Exploring Food and Health Communicative Practices: An Ethnographic Study in a Suburb of Dakar, Senegal

Hélène Binesse

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University of East Anglia

School of Education and Lifelong Learning

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Abstract

Non-communicable diseases (NCDs), including cardiovascular and respiratory diseases, cancers and diabetes, kill 41 million people each year, 77% of them in the Global South (World Health Organization, NCDs fact sheets, 2021). In Senegal, NCDs have been increasing, yet the health system appears unable to respond to emerging needs. My study seeks to understand why health education and information to prevent and manage NCDs are often unable to make a difference on the ground. I explore communicative practices, both official and informal, around health and food from the perspective of literacy as a social practice to contribute to this gap in knowledge.

Adopting an ethnographic approach, I stayed over 10 months in Malika, a suburb of Dakar, where I volunteered in a local Non-Governmental Organisation in literacy and development. I accessed community activities relating to health and food in a cooperative house for women, a walking group, and participants' households and family events. I observed the everyday environment and communicative practices that comprise local knowledges, food practices and gender roles. Bringing key ideas from literacy as a social practice, health promotion and gender, I researched how people learned and shared knowledge in face-to-face and virtual spaces, including community-based health sites and a WhatsApp group.

I found that the verticality of communication prevails: a command-and-control approach to messages and channels in the ways providers produce and disseminate health information and education. Moreover, the dominant use of French language in health-related texts and scientific literacy at both institutional and community-based levels, while the lingua franca is Wolof, reinforces inequalities in access and power. This one-way communication and top-down messaging positions patients as *health consumers*, disregarding important determinants of women's health and failing to challenge gender roles. I argue that exploring health literacy through the contextually embedded concept of health communicative practices has the potential to enhance the impact of health education and communication in ways that can empower communities to make informed choices. This is particularly important in the absence of a supportive health infrastructure.

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Abbreviations

CDoH – Comercial Determinants of Health

CSOs – Civil Society Organisations

ICTs – Information and Communication Technologies

IPCD – International Conference on Population and Development

LSP – Literacy as a Social Practice

NCDs – Non-Communicable Diseases

NGO – Non Governmental Organisation

PNDS – Plan National de Développement Sanitaire et Social - National Health and Social Development Plan

PSSC II – Programme Santé USAID/ Santé Communautaire (phase II) - USAID's Health/Community Health programme

SDGs – Sustainable Development Goals

SDOH – Social Determinants of Health

USAID – the United States Agency for International Development

WHO – World Health Organization

WID – Women in Development

XOF – West African CFA franc

Glossary of Wolof terms

araw	larger millet flour pellets
bajen	eldest sister of the head of household
bajenu gox	godmother of the neighbourhood
boroom jël	the head of household
ceebu jën (also written ceebujën, *tiébou dieune* in quotations)	national dish of Senegal, rice and fish
cepp	vetiveria Nigritana, thick and tall type of grass, the roots are used for its disinfectant and antiseptic properties
cere	millet couscous grain
darra	Quranic schools
ndogou (iftar)	evening meal to break the fast
jongué	in this research, word used to describe women's practices in relation to cooking and caring for their husband
kalendos	informal taxi
kheudd (suhur)	meal consumed before sunrise by Muslim while fasting
laax	a sweet mush with curds served at baptism or sometimes served for dinner
ngalaax	a sweet mush with curds and peanuts, cooked by Christians for Easter
sankhal	finely ground millet
tamxarit	Ashura, Muslim celebration
teranga	Senegalese hospitality
thiacri	medium-sized millet flour pellet
tubaab	white foreigner

Use of names, quotations and emphasis

Names

I have given pseudonyms to the participants, unless otherwise requested.

Quotations and Emphasis

In this thesis, I use:

- *italics* for words in Wolof and to refer to a term or concept previously used in the thesis
- "*double quotation marks and italics*" for quotes verbatim in French from my participants translated into English
- "double quotation marks" for short direct quotes from the literature
- 'single quotation marks' for contested words and for quotation within another quotation
- indenting for long quotations from the literature and my fieldnotes
- [square brackets] for my comments as editor of my fieldnotes

Use of Wolof

I mostly use the codified alphabet (based on the Roman alphabet) to write the words in Wolof. In quotations from the literature, I keep the original writing.

Because of the various written versions of Senegalese national language names, I use the codified alphabet to refer to them: Wolof, Pulaar, Seereer, Joola, Màndienka, Sóninké, Hasaniya, Balant, Mànkaañ, Noon, Mànjaku, Mënik, Oniyan, Saafi-saafi, Guñuun, Laalaa, Kanjad, Jalunga, Ndut, Bayot, Paloor and Womey

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The PhD journey has been an incredible and intense learning process, professional as well as personal. Its challenges and satisfactions at each stage have coloured its way with nuances. I am not sure how I will remember the darker ones in some years, but I will surely recall the esteem that I have for the people who have accompanied me up to where I am now.

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Chapter 1 - Introduction

1.1 Introduction

> "*Senegal is fated to be diabetic*" the father of my host family told me when we talked about the increasing prevalence of diabetes. He did not sound worried but rather resigned; he explained that rice was cheaper than local cereals. It was the main staple with bread, so "*that's how it is*".
>
> *Fieldnotes, Malika, 27/03/19*

Diabetes has increased faster in the Global South[1] than in the Global North; in Senegal, the challenges within non-communicable disease prevention and in accessing care, along with changes in dietary patterns linked to economic development and urbanisation, have increased the risks (Abrahams et al., 2011; République du Sénégal, 2016; Belue, 2017). The reaction of my participant above illustrates how daunting it is for the lay person to address social determinants of health (Chinn, 2011). Are there any other factors that inhibit action around food? What are their beliefs and knowledge about the disease? What kind of health education and information is provided to prevent and manage diabetes?

This ethnographic study deals with health and nutrition education in Malika, a suburb of Dakar, in Senegal, by exploring some of the learning spaces where Malika residents can access, produce and share health-related information. My purpose is to contribute to health literacy debates by investigating the local learning and food practices and sharing of

[1] Throughout the thesis, the terms Global North and Global South will refer respectively to countries with high economic and social growth (largely, but not exclusively, countries in Europe, North America, East Asia and Australasia) and those with lower growth (largely but not exclusively in the rest of Asia, Africa, Arab countries, Latin America and the Caribbean). These terms tend to transcend the power relations and its connotations conveyed in the dichotomy "developed" and "developing" countries.

knowledge within communities and families. I set out to investigate how health education and information could build on these social practices.

Through my initial fieldwork, my investigation became focused on diabetes management as a case study; this came about through my meeting with Nene, a diabetic middle-aged mother. Through her experience and through accompanying her (e.g. to medical consultations, everyday activities), I was able to investigate broader questions around health education. It is a study about the complexities involved in learning about health and the provision of health education; it also includes the challenges patients face when trying to adopt practices more conducive to health, in an environment that is not always supportive.

As I explain in the next chapter, this study does not focus on the individual's technical skills and assets as understood in current conceptualisations of health literacy. Rather, it seeks to document health communicative practices in non-formal and informal learning opportunities in health-care settings and beyond, such as in the home and via online communication. In order to do this, I draw on the ideological model of literacy that challenges the universal skilled-based approach (Barton 2007; Street 1984) by conceptualising literacy as a variety of social practices that are embedded in ideology and community activities. The universal skilled-based approach tends to frame the concept of health literacy in health research as "promoting functional health literacy (…) and this narrow conceptualisation is 'reinforced by a health education model that emphasises information giving'" (Fairbrother, Curtis and Goyder, 2016: 477).

In this introductory chapter, I introduce my research project and the structure of the thesis. However, before I do that, and in line with the theoretical stance and ethnographic approach, I start by contextualising the research, describing my motivations to study literacy as a social practice that draws from previous experiences living and working in different contexts. It is important to share how these experiences have moulded this thesis and how the perceptions built through my previous work as a practitioner in adult literacy and learning, led to the motivation to learn to work in a more sensitive way. I also reflect on how these last four years of exploring the implications of the ideological model for learning about health, have helped me to understand my role differently.

1.2 Studying literacy as a social practice to develop a decolonial lens

When I started working abroad at 25 years old, I did not reflect critically on my role in foreign settings. At the early stage of my career in teaching French as a foreign language, my focus was mostly on pedagogy and didactics, with an educationalist lens, applying what I had learnt at university in my home context. I worked in non-French speaking countries in universities and French institutes. My studies, my family and the French-centred working environments did not really encourage me to look critically at the power dynamics of language use and how its dissemination could be a form of colonisation. I simply, not to say naively, adopted the unifying discourse on Francophonie: "Its members share more than just a common language. They also share the humanist values promoted by the French language. The French language and its humanist values represent the two cornerstones on which the International Organisation of La Francophonie is based"[2].

Linda Tuhiwai Smith would describe this discourse as "a process of dehumanization […] clothed within an ideology of humanism and liberalism and the assertion of moral claims that related to a concept of civilized 'man'."(Smith, 2012: 27). The people I met and the contexts where I lived were determinant in building my identity and sense of self. They helped me to be more aware of what I was doing and what it could represent, particularly in Afghanistan. In the continuity of the long-standing Afghan French partnership through Malalaï and Esteqlal[3] high schools, the project I joined in 2012 at Kabul university in the French department[4] seemed on its way out. It seemed to be little more than an instrument students used to access higher education; it created the hope of being able to study in France while securing a French presence within the higher education arena in Afghanistan. I

[2] https://www.francophonie.org/Welcome-to-the-International.html Accessed 21st October 2019. Interestingly, this page does not exist anymore.

[3] Initiated by the King Amanullah in 1922

[4] Following the Afghan Education Reconstruction Support project (2004-2007) that aimed at building infrastructure, the Support for teaching French in Afghanistan was meant to train French teachers and expand the partnership with other schools such as pharmacy, law, journalism among others.

realised how much our teaching work was biased by the politics of development interventions.

In 2014, when I stopped working for the French overseas development department to manage an adult literacy project for the Afghan police, I implemented the project as it had been designed, addressing the donor's and organisation's mandates. After completing the project in 2016, I worked on a publication to promote the 50th anniversary of International Literacy Day (UNESCO, 2017) that raised my awareness about the debates on literacy, encouraging me to look critically at policy and practice. The more I have learnt from my professional experience, the more I have wanted to build on these experiences through academic research to engage more fully in the nexus between adult literacy and development.

Accordingly, I wanted to study literacy through an ideological lens, that is, to challenge the traditional vision of literacy as universal, a vision that is supported by educationalists and psychologists and which tends to focus on reading and writing skills (Street, 1993 ; Papen, 2005; Barton, 2007). My aim and starting point in this study is to investigate what happens in local contexts and what counts in the literacy events and practices of users within a defined cultural and social context (Street, 2003). Adopting a decolonising stance involves being more mindful regarding my positionality, developing reflexivity in the research process, engaging with local communities and their knowledges. Researching in Senegal, a former French colony, has been important in this regard. Where I identify asymmetries with the colonial system, I have included colonial legacies in my analysis. For example, I examine how health institutions tend to perpetrate some structures and norms, including the uses of dominant languages and how this arises from Senegal's colonial legacy.

1.3 Investigating health communicative practices – the research questions

In September 2018, I left for Senegal and stayed in Malika, in the far eastern suburbs of Dakar, for 10 months. Volunteering in the local NGO and being hosted by a Senegalese family facilitated my integration and access to community activities and groups (see Chapter

4). After a couple of months in Malika, participant observation and my personal engagement with the persons I met encouraged me to explore health education and in particular, nutrition.

Health is a subject of concern around the world, the Office of the High Commissioner and Human Rights within the World Health Organisation, clearly define this concern:

> As human beings, our health, and the health of those we care about is a matter of daily concern. Regardless of our age, gender, socio-economic or ethnic background, we consider our health to be our most basic and essential asset. Ill health, on the other hand, can keep us from going to school or to work, from attending to our family responsibilities or from participating fully in the activities of our community. By the same token, we are willing to make many sacrifices if only that would guarantee us and our families a longer and healthier life. In short, when we talk about well-being, health is often what we have in mind. (OHCHR and WHO, 2008: 1).

To this description of health, I add the vital role of food in keeping us well, healthy and active. As I present in Chapter 5, eating was a central social activity during my fieldwork; linking food to health and vice versa in conversation was common. I also often observed colleagues at the NGO watching videos or commenting on websites giving health-related advice on their mobile phone or computer. However, what intrigued me is that health-related information on the Internet was not necessarily a systematic recourse for health-related issues (see 4.2.4.1 for a critical event that illustrates this point). Later, as I became increasingly curious about food habits (see Chapter 5) and the growing prevalence of diabetes in Senegal, I chose to investigate non-communicable diseases. Diabetes affects patients in Senegal more seriously, as they tend to be diagnosed late, mainly because of the lack of prevention, care facilities and health education, and poverty (World Health Organization, 2016). With Nene, one of my research participants, I explored her management of diabetes (see Chapter 6) to better understand how she learnt about the disease, the health resources she had access to and what she could and could not do with the latter.

“The right to health is a fundamental part of our human rights and of our understanding of a life in dignity” (OHCHR and WHO, 2008: 1) and this includes health-related education and information and gender equality. In my research, I explore some learning spaces in Malika from a social and anthropological perspective (see Chapter 3). Understanding literacy as situated (Barton and Hamilton, 1998) implies studying it through events where the written word plays a role. This might involve observing it in different settings such as the home and the workplace, to highlight the literacies embedded in cultural and social contexts. Thus, literacies are investigated through observing users as they engage in processes of informal learning and sense making. Health-related texts were not common in the environment I studied; information was mainly communicated orally.

In this thesis, I decided to use the term *health communicative practices* to study the diverse ways of engaging communities in learning about their health in various settings and through various modalities. Thus, I investigate informal and non-formal learning opportunities in homes, community-based health settings and hospital, and a digital space with multimodal materials shared in a WhatsApp group.

Through an ethnographic approach, my research has been guided by the following overarching question: *How do Malika residents access, produce and share health and nutrition related information?*

I observed and engaged in some everyday practices linked to food and health to gain insights into the realities on the ground. These communicative practices occurred at various levels, mainly institutional, community-based and within the household. I analyse some of the non-formal and informal learning that take place in this community, the mediation around health information and resources by trusted members. I include a focus on digital media, in particular WhatsApp, to investigate this channel used to disseminate information. An interest in the ways of sharing has shaped my study. I intend to highlight the potential of these practices for enhancing health education and communication in a context where poverty and the lack or weakness of a state health-care system, often limits access to primary care. As I discuss, primary care in Senegal does not include NCDs (Varghese *et al.*, 2019), thereby exacerbating the negative impact of overall social injustice.

Therefore, further sub-questions were designed to explore the key themes within the main question:

- What are individual and collective experiences in terms of learning and sharing about health-related issues? What kind of messages are received and shared, and how? What are the characteristics of health education in Senegal?
- Whether and how are Information and Communication Technologies (ICTs) used to intentionally access and share information in everyday practices? (I am looking at the roles and uses of ICTs encompassing TV, radio and smartphones, specifically mobile applications such as the communicative platform WhatsApp).
- To what extent are health information and education sensitive to gender and life-course factors? How much do the communicative practices in health-care settings and beyond, generate knowledge that can be applied for health-related purposes?

1.4 Researching in Senegal

I chose Senegal for several reasons. First, because through my work on the UNESCO publication in 2016, I collected data on West-African countries, among others. Senegal was included and its successful outsourcing approach (coined in French as *faire-faire*, that means make someone do something) to encourage communities' engagement in the promotion of adult literacy, intrigued me[5]. Moreover, in the same year, the UNESCO Confucius Prize for Literacy was awarded to the Directorate of Literacy and National Languages in Senegal for its 'National Education Programme for Illiterate Youth and Adults through ICTs'. Senegal

[5] "In the area of adult literacy promotion, [the *faire faire*] gave rise to a new strategy based on partnership between central government and organizations of civil society, including national and international Non-Governmental Organisations and Community Based Organisations. Based on outsourcing to such organizations – or *faire-faire*, as it was coined in French – literacy programmes were to be implemented locally in accordance with local needs and conditions, using local languages and drawing on cultural patterns of community organization. This model introduced flexibility into literacy programming, giving freedom to design the process of literacy learning, produce local materials and link literacy with the livelihoods and other needs as defined by local people." (UNESCO 2017: 52-53)

seemed to be seen as a technology hub in the region. Initiatives and a commitment to the promotion of ICTs in adult literacy, in particular among girls and women, have inspired other countries like Kenya and Nigeria. It also inspired my original research project. The idea of that study was to bridge the mobile phone practices inside the national literacy programme classroom and those outside the classroom in everyday life. It seemed to be an apposite design to look at the experiences of women with the mobile phone. However, a scoping visit in April 2018 led to me beginning to understand the nuances of adult learning and education in Senegal. I also developed my understanding of the adult literacy programme[6]. I therefore reshaped my research project and decided to look at ordinary and routine digital literacy events outside the classroom walls; my intention was to explore informal learning as mediated by the mobile phone. In Chapter 4, I will explain in more detail why I narrowed my observations to health, including the sharing of digital and non-digital health-related information (see 4.2.2).

Senegal was a relevant context in which to explore health education and communication because the concepts of health promotion and health literacy are developed in the Global North. Therefore, looking at the healthcare policies and health education practice, I could study the extent to which a country in the Global South embraces these concepts. As I discuss in Chapter 2, access to health care generally and to quality health care in particular is challenging for many Senegalese people, not only in rural areas but also in an urban area like Malika. The health system suffers the consequences of a colonial system that has prevented the development of local and traditional medicine. In addition, several years under structural adjustment plans have limited social investment in welfare. These factors have increased poverty and inequalities in healthcare. In this context, access to services beyond primary care is of great concern, for example addressing NCDs.

[6] The pragmatic use of the mobile phone in the literacy programme was mainly to support the participants in saving contacts, dialling numbers and sending text messages among others - an instrumental use rather than incorporated in the learning and empowerment of the participants

My encounter with community-based health programmes such as the *Bajenu Gox*[7] (the godmother of the neighbourhood, see 2.3.2 and 6.3.2.2) led me to study how the programme drew on the local and influential roles of the householder's eldest sister, *bajen* in Wolof. In this case, the local authorities identified influential women in the neighbourhood who were then tasked with approaching pregnant and lactating mothers. This programme, as well as others, relies on community effort. Its large cohort of volunteer health workers resonates with the contribution civil society has made to adult literacy. This national call for mobilisation to engage in literacy is enshrined in the constitution: "All national institutions, public or private, have a duty to make their members literate and to participate in the national literacy effort in one of the national languages" (article 22 paragraph 4). Finally, within its digital development and innovation, driven by the rapid growth in internet and mobile phone use, Senegal counts on e-health to enhance its national healthcare services and to promote the health of its citizens. The country has developed a national e-health strategy (République du Sénégal, 2018a); my study on health education and communication from the ideological lens offers important insights into learning about health with digital device as I will demonstrate in chapter 8 and 9.

1.5 Aim and structure of the thesis

To investigate health and nutrition communicative practices, I explore some ways of sharing information among community members. Studying health literacy through literacy as a social practice lens involves exploring how my participants might engage with health communicative practices, beyond programmes and healthcare settings. Thus, I wish to further contribute to health literacy debates by bringing the New Literacy Studies perspective to bear in relation to health literacy and in a Global South context.

[7] translated as *godmother of the neighbourhood* in English, they are identified women of the community, trained to communicate on health-related issues (pregnancy, TB, etc.) with households in their neighbourhood

First, I describe some health learning spaces in the east urban area of Dakar that have not been researched from a social and anthropological perspective. Second, I map potential determinants of health that I consider essential in addressing health education and communication around diabetes prevention and management. Third, this research demonstrates the relevance of literacy as a social practice, and gender and development in investigating, analysing and describing the power relations constructed in health communicative practices.

To sum up, in this initial chapter I have introduced how my research project evolved and explained why I have chosen literacy as a social practice as a conceptual lens. This choice has involved abandoning the boundaries of a programme and specific setting and instead, exploring learning and literacy practices.

In the next chapter, I present and discuss the post-independence and contemporary social and policy context in relation to education and health that is relevant to this study. Providing key social and demographic indicators, I outline the living conditions in Malika to share some of the challenges that I expand on later in the empirical chapters.

In Chapter 3, I outline the key concepts that frame the research. I explain that I adopt the ideological model of literacy that conceptualises literacy as a social practice. I build my conceptual framing on the health promotion framework in which health literacy debates have emerged, to look at power relations from a gender perspective both within communities and in the context of adults as participants.

The fourth chapter is concerned with the methodology used for this study. I discuss the ethnographic approach by presenting my research journey in Malika. I also provide vignettes of the spaces I explored and people I encountered, some of whom became my participants. I intend to stress how encounters and situations through ethnography, shaped the research scope and focus.

Chapter 5 describes and discusses daily food practices, exploring food supply, the preparation and consumption of meals. As I describe situations of everyday life, issues around gender roles, empowerment, food security and social relationships are raised.

With this background I move to Nene's case, exploring in Chapter 6 how she manages her diabetes. I describe and analyse learning opportunities to stress some of her challenges in applying the recommended diet and accessing supportive health education and information with regard to nutrition and diabetes in Malika.

In Chapter 7, I turn to the digital communication space where I explore novelties, similarities and discrepancies between the communicative practices analysed in the two previous chapters and those in online communication.

In Chapter 8, I discuss some of the key findings around learning about health and ways of sharing knowledges from Chapters 5 to 7, within the conceptual framing of Chapter 3. I raise key points around intervention models, social learning and power relations.

In the concluding chapter, I discuss the implications of looking at health literacy from a sociocultural lens. I will demonstrate how my findings address this central research question in the concluding chapter. I also revisit my story of researching literacy as a social practice to show how my own stance has been shaped by and has shaped the methodological and theoretical perspectives I employed in this study.

Chapter 2 - Senegal and Malika in the urban area of Dakar: situating the research context

2.1 Introduction

This chapter provides the geographical, policy as well as the social context underlying this study. Senegal is situated at the westernmost point of Africa. It is bounded in the north by Mauritania, in the east by Mali, in the south by Guinea and Guinea-Bissau and in the west by the Atlantic Ocean, with 700 kms of coastline. The country is crossed by the Gambia, an enclave of land separating the centre and southern regions of Senegal.

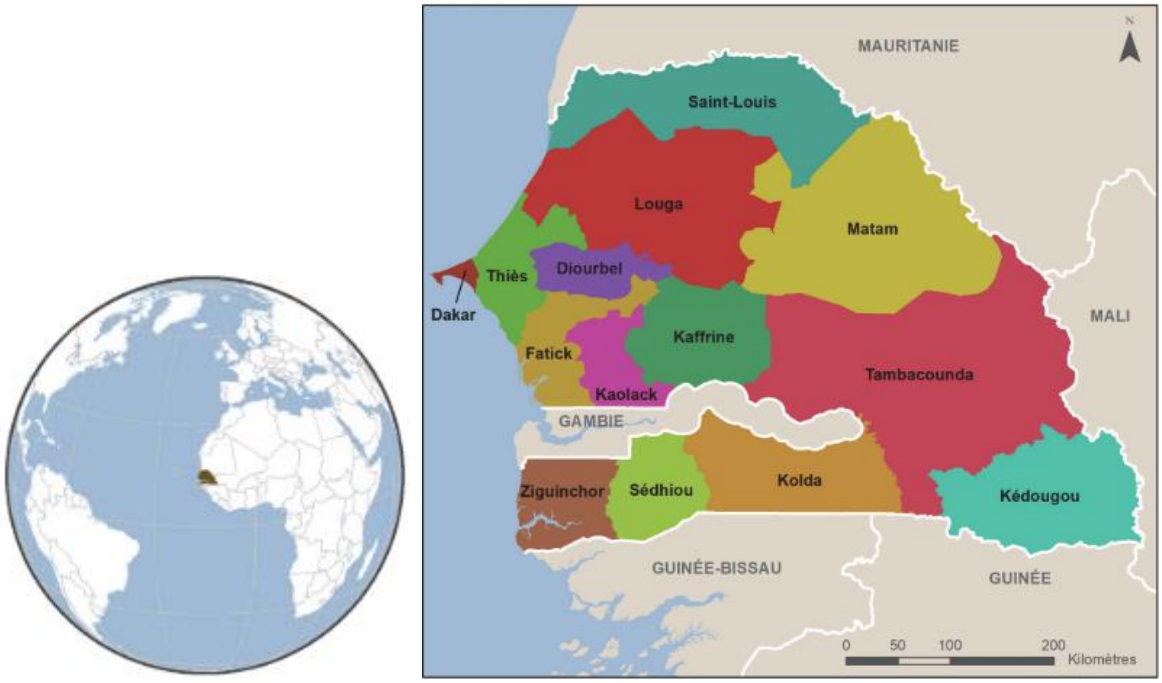

Figure 1 - Map of Senegal (République du Sénégal, 2019a: xxii)

The national agency for statistics and demography (République du Sénégal, 2021) estimated 16.7 million inhabitants in 2020. The population has more than doubled since 1988, with an estimated total population of 6.8 million that is linked to a fertility rate of 4.7 and reduction of global mortality (République du Sénégal, 2019a). Dakar as the smallest region, is the most

populated region where 23% of the total population live, namely 3.8 million, a density of 7,000 residents per square kilometre. The population of Senegal is mainly young with an average age of 22.7 years old (République du Sénégal, 2021).

The disagreements on defining an ethnic group, a language and varieties of language, have generated several linguistic maps of Senegal; nevertheless, scholars tend to agree on about twenty languages and ethnolinguistic groups, with Wolof representing 43.7% of the Senegalese population (for more details on the other ethnic groups, see Cisse, 2005: 101). The Republic of Senegal is a Muslim state with 94% of the population Muslim. There is no clause in the Constitution that defines a specific religion, however Muslim brotherhoods in Senegal have always been influential and very closely linked to politics (Diop, 2012). The population of Senegal is deeply Muslim, seeking physical and spiritual well-being through Islamic principles; thus, their life is structured by Islamic intervention in most medical and social problems (Foley, 2001).

Like other African countries, urbanisation in Senegal is growing fast based on the following

> - demographic (demographic explosion, natural growth of the urban population, significant rural exodus leading to a rapid change in the ratio between the rural population and the urban population) ; - economic (greater job opportunities in towns, agrarian systems which are struggling to absorb more generations of rural people and to feed larger family units, hence a departure from rural areas for individual strategies of success and / or survival, and family strategies for diversifying types of activities and income); - sociological (attractiveness of the city and modernity, greater amenities, educational strategies for households, etc.); - cyclical (conflicts, droughts, various disasters) (Antil, 2010: 4).

As far as poverty, ranking 162nd out of 250 countries, Senegal is considered within the lowest in terms of human development, with a Human Development Index of 0.494. In 2011, the poverty rate was estimated at 46.7% (République du Sénégal, 2019b).

The Senegalese economy has been supported by agriculture and the revival of activity in the mining and construction industries (UNESCO, 2020). Like other countries with ambitions of emergence, Senegal has been supporting the development of Information and Communication Technologies (ICTs) that the International Labor Organization defines as "enablers for growth, high-added value niche-products and aggregate labor productivity" (ILO, 2019: 7). Accordingly, the country developed the national strategy "Digital Senegal 2025" to strengthen its position among the top 15 of the most advanced countries in Africa technologically and its sectors such as agriculture, commerce, education, health, administration and financial inclusion that are users of digital economy (ibid.). The liberalisation of the telecommunications sector in 2003 has influenced the political discourse, pressing on the development and use of digital and mobile technologies (Jimbira and Cissé, 2018). Therefore, as per the statistics of the International Telecommunication Union, 99% of the country is covered by a mobile-cellular network and in 2019, 92% was covered by at least a 3G mobile network. In 2020, there were 114 mobile cellular subscriptions per 100 inhabitants (ITU, 2021). The spread of smartphones in Senegal has been significant over the last decade; in 2021, out of 15.4 million internet users, 97.7% are mobile users (ARTP, 2021). These data show the importance of the mobile digital device not only to communicate but also to access information. In Chapter 7, I explore a WhatsApp group in which participants share health-related information among others. Following the analysis of the shared materials and my observations, I discuss the digital health strategy in Chapter 8.

Having provided this general background, I now focus on Malika, the town in the suburbs of Dakar where I lived for 10 months. Malika was a *lebu*[8] village established in 1904 by Seydina Limamou Laye, the founder of the Layene Sufi order. 35 years ago, it was still just a large village, as my Wolof teacher described his hometown where he grew up among the mango trees. Today, Malika has expanded, with new residential neighbourhoods that have reduced the arable land and small-scale agriculture activities such as domestic livestock farming and

[8] Lebu is an ethnic group primarily fishing community

vegetable gardening that used to guarantee food security for several families (Pinard, 2012). According to the national census in 2013, there were 32 130 inhabitants in Malika and an estimated 40 335 in 2021 (ANSD, 2015). Malika is situated in Pikine district where the highest number of poor households and informal economic activities are estimated to be (Borderon et al., 2014). The market prices and living conditions mean that many families struggle to satisfy their food needs (ANSD, 2015). This situation impacts both qualitatively and quantitatively on the food for all households' members, including children under 15 (ibid.; Antil, 2010; Pinard, 2012).

