant, since social acceptance of intimate partner violence does not only encourage such practices, but can also be a major obstacle to change such practices (Rani, Bonu & Diop-Sidibe, 2004). Earlier studies in diverse countries in Asia and Africa have found multiple determinants that influence justification of intimate partner violence, including gender, age, educational level and living areas (Dhaher, Mikolajczyk, Maxwell & Kramer, 2010; Linos, Khawaja & Al-Nsour, 2010; Marshall & Furr, 2010; Rani & Banu, 2009; Speizer, 2010; Waltermaurer, 2012). In this thesis, several determinants are discussed, namely

religion, geopolitical zones, living area, gender, age, educational level and visiting Love Matters Naija.

### *Religion*

Religious beliefs can often be related to justifying intimate partner violence against women. The demand for a wife to be obedient is regularly preached in religious communities (Ibrahim & Abdalla, 2010). Women tend to tolerate violence because of the shame or social stigma associated with intimate partner violence or divorce. Young girls from religious families are taught that the social norm is to get married and stay married. This causes significant justification of abuse within the relationship. Furthermore, religious tradition dictates that good women are submissive and do not question male authority, which leads to the belief that a good woman should be tolerant of abuse and that the man has the right to use violence (Hassouneh-Phillips, 2001). Almost everyone in Nigeria is religious and adhere to the Christian or Muslim faith (Central Intelligence Agency, 2019). Therefore, this research examines the differences in justification between these two religious groups.

Antai and Antai (2008) found that rural Muslim women are at higher risk of justifying IPV compared with rural Christian women in Nigeria. There is a considerable difference between Muslims and other religious groups and their attitudes towards partner-related issues and gender equality, which could lead to differences in justifying IPV (Inglehart, Norris & Ronald, 2003). Muslim attitudes towards sex and relationships are more conservative than Christians (Finke & Adamczyk, 2008). For instance, restricting women's mobility in relationships is more often justified by Muslims than by Christians (Adamczyk & Hayes, 2012). Restricting one's partner's mobility is an aspect of controlling behaviour that is associated with intimate partner violence (García-Moreno, Jansen, Ellsberg, Heise & Watts, 2005).

It could be argued that justifying intimate partner violence is in contradiction with Islamic norms, since Prophet Muhammad is known for never beating women, nor for treating them badly and he strongly discouraged others from doing so (Abugideiri, 2010). However, sanctions of the Quran are often used by husbands to justify IPV and the need for women to be submissive and obedient. Most abusive men refer to the 34th verse in chapter four of the Quran, which they interpret as their right to physically discipline their wives (Ghafournia, 2017). A translation of a part of the 34<sup>th</sup> verse states:

As to those women on whose part ye fear disloyalty and ill conduct, admonish them (first), (next), refuse to share their beds, (and last) beat them (lightly); but if they return to

obedience, seek not against them means (of annoyance): For Allah is Most High, great (above you all) (Ali, 1997).

Therefore, this research expects that [H1]: *Nigerian Muslims are more likely to justify IPV than Nigerian Christians.*

### *Geopolitical zones*

Nigeria is divided into six geopolitical zones namely: North Central (known as Middle Belt), North East, North West, South East, South South (known as Niger Delta region) and South West. The zones are not entirely based on geographic location, as they are also divided according to political and economic preferences and similar ethnic groups. Inhabitants of the Northern geopolitical zones are mainly Muslims while in the Southern geopolitical zones Christians are predominant present. This division increases ethnic fractionalization, especially in Islamic Northern Nigeria (Paden, 2008; Okpanachi, 2010).

Nigeria is a communalized country. Communalization exists in countries where members of different religious communities are subject to separate systems of personal status laws. Nigeria has three distinct sources of law that form a mixed legal system: statutory, customary and Islamic law (Hajjar, 2004). This plural legal system particularly applies with regard to laws concerning divorce, marriage and inheritance (Musawah, 2017). Islamic (Sharia) law is enforced in 12 of the 19 states of the Northern geopolitical zones and civil and customary law is practiced in the other states (Linos, Slopen, Subramanian, Berkman & Kawachi, 2013).

The federal law 'Violence Against Persons Act' was passed in 2015. This law forbids beating up one's partner and offenders may be convicted for up to three years of imprisonment. However, this law is not implemented in all 36 states of Nigeria, as it is only effective in the Federal Capital Territory of Abuja. For this reason, the protection of the law is not even across all states and geopolitical zones (Obi, 2020). There is legislation in some geopolitical zones where the law still allows a husband to use corrective violence against his wife (GBVSWG, 2017). These laws approve partner batteries when this is done in order to discipline and correct the wife and as long as no severe bodily harm is inflicted (United Nations, 2017). This is most applicable in Northern Nigeria, where the Sharia Penal Code is customary and domestic violence is not considered a crime. Under Islamic law, it is required for the wife to be obedient to her husband and her husband maintains her and the children in return. If she doesn't obey, she will lose her right to maintenance.

This information is in line with the previously formulated hypothesis that Muslims are more likely to think that IPV would be justified than Christians. Since Northern Nigeria mainly applies

Islamic legislation in which the woman is subordinate to the man, it is expected that inhabitants of Northern geopolitical zones accept IPV more than inhabitants of Southern geopolitical zones, because Islamic legislation is less applicable there. Okenwa-Emegwa, Lawoko and Jansson (2016) conducted research on attitudes towards physical IPV in Nigeria. They concluded that inhabitants of the Northern regions justify physical violence more often than people living in the Southern region. Discriminatory laws that condone certain forms of violence against women could be a contributory factor towards social norms regarding intimate partner violence.

Therefore, this research expects that [H2]: *People living in the Northern geopolitical zones are more likely to justify IPV than people living in the Southern geopolitical zones of Nigeria.*

### *Living area*

Most studies found that social norms in favor of intimate partner violence are more often justified in rural areas compared with urban areas (Marshall & Furr, 2010; Speizer, 2010; Uthman, Lawoko & Moradi, 2009). Moreover, Edwards (2015) indicates that attitudes about IPV vary to some extent across locations, with individuals in rural areas generally supporting less government involvement in IPV issues than in urban areas. However, according to Edwards (2015), the amount of reported intimate partner violence is generally similar across rural and urban areas.

Nigerian research has shown that reporting intimate partner violence is seen by rural citizens as causing humiliation to the husband and disrespectful towards other family members, in particular elders (Antai & Antai, 2008; Ilika, 2005). African rural women often live in patriarchal communities where gender roles and social norms contribute to an imbalance of power between superior men and inferior women. The patriarchal attitude of law enforcement agencies in rural areas hinders reports of domestic violence, as many women do not dare to speak out about intimate partner violence outside their own family. Physical isolation which is associated with the rural milieu, creates opportunities for violent behaviour. The isolation also causes rural women facing difficulties when using domestic violence services. Not only is accessibility a problem, but also the fact that the family often advises not to go there (Antai & Antai, 2008). Overall, imbalance of power contributes to greater IPV among rural women in general and acceptance of the violence within the communities compared to people living in urban areas (Karamagi, Tumwine, Tylleskar & Heggenhougen, 2006; Watts, Keogh, Ndlovu & Kwaramba, 1998).

Therefore, this research expects that [H3]: *People living in rural areas are more likely to justify IPV than people living in the urban areas of Nigeria.*

### *Gender*

Although some studies in Sub-Saharan Africa have attempted to understand determinants associated with justification of wife beating among women (Husnu & Mertan, 2017; Uthman et al., 2009), determinants associated with such justification among men have not received equal attention in scientific research. This study compares differences in social norms with regard to the justification of intimate partner violence against women between men and women in Nigeria. There appears to be a general claim that more women than men justify IPV and other harmful gender-based harmful practices against women (Ilika, 2005; Rani et al., 2004; Uthman, Lawoko & Moradi, 2010). Women often justify violence because they see it as inevitable, irrespective of their own views (Yount et al., 2014). This is in line with the normalization theory of Lundgren (1993). Nigerian women think violence is inevitable, because it is seen as a normal part of a romantic relationship within their communities.

