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## Pluralistic Ignorance and Non-Use of Modern Contraceptives in Southwestern Nigeria: A Qualitative Study Using the Social Norms Theory

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#### ABSTRACT

**Background:** The 2018 National Demographic Health Survey (NDHS) revealed that out of the current non-users of contraceptives amongst married women, only 38% of them made their own decision to abstain. The remaining 62% either decided jointly with their partner or the partner solely decided for them. This elicits the notion that social expectations within reference networks could influence the use of modern contraceptives (MCs) in Nigeria.

**Methods:** 16 structured qualitative interviews were used to gather the beliefs, attitudes and social expectations of the respondents as regards the non-use of MCs between March and June 2020. Through snowballing sampling method, residents in the Ibadan Metropolis, southwest Nigeria responded to the hypothetical scenarios presented by the vignettes during interviews. Data were analysed using the Social Norms Analysis Plot framework. This framework serves as the checklist for the reporting of findings. Basic ethical principles were upheld throughout the study.

**Results**: Seven categories and five main themes emerged from this study. These categories include gender norms, social influence, peer pressure, myths, misconceptions, awareness and pluralistic ignorance. The themes were generated using the Social Norms Analysis Plot framework and they include empirical expectation, normative expectations, sanctions, sensitivity to sanctions and exceptions. The majority of the respondents strongly believe that most women in their community will not use contraceptives simply because of their male partners and friends. Out of those who do not use MCs due to social expectations, it was seen that the majority personally support its use.

**Conclusion:** To promote the uptake of modern contraceptive use in Southwest Nigeria, it is important to update people's social expectations. The findings of these study studies are relevant for policymakers and civil society organizations in designing effective intervention reproductive health programs in different regions of Nigeria (especially areas of lower use of modern contraceptives).

Key Words: social norms, contraception behaviour, family planning, Nigeria.

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#### Introduction

Since high fertility rates are mostly responsible for population growth in Nigeria, the importance of planning cannot be overemphasized. family According to the World Health Organization (2018), family planning are the practices that allow individuals to achieve their desired number of children and determine the spacing of pregnancies. Family planning is mainly attained contraceptive methods. Globally, 214 million women of reproductive age in 2018 who want to avoid pregnancy are not using a modern contraceptive method (WHO 2018). In Nigeria as well, there is a low articulated demand for contraceptives. In 2018, the contraceptive prevalence rate for both traditional and modern methods amongst married women of reproductive age in Nigeria is 17%, 12% for modern methods and 5% for traditional methods (National Population Commission 2019). The 2013 National Demographic Health Survey (NDHS) showed that although about 85% of women and 95% of men reported knowing at least one contraceptive method, just 15% of the total population's using it. This shows that the problem of the low uptake of contraceptives is not awareness. In Nigeria, modern contraceptive use is highest in the southwest region of Nigeria and not up to 30% of women in this region use modern contraceptives (WHO 2018).

The 2018 NDHS revealed that out of the current non-users of contraceptives amongst married women, only 38% of them made their own decision to abstain. The remaining 62% either decided jointly with their husband (or partner) or the husband (or partner) solely decided for them. This elicits the notion that social expectations within reference networks (i.e., those whose opinions influence one's decisions) could influence the use of modern contraceptives (MCs) in Nigeria. In light of this, it is important to know the extent to which normative social expectations (i.e., what others think I should do) can influence the actual behaviour of MCs. Hence, to promote the utilization of MCs in Nigeria, there is a need to examine the concept through social norm lenses.

Pluralistic ignorance (PI) is a unique situation of

discrepancy which arises within a group as regards a shared pattern or behaviour. It is a concept whereby people's personal beliefs and dispositions towards behaviour are totally different from the shared beliefs on the same behaviour. According to Biccherri (2017), pluralistic ignorance could be defined as the situation that emerges when people's personal normative beliefs are not in line with their normative expectations.

Pluralistic ignorance is one of the major factors why harmful social norms persist and are difficult to abandon. Smerdon et al. (2020) explained that bad social norms persist due to the social identity theory where everyone identifies with a particular group and derives utility in conforming to the perceived notions of the collective. Their theory established that the social identity theory has a significant on the persistence of bad norms and that a larger size of social group does not break bad norms easily compared to smaller groups. In the use of MCs, the presence of pluralistic ignorance has not been fully established in the existing literature; Hence, the reason for this study.