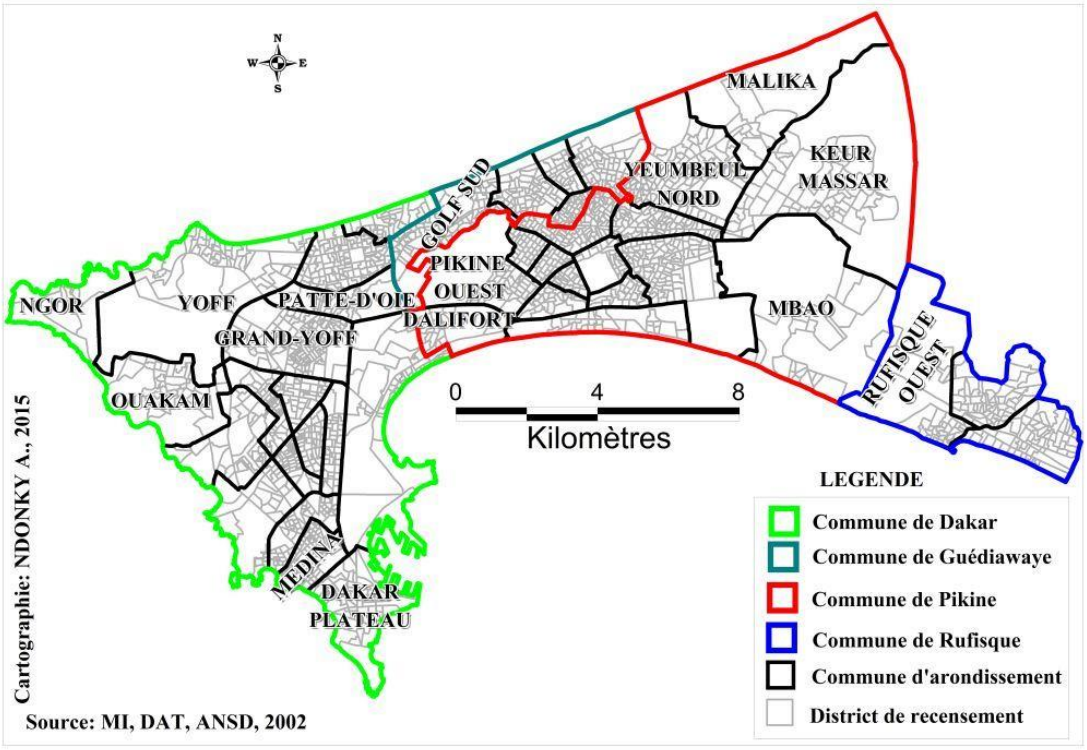

Figure 2 - Map of the urban area of Dakar[9], adapted from Ndonky et al., 2015

As I am taking a literacy perspective on health education, I now look at the use of languages and education policies. The aim is to provide an overview of the literacy situation and

[9] A commune is a local unit of administration similar to a municipality, district, or township

highlight the government's approach to addressing educational needs. I also want to stress the use and promotion of national languages within the education sector.

2.2 Language in education and everyday practices

2.2.1 Linguistic assimilation – political decisions

Senegal is historically the first French colony of West Africa: in 1659, Saint-Louis was made as capital city of French West Africa.

The colonial system designated by the 'direct rule'[10], imposed by France, was characterised by "a system of economic and political integration, as a corollary of the desire for cultural and above all linguistic assimilation" (Cissé, 2005: 104). This approach replicated the way that elites imposed the French language on the peasants in France at the end of the 19th century. Considered ignorant and primitive because they *stammered* in French, the aim was to bring the peasants into the *light* and provide them with a sense of belonging to the French nation (Faty, 2014). Linguistic assimilation in Senegal was central to France's ideological project; therefore, schooling in French was central in France and in its colonies (ibid.). Like the other French colonies in Africa, when gaining their independence in 1960, Senegal chose French as its official and schooling language. Mamadou Cissé (2005) stresses that this decision, originally planned as temporary, was said to preserve the unity of the State and preventing ethnolinguistic claims for sovereignty, according to official texts.

The first educative interventions were in colonial primary schools: non-religious teaching was in French, religious ones and Bible reading were in national languages; the colonial education system was aimed at the intellectual elite. Under the aegis of the colonial system, the first adult literacy classes started in the 50s in line with the literacy campaigns promoted by UNESCO.

[10] In inverted comma and in English in the original text in French

Looking at the colonial legacy in three French speaking African countries, including Senegal, Clinton Robinson and Tú Anh Thị Vũ highlight the consequences of the "assimilationist and centralising approach" of French colonial policy on todays' cleavages of elite/non-elite and of countervailing power. In 2019, there were 31 indigenous languages and seven non-indigenous ones (Eberhard et al. 2019b cited in Robinson and Vũ, 2019). As recognised in the Constitution of Senegal (République du Sénégal, 2001), six languages are officially national languages (decree 68-871, July 24th 1968): Joola, Màndienka, Pulaar, Seereer, Sóninké and Wolof; the Constitution gives any indigenous language national status when and if it is codified – i.e. having an established writing system. Therefore, in 2018 there were 22 codified languages [11] (République du Sénégal, 2018). The provision of the latter grants the status of being recognised and able to be used in the education system to facilitate learning (République du Sénégal, 2018). Wolof is the national *lingua franca* while French is the language of instruction and administration; as a result, the other national languages appear less prioritised in terms of their use and development (Robinson and Vũ, 2019).

Despite its status of official language, French has never become a *lingua franca* in the country; French is generally perceived by Senegalese people as a second language, associated with "the State, the elite (a marginal group of the population that consider mastering French as essential) and above all, school that remains one of the institutional means of success and social promotion" (Cissé, 2005: 105). Though the national anthem is in French, several linguists doubt that French unifies the country given the complexities of multilingualism (ibid.). On the contrary, Wolof, spoken by approximately 80% of the population, though mother-tongue of 44% of the total population, is used orally in several domains such as administration, justice, school and religion (ibid.).

[11] Wolof, Pulaar, Seereer, Joola, Màndienka, Sóninké, Hasaniya, Balant, Mànkaañ, Noon, Mànjaku, Mënik, Oniyan, Saafi-saafi, Guñuun, Laalaa, Kanjad, Jalunga, Ndut, Bayot, Paloor and Womey

2.2.2 The promotion of national languages

After the independence of Senegal in 1960, the promotion of national languages faced several challenges, mainly political. Though Léopold Sédar Senghor[12] claimed to be an advocate of local languages, his political role dominated his idealism. Mamadou Cissé (2005) and Abdou Aziz Faty (2014) demonstrate the political tensions between the president and the nationalists[13] through decrees that tended to valorise the role of the French language. Senghor argued that the lack of *grammatisation* of national languages and the dearth of scientific and technical materials written in national languages, could not ensure an adequate education. In 1981, the new president Abdou Diouf[14] convened the General Estates of Education and Training[15] to reform Senegal's education system. This became a milestone in terms of the promotion of the national languages in education; however, the structural adjustment programmes imposed on Senegal in the 80s did not prioritise social sectors in the budget. As Cissé (2005) highlights, the implementation of these programmes had negative impacts on education and health, as I will discuss in 2.3.1.

The promotion of national languages remains a challenge today. The government aims to prioritise them in the education system to "make them languages of learning in the education system to achieve sustainable and endogenous development" (République du Sénégal, 2018: 55). However, in practice "teachers are rarely prepared for the reality of bilingual or multilingual classrooms […] training is given only in French, and a survey found that only 8% of trainees expressed any confidence about teaching reading in local languages" (Global Education Monitoring Report, 2016: 6).

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[12] First President of Senegal from 1960 to 1980, he was educated in France and a major theoretician of *Négritude* – a critical and literary concept developed by African diaspora intellectuals to valorise African cultures and history

[13] Such as the historian Cheikh Anta Diop

[14] Second President of Senegal from 1981 to 2000, Secretary-General of International Organisation of La Francophonie from 2003 to 2014

[15] Teachers, researchers, policymakers, trade unions, civil society organisations, parents of students, religion representatives and student organisations gathered

Moreover, the disregard for their writing standard is expressed in the weaknesses of the education system (République du Sénégal, 2018). In the previous national education programme, developing " the literate environment in local languages" was already listed in the strategies to improve the quality of adult and youth literacy interventions (République du Sénégal, 2013: 54). The use of Wolof in writing is officially codified but in practice, it depends on users' will and knowledge. I tried to learn the language only using the codified alphabet, as it was promoted in the NGO that was working in adult literacy, but as I further explain in Chapter 4, it was challenging because the codified rules did not seem to be central for the users as they were when they are writing in French. The two sons in the home where I lived (13 and 17 years old, both educated in French and communicating in Wolof at home) could decipher the alphabet but did not see the need to use it. Similarly, in all written messages on WhatsApp, it was rare to read the codified alphabet.

Cissé (2005) demonstrates how ambiguous linguistic decisions and actions driven by politics rather than scientific considerations, are. In particular, decisions taken by the presidents Léopold Sédar Senghor and Abdou Diouf from 1960 to 2000, have resulted in a usage of national languages without normalisation – i.e. use of a codified alphabet. Consequently, spelling and grammar mistakes are common in advertisements, songs titles, political leaflets among others, that some organisations in literacy and education condemn. For instance, when I started my fieldwork in September 2018, the NGO in adult education I joined, launched a citizen council for the regulation of public expression in the national language[16] . Held on international literacy day, the aim was to support the editing of the above-mentioned materials in order to provide neo-literate adults and young learners with a standardised literate environment in national languages.

[16] http://cosydep.org/wp-content/uploads/2019/04/COSYDEP-Labo-Alpha-2018.pdf

2.2.3 Adult literacy promotion

According to the most recent census of 2013 (République du Sénégal, 2014b) 54.6% of the population in Senegal is said not to be able to read or write in any language; the census also indicates that the literacy rate is lower among women (37.7% compare to 53.7% among men) and in rural parts of the country (33.8% compared to 57.9% in urban areas). However, based on studies of the use of Ajami, non-Arabic languages written using Arabic script, Fallou Ngom (2010) presents another narrative of the literacy rate in Senegal. He argues that these statistics omit Wolofal and other Ajami users, as literacy in Senegal is measured in French and other Roman-based alphabets for national languages. The majority of Wolofal users, as well as Ajami users in Pulaar and Màndienka, who learnt the Arabic writing system in the Quranic schools, use it to meet their everyday written communication needs, as Ngom found. Today, Ajami is used mainly in the religious domain and in rural areas, where variations of transcription have been developed (ibid.).

Wolofal is the use of Arabic script to transliterate Wolof. It first appeared in the 18th century but was mostly developed in the 19th century, coinciding with the struggle against imperialism (Mboup, 2016). Islam and Arabic culture have a strong influence in Senegal, often as a cultural force of resistance against Western influences[17]. This is manifested in religious faith (more than 94% of the Senegalese population is Muslim), Arabic script used in the transcription of literature, religious and profane texts, and education and training institutions at all levels (Prinz, 1996). In the modern *Daara*, Quranic schools, the local language is the instructional language for the first three years at primary school, including learning Arabic script. French is introduced in the 4th year and is the instruction language along with Arabic language (République du Sénégal, 2018). Wolofal represents cultural and historical connections for people in rural areas; thus Ngom stresses its potentials in making

[17] Islamisation started in the 11th Century with the arrival of the Almoravids (Muslim sect and dynasty that ruled over North West Africa and part of Spain in the 11th and 12 the centuries). The Islamisation of Senegal continued from the end of the 19th century with the emergence of the great Muslim brotherhoods: the Mourides and the Tidjianes. This Islamisation contributed to the struggle against French colonialism.

adult literacy more efficient in rural areas, instead of the Roman script that is currently promoted throughout the country in adult literacy programmes.

Adult literacy programmes started during colonisation using only French; then from 1970, functional literacy programmes in national languages were implemented. In the 1990s, adult literacy was a key priority of the government, with calls on civil society to develop and implement projects (Binesse in Robinson-Pant *et al.*, 2021). To do so, the outsourcing approach, known as the *faire-faire,* framed the interventions, thereby creating a space for adult literacy actors to promote literacy within large programmes. The mobilisation of various actors to address today's literacy needs remains highlighted in the most recent education policy (République du Sénégal, 2018). Moreover, considering the above statistics, the large majority of adult literacy programmes are designed for women and their empowerment, in particular economic empowerment (République du Sénégal, 2005).

In the 1990s, there was a strong focus on youth and adult literacy programmes. The Office of the Delegate Minister for Literacy and Promotion of National Language was created in 1991 and the State enshrined in the Constitution the collective efforts towards adult literacy (République du Sénégal, 2001: 4). Large programmes funded by the World Bank among others, aimed at supporting women's empowerment, such as the Pilot Female Literacy Project (PAPF – 1994-2006). These large programmes were implemented by NGOs through a national coordination that created a collaborative environment between the State and non-state actors to address literacy needs (Binesse in Robinson-Pant *et al.*, 2021).

As I will show in the last section of this chapter, the focus on women and participation in the "education effort" at the community level, resonate with the health sector's strategies.

2.2.4 Languages in everyday life during my fieldwork

As demonstrated earlier, the political decisions in the 1980-1990s, tended to privilege French; however, Arame Diop Fal (1995) highlights how the masses initiated actions to safeguard the vitality of national languages, extending their use to domains such as the

sciences and economics. Thus, upon their request, Radio-Television Senegal started broadcasting more and more popular science programmes in national languages (ibid.). Today, national languages are largely used in radio programmes, to a lesser extent in TV for news, cultural programmes and advertisements where Wolof dominate (Friedrich-Ebert-Stiftung (FES), 2013).

However, the tendency on the Web is different: firstly, all government websites are only in French and access in national languages does not seem to be a priority yet, according to a recent UNESCO report. Thus, to enhance access to all, UNESCO states that the Senegalese government needs to "define and enforce guidelines to encourage the production and posting of public interest content in national languages" (UNESCO, 2020: 139). In social media, several linguistic studies investigate translanguaging and code-switching among Wolof speakers in digital literacy practices, stressing the role Wolof can have in written communication (Lexander, 2010; Deumert and Lexander, 2013).

Finally, in health-related contexts, terminologies in French are largely used to refer to diseases and treatments, although I did hear conversations in Wolof about health. Compared to the promotion of national languages in the education sector, interestingly, language use does not seem to be an issue in the health policy documents that I found and analysed for this thesis. For instance, in the National Strategic Plan for Community-based Health (République du Sénégal, 2014), one of the strategies is "to develop a single integrated communication plan […] to ensure clear, coordinated and harmonised messages across programmes, departments, regions and community health actors" (ibid.: 10). As it seems to concern internal communication among health actors, the assumption is made that this will be in French; no reference is made to national languages. In the latest policy strategy (République du Sénégal, 2019), the assumption of French being the official language to the exclusion of other languages is even starker. The policy begins by introducing the sociocultural situation of the country; the largest ethnic groups are listed and the minority

ones partially listed. This is followed by a shorter version of Clause 1 of the Constitution[18] regarding language: "French is the official language of the country. The majority spoken language is Wolof[19]" (ibid.: 6). This statement also illustrates the tendency that I will analyse in chapters 6 and 7 of seeing French as the dominant language in writing and Wolof as dominant in oral communication. To further explore the linguistic situation in the health sector, I looked at studies in linguistics that raise the issue of languages in the medical domain. For instance, in Wolof, allopathic medicine is called *paju tubaab*, literally medicine of the European people. Stressing that medical practices often remain an area reserved for specialists, Abibatou Diagne and Abou Bakry Kébé (2018) demonstrate that the popularisation of medical terms in Wolof is possible using rewording in order to conceptualise and express medical sciences as closely as possible to the Wolof sociocultural realities. Accessible scientific information to all is a major public health issue whose implementation requires political will (ibid.).

Robinson and Vũ argue that "the written development of a language hitherto used principally orally is a function of evolving patterns of communication" (2019: 449). This is an important point that reflects the dominant use of French language for health-related written information and of Wolof for oral health communication between patients, doctors, and health actors in awareness raising campaigns. Therefore, it seems that the written development of Wolof remains underused in the health domain because the language is not used for scientific explanation but rather, for behaviour change.

This section has demonstrated that language policy remains a complex issue; throughout this thesis, I stress this question of languages, what language in what situation, as it is a key pattern I observed during my fieldwork and on which I have drawn when discussing power relations. For instance, in Chapter 7, I further discuss the use of languages when I look at

[18] The original clause is "The official language of the Republic of Senegal is French. The national languages are Diola, Malinké, Pular, Serere, Soninké, Wolof and any other national language which will be codified." (RdS, 2001: 2).

[19] In the original document written "Ouolof" using the phonetic spelling in French and inverted commas

some messages posted in a WhatsApp group. Therefore, providing an overview of linguistic policies in Senegal is fundamental to understanding part of these relations and their complexities.

2.3 Healthcare and diseases in Senegal

As I alluded to earlier, I narrowed down my research on health after the first couple of months spent in Malika; by providing some background information on the public health and epidemiology situation in Senegal and in Malika in particular, I want to demonstrate that my focus on issues around health and nutrition is not arbitrary; rather it emerged from an interest in the situations that I encountered within the challenging living condition of the eastern suburb of Dakar. These are explored further in Chapters 5 and 6.

2.3.1 The public health system

Within the objectives of the UN's Millennium Goals and today, the Sustainable Development Goals (SDGs), the Republic of Senegal has focused its National Health Development Plan (PNDS) 2009-2018 on the reduction of maternal mortality and infant and child mortality, control of fertility and increased access to primary care for the most deprived. The latest plan, 2019-2028, pinpoints SDG 3 and the progress of the country towards Universal Health Coverage.

Though the State budget allocated to the health sector has increased over the years representing 8% of the state operating budget, it remains below the targeted 15% (République du Sénégal, 2019). Instead, within the total expenditure on health, private expenditure represents 48% (WHO, 2018). In 2019, private medical services were six times more than public services in Dakar (République du Sénégal, 2019). This is the result of the structural adjustment programmes on health reforms in Senegal in the 90s that consisted of decentralisation, privatisation of the health sector and the implementation of participatory management structures (Foley, 2001; 2008). The starting point of these reforms was

neoliberal, based on “the World Bank’s assessment of what Senegal needs to become more efficient and market-oriented”. This involved shifting the cost of health from the State to the citizens (2001: 8). As per World Bank data, in 2018, 55.89% of a household expenditure is out-of-pocket[20].

Figure 3 - Health expenditure and sources per person https://www.healthdata.org/senegal

In 2017, 83% of households were estimated to no be covered by any health insurance. This concern has been at the priority of health financing reforms, as it constitutes a source of exclusion from health services and a risk of impoverishment (République du Sénégal, 2019b). Community health insurance through mutual health insurance has grown significantly. In fact, mutual health insurance coverage relative to the total population, rose from 7% in 2013 to 16% in 2016 and then 19% in 2017 (ibid.). Mutual health insurance is further discussed in Chapter 6.

Because of a low health budget, the national health system is precarious and lacks health professionals. In addition, lack of equipment resources, quality of services, information systems and non-communicable disease care, represent further challenges faced by Senegal (Measure Evaluation, 2015; République du Sénégal, 2019). Without scanning all the health services, I have selected some figures to illustrate the challenges in accessing healthcare.

[20] https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS

These health data also show the influences of the national health policies, for instance, mother and child's health and the community-based health system that can be noticed through the high number of midwives and nurses compared to general practitioners.

	Senegal	Dakar region
General practitioners	254	89
Gynaecologists	109	65
Diabetologists	5	4
State midwives	2100	552
State nurses	1795	713
Nurse assistants	1328	318

Figure 4 - Number of human resources per medical specialties in Senegal and Dakar region (République du Sénégal, 2018a)

The reforms of the health sector have emphasised the participation of the population in the 'health effort'. Initially promoted through the Bamako initiative in 1987 and reviewed in 1999, community-based health was meant to address primary care for mother and child by encouraging communities to be responsible for their health through community-based financing. In 1989, Senegal produced its first health policy that emphasised community-based principles. In 1992, the state formalised the participation of the population in the development effort. Health promotion associations were established to organise communities around preventive and promotional health activities within populations living near health structures (health posts, health centres and hospitals) and the state framed the population's participation by defining the status, organisation and functioning of health committees (République du Sénégal, 2014a).

Promoting cost and management sharing in health, the implementation of the Bamako Initiative institutionalised user fees to improve the quality of care and supply of essential generic pharmaceuticals (Foley, 2001). This implementation reveals the state's failure to finance the health sector, instead placing the so-called 'health effort' onto citizens. Such reforms have increased inequalities, impacting on the poorer classes who cannot pay for services and medication: "no money, no care" (ibid.: 39).

To achieve Universal Health Coverage, the Ministry of Health and Social Action developed the National Health Development Plan in 2009 that frames health interventions with the communities; in 2013, it created a community-based health unit within the General Directorate of Health; and in 2014, it developed its first national community-based health strategy. There are about 25 000 community health workers, mainly women, trained in preventive, curative and promotional activities in the areas of health, hygiene and sanitation. Community relays and the *bajenu gox* (further explained in the next section) are part of this network. The community-based health system is promoted as the cornerstone to addressing equitable health access: "to bring services closer to the populations, proximity strategies will be developed through the community-based health programme." (République du Sénégal, 2014a: i).

In brief, Senegal's Public Health System is organised as follow:

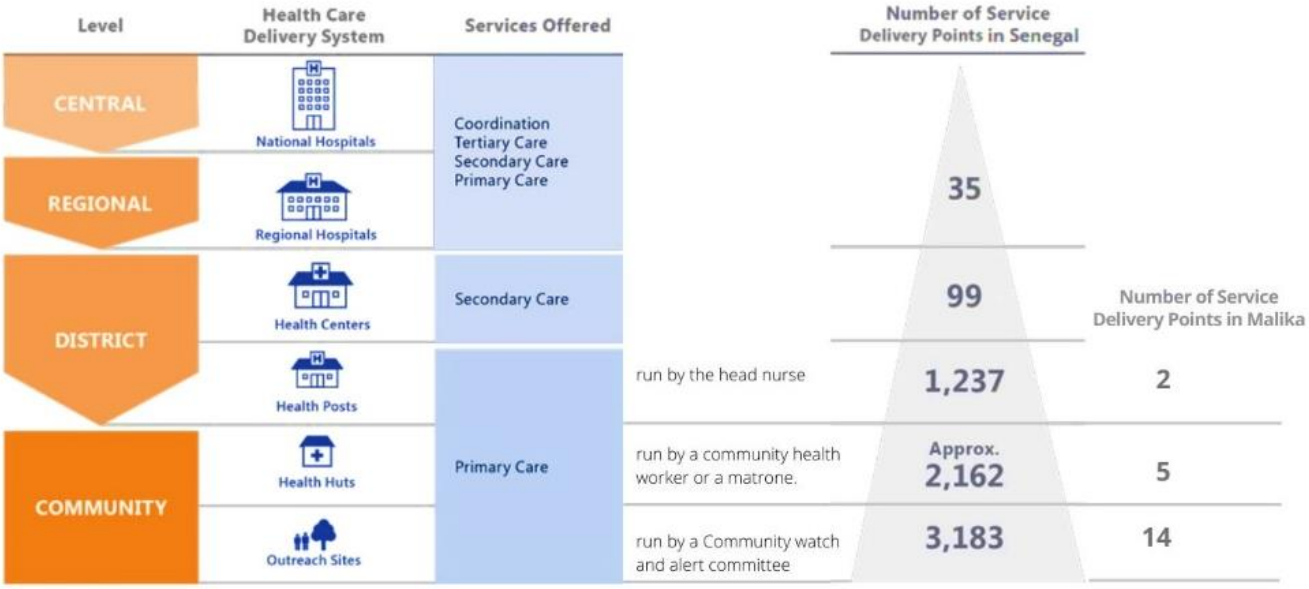


Figure 5 - Public Health System in Senegal adapted from Devlin, Pandit-Rajani and Egan (2019)

As the above diagram shows, Malika's health provision is mainly ensured by the communities. Mapping the spatial distribution of geographical accessibility to healthcare in the urban area of Dakar, Alphousseyni Ndonky and colleagues (2015) show how Malika and the neighbouring towns Yeumbeul, Keur Massar and Rufisque located in the eastern part,

suffer from the double burden that is poor access to healthcare (health post, health centre, hospital) and poor living conditions. Nene's case in Chapter 6 illustrates this point.

In parallel to the community-based health development and within the digital communication dynamic I mentioned earlier (see 2.1), the Ministry of Health also developed a Digital Health Strategic Plan in 2018, to leverage health quality and access (République du Sénégal, 2018a). The main objectives are:

> (1) to extend the offer of services for greater equity throughout the territory of our country and for all health and social structures, (2) to promote health, (3) to help patients and the health personnel to better prevent and manage disease, (4) reduce costs and develop innovative financing models (5) to substantially improve the indicators of performance of the sector, (6) facilitate the collection of health and social data in time for informed decision-making and (7) to expand health insurance coverage (ibid.: 5).

This e-health strategic plan interests me because in exploring health communicative practices, I have included in my data digital messages used in a mobile health programme for diabetic patients (see *mDiabetes* in 6.2.3) and multimodal materials that were shared in a WhatsApp group (see 7.3.3 and 7.5). These will be discussed further in relation to the above objectives 2 and 3, in Chapter 8.

The state of the national population's health is characterised as follows:

> (i) still high rates of maternal and infant and child morbidity and mortality; (ii) a persistence of the burden of communicable diseases, despite significant progress for several decades; and, (iii) a rapid increase in the burden of non-communicable diseases, most of which are expensive chronic diseases (République du Sénégal, 2019: 20).

These facts frame the national priority. In the following sections, I look at some large scales programmes that address i and ii, and at the diabetes situation in Senegal.

2.3.2 Large scale programmes

To reduce maternal and child morbidity and mortality, Senegal implemented the *Bajenu Gox* programme in 2009. Despite significant progress, maternal and child mortality rates remain high, respectively 236[21] per 100 000 live births and 56[22] per 1 000 live births (République du Sénégal, 2019b: xxiii). This programme is built on the counselling role of the *bajen*, aunt in Wolof, the eldest sister of the householder, who is seen as a respected female member in the family when it comes to dealing with marriage, pregnancy, mother and child's health. In the case of the programme, *bajenu gox* is translated as the godmother of the neighbourhood. They are identified based on their ability to influence community members' behaviour and trained as volunteer health promoters in their neighbourhood. Their main role is to use their influence within their community to promote behaviours conducive to the health of mothers, new-borns and children aged 0-5 years. Essentially, they support and complement the role of mid-wives and community relays, providing women with pre and ante natal advice and orientation, as well as information and support with regards to labour and the health of young children (République du Sénégal, 2010). The programme stresses their leadership within the community to valorise their contribution. Based on decentralisation reforms, their activities are coordinated and funded at the local level and they may receive a financial bonus for their efforts. In 6.3.2.2, I further explain their role through the interview I had with the *bajenu gox* of my neighbourhood.

In Chapter 6, I also refer to another programme, the USAID Programme Santé/Santé Communautaire II (Health Program/Community Health II) (PSSC II) that comprised maternal and child morbidity and mortality in its package. This was an integrated health programme that USAID implemented in several African countries such as Democratic Republic of the Congo, Madagascar, and Nigeria. The main objective of this programme in Senegal (2006-2016) was to strengthen primary care at the community-based structures. Mostly, it

[21] Was 315 in 2015, the MDG5 target was 200 in Senegal

[22] Was 59 in 2015, the MDG5 target was 44 in Senegal

provided community relays and *bajenu gox* with trainings, equipped the health huts with a small kit for obstetrical equipment and initial stock of basic drugs.

Turning now to another programme, the National Malaria Control Programme also mobilises community-based health actors. It was first introduced in 1997 to eradicate malaria. The large programme has been funded by the Ministry of Health with the support of USAID, the Global Fund, GIZ (German Corporation for International Cooperation) and the Islamic Bank. The community relays visit households to promote and distribute the insecticide-treated mosquito nets; national campaigns are organised in particular around World Malaria Day on 25th April; the community relays are also trained to identify the symptoms, to provide first aid and guide communities' response. National malaria mortality rates fell by more than 50% between 2009 and 2017 but remains worryingly high in some regions such as Kolda, Tambacounda and Kédougou. The impact of the community-based interventions are also visible in the incidence of tuberculosis which were around 140 cases per 100,000 inhabitants until 2016, and fell to 122 cases per 100,000 inhabitants in 2017 (République du Sénégal, 2019: 23).

Through these examples, I have illustrated how community-based actors participate in programmes to support health promotion by responding to international support and priorities. Non-communicative diseases like diabetes have not generated substantial attention yet, although its profile is increasing, as I explain in the next section.

2.3.3 Non-communicable diseases

At the global level, non-communicable diseases (NCDs), cardiovascular and respiratory disease, cancers and diabetes, kill 41 million people each year. This represents 71% of all deaths in the world and 85% of premature[23] deaths from NCDs occurs in the Global South (World Health Organization (WHO), 2021b). Recognised as one of the major global health

[23] Between the age 30 and 69 years

issues, tackling the growing prevalence of NCDs has for the first time been brought to the global discourse under SDG3:

> SDG **3.4** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being (UN General Assembly, 2015: 16).

The first WHO Global Report (World Health Organization (WHO), 2016a) states that there were an estimated 422 million adults living with diabetes in 2014 compared to 108 million in 1980. Thus, the global prevalence (age standardised) of diabetes has almost doubled since 1980, from 4.7% to 8.5% in the adult population:

> Diabetes is a serious chronic disease that occurs when the pancreas does not produce enough insulin (a hormone that regulates the concentration of sugar in the blood, or blood sugar), or when the body is unable to properly use the insulin, it produces […] Regardless of the type, diabetes can lead to complications that affect many parts of the body and increase the overall risk of premature death. Possible complications include heart attack, stroke, kidney failure, leg amputation, loss of vision and nerve damage. During pregnancy, poorly controlled diabetes increases the risk of intrauterine mortality and other complications (World Health Organization, 2016: 6).

It is important to note that the prevalence of diabetes has increased faster in low- and middle-income countries than in high-income countries. Poor diet is globally considered to be the leading cause of death and the first or second main contributor to NCD disease burden (Branca *et al.*, 2019). Malnutrition associated with diets that are not nutritious or safe includes two categories of nutritional disorders: the insufficient intake of energy nutrients causing stunting, wasting and micronutrient deficiencies; and the excessive and imbalanced intake causing overweight, obesity and diet related NCDs (Global Panel on Agriculture and Food Systems for Nutrition, 2016). Among the factors, today's food system appears a major one; it has prioritised productivity over quality, reduced the diversity of

local diets and increased inequality to access and affordable micronutrient rich foods such as fresh fruits, vegetables, legumes and nuts (ibid.).

Several studies in Sub-Saharan Africa countries estimate that the rate of diabetes mellitus, also called type 2[24], will increase by 98%, rising to 24 million people by 2030 (Dalal et al., 2011; Mbanya et al., 2010 cited in Foley and BeLue, 2017). In addition to poor non-communicable disease prevention and access to care, changes in dietary patterns linked to economic development and urbanisation, have increased the risks (Dimé, 2013). A census in Senegal reveals that almost 7 adults out of 10 eat less than the recommended 5 portions of a variety of fruit and vegetable every day (ANDS, 2016).