There is a high level of gender inequality in Nigeria, which perpetuates gender stereotypes. Eagly's (1987) social role theory states that widely spread gender stereotypes emerge from the gender roles which characterize a community. Social role theory has a broad scope applicable to engagement in all contexts and addresses assertive, power-related as well as supportive or instinctive behavior. The theory predicts that women will usually act more collectively and less leading than men in the same context and that these differences will be largest when gender is very prominent in the setting, and that gender differences will be weak or absent when formal, institutional roles are established. Since social norms exist within informal settings as communities, differences in behaviour between gender will be large. Nigeria scores 0.635 on The Global Gender Index 2020 and is ranked as 128th country from the 153 countries in total (World Economic Forum, 2020). This shows that gender inequality is very high in Nigeria. Therefore, women will justify IPV more than men, because they think that is what society expects from them and that fits in their gender role.

Therefore, this research expects that [H4]: *Women are more likely to justify IPV than men in Nigeria.*

### *Age*

Most studies from the review of Waltermaurer (2012) concluded that people under the age of 30, more often justify IPV compared with older respondents. This applies to both men and women. Tran, Nguyen and Fisher (2016) found the same results, but did report a difference in people who have never been in a relationship. Young people who never had an intimate partner, were less likely to justify IPV than youngsters who had a relationship. Young people

more often justify IPV, because they see inequality between men and women as a part of an adult relationship (Lombard, 2016; Sundaram, 2013). This greater justification by younger people can also be attributed to increased victimisation percentage among younger women. Johnson, Giordano, Manning and Longmore (2015) have shown that the predicted chance of committing IPV reaches its peak in the early twenties and then decreases in the second half of the twenties. Since many studies found an effect between the actual abuse and justifying IPV (Faramarzi, Esmailzadeh & Mosavi, 2005; Hanson, Cadsky, Harris & Lalonde, 1997; Gage & Hutchinson, 2006), it might be possible that young Nigerians are more likely to justify IPV than elder Nigerians.

Therefore, this research expects that [H5]: *Younger people are more likely to justify IPV than older people in Nigeria.*

#### *Educational level*

Nigeria ranks among the most unequal countries in the world, according to the United Nations (2017). There is a big division in educational levels and literacy under the population. A study conducted in 39 low and middle income countries found out that having limited formal education leads to more acceptance of intimate partner violence, especially physical violence (Tran, Nguyen & Fisher, 2016). Antai and Antai (2008) also found that women living in rural areas in Nigeria with primary or no education were more likely to report justifying attitudes regarding IPV compared with rural women with secondary or higher education.

People with a low socio-economic position, of which low education is a factor, are more likely to suffer from poverty-related stress. This stress appears to be one of the causes of justifying intimate partner violence (Simister & Makowiec, 2008; Tran, Nguyen & Fisher, 2016). Moreover, having a high level of education contributes to a higher level of support for gender equality and people with a low socio-economic status tend to have fewer opportunities to learn about women's rights and the harmful consequences of partner abuse. This is likely to lead to a higher degree of justification of IPV (Thijs, Te Grotenhuis, Scheepers & van den Brink, 2019; Tran, Nguyen & Fisher, 2016).

Therefore, this research expects[H6]: *Lower educated people are more likely to justify IPV than higher educated people in Nigeria.*



### *Love Matters Naija*

In low and middle income countries, including Nigeria, two main intervention methods to change social norms are most often used: large scale media campaigns and focus group discussions with members of the same reference group (Tankard & Paluck, 2016; Vaitla, Taylor, Van Horn & Cislighi, 2017). Both methods have possible drawbacks. Media campaigns can fail to spark the public dialog needed for people to change their perceptions about what others in their reference group do and approve of. This is due to the fairly unidirectional nature of media broadcasts. The drawback of the focus group discussion method is that it is limited in reaching a big audience (Cislighi et al., 2019). These drawbacks do not exist in online media interventions. The Love Matters platforms are committed to moderating their social media pages, on which they communicate with their followers. But likewise, their followers can react to posts and comments of others, with maybe different ideas and norms. The communication is not unidirectional, but double-sided and dialogic, which makes it possible to have a public dialog (Men, Tsai, Chen & Ji, 2018). An advantage of online media is the engagement capacity to reach a large audience with your content, compared to a limited group in focus group discussions (Nikolaev, Gore & Govindaraju, 2016).

Social marketing approaches that aim to change social norms by correcting people's misperceptions about what others do are often chosen to achieve changes within social norms (Berkowitz, 2010; Miller & Prentice, 2016). Correcting misperceptions is exactly what the moderators of the Love Matters platform do. The platform provides pleasure-positive information on Sexual and Reproductive Health and Rights (SRHR). Love Matters Naija also shares stories of people with attitudes that do not conform to the prevailing norms.

Social media facilitates connections between people who otherwise would not come into contact (Granovetter, 1977). This increases people's reference network and brings them in contact with other attitudes and social norms. The internet and social media have low entry barriers, which gives individuals the power to educate themselves about thoughts and ideas from people outside their reference group. Weak ties can also facilitate norm change (Steinert-Threlkeld, Mocanu, Vespignani & Fowler, 2015). Individuals are exposed to information about social norms from outside their reference group or so called strong-tie social network, and learn from their attitudes and see that other social media users are also learning about it (Chwe, 2000). In this way, social media platforms such as Love Matters Naija can influence social norms regarding intimate partner violence.

Love Matters Naija reaches a big audience and shares information on alternative intimate relationships without violence. The Facebook page reaches more than 800.000 thousand

followers, their Instagram page has 6.500 followers, and the platform is growing on every social media channel they are active on. Social media is a favourable approach for norm change, the behaviour of which then propagates by way of public commitments. Once it reaches a certain threshold, population-level change may be triggered, often quite suddenly (Bicchieri, 2016). That threshold is more easily reached when you have a large audience.

Therefore, this research expects[H7]: *People who visit Love Matters Naija less often are more likely to justify IPV than people who visit Love Matters Naija more often.*

### **3. Methodology**

This research investigates the effects of multiple determinants on justifying social norms towards intimate partner violence. In order to give answers on the research questions a quantitative method is used. A survey is designed to measure social norms regarding intimate partner violence. The study started off with ten interviews to determine the subject. RNW Media operates in two thematic areas, Social Cohesion and Inclusive Governance (SCIG) and Sexual and Reproductive Health and Rights (SRHR), in different countries in Africa, the Middle East and Asia. One or two team members from all programs across different countries were interviewed in order to map the social norms they are working on and the difficulties they face when doing so. Intimate partner violence was a recurring harmful practice in almost all interviews, maintained by challenging norms. That is why this subject is chosen. Nigeria is chosen as the country to conduct the pilot study because of practical reasons such as the capacity of the Nigerian colleagues and the lack of a language barrier. The research is conducted as a pilot for RNW Media, to discover if this quantitative method is useful to apply in research on other social norms in other countries as well.

#### **3.1 Data collection**

This quantitative research uses a survey to collect data. The survey is distributed via the Facebook page and Twitter account of Love Matters Naija. A drawback of an online survey is the low response rate. Respondents are more likely to ignore a social media request in comparison to when they are asked to fill out a survey face to face. This increases the risk of non-response (Blair, Czaja & Blair, 2013). One Facebook post with a link to the survey is promoted to reach non followers of Love Matter Naija as well and in order to attract more response. Also, an incentive is used to attract more respondents. Fifty respondents had a chance of winning 2.50 Euros of call credit when participating in the research. The survey is taken between the 1th of May 2020 and the 22th of May 2020. In addition to questions about attitudes on intimate partner violence, questions were asked about demographic characteristics of the respondent. See appendix 8.3 for the complete survey.