From the foregoing, it can be deduced that it is important to explore the use of MCs in the light of social norms within the Nigerian community. Since there is a low uptake of MCs in Nigerian society, it is key to know whether social expectations are a contributing factor in the non-use of MCs. Then we further explore the nature of this social norm in such a way that allows understanding whether there is a wrong assumption of what the people think others expect them to do (pluralistic ignorance).

Simply put, this study seeks to answer the following fundamental questions:

- Is the non-use of modern contraceptives a social norm in South-western Nigeria?
- Does pluralistic ignorance exist as a factor in the non-use of modern contraceptives?

#### **Methods**

The qualitative study utilizes the use of vignette in structured interviews to explore the social expectations of study participants on the non-use Pluralistic Ign

of MCs. The theory of social norms tries to explain the motivations behind collective patterns of behaviour. It seeks to answer the underlying reasons of people's actions.

The modified belief-preference model of social norm theory was developed by Cristina Bicchieri in 2006. The modified belief-preference model explains that people choose to do what they do because they prefer to do it. Therefore, preference is the major reason for carrying out an action or practicing behaviour. The belief/ preference model of social norms is the main basis for this present study. Using this model the study aim to see if the non-use of modern contraceptives in Nigeria is because "others are doing it (i.e., they are not using modern contraceptives) and others expect one to do the same".

### Modified Belief / Preference Model (Bicchieri 2006)

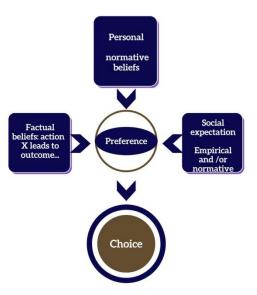


Figure 1. Modified/Belief Preference Model (Bicchieri 2006)

This study makes use of qualitative vignettes. Vignette employs descriptions of situations that are usually used in surveys and interviews to elicit opinions about these scenarios from respondents based on their judgement (Atzmüller & Steiner 2010). Vignette is one of the most useful tools in the identification, measurement, and exploration of different practices as social norms. Cislaghi & Heise (2017) buttressed that instead of quantitative surveys, qualitative vignettes are more interactive and easier for participants to respond truthfully to questions about the vignette character as compared to their reality and opinions.

To answer the research inquiry, the use of vignettes in structured interviews was employed to capture the beliefs, attitudes and social

expectations of the respondents as regards the nonuse of MCs. The study was carried out between March and June 2020 in the southwest region of Through snowballing sampling, Nigeria. residents within reproductive years (15-49) in Ibadan Metropolis, Nigeria responded to the hypothetical scenarios presented by the vignettes during interviews. The study was conducted in the comfort of the study participants' Snowballing sampling allows research respondents to recruit other participants for the study. Hence, two participants were selected randomly from the Ibadan metropolis through word-of-mouth and they helped recruit others from their social network. This was needed as the respondents' recruited people from their reference network,

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which helps to understand social expectations within the group clearly. This type of sampling also aided data saturation, as there was consistent information in the responses after the 10<sup>th</sup> interview. In conducting the interviews, a cell phone device was employed for audio recording. Consent was required before any audio recording can commence. The author (Binuyo O.A) conducted the interviews while there was also a note taker. The author also ensured detailed but concise responses during interviews to explore the perceptions attitudes and motivations of the interviewees concerning the subject matter. The duration of the interviews ranged from 30 minutes to 65minutes. Data saturation was reached at the 10<sup>th</sup> interview and the remaining six interviews were conducted to achieve triangulation of findings and promote study rigor.

In 2017, the Cooperative for Assistance and Relief Everywhere, Inc. (CARE) developed the Social Norms Analysis Plot (SNAP) framework to guide the development and analysis of vignettes. According to Cristina Bicchieri, the main qualitative method is to measure social norms. Vignettes are used to detect whether a social norm exists as it helps to reveal the social expectations of the respondents (Stefanik & Hwang 2017). In addition, CARE employed vignettes to explore how norms influence behaviours and to assess the strength (or weakness) of the norm. The Social Norms Analysis Plot is vital in practically applying the social norm theory across different human behaviours.

The SNAP framework can be used to identify norms, explore them, and understand how the respond to interventions and for norms operationalization and measurement of social norms. For the sake of this study, the SNAP will be used to identify if a social norm exists in the given behaviour of the non-use of MCs in Nigeria. The SNAP reveals the key components of a norm which are the normative and empirical expectations, and conditional preferences which are measured through compliance with the norm and sensitivity to sanctions.