The prevalence of diabetes type 2 in Senegal remains unclear as studies are geographically limited as is the screening due to lack of resources. According to the head of health education and information section of the Saint-Louis regional office (North West of Senegal), prevalence in the region is 10.4% compared to the national rate estimated at 3-4% (Dembélé, 2021) and 8.1% in urban areas, according to Belue (2017). The elderly, women and overweight individuals are more affected, according to studies. Meanwhile, a national survey of risk-factors for NDCs (République du Sénégal, 2016) found that 84.7% of the population is unaware of their glycaemic status and remains insufficiently informed about diabetes and its various complications. Consequently, it is difficult to have reliable data.

Another issue is that NCDs are not integrated in primary care; consequently, communication on diabetes and its risk factors remains very limited or non-existent. This lack of information and awareness means that the majority of the population is not able to identify the symptoms of the disease as soon as they appear, leading to late diagnosis and costly management of the condition and its complications (ibid.: 35).

In 2014, the Senegalese Ministry of Health in partnership with the World Health Organisation and the International Telecommunication Union, initiated *mRamadan* to

[24] when the body is unable to properly use the insulin it produces

support diabetic patients before, during and 30 days after Ramadan; in 2016, it became *mDiabete*. The programme consists of sending a series of text messages in French via mobile phone to raise awareness and educate populations and in particular diabetic patients, as well as health workers. The messages support diabetic patients during fasting and prevent any risks and complications for them. In 2013, there were 3 000 subscribers; by 2020, there were 210 000. The consumption of sugar during Ramadan is often higher and increases the risks of complications; messages remind diabetic patients of regular blood sugar control and the importance of proper hydration after breaking the fast. Although the programme does not intend to replace a medical appointment, it fills the gap created by the lack of diabetologists outside Dakar.

Moreover, the Ministry of Health and Social Actions highlights the need to develop community-based approaches for more appropriate communication about diabetes, in order to tackle popular misrepresentations. For instance, the disease is frequently associated with a fear of amputation and dietary restrictions. The report quotes an informant: "Febar buy yaxx aduna la. Man dée mo ma genël ňu dag sama yaram" (Translation: It is a disease that destroys life. I'd rather die than have a limb amputated). This fear could explain the low adherence to the screening offer. In addition, the report underlines the abrupt, guilt-inducing and stigmatizing manner in which some providers announce the disease to the patient. Consequently, the latter may deny or avoid health structures in favour of traditional practitioners. The report calls for capacity-building programmes for health care providers to be implemented, for better publicity and adequate support of the disease (République du Sénégal, 2017: 22). The impacts on the health system are important: chronic diseases requiring costly care represent 30% of national health expenditure. Those ailments are responsible for 34% of deaths in Senegal against 28% in sub-Saharan Africa. They constitute a public health crisis due to the constant increase in the number of people affected. (République du Sénégal, 2019)

In Chapter 5, I analyse food practices in general while Chapter 6 focuses on Nene's management of her diabetes, in particular. Chapter 8 discusses the determinants of dietary

behaviours in Senegal and Malika to highlight the many economic and political determinants that are beyond the control of the diabetic patient in Senegal.

2.4 Conclusion

In this chapter, I have given an overview of the social and political context in Senegal, with regards to national languages and healthcare and introduced Malika, my research site. The living conditions of my participants will be examined in Chapters 5, 6 and 7. What I want to stress in this chapter is that the health system is fragile. Indeed, in Malika access to quality healthcare is limited and can be financially very challenging to some of my participants, as I demonstrate in Chapter 6.

In the first section, I have highlighted the linguistic complexities in a post-colonial context, wherein despite nationalist actions, French remains dominant in writing and scientific domains. Therefore, health-related texts that I came across were rare and mostly in French; I found a leaflet in Wolofal that some of my participants could not read and a post-literacy primer in Wolof for learners who attended adult literacy class, mainly women. This then raises questions about the concept of health literacy when health-related texts are in a language not accessible to all, printed and limited to some settings and on some selected health issues. In the next chapter, I describe the conceptual framing that underpins my study.

Chapter 3 - Health, literacy and gender: conceptual considerations

3.1 Introduction

You educate a man; you educate an individual.

You educate a woman; you educate a nation / a generation / a family.

I start this chapter with this quote, attributed to James Kwegyir-Aggrey[25], Brigham Young[26] or anonymously as an African proverb, because it seems to remain an ideological cornerstone of many learning activities in development interventions. Though the quote differs in terms of the scope of the impact, the expectations on education and on women are clear. Similarly, King and Hill (1993) argued that "a better educated mother has fewer and better educated children […] she raises a healthier family since she can better apply improved hygiene and nutritional practices" (ibid.:12). This argument is typical of an instrumental rather than transformative perspective on the role of women and their education in development.

As I stated in chapter 1, building on my professional experiences in education and development, I undertook doctoral studies to research literacy as a social practice. The main motivation was to sharpen my skills and hone my critical thinking so as to engage more actively and effectively in adult learning; in other words, to equip myself with the arguments that challenge the assumptions of the above quotes among others.

In this chapter, I first present the key concepts of health that frame the debate on health literacy within the process of health promotion. An understanding and use of health literacy

[25] Intellectual, missionary and teacher from the Gold Coast (actual Ghana) emigrated in the United-States, sometimes called the "Father of African Education" (1875-1927), source Wikipedia.

[26] American religious leader, politician, and settler (1847-1877), source Wikipedia.

is important in that it can drive public health communication and education. Next, I introduce sociological and anthropological perspectives of Literacy as a Social Practice (hereafter LSP). The concept of health literacy is contested and has generated a large literature, mainly from a public health perspective, that tends to consider literacy as a set of skills. I will look at some definitions and critical studies by scholars in public health as well as in adult literacy domains, who use the LSP lens and their contributions to health literacy in research and practice. In the last section, I explore the concepts of gender and development in relation to health, particularly in relation to health equity and the social determinants of health.

The LSP lens has allowed me to focus the health literacy debate on key points around intervention models, social learning and power relations, to analyse my data and question the understanding and application of health literacy in health education activities in Malika.

3.2 Health and literacy in theory

3.2.1 The concepts around learning about health: health education, health promotion and health literacy

Understanding health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" as enshrined in the constitution of the World Health Organization (1946), established health education has traditionally focused on personal health risks and lifestyle choices, promoted as "voluntary changes in behaviour". In Global North contexts in the 80s, personal education and development to improve knowledge was described by John Catford and Don Nutbeam (1984) as rather vertical, through teacher-pupil and doctor-patient contacts. This verticality was also dominant in mass media health communications through radio, television and newspapers among others. Studies showed that this kind of health education was not very effective in terms of changing behaviours; in the 80s, a movement emerged to challenge the biomedical mind-set that was dominant in public health (Nutbeam, 2019). Catford and Nutbeam (1984)

highlighted the limits of health education not only in terms of contents but in terms of dissemination; in other words, health promotion. Their focus was largely on personal education and development as portrayed through mass media communication (Nutbeam, 2019) whereas the paradigm shift in the 80s reconceptualised health education as a part of health promotion.

3.2.1.1 *Towards a more holistic approach*

The Ottawa Charter in 1986 first defined health promotion as "the process of enabling people to increase control over and to improve their health". Health education was considered to be an approach in this wider context of health promotion. Therefore, the aims of health education were not simply to increase knowledge about personal health behaviour but also to develop skills that "demonstrate the political feasibility and organizational possibilities of various forms of action to address social, economic and environmental determinants of health" (World Health Organisation, 1998).

In 2005, WHO launched the Commission on Social Determinants of Health (CSDH) to strengthen health equity; commissioners worked with the global community to foster a global movement to work towards health equity. The Commission's report pinpoints three actions to focus on social, economic and environmental determinants:

> 1) Improve the conditions of daily life – the circumstances in which people are born, grow, live, work, and age; 2) tackle the inequitable distribution of power, money, and resources – the structural drivers of those conditions of daily life – globally, nationally, and locally; and 3) Measure the problem, evaluate action, expand the knowledge base, develop a workforce that is trained in the social determinants of health, and raise public awareness about the social determinants of health. (CSDH, 2008: 2).

I explore the second action in the section on gender, health and literacy. The Commission further recommended that "Educational institutions and relevant ministries act to increase understanding of the social determinants of health among non-medical professionals and the general public" (ibid.: 189). Raising awareness about these determinants among the

general public is meant to be done through health education and communication, in particular by developing critical health literacy, a concept I will expand on. While there are several definitions of health literacy (introduced in the following sub-section) the scope proposed by the notion of critical health literacy is not always clearly identified in these definitions.

The paradigm shift referred to here has so far mainly occurred in English-speaking countries from the Global North, and therefore, the literature remains predominantly in English, thus limiting its application in some parts of the world. Moreover, as David Houéto (2008) points out, the concept of health promotion is barely known in French speaking African countries; their colonial heritage and the poor organisation of their health systems are the underlying reasons. This absence significantly hinders the adoption of health promotion policies in their countries which means that a biomedical approach remains dominant or one focused on health education (Information, Education and Communication (IEC), Communication on Behaviour Change (BCC), etc.) rather than towards strategies aiming at the determinants of health, including social determinants, and health equity (REFIP[27]).

The sub-title of the Ottawa Charter, "the move towards a new public policy", launched the way to five priority strategies: build a healthy public policy; create supportive environments for health; strengthen community actions; develop personal skills; and reorient health services (World Health Organisation, 1998). Intrigued by the logo when I first saw it, I decided to analyse it more closely.

[27] https://refips.org/groupes-thematiques/ as most of the communication on health promotion research and policy is in English, the French-speaking network for health promotion REFIPS develops training materials, policy briefs in French language.

Figure 6 - Diagram of the Ottawa Charter to represent health promotion, WHO, 1986[28]

The health promotion diagram presents the action areas within a circle to emphasize that these areas need to be addressed in an integrated and complementary way in policies. The upper wing, symbolising *strengthen community action* and *develop personal skills*, is breaking the circle, to highlight the constant changes in society, communities and individuals, and the need for policies to reflect these changes (World Health Organization (WHO), 2009). The active verbs *enable*, *mediate* and *advocate* are at the core of the process, to build in synergy and unity within a global movement that promotes health.

What particularly interested me was the idea of *strengthening community action* and *developing personal skills* strategies; both evoke the process of empowerment to gain control over one's life at the individual and collective level and ultimately to gain control over the determinants of health. This is where the concept of health literacy plays a key role as its advocates see it as central to the effectiveness of the above strategies. Indeed, the last WHO conference stated that "health literacy is founded on inclusive and equitable access to quality education and life-long learning. It must be an integral part of the skills and competencies developed over a lifetime, first and foremost through the school curriculum"

[28] The original Health Promotion logo, created for the 1st International Conference on Health Promotion at Ottawa, is bilingual French and English with a red circle.

(World Health Organisation, 2017). I will further look at how health literacy is understood and applied in adult learning.

3.2.1.2 *The active discussion on the concept of health literacy*

The correlation between low literacy and poor health outcomes has been a major area of interest within the development of the concept of health literacy from two perspectives, clinical and educational. From a clinical care perspective, health literacy is understood as "a risk factor" (Nutbeam, 2008: 2073); it draws on studies that suggest an association between poor literacy and poor health. This body of research focuses on test measurements, adapted communication and services as well as the impacts on the cost of the system. In this literature, scholars describe health literacy as a set of capacities, mainly knowledge based and provided within healthcare settings. From a public health and health promotion perspective, health literacy is conceptualised as an asset, "an outcome to health education and communication that supports greater empowerment in health-decision"; it is based on age-and context-specific health knowledge (ibid.: 2074). This understanding resonates with the social determinants of health framework (SDOH), adopted in 2011 by the World Health Organisation at its general conference to consider "the circumstances in which people are born, grow, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics."[29]. Embracing the SDOH, health literacy is therefore beyond the remit of clinical care settings and issues. Throughout the report , the Commissioners of the SDOH recommend improving the social determinants of health literacy with reference to case studies on informal economy, women, gender inequity and poverty in which literacy appears as a key element within the social determinants of health (see CSDH, 2008: 81, 117, 145, 151). The understanding and measurement of literacy seems to be from an educationalist perspective, as I will discuss in 3.3.2.

[29] https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1 accessed in June 2021

Before the 2000s, the term health literacy rarely appeared in academic articles (Sørensen in Okan *et al.*, 2019). First cited by Scott K. Simonds in 1974 to refer to health education in schools, interest in the idea of health literacy began to take shape in the context of the emergent concept of health promotion. Nutbeam (2000), influenced by Peter Freebody and Allan Luke's work in the field of literacy studies (1990), developed the asset model, using three 'types' of literacy and their practical application in everyday life, focusing on what literacy enables people to do. He ranged these skills from the basic cognitive and literacy skills to the 'most advanced' ones that are developed through formal education and informal personal experiences (ibid.). Firstly, *basic/functional health literacy* is the ability to read and write factual information on health risks and on how to use the health system. As Susie Sykes notes (2014), this level of skills seems to be the outcome of traditional health education, supporting individual understanding of health risks, health services and following prescribed actions. The second level is *communicative or interactive health literacy*, which is related to the skills that a person needs to understand and act on information in a supportive environment. The third level is *critical health literacy*, the skills needed to analyse and use information critically; it implies political and social actions as well as individual action to improve health and address the social determinants of health.

Nutbeam (2008) explains that these levels progressively aiming at empowerment in decision making, have an implication in the content of health education and communication; indeed, health education could also include raising awareness on social determinants; developing patients' confidence in managing a disease; interacting with health practitioners; and navigating the health system. Deborah Chinn argues that the different health literacy types should not be seen as hierarchical or even mutually exclusive. Rather, individuals may have a range of capabilities at different levels of skill and sophistication (2011). Through his definition, Nutbeam sets his vision of literacy as a metaphor for knowledge and even action: "a distinct concept, rather than a derivative concept from literacy and numeracy skills […] health literacy is the outcome of education and communication rather than a factor that may influence the outcome […] the results are not only improved health outcomes but also a wider range of options and opportunities for health" (Nutbeam, 2008: 2075).

3.2.1.3 *How critical is critical health literacy?*

Critical health literacy has stimulated debates but not with the same intensity as the body of research on functional and interactive health literacy. Therefore, I mainly refer to Chinn and Sykes' attempt to clarify the concept. Based on Nutbeam's work that remains a point of reference (2000, 2008), the concept of critical health literacy can be divided into three domains, namely information appraisal, understanding the social determinants of health and engagement in collective action (Chinn, 2011). In her review aimed at enhancing the utility of "critical health literacy" as a conceptual tool for health promotion, Chinn hints at the daunting, sometimes hopeless task of implementing actions to raise awareness of social determinants, as expressed by both lay people and health practitioners (Cattell, 2001; Dalton et al., 2008 in Chinn, 2011). What could make these political and social actions more tangible, Chinn argues, is if community engagement is based on knowledge about social determinants. Chinn reviews the definitions that encompass the skills and competences for these actions that appear under the label of 'civic' and 'citizen' health literacy. She calls these competencies 'collectivist-minded, socially active citizen who prioritizes the common good and public health goals' (2011; 65) and notes that an individual can contribute to community outcomes by having skills related to working in groups and knowledge of the local community. Sykes, another advocate of critical health literacy, points out that interpretations of Nutbeam's definition tend to focus more on greater individual control over life events and situations through advanced individual cognitive skills rather than on the community and individual actions for political and social change (Sykes *et al.*, 2013). Acknowledging that these changes may not please some, she adds that political will and policy-makers' involvement are essential in urging for change. What has surprised me is that in the debates about "critical health literacy" there is very little reference to Paulo Freire's critical pedagogy. This absence has left me wondering how political is the approach defined within the concept of critical health literacy? In other words, does it consist only of raising awareness of the social determinants of health for social justice or does it also challenge the power relations within the public health and health communication and knowledge? These are changes that may not please some.

3.2.1.4 *Expansion, variation, duplication, the concept of health literacy remains contested*

Zarcadoolas, Pleasant and Greer (2003; 2005) proposed an expanded model that includes four domains, with some overlap with Nutbeam's typology: *fundamental literacy* is the ability to read, write and speak; *scientific literacy* is the ability to understand science and technology; *civic literacy* consists of the skills that enable citizens to recognise public issues and participate in civil society). The fourth domain, *cultural literacy*, is where the model goes beyond the scope of the Nubeam typology, with an expanded take on health literacy that encompasses the collective beliefs, customs and world view and social identity of diverse individuals to interpret and act on health information. This model with its broader view of health and health practices, reinforces the need to recognise the particularities and complexities of cultures and contexts.

The common thread among these definitions is that the concept is described as a logical, measurable outcome to health education within health promotion principles (Nutbeam, 1998): health literacy has been defined and conceptualised in multiple ways (Peerson and Saunders, 2009; Sørensen *et al.*, 2012) but is ultimately based on an observable set of skills that can be developed and improved through effective communication and education (Nutbeam, 2019; Okan *et al.*, 2019). Health literacy can therefore be limited to task-based communication, developing specific skills such as adherence to prescribed medication or changing particular behaviours; it can also be skills based, equipping people with generic skills that encourage them to make decisions that are conducive to health throughout their life (Nutbeam, 2019).

This overview of the various definitions used in the academic literature shows that the concept is still underdeveloped within health research. Leslie Malloy-Weir and colleagues, (2016) reviewed 250 definitions used in the literature since 2007; out of them, the six most frequently used were:

#1 "the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decision" (Ratzan and Parker, 2010: vi).

#2 "the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health" (WHO, 1998: 10).

#3 "a constellation of skills, including the ability to perform basic reading and numeral tasks required to function in the health care environment" (American Medical Association, 1999: 553).

#4 "the wide range of skills and competencies that people develop to seek out and comprehend, evaluate, and use health information and concepts to make informed choices, reduce health risks and increase quality of life" (Zarcadoolas *et al.*, 2005: 196-197).

#5 "the ability to make sound health decisions in the context of everyday life – at home, in the community, at the workplace, in the healthcare system, the marketplace and the political arena" (Kickbusch *et al.*, 2005: 8).

#6 "the ability to access, understand, evaluate, and communicate information as way to promote, maintain and improve health in a variety of settings across the life course" (Rootman and Gordon-El-Bihbety, 2008: 11).

(from Malloy-Weir et al., 2016: 339)

ability and skills - objective - circumstances - critical health literacy

Adding to Malloy-Weir and colleagues' analysis, I have highlighted words according to four categories, to facilitate the comparison between theses definitions. In green, all the authors refer to ability and skills as they can be observable, thus measurable; however, how these skills are learned is not included in these definitions. Definitions 5 and 6 are even more problematic as the authors refer to 'ability' that sounds more natural and inbuilt. As Malloy-Weir and colleagues point out, the word 'knowledge' does not appear, though I think that it might be implicit in 'competencies' (4).

Only the American Medical Association (3) mentions reading and numerical tasks; writing does not seem to be key in engaging with health-related information in any of them.

With the exception of definition 3, the authors link abilities with results that are conducive to health, implicitly evoking the empowerment process of gaining control over one's health by making informed decisions.

Only definitions 5 and 6 seem to broaden the scope (grey) in a way that echoes with the social determinants of health approach; by contrast, definition 3 limits health-related actions to medical settings. In 2008, the Commissioners of the Social determinants of Health report recommended expanding 'health literacy' to include "the ability to access, understand, evaluate, and communicate information on the social determinants of health" (CSDH, 2008: 189).

Finally, critical health literacy might be seen through the use of the term 'evaluate' (6, 4) in that it gives some power to patients, in comparison with to 'make an appropriate/sound decision' (1, 5) that might be evaluated by someone else, or as Malloy-Weir and colleagues point out "can be judged on different criteria" (2016: 342). It is perplexing to see that the American Medical Association's definition (3) that is very functional and biomedical, remains in the top six of the most used definitions of health literacy; the use of this interpretation of health literacy seems to suggest a reluctance to embrace the idea of patient empowerment/agency.

The analysis of these commonly used definitions highlights a common assumption which is that information on health has a positive impact on health by maintaining or promoting health, reducing health-risks and increasing quality of life. Questioning this assumption, Malloy-Weir and colleagues argue that health literacy definitions should consider personal values and beliefs and life-context, among other factors that play a part in health-related decisions. These definitions also promote individualistic ideas and place the responsibilities to meet health literacy requirements on individuals (Malloy-Weir *et al.*, 2016). I will present some studies that challenge this individualist vision by introducing the lens of literacy as a social practice in a later section.

In this section, I have chosen to spend time surveying health promotion and health literacy because awareness of these debates is fundamental to my research, as is being attentive to the words and activities used to address health education and communication. I have used these frameworks to examine the health policies and activities in Senegal.

3.2.2 The social practice model of literacy

As my focus is on communicative practices, in this section I look at literacy debates led by scholars from Literacy as a Social Practice (LSP) approach. I analyse how the ideological model of literacy in particular, somehow echoes the concept of health promotion.

3.2.2.1 *Challenging the vision of literacy as universal and neutral*

In the research literature, some literacy theorists have posited a "great divide" (Goody, 1968) between those who are literate and those who are not. The traditional vision of literacy has been that of a universal skills-based approach, also known as the autonomous model, informed by educationalists and psychologists, that tends to focus on reading and writing skills. Later anthropologists and sociologists have challenged this view by looking at literacies through practices and broader conceptions of reading and writing (Street, 1993; Barton, 2007). Studying literacy as ideological means understanding that literacy cannot be autonomously free of the context. The ideological model as defined by Brian Street, also encompasses the power relations constructed in literacy practices, looking more in-depth at "the ways in which the apparent neutrality of literacy disguises their significance for the distribution of power in society and for authority relations" (1993: 2). Indeed, as David Barton, Mary Hamilton and Roz Ivanič (2000: 40) highlight, "literacy practices are patterned by social institutions and power relationships and some literacies are more dominant, visible and influential than others".

In the 1980-90s, LSP scholars, mainly linguists and anthropologists, brought a sociolinguistic lens to literacy and language through their ethnographic work. In particular, the concepts of 'literacy event' and 'literacy practice' were first introduced respectively by Shirley Brice Heath (1983) and Sylvia Scribner and Michael Cole (1981) to analyse situated literacy. Literacy was seen as a continuum, included context, oral and written forms and recognised the agency of the literacy users (Street, 1993; Barton, 2007). Heath used the concept of 'literacy event' in her extensive ethnographic work with Appalachian communities, studying literacy in the home, in school and in the communities. Her definition of literacy enabled her to analyse what people do with literacy in their everyday life when reading and writing

(Barton, 2007). In their work in Liberia, Scribner and Cole (1981) made the link between literacy and specific skills and domains of activity. They suggested that "literacy is not simply knowing how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use." (ibid. 1981: 236).

Street used *literacy practices* in his work in Iran and elaborated the term to take into account both *events* in Heath's sense and "the social models of literacy that participants bring to bear upon those events and that give meaning to them" (Street, 1984, 1988 quoted in Street, 2003). Literacy is therefore viewed as a set of practices that "refer to the broader cultural conception of particular ways of thinking about and doing reading and writing in cultural contexts" (Street, 2003: 79). An extended notion of literacy practices was proposed by Ralph Grillo (in Street, 1993: 13): "communicative practices" embrace "the social activities through which language or communication is produced" and how these activities are entrenched in a large social context; thus he considers literacy "as one type of communicative practices" rather than applying it to one particular medium or channel (Grillo, 1989 quoted in Street, ibid.).

3.2.2.2 *Literacy practice at the core of the analysis*

One expansion of the concept of literacy practices was to refer to "multiple literacies", first employed to contrast with the autonomous vision of literacy as detailed above. Street (2000) warned against the conflation of multiple literacies with multiple cultures and argued that both "multiple literacies" and "multi-literacies" used in the literature tended to reify literacy. Coined by scholars of the 'New London Group' like Courtney Cazden and Gunther Kress, the term multi-literacies refers to the various forms of literacy associated with channels or modes, for instance computer literacy and visual literacy (ibid.). Interested in the latter, Kress and van Leeuwen show how icons, symbols and pictures in the Windows pack office, for instance, become new learning elements to engage in to navigate in this world (Kress and van Leeuwen, 1990 in Street, 2000). Street signals the exaggerated vision that interprets this semiotic system as leading to "the end of language", cutting across reading and writing in this form of communication, an understanding of multi-literacies that differ from the channel and mode. Be that as it may, Street reminds us that the analysis of the

channel itself will not give meaning and lead to effects, but an analysis of the social practices will (ibid.).

Further work followed within the social practices framework. Kress (2003) has rationalised the wider landscape of multimodal communication with the study of signs, icons, and their meaning making. His studies on how children make meaning from multimodal texts in different settings in schools have framed research on the affordances of the multimodal to explore the implications for education and pedagogy. Looking at modes as "cultural technologies for making meaning visible or tangible" (253), Myrrh, Jewitt and Kress (2015) investigate the relations between modes, writing and communication. They ask, "what kinds of things does each mode do well, which things does it do less well, or which not at all?" (ibid.: 254). Kate Pahl and Jennifer Rowsell draw on both the social semiotic theory of multimodality and the theory of literacy as social practice, to bring a focus on different tools used in literacy practices to question text, power and identity (2010).

The social practice model of literacy has been challenged for its perceived limitation in terms of focusing primarily on the local context, marginalising consideration of the material dimension of literacy. Deborah Brandt and Katie Clinton (2002) attempt to valorise the technology of literacy. Thus, they suggest the need to study the "actant" part of literacy in social practices (ibid., 338). More specifically, they claim to restore the "thing status" to literacy, thereby enhancing the potentials of the technology of literacy.

> But can we not recognize and theorize the transcontextual aspects of literacy without calling it decontextualized? Can we not approach literacy as a technology – and even as an agent – without falling back into the autonomous model? Can we not see the ways that literacy arises out of local, particular, situated human interactions while also seeing how it also regularly arrives from other places – infiltrating, disjointing, and displacing local life? (ibid.: 343).

Brandt and Clinton question the power given to local context in literacy, investigating "literacy's transcontextualized and transcontextualizing potentials" (ibid.: 338). They base

their work on the concept of the activity of objects developed by Bruno Latour, who studies the importance of non-human objects in social interaction through the actor-network theory. This point is relevant in my research context where the mobile phone and the communicative platform WhatsApp are widely used and raises the question, what do people do with mobile phones and digital information? This is a question that is reminiscent of Don Kulick and Christopher Stroud's research (1993) on how the inhabitants of a small village in Papua New Guinea were taking hold 'of literacy' and their observation that: "they have not been 'transformed' by literacy. If anything, they themselves have 'transformed' it" (ibid., 1993: 56). This is a question that will frame further discussion in chapter 8.

Multilingualism is another concept studied in LSP (Juffermans, Yonas Mesfun, and Abdelhay, 2014) and is important to take into account in a context like Senegal[30]. Code-switching seems to be a common practice not only in speaking but also in using SMS (short message service). Digital communication has developed the use of local languages in writing practices; for example, Senegalese users alternate between French and Wolof (Lexander, 2009). In a study on multilingual digital literacy practices and the meaning in the choice of language in SMS, Ana Deumert and Kirstin Vold Lexander (2013) analyse the negotiation of different forms of intimacy through multilingual writing. These social practices could reveal the power relations in situated literacies (Barton and Hamilton, 1998), particularly in a context where the dominant language in intra-governmental written communication and records remains the colonial language, as is the case in Senegal.

Understanding literacy as situated (Barton and Hamilton, 1998) implies studying events where the written word plays a role. It also means observing literacy in different settings such as the home and the workplace, to investigate the literacies embedded in cultural and social contexts. Meaning making can be analysed through patterns observed in the unit of practices that are socially linked to the written word (Barton 2007: 37). Meaning making

[30] As presented in Chapter 2, about twenty languages are spoken in Senegal, only six of them are officially national languages (decree 68-871, July 24th 1968) Joola, Màndienka, Pulaar, Seereer, Sóninké, Wolof. Since 2001, the Constitution gives any local langues the national status when codified. French is the official language and Wolof *lingua franca*.

through text contrasts with the use of the word *literacy* in the earlier section where it seems to be often used as a metaphor for knowledge in the health literature. Moreover, situated literacy suggests that literacy and orality are not perceived as separate, as they are in the traditional vision of literacy, but as a continuum. Street highlights the role of context in the relationship between oral and literate practices, arguing that cultural entities and structures of power are involved in both and that therefore they should not be studied in isolation (Street, 1993).

For a wider definition that is based on people's experiences, everyday life is key to exploring literacy (Barton 2007: 4). Literacy and learning have been studied as a continuous process; the lifelong learning principle lifts the limits of age and space, encompassing formal, non-formal, informal learning and intergenerational learning that maintain the transmission of local knowledge, traditions and values (UIL, 2014; Hanemann, 2019). Situated literacy research examines literacy events and practices in a life-wide process, looking at participants, activities, settings, domains and resources (Barton, 2007); local literacy practices and knowledge that already exist within the community are part of the social activities.

3.2.2.3 *Literacy, development, and gender*

Through the conceptualisation of the autonomous model of literacy, Street considers the tendency in international development interventions to provide the Global South with what people are perceived to lack: literacy is conceptualised as a central 'lack'. This deficit discourse, often used in international education, disregards the skills and knowledge that participants already practise in their everyday life (Aikman *et al.*, 2016). Viewed as inherently contributing to the wellbeing of people and their development, Street challenges the assumptions that "if you give people literacy, all kinds of things follow" (Street, 1994). Conceptualising deficit, Sheila Aikman and colleagues demonstrate how these assumptions lead to "(mis)represent" groups labelled "as 'the marginalised', 'indigenous', 'disabled', 'migrants' or a 'minority'" (Aikman *et al.*, 2016: 316). Based on the definitions in the previous section, this belief also seems to permeate health literacy.

Indeed, as Anna Robinson-Pant (2001) underlines in the context of adult literacy and learning programmes for women, the assumptions of development agencies about the impacts of literacy on health and behaviour change, encourage the deficit and autonomous model of adult literacy classes, providing women with a set of skills related to health knowledge (see also Acharya and Robinson-Pant, 2019). Exploring the conceptualisation of health and literacy in development, Robinson-Pant (2016) highlights the contentious understanding and application of 'health literacy'.