Two widely used tools are studied to design the survey, the Social Norms Analysis Plot (SNAP) (Stefanik & Hwang, 2017) and the Social Norms Exploration Tool (SNET) (Institute for Reproductive Health, 2020). The used survey for this particular study is designed in a way that it closely resembles the measurement frameworks of the SNET and SNAP tools. The SNET provides steps and tools that can be used to find out which norms are dominant and why and

how to analyse the collected data. The SNAP outlines a framework to differentiate different types of norms and corresponding sanctions. Before the questionnaire was put up online, it was first tested by Dutch and Nigerian colleagues. After a few adjustments, the final version of the questionnaire has been put online.

### **3.2 Research population and sample**

In total 129 Nigerians filled in the survey. Of the 129 respondents in total, 31 cases are excluded because of missing values. The survey was created in Survlyzer and later on a dataset was created from the results to carry out analyses in SPSS Statistics. A total of 98 respondents are included in these analyses. The respondents are not representative for the Nigerian population in terms of demographics. Only 22 percent of the respondents is Muslim and 78 percent is Christian, compared to 52 percent Muslims and 47 percent Christians in Nigeria. 29 percent of the respondents live in a Northern geopolitical zone and 71 percent live in the Southern geopolitical zones. Most respondents live in the zone South West (40%). Nigeria has, in reality, significant population clusters spread throughout the country, with the highest density areas in the South South and South West (Central Intelligence Agency, 2019). People living in urban areas are 76 percent of the sample and the other 24 percent live in rural areas, this is almost equally distributed in the country (United Nations, 2019). The distribution of gender is almost equal to the national population. 53 percent of the respondents are female and 47 percent is male. Most respondents (45%) are between the age of 25 and 30 years. In Nigeria, the median age is 18.6 years. 62 percent of the population is under the age of 24 years and 30 percent is between 25 and 54 years old. Most respondents are highly educated (74%), this is not at all representative for the national population. 63 percent of the citizens completed primary school and 49 percent transit to secondary school. Only ten percent went to tertiary education, including universities as well as trade schools and colleges (Central Intelligence Agency, 2019). Most respondents visited Love Matters Naija daily (48%) during the last twelve months and 22% of the respondents said that they have never visited Love Matters Naija before and are therefore unknown with the platform. There are no figures to compare this with.

### **3.3 Ethics**

According to Neuman (2014), researchers should consider four ethical considerations. One of these criteria concerns the use of informed consent. All respondents agreed and accepted a consent form about the use of the sampled data. See appendix 8.3 for the consent form. Another criterion that must be taken into account in the ethical justification of this research is the handling of privacy, anonymity and the data. If respondents wanted to participate in order to win

a giveaway, they had to fill in their email address and phone number. These confidential data is anonymised, duly preserved, secured and protected and will not be shared with third parties. The data will be stored for no longer than two years, because of organisational reasons. Respondents can fill in the survey anonymously if they don't want to participate in winning the giveaway. Names and exact living places are not being asked. Thirdly, respondents should be protected against physical and psychological damage. This is not an experimental research and the respondents have therefore not been subject to influence or deception during participation. It can therefore be stated that this research does not harm the participants. A final criterion concerns an honest, ethical role for the researcher. The results of this research are honestly and factually reported and the purpose and use of the data is explained to the respondents in the consent form.

### **3.4 Operationalisation variables**

#### *Dependent variable*

The justification of social norms regarding intimate partner violence is the dependent variable in this study. Intimate partner violence can take different forms and this research analyses four forms: physical, emotional and sexual abuse, and controlling behaviour. Justification is measured by two items: individual and community beliefs. Individual beliefs on IPV of the respondent are measured in the survey with the following question: "A man is not happy with how his wife fulfils her role as his partner. What, *according to your personal beliefs*, are appropriate responses to his wife?" The question "A man is not happy with how his wife fulfils her role as his partner. What, *according to the people in your community*, are appropriate responses to his wife?" is used to measure the justification of community beliefs regarding the different forms of IPV. The respondent answers whether the following responses are not at all appropriate (1), not appropriate (2), neutral (3), appropriate (4), completely appropriate (5): beating her as punishment, pulling her hair as punishment (physical abuse); calling her bad names, humiliating her in public, complaining about her to friends and family (emotional abuse); forcing her to have sex with him to make it up (sexual abuse); putting her under house arrest and taking her money (controlling behaviour). The four forms of IPV are analysed as one overarching phenomenon, namely justification of IPV. The eight responses constructed as a new variable to measure the justification of IPV for personal beliefs has a Cronbach's alpha of .865. The newly constructed variable to measure it for community norms has an Cronbach's alpha of .900. A scale is considered reliable when the Cronbach's alpha is larger than .7 (Allen & Bennet, 2012) and therefore these scales meet the conditions. The new constructed variables

are an aggregation of all mean values of the original eight variables that measure forms of intimate partner violence. The survey also asks about the appropriateness of two other responses, namely 'discussing it to find a solution' and 'doing nothing, he doesn't express his anger'. These two responses are not included in the construction of a new variable, since they do not measure a form of intimate partner violence.

### *Independent variables*

The independent variables used in this research include demographic characteristics and specific online media use. The first variable is religion. The question "To which religion do you belong?" is asked, with five answer options: Christianity, Islam, other, I'm not religious, and prefer not to say. The option 'other' has an open field to fill in another religion. Christianity and Islam are the two biggest religions in Nigeria and the only two chosen answers when filtering for missing values. Religion is measured by a dummy variable, which is unity if the respondent is Christian and zero when the respondent is Muslim.

The second independent variable is the geopolitical zone where the respondent lives. Nigeria is divided into six geopolitical zones: North Central, North East, North West, South East, South South, and South West. All geopolitical zones are recoded in a dummy variable, whereas the zone the respondent lives in is one and the other zones are zero. Another independent variable is the area where you live. The following question is asked: "I live in:" with two answer options: 'a rural area' or 'an urban area'. It is measured by a dummy variable, which is unity if the respondent lives in an urban area and zero when living in a rural area.

The variable gender is constructed as a dummy variable as well, which is unity if the respondent is female and zero if male. Other demographic characteristics which are measured are age and education. Age has five answer possibilities with the following coding: Below 18 (0), 18-24 (1), 25-30 (2), 31-45 (3), 45+ (4). This way of answering is chosen, because these age groups are most important for RNW Media. Since few respondents were younger than 18 or older than 45 years, three age groups are constructed: 24 years and below, between 25 and 30 years old and 31 years and older, which are recoded in dummy variables.

To measure educational level, the Nigerian education system is used as answer possibilities. The higher the education, the higher the coding, from no formal schooling (1) to PhD completed (11). All respondents either went to secondary school (5), high school (6), polytechnic (7), college (8), university (9), or completed a university master (10). Education is also constructed as a dummy variable, which is unity if the respondent went to university or completed a master (high educated) and zero if the respondent went to secondary school, high school or has a

degree from a polytechnic or college (intermediate educated).

The question "During the last 12 months, I have visited the website or social media channels of Love Matters Naija:" with the answer options and coding: I have not visited Love Matters before (0), occasionally (1), monthly (2), weekly (3) and daily (4) is used to measure the effect of the visiting Love Matters Naija on social norms regarding IPV. See appendix 8.3 for the complete survey.