Overall, it explores empirical expectations, normative expectations, sanctions, and exceptions through the development of vignettes. The SNAP framework is outlined as follows:

Components of a Norm	Definition
Empirical Expectations	What one thinks others do
Normative Expectations	What on thinks others expect one to do?
Sanctions	Anticipated reactions of one's reference network to the performance of the behavior (or non-performance of the behavior)
Sensitivity to Sanctions	Are these reactions explained above make the main character change their behavior in the future?
Exceptions	Under what conditions would it be appropriate for the main character to break the norm?

Source: Stefanik, Leigh & Hwang, Theresa. (2017).

Figure 2. SNAP Framework by Stefanik, Leigh & Hwang, Theresa (2017)

The SNAP framework is very useful in availing researchers to design a vignette that helps them to see how social norms operate in real life situations, indicating the strength of the norm and the compliance of people to the norm. The compliance of people to the norm gives us an insight into pluralistic ignorance which would be discussed later in detail. The information provided by social vignettes helps to design effective interventions in changing harmful norms or behaviours which are not beneficial. With respect to the present study of the non-use of MCs in Nigeria, the SNAP framework using vignette is developed:

CARE's Social Norms Analysis Plot (SNAP)		Vignette used to explore the non-use of modern contraceptives.
Setting the back- ground (Narration)a	Respondents are intro- duced to the hypothetical scenario: The main charac- ter is faced with a situation when a norm would happen, and he/she decides whether to comply or not.	I will tell you a story of a lady named joy. Joy is a beautiful woman in her thirties
Empirical Expectations (Question 1)	Respondents are asked their beliefs about what others would do if they were the main character faced with the situation.	What do you think most women in your community would do in Joy's position in
Normative Expectations (Question 2)	Respondents are asked what they think others expect the main character to do.	What do you believe Joy's friends (and most women in your community) would
Non-compliance of the main character. (Nar- ration)	Respondents are presented a twist in the narration: The main character does not comply with the norm	However, Joy wants to use modern con- traceptives having read an inline article on the benefits of family planning. Having given birth to three promising kids al- ready, she told Bobby and her friends that
Sanctions (Question 3)	Respondents are asked about the reaction of others to the non-compli- ance of the norm. Others here refer to the reference network	What do you think Bobby, and her friends would say about Joy's decision? How would they react?
Sensitivity to Sanctions (Question 4)	Respondents are asked if the sanctions can influence the decision of the main character to violate or comply with the norm.	Would the reactions of her friends and her partner make Joy change her mind about using modern contraceptives?
Expectations (Question 5)	Respondents are asked if there are circumstances okay for the character not to comply with the norm	In your view, are there any circumstances where it would be considered acceptable for Joy to use modern contraceptives? If yes, what are the circumstances??

Figure 3. Adapted SNAP Framework with Respect to the Non-Use of Modern Contraceptives.

Joy and Bobby were used as they are common names with no tribe or religious bias. Also, Lagos was chosen as the location because it is a city that houses a heterogeneous population in south-western Nigeria. Three kids were used because according to the NDHS 2018, the Total Fertility Rate (TFR) with more than secondary education is 3.4, those in the wealthiest quintile have a Total Fertility Rate of 3.8 and the Lagos State Total Fertility Rate is 3.4. In order to harness the window of opportunity presented by the demographic characteristics of the population, Nigeria must reduce the TFR to at least

3.7 births per woman (Demographic Dividend Initiative 2019). Looking at the fact that most of the respondents used for this study are literate and in order to attain a demographic dividend, explains why having three kids for Joy can be an optimal number.

Concerning the rigor of this study, the variation in the socio-demographic characteristics of study participants provided a detailed and more comprehensive picture of expectations in a social network. This improved the study findings, reliability and transferability. Themes and



categories were generated using the social norms analysis plot framework. Furthermore, a qualitative research expert at the Institute of Demography, HSE University, and Moscow monitored the entire steps of the research from the ideation stage to the final manuscript writing.