For instance, Demographic and Health Surveys by the Population Council disseminated across countries, correlate level of schooling with maternal and child health outcomes[31]. The literacy rate is based on years of schooling and often does not include adult literacy classes. Health programmes with women seem to simply evaluate whether or not a woman has changed her behaviour. Moreover, there is often a focus on women and their role towards sustainable development goals, underpinning the notion of women's empowerment as "fixed or polarised notion of identities" (Robinson-Pant, 2008: 787).

In contrast, several feminist studies highlight the agency of women in their own empowerment (Edwards, 2015). To explore "hidden pathways" and study change in women's lives, Jenny Edwards recommends analysing the model of intervention and processes of empowerment (ibid.: 3). In line with the need to study literacy in different settings, Gita Sen and Srilatha Batliwala (2000) stress that empowerment and power relations vary across institutional levels, households, communities, state and markets, and can potentially either reinforce or challenge relations of domination-subordination.

Assuming that the dominant development model has been informed by an autonomous model in health education, as it echoes with the quote at the beginning of this chapter, I analyse the discourses and practices through the ideological model. This includes looking at

[31] These quantitative studies underlie international policy discourse, for instance in the Education 2030 - Framework for Action to promote literacy: "The benefits of literacy, in particular for women, are well documented. They include greater participation in the labour market, delayed marriage, and improved child and family health and nutrition; these, in turn, help reduce poverty and expand life opportunities" (UNESCO, 2015; 46).

health policies and health-related literacy and learning within health programmes and promoting activities; I also use the same lens to look at practices within households and the community. The following section provides insights on what studying health and literacy might mean in practice.

3.3 Health and literacy in practice

3.3.1 Investigating the ideological processes

From health education to health promotion, the holistic approach to health-related communication and programme implementation expands understanding and action in relation to the well-being of communities. Learning about health is seen as a community matter that is addressed beyond the pathology; ideologically, it also implies the role of political and social perspectives to improve health. Health literacy becomes a means to promote health and therefore is a component of health promotion (Okan *et al.,* 2019). This paradigm shift to health promotion has some resonance with the ideological model of literacy in that it acknowledges literacy in health practice as a metaphor for knowledge. As critical health literacy aims at empowering communities to initiate movement for social, environmental or economic change, the main question underlying critical health literacy could be: What do people do with this health-related knowledge? This question also draws on Kulick and Stroud (1993) that I will discuss in Chapter 8.

Through the Social Determinants of Health (SDOH), health issues are considered within situations that are composed of social, economic and environmental dimensions. Along with the health promotion model, as described above, SDOH can direct attention to the role of communities in health conducive actions; adult health literacy encompasses this point and positions the adult participants as key actors. The role of health communication and education in empowering people is decisive, addressing issues with a life-course perspective. In this way, health promotion entwines with lifelong learning principles. In the Incheon Declaration and the Framework for Action, the role of lifelong learning is stressed in the

2030 Agenda for Sustainable Development: “Provide learners of both sexes and of all ages with opportunities to acquire, throughout life, the knowledge, skills, values and attitudes that are needed to build peaceful, healthy and sustainable societies” (UNESCO, 2015; 50). To facilitate this empowerment, Leona English (2012) advocates a critical theory of adult health learning that embraces the SDOH and invites adult educators’ expertise in learning and community learning to be recognised as central in supporting social transformation. The teaching and learning perspective of adult education can place “adults as participants, critical thinkers, and agents of change” (ibid.: 13). Lilian Hill (2016) reinforces this point, arguing that the expertise of adult educators, who are potentially co-creators of knowledge, needs to be brought in at the policy level and promotion of health, to “contribute to a more holistic, responsive, and effective system” (ibid.: 49).

Another point I would like to make is that within health literacy and situated literacy there are hierarchies of literacies. Scribner and Cole’s work in Liberia with the Vai people revealed that the multiple literacies in the community are valued differently: so writing learnt at school has a different status to writing learnt in religious practices; this highlights the importance of context (1981). The approaches to health literacy that mainly focus on functional and communicative types, represent a ‘skills’ perspective on literacy; these skills could be learned in healthcare settings, to be later applied in the everyday life of the patient. How are differences and reflection of others possible in definitions and interpretations of health literacy? In other words, to what extent does the narrative of health-related information encompass local and indigenous knowledges and practices or to what extent does it simply reproduce the “great divide” between “modern” and “traditional” societies?

I now turn to studies that challenge assumptions about the cognitive effect of health literacy in patients’ decision making and behaviour change, using the ideological model of literacy.

3.3.2 Health literacy from a literacy as social practice lens

As discussed earlier (3.2.1.2), the debate about how to define health literacy has been intertwined with questions of measurement: “Definition should be the basis of

measurement, but of course, measurement should continually inform definition" (Pleasant *et al.*, 2019: 67). In this section, I look at how the dominant methodology used in the concept of health literacy to inform medical professionals and policy makers, is critiqued through a literacy as a social practice lens.

Looking at health literacy as *situated*, Uta Papen (2009) contests the limited understanding of the concept and its tests. Health literacy as a concept originated in the Global North, and has mainly been studied in North America to support patients to improve their health. It considers literacy as a set of skills focused on reading and writing that assist them in complying with the health system (Papen, 2009). Based on evidence of the link between low literacy and poor health and driven by the demand of policy makers to optimise health cost, health literacy tests have been developed to measure the skills and abilities of patients. These tests have been developed mainly in the US and are presented as neutral, applicable regardless of context. Widely known tests such as REALM (Rapid Estimate of Adult Literacy in Medicine) and TOFHLA (Test of Functional Health Literacy in Adults) have also been used in the UK by clinicians and health educators.

The project *Literacy, Learning and Health* was set up to challenge these tests by looking at other ways in which people engage in reading and writing about their health. It explored the links between these concepts from the perspective of students of literacy and ESOL (English for Speakers of Other Languages) in the north-west of England. The affective dimension of health literacy emerges in this research (Papen, 2009, 2012). Some of the participants explained that what enabled them emotionally to engage more fully with health information was when they were diagnosed with a serious illness. At the same time, they were aware of having limits to how much information they could absorb and sometimes, they preferred the doctor to take the decision. Papen also highlights the importance of mediation in dealing with health-related information and written-text as constituting support for the patient. Based on these insights, she suggests that health literacy is *distributed* knowledge and expertise in the social support network of the patient during their illness. Papen argues that specific health literacy practices need to be explored as part of the period when the patient is handling an illness or symptom. Adopting health literacy as *situated*, patients shared their

prior knowledge and experiences and in conversation with the researcher, made sense of previous health-related information (Papen, 2009, 2012). These attitudes with regard to health information – i.e. controlling the amount of information, expecting the doctor to take a decision, asking one's social network for support – show how patients *take hold of* health literacy (Kulick and Stroud, 1993).

Viewing literacy as a set of practices highlights the need to build on local literacy practices; engaging in new reading and writing practices from this perspective challenges the more traditional studies on literacy and their deficit view. As Robinson-Pant (2000: vii) argues, literacy learning is situated within a life-course process and is not "a shift from dark to light". In the real literacies approach applied to adult literacy programmes, Rogers (1999) recommends that a positive starting point is to look at what participants are already doing. The learning of literacy is contextualised to give meaning within this context. Studies show how some medical materials such as leaflets may not be relevant to some patients' experience. These materials can be complex using jargon and language that patients struggle to understand (Dray and Papen, 2004; Hunter and Franken, 2012; Nikolaidou and Bellander, 2020). At the same time, although the use of real literacy material can facilitate discussions about social, economic and environmental issues, these may not lead to change (ibid.).

Drawing on a three-year ethnographic study, Zoe Nikolaidou and Theres Bellander studied the experience of parents of a child with heart disease as they engaged in health-related information. Interactions, health-related texts and their role in the wider communicative situations the parents engaged in were analysed through a situated literacy lens. The authors stress parents' unique journey in building up their knowledge. The study also reveals the role of social media in building experiential knowledge: through blogs, forum threads, Instagram and Facebook, the parents constructed knowledge together with people who had gone through similar situations who shared their experience and knowledge. In these supportive spaces, where the experts are the parents and emotional, moral and religious concerns can be discussed (ibid.). The study demonstrates that knowledge that the parents gain about the disease is not limited to expert knowledge provided in medical settings but

can occur through the use of other mediating tools (ibid.). Moreover, for many patients, experiential knowledge is as important as, and complements, medical information from health communication with doctors. The Internet is used widely and is combined with religious and traditional knowledge shared on social networks (Samerski, 2019).

Paulo Pinheiro (2019) underlines the potentials of the sociocultural view of literacy in the concept of health literacy as providing a new impetus when addressing measurements. For example, he proposes that a descriptive assessment instead of a rating system is more in line with the health promotion principles. Thus, he argues, analysing health literacy through literacy events and literacy practices would contribute to the following domains of research:

- Personal attributes (skills, knowledge and understanding, beliefs, dispositions as well as values, attitudes, feelings and social relationships) of the people who act in the health literacy event and who code or encode health information by using multiple forms of language. Such an approach addresses the personal characteristics of both the person who is usually considered to be the receiver and the person who acts as the sender.
- Attributes of the forms of language that are used in an event and attributes of the health-related content of language (for example, multimodality, signs and symbols, content and evidence of health information, purpose).
- Attributes of the context in which the interaction takes place or within which people are embedded (cultural and social attributes of the context, interrelationships and power relationships between the people who act, their social agency). (ibid.: 568)

As demonstrated in this section, examining the meaning-making process in health literacy from a sociocultural perspective helps to understand patients' willingness and readiness to act. It also helps to explore the process of power relations constructed in literacy practices within institutions (Street, 1993: 7). In the context of Senegal, what does the sociocultural lens bring to the analysis of health education activities? I will draw on this question in my

final chapter. In the next section, I introduce the gender perspective to further look at power within institutions and social relations.

3.4 Women's empowerment and health

3.4.1 Women and development

This section focuses specifically on women's health and on how it has been addressed in practice. l start with a summary of policy approaches that aim to address women's needs, or what is defined as their needs. Since the 1950s, women's role in development has been recognised, resulting in a strong focus on assisting women in the Global South. Until the 1970s, the main trend was the welfare approach that essentially looked at women as mothers. Indeed, food aid, malnutrition and family planning were the main domains of programmes that provided women with free goods and services within their reproductive role. The approach is one that tends to consider women as passive recipients of programmes in their most 'important' role in society and for economic development, that of reproduction; needless to say, this top-down approach does not challenge gender relations (Moser, 1993).

Feminist advocacy in the 70s emphasised the important of women in development research and policy. As Naila Kabeer stresses, before 1975, less than 1 per cent of standard textbooks on development referred specifically to women: "development has been about men, by men and for men" (Kabeer, 1994: xi). Kabeer pays tribute to Ester Boserup's seminal contribution to challenging the traditional top-down approach of development programmes that reinforced, sometimes worsened women's situation. Boserup was the first scholar to systematically use gender in her analysis to look at the sexual division of labour and to give a voice to women in terms of their roles in economic development.

The Women-in-Development (WID) approach, articulated by American liberal feminists, drew from modernisation theory that framed development practices from 1950 to 1970s. The theory posited that helping agrarian societies to become industrialised ones would grow

these economies, thereby 'trickling down' the benefits of economic growth to all strata of the societies. The WID approach focused on expanding women's participation in the communities and in economic development, beyond their reproductive and homemaker role in contrast to the welfare approach focused on these roles. The Food and Agriculture Organisation recognised women's roles particularly in the various stages of the food supply chain, as well as within the household in terms of food provision and nutrition (Kabeer, 1994). Through the efficiency approach, donors supported women's participation in the productive economy through development investments in women that focused on children's education, health and nutrition.

WID development projects include income generating activities (often appropriated by men) alongside welfare activities such as literacy, hygiene and childcare. However, assuming that women can juggle all these activities, this approach does not challenge gender relations and has had a minimal impact in terms of changing women's realities (Rathgeber, 1990). Drawing on Boserup's analysis, Kabeer notes that in farming activities in Sub-Saharan Africa, colonial and post-colonial administrators did not consider women in training, education, technology and access to land, thus favouring men; this preference was reproduced in the market economies and impacted on women's and men's attitude to seeking employment in the modern sector. The opportunities and trainings men had previously benefited from, facilitated their adaptation to modern practices while women continued to operate in the old ones, more manual. Boserup denounced "the tendency of planners to see women as 'secondary' earners and to train them to be more efficient housewives rather than seeking to improve their professional ability to compete equally with men in the marketplace" (Boserup in Kabeer, 1994: 21).

The integrated approach (WID) has mostly focused on income-generating activities that in many cases have increased women's time burden in the private domain. From the 1980s, the gender-and-development (GAD) approach challenged the political-economic lens through a social lens that sees women as agents of change, encouraging them to organise themselves to raise their political voices: "GAD projects would examine not only the sexual division of labor, but also the sexual division of responsibility, and recognize that the burden

carried by women is one not only of physical labor but also of psychological stress, for example, in being solely accountable for many aspects of family maintenance" (Rathgeber, 1990: 499).

In practice, international organisations were addressing women's issues in their development activities in the 1970-80s but very tentatively. Some sections within these donor agencies were created that specifically focused on women but there was also some reluctance to integrate women in development as it was perceived as imposing a Western view on the Global South. The World Bank expanded its office of Advisor on Women in Development and brought its primary focus on "Safe Motherhood" as did the World Health Organisation in the 1980s, reinforcing a traditional view of women's roles. GAD projects were rarely implemented during these years, as they implied that deep social changes were needed, changes that would question gender relations (Rathgeber, 1990).

Thus development plans were based on the assumptions of a clear gender division of labour within low-income country households, i.e. men perform the productive tasks generating income and subsistence while the women have reproductive and caring roles for the current and future workforce. Caroline Moser (1993) argued that this vision of the household was essentially drawing on Western planning stereotypes that involve following the 'natural' order whereby women are subordinate to men. She identifies the "triple role" of women in most households of low-income countries, namely, reproductive work, productive work and community work. The latter refers to women's participation in providing and managing community resources such as education, healthcare and social events among others, mainly on a voluntary basis. This community managing role is often perceived as naturally performed by women, much like the reproductive role. At the same time, she points out, formal paid work in the community, along with status and power at the political level, usually goes to men.

In various contexts, this community role is also an extension of the domestic division of labour, in that women's caring role goes beyond the sphere of the household to the neighbours and the wider community. Thus, in their community managing role, they mobilise and organise actions to address collective needs. While admitting that the capitalist

system invests less in the means of collective consumption, the challenging economic climate in 1980s with debts, recession and structural adjustment loans, prevented governments from developing public services and infrastructures. As a result, in low-income contexts, women's community managing roles expanded to participation in self-help solutions, addressing food security, health and educational needs. The popularity of NGOs' 'participatory' programmes exacerbated this situation in many ways as these programmes were underpinned by the assumption that women would voluntarily undertake the necessary roles (ibid.). The data in Chapters 5 and 6 reinforce some of these points.

3.4.2 Empowerment and health

At the core of development debates in the 1990s were women's reproductive health and reproductive rights and the concept of women's empowerment, articulated at the United Nations Conference on Population and Development (ICPD), with a particular concern to clarify and construe its definition in relation to demographic processes. Focusing on gender power rather than women's status makes it possible to analyse relationships within a hierarchy. However, as Gita Sen and Srilatha Batliwala (2000) point out, the few debates on the concept itself at ICPD left interpretation open in both theory and practice. Thus, they stress the importance of considering empowerment in programmes, both in terms of women having greater control of resources and greater self-confidence to sustain the process of empowerment.

The ICPD's language of rights, reinforced at the Fourth World Conference on Women at Beijing in 1995, acknowledges women's reproductive and sexual rights beyond childbearing. Thus, the approach broadens women's health in every aspect of their lives. Meera Chatterjee (1988, cited in Sen and Batliwala, 2000) identifies five barriers women face in accessing healthcare services:

> a) need – the existence of a health problem or need for a service; b) perception of need – whether the need is recognized by the person experiencing it; c) permission – the social factors which determine whether a

> woman can seek care beyond what is available at home; d) ability – the economic factors which determine the opportunity cost of health care outside the home; e) availability – of the service sought, including distance, timing, staffing, etc. (ibid.: 25).

Referring to sexual and reproductive rights, Chatterjee stresses that in many societies, barriers *b*-*c* and *d* are under the family's control while barrier, *e* depends on the state and the market. Sen and Batliwala illustrate how women's financial autonomy outside the home can impact on their economic status and decision-making powers among others but can also generate tensions between their domestic role and their productive role. Hence, Sen and Batliwala encourage programme developers to consider how power relations impact on women's lives, at multiple levels: the household, the community, the market and the state. Indeed, biases and discriminations can occur at each level; therefore, empowerment has to be addressed at all these levels.

Through learning and communicative activities, programmes can support women to know, to be self-aware and able to analyse their problems and solve them through explanation and actions. Most importantly, this needs to happen alongside working with men, communities and governments. The authors also underline that working with older women in relation to sexual and reproductive right is also key as in many societies, they protect or even control, younger women's sexuality and fertility. In addition, empowerment implies changes in power relations. Sen and Batliwala forewarn possible negative reactions from community members like men, upper castes or religious fundamentalists, that will need to be addressed. Working with the markets to empower women is also challenging, warn the authors, because it is impersonal; however, it is essential to tackle it as health programmes that include income-related activities to support women have been found to have more impact on women's health. At the last level, namely government programmes, empowerment ideally thrives in a supportive environment, with gender sensitive health workers, space for women to plan, monitor and evaluate programmes designed for them, rather than being confined to the implementation phase, as tends to happen in both government and donor funded programmes (ibid).

Including women in planning, monitoring and evaluation has not been a common practice in health promotion, as Ellen Foley highlights (2001; 2008). Investigating the influences of the structural adjustment programmes on health reforms in Senegal in the 90s, she demonstrates that gender relations were not addressed in the decentralisation and implementation of community management strategies. She argues that:

> Elected officials and health sector personnel have failed to engage with women as potential leaders and participants in the community health structures, instead viewing them only as family health managers and the targets of health education messages (ibid.: 1).

She argues that women need to be considered as "important sources of knowledge about the health system and how it should be run" (ibid.: 45). Although her work is now 20 years ago, I will look at whether her analysis is still pertinent when investigating women's participation in Malika.

In addition, Sen, George and Östlin (2002) highlight the need to bring a gender and health equity lens to potentially reveal biases in data, methodology and clinical research: "Rarely does biology act alone to determine health inequities. In many circumstances social disadvantages may even be the prime determinants of unfair health outcomes" (ibid: 100). Throughout the UN Decade on Women (1975-85), feminist scholars have argued that gender equity in health is a major issue. Another report by Sen, Östlin and George (2007) demonstrates that the ubiquitous inequalities between men and women negatively impact on women and girls' health and strongly calls for action to consider gender in social determinants of health (reinforced more recently by Heise *et al.*, 2019). "Gender relations of power constitute the root causes of gender inequality and are among the most influential of the social determinants of health." (Sen, Östlin and George, 2007: xii). The report highlights how social norms, values and practices, such as masculinities, can also harm boys' and men's health as well. Working with boys and men on transforming masculine values has to be part of any efforts to address these inequalities (ibid.).

3.5 Conclusion

In this chapter, I have analysed concepts around health, literacy and gender that I have used to situate and extend my research questions. As I stated in Chapter 1, I attempt to contribute to health literacy debates by using the perspectives of literacy as a social practice in a Global South context. In light of this debate, the first term that requires a clearer definition is literacy. From a sociocultural view, this use is contested as it refers little to writing and reading practices but rather to knowledge. To study the ways in which health-related knowledge is gained and shared in various domains, I draw on Grillo's *communicative practices* in my study. The term also comprises the local knowledge and beliefs, mainly orally transmitted, beyond the healthcare settings. To do so, this study sets out to explore learning spaces through the following overarching research question: *how do Malika residents access, produce and share health and nutrition related information?*

In the 80s, verticality in health communication was challenged and this was a starting point in terms of improving health interventions. This verticality could be further deconstructed to look specifically at the power relations within health communicative practices in various settings. I will investigate *the characteristics of health education in Senegal*, in particular, the *individual and collective learning practices.* Communicative practices will also encompass channels, modes and languages and these will be explored through the *use of ICTs in accessing, producing and sharing health-related information, whether intentional or not*.

Another point that I want to underline in this review is the common absence of a gender lens in discussions about health literacy as a concept. Yet within the social determinants of health, gender equity is key to tackling power, resources and equity. In development studies, the gender lens has been valuable for looking at sexual division of labour; as Boserup argues, it gives voice to women's roles in economic development. I find it therefore surprising not to see a more systematic use of gender in the health literacy debate. For instance, in the latest international handbook of health literacy (Okan *et al.*, 2019), within 45 articles (725 pages) investigating research, practice and policy across the lifespan, "women" and "gender" do not appear in the index; only one study refers to "feminist ethics of care".

The gender and LSP lenses show us how social relations vary across institutional sites and can potentially either reinforce or challenge domination/subordination. I found that combining these two lenses helped me to analyse and understand health communicative practices. Accordingly, I explore the learning spaces and analyse *how sensitive they are to gender and life-course factors.*

Chapter 4 - Methodology

4.1 Introduction

Every research study, especially an ethnographic one, has its own stories. In this chapter, I recount my journey in Malika. I start with the 'doing' of ethnography and present how I identified the spaces of my study. I provide vignettes of these spaces and introduce its people, some of whom became my participants. I intend to stress how through adopting an ethnographic approach, encounters and situations shaped the research scope and focus. I will then describe the methods used, discuss the ethical issues and finally outline the analysis process.

4.2 My research journey

4.2.1 Ethnography: my methodological stance

"Redefine the fieldwork 'trademark' not with a time honored commitment to the *local* but with an attentiveness to social, cultural and political *location* and a willingness to work self-consciously at shifting or realigning our own location while building epistemological and political links with other locations" (Gupta and Ferguson, 1997: 105 original italics).

I find this statement regarding ethnography and fieldwork, significant in relation to my own position in adopting an ethnographic approach. The spaces that I explored for my study were the results emerged through a combination of flexibility and opportunities created during my stay in Malika. In this study, I use the term *space* to refer to quite small groups of people where members connect with each other, such as a sports team, an extended family or a work organisation. I investigated the similarities and differences within and between these spaces in order to make links and connections that could later inform possible

interventions, i.e. activities to address the prevention and treatment of diabetes. However, I do not consider my study as 'participatory' research. In the following sections, I present the roles I adopted in the actions that occurred during my fieldwork and further reflect on them in the conclusion.

To investigate health communicative practices and gain insights into ways of learning about health, ethnography seemed an obvious choice as it enabled me to first look at *what is going on there* (Rogers and Street, 2012). This also represents the epistemological stance of this study which set out to explore literacy as situated (Barton and Hamilton, 1998). Implicit to 'situated' literacy is the idea that literacies are embedded in cultural and social contexts and can be observed in the events that occur in different settings such as the home and the workplace. The acquisition of these 'situated' literacies acquisition can be investigated by observing users engaging in processes of informal learning and sense making (ibid.)

I consider this ethnographic study in Malika as a substantial step in my development as an ethnographer and one that has been critical for my future work in education and development. Heath and Street (2008) suggest that ethnography should be thought of as a frame of mind rather than a mechanical use of a set of methods, "a substantial change of attitude" (Gebre *et al.*, 2009: 21). I was able to slowly learn and absorb the techniques of ethnography while also developing the mindset, through 'doing' ethnography. Further on in this chapter, I will detail the methods I used and how the writing process helped me to analyse my data and to think about my research. Before doing so, in the following section, I will chronicle how the flexibility of ethnographic research and the relationships I was able to build through this approach, created opportunities that narrowed down my research focus to communicative health practices in Malika, looking at how Malika residents access, share and produce health-related information. The health domain is large, so I gravitated towards nutrition-related information, because food was a common and unifying conversation, and chronic diseases linked to food habits were a subject of concern.

4.2.2 Designing the research

As mentioned in the introduction chapter (see 1.4), after a scoping visit in April 2018, I decided to abandon a focus on the national adult literacy programme and instead to explore everyday literacy using mobile phones in *natural settings*. I will describe the process of adopting an "extended framework" in Malika which broadened my focus to looking at social relations, roles and power relations (Gebre *et al.*, 2009: 35). I also intended to embrace a broad social practice view on digital literacy in different domains such as banking, religion, health, agriculture. I will show how the slow pace of fieldwork and happenstance led me to selecting four main spaces in Malika - the NGO, the home, the walking group and the house of women. Thus, in my thesis, I often refer to the research site in terms of *communities* to put an emphasis on the social aspects between people within these spaces. The events that took place within these spaces allowed me to observe *patterns* of behaviour and activities (Agar, 2006).

4.2.2.1 *Determining the location*

The one-week scoping visit was short but nevertheless useful to understand some of the nuances of adult learning and education in Senegal. It also helped me to gain some first impressions of the country and start networking, as during that week, I interviewed practitioners from different organisations[32]. My visit to an NGO in Malika, recommended by a former colleague, turned out to be pivotal in the research design. In May 2018, I revisited my original plan to focus on a literacy programme and decided instead to look at ordinary and routine digital literacy events. As this would not be limited by classroom walls, I felt Malika seemed to be an ideal location. On that first visit to the NGO, I spent the afternoon and had lunch with the NGO team (see 5.4); I found the place friendly and safe and I could

[32] I met practitioners from different organisations; an international organisation (UNESCO), a local NGO (in literacy and development), a regional association (PAALAE - Pan-African Association for Literacy and Adult Education) and the Directorate of Literacy and National Languages (DALN) of the Ministry of Education. The organisations from either the government, the international community or the civil society seem to have similar concerns regarding the discrepancy between the current needs and the deployed means for adult literacy in Senegal.

easily imagine myself living there and volunteering with the NGO. I did not know the reputation of the NGO in the town; the timeframe of the scoping visit did not allow me to investigate it but I found their activities and engagement intriguing. The local NGO was created in 2003 to provide youth and adult literacy classes based on the REFLECT approach[33] in Malika and five other regions in Senegal. They also initiated a federation of 77 women groups in Malika and the surrounding area. Through this initiative, the organisation supports about 3 000 women with their income-generating activities as well as helping them to access affordable necessities through a solidarity shop they set up and manage together.

Before leaving for Senegal, I had determined the town, but I was not sure about the scope yet.

4.2.3 Entering the field site

The metaphor of the funnel used by Agar (1996) is a good one for my ethnographic journey and the internal dynamics of its design. When I started the fieldwork on 4th September 2018, my intention was to live and work as a volunteer in Malika; this was a strong foundation in my project. However, the breadth of its scope was difficult to explain when introducing myself to new people because it was intangible for me and for them. On the other hand, I did not narrow the focus down too early because of wanting to keep to the idea of the *extended framework*. Therefore, it was very convenient to start the fieldwork by working in the NGO. I was identified as a volunteer *tubaab* (white foreigner in Wolof[34]); being at the NGO office every day from 9.30 am to 6 pm framed my first weeks of settling down in Malika; it helped to have some landmarks and habits that I could come to rely on little by little.

[33] REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques) is an approach pioneered by ActionAid, which uses Participatory Rural Appraisal (PRA) visual methods for facilitating community discussion and planning as a basis for literacy learning.

[34] I translate it as white foreigner in my case but the term *tubaab* could also apply as a criticism to a Senegalese person who is perceived as being influenced by the Western world

4.2.3.1 *Volunteering and researching at the NGO*

At the NGO, the director asked me to work on the communication aspect of their activities. To do so, I designed posters and leaflets to promote the NGO, I kept their Facebook page active with short posts and pictures and I attended meetings. In that first period, I was able to attend the launch of literacy week, *labo alpha* launch[35], an educational fair organised by CSOs in education and a workshop organised by a pan African organisation in education. There was always work to be done because the core team was rather small (eight main staff in charge of projects and administration) so any support was welcomed.

Being there every day, I was able to observe communicative practices at work as well as the informal conversations during breaks. It seemed that most sharing of information regarding team meetings and activities was done orally, mainly in Wolof; I therefore missed most of this and often found out about things at the last minute, which was a bit confusing at times. Through the NGO, I met some Malika residents involved in the NGO's activities, including some of the members of the women's groups federation. My main encounters, however, were with the young students of the NGO who were signed up to the vocational and literacy trainings (literacy, tailoring and hairdressing courses were in the NGO building). The NGO's adult literacy programmes were implemented in the provinces but I was unable to visit these sites during my field research.

By February 2019, I was only going to the NGO two to three days a week as I had become more involved in my own research and later, returned occasionally simply to say hello and catch up with the team. Two French volunteers had arrived in January for a 6-month *service civique*[36] and one of them took over the communication tasks which was good timing in terms of me stepping back from this role. In March 2019, the director asked me to participate in devising (and translating into English) a project proposal to apply for a UK Direct Aid grant. The application was unsuccessful but doing the exercise with the director

[35] A literacy laboratory to promote national language in writing (see 2.2.2)

[36] French National Volunteer Service www.service-civique.gouv.fr/page/version-anglaise

was engaging; we had stimulating discussions about literacy and development and I felt that he did not consider me as the intern anymore as he would routinely introduce me to visitors.

4.2.3.2 *Living with a Senegalese family and observing their practices*

Prior to my arrival, the NGO contacted the family who hosted their volunteers to secure a place for me. From the first day and during the following 10 months, I stayed in their house, where I rented a private room on the top floor. Fatou, the mother and Mbaye, the father welcomed me and encouraged me to make myself feel at home. Mbaye was working in the management section of a refinery based at Mbao, 11 kms from Malika. He drove to work every weekday; I could hear the car leaving around 8 am and coming back around 6.30 pm. I mainly talked with him during weekends, rarely in evenings, as he had dinner in his bedroom. I spent more time with Fatou; she was busy at home preparing the two youngest children for school, together with the cleaner, cooking lunch and dinner and cleaning the house. Besides these tasks, she had a poultry farm of 80-100 chickens located about a 20 minute-walk from the house, where she would often go to oversee her employee who was in charge of the daily tasks. Fatou was also regularly involved in family and community activities; being the eldest sister among her siblings, she organised the baptism ceremony of her younger sister's first child. Similarly, she was fully engaged in her sister-in-law, Awa's wedding preparations, not only with the logistics but also by guiding and counselling her.