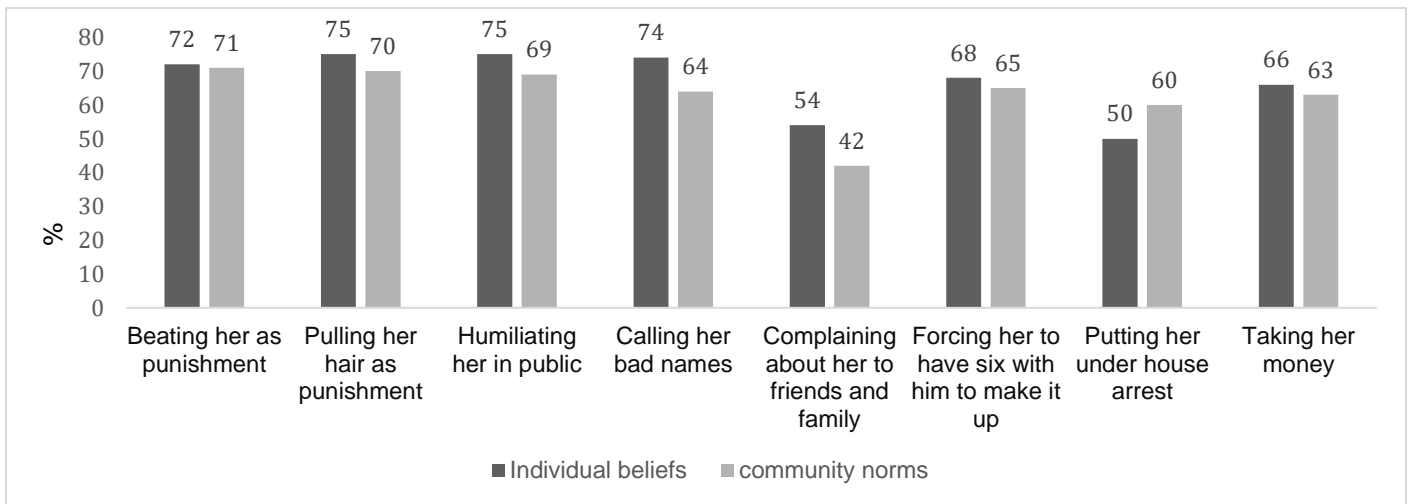
### **3.5 Method**

Before starting to analyse the data, the gathered data was first prepared. The dataset is checked on missing values and some variables are recoded. The number of respondents in the data analysis has been equalised to 98. Because of this, respondents with missing answers are excluded from the analysis. The analysis is done by using statistical software SPSS. To estimate the proportion of variance in justification of intimate partner violence by religion, geopolitical zones, living area, gender, age, education, and visiting Love Matter Naija, a standard multivariate linear regression analysis was performed. First, bivariate analyses are done to see if there is a connection between the independent variable and attitudes towards IPV. Only variables that are significant in the bivariate analyses were included in the final multivariate model. This model was made for both individual beliefs and community norms. The outcomes of these models are used to confirm or reject the hypotheses. A significance level of  $\alpha = .10$  will be used for interpreting the results of the analyses. The explanatory question will be answered by looking at descriptive statistics.

## 4. Results

### 4.1 Descriptive statistics

Figure 1 presents the percentages of respondents who answered 'not at all appropriate' for individual beliefs and community norms on forms of physical, emotional and sexual abuse, and controlling behaviours. The results indicate that most respondents themselves think it is not appropriate at all when a man uses any form of violence against his wife, when he is not happy with how she fulfills her role as his partner. This is the same for what respondents think that their community would say. In general, the percentage that answered 'not at all appropriate' is higher for individual beliefs than for community norms. What differs from most results is the percentage of respondents (16%) that says that their community does find complaining about her to friends and family appropriate. This is the highest percentage of appropriateness and is part of emotional violence. See appendix 8.2 for this result and for all percentages of appropriateness.



*Figure 1.* Percentage of respondents who answered 'not at all appropriate' for individual beliefs and community norms on the question: a man is not happy with how his wife fulfills her role as his partner. What are appropriate responses to his wife?

Table 1 presents the descriptive statistics of the dependent and independent variables used in this research. There is a difference found between the justification of individual beliefs and community norms. The mean for justification of individual beliefs is  $M = 1.38$  and for community norms  $M = 1.49$ . The descriptive statistics of the demographic characteristics can be found in Table 1 as well.



Table 1. Descriptive statistics of the dependent and independent variables ( $N = 98$ ).

	Min.	Max.	Mean	S.D.
Dependent				
Justification individual beliefs	1	2.63	1.38	.42
Justification community norms	1	3.50	1.49	.54
Independent				
Christian*	0	1	.78	.42
Living in North Central**	0	1	.14	.35
Living in North East**	0	1	.05	.22
Living in North West**	0	1	.09	.29
Living in South East**	0	1	.15	.36
Living in South South**	0	1	.16	.37
Living in South West**	0	1	.40	.49
Urban area***	0	1	.76	.43
Female****	0	1	.53	.50
High educational level*****	0	1	.73	.44
24 years and below*****	0	1	.35	.48
25 - 30 years*****	0	1	.45	.50
31 years and older*****	0	1	.20	.41
Visiting Love Matters Naija	0	4	2.39	1.73

Note. Descriptive statistics of the dependent variables are before the log transformation.

\*0=Muslim, 1=Christian

\*\*0=No, 1=Yes

\*\*\*0=Rural area, 1=Urban area

\*\*\*\*0=Male, 1=Female

\*\*\*\*\*0=intermediate level, 1=high level

\*\*\*\*\*0=others, 1=age group

## 4.2 Assumptions

Before conducting a multivariate linear regression analysis, several assumptions are checked. The first assumption to be checked is whether there are outliers in the data, which is a value that is relatively far from the other data and can therefore give a distorted picture (Field, 2005). There appears to be no outliers. The second assumption to be checked is multicollinearity. It examines whether there are no independent variables that measure (roughly) the same (Field, 2005). High correlations between variables render a regression model unstable and difficult to interpret. A possible correlation between the dependent and independent is checked with a correlation matrix. The correlation between the variables is reliable. No correlation appears to have an  $r$  above .80. When the  $r$  is above .80, there is a high correlation and one variable explains the other (Field, 2005). This is not the case with the studied variables. Furthermore, it turns out that no variables are interrelated in such a way that it is multicollinear. All variables have a VIF less than 10 and a Tolerance greater than .1 (Allen & Bennet, 2012). The third assumption to be met is homoscedasticity and normality, whereby the residuals have a constant variance (Field, 2005). The data is not normally distributed. It has a positive skewed distribution, therefore a log transformation is performed. By using this method, all assumptions have been met.

## 4.3 Regression analysis

A bivariate analysis is conducted to explore the relationship between variables. See appendix 8.1 for the results. With regard to justification of individual beliefs as dependent variable, significant effects are found for several determinants, namely geopolitical zones (living in South West compared to South South), being female and age. The geopolitical zone South West shows a positive significant effect with South South as a reference group ( $B = .07, p < .10.$ ), thus people who live in South West are more likely to justify IPV than people who live in South South. Moreover, being female and age both show a negative effect. This indicates that men are more likely to justify IPV compared to women ( $B = -.09, p < .001$ ). People aged 24 and below show a negative effect with people being older than 31 years as a reference group ( $B = -.08, p < .05.$ ). People between the age of 25 and 30 years old also show a negative effect with people being older than 31 years as a reference group ( $B = -.05, p < .10.$ ). This indicates that the older you are the more likely you will justify IPV.

When testing for the relationship between justification of community norms as dependent variable and the various determinants (using bivariate analysis), significant effects are found for geopolitical zones (living in North Central compared to South South) and for age (24 years and

below compared to 31 years and older). The geopolitical zone North Central shows a positive significant effect with South South as a reference group ( $B = .11, p < .05$ ). This means that when you live in the North Central zone you are more likely to think that your community will justify IPV compared to people living in South South.

Respondents who are aged 24 years and below show a negative significant effect with people who are 31 years and older ( $B = -.08, p < .05$ ). This indicates that the older you are the more likely you will think that your community will justify IPV. Only significant determinants in the bivariate analysis are tested in a multivariate regression. All results of the bivariate analysis can be found in appendix 8.1 (Table A1 - A14).

Table 2. Multivariate linear regression analysis on justification of individual beliefs and community social norms on intimate partner violence ( $N = 98$ ).