As regards ethical considerations, the study was carried out after the necessary approval from HSE University. The study protocol upheld the World Medical Association Declaration of Helsinki. Participants were informed of the purpose of the study, and the intentions of the researcher to get their consent. Informed consent was obtained from the participants through the filling of consent forms prior to the study. Informed consent was obtained from each participant after they were informed of the purpose, benefits, voluntariness, and non-maleficence of the study and the confidentiality of the information provided. The researcher made sure that participants understand the nature of the study and that they have the right

to remain anonymous and withdraw from the study at any point in time. Throughout the conduct of the fieldwork, there was no potential harm, stress or ethical risks that the study posed on participants as the research instruments did not elicit trauma as they were required to give their opinions concerning a hypothetical situation.

#### **Results**

16 respondents (14 females and 2 males) participated in the vignette sessions during the interviews. These are non-users of MCs and they are sexually active. The Majority of the respondents are married and are within the age range of 20 to 39 years of age. As the study was carried out in Ibadan Metropolis, the biggest city in southwest Nigeria, all the respondents were from the Yoruba tribe; a homogenous group. This gave us a rich picture of social expectations in a collective context with the same cultural values and beliefs, Table 1, 2.

Table 1. Socio-demographic Profile of Respondents		
Gender		
Male	2	
Female	14	
Age		
20-29	7	
30-39	7	
40-49	2	
Marital Status		
Married	12	
In a relationship	3	
Not in any relationship	1	

Table 2. Modern Contraceptives Usage of Respondents			
MC Usage			
Using modern contraceptives	0		
Not using modern contraceptives	16		
Reasons for not Using MCs			
Health/Side Effects	11		
Family/Friends Disapproval	5		

Speaking of the contraceptive behaviours of the respondent, it was seen that none of them use MCs. The basic reasons were due to the belief that MCs are harmful to health and can cause infertility,

cancer and other long-term side effects. Furthermore, few of the participants posited that the use of MCs is not acceptable in their social network as friends and family disapprove of it.



One of the main drawbacks of vignettes is that they do not capture actual behaviour and the personal normative beliefs of the people (i.e., what they think one ought to do). To compensate for this, Yes/No questions were asked to reveal the personal normative beliefs and actual behaviour. It was seen that 10 out of the 16 respondents believe that the use of modern contraceptives is beneficial. It is pertinent to note that out of the 16 respondents, 5 of them cited family and friends disapproval as the major reason for not using MCs during the interview. This factor alone strongly suggests that expectations may influence the non-use of MCs.

According to the Social Norms Analysis Plot

framework, which was used in analysing the respondents' answers, five major themes were generated. They include empirical expectations, normative expectations, sanctions, sensitivity to sanctions, compliance and non-compliance with the reference network's opinions (exceptions). The respondents' answers were explained under these five categories. Other concepts generated and discussed include gender norms, social influence, peer pressure, pluralistic ignorance, myths and misconceptions, education and awareness.

According to the vignette developed in the methods section (The Joy Story), the following answers were recorded in the table below:

#### **Vignette Questions**

- 1. What do you think most women in your community would do in Joy's position in this situation? (Empirical expectation)
- 2. What do you believe Joy's friends (and most women in your community) would expect Joy to do in this situation?
  (Normative expectation)
- 3. What do you think Bobby, and her friends would say about Joy's decision? How would they react? (Sanctions)
- 4. Would the reactions of her friends and her partner make Joy change her mind about using modern contraceptives?
  (Sensitivity to sanctions)

#### **Answers**

10 out of 16 respondents strongly believe that most women in their community will not use contraceptives simply because of her partner and her friends (i.e., reference network).

"Most women in my community will like to listen to various experience from the community" – Respondent 12

12 out of the 16 respondents believe that Joy's friends and most women in their community would expect the main character to comply with their opinion of not using MCs.

When she decides to use MCs, 13 out of 16 respondents affirmed that there would be negative reactions from her partner (Bobby) and her friends as she is deviating from the collective notion. In a respondent's words, "Bobby would see her as a disobedient wife and her friends will be disappointed because she still went ahead to choose modern contraceptives."

12 out of 16 respondents answered in the affirmative that the reactions of Joy's reference network could make her change her mind about using modern contraceptives in the future.

"Yes, in some cases, if the peer pressure is too much and the reactions of her partner goes to the extreme like breakup of friendship and even the end of relationship, then joy will definitely change her mind about the use of contraceptives." - Respondent 9.



#### **Vignette Questions**

# 5. In your view, are there any circumstances where it would be considered acceptable for Joy to use modern contraceptives? If yes, what are the circumstances?