The first day after my arrival, Mbaye asked to join him in the living room[37] to negotiate the rent, while Fatou was coming back and forth as she was busy. He also clarified some behaviour rules: principally, I was told not to bring men home with me, as he did not want his children to be exposed to such behaviour. I told him more about my personal situation and my professional motivations for staying in Malika. I also told both him and Fatou about my research on digital literacy, what I intended to observe and study. "You are in the right house, Fatou is illiterate!", he replied. With Fatou, we could talk in French; it was not fluent, but we could understand each other. She had attended a Quranic school where she learnt

[37] The room used to receive guests, I rarely spent time there during my stay in the house

Wolofal, a pre-colonial Arabic based script used to transcribe Wolof in West Africa (see Chapter 2); she had not learnt French or Roman script in a school setting.

Aside from their four children, two girls and two boys aged 6 to 17, two relatives also lived in the house: Sokhna, Fatou's niece, a pharmacist, worked in the neighbouring town and Awa, Mbaye's younger sister, was studying to become a midwife. Both close to 30 years old and unmarried, they lived in the house as it was closer to their work and place of study. They shared housework tasks with Fatou in the evenings and at weekends. I spent more time with Awa than with Sokhna because she was more often at home; we often talked about her studies and mine. I showed her some of my fieldnotes related to the family activities, to give a more tangible sense of my observations. We talked about them, she helped me in clarifying some family relations and roles, for example, during the baptism of Fatou's nephew.

There was also the cleaning lady, Jabu, who was from Casamance (Southern region of Senegal). She lived with members of her extended family who had moved closer to Dakar for economic reasons, hoping to find jobs and have a better life.

I learned a lot through the family events, everyday activities and conversations I had. I was invited to join religious events such as a pilgrimage in the town, religious and family ceremonies (baptism, Awa's wedding, the annual extended family gathering in Mbaye's origin village near Tivaouane, 100 kms from Dakar). They introduced me to relatives and friends. I participated in cooking activities such as preparing for Awa's wedding, cleaning whenever I could, and they appreciated my help. They were very helpful when I needed advice or wanted to meet people. For example, Fatou introduced me to her women's group and Mbaye arranged a visit to the neighbourhood Iman's home.

Despite my previous experiences in Muslim countries, I had never fasted for the whole month of Ramadan; living with the family in Malika, I wanted to fast with them and it was a delightful experience. I enjoyed waking up at around 4.30 am and having the pre-dawn and evening meals together in the dining room. I was happy to share these moments with them

and found the life experience fruitful. Throughout Chapter 5, I will describe my life with them as a participant observer.

Before introducing the two other spaces, the walking group and the House of Women, I will recount how important learning Wolof was on this journey.

4.2.3.3 *Learning Wolof*

Learning a new language is an exciting challenge that requires time and motivation. In my previous experiences abroad, I had never really dedicated time to learning a language. As the dominant languages used in my work and in social relations were French and English, there was no urgent need to learn a local language. Most of the time, I was in contact with people who could speak either in French or English, so I mainly gained knowledge and understanding of the places where I worked through these languages. Stepping out of this linguistic bubble was key in undertaking this doctoral research. In other words, implementing an ethnographic study was the best opportunity to challenge my usual strategies of living and working in a new setting.

Learning Wolof turned out to be a challenge. Not being able to easily catch the basics of Wolof was frustrating and I felt ashamed about not being able to interact. To help me memorise the words and the sentences, I wrote them down in my notebook, asking for the spelling or asking people to repeat a word slowly so that I could practice using the codified alphabet. As I explained in Chapter 2, though Wolof is the official language with French, it is not the written medium of schooling. Therefore, few Senegalese learn the codified writing using the Roman alphabet and grammatical constructions. At the NGO and with my teacher, I had the words written in the codified alphabet, while outside these spaces it was mainly based on the sound-letter correspondences with the French pronunciation. It took me some time to attach less importance to the writing, finding ways instead of learning the language orally, without putting too much pressure on myself and accepting my mistakes and my limits.

Before leaving for Senegal, I had planned a schedule of a daily one-hour class from Mondays to Fridays; there were weeks when the plan worked but last-minute activities and delays in transportation often interrupted this discipline. Moreover, I must say that I did not study intensively beyond the classes; overwhelmed by the doubts, questions and everyday activities of the ethnographic study, I had little energy to study in my 'free time'.

By the end of the field research, I had reached an elementary level that allowed me to establish friendly first contacts. I was rarely in situations where there was no French speaker to assist me in the translation, if I was unable to understand. I therefore mainly communicated in French. This could be seen as a limitation in terms of accessing the knowledge and discourses of people who are in power; however, with some of my participants that were not in positions of power, like Nene, we could have deep conversations in French. In any case, my willingness to communicate in Wolof was acknowledged and appreciated.

The teacher recommended[38] to me declined and the alternative, going to the Baobab centre[39] in Dakar everyday, was time and energy consuming. My best option was to look for a teacher in Malika, so I asked the NGO. I started my first class on the 17th September 2018 with the Wolof literacy teacher of the NGO. It was the first time she had taught Wolof as a foreign language and I was not fully satisfied with her approach. In parallel, I was looking on the Internet for complementary information and found a Facebook page with online videos. I contacted the author and by chance, he happened to be living in Malika.

His name is Abdou; he is self-taught in Wolof linguistics and an inspiring teacher. He is a year younger than me and was living with his wife, son and parents in Malika where he grew up. He taught for several years in an Arabic-French primary school and took the director role for

[38] In May 2018, I attended *Model of Literacy Learning* conference organised by the British Association of Literacy and Development in London. Professor Friederike Lüpke presented the multilingual literacy project in Senegal LILEMA (Language Independent Literacy for inclusive Education in Multilingual Areas). She recommended me a Senegalese Wolof teacher who was a PhD student in the project.

[39] A Dakar-based USA NGO providing among others, cross-cultural activities and language classes.

some years. We had our classes in this school that was a three-minute walk from my home. During my fieldwork, he was running a small printing service company in Malika, he managed Malika's youth football team and was offering Wolof classes via WhatsApp, YouTube and Facebook. His students were from France, Italy and some also from Senegal, curious to learn more about their language. Cheikh Anta Diop, the Senegalese Pan-African historian and anthropologist, was his spiritual master, in particular, his campaign for children to be taught in their mother tongue.

We started working together in mid-November and spent many stimulating hours talking, sharing and questioning. Our discussions went beyond language learning. When my research questions on food and health literacy were defined, I naturally asked him to be a participant, and he agreed. From this point forward, during our classes, I could discuss my observations with him to have his point of view. I could bring materials from my research to be translated and discussed (for example, the recording of a group counselling session (see 6.2.3), a TV or a radio programme). I considered Abdou a 'critical friend', as the term is used in the action research literature. He gave me advice and worked with me on the materials (Stenhouse, 1975). I am aware that the borders between teacher, interpreter and participant were blurred. His support was valuable and his point of view interesting; it could not be an either-or situation. Considering the low hourly rate[40] he asked, his participation in the research did not seem raise any conflict of interest. He was willing to be a participant. When I returned to the UK in June 2019, we kept in contact. He had started teaching French via WhatsApp and asked me for advice on the activities and learning progression that he had developed.

The learning process of ethnography had its ups and downs but I felt well supported in Malika.

[40] The recommended teacher asked for 10 000 XOF /hour (£13) – considering the average salary in Senegal (100 000 XOF), this rate is high at the local scale. I suggested 5 000 XOF /hour to the teacher at the NGO, that remains a very good local rate. Abdou's hourly rate was 2 000 XOF, he determined the rate insisting that he sometimes does it for free.

4.2.4 Deciding on the focus – from digital to health

With a focus on digital literacies via mobile phone, I was exploring the uses of ICTs in everyday life at home and at the NGO. I observed that most of the uses with mobile phone were oral and visual, via voice messages, videos and photos. This made my focus on the written word limited to specific tasks with visual literacy (listening to/recording a voice message, finding and playing a video on YouTube, among others).

4.2.4.1 *A critical event*

After a month and a half, during my daily activities at the NGO, a critical event drew my attention to health-related information. On 19th October, early morning, a student was lying on the mat in the communal room where I worked. As my colleagues in the next rooms had not reacted, I thought she was sleeping. Some minutes later when the director arrived, his reaction showed that she was not sleeping but was unconscious. It turned out that he had already asked his driver to take her back home. Nobody panicked or questioned her state of health; it seemed that for most of my colleagues, her problem was spiritual, "an African problem that you cannot understand or may not believe", as they told me. At the health post, she was told that she had malaria; at the NGO and apparently, also at home, it was said that she was possessed.

This event had an impact on my choice of topic, not only because it was "strange, exotic and colourful" (Gupta and Ferguson, 1997: 16) but somehow, it resonated with my own experience: few days after, I talked with the student and she described how she felt: "I had a big pressure on my head and then I felt really tired". It reminded me of attacks I used to have. For many years, I relied on what I was told regarding my stress management. I was lucky enough to access another narrative and the medical means to solve my health issue. Her experience made me want to look at health and social justice; I did not realise it at that time, but I what I was really interested in were the determinants of health (see 3.2.1.1).

Prior to this critical event, I had observed my colleagues several times watching videos or commenting on websites on their mobile phone or computer about health-related advice;

most of the time the content was in French. However, the Internet was not always the systematic solution to access health-related information, as the critical event above illustrates. I started exploring the communicative practices around health: What kind of preventive messages were accessible in Malika's health care centres? What kind of health-related information was shared among family and community members? What kind of practices and beliefs were being transmitted through the generations and how? Whether and how were mobile technologies used? The focus of my research became the learning spaces and communicative practices Malika residents used to access, produce and share health-related knowledge. To do so, I sought to go beyond the home and NGO. In the next section I introduce the other two spaces: the walking group and later, the House of Women.

4.2.4.2 *Walking to discover the familiar*

On 4th October, 2018, early morning, I was trying to get a taxi to attend a conference in Diamniadio, 20 kms in the opposite direction of Dakar. The few taxis that were willing to drive me asked for a very high fare. After refusing a couple of taxis, a man sitting in the carpenter workshop behind me, who was presumably observing me, offered his help. He called a *kalendos* driver (informal taxi) that he knew and negotiated a reasonable fare. Some days later, we met again at the same place. His name was Adama; he was a former carpenter who, because of a work-accident 10 years earlier in which he had injured his right hand, could no longer practise his trade. Instead, he taught karate to adults and kids. He was also involved in the walking group of Malika and suggested that I joined it on the following Sunday. I was quite curious and thought it was a good opportunity to enjoy the seaside which I rarely visited and get some physical exercise that I was missing. Malika is a sandy town as are all the surrounding places, and little was done to encourage pedestrians to walk from one place to another.

On 14th October, I was introduced to the group as a doctoral student volunteering and became a member; there was a fee of 1 000 XOF [41] (£1.3) per month. The amount was used

[41] Currency rate 1 GBP = 771,58 XOF (December 2019)

to support walking events or as a mutual health insurance if a member was in need. The walking group turned out to also be an opportunity to broaden my relations beyond the NGO and the family, in particular, to access a men's space. The group was initiated by a former military officer with a couple of friends who started walking and decided to create a club in 2010 to encourage people to walk. While I was there, there were about 20-30 regular walkers and 10-15% of us were women. The Sunday morning walk became part of my weekly schedule and I rarely missed one; I joined the group for other walking events organised in Dakar and attended the general assembly. I often walked and chatted with the same people: Adama, Mor, Oussa, Balde, Ouli, Mamadou and Dr Badou, it was on a Sunday morning walk that I met Nene. She was a middle-aged woman originally from Casamance (Southern region of Senegal). I spent a lot of time with her during my fieldwork. We regularly met from February onwards, I accompanied her to the market and to the hospital for her diabetes check-up, I met and ate with her family (Section 6.2 is dedicated to her endeavour in managing the disease).

After some months, I chose to explore Nene's experience because I was intrigued by the food habits (see Chapter 5) and her management of diabetes (see Chapter 6). I wanted to better understand how she learnt about the disease, the health resources she had and what she could do with those resources. Nene's experience illustrates an aspect of disease management. While I did not intend to generalise based on her experiences, I engaged intensively in her case and could triangulate with less in-depth observations and informal conversations that I had throughout my fieldwork.

Having chosen the focus of my research, my task was to "describe only what does happen, not what does not happen" (Heath and Street, 2008: 36). I was an outsider to my research field and needed "to make the strange familiar, so as to understand it" (Hammersley and Atkinson, 2007: 231), to experience that which was the familiar everyday experiences of my participants. I needed to observe and know about the health settings in Malika. To do so, I had to go beyond the NGO and home but I was not confident enough to do it on my own. So I asked Adama if he would show me Malika, walking with me beyond the main streets. Malika looked like a safe place; nevertheless, a white woman walking on her own in some

quiet neighbourhoods could appear strange and draw unnecessary attention. Indeed, being on my own I could often hear *tubaab!* (eh, white woman). It was not intentionally offensive but was sometimes said in a dismissive tone or was followed by "give me money". It affected my mood and there were days when I wanted to avoid these situations and stay at home. Being with Adama, no one shouted *tubaab!* at me; if they had done, he would have replied back in Wolof.

The first morning we walked together, I found it interesting and helpful. He commented on where we were, asking for information from passers-by if he could not address my questions about something to do with the surroundings of the walk. As I felt that repeating the activity would be helpful for my work, I considered it fair to suggest a standard payment rate as I was taking up his time and he was helping me. We agreed on a rate and list of activities and he became my assistant for some weeks. We walked together on a couple of mornings. He took me to the health-posts in Malika, he facilitated the access and introduced me to the staff (see 6.3.1). We also went together to the traditional hospital in the neighbouring town. These walks helped me to have a better idea of time, distance and the hardship involved in walking through the sandy town to reach the health-posts on the other side. When I told him that I would like to meet the chief of my neighbourhood and the health representative of the town council, he contacted them and arranged a meeting (see 6.3). During the meeting at the City Council, I was introduced to the mayor to briefly present my research. As for the chief of my neighbourhood, by coincidence, he was his brother-in-law so he invited me with Adama for tea and another day for dinner. Apart from these agreed activities, we met several times over the weeks that followed, sometimes by chance in the street, every Sunday for the walk and sometimes at his place where I was introduced to his wife and some of his children.

4.2.5 Participating in Malika's activities

4.2.5.1 *Becoming a member of the House of Women*

The House of Women is a cooperative house that is part of a programme initiated by the Ministry of Women, Family and Gender in 2005. It aimed at providing women with a place to access training in gardening, tailoring and food processing among others, to provide support for income generating activities. The first time I heard about the House of Women was from Fatou; we were discussing local cereals and she told me that she went there to grind the corn and millet (see 5.2.1). This was in the early stages of my fieldwork; I did not know then that I would spend my last months there. Later in early March, the House of Women was the organising team for the celebration of Women's Day. On that day, Abdou, my Wolof teacher who wanted to help to expand my network in health-related activities, introduced me to Madame Faye, the community health insurance manager based at the House.

I was more and more intrigued by the place; I finally decided to go and introduce myself and my research on 19th March 2019. The place was a 10-minute walk from where I lived, in a narrow street, a wall-fenced with a metal door that was always open during the day. The entrance led to a hall where I met Mrs Dieynaba, the manager, who welcomed me and took me on a tour of the building. I was introduced to the women who were there on that day and shown the various activities linked to the house: kindergarten, cereal processing, cereal mill, tailoring, community-based health insurance and gardening. Mrs Dieynaba asked me whether I wanted to become a member and what I would like to do. We agreed that I would take care of the mint plantation, a new activity that would support some members who would sell mint leaves for tea. From that day and until I left Malika in mid-June 2019, I regularly spent days in the House to water the mint patch and to help with administrative tasks when needed or just to be there because I enjoyed the place.

In addition to the core team which included Mrs Diop, the president, Dieynaba, the manager and Madame Faye, the community-based health insurance manager, I often met the same members; there was a group of seven or eight elder women that processed millet everyday under a shady patio, sitting on a mat. They were *sunuy yaay*, our mothers in Wolof, and the

communication with them was only in Wolof. There were four or five women in their thirties who regularly came to chat and participate in activities like making *araw*[42] (see 5.2.1). Laughter and lively conversations were regular in the hall entrance and Dieynaba's office. These chats mixed Wolof and French so I could sometimes participate. There were also some men at the House of Women: with Ibrahima, the gardener, I went to buy the crops; as he knew I was interested in health, we often had conversations about the health benefits of plants available in the surrounding area.

The House of Women was also a health outreach site for the community-based health system (see 6.3); I met the community-based health coordinator there who I later interviewed to find out more about a previous nutrition programme for mothers and children developed by the Ministry of Health and the USAID's Health/Community-based Health programme (see 6.3.3). I also met some community relays and *bajenu gox* (see 6.3.2.2) who would organise talks at the House. Unfortunately, I did not participate in any of those, either because they took place before I was in the network or because I was informed too late.

4.2.5.2 *Taking part in a steering committee to organise Health Day*

Despite visiting health-posts and learning about the community-based health system, I heard very little about diabetes prevention and management in Malika. I therefore was willing to organise a talk with health workers for Malika residents interested in learning more about the disease. International Health Day seemed to be the ideal backdrop for the talk. When I met the health councillor at the city council on 25th March 2019, I asked him whether and what they were planning to do on 7th April. Without me suggesting anything, simply asking the question gave him the idea to organise a one-day event with key actors of the community-based health system and partners. Within a week, he called potential members to set up a steering committee and included me. We had meetings in Wolof[43] with

[42] larger millet flour pellets boiled to prepare traditional millet porridge

[43] Adama often sat next to me and if I wanted to know more about the ongoing discussion, I could ask him

representatives of the community-based health actors, religious leaders, chiefs of the neighbourhood and NGOs in development, to define the theme and objective of the event, identify the speakers and decide on a suitable day. It was held on 16th April 2019 in the city council. About 60 participants gathered to discuss the issues and challenges of community participation in health promotion and to elaborate a local authority operational plan. I did not have any specific role in organising the event but I helped to create a poster to be shared on WhatsApp with some invitees (official guests from the local authorities received a letter in French). I also financially supported a report of the day, written by Ndèye Fatou Cissé, a PhD student in women's health in Dakar who I had met earlier. She had accepted to join the event and translate Wolof when it was used in discussions. Following this event, I was invited to another forum on Malika's environment where I met Lamine, one of the speakers at the health day who is a health worker in a neighbouring town. I was able to ask him more about the community-based health system in Malika.

It was interesting to compare how I would have planned the health day and how it actually happened. From the feedback of the organisers, it was an important event and yet the majority of Malika residents were not included and did not hear about it. This situation resonates in the context of the decentralised health system I discussed in Chapter 2: the transfer of responsibilities to local authorities does not always mean that the population will be included in health plan debates, as Foley demonstrates (2001). Regularly going to the House of Women, I observed and came to better understand some of the power relations between women, with or without the community actor status, between women's group, whether they were connected or not to the city council or the House of Women. I was not able to discern all the politics behind the relationships, however, especially as they pertained to ethnic groups and castes. I did observe some influences of gender, class and age and I include these in my analysis.

4.2.5.3 *My roles and limits*

I was aware that being too proactive could influence the data and raise expectations about my role. For example, I was often aware that as a French white woman, I was perceived as someone who could potentially raise funds. The coordinator of the national adult literacy

programme for Malika area called me “partner” each time I met him; it sounded like a business collaboration that was not clear to me. So when the health councillor at the city council included me in the steering committee, I wondered whether there was an expectation that I would provide financial aid; I was probably overly suspicious because in reality, nobody asked me for anything. Several times when I introduced myself as a doctoral student exploring health communicative practices, I had to clarify that I was not a medical doctor but a researcher in education. I decided it was better to simply participate rather than initiating in or fully engaging in any actions, though I would have liked to organise an event on diabetes! Rather, I followed the flow and participated when I was invited to do so.

The only action that I led was to create a short video. After several conversations with Madame Faye, the community-based health insurance manager and Abdou about the low membership rate in the community-based health insurance, I suggested to Madame Faye that she should present the key benefits of subscribing. She also asked the president of the insurance committee, the community-based health coordinator, a *bajenu gox* and existing members of the insurance scheme to share short messages to convince other Malika residents to join. The video was inspired by a cartoon developed by USAID (see 7.6.4) but this time, with Malika residents and in Wolof. I videoed with my phone and edited it with my computer at the House of Women. The video was not very professional but it was short (2 minutes) and useful for the community relays. They could play it when they visited houses to collect memberships, Madame Faye told me. Through this action, I somehow became an IT resource person: several months later, Madame Faye contacted me when I was back in the UK, asking me to help her set up her YouTube channel.

I did not expect that ethnography would be so physically intense and draining. The conditions of the fieldwork appeared ideal: I was living in the research site, hosted by a warm Senegalese family who became my participants; I gained access to other spaces and met many interesting people with whom I enjoyed “being there”. However, I never felt like able to rest as I did not wish to say no to any activities (see the section on participant observation below for a more detailed discussion).

To sum up, in this first part of the chapter, I have told some of the 'stories' about my research journey. I have introduced my key participants and the four spaces in which I explored health communicative practices: the NGO, the home, the walking group and the House of Women. These stories illustrates how I was *doing ethnography* throughout the 10 months in Malika and how encounters and situations enabled me to gain access to other encounters and situations, and to undertake certain roles in these spaces. In the next part, I discuss the methods, the ethics and the writing process from notes to fieldnotes and writing up.

Figure 7 - The four spaces of my research in Malika

4.3 Research methods

4.3.1 Methods used

Hammersley (2005) defines ethnography as

> a form of social research that emphasizes the importance of studying *at first hand* what people do and say in particular contexts. And this usually involves

> fairly lengthy contact with people, through participant observation in some of the settings in which they operate, and/or through relatively open-ended interviews designed to understand their perspectives, and through study of various artifacts and documents that form part of their lives (ibid.: 1).

As I showed in the previous section, the 10 months in Malika allowed me to spend time with several of my participants. Through participant observation, I was able to join in with some of their activities in various settings. Engaging in daily activities with them could trigger conversations about health which enabled me to explore their health communicative practices. In this section, I discuss the methods I used and the challenges I faced.

4.3.1.1 *Participant observation*

In 'doing' ethnography, what I found delightful and powerful were the encounters that it created during the fieldwork. I managed to maintain some of these connections via WhatsApp when I returned to the UK. In my previous experiences of living abroad, I had not taken the time to meet, sit and talk, ask and share. I had tended to focus first on the tasks of my job. Being hosted in a Senegalese family and working in a local NGO helped me to start learning how to do participant observation in limited settings. I accommodated my work to the family schedule and participated in the house activities as part of the family. Heath and Street describe ethnographers as "the ultimate instrument of fieldwork" (2008: 56). I think that I experienced what this means.

Studying literacy as a social practice (see 3.2.2), I was particularly interested in examining the situated context, the oral and written forms of literacy and the agency of literacy users (Barton, 2007; Street, 1993). As I discussed in the first part of this chapter, I met several Malika residents and joined in with everyday activities such as buying food, cooking and eating together (Chapter 5), walking, gardening, going to the hospital (6.2.2).

During these activities, I was able to investigate them as communicative events that were related to health and nutrition. There were few texts; most of them were at the hospital, for

example blood test results. Thus, my first step was to look at the features and content of the communication: I examined the actors' identities involved in the communication, the model of communication (i.e. interaction or transmission) and the sources of that knowledge (i.e. how the actors obtained it in what language).

I did not take notes during these moments because it was not always convenient. I was busy in the activity rather than being in the position of an observer only, this illustrates the constant shifting positions between *proximity* and *distance* implicit in participant observation (Todorov, 1988). During meetings and after lunch conversations at the NGO[44] and the House of Women, on the other hand, I always carried a notebook with me in which I wrote down key words in French, sometimes quotes; then every evening in my bedroom, I expanded these key words into "field notes proper", mainly using "headnotes" (Sanjek, 1990). As I observed and listened to the communication dynamics among actors, I tried to understand the conversations when it was in Wolof and took an active part as much as I could, sometimes simply through eye contact or smiles.

Through this writing process of describing the event in French, I attempted to bring the emic perspectives of the actors when I managed to capture it during the events (Lett, 1996). I also sought to identify patterns and communicative practices through the investigation for more details and information on the setting (i.e. the institutional context). Stepping back, I also made reflexive notes on the side[45] to document my thoughts, my doubts and questions, reminders to further investigate some points: "the construction of analytic notes and memos therefore constitutes precisely the sort of internal dialogue, or thinking aloud, that is the essence of reflexive ethnography" (Hammersley and Atkinson, 2007: 151). This part of the ethnographic work required time and concentration. Whenever I was feeling too tired to engage with my data in writing, I voice-recorded myself describing in detail situations and

[44] Meetings at the NGO were held in French because of the presence of foreign volunteers, after lunch conversations were mixed in Wolof and French.

[45] Using OneNote really facilitated this step as I was advised by a PhD fellow, I could easily add documents, website links (news articles, website) to my reflexions. I was looking at diabetes, health and nutrition, I needed to know more and challenge my own assumptions by reading scientific articles or website.

conversations I had during the day (I did not want to misrecollect some elements). This process enabled me to explore the meaning behind the data. The following morning, I typed them into my OneNote diary. This was an important discipline but sometimes it was hard to stick to it.

Volunteering was an entry point to both the NGO and the House of Women. But I found balancing volunteering with writing and thinking time challenging. Writing and thinking required taking a step back, very different to volunteering, in which I was 'in the thick of it'. The ethnographic writing was largely invisible to outsiders as it was done in my bedroom. I was not comfortable about staying in my bedroom during the day to think and write because I worried that it could be perceived as resting. Evidently, I was allowed to do so, but I felt that I would reinforce some of the stereotypes I had heard about European women, namely that they do not do much housework and are not very hardworking. Similarly, when I did not go to the NGO everyday as previous volunteers had done, I was often questioned. Perhaps they questioned my commitment. I was observed by my participants and did not want to disappoint them.

4.3.1.2 *Individual interviews*

Most of my interviews were informal conversations in French and took place during the activities I engaged in with my participants. These informal conversations were very common while cooking and eating. When I joined in with cooking, I felt seen as a novice in that I was unfamiliar with some of the cooking techniques and ingredients: I was in the position of a foreign learner, a position that suited very well my ethnographic endeavour as it provided an excuse to ask obvious questions. I did cook dishes of my own such as quiches, crêpes, red cabbage with coconut milk[46] and tried a kind of burger with local cereals and aubergine at home. My cooking was seen as exotic. During Ramadan, inspired by a radio programme that recommended eating soup for *iftar* (evening meal to break the fast), I cooked vegetable soups with lentils or local cereals; I was proud of my recipe. Abdou, Adama

[46] I bought the food in a supermarket in Dakar, it was not common food cooked at home.

and Nene were intrigued. We agreed that I would cook it at their place too, and it generated conversations about food access and affordability, food habits and nutrition, among others. Moreover, as I mentioned earlier, the Wolof classes provided an opportunity for me to discuss questions that arose from my observations. Similarly, with Awa at home, colleagues at the NGO, members at the House of Women, I engaged in informal conversations, following observations or talks, to ask them about their views. My close relationship with Nene had a big impact on my role/s: I became a mediator in her health communication but was also a participant in her diabetes monitoring (i.e., accompanying her to the hospital). This influenced our relationship; I tend to think that she appreciated both my interest in and care for her and my support (see 9.3.4). When having informal conversations, I often reminded my participants that even the seemingly most ordinary conversation could be potentially relevant for my research.

I also conducted semi-structured interviews with a range of individuals: health professionals at the hospital (Nene's doctor, coordinator of the National Diabetic Association) and at the community-based structures (the coordinator, a *bajenu gox*, the health insurance manager, nurses); representatives at the city council (health councillor) and in the neighbourhood (the chief of my neighbourhood, the Imam, a youth representative, a head of school); and with actors in the national adult literacy programme (the coordinator of the area and two facilitators). I started all these interviews with a formal presentation of my research and what their participation might imply. All these interviews were in French except the one with the *bajenu gox*; her husband who was a former teacher in a secondary school, had agreed to act as an interpreter. I cannot know how much his translation was accurate or objective; he was a mediator in the conversation as well as an interviewee, as I asked his views on some issues. When it was with health professionals, my educational background facilitated the contact, as health was their domain of expertise so I wanted to learn from them in practice and not only through policy documents (e.g., community-based health strategy) and training manuals. The interviews with health professionals were short because they happened during their working hours and there were invariably patients waiting; therefore, I focused on specific questions about diabetes prevention and management.

In the appendix 1, I have listed my research participants and detailed how I engaged with them. I have anonymised any identifying features unless otherwise requested. Most of my participants were Malika residents and I met them through the four spaces that I have described earlier. Beyond these spaces, I identified some participants based on their roles in health (e.g. health workers in Malika) or education (e.g. school head teacher, adult facilitator) or in town (e.g. chief of the neighbourhood).

4.3.1.3 *Documents*

To study the learning spaces, I searched for texts and visual materials. I collected leaflets (I found very few), photographed the flipcharts used to support talks held by community-based health actors and the posters in the waiting room of health posts and I saved pertinent messages posted on WhatsApp. My interest in these documents was to investigate at first hand what was available for Malika residents in healthcare settings and a WhatsApp group. I found more image/drawing visuals than texts. The latter I found were in French, except one on universal health coverage that I collected at a fair in Dakar. It was bilingual: French on one side and on the reverse side, Wolof written in *Wolofal*. It was the only document in Arabic script that I found. Abdou, my Wolof teacher had never come across such leaflet and Adama assumed that it was written in Arabic language. I also collected post-literacy books in Wolof for adults, mostly aimed at women, that addressed themes such as health, agriculture, income generating activities among others. I also searched for policy documents and collected the training materials developed for the *Bajenu Gox* and community relay programmes.

Comprised in my data corpus, I coded these documents roughly at first (i.e. looking at the content and some parts); I decided which of them were relevant when I was writing up. Hence in Chapter 6, I include some content analysis and discourse analysis of selected parts to combine them with the analysis produced from my participant observation and interviews. In Chapter 7, I analyse selected health and nutrition posters and videos forwarded to the group by participants.