	<i>Individual beliefs</i> ( $R^2 = .21$ )		<i>Community norms</i> ( $R^2 = .11$ )	
	<i>B</i>	<i>S.E.</i>	<i>B</i>	<i>S.E.</i>
Intercept	.19			
<i>Geopolitical zones (ref. South South)</i>				
Living in North Central	.03	.04	.10**	.05
Living in North East	.08	.06	-.05	.07
Living in North West	.01	.05	.02	.06
Living in South East	-.02	.04	.01	.05
Living in South West	.03	.04	.04	.04
Female ( <i>ref. male</i> )	-.08*	.03		
<i>Age (ref. 31 and older)</i>				
24 years and below	-.05	.04	-.07	.04
25 - 30 years	-.05	.03	-.04	.04

\*  $p < .001$ .

\*\*  $p < .10$ .

The results of the multivariate linear regression analysis on the individual beliefs and the community norms are presented in Table 2. The direct relations between the justification of individual beliefs towards IPV are tested. The model predicts significantly the relation,  $F(8, 89) = 2.87, p < .01, R^2 = .21$ . The direct relations between the justification of community norms towards IPV are tested as well. This model predicts non-significant the relation,  $F(7, 90) = 1.60, p > .10, R^2 = .11$ . Both models have a weak explained variance.

Hypothesis 2 expects that people living in the Northern geopolitical zones are more likely to justify IPV than people living in the Southern geopolitical zones of Nigeria. Significant effects are found regarding the justification of IPV in community norms in the geopolitical zone North Central ( $B = .10, p < .10$ ). This indicates that people who live in North Central expect that their community would justify IPV more than people living in South South. Therefore, hypothesis 2 can be partly confirmed, since not all Northern geopolitical zones show a significant effect and no significant effects are found for the influence of geopolitical zones on individual beliefs on intimate partner violence.

Results from Table 2 also show that women are less likely than men to justify IPV according to their personal beliefs ( $B = -.08, p < .001$ ). This finding is against the fourth hypothesis in which we expected women to be more likely to justify IPV than men. There are no significant results found on the expected justification with regard to community norms. Although in the bivariate analysis we found a significant effect for age, there was no significant effect found anymore in the multivariate regression. Regarding the other determinants (religion, living in a rural or urban area, educational level and visiting Love Matters Naija), there were already no significant results found in the bivariate analyses. Therefore hypotheses 1, 3, 5, 6 and 7 cannot be confirmed.

## 5. Conclusion and discussion

Intimate partner violence is globally seen as a complex issue, which impacts public health. This study focuses on social norms which influence the justification of IPV. In order to draw conclusions, a quantitative study has been carried out. The results and conclusions in this study are not representative for all inhabitants of Nigeria, but only for the respondents in this sample. One of the aims of this research is to find an answer to the question: *“To what extent is intimate partner violence justified in Nigeria?”* The results showed, first of all, that intimate partner violence hardly ever is justified in Nigeria. The respondents slightly thought that it would be more justified by their community than by themselves, but nobody thought that it would be totally appropriate to use violence against your wife.

It was expected that multiple determinants had an influence on the justification of IPV. Testing the influence of all these determinants will answer the following research question: *“To what extent do several demographic characteristics and determinants influence the justification of social norms that accept intimate partner violence in Nigeria?”* The results of this study show that only geopolitical zones and gender were important determinants regarding attitudes towards IPV. It turned out that the expectation of people living in the Northern geopolitical states are more likely to justify IPV than people living in the Southern zones, can be partly confirmed. The results show that people who live in North Central expect that their community would justify IPV more than people living in South South. This result is in line with previous research of Okenwa-Emegwa, Lawoko and Jansson (2016) who found that that inhabitants of the Northern regions justify physical violence more often than people living in the Southern region. The current research included other forms of intimate partner violence as well.

However, the results from the current study do not fully match the expectations based on the literature review. It was expected that women were more likely to justify IPV than men. This study showed that it is the opposite way around. This could possibly be explained by the fact that most reviewed literature claims that more women than men justify IPV is published more than ten years ago (Ilika, 2005; Rani et al., 2004; Uthman, Lawoko & Moradi, 2010). In the meantime, women's rights are discussed more frequently and there has been a greater focus on gender equality and the importance of it (Africa Union, 2018). However, only significant results for gender are found when looking at the individual beliefs on intimate partner violence and not for community norms.

No significant effect was found for the influence of living in an urban or rural area on the justification of intimate partner violence. The distribution of respondents in urban and rural areas

was uneven and therefore not representative for the whole country, but it can also be questioned whether the people who live in rural areas have been reached at all. The survey was carried out via the internet and only 61.2 percent of the Nigerian population has internet access, the vast majority of which live in urban areas (Internet World Stats, 2020). As a result, the intended rural respondents have probably not been reached with this survey. This is a point that should be taken into account in any follow-up research into differences between rural and urban citizens. Interviewing face to face or organising focus group discussions may therefore be a necessary addition to reach the entire population of Nigeria.

The distribution of educational level among the respondents is also a limitation. This probably distorted all the results, because highly educated people often have a different worldview and perceptions than those with a low level of education. Approval of violence also relates to ignorance of the consequences of violence and the importance of women's rights. Higher educated people are often better informed on these kinds of issues and education contributes to the rise in men's, and particularly women's, support for gender egalitarianism (Tran, Nguyen & Fisher, 2016; Thijs, Te Grotenhuis, Scheepers & van den Brink, 2019). It is therefore advisable to try to include all levels of education for follow-up research. Perhaps the survey could be published on other social media pages that do attract lower educated people.

The educational level of the respondents may also explain why no significant effect was found for visiting the online platform Love Matters Naija. It was expected that the more often someone visits the platform the more likely they will disapprove of IPV. Access to the internet creates an opportunity to inform one's self about beliefs of people outside your reference group and to receive information about, for instance, sexual and reproductive health and rights, which can influence their own beliefs on intimate partner violence in a positive way (Chwe, 2000; Steinert-Threlkeld, Mocanu, Vespignani & Fowler, 2015). It could be that the influence of Love Matters Naija is not significant, because the sample only consists of highly educated people who already believed that intimate partner violence is not justified.

The results for the influence of age are interesting. In the bivariate analyses significant effects are found which confirm that the younger you are the less likely you accept intimate partner violence. This significant result disappears in the multivariate analysis. This shows that the effect lies in another determinant when several factors are tested.

A social desirability bias should be taken in account when interpreting the results. Intimate partner violence is a taboo topic and respondents might underreport socially undesirable beliefs, due to self-presentation concerns (Krumpal, 2013). The small sample size ( $N=98$ ) of this study is also a limitation. It affects the reliability of the results of the study, because it leads to greater

variability, which can lead to bias. The most common case of bias is due to non-response. Non-response occurs when some people are not given the opportunity to fill in the survey, for example in this study people without access to the internet or without a social media account. A small sample size increases the chance of a type II error that distorts the results, reducing the power of the study (Queirós, Faria & Almeida, 2017).

This study did not find significant influence for all the included determinants that might explain the justification of social norms regarding intimate partner violence. Earlier studies have concluded that people with a lower income are more inclined to justify intimate partner violence than people with a higher income (Marshall & Furr, 2010; Rani & Banu, 2008; Uthman, Lawoko & Moradi, 2010). Income has not been included as a determinant in this current research. That is why it is advisable to include the determinant income in any follow-up research in Nigeria. However, this study does contribute to new insights on intimate partner violence. It concluded that being a woman makes you accept intimate partner violence less than when being a man. Further research is needed to find out if this a permanent shift in women's beliefs and attitudes on IPV, since older studies found opposite results. It would be a great step forward towards gender equality in Nigeria if this result is maintained in follow-up studies. Another valued finding is that people who live in the North Central expect that their community would justify IPV more than people living in South South. Further research is needed to understand what these results mean in practice. This could be done by using qualitative research methods, which provides information about people's underlying beliefs and opinions.