#### Answers

The respondents gave different views. Overall, 9 respondents explained that health concerns and side effects can make the use of modern contraceptives acceptable: especially after having three kids. Economic reason was also cited by 3 respondents. This was explained in the sense that due to the poor economy of the society; it is key to control childbearing to effectively cater to the needs of the children.

If there is a threat to her life because of child bearing and for economic reasons, they will be able to adequately take good care of the children. -Respondent 5

#### **Discussion**

The study showed that there are social expectations that modern contraceptives should not be used if one's reference network kicks against it in southwest Nigeria. In a respondent's words, "they expect her to dance to their tunes...they believe it is a general thing in the society so they wouldn't want her to go through the pain and become an outcast" This finding aligns with the concept of social influence which explains that individuals adapt their opinions and change their behaviours due to their social interaction with people. Using an information map that explores the strength of peer influence during interactions, Mousaaid, Khammer, Analytis and Neth (2013) demonstrated that social influence has implications for individual opinion formation.

The Majority of the respondents affirmed that there will be negative reactions and sanctions from the reference network if social expectations are not followed. According to one of the study participants, "Bobby would see her as a disobedient wife and her friends will be disappointed because she still went ahead to choose modern contraceptives". The fear of these sanctions then could influence the decision making process of an individual. This supports the findings of Smerdon, Offer man and Gneezy (2020) as regards the social identity theory; where everyone identifies with a particular group and derives utility in conforming to the perceived notions of the collective even at the expense of their personal opinions. This gives rise to pluralistic ignorance which enforces the prevalence and continuity of bad norms. For instance, due to the perceived notions of the group she identifies with, Joy would go ahead not to use MCs even if she wants to. A respondent laid it all too bare saying "....Yes, she can because her decision is not accepted in any of her places of work and worship. So, to follow any Nigerian culture, she must change it. Besides, our culture does not encourage contraceptives."

Pluralistic ignorance arises when people's personal belief about behaviour is very different from the shared belief on the same behaviour. Bicchieri (2017) empirically stated that pluralistic ignorance is when people's personal normative beliefs are not in line with their normative expectations (i.e., their beliefs about what others think they should do). From the study, it was seen that five out of the nine respondents (who have the three necessary conditions for a social norm) agree that MCs are highly beneficial. This explains the presence of pluralistic ignorance.

Out of those who do not use MCs due to social expectations, it was seen that the majority personally support the use of MCs. However, due to social expectations, normative expectations especially, they succumb to not using it. Hence, because they believe majority of their reference network do not support, they do not use. The concept of pluralistic ignorance explains why negative collective behaviours like non-use of MCs persist over time in Nigeria irrespective of awareness campaigns, improved access to contraceptives and increased quality of reproductive health services. This is because according to the social identity theory, the utility



derived in conforming to the perceived notions of the collective will overwhelm the opinion of an individual just for the sake of identification with the group. Hence, pluralistic ignorance is a good explanation behind the low uptake of MCs in Nigeria.

Concerning the sale and distribution amounts of MCs, The results gotten from the study buttresses the findings of NDHS 2018. It was revealed that the Southwest Region is the highest users of MCs, and these contraceptives are easily accessible in health centers, pharmacies, shopping malls, private chemists, and medicine stores all over the country. From the study, it was seen that all respondents have heard about MCs and know what it means. However, all of them are non-users even when they are sexually active. This correlates with the high knowledge but low prevalence of MCs which was recorded in the Nigeria Demographic and Health Survey 2018.

There is an urgent need for comprehensive education and awareness on modern contraceptives as it would boost its uptake in Nigeria. The respondents who would use MCs no matter what their reference networks says ascribed their strong stance to knowledge and information available to them. This study finding aligns with the multilevel analysis carried out Yaya, Uthman, Ekholuenetale, and Bishwajit (2018) and Esak (2019). Yaya et al. (2018) established that knowledge level of women, a major indicator of women empowerment, is an enabling factor for the use of MCs in sub-Saharan Africa. Using a logistic regression, Eshak (2019) found out that misconceptions significantly reduced the odds of these women to use MCs. This buttressed the study findings that ignorance and misconceptions influence the uptake of MCs. This further validates the idea that being equipped with up-to-date knowledge on the use of MCs is vital for not allowing the opinions of the reference network affect one's behaviour.