4.3.2 Ethical concerns

4.3.2.1 *Consent forms and oral agreement*

For my scoping visit in April 2018, I did not question the ethical procedures approved in the UK regarding gaining informed consent before conducting semi-structured interviews and audio-recording them and implemented them with confidence. All the initial contacts were written and formal, explaining the objective of the interview. I only met individuals in positions of authority within their respective organisations. The situation was different when I started fieldwork when the aim of my research was broader and I had no identified participants. My first steps involved meeting people. I found it easier to present my research orally rather than presenting an information sheet that would have been quite vague. After some months, I was increasingly doubtful about how to present the consent form to be signed; I felt torn between the UK ethical requirements and the trust that I was building with my potential participants (see more literature from the Global South in Shamim and Qureshi, 2010). In early March 2019, I met a Senegalese researcher at the IRD (French National Research Institute for Sustainable Development) that I was recommended to contact in order to reach other PhD students. His answers to my doubts confirmed that written consent would not always be suitable in a society where oral information is essential. According to him, it was important for me to first understand underlying customs: “an individual who takes time to talk, responds to your questions has already given his/her consent – the quality of your exchanges demonstrates the consent”. His advice resonates with the ‘situated’ approach as discussed by Robinson-Pant and Singal: “the need to reflect on ethics in the context of morality and to start from an acknowledgement of likely differences, rather than the assumption of universally shared ethical principles and practices” (2013: 459). I had oral consents, I regularly reviewed the research as it evolved and had rich exchanges with some participants and more cordial ones with others.

As for consent to participate in my research, when money was at stake with Abdou [47] and Adama [48], the negotiations were openly discussed; we orally agreed on a salary and activities and monitoring was based on mutual trust and respect. With Ndèye Fatou, the PhD student that I had met one afternoon, we were unable to meet to discuss working conditions regarding the report in French of the health day in Malika; instead, she responded to my email confirming the date of the health day by asking me to write down the term of references. We exchanged a couple of emails to agree on them as well as on the fee.

4.3.2.2 *Exploring the virtual space, reasons, and retrospective consent*

Originally, I had intended to study the everyday digital literacy practices of community members in Malika. As my focus became the communicative practices around health and nutrition, I began investigating the meaning and sense making of health-related messages shared on WhatsApp. These comprised diagrams, text or oral messages and videos that I received or shared and would then be discussed with some participants. During this time, I did not explore the social media sphere, like the WhatsApp group of the House of Women in which I was a participant, because the face-to-face communication was more dominant in my everyday research. Throughout the life course of the project, after my return to the UK in June 2019, I maintained contact with my research participants because the relationships built in Malika could not be limited to the field research; we regularly checked in. Within the WhatsApp group of the House of Women, I usually did not react to or post any messages in the group. Twice I expressed congratulations on a new project and a second time, I reacted to a video. On the whole, however, I preferred to contact members individually, women I knew personally, as I would have done face-to-face in the House of Women, sitting and chatting in the entrance hall.

In March, April and May 2020, there was a flurry of disinformation and misinformation messages about COVID but no one in the group reacted. Anxiety and uncertainty were

[47] Wolof classes, translation of some audio documents in Wolof to French

[48] Walks to discover Malika, visit to health post, meeting arrangements

expressed in social media, maybe exacerbated by lockdown and the flow of messages forwarded on the WhatsApp group or directly sent to me, impacted my work. This was just before and while writing up Chapter 7 on communicative practices with digital devices; hence, in discussion with my supervisors in May 2020, I decided to include a section on communication during COVID times and asked for ethical clearance, i.e. after the initial clearance received in July 2018.

As explained in Chapter 7, the messages that I selected for this study to illustrate the variety of contents, modes and languages are anonymous and not created by any members of the House. To explore the interactions regarding messages about the community, I individually asked for retrospective permission to the participants involved in the selected messages to include them in my analysis. To do so, I sent an email to each individual including the message that I would like to analyse and explained the implications of using it in the research.

4.4 Analysing process

From the beginning of the fieldwork, I kept daily typed fieldnotes of my participant observations in French and accounts of informal and semi-structured interviews, as I detailed earlier. I wrote monthly summaries of my fieldnotes and listed my tasks to share them with my supervisors in English. This close follow up during the data collection was important because it helped me to start some initial coding and progressively, to identify themes throughout my fieldwork. In addition, my supervisors' feedback and comments helped me to step back from my data. Late December 2018, I came back to Europe and took the opportunity to meet my supervisors and discuss some of my data in more depth and to identify themes and challenges. The break and distance from the fieldwork were useful to revisit research questions and plan the next steps for the following six months, to gain a comprehensive set of themes. Back in Malika in mid-January, my focus became clearer through having revisited my research questions. My network expanded and my descriptions became thicker in exploring the complexity of local interpretations (Geertz, 1973).

My data corpus, consisting of fieldnotes, reflexive notes, documents that I collected and relevant photographs that I took, was organised chronologically on OneNote: a tab for each month divided in two columns to separate my fieldnotes from reflexive notes. During the data collection, I defined a code of colours to do the initial coding on OneNote. Nevertheless, I was not fully satisfied with this coding technique as it could not generate an overview of the data set per identified theme, unless I did it manually. So when I returned to the UK, I transferred the data corpus to NVivo. I reread all the data several times to continue coding, sometimes revising some of the coding that I had done at the early stage. I also added sub-codings and discarded irrelevant materials[49]. Alongside this, in the form of a memo, I wrote reflexive notes on the coding process, my interpretations and ideas; out of this, I developed the outline of the thesis. This is part of what Braun and Clarke (2006:80) call the active role of the researcher in thematic analysis (citing Ely et al., 1997): "themes 'reside' in our head from our thinking about our data and creating links as we understand them".

My aim was to write an ethnographic text. In this regard, I had been advised that there was "no need to start from the beginning of the chapter - Start with a critical event, write it in a holistic way and then bring other issues found in the coding that could be related" (supervisory meeting minutes – 24/10/19). This proved to be a very helpful piece of advice that encouraged me to dive into the writing and further analysis. It also illustrates how I approach the analysis: driven by the data, I interpreted it through coding and writing fieldnotes, reflexive notes, memo and empirical chapters – as an integral part of the analysis (Braun and Clarke, 2006). The process involved continuously questioning how to write the fieldnotes and what constitutes an ethnographic text (Clifford and Marcus, 1986). I was mindful of ensuring that I was faithful to what my participants said, knew and did, and above all, that I acknowledge my identities and power in the interpretations, through the writing process (ibid.).

[49] In other words, I used NVivo's basic features to facilitate the organisation of the thematic coding and my search, rather than an active tool in the analysis generating table, figures through some queries.

I now further look as some of my identities – French white woman in a former French-colony, unmarried and childless – and how reflecting on them influenced the choices I made regarding including or excluding data for the thesis.

Joining the walking group was an opportunity to enjoy walking with a group and be part of it. I like walking fast and, in this group situation, it did not look strange as we all walked at a rather fast pace. However, some male walkers could see it as being different from my female counterparts, they were complimenting me: "*you are brave*" and it generated conversations that often stated why their wives were not joining – i.e., "*they are lazy*" as I often heard. On the days I walked with Nene, there was no comment nor comparison with their wives. I was aware that the informal conversations related to gender roles and relations I had with men as the only woman were biased by my identities. It seems to me that what they could say about their wife(ves) would not have been said the same way if I had been a Senegalese woman.

Moreover, I often experienced a kind of free talk and attitude with regard to women that made me feel uncomfortable. For instance, while talking with a female street seller, a couple of middle-aged men stopped and asked me why I was wasting my time with 'an illiterate woman' or when the father of the house told me that I was in the right place because Fatou did not know how to read and write. This was an attitude of superiority that I also experienced at the inspection academy while seeking for an authorisation to access adult literacy class in the surrounding of Malika. The adult literacy coordinator asked me to write a formal letter after our discussion with the inspector. What surprised me is that he was showing me how to write a formal letter. I asked him in a friendly way if he was inspecting me, but his attitude made me wonder whether he would have behaved the same with a man.

These events helped me to reflect on my identities through my fieldnotes and during the writing up. Thus, I decided not to include elements of informal conversations with men when it was related to gender relations and roles, except the ones, more formal, that I had with health workers. For further investigation about men's views, a focus group discussion supported with a Senegalese researcher would have been more appropriate.

Finally, there are also the religious practices and beliefs in relation to health that I did not include in the thesis. Though it triggered my curiosity to narrow down my research to health (see 4.2.4.1), I did not feel legitimate to look at religious beliefs related to health in depth, as my knowledge about Islam is that of a generalist and I would have needed to study to meet the expectations of potential religious participants. When I met the imam of my neighbourhood, my questions were fairly broad or specific to some community-based events, not precisely related to Quran. Similarly, I listened to anecdotes that some of my participants shared with a sense to learn more about some beliefs but not to analyse them in depth.

4.5 Conclusion

Throughout this chapter, I have outlined my research journey to illustrate the methodological stance, with reflexivity as a key dynamic moving from emic to etic perspectives. As I chronicled in the first part, the flexibility and openness of the ethnographic approach encouraged me to explore some learning spaces and communicative practices that Malika residents used to access, produce and share health-related knowledge. I have highlighted the participation of some key participants in the issues raised in this thesis, the spaces explored and the opportunities generated.

Employing an ethnographic approach was also an important personal development: learning through engagement, reciprocity, interrogating assumptions and slowing down the process of knowing. At the beginning of this chapter, I wrote that I had an intervention in mind; being a practitioner, this consisted of mentally translating what I was learning from the research into practice; it involved thinking about possible outputs that could be shared with the participants and what this research could concretely mean to them. Throughout my journey, I did not conduct participatory research with the participants, though my participation in the steering committee for the organisation of the health event and my support in developing a project proposal could be considered as action. However, participatory research implies that there has to be a change of some kind and that was not

the intention of these actions. They were more “an incidental outcome” of my participant observation (Wright and Nelson, 1995: 58). Thus, my positionality as an ethnographer was often in tension with my various identities such as *tubaab* (‘white foreigner’, often associated with money and network), friend and volunteer. In this chapter, I have demonstrated how flexibility and sensitivity were key in negotiating access to the four spaces that I entered. Penny Harvey’s comment summarises this point: “Ethnography is not a technique that can be applied; it is a particular mode of analytical attention, the way in which you attend to the relationships in the world around you” (NCRM, 2011).

In the following chapters, I will begin presenting everyday food practices, pinpointing political, economic, social and cultural circumstances that influence these practices (Chapter 5). I will then describe how Nene managed her diabetes within the local circumstances of food and healthcare available in Dakar and Malika (Chapter 6). Finally, I will explore some of the information shared about health in the WhatsApp group of the House of Women (Chapter 7).

Chapter 5 - What daily food practices reveal

5.1 Introduction

My intention in this thesis as a whole is to explore the ways in which Malika residents access and share nutrition and health-related information.

In this chapter, I will first look at the everyday practices in relation to food: at home of the family who hosted me for 10 months; the NGO that welcomed me and gave me the opportunity to work with them; participants who invited me for lunch or dinner; and the House of Women, a cooperative house I joined towards the end of my fieldwork. I will detail these practices from food supply, to preparation and finally consumption of meals. What are the main food supplies and who buys them? How do gender roles and advertising shape the ways of cooking? How does commensality play a central role in Senegalese identity? Which practices are transmitted through generations? Is literacy used in these everyday practices and if so, in what ways?

Through these three stages, supply-preparation-consumption, I explore the influences of food on identities, social relationships and gender roles, how these have changed and are changing. It also gives insights on diet and food practices that constrain managing disease like diabetes. Information on the food and culinary[50] habits of Senegal is scarce as the few written accounts before the 1960s[51] were produced within and by the colonial system. The picture drawn from this literature tends to address a particular political and economic agenda; however, I find it useful to make some connections between these texts and the practices I observed. Therefore, I include concise historical accounts when discussing elements that have their roots in colonial activities. I also include recent political and

[50] Here the term food refers to the food system that encompasses production, processing, distribution, preparation and consumption of food – culinary is more specific to the cooking techniques and equipment, the recipes, the know-how and ingredients

[51] Senegal become independent from France 1960, 4th April

economic decisions which shape some features of today's food supply system in Senegal and the construction of taste preferences.

5.2 Buying food – access, affordability and security

> Lunch at the NGO was delivered in a large communal pot with a cover, wrapped in a piece of material to carry it. A female colleague placed the pot in the middle of the mat, removed the piece of material and the lid. We were all looking at the pot, waiting to discover what the dish of the day was. Rice was not a surprise, but the sauce, the fish and the vegetables made the difference and gave a sense of variety. It was always a festival of colours and flavours! Red if it included tomato sauce and the vegetables cooked in it, green for the mashed spring onions, brown for the tamarind, spicy or nutty flavour with the famous mafé, a special recipe with peanuts. Every day, a different dish was delivered.
>
> Extract from the description of lunch at the NGO (full description see 5.4), *reflexive notes, October 2019, Norwich*

During my fieldwork, eating was a daily social activity as I never had lunch on my own. I appreciated the variety of tastes, the careful presentation of dishes and the conversations after lunch while waiting for the tea. I was intrigued by the daily serving of rice at lunch that did not seem to be contested, despite the availability of local cereals.

5.2.1 The supremacy of rice despite the promotion of local cereals

> *It's quite normal that the person who provides you with food will also dictate you what to do. […] Let us consume only what we control! There are those who ask, "But where is imperialism?" Look at your plates when you eat - the imported grains of rice, corn, millet - that is imperialism. Go no further. So, comrades, we must organise ourselves to produce here, and we can produce more than what we need.*

Thomas Sankara, President of Burkina Faso, 1986[52]

In contrast to Europe, where culinary history has been studied through recipe books, the travel narratives of the Europeans in the 19th century are the main source to understanding the evolution of food habits in the African continent; in French West Africa these travellers described couscous[53] as the main dish (Chastanet, 2010). Rice does not feature in these accounts. The import of rice from Indochina started in 1856, coinciding with the creation of Dakar as a colonial project (Bricas, 2008). From the 1930s, studies provided some information about food habits in Senegal. However, as Bonnecase (2009) notes, the researchers did not consider the representations and beliefs around food and the colonialist economy. He underlines that the fight against hunger was a major focus of the legitimisation of colonisation. The result of the focus on nutrition- rationalised and quantified food consumption is that knowledge from these studies about West-African populations' food practices in this period remains basic. Instead, the rules of what constituted a good diet were laid down and the diversity of the colonisers' food successfully promoted (Crenn, 2011). In the same period, products such as rice, potatoes, powder milk and Maggi bouillon cubes were imported, supplying Dakar and beyond (Ndao, 2009).

In 1960, independence encouraged new discourses; Crenn studied the construction of a national culinary tradition through a guidebook on weaning, developed in 1963 by Senegalese doctors. The authors detailed agricultural production and food consumption according to different periods of the year and ethnic groups and valorised the benefits of local food and a variety of culinary practices. Under the science label, they recomposed culinary traditions and as a result, played a significant role in the construction of a national Senegalese cuisine (Crenn, 2011, p.276).

[52] Speech at the national conference of the Committee for the Defense of the Revolution, 4 April 1986, Burkina Faso

[53] *Cere* in Wolof. Made with millet couscous grain

Four years later, in 1967, an inventory of food consumption in West Africa conducted by ORANA[54], reported that after millet and sorghum, rice was the most commonly eaten cereal in the region. From their perspective, the noticeable popularity of rice in Senegal was not a question of taste preferences (except for the region where it was produced: Casamance, Senegal River Region and Sine Saloum) but a) was easier to prepare and cook for the housewife, b) was seen as a mark of prestige and c) filled a gap created by insufficient millet production. Especially during the lean season, the shortage of millet encouraged the purchase of imported rice; furthermore, its price was better controlled by the government than millet (Toury *et al.*, 1967, p. 77).

Their report also highlights a concern about women's labour required to prepare couscous, as they named the "traditional" dish: "every day, the African woman must engage in long and painful operations of threshing, pounding, winnowing, sieving, which absorb her for several hours"; they go on to advocate for the extensive use of millet mills "to free woman from this daily constraint" (Ibid, p.76). Rather than questioning the gender division of labour, it seems that the millet mill was promoted mainly to encourage opting for the local cereal by making its preparation easier. Consequently, the researchers recommended the increase of millet production and the provision of processed local cereals to city-dwellers (Ibid.).

Following independence and in the context of political changes and nation building, local food was widely promoted. This was not only a reaction to the dominance of Western products but also possibly a bid to create a healthy Senegalese cuisine with local roots (Ibid.) and to address the insufficient local food production, as in Sankara's speech quoted above. However, as detailed in Chapter 2, complex economic circumstances with adjustment plans among others and the marketplace rules, dictated another scenario. In the 1980s, the State established an equalisation system on the price of imported rice in order to ensure stabilised and affordable prices to the urban population (Ndoye, 2001) which naturally encouraged

[54] It is only after 1945 that the committee's investigation body called Anthropological Mission, implemented systemic nutritional survey. The Mission was replaced in 1952 by Research Organisation on African Food and Nutrition (ORANA in French) with mixed research team from Senegal and France.

consumers to buy it. During my fieldwork, imported rice was 400 XOF (£0.5) per kilo and local rice, 300 XOF (£0.4), *cere*[55] 650 XOF (£0.8), *sankal*[56] 1000 XOF (£1.3) and fonio, a local cereal increasingly popular in Europe with the gluten-free movement, 1200 XOF (£1.55). Currently, the two staples, rice and wheat for bread making, are mainly imported; broken rice largely comes from India and Thailand, and wheat from France, Russia and Canada[57].

Within this economic context, rice as a staple represents security in relation to the price but also in relation to quantity. Indeed, rice has the particularity of tripling in both volume and weight after cooking: 1 kilo of dried rice can serve 17 people (60g of dried rice, namely 180g of cooked rice).[58] When discussing the consumption of rice and the prevalence of diabetes with Abdou, my Wolof teacher, he confirmed, "*if Senegal stops eating rice, it would be a serious matter! Rice allows families to eat a good quantity because it swelled up with cooking*". Moreover, rice gives a greater sense of repletion than local cereals.

When invited to lunch, I was asked and expected to eat *lekk ba suur* (eat until being full), to have energy for the rest of the day. I became aware that quantity of rice prevails over nutrients, so although I was always satisfied with the quantity, I missed the vegetables. Broken rice was served at every lunch, often with a piece of fish, some vegetables limited to a carrot, an aubergine, an African aubergine (bitter), a turnip, a manioc, half a cabbage, with a tomato sauce or onion sauce, depending on the dish, to feed a minimum of ten people. The rice is laid first in the dish (and represents more or less 65%), the fish (10%) and the vegetables (25%) are laid on the top in the middle.

In Malika, rice was more affordable and accessible in any neighbourhood shop; it could be bought in a 50kg-bag or smaller quantities, depending on the finance of the family; even half

[55] Millet couscous grain

[56] Finely ground millet also used for the Laax, a sweet mush with curds served at baptism or sometimes served for dinner

[57] http://www.ansd.sn/ressources/publications/NACE_2016.pdf

[58] British Nutrition Foundation recommends 3-4 portions of carbohydrates per day. 1 portion of cooked rice is 180 g.

a kilo could satisfy several stomachs. Local cereals were available for sale at the House of Women, transformed and packaged by the members or on the street, often already prepared with curd and ready to be eaten in the evening.

Figure 8 - At the House of Women, members transforming millet to make araw

The House of Women provided members with a mill[59] to grind and process local cereals for their own household consumption but also as income generation. To prepare some *cere*, Fatou, the mother in the house I was living, would go there to grind some millet seeds mixed with a little corn she bought at the market. At home, with a little water, she transformed the flour into pellets, after slightly fermenting them, she steamed them three to four times for 10 minutes. The House of Women was a central place where members could process local cereals; for some of them, it was their main income generating activity. They came to the House almost every day to process and package different products such as *araw* (larger millet flour pellets[60]), *thiacri* (medium-sized millet flour pellet), *cere* (millet couscous), *sankal* (finely ground millet) and fortified flour for child nutrition. This is a traditional know-how shared among generations, as older and younger women both participated in this activity, and sometimes daughters of the House of Women members participated as well (see figure 8 above). Most of the women had been trained to respect good hygiene practices as delivered by NGOs such as ENDA Sahel that also provided equipment to support these

[59] The first mill in Malika was installed in the 1980s

[60] Boiled to prepare traditional millet porridge

activities. The demand for local cereals was variable, but increased as religious events approached.

Figure 9 - Local cereals transformed and packaged at the House of Women under the name Sunu Cosaan (our cereals in Wolof). From left to right: thiacry, enriched flour, sankal, ground corn, araw, niébe flour (bean), cere

Though Nene, my female walking companion who suffered from diabetes, had been living in Malika for more than ten years, she had never been to the House of Women because, she told me, she had never heard of it; maybe because she lived in a neighbourhood that was a twenty-minute-walk away and was not part of a group of women associated with the House. In a way, she was not part of networks where she could benefit from word of mouth or WhatsApp groups related to the activities of the House. She was surprised to see that all these products were available; she sometimes bought some *cere* from street sellers, but it was more difficult to find *araw* as it is often processed by the housewife for household consumption only.

Despite the availability of ready to eat *cere*, each time I had lunch at the House, the staple was rice. “It’s a question of habits, *cere* is more for the evening”, Khady, a member of the House, told me. Similarly, Lamine, an active Malika resident engaged in a nutrition programme that valorises local cereals, told me that his “lack of motivation [to eat *cere*] it’s heavy” but that he encouraged children to eat some prepared with curd. As cooked local cereals are dryer than rice, it is common to prepare them either with a thick tomato sauce or

curd that gives the sense of a heavy meal; whereas rice can be easily eaten with a few ingredients such as chicken or fish *yassa,* a dish prepared with onions, spice and lemon.

In contrast to the survey implemented in 1967 mentioned above, the noticeable popularity of rice in Senegal seems to now be not only a question of price but also of taste preferences that food industries may shape.

5.2.2 Domestic division of labour and family's food security

Both productive and reproductive labours are gender divided: women are in charge of child-rearing, feeding the workforce and keeping the house clean; men, *boroom jël* (the head of household in Wolof)*,* work outside the home to earn the money needed to cover all the family expenses. On commenting to a male colleague at the NGO, the similarities I had observed between the families I mixed with, he explained that "these roles are enshrined in the Koran". However, and as in many other places, often men's income is not enough and to compensate, many women must add a formal or informal income generating activity to their housework.

To illustrate how these patterns are implemented in Malika, I present two different cases – Fatou and Nene: Fatou, the mother, and Mbaye, the father, from a middle class extended family that includes four children, Mbaye's sister and a niece. Nene the first wife of a polygamous marriage, lives with three of her five children (two of them were studying) and a niece with her two young children; she experienced the daily challenges faced by many families in Malika with economic constraints.

To buy the week's provision of vegetables, once a week, Fatou went by bus to the largest food market of Dakar region which is fed by the suppliers from various regions. Situated in Thiaroye, a neighbouring city about 7 kms towards Dakar from Malika, the price, variety and quantity of products were more attractive there than in Malika's market where Fatou went to top up on groceries if and when needed.

Fatou often bought fish from a traveling saleswoman who was also her sister-in-law; she provided some households with fresh fish, mainly small ones such as sardinella and horse mackerel that she collected early morning in a neighbouring city. Sometimes, Mbaye bought bigger fish like dentex and thiof on his way back from work, and watermelon when it was the season. Twice a month or even less, they went together by car to Auchan[61], a French multinational retail group with products mainly from Europe where they could buy packets of pasta and beans that might be better quality and cheaper, compared with the neighbourhood shops. It was also an outing for the girls and they might come back with biscuits and fruit juice. It was also an opportunity to buy all the heavy foodstuff on the way, such as a 50-Kg rice bag, a 20-litre cooking oil jerrycan and a 50-Kg onion bag.

The fridge at home was always full, mainly of vegetables and previous days' leftovers. There was also a chest freezer that while preserving some fish, was mainly used for Fatou's poultry business to complement the family's economy.

Most women I met engaged in an income generating activity to support the family expenses. Fatou had 80-100 chickens that she kept on a piece of land about a 20 minute-walk from the house. She had an employee to assist her with the daily poultry tasks. Unlike Fatou's business-like enterprise, Nene is a street seller, which requires strict discipline and is physically demanding: every morning, she gets up around 4 am to fry the doughnuts she prepares the evening before, so as to sell them at the beginning and end of the school day in the largest secondary school of Malika. Putting them all in a broken transparent plastic box, placed on her head, she slowly walks to school where she meets other street sellers.

[61] There are 26 shopping centres in Dakar; only three of them are in the suburbs

Figure 10 - Nene's doughnuts box, ready for the end of the school day

On good days, she can earn 6 000 XOF (£7.8). She gives 1 000 (£1.3) to her youngest son to take the bus to go to the university in Dakar and puts a minimum of 500 (£0.65) in her 'doughnut' box which she saves for the next 50-kg floor bag (18 000 XOF, £23.3) or 20-litre cooking oil jerry can (14 000 XOF, £18.2). Her husband married his widowed sister-in-law who lives 70 kms from Malika and he goes there every second weekend. His job as a delivery man is precarious and sometimes Nene buys the 50-kg rice bag (16 000 XOF, £20.7) with the savings she makes from selling the doughnuts: "Yes, sometimes I am the *boroom jël (the head of household)*" she says, smiling.

One afternoon, Nene and I agree to go together to Thiaroye market. I wanted to go with her to experience the place and also support her in this activity, both physically and financially. She told me that she had not been there for a while because of lack of money; as she had been so generous with me, I offered to pay for the supplies. She listed the vegetables she wanted to buy and estimated a budget of 2 500 XOF (£3.24).

> Early evening, back from the market, we were both exhausted, Nene had a headache, maybe because we did not drink much water. She did not explicitly express it, perhaps because of some embarrassment, but lack of energy could also be a reason for not going to this huge market! It took more than an hour to get there by bus. Once arrived, we walked quite a lot. The market is vast and is organised in sections. She knew where she was going; there were some sellers she wanted to meet so she could buy their products. I was just following her, not even trying to find my direction

in this maze. It was crowded and dusty, with no place to rest. She bought: a kilo of tomatoes (250 XOF) - potatoes (300 XOF) - carrots (500 XOF) – African aubergine (250 XOF) - cassava (400 XOF) – green beans (400 XOF) – green pepper (400 XOF) – spring onions (400 XOF). So far, it came to 2900 XOF. She felt sorry because it was already 400 more than what she had estimated and there was still the cabbage she wanted to buy. She found it too expensive; she bargained for a while with the seller but there was no chance of him lowering the price. We looked at each other and she could see from my face, "let's take it and go home!" - cabbage (500 XOF). Total: 3400 XOF (£4.4) of vegetable provision for at least 4 days. Another hour in a crowded bus and here we are, back in quiet Malika! The job is neither easy nor pleasant.

Fieldnotes, Malika, 20/03/19

Though food is more affordable in the largest market, transportation costs and the time and energy required to go there, are key factors that need to be considered in terms of food provision. In the two cases above, participants adopt careful strategies to ensure the family's food security; however, in Nene's situation, her meagre savings were used not only for purchasing daily food but also for the children's needs, increasing the pressure she put on herself, despite suffering from her diabetes.

5.2.3 Packaging and labelling

Senegal counts on laws to regulate consumers' rights that marketing companies should respect, as well as transparency and food sanitation and there are consumer associations that hold the sellers to account in this regard.

However, in the five households I regularly visited, written access to nutrition-related information on everyday food items was limited, as most of the foodstuff was often not in its original packaging. In particular, products like powder milk, vinegar, sugar, tomato purée, curd, mayo and butter were available in bulk in the neighbourhood shops but packaged in blank plastic bags to be sold in small, affordable quantities.

Based on my observations such as Nene's doughnut production, street sellers were not following sanitation controls and not being asked to do so by any authority, maybe because of the street sellers' lack of awareness about the law but also, presumably, because strict controls would seriously affect the street sellers' ability to generate much needed income, thereby taking action to mitigate poverty.

Some products were bought in their original packaging that came with nutritional information, all be it in very small font, making it hard to read, or sometimes not very detailed. Related to this, looking at the crisp packet a colleague was eating from, Ibrahim, another colleague at the NGO, complained about the lack of transparency regarding nutrition facts: "I don't trust this; I am sure that the brand intentionally does not make the content transparent. Look, there is no mention of E620[62] on this packet!". He told me that he heard about E620 on a WhatsApp video that Aida, another colleague, had shared. On the packet, the producer provides information in French and English, certifies the product as Halal, lists the ingredients but does not detail flavourings and food colouring agents.

Figure 11 - Senegalese crisps packet bought in Malika

The packaging seemed to give the appearance of quality and sometimes even healthy food. When I went to the hospital in Dakar with Nene for a follow-up appointment about her diabetes, there was a display of food products in the pharmacy such as cartons of milk, packets of sugar-free sweets, sweeteners, wholegrain biscuits. It was easy to conflate them

[62] Scientific term for monosodium glutamate

with medicine. "*At the beginning of my disease, I used to buy this milk. It's good for me but it's expensive!*[63]", Nene told me, regretting not being able to afford 'good' products for her health.

Being able to read the nutritional facts and knowing the harmful effects of some ingredients, may not change unhealthy food behaviour because of other factors, mainly controlled by the food industry. Indeed, attractive packaging and intensified taste that gives pleasure may matter more; on the contrary, the nutritional facts are difficult to decipher, intimidating and often unread or avoided by food companies, as this packet shows it; so written information may matter less. In 6.2.3, I discuss a counselling session at the hospital: the nutritionist did not refer to the labelling of the food packaging he used to illustrate good and bad products. This made me reflect on what kind of texts or communicative practices matter in transmitting health-related knowledge. In the following sections, I describe what I learnt about food and nutrition in the kitchen and on the mat at lunch time.