## 6. Policy recommendation

One of the objectives of this research is to pilot a measurement framework for measuring social norms and to formulate an answer on the question: *“How can RNW Media use the findings of this study when designing an accurate measurement framework for social norms research?”* The findings and recommendations in this study will be used for further research on social norms in the other countries RNW Media is active in.

The most important finding is that a questionnaire alone is not sufficient enough to explore the concept of social norms. It is recommended to expand the research methods by analysing social norms regarding IPV both in a quantitative and qualitative way. Two widely used tools are studied to design the used questionnaire, the Social Norms Analysis Plot (Stefanik & Hwang, 2017) and the Social Norms Exploration Tool (Institute for Reproductive Health, 2020). Both tools use a combination of qualitative and quantitative research methods. For example, vignettes are used in focus group discussions to reveal more context and nuanced understanding of the situations and the examined group. This current research would have been more valid and reliable if it used focus group discussions as well, but this was not feasible because of lack of time, money and manpower. Probably this is also not feasible in future research of RNW Media, but there might be an alternative for standard focus group discussions. RNW Media reaches more than 800.000 thousand followers with the platform Love Matters Naija on Facebook and other Love Matters platforms in other countries have a big audience as well. It is recommended to use the Facebook page to post situational assessments. An example of this would be a post in which a story is written in vignette form about a person who experiences intimate partner violence where followers are asked what they would do in a similar situation or what they think is right to do. This is already part of the current content strategy, but can be expanded and improved upon by using the answers that followers give in a qualitative analysis with sentiment analysis and opinion mining techniques (Giatsoglou, Vozalis, Diamantaras, Vakali, Sarigiannidis & Chatzisavva, 2017). Practice shows that there is more response to these situational assessment posts than to an online survey. These two methods combined would form a more solid basis for social norms research.

Secondly, it would be recommended for future research within RNW Media to specify the community of the respondent with additional questions to identify the reference group. This study refers to ‘your community’ in the used survey without knowing specifically what that reference group ‘your community’ consists of. This can be friends or family with the same interests, study background and religion or a group of people who have little in common. The



knowledge that intimate partner violence varies in connotations for all kinds of groups (Senturia, Sullivan, Ciske, & Shiu-Thornton, 2000), could be used towards the understanding of the possible variations in IPV justification between different reference groups. Therefore, it is recommended to specify the reference group of the respondent.

The final recommendation is to use an engagement strategy when putting a survey online. For this research, an incentive was used to attract more people and Facebook posts were also promoted to reach a bigger audience. However, the response rate remained low. It is advisable to think of better ways of designing Facebook posts to make it more attractive to click on the survey and to think of a more popular incentive, which may vary from country to country. Perhaps the length of the survey could have been shortened. People generally do not want to spend too much time on surveys (Blair, Czaja & Blair, 2013). That is why it is important to only ask the necessary questions.

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## 8. Appendices

### 8.1 Bivariate analyses

Table A1 bivariate regression analysis of influence of religion on justification of individual beliefs on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	0.15	
Christian	-.03	.03

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Muslim is reference group.

Table A2 bivariate regression analysis of influence of geopolitical zones on justification of individual beliefs on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.08	
North Central	.05	.04
North East	.09	.06
North West	.05	.05
South East	-.01	.04
South West	.07*	.04

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

South South is reference group.

Table A3 bivariate regression analysis of influence of living in an urban area on justification of individual beliefs on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.13	
Urban area	-.01	.03

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Rural area is reference group.

Table A4 bivariate regression analysis of influence of being female on justification of individual beliefs on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.17	
Female	-.08****	.02

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Being male is reference group.

Table A5 bivariate regression analysis of influence of high education on justification of individual beliefs on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.13	
High education	-.01	.03

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Intermediate education is reference group.

Table A6 bivariate regression analysis of influence of age on justification of individual beliefs on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.18	
24 years and below	-.08**	.03
25 -30 years	-.05*	.03

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Older than 31 years is reference group.

Table A7 bivariate regression analysis of influence of visiting Love Matters Naija on justification of individual beliefs on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.11	
Visiting Love Matters Naija	.01	.01

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Table A8 bivariate regression analysis of influence of religion on justification of community norms on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.14	
Christian	.01	.04

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Muslim is reference group.

Table A9 bivariate regression analysis of influence of geopolitical zones on justification of community on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.11	
North Central	.11**	.05
North East	-.05	.07-.08
North West	.03	.06
South East	.01	.05
South West	.06	.04

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

South South is reference group.

Table A10 bivariate regression analysis of influence of living in an urban area on justification of community norms on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.14	
Urban area	.01	.03

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Rural area is reference group.

Table A11 bivariate regression analysis of influence of being female on justification of community norms on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.17	
Female	-.04	.03

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Being male is reference group.

Table A12 bivariate regression analysis of influence of high education on justification of community norms on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.16	
High education	-.01	.03

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Intermediate education is reference group.

Table A13 bivariate regression analysis of influence of age on justification of community norms on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.19	
24 years and below	-.09**	.04
25 -30 years	-.04	.04

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .

Older than 31+ years is reference group.

Table A14 bivariate regression analysis of influence of visiting Love Matters Naija on justification of community norms on intimate partner violence ( $N = 98$ ).

	B	S.E.
Intercept	.13	
Visiting Love Matters Naija	.01	.01

\*  $p < .10$ , \*\* $p < .05$ , \*\*\*  $p < .01$ , \*\*\*\*  $p < .001$ .



## 8.2 Table percentages appropriateness

Table A15. Percentages of the answers given to the questions: "A man is not happy with how his wife fulfils her role as his partner what, *according to your personal beliefs*, are appropriate responses to his wife? And the question "A man is not happy with how his wife fulfils her role as his partner. What, *according to the people in your community*, are appropriate responses to his wife?"

	Not at all appropriate	Not appropriate	neutral	appropriate	Completely appropriate
<i>Individual beliefs</i>					
Beating her as punishment	72	27	1		
Pulling her hair as punishment	75	25			
Humiliating her in public	75	25			
Calling her bad names	74	24	1	1	
Complaining about her to friends and family	54	30	11	3	2
Forcing her to have sex with him to make it up	68	27	5		
Putting her under house arrest	50	43	6	1	
Taking her money	66	34			

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<i>Community norms</i>	71	24	4	1	
Beating her as punishment					
Pulling her hair as punishment	70	26	3	1	
Humiliating her in public	69	29	1	1	
Calling her bad names	64	31	3	2	
Complaining about her to friends and family	42	22	19	16	1
Forcing her to have sex with him to make it up	65	29	5	1	
Putting her under house arrest	60	31	9		
Taking her money	63	33	3	1	

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### 8.3 Survey including consent form

Welcome to the Love Matters survey and thank you for your time!

This survey contains multiple-choice questions and statements about intimate partner violence. There are no right or wrong answers. If you prefer not to answer a question, there is a "prefer not to say" option. Please answer all questions before you move on to the next page.

Total completion time is 10-15 minutes.

Please fill in your email address and phone number at the end of the survey to have a chance to win call credits.

Q1: Read the following scenario:

*"A man is not happy with how his wife fulfils her role as his partner."*

What, according to your personal beliefs, are appropriate responses to his wife?

---

	Not at all appropriate	Not appropriate	Neutral	Appropriate	Completely appropriate
Putting her under house arrest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussing it to find a solution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Beating her as punishment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Calling her bad names	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Complaining about her to friends or family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Forcing her to have sex with him to make it up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Doing nothing, he doesn't express his anger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Humiliating her in public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Pulling her hair as punishment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Taking her money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Q2: This question corresponds to a previous question. Keep your own community in mind when answering the question.

Read the following scenario:

*"A man is not happy with how his wife fulfils her role as his partner."*

What, according to the people in your community, are appropriate responses to his wife?