Most women will agree with what people around them regard as normal except if they are well informed on the subject matter it is always advisable to seek professional advice. – Respondent 2

There were a few limitations encountered in the study. The study was carried out in homogenous Yoruba cultural group. the predominant culture in south-western Nigeria. Hence, it is difficult to generalize the study findings to other regions in Nigeria. Furthermore, twenty participants were invited for the study but four did not show up. This did not diminish the quality of the study results as saturation was reached during the data collection process.

A major strength of the study is that it presents the nexus between social norms and the use of MCs from an innovative and multidisciplinary perspective. The social norm theory, which is the main theoretical framework, has not been used in exploring the use of MCs in literature. The SNAP Framework on which the work depends is an innovative tool which has not been used in the Nigerian context. This study has a good potential to open new research themes in the exploration of pluralistic ignorance, social norms, sexual and reproductive health, and sustainable development in countries with high fertility rates.

#### Conclusion

The benefits of family planning are necessary conditions for achieving demographic dividend and improving living conditions in the Nigerian state. This study explored the notion that social expectations within reference groups could negatively influence the use of MCs in southwestern Nigerian communities. It also revealed that the concept of pluralistic ignorance exists as a factor in the non-use of MCs. Therefore, to promote family planning services in Nigeria, it is important to update people's social expectations and promote women's empowerment.

The findings of these studies are relevant for policymakers and CSOs in designing effective intervention reproductive health programs in different regions of Nigeria (especially areas of lower use of modern contraceptives). These intervention programs will be implemented with the values and gender social norms of the



community in mind to facilitate social trust. This will bridge the gender gaps in reproductive health services and dispel misconceptions surrounding the use of MCs.

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#### **Conflict of Interest**

The author declares that there is no conflict of interest.

#### **Authors' Contribution**

Binuyo O. A; is responsible for the conceptualization, methodology and analysis, draft writing and final manuscript. Author read and approved the final manuscript.

#### References

- Atzmüller, C., & Steiner, P. M. (2010). Experimental Vignette Studies in Survey Research. Methodology.
- Bicchieri, C. (2010). Norms, preferences, and conditional behavior. Politics, Philosophy & Economics, 9(3), 297–313. https://doi.org/ 10. 1177/ 1470594X10369276
- Cislaghi, B. and Heise, L (2017). STRIVE Technical Brief: Measuring social norms; London School of Hygiene and Tropical Medicine, London, UK; 2017
- Cristina Bicchieri (2017). Norms in the wild: How to diagnose, measure, and change social norms. http://dx.doi.org/10.1093/acprof:oso/9780190622 046.001.0001
- Eshak, E. S. (2019). Myths about modern and traditional contraceptives held by women in

- Upper Egypt. Eastern Mediterranean Health Journal. https://doi.org/10.26719/emhj.19.053
- Lambe, C. H. (2020). The Role of Men in Family Planning. DSW Is a Global Development Organization.
- Moussaïd, M., Kämmer, J. E., Analytis, P. P., & Neth, H. (2013). Social Influence and the Collective Dynamics of Opinion Formation. PLoS ONE, 8(11).
- National Population Commission (NPC) [Nigeria] and ICF (2019). Nigeria Demographic and Health Survey 2018. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.
- National Population Commission [Nigeria] and ICF International (2014). Nigeria Demographic and Health Survey 2013. Rockville, Maryland, USA: National Population Commission and ICF International.
- Smerdon, David; Offerman, Theo; Gneezy, Uri (2016): Everybody's doing it: On the Emergence and Persistence of Bad Social Norms. Tinbergen Institute Discussion Paper, No. 16-023/I, Tinbergen Institute, Amsterdam, and Rotterdam.
- Stefanik, Leigh & Hwang, Theresa (2017).

  Applying Theory to Practice: CARE's Journey
  Piloting Social Norms Measures for Gender
  Programming. Cooperative for Assistance and
  Relief Everywhere, Inc
- World Health Organization (2018). Family planning/Contraception. Retrieved November 4, 2019, from https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception
- Yaya, S., Uthman, O. A., Ekholuenetale, M., & Bishwajit, G. (2018). Women empowerment as an enabling factor of contraceptive use in sub-Saharan Africa: A multilevel analysis of cross-sectional surveys of 32 countries. Reproductive Health, 15(1), 214.