5.3 Preparing the meal – the kitchen as the women's space

5.3.1 The national dish – the ceebu jën

Traditionally, rice and fish are eaten in Casamance (south of the Gambia), Sine Saloum (northwest of the Gambia) and Senegal River Region (frontier with Mauritania), where rice was cultivated. Dakar was supplied by the Groundnut Basin area, where millet-growing traditions ran through food habits (Bricas, 2008). In the late 19th century, culinary practices were revolutionised in Saint Louis, then in Dakar[64]. Commonly, rural food was cooked in two cooking pots: cereals (rice, mil, sorghum) were separated from the sauce. Whereas the new version of preparation in urban areas was to cook everything in one cooking pot; in that way, the cereals were cooked with all the other ingredients (Ibid.). "The renowned Penda Mbaye

[63] 1 litre carton milk was around 1 000 XOF

[64] In 1902, Dakar became the capital of French West Africa, previously the capital was Saint Louis

from Saint Louis", as my Wolof teacher presented her, became the reference in cooking when she revolutionised the dish by adding tomatoes to the ingredients. Interestingly, her name did not appear in the academic literature I reviewed but I found her mentioned in some cooking blogs[65] and in conversations I had about *ceebu jën* in Malika; her story may be a creative fabrication, but it is a story that fuels the idea of the women from Saint Louis (I develop this point in the following section - Becoming a housewife).

In short, the *ceebu jën* appears to be the emblematic dish of Senegalese cuisine with its plurality of identities. Traditionally eaten in rice-growing areas, the dish is neither local nor global as most of its vegetables were introduced first by the Portuguese in the 16th century, then the French from the mid-19th century and now cultivated in the country. Similarly, the culinary practices of *ceebu jën* revisited in the city, make it in a way neither rural nor urban (Bricas, 2009, Crenn, 2011). "Ceebujën has become, for just over half a century, the Senegalese dish par excellence. Two-thirds of the population eats it almost every noon and the Senegalese people have an attachment to it that goes beyond eating: ceebujën is an emblem, an attribute of national construction, just like Mbalakh music, the Wolof language or wrestling ..." (Diop et Magrin, 2012: 317; my translation).

However, regarding the ways of cooking the *ceebu jën*, opinions and taste preferences may differ. A group of young men I met told me that "*a good ceebu jën is when oil runs all down the fingers*". However, the father of the house was concerned about his cholesterol rate, questioning the excessive use of cooking oil, a challenging response for women who have the responsibility to nourish the family and please everyone. Fatou reassured him in a defensive tone that cooking oil is mainly used when she cooked *ceebu jën xonq* (red rice and fish, a recipe with tomato purée to cook the rice in one pot).

[65] https://www.196flavors.com/fr/senegal-thieboudienne/

5.3.2 Being a housewife and the image of the jongué

During my fieldwork, meals were cooked and the mat or table set by women. At home, only the women cooked, the task was shared between Fatou, her ten-year younger niece, Sokhna, her sister-in-law, Awa, and Jabu, the cleaner, sometimes myself. I never saw a male colleague at the NGO arranging the mat if a female colleague was around; and if I was the only one, I was expected to do it, as well as the simple task of putting the bowl in the middle of the mat. Early in my fieldwork, I found it excessive, but after some months I accepted this expectation.

Foreigners are often asked if they liked the *ceebu jën.* As a woman, I was also asked whether I was capable of preparing it. This question was usually asked by men, sometimes in a judgemental tone, clearly assessing whether I had the skills to be a good housewife. Within the concept of care (Geyzen, 2015), in their role of nourishing, women represent the happiness of the family, they please the husband and children.

In food advertising, this image is ubiquitous. For example, an advertisement I saw several times on TV at dinner time[66] was for Jumbo stock cubes. The scene, in an urban lifestyle, starts with the husband coming back from work, greeting his wife who is cooking and complementing her on the aromas: “you know that you are my queen!”. At the same time, their daughter of around 6 years old arrives and ask her mother how to become a queen. While answering, “you have to find a good king and please your kingdom with Jumbo”, she shows her how to use the cubes and serve the family.

[66] https://www.youtube.com/watch?v=enSUgRKnUEs

Figure 12 - Screenshots of the advertisement on YouTube

Dinner time at 9 pm also coincided with the broadcasting of soap operas, a different one every evening. One of them called *Adja* was sponsored by a brand of condiments with the same name. In each episode, Adja, the main character, spouse of a businessman and mother of three teenagers, was seen cooking with the various products of the brand. In a way, it was like a cooking lesson, sharing tips on how to use the condiments.

In Senegal, food advertising and soap opera industries tend to project traditional gender roles and relations: the man works outside the home and the woman manages the household. Particular attention is given to the woman as the central and dynamic element of the household. In contrast to the promotion for canned food in the 1950s in Europe (Geyzen, 2015), the aspect of time- and labour-saving of the stock cubes in the Senegalese advertisement does not seem to be central. The focus appears to be more on how the product makes the woman 'shine', giving her a kind of power similar to the image of *jongué* conveyed in discussions and situations during my fieldwork.

> I made a bissap juice (Roselle juice, hibiscus) for a meeting we had at the House of Women to prepare for the health day. I did not want to put too much sugar in it, so I checked first at home how Fatou and Jabu found it; compared with my taste preferences, I had to add more sugar. When it was tasted at the House of Women, some were polite, saying "*it's good, it's natural*", others more direct, saying "*it's lacking*" and Khadi (one of the women I spent time with) decided to put more sugar (I think she added 500g! To the 3 litres of juice, I had already added 400g of sugar) telling me, "*Helene you are half jongué!*". Being *jongué* is when a woman knows the

tricks to please (mainly her husband). We were joking around, but I find it interesting how they play with this image of the housewife.

Fieldnotes, Malika, 9/04/19

The first time I heard about the term *jongué* used was at home talking with Awa about how Fatou was taking good care of her husband, serving him breakfast and dinner in his bedroom: "*She comes from Saint Louis, she is jongué! In Senegal, we say that the best women are from Saint Louis*", she said. Most likely in relation to Penda Mbaye, the woman from Saint Louis who revolutionised the *ceebu jën,* a good housewife is expected to know how to cook tasty food, in particular the national dish, present and serve it in an elegant and charming way, just like the woman in the advertisement for the *Jongué* brand of stock cubes (Figure 13 below). While Adama, my walking companion, associated the term with the game women play to seduce men with an arched posture, for the headteacher of the school next door, "*jongué is the art of cooking, the ways of preparing well, making the food smell, look and taste good*"; this definition resonates with the description made by the novelist Aminata Sow Fall: "Before even thinking about eating one's work, every self-respecting Saint-Louisian woman (in the good old days, I mean to say) focuses her energy on preparation. The culinary art first. The rest is a luxury, not to disregard, of course. A mushy *tiébou dieune* is a dishonour. It is a calamity." (Sow Fall, 2002: 40).

Everyone has one's own ideas about *jongué* but they have two factors in common: *jongué* tends to be mainly linked to women and food.

Despite communications from health practitioners in TV news reports and radio programmes, especially close to world blood-pressure day (17th May), the pervasive presence of stock cubes in everyday life makes it challenging to avoid using. Though some men, like my Wolof teacher, claimed that there was no such product in his home anymore, the kitchen remains the space of women and when I cooked with his wife during Ramadan, she reached for the ubiquitous stock cube. The relative power that women get through their cooking role, allows them to develop certain slights of hand; in some cases, knowledge and awareness about more nutritious and healthier ways of cooking is developed. I was able to

observe this in a discussion with Awa about the Maggi cube. "*Yes, I know it is not good*", she said. "*I have reduced the quantity and once I even cooked without using it at all. Nobody noticed it*", she concluded with a triumphant smile.

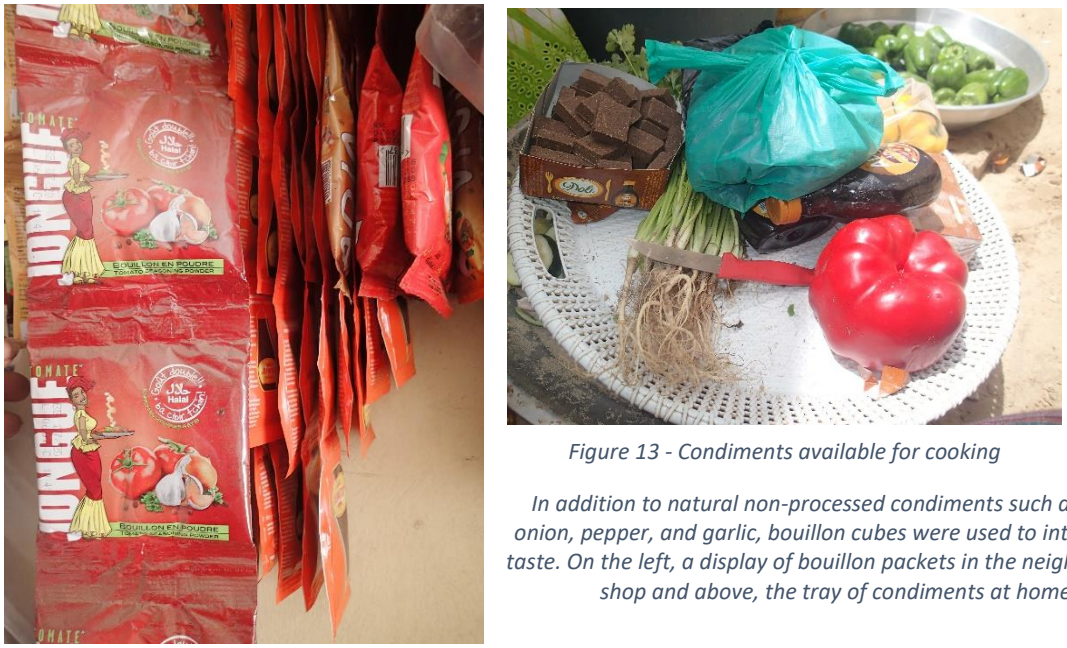


Figure 13 - Condiments available for cooking

In addition to natural non-processed condiments such as spring onion, pepper, and garlic, bouillon cubes were used to intensify the taste. On the left, a display of bouillon packets in the neighbourhood shop and above, the tray of condiments at home.

5.3.3 Learning how to cook

There were no recipe books in the houses I visited; however, many Senegalese meal recipes can now be found on the Internet and there are also recipe books available in some book shops in Dakar, mainly bought by foreigners or young women of Dakar (Crenn, 2011). Two emblematic figures of Senegal wrote about the cuisine of their country. Transmitting this oral tradition in written form, they describe the social context, the practices, the ingredients and providing instructions on how to prepare some famous Senegalese dishes. Aminata Sow

Fall[67] (2002) and the musician Youssou N'Dour (2011) both give colours, flavours and sounds to the variety of dishes that Huntington (2015) embraces to describe the *cebbu jën*.

I often participated in the preparation of meals, peeling and chopping the vegetables, stirring the mixture. I observed that at home, women used the same ways of cooking, in that there was no scale or measuring jug in the kitchen. The quantity of ingredients was measured with a bowl or approximately measured based on previous preparations. At the House of Women, there was a scale that was used to weigh the cereals but for the purpose of selling, not for cooking. When Kumba, a member of the house, experimented making doughnuts with corn flour and *sankhal*[68], she did not use the scale. Instead, she intuitively added the ingredients, knowing more or less how much of the packet she needed to put in. She would then fry a couple of doughnuts and asked her peers to comment. The appreciation of her friends was sufficient validation of the measurements.

Cooking skills are often acquired through transmission: the girls are encouraged to learn through participation. Indeed, Fatou and Awa learnt how to cook with their mother, aunts and sisters when they were teenagers. The eldest daughter of the family who was ten, was not encouraged to participate in the preparation yet, although sometimes she helped us with peeling vegetables. The two sons, thirteen and eighteen, had learnt how to prepare the tea but not the c*eebu jën*. However, Fatou questioned this. For instance, she was worried about Baldé, the eldest son, who was waiting for a decision to be made regarding his visa to study in France. She wondered how he would manage: "*I do everything! Cooking, laundry*"; but he did not worry: "*I can cook eggs and pasta!*" he explained, adding that if he needed to, he would learn. My colleague at the NGO, Fatoumata, wanted to cook some European recipes to vary the meals. She heard about classes but had not found time to attend them yet. This intrigued me because she had access to the Internet and could find any recipes

[67] The recipes are in a second part of the book written by Margo Haley a Senegalese professional chief based in Paris

[68] Finely ground millet

online. But this idea did not thrill her; learning was something to be done together with someone who knows and could transmit the know-how.

Other practices regarding the preparation and cooking of food involves following certain hygiene rules; for instance, the four women at home always ran plates and any kitchen utensils under water before using them: "*My mother told me to do that because of the flies, they are full of germs*" said Awa when I asked her about this practice. Cleaning the salad with a drop of bleach was mainly done by Sokhna, the pharmacist, though the practice was known to the others. In the image box used by the health community actors, flies and cockroaches were mentioned in relation to the need to protect food; there is no mention of using bleach on vegetables.

Food poisoning is common. At the NGO, lunch was provided on the premises every day for the staff. It used to be ordered from a restaurant but after experiencing food poisoning on more than one occasion, it was decided to have home-made meals prepared by the director's wife. The nurse at the head of one health centre told me that hygiene, not only related to food, was a recurring theme discussed in talks organised for Malika residents.

> He organises some talks for women; they are often about hygiene like hand washing, advice, like spraying the floor with water before sweeping. For men, it is about sexually transmitted infections – I imagined other topics for women more related to their health. When I asked Fatou whether she would be interested in the topic on hygiene, she said: "*I like hygiene a lot; it is very important. Sometimes there are some cleaners who don't do hygiene* [follow hygiene rules]".
>
> *Fieldnotes, 21/02/18, Malika*

Observing the hygiene habits that were already in place at home, I asked Fatou if she would join one of these gathering. She confirmed her interest, insisting that it was an important issue. A health worker told me that this focus on hygiene dates back to the last cholera outbreak that occurred from October 2004 to March 2006. I was quite curious about how the subject was addressed, knowing that most of the participants are women.

Unfortunately, I was not able to attend such talks, despite voicing my interest: perhaps they did not take place during that time or I did not hear about them.

Food and learning tend to happen in tandem, replicating the practices of the elders or trusted persons who are expected to know and show.

5.4 Eating together – sharing customs

From 2.30 pm onwards, my colleagues at the NGO started wandering into the meeting room where some of us were working as it was also the communal room where we had lunch every day. One after another, checking whether the lunch had been delivered, they took a seat, we had a little chat, looked at our phones, talked about the weather… obviously, it was lunch break, we were all hungry and did not want to work on an empty stomach.

When the driver finally arrived with the food prepared by the NGO director's wife, we moved the table against the wall, a female colleague or I rolled out the mat, cleaned the spoons and put the plastic tablecloth on the mat. Often the director and the administrator sat first on the mat, roughly in the same place. The women and the youngest naturally followed, we were often 12, squeezed on the mat.

The food was delivered in a large communal pot with a cover, wrapped in a piece of material to carry it. A female colleague placed the pot in the middle, removed the piece of material and the lid. We were all looking at the pot, to discover what was the dish of the day. Rice was not a surprise, but the sauce, the fish and the vegetable made the difference and gave a sense of variety. It was always a festival of colours and flavours! Red if there is the tomato sauce like in the *ceebu jën xonq* cooked in tomato purée, also the *domoda*, a thick tomato sauce with fish balls and vegetables, green for the mashed spring onions, brown for the tamarind, spicy or nutty flavour with the famous *mafé*, a special recipe with peanuts. Every day was a different dish.

'Bismillah', in the name of God, as they all said before having the first spoon. While eating, the focus was on getting one's portion. There was not much discussion going on. We were all focused on the bowl, cutting the vegetables and fish in pieces and sharing them. The fish was always eaten but sometimes some vegetables like the African aubergine (bitter taste) and the aubergine were left over. It was rare to empty the bowl as there was so much rice. When we, the women, were clearing up in the room where there was the sink, some would finish up whatever vegetable was left over.

After eating, it was time to serve tea, a moment to extend lunchtime for discussions. At the NGO, this task was given to one of the youngest of the team, Cissé, a male colleague, who served the elders and guests first. After all being served the first round of tea, two other rounds followed. He usually started preparing before we ate to ensure that the first round would be served soon after lunch. The tea leaves were boiled for some time with mint leaves and white sugar was added at a later stage. Before being served, foam had to be created by pouring some tea back and forth between shot glasses; it is a must in the tea preparation and the foam needs to be quite thick. Strong but sweet and with a thick foam, it is how most of my colleagues liked the tea. I found it too sweet, but as it was the same for all, I never asked for less sugar, until I realised that at the House of Women, diabetics were served before the sugar was added. "*Are you diabetic*?" one woman asked, looking at me strangely when I first asked for a tea with no sugar.

Description of lunch at the NGO, *reflexive notes, October 2019, Norwich*

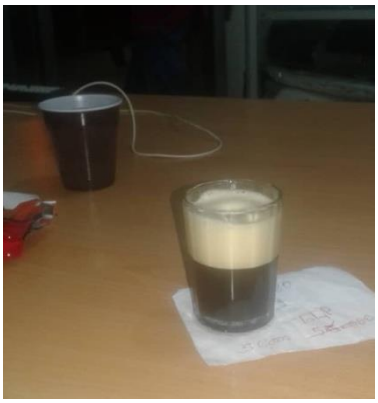


Figure 14 - A shot glass of tea prepared by Cissé

Figure 15 - Lunch at the NGO; every day a different dish is served

I wrote this description once I was back in the UK. It does not represent a specific day but rather, melds the main elements and succession of events at lunchtime with NGO colleagues, which were about the same every day. Hence, I find this description relevant to explore the social aspects of food and eating and what ways of eating reveal about gender and age, as well as the importance of lunch compared with other meals.

5.4.1 Hospitality as central to Senegalese identity

The first time I went to the NGO during the scoping visit, my meeting was at 2pm. Inexperienced, I thought that it was after lunch. At 3pm, we stopped the interview and the director invited me to join them. It was my first Senegalese lunch. There were already ten people sat on the mat to share the meal and I felt embarrassed to be imposing on them. But they welcomed me in such a natural way that I easily found my place on the mat. *"Every day we eat together, it is the community bowl"*, explained the director, introducing me to the team members. Eating together facilitated bonding between us. I spent the afternoon there,

had tea and nice conversations. This experience certainly influenced my decision to conduct the study in Malika.

At home on weekdays, lunch was ready at 2pm to fit with the children's schedule, as they usually came home from school around 12.30am and went back at 3pm. Lunch was in a communal bowl often prepared by Jabu, the cleaner. We all sat together on a mat which was in the corridor. On weekends, Mbaye, the father, ate with us together with the children on a mat in the dining room. Fatou, the mother, Jabu, Awa (Mbaye's younger sister) or Sokhna (Fatou's niece) cooked and arranged the pot, depending on everyone's availability. We sometimes had tea on Sundays, but Fatou usually prepared a shorter version for Mbaye who was the only one asking for a tea.

In the House of Women, lunch was prepared in a neighbouring house and we ate together on a mat in the hall. Whoever arrived at that time would join. After eating, any volunteers brought the portable stove to the hall and prepared the tea. Some members went back to their activities while others stayed around the stove chatting until the three rounds of tea had been served, which usually took a couple of hours.

The commensality of lunch was an important feature but was not central to breakfast or dinner. In the morning, some of my colleagues arrived with their breakfast and ate it on their own. At home, breakfast was prepared first for the father and the children before going to work and school at 8am: bread with chocolate paste or butter and some milk for the children; the father also had some bread with coffee. I also noticed his flask with lemon on the tray coming from his bedroom. Fatou and Jabu ate after doing the bulk cleaning and before cooking lunch, around 11am, sometimes together, sometimes not. They would have a cup of coffee, bread with butter or onion sauce, often left over from the previous night's dinner. I tended to have mine at around 9am, consisting of a banana from the shop next door and a piece of wholemeal bread that I bought from a bakery a bit further away. There was no specific time for breakfast. It depended on one's activities but bread was the staple of the meal.

At home, for dinner Fatou usually cooked more western food such as pasta, fried fish, French fries, raw vegetables with an onion sauce, sometimes eggs. These dishes were served on individual plates with bread; we sat at the table in the dining room with the TV on and Mbaye remained in his bedroom; he usually came back from work at around 6.30pm and appreciated the quietness of his room.

The above descriptions in three different settings illustrate how everyone's habits and preferences framed breakfast and dinner settings; eating alone was not frowned upon nor was eating something different. However, lunch was eaten together with an allotted time in each place that seemed to be respected by its members. Commensality[69] was a key element in the day; as Fischler describes it, "[it] preserves, revitalizes, builds up kinship or creates artificial kinship, as in a 'fraternal agape'" (2011). It is somewhat reminiscence of the Senegalese hospitality – *teranga* – sharing a meal is the main and most common way to signify the *teranga* (Leport, 2017) and as I experienced it at the NGO, a nice way to feel welcome and at ease.

5.4.2 Informal learning on the mat at lunch

Despite the constraints of one's work schedule, the everyday commensality for lunch at work and home reflects the spirit of conservation as Taylor describes it, the continuation of family patterns from one generation to the next (1983). Rather than the menu itself that may be more dependent on the economic environment, I pay more attention to the patterns in relation to the way of having lunch. Most of the time, lunch involved sitting on the matt around the pot so that everyone had equal access to the communal bowl. There were good eating manners that I learnt by mimicry over time. For instance, there was a particular way of sitting. The director would sit cross-legged; the other men would crouch with a knee on the floor. The women sat on the floor, with bent knees, making sure that their legs were not open. Remaining in this sitting position could be tiring and some women would sit with legs

[69] from Latin *cum* (with) and *mensa* (food on the table), to share a meal / to eat at the same table

stretched out whenever possible. Children adopted the same position around the pot; at home, the boys sometimes sat on a small stool.

> *I think it* [the way children sit] *is for decency and especially not to take too much space around the bowl. In another sense, it is to provide an education in sharing and generosity, xol bu yaatu*! (an open and broad heart)
>
> Informal discussion with Abdou, my Wolof teacher during a Wolof class, 9/04/19

The girls and women's sitting position on the floor with bent knees is called *ongulu* (*ong* means the buttocks slightly lifted). The position is perceived as shaping the body of young girls (Ndoye, 2001, p.30). When I asked Adama, my walking companion, what the *ongulu* position meant to him, he told me: "*women bend slightly to have good hips, buttocks and thighs*" (exchange of WhatsApp vocal messages, January 2020).

Figure 16 - Lunch at the AGM of the walking group

A member invited the group for lunch. We were about fifteen eating in all four corners of the room. (Malika, March 24, 2019 – photo taken by the host)

Speaking during lunch was also regulated by good manners and tacit rules. As a courtesy we did not speak with a full mouth. But I was also intrigued to notice how Samba (13 years old) could lead the conversation during weekday lunches and dinners when he was the eldest boy. By contrast, at weekends when his elder brother, Baldé (17) and father were there, he was more or less silent.

According to the idea of conservation that is about transmitting family patterns to the younger generations (Taylor, 1983), through the mundane practice of eating, children informally learnt values such as sharing and welcoming. They also learnt about power relations through learning to sit in a particular way; indeed, the girls sat on the floor, not with their legs open while the boys could sit on the stool if they wanted to. This hierarchy based on age and gender framed some habits related to food. The adults, usually the women, would divide the fish or meat and the vegetables. They often used their hand to share the food in the communal bowl, reflecting their nourishing and caring roles. Serving men first, followed by guests and children, further reflected these roles.

5.4.3 Food and religion: how local cereals prevail

At home, when Fatou prepared some *cere*, the couscous grain made of ground millet and corn steam cooked three to four times, it was often for religious events such as *Tamxarit* (Ashura) and Ramadan. Ashura is the tenth of the Muslim year; it falls on the 18th of September when I happened to be there. Unlike in other Muslim countries, *Tamxarit* in Senegal is a feast[70] that the Shi'a community considers pagan, an *Africanised* practice (Leichtman, 2012). To celebrate *Tamxarit*, we had dinner outside on the terrace: "the Senegalese couscous", as the father proudly said when we started eating. The *cere Tamxarit* was prepared with a piece of mutton[71], a few vegetables, beans, sultanas and a lot of tomato sauce to make the millet couscous grains less dry. "*Eat as much as you can, we should finish the pot*", said the father, explaining that "*it's the tradition, we have to eat more than usual, not to face hunger the whole year*". During Ramadan, Fatou regularly prepared

[70] In addition to the meal, young people disguise, girls in boys and vice versa, go on the streets make noise and ask for money

[71] For the occasion a beef or a sheep is killed and shared with family and neighbours, the practice is *called tong tong* in Wolof

large amounts to ensure provision of *cere* for five to six *suhur*[72]*.* We ate it with milk before sunrise so as not to feel hunger too early.

Millet is also a key nutrient for baptisms and Eid, the end of Ramadan, used in the cooking of *laax*. Finely ground, the millet is cooked in water until it becomes a mush. It is then sweetened and served with curds. Another version, *ngalaax*, which includes peanuts, is cooked by Christians for Easter. Fatou occasionally prepared some *laax* for dinner when she had no meal ideas; this dinner seemed quite common in other families. For example, Adama was happy to regularly have some "*in the evening, I don't eat much, sometimes just laax*". Eating local cereals in the evening was also a food habit in the late 1990s as reflected in a study on the evolution of food habits in Dakar[73] (Ndoye, 2001). In this study, 21% of the participants ate local cereals in the evening prepared as *cere* with sauce or *laax*. The same proportion of participants had a more Western dinner with bread, sauce and beans for instance. This was also common when I was in Malika. During my fieldwork, I did not see any local cereals served for lunch.

5.4.4 Food and health, transmission of practices

Staying in Malika for 10 months, I was also able to observe food practices around health. For instance, Fatou prepared a special meal for Samba to help him recover from malaria. Confined to the bed with a high fever, he had lost his appetite. Fatou cooked a mixture of local cereals (the ones used for the *laax*) and Hibiscus sabdariffa. She added some dried fish to flavour it. It looked like a mush but clearly worked as a comfort food that he liked and ate. It is interesting to look closer at the ingredients and plants regularly consumed. For instance, tamarind was often served as a sweet-sour sauce: "*it's good for pregnant women*" a male colleague told me. I was intrigued and searched on the Internet, findings that: "tamarind

[72] Suhoor, the meal served before sunrise in Ramadan

[73] The study implemented between 1998 in Dakar, Pikine (suburb of Dakar) surveyed 504 households

relieves digestive disorders (bloating, nausea, constipation)"[74]. Sometimes, a preparation was made with moringa, classified as a superfood in the Global North. Kinkaliba was also consumed every day by women and men. Nene knew it was good for her diabetes. During Ramadan, we drank Bissap juice (hibiscus) when we broke the fast, a plant that is a natural diuretic, like kinkeliba. These practices are replicated and transmitted through the generations, often without knowing the health benefits.

> I saw a sort of root in the water bottle and asked what it was. Vetiveria Nigritana, *cepp* in Wolof. It is from Mali, "*Mali people love that*" Fatou told me. "*It's good for women, when there is pain due to periods. When you drink it, it cleans your belly and when you go to urinate, it doesn't smell.*" An example of generational transmission of knowledge and practices, since she was young, Ndeye has seen her mother use it. Awa searches for the French translation on her phone and comes across this site http://www.vetiver.org/SEN_medicinal.pdf. I ask Awa whether during her training to become a midwife these herbal remedies are studied. Apparently not. Anyway, she does not believe it. When she has stomach ache, she takes anti-inflammatory drugs.
>
> *Fieldnotes, Malika, 17/01/19*

However, Awa does drink kinkeliba, maybe more as a family habit that she has replicated in contrast to the *cepp* that was not used in her home. Traditional knowledges tend to be devalued in formal education, for instance in Awa's midwifery training, it seems that it was disregarded. Likewise in non-formal health education, as I show in 6.2.3, there was no reference to traditional practices in the counselling session on diabetes.

5.5 Conclusion

In this chapter, I have described mundane everyday food practices in Malika, from buying supplies, to cooking and eating together. I am aware that a survey with a larger sampling

[74] https://www.doctissimo.fr/html/sante/phytotherapie/plante-medicinale/tamarin.htm

could have been relevant to triangulate my observations on food practices; the economic situation of the family where I was living may not represent the accessibility to and consumption of food in poorer backgrounds within Malika. However, the relatively long period of fieldwork gave me the opportunity to visit several families in Malika and observe different realities.

I looked in particular at how some roles like nourishing and serving food, in most cases performed by the women and the youngest, reflect identities around care. Caring for men who represent the pillar of the family. “Maintaining the tree” is a popular saying, where the tree symbolises the head of the family (Ndoye, 2001). Everyday commensality creates a setting in which there is equal access to food: everyone sits around the bowl and anyone is welcome to squeeze in, creating the sense of hospitality, community and sharing. The food in the bowl was shareable; however, what each one ate was individually acquired. As described above there are invisible power relations ‘stemming’ from the bowl where women are serving and feeding. They tend to restrain themselves or eat slowly so as to let men, guests and children get their portion first. Women are perceived as the key actors in relation to food. They develop strategies for ensuring diversity and pleasing everyone by preparing tasty and appealing food, sometimes using more stock cubes than non-processed condiments, but with the focus on making food that looks good, is colourful and neatly presented. The food industry, in particular the stock cubes, intensifies this image of the ‘good’ housewife by complementing the concepts of care, as in European women magazines in the 1950s, analysed by Geyzen (2015).

The social practices around food are most evident in the daily commensality, typically at lunchtime, where rice and bread are central and women cook to please the family. In the next chapter, I will look at whether and how these elements appeared in health communication.

Chapter 6 - Learning about nutrition, opportunities in regional and community-based structures

6.1 Introduction

In the previous chapter, I explored the daily food practices and what they revealed by observing the habits of the Malika residents I spent time with. I examined food practices transmitted to or innovated through generations, along with factors that influenced and framed food consumption in the families I visited in Malika. With regards to the typical Senegalese one-pot lunch, I was interested in Nene's story, who was diabetic. As discussed in 2.3.3, this non-communicable disease is on the increase and affects an estimated 5.1% of the Senegalese population (WHO, 2016). Therefore, in this chapter, I would like to explore how Nene managed her diabetes, how she lived with the disease, the challenges she faces in eating a balanced diet and her engagement with regular health monitoring and the finance implications. During my fieldwork, Nene and I built a close relationship through spending a lot of time together. I accompanied her to a couple of health monitoring appointments. Based on my fieldnotes and conversations with Nene, I will analyse how she engaged in different knowledge and healthcare in both non-formal and formal spaces.