---

	Not at all appropriate	Not appropriate	Neutral	Appropriate	Completely appropriate
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Putting her under house arrest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Discussing it to find a solution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Beating her as punishment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Calling her bad names	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Complaining about her to friends or family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Forcing her to have sex with him to make it up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Doing nothing, he doesn't express his anger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Humiliating her in public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Pulling her hair as punishment                             

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Taking her money                             

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Q3: Which country do you live in?

- Kenya
- Nigeria
- Other\_\_\_\_\_

Show this element

If      Which country do you live in?  
Nigeria Is selected

Q4: Which geopolitical zone do you live in?

- North Central (Middle Belt)
- North East
- North West
- South East
- South South
- South West

Q5: I live in:

- an urban area
- a rural area

Q6: How old are you?

- Below 18
- 18 - 24
- 25 - 30
- 31 - 45
- 45+

Q7: What gender do you identify as?

- Female
- Male
- Other \_\_\_\_\_
- Prefer not to say

Q8: What is your highest level of education?

- No formal schooling
- Informal schooling only (including Koranic schooling)
- Some primary schooling
- Primary schooling completed
- Intermediate school or some secondary school/high school
- Secondary school / high school completed
- Post-secondary qualifications, other than university, e.g. a diploma or degree from a polytechnic or college



- o Some university
- o University completed
- o Master completed
- o PhD completed
- o Other
- o Prefer not to say

Q9: To which religion do you belong?

- o Christianity
- o Islam
- o Other \_\_\_\_\_
- o I'm not religious
- o Prefer not to say

Love Matters delivers evidence- and right-based information and advice to young people about their sexual and reproductive health and rights on an online platform, using a pleasure-positive and non-judgmental approach.

Q10: During the last 12 months, I have visited the website or social media channels of Love Matters Kenya or Naija:

- o Daily
- o Weekly
- o Monthly
- o Occasionally
- o I have not visited Love Matters before

Q11: Consent form

Love Matters (hosted by RNW Media) will ensure your personal data is protected. We will not share your personal data with third parties. On occasion, we might share aggregated (anonymous) results with partners, only for research purposes. Your responses will be used to develop new content for Love Matters platforms and projects.

We do not keep data for longer than necessary or in order to comply with legal obligations. For any questions about the use of your data or to withdraw your consent, contact [dpo@rnw.org](mailto:dpo@rnw.org)

- I confirm I have read and agreed with this consent form.

Q12: Would you like to have a chance to win call credits?

- Yes
- No

Show this element

If  Would you like to have a chance to win call credits?  
Yes  Is selected

Q13: Please enter your email address to have a chance to win call credits:

\_\_\_\_\_

Show this element

If  Would you like to have a chance to win call credits?  
Yes  Is selected

Q14: Please enter your phone number to have a chance to win call credits:

\_\_\_\_\_

This is the end of the survey. Thank you very much!

Please click "Send answers" when you have completed the survey.

Thank you, your answers were saved perfectly.

## 8.4 Syntax from analyses in SPSS Statistics

\* Encoding: UTF-8.

\* Master Thesis University of Utrecht 2019-2020: Social norms regarding intimate partner violence in Nigeria in cooperation with RNW Media.

\* Maureen Heijmen - 6555764.

GET

FILE='C:\Users\maure\OneDrive\Bureaublad\Thesis SPSS '+

'data\Final\_Merged\_datasets\_intimate\_partner\_violence\_\_LM\_KenyaNaija.sav'.

DATASET NAME DataSet1 WINDOW=FRONT.

freq Country.

\*\*\*\*\*

\* ONAFHANKELIJKE VARIABELEN.

\*\*\*\*\*

\*Recoding and making dummies of the independent variables.

\*Religie.

freq religion.

MISSING VALUES religion (3 4 5).

RECODE religion (1=1) (2 = 0) into Christian.

VALUE LABELS Christian 1 "Christian" 0 "Muslim".

FREQUENCIES Christian.

\* Zone.

freq ZoneN.

Recode ZoneN (1=1) ( 2 3 4 5 6=0) INTO NorthCentral.

Recode ZoneN (2=1) ( 1 3 4 5 6=0) INTO NorthEast.

Recode ZoneN (3=1) ( 1 2 4 5 6=0) INTO NorthWest.

Recode ZoneN (4=1) ( 1 2 3 5 6=0) INTO SouthEast.

Recode ZoneN (5=1) ( 1 2 3 4 6=0) INTO SouthSouth.

Recode ZoneN (6=1) ( 1 2 3 4 5=0) INTO SouthWest.

\* Urban vs rural.

freq Area.

RECODE Area (1=1) (2=0) INTO Urban.

VALUE LABELS Urban 1 "Urban" 0 "Rural".

freq Urban.

\* Gender.

freq Gender.

RECODE Gender (1=1) (2=0) INTO Female.

VALUE LABELS Female 1 "Female" 0 "Male".

freq Female.

\* Leeftijd.

freq Age.

Recode Age (1=0) (2=1) (3=2) (4=3) (5=4) INTO Age2.

Recode Age (2=1) (1=1) (ELSE=0) INTO age18\_24.

Recode Age (3=1) (ELSE =0) INTO age25\_30.

Recode Age (4=1) (5=1) (ELSE =0) INTO age31\_45.

freq age18\_24.

freq age25\_30.

freq age31\_45.

\* opleiding.

freq Educ.

MISSING VALUES Educ (12 13).

Recode Educ (5 6 7=0) (8 9 10 11=1) INTO higheduc.

FREQUENCIES higheduc.

\* Visit the website.

freq LMvisit.

Recode LMvisit (1=4) (2=3) (3=2) (4=1) (5=0) INTO LMvisit2.

Recode LMvisit (1=1) (2 3 4 5=0) INTO daily.

Recode LMvisit (2=1) (1 3 4 5=0) INTO weekly.

Recode LMvisit (3=1) (2 1 4 5=0) INTO monthly.

Recode LMvisit (4=1) (2 3 1 5=0) INTO ocassionally.

Recode LMvisit (5=1) (2 3 4 1=0) INTO never.

freq LMvisit LMvisit2.

\*\*\*\*\*

\* AFHANKELIJKE VARIABELE --> MATRIX 1 & 2!

\*\*\*\*\*

\*Recoding dependent variable.

\* Eerst matrix 1 (mean).

freq Matrix1\_1 Matrix1\_2 Matrix1\_3 Matrix1\_4 Matrix1\_5 Matrix1\_6 Matrix1\_7 Matrix1\_8  
Matrix1\_9 Matrix1\_10.

\* recode matrix 2 & 7.

recode Matrix1\_2 (1 =5) (2 = 4) (3=3) (4 = 2) (5 = 1) into Matrix1\_2\_r.

recode Matrix1\_7 (1 =5) (2 = 4) (3=3) (4 = 2) (5 = 1) into Matrix1\_7\_r.

RELIABILITY

/VARIABLES= Matrix1\_1 Matrix1\_2\_r Matrix1\_3 Matrix1\_4 Matrix1\_5 Matrix1\_6 Matrix1\_7\_r  
Matrix1\_8 Matrix1\_9 Matrix1\_10

/STATISTICS CORRELATIONS

/SUMMARY TOTAL.

\* Cronbach .712, maar als item 7 eruit is Cronbach .851. en item 2 eruit is Cronbach .865

RELIABILITY

/VARIABLES= Matrix1\_1 Matrix1\_3 Matrix1\_4 Matrix1\_5 Matrix1\_6 Matrix1\_8 Matrix1\_9  
Matrix1\_10

/STATISTICS CORRELATIONS

/SUMMARY TOTAL.

compute mean\_matrix1 = mean.2(Matrix1\_1, Matrix1\_3, Matrix1\_4, Matrix1\_5, Matrix1\_6,  
Matrix1\_8, Matrix1\_9, Matrix1\_10).

\* normaal verdeeld?. Nee, dus log transformatie.

EXAMINE VARIABLES=mean\_matrix1

/PLOT BOXPLOT HISTOGRAM NPLOT

/COMPARE GROUPS

/STATISTICS DESCRIPTIVES

/CINTERVAL 95

/MISSING LISTWISE

/NOTOTAL.

```
COMPUTE mean_matrix1_log=LG10(mean_matrix1).
```

```
EXECUTE.
```

```
* assumptions multicollinearity.
```

```
CORRELATIONS
```

```
/VARIABLES=Christian Muslim NorthCentral NorthEast NorthWest SouthEast SouthSouth  
SouthWest Urban
```

```
female LMvisit2 age18_24 age25_30 age31_45 higheduc
```

```
/PRINT=TWOTAIL NOSIG
```

```
/MISSING=PAIRWISE.
```

```
*****
```

```
* MATRIX 2 (mean).
```

```
*****
```

```
freq Matrix2_1 Matrix2_2 Matrix2_3 Matrix2_4 Matrix2_5 Matrix2_6 Matrix2_7 Matrix2_8  
Matrix2_9 Matrix2_10.
```

```
* recode matrix 2 & 7.
```

```
recode Matrix2_2 (1 =5) (2 = 4) (3=3) (4 = 2) (5 = 1) into Matrix2_2_r.
```

```
recode Matrix2_7 (1 =5) (2 = 4) (3=3) (4 = 2) (5 = 1) into Matrix2_7_r.
```

```
RELIABILITY
```

```
/VARIABLES= Matrix2_1 Matrix2_2_r Matrix2_3 Matrix2_4 Matrix2_5 Matrix2_6 Matrix2_7_r  
Matrix2_8 Matrix2_9 Matrix2_10
```

```
/STATISTICS CORRELATIONS
```

```
/SUMMARY TOTAL.
```

```
* Cronbach .77, maar als item 7 eruit is Cronbach .873. Als item 2 eruit is .900.
```

```
RELIABILITY
```



```
/VARIABLES= Matrix2_1 Matrix2_3 Matrix2_4 Matrix2_5 Matrix2_6 Matrix2_8 Matrix2_9  
Matrix2_10
```

```
/STATISTICS CORRELATIONS
```

```
/SUMMARY TOTAL.
```

```
compute mean_matrix2 = mean.2(Matrix2_1, Matrix2_3, Matrix2_4, Matrix2_5, Matrix2_6,  
Matrix2_8, Matrix2_9, Matrix2_10).
```

\* normaal verdeeld?.

```
EXAMINE VARIABLES=mean_matrix2
```

```
/PLOT BOXPLOT HISTOGRAM NPLOT
```

```
/COMPARE GROUPS
```

```
/STATISTICS DESCRIPTIVES
```

```
/CINTERVAL 95
```

```
/MISSING LISTWISE
```

```
/NOTOTAL.
```

```
COMPUTE mean_matrix2_log=LG10(mean_matrix2).
```

```
EXECUTE.
```

\*NO MISSINGS for all variables.

```
COMPUTE nomiss = NMISS(mean_matrix1, mean_matrix2, Christian, NorthCentral, NorthEast,  
NorthWest, SouthEast, SouthSouth, SouthWest, Urban, female, LMvisit2, age18_24, age25_30,  
age31_45, higheduc).
```

```
freq nomiss.
```

\* Er zijn dus 5 mensen die missings hebben op 1 van deze variabelen, dus filter op nomissing = 0..

```
USE ALL.  
COMPUTE filter_$=(nomiss=0).  
VARIABLE LABELS filter_$ 'nomiss=0 (FILTER)'.  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.  
FORMATS filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE.
```

```
freq nomiss.
```

```
* DUS N = 98.
```

```
*****
```

```
*Frequencies voor alle vormen van IPV, matrix 1 en 2, voor staafdiagram.
```

```
FREQUENCIES Matrix1_1 Matrix1_3 Matrix1_4 Matrix1_5 Matrix1_6 Matrix1_8 Matrix1_9  
Matrix1_10 Matrix2_1 Matrix2_3 Matrix2_4 Matrix2_5 Matrix2_6 Matrix2_8 Matrix2_9  
Matrix2_10.
```

```
*****
```

```
* REGRESSIES Matrix 1.
```

```
*****
```

```
*Bivariate analysis Religion.
```

```
REGRESSION
```

```
  /MISSING LISTWISE
```

```
  /STATISTICS COEFF OUTS R ANOVA
```

```
  /CRITERIA=PIN(.05) POUT(.10)
```

```
  /NOORIGIN
```

```
  /DEPENDENT mean_matrix1_log
```

```
  /METHOD=ENTER Christian.
```

\*Bivariate analysis Zone. --> klein significant verschil southwest en southsouth.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix1\_log

/METHOD=ENTER NorthCentral NorthEast NorthWest SouthSouth SouthEast SouthWest.

\*Bivariate analysis Urban.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix1\_log

/METHOD=ENTER Urban.

\* Bivariate Gender. --> SIGNIFICANT!.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix1\_log

/METHOD=ENTER female.

\*Bivariate analysis higheduc.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix1\_log

/METHOD=ENTER higheduc.

\*Bivariate analysis Age. --> OOK SIGNIFICANT VERSCHIL TUSSEN HOGE EN LAGE LEEFTIJD.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix1\_log

/METHOD=ENTER age18\_24 age25\_30.

\* Bivariate analyse visit.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

```
/DEPENDENT mean_matrix1_log  
/METHOD=ENTER LMvisit2.
```

\* alleen significante bivariate resultaten.

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT mean_matrix1_log  
  
/METHOD=ENTER age18_24 age25_30 female NorthCentral NorthEast NorthWest  
SouthSouth SouthEast SouthWest.
```

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT mean_matrix1_log  
/METHOD=ENTER age18_24 age25_30 female.
```

\*\*\*\*\*

\* REGRESSIES MATRIX 2

\*\*\*\*\*

\*Bivariate analysis Religion.

REGRESSION

```
/MISSING LISTWISE
```

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix2\_log

/METHOD=ENTER Christian.

\*Bivariate analysis Zone. --> NORTH CENTRAL VS SOUTH SOUTH SIGNIFICANT  
VERSCHIL.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix2\_log

/METHOD=ENTER NorthCentral NorthEast NorthWest SouthSouth SouthEast SouthWest.

\*Bivariate analysis Urban.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT mean\_matrix2\_log

/METHOD=ENTER Urban.

\* Bivariate Gender. --> p < .10.

REGRESSION

```
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT mean_matrix2_log
/METHOD=ENTER female.
```

\*Bivariate analysis higheduc.

REGRESSION

```
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT mean_matrix2_log
/METHOD=ENTER higheduc.
```

\*Bivariate analysis Age. -->  $p < .10$ .

REGRESSION

```
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT mean_matrix2_log
/METHOD=ENTER age18_24 age25_30.
```

\* Bivariate analyse visit.

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT mean_matrix2_log  
/METHOD=ENTER LMvisit2.
```

\* Significante resultaten bivariate analyse.

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT mean_matrix2_log  
  
/METHOD=ENTER age18_24 age25_30 NorthCentral NorthEast NorthWest SouthSouth  
SouthEast SouthWest.
```

FREQUENCIES mean\_matrix1\_log, mean\_matrix2\_log, Christian, NorthCentral, NorthEast, NorthWest, SouthEast, SouthSouth, SouthWest, Urban, female, LMvisit2, age18\_24, age25\_30, age31\_45, higheduc.

DESCRIPTIVES mean\_matrix1\_log, mean\_matrix2\_log, Christian, NorthCentral, NorthEast, NorthWest, SouthEast, SouthSouth, SouthWest, Urban, female, LMvisit2, age18\_24, age25\_30, age31\_45, higheduc.