In the second part of this chapter, I expand the scope by looking at the healthcare activities that are on offer in Malika. During my fieldwork, I visited centres offering healthcare and met healthcare workers in Malika and Dakar. The health-community structure in Malika offers regular informal 'chats'– referred to as *causerie,* from the French – which are common in Senegal. However, I did not participate in any of these chats nor was I able to observe one because I was informed too late or had not yet tapped into the House of Women network. Instead, I will examine the themes and objectives of the community health programmes through the interviews I had with healthcare workers and by reviewing the training material used by the community relays and the Bajenu Gox programme (see 2.3.2). How did providers address issues around nutrition and diet? How was nutrition understood by the providers? How did Nene's age and disease fit in with the health programmes provided

through the community health system in Malika? I investigate these questions through a gender lens, looking at different nutrition-related communication strategies for women as receivers of the message and women as health providers, when volunteering to contribute to the community.

6.2 Nene's endeavours to manage her diabetes

As presented in the methodology chapter, in mid-October 2018, Adama invited me to join the walking group of Malika. It became a nice moment in the week when I could enjoy some physical exercise along the ocean and make new acquaintances beyond my immediate circle. The group usually consisted of 20-30 walkers and about a quarter, sometimes less, were women. This was how I first met Nene: it was on my fourth walk, a Sunday morning in November 2018:

> Nene is in her fifties, originally from Casamance, a region with the highest schooling rate of the country[75]. She lives in Malika with 3 of her 5 children. She considers that "*elle n'a pas fait les bancs*" (an expression I often hear in Senegal that literally means "did not do the benches", not being educated), though she left school in CM2[76] and speaks French very well [I show later that she could read and write in French].
>
> After some difficult episodes, making strong decisions like divorcing, she met her current husband, Bathie. He was originally from Thiès (70 kms from Dakar) and worked in Casamance. They moved to Malika, where his mother is living.
>
> When she talked about her children, she started with the three youngest. Nene's youngest daughter, Aida, 23 years old, is a student in management and accounting. Her youngest son, Mamadou, 22, studies judicial law at the University Cheikh Anta

[75] Southern region of Senegal (South of The Gambia) – during the colonisation, its Christian populations accepted the missionaries schools and sent their daughters to schools whereas the northern parts of Senegal were more reluctant; Casamance remains the most educated region of the country (Labrune-Badiane, 2010)

[76] Cours Moyen, second year – it corresponds to the fifth and final year of primary school

Diop in Dakar and Souleymane, 28, studied project management and is working for a local association to protect talibe children[77]. Souleymane contributes to the family budget when the association gets some funding but it is not steady. The tuition fees of the two youngest are covered by the NGO SOS *village d'enfants*.

Her eldest son, Pape, joined a football club when he was in his teens. He was trained to become a footballer, but the hopes raised did not lead to any concrete project. He is now 30 years old, lives in another region of the country, without a diploma, without a stable job, without hope: "*it's too late*", Nene told me. The eldest daughter, 32, Aminata, is married and lives in Casamance. She recently gave birth to twins that Nene has still not met. "*Do you see pictures of them?*" I asked. "*Yes, with WhatsApp, I don't have a phone but with my children's phone*", she answered. Her daughter also left school after CM2. She grew up with Nene's sister in Casamance; Nene regrets that she was not alongside her daughter so as to have been able to encourage her to continue school. Today her daughter does not work.

She told me about her business-like enterprise: she sells doughnuts at the neighbouring school to contribute to the family expenses. "*Every morning I get up at 4am to make the doughnuts, I pray, and I go to school by 8 am*". She goes back in the afternoon, hoping to sell more doughnuts. Her husband used to work in the building trade but lost his job; he now delivers items from time to time. He married his sister-in-law when his brother died, so every fortnight he spends the weekend in Thiès with his second family. "*You see, it's like that here*", Nene often says, but she remains motivated. We were happy to walk and talk together and promised to meet again next Sunday.

Fieldnotes, 4/11/18, Malika

[77] *Talibe* were boys, mainly from poor families, placed in *darra*, Quranic school, to be religiously educated by a Quranic teacher, also known as Marabout. In Senegal, their living conditions were a social issue as many abuses were reported. https://www.hrw.org/report/2019/12/16/these-children-dont-belong-streets/roadmap-ending-exploitation-abuse-talibes

In Nene's discourse, studying to have a diploma was important and she felt sorry, even embarrassed about her two eldest children who did not study. Moreover, being in a polygamous marriage with children from a previous union, she was determined to earn the family's living as if it was her duty to ensure that the youngest could complete their studies.

6.2.1 Managing her health and the family

Figure 17 - Warm-up exercises before walking

The walking-group I joined, was initiated by Mame Alassane Ba, a former commissioned officer of the army and former Senegalese athlete living in Malika. They started walking in 2010 with a couple of friends. More people joined and they officially created the club in 2013. There were clubs in Dakar and its suburbs, and occasionally jointly large walks were organised. During my fieldwork, I participated in two of these large events. The secretary told me that the club counted 200 members. The majority of them were men, some were former military or police officers. "*Many of us have high blood pressure, diabetes or other chronic illnesses, or simply don't want to age*", he replied when I asked about the main motivation.

> Nene told me that she used to walk sometimes before knowing about her diabetes. After the diagnosis being told that she should do regular physical activity, she began to go early morning at the weekend and by chance, met the group; that is how she

joined the group. She had not walked on the Sundays previous to us meeting because she was feeling tired. We often talked about her disease and how she managed it.

On February 9, 2017, she was diagnosed with diabetes. The previous weeks, she had been feeling tired. She was always thirsty and had a frequent need to urinate. At home, she was told that it was a cold. She went to Darra health post where Mr Ndiaye, the health-post head nurse, asked her to come back the following day with an empty stomach for a test that cost 1 500 XOF (£2). Her blood sugar level was high, close to 4 g/L[78]. He advised her to go to Abass Ndao hospital in Dakar where diabetic patients can be treated. She went there several times at the beginning for regular visits to be tested, be prescribed adequate treatment and learn how to manage the disease; now she goes every six months.

Fieldnotes, 18/11/18, Malika

As described in the next section (6.3), in Malika there were only health-posts and health huts. A head nurse managed each post and trained volunteer health workers to deal with primary care in the health huts. Regarding diabetes management, the nurses at the health-posts could only measure the blood sugar rate with a monitor; for further care, patients had to visit the regional hospital in Dakar. In her description, Nene explained that she did not know about the disease, its symptoms and prevention and neither did her family.

Following this first encounter, we regularly met on Sunday mornings for the walk and talked together. When one of us was absent, we would call each other up to check in on each other. After some months, we became closer and started also meeting during weekdays.

After lunch, I joined Nene at the bus station of St Louis Marie Grignon school, where she sells her doughnuts. The school is the largest catholic one in the area, includes

[78] Normal blood sugar level on an empty stomach should be below 1.26 g/L or 7 mmol/l (WHO)

both primary and secondary levels and has about 1500 pupils coming from the neighbouring towns. She introduced me to her sales friends; there were about 10-15 of them, one beside the other, some under a rough shack, selling home-made juices, pastries, sweets and jewellery. The time between the bell ringing and the rush of the pupils to buy something to eat and drink before boarding the bus was short and intense. On that day, Nene did not seem very satisfied with her sales: barely 2 000 XOF (£2.60) compared with good days, when she could earn up to 6 000 XOF. When the square was empty of buses and pupils, we went to her house, a 10 minute-walk from the school. Carrying a transparent plastic box on her head, we stopped a couple of times on our way to sell more doughnuts to pedestrians who saw the pastries. She and her family rent a single-floor house at 55 000 XOF per month (£71.30); there is a kitchen, a corridor that has enough floorspace to provide seating for family meals and three small bedrooms: one for the two boys, one for the niece and her kids and the biggest for Nene and her husband. Her youngest daughter lives in Dakar close to the school where she studies accountancy.

On that day, I met her niece, Jenaba, with her two children and Nene's husband, Bathie. Jenaba had just got back from her work as a cleaner at a house in the neighbourhood. Nene wanted me to look at her blood glucose monitor; it is the same as my father's, I had done the test with him at Christmas and he had shown me how it works. I did not want to make any mistakes so I looked at the instructions that Nene cannot read because they are only in Arabic and English. She bought the device for 5,000 XOF (£6.50) at Abass Ndao hospital in Dakar and nobody explained to her how to use it. She did not find it easy to use, especially the lancet pen to get a blood drop. We tried together and she was delighted that it was working.

Fieldnotes, 11/03/19, Malika

The low and irregular income accumulated by Jenaba, Souleymane, Bathie and Nene was not sufficient to allow them to save money. Instead, the family just lived from one day to the next and unexpected expenditures could put them at risk. Having obtained a blood glucose monitor is evidence of Nene's determination to manage her disease; unfortunately, the

limited support she received or asked at the hospital meant she did not know how to use it. The instructions in French were not available, most likely because the monitor was second hand, so she was unable to learn how to use the device.

6.2.2 The health check-ups

I often asked Nene how much her blood sugar rate was; there was no intention to monitor her; I simply wanted to know how she was. This question was an entry point to talk about her, how she had been working, eating and sleeping. She appreciated that we talked about her health. I listened to her but also encouraged her. Diabetes can be an invisible disease and its management can sometimes be misunderstood. Nene had missed her follow-up visit; she needed an updated prescription for her blood analysis and insulin so I went with her to the hospital in Dakar, Abass Ndao hospital, the only one in the region that can provide care for diabetic patients:

> Early morning, I met Nene and her son Souleymane, who was going to work, at Terminus Malika to take the bus. The hospital is located in Dakar Fann, about 25 km from Malika. To go there, we took three different buses – it took a little over than an hour but ultimately, was easier than the return journey. We paid about 550 XOF (£0.75) each for the outward journey; for the return, the traffic was very bad, after a long wait, we took a taxi (3 000 XOF, £4).
>
> When we arrived at the hospital, a guard at the entrance asked Nene to justify her visit to reception. She explained to the receptionist that she needed to see a doctor for the renewal of her order for a blood analysis and insulin. The receptionist handed out a ticket that Nene gave to the guard who then let us pass - a very formal and apparently recent procedure. The hospital looks relatively new, sprawled out with rather low buildings, very few people outside.

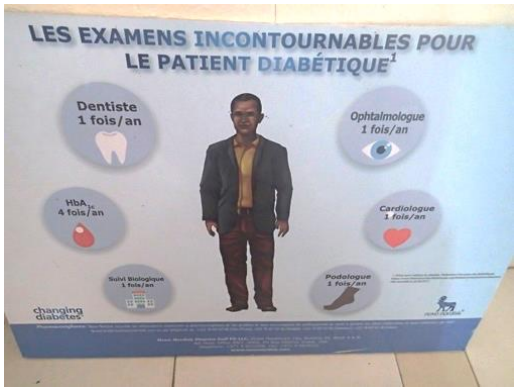
Figure 18 - Marc Sankale building in Abass Ndao hospital

When we entered Marc Sankale building which is dedicated to diabetes, there was very little information displayed on the walls. I expected to see posters but the place was rather sanitised consisting of an airy waiting hall with a few administrative information displays [79]. In the corridor where we waited in the last stage of the waiting process, there were two posters, one developed by Norvo Nordisk Pharma and another one by the Ministry of Health and Sanofi. The Ministry's poster displays the symptoms of diabetes such as excessive thirst, frequent urge to urinate, lack of energy and weight loss. It is a poster on screening rather than prevention. The laboratory poster targets diabetic patients and illustrates the advised health check-up. For instance, dentist, ophthalmologist, cardiologist, podiatrist and biological monitoring[80] once a year each, HbA[81] 4 times a year. We both read the poster; Nene said with some embarrassment, indeed guilt, that she cannot afford to do all of these exams. Diabetes is a disease for which regular care is expensive.

[79] On my second visit, I entered a meeting room where there was the complete series of posters created by the Ministry of Health and Sanofi (cf. blue poster). Understand diabetes type 2, are you at risk? And another one: reduce the risk.

[80] Comprehensive blood analysis

[81] Average blood glucose level of the last two to three months measured through a blood analysis

a) 

b) 

Figure 19 - Posters at Abass Ndao
a) Norvo Nordisk Pharma Poster: essential exams for diabetic patients;
b) Ministry of Health and Sanofi Poster: understand diabetes type 2 and know about the warning signs

In the hallway where we were sitting, the doctor stopped and asked the purpose of our visit. Nene introduced me quickly, specifying that I would be accompanying her. The doctor received us and addressed Nene's questions, mixing French and Wolof but mainly French, presumably because of my presence. He gave her the prescription for the blood analysis, and we talked a little bit about my research. He was very cooperative and explained to me what is done for diabetics.

He presented the mDiabetes[82] programme that supports diabetics with advice and reminder messages sent through SMS during Ramadan. Nene did not know about it. He gave her the registration form; she filled it in (name, telephone number, diabetic patient or health worker, signature) and gave it back to him. The phone is the main medium used as it is less expensive than others like TV and radio, he explained. I asked whether the messages were in French, "*Yes, but in the family, there is always someone who can speak and read in French*", he simply replied; he did not seem to question this point. He also described the daily counselling group sessions to support

[82] Mobile diabetes

diabetic patients and those on Fridays that target non-diabetics. Nene has already attended two.

When we left, he introduced me to one of the nutritionists who leads the sessions. I asked him whether I could join a session to observe it. He gave me his phone number and told me that I was welcome to join when I could.

We then visited a friend of Nene's son who is working next door for ASSAD, a Senegalese association offering support to diabetic patients, led by diabetics, and we had a chat in his office. After the greetings and talking about the family, we talked about their diabetes management. He described the association and their awareness raising activities in schools and during diabetes week in November; activities that did not seem to directly reach Nene.

Fieldnotes, 27/03/19, Malika

Being diagnosed with diabetes involves regular health monitoring and this can become a serious financial burden for many families, even more for those who are already poor. The rent, the facilities for the youngest children to study and the food for the family were the priorities in Nene's budget. Going to Dakar for follow-ups with the doctor were sporadic for Nene because prior to going she had to have a comprehensive blood analysis and the financial resources to pay for it were not always available. When Nene consulted the doctors in Abass Ndao, she just had to pay for a ticket (1 200 XOF) but she had to pay for any additional tests such as a urinalysis or medicine for the treatment so she had to anticipate extra cash if needed[83]. The recommended health check-up with the dentist, the ophthalmologist, the cardiologist and the podiatrist appeared to her to be part of the luxury health industry that did not belong to her world. She would consider going to the dentist if

[83] The ticket at the entrance of Abass Ndao entrance costed 1 200 XOF (£1.6), diamicron (oral anti-diabetic medicine) 3 000 XOF (£4), urinalysis 200 XOF (£0.30)

she had no choice. For instance, she went because she had a painful tooth and she had to have it removed.

Nene took her blood analysis prescription to the hospital in the neighbouring town, Keur Masaar, about 4 kms from her home. The comprehensive blood analysis cost 15 000 XOF (£19). At the end of April, I went with her to collect the results.

> Nene knew exactly where to go and I followed her. There were benches along both sides of the corridor. Before sitting down, Nene asked who was the last person to arrive, so as not to miss our turn. Each time someone arrived, the same question was asked. After about 20 minutes, it was her turn. She received the results in a closed envelope but when I asked her if she was happy with her results, she said that she could not open it: "*You know, here it is like that, the doctor will read it; if he sees that I opened it I might be in trouble*." I did not insist, though I was surprised by the reason she gave. We met Malick at the hospital, a Malika resident who had participated in the Health Day forum the week before; they knew each other. He was there to collect his father's results which he opened and read. So I asked Nene again whether she would not like to see her results. We sat on a bench in the hospital garden; she carefully opened the envelope and read the results. We commented on them, based on the norms that are available under each result and her previous blood analysis that dated back to the previous year. Though her sugar level remained above the norm like earlier, her cholesterol level was lower than previously and compared to the norm. This was encouraging for her.
>
> *Fieldnotes, 22/04/19, Malika*

We mainly focused on the results that made sense to us and those that were not within the norms so she could ask the doctor to explain these differences. Her first reaction not to read her blood results revealed the power granted to doctors and the great respect they are given based on their knowledge and educational status. We went back to Abass Ndao hospital in mid-May.

6.2.3 Learning about the disease

6.2.3.1 *The counselling session at the regional hospital*

Though we left Malika at 7am hoping to arrive early, it was 8.30am by the time we reached the hospital. When we entered the building, there were more people than on the previous occasion; it looked like we were in for a long wait. Nene registered at the reception and paid for her ticket. We sat and talked about different things that helped us pass the time. She showed me how she organised her insulin tube and equipment when she is away from home, like today: "*each month, I buy insulin, cotton pads, antiseptic and needles. It costs 3 000 XOF*." She proudly showed me how she keeps the insulin cool using an empty medicine tube filled with water. "*Mussa*[84] *told me how to measure the insulin dose but the hygienic measures, I decided them on my own!*".

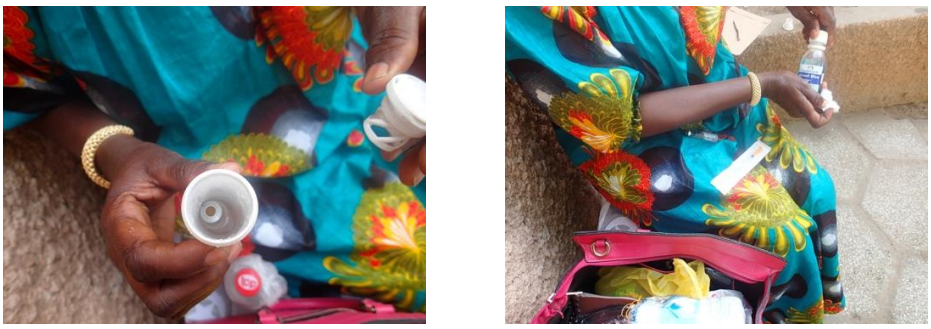


Figure 20 - Nene showing her equipment

I had checked with the nutritionist where and when we were to join the counselling session. It was already midday, time for the session and Nene was still waiting for her appointment. We agreed that she would join the group after meeting the doctor.

The group session was in a rather large room full of chairs roughly placed in a semicircle, facing a low coffee table. On this table there was a large poster with

[84] He is a friend from the walking group, also diabetic

cartoons representing diabetic patients and recommendations to care for their feet[85]. On that day, we did not use this conversation map as it is part of another session. There was also a session that is more related to the objectives of the blood analysis and regular monitoring. Today's session was on diet and there was a box below the table full of empty food packaging (milk, soda can, fruit juice, crisps).

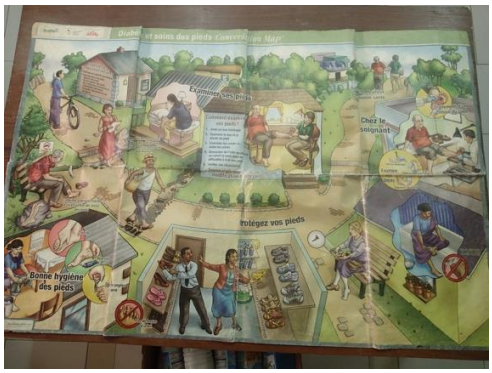


Figure 21 - Diabetes and feet care, conversation map

Box with empty food packaging for the conversation

Before the group discussion, I asked the nutritionist for consent to audio record his talk. He suggested that I just sit among the other participants. The talk was in Wolof, mixed with French. I could roughly follow it as he repeated the key messages in French. The atmosphere was relaxed; participants did not seem to know each other as they did not greet or talk to each other before the talk started. There were 17 participants, nine of them men.

The nutritionist seemed to have a sense of humour as the participants laughed several times. During his talk, he used the empty packaging to illustrate some points. These products did not seem familiar ones in Nene's house but can be found in Malika. His tone was calm, his explanations reassuring and encouraging and participants freely intervened at any time to ask questions. It was very friendly and

[85] Diabetes may cause nerve damage that takes away the feeling in the feet. Diabetes may also reduce blood flow to the feet, making it harder to heal an injury or avoid infection. Regular care is needed. https://www.foothealthfacts.org/conditions/diabetic-foot-care-guidelines

> the hour and a half passed by quickly. Nene joined after 30 minutes and also asked a question regarding the risks of her mixing the doughnut pastry with her hands. Someone had warned her that it was dangerous for diabetics. She was reassured by the nutritionist who told her that there was no risk.
>
> *Fieldnotes, 13/05/19, Malika*

I listened to the recording with Abdou, my Wolof teacher, who translated the session. He found it very interesting and enjoyed it; he learnt a lot as he told me. I have summarised the key messages below, including how the nutritionist explained them.

First, he recapped the previous session about the monitoring and the importance to talk with health professionals. He warned about the many inaccurate beliefs around the disease and gave a prescription: "*diabetics must avoid street talk, especially in a country where there are 15 million experts in all fields*".

He highlighted the key place of diet in managing the disease, giving it the central role to the diabetic patient: "*Even if the patient has the greatest doctor who prescribes drugs for him, if the patient does not follow a diet, there will be no result. The best diabetologist is the diabetic himself. You can do sport morning, noon, evening, but without a diet, the results will not be good*", he emphasised.

He built his second point on the belief that "*diabetic food is scary: you can no longer eat your fill; you will not eat what's good anymore. Diet has nothing to do with this! Give your body what it needs; it is nothing to do with prohibition. If the diabetic has a particular diet, it is because the rest of the population eats too badly*." He explained the key message of the diet: "*know what you eat, eat a bit of everything*" and used the metaphor of building a house: "*a house is built with cement; it is made of sand, water, stones and what matters is how they are mixed. It's the same with health.*"

As it is illustrated in the community health flip chart (6.3.3), he detailed each food category: body building foods, energy foods and protective foods. When talking about fruit, he raised the distinction between its sweetening capacity and the sugar content. He encouraged the

participants to list foods and think of the recommended quantity (melon, pineapple, apple, rice, etc.). In his explanations, he did not name any minerals using scientific terms. For instance, when he talked about milk, he said that it strengthened bones but did not mention calcium; he adopted the same approach with fat, proteins and carbohydrates, and its associations; he gave examples but did not explain in detail.

Throughout the discussion, he used easy sentences to remember both in Wolof and French. For instance, vegetables were "*diabetics' friends*"; "*sugar, salt and fat please the mouth, what heals is not delicious*"; "*we build health through food*". He recapped the main points, highlighting that diet is individual as it also depends on the characteristics of the person and one's activities. He emphasized the importance of regularly checking the blood sugar to better know the quantity that one's body needs.

When he showed them the empty food packaging, he did not refer to the labelling. He mentioned the meaning of colours, such as red being associated with danger, giving the example of whole milk that is higher in fat. This colour association is not universal as in England, for example, whole milk is labelled with a blue lid.

He had a notebook but rarely looked at it; he clearly knew what he wanted to share and allowed any questions to complement and guide the talk. Everything was transmitted orally only and repeated several times, like in a classroom. I found that repeating the same message twice or more was a common feature in Senegal. It intrigued me in daily conversations with some of my participants. This habit might be linked to rote learning: many teachers, like in Quranic schools, rely on this pedagogy. A few participants in the group had a pen and took some notes. After the session, the nutritionist remained chatting with some participants who had more personal questions.

It seemed to me that he was addressing his talk to patients with a western lifestyle. Indeed, he presented food consumption as an individual action and choice rather than communal, despite lunch usually being eaten in the same bowl in the places that I visited. He talked about limiting the quantity of rice and feeling full by eating more vegetables, which also seemed to be predicated on a Western lifestyle. Similarly, he stated the importance of

eating proteins, fish being the best option. Considering the food practices and affordability I observed in Malika (see Chapter 5) such as the limited portion of fish and vegetables to be shared and the tendency of women to let children and men eat first, his talk did not seem to be grounded in these realities and these points were not discussed on that day or raised by participants. Instead, the discussion focused on diet and diabetics' responsibilities. The nutritionist gave recommendations, warnings, tips to support diabetics in their management of the disease; however, I was left wondering whether and how such advice could empower patients given that poverty and gender roles were not questioned. For instance, when the budget was limited, cooking a large quantity of rice with tasty sauce and some vegetables would satisfy all the family members while preparing a different dish might not please everyone.

Moreover, holding such sessions in Dakar did not take into account the needs of patients like Nene. Going to Dakar requires time, energy or having the means to pay for a taxi. When Nene went there it also meant that she was not able to go to school to sell doughnuts on that day. At the beginning of her illness, her son, Souleymane accompanied her to Abass Ndao Hospital to meet the doctor and participate in the group discussion. Unfortunately, on the day of the counselling session, relatives were not allowed to join it because there were already too many participants. On Fridays, the session for non-diabetics could have been of interest to her family but going there to attend it was also a challenge for them. None of her relatives had joined one yet. This reminded me of my colleague at the NGO whose wife was diabetic; when she attended the counselling session, he did not accompany her and did not know about the Friday session for non-diabetics. When I asked him why he did not accompany his wife, he simply told me: "*I don't have time*".

What surprised me was how grateful Nene was when we talked about her disease; it seemed that she could complain freely about feeling tired and unwell. She felt that when her family tried to support her, it was not always helpful: "*they tell me don't eat that and that; when I eat a banana for my breakfast, they say it's not good for me! They don't understand anything! But sometimes, they bring me some apples, this is good*". She shared points she had learnt during the counselling sessions but the belief about ingredients that were

forbidden in the diabetic seemed largely anchored in practices. Learning about the disease and the recommended diet needs to reach the family members and not only the patient.

> At home, some relatives of the family that live in Mauritania are passing through Dakar to treat their ailing mother. She has been diabetic for five years. Her sister saw her losing weight and advised her to consult the doctor. The mother thought she had nothing because she continued with her business. She was screened for diabetes and her blood sugar level was at 3g/L; today it is at 1.5 g/L. I asked her what she had changed: "*I no longer eat bread and rice*", she answered. But what do you eat? She listed mainly proteins and vegetables. Her big toe was amputated, and her diet was harsh. Diabetes is a silent disease: when symptoms appear, it means that the blood sugar level is high and that the patient is already exposed to great risks.
>
> *Fieldnotes, 11/05/19, Malika*

Knowing that rice and bread were the staples in Senegal (and it seemed to be the same in Mauritania), the diabetic diet did seem to exclude diabetics from everyday food, like a punishment; yet it did not seem to lead family members reflect on their habits, in particular rice quantities and the quantity of sugar that they added to their tea, as I could see at the NGO and at home.

Having moral support like our talks seemed to be an important part of how Nene managed her diabetes. The appointment with the doctors usually did not last long. If the patient was not confident or ready to ask questions, as in many large health-care institutions, doctors might not have time to wait and encourage questions. Although the counselling group sessions were meant for that and though the atmosphere was relaxed, it did not seem to create a community beyond the session. The support through the appointments with the doctor and the counselling sessions were punctual and limited to a physical space that was not easily accessible to Nene. Going on our Sunday walks was therefore a moment when she was taking care of herself and where she could find friends and sometimes talk about health.

6.2.3.2 *The mobile health programme mDiabetes*

Nene registered to *mDiabetes*, filling in the form the doctor gave her; however, for some reason, she never received any message during Ramadan 2019[86] when the programme was running for 7 weeks. The messages were available on the official website of the programme[87] (see Appendix 2). I have selected some to compare them with what the nutritionist talked about during the counselling session.

The seven-week-messages in French, consisting of seven SMS per week, one per day, started two weeks before the beginning of Ramadan to encourage diabetics to have all the necessary check-ups with their doctor before considering fasting (blood sugar and blood pressure, kidneys, heart). In week 2, messages stated that advice must be sought from a doctor, using an alarmist tone to stress the risks that diabetics take if they decide to fast. In these messages, scientific words were used such as "diuretic, hyperglycaemia or hypoglycaemia" without explanation. It was assumed that the receivers know what they mean.

> "Diuretic drugs can increase the risk of dehydration and hypotension while fasting. Ask your doctor for advice." (message 3 – week 2).

The following weeks' messages provided diabetics with food consumption recommendations (week 3) and cautions about any side effects of fasting and the need to regularly control one's blood pressure and blood sugar level (week 4).

> "Do not try to make up for your 3 meals: stick to two balanced meals (Kheudd and Ndogou[88]). Above all, avoid juice, sodas, dates, honey and pastries" (message 6 – week 3).

[86] I also registered for the programme via their website and did not receive any message

[87] http://www.mdiabete.sante.gouv.sn/?p=928 accessed in February 2019

[88] Ramadan early morning and fast breaking meals in Wolof

> "If you have dizziness, sweating, and acute hunger, quickly measure your blood sugar: if less than 0.60 g/L you are in hypoglycaemia. Danger, break the fast!" (message 5 – week 4).

Later in the programme, some messages included advice about exercise and ended with messages encouraging them to maintain a healthy lifestyle, i.e. managing diabetes, blood pressure and weight.

> "Organise your professional or domestic work for the day and adapt it to the fast. Stay fit, maintain your exercise 2 hours after the Ndogou" (message 1 – week 5).

> "You are in the last days of Ramadan; you have been able to manage your blood sugar, your blood pressure, and your weight; maintain your good numbers" (message 1 – week 7).

Except for the use of *Kheudd* and *Ndogou*, these one-size-fit-all messages seemed context-free. There was no mention of the social practice of breaking the fast and the messages disregarded key sociocultural aspects of Ramadan. Like with the nutritionist's "dos and don'ts", food was individualised, for instance: "Balance your diet: 3 meals; each meal: 1 cereal, 2 vegetables, a portion of meat or fish (approximately 200gr) ± 1 fruit ± 1 dairy product." (message 3 – Week 1). This example of a balanced meal contrasts with the food practices I have detailed in Chapter 5, in particular the difficulty of ensuring that 2 vegetables and 200gr of fish or meat were eaten per person while eating from the communal bowl. In addition, I rarely observed the consumption of dairy products during my fieldwork. Several families such as Nene's could not afford 200gr fish or meat per person or dairy products as per the recommended diet.

To sum up this first part, Nene's experience in managing her diabetes raises issues around poverty and gender inequality. Nene learnt about the disease and its management mainly through doctors in Dakar, whose role and knowledge she highly respects. Transmission was vertical in a system that tends to place patients in the attitude of receivers. During Nene's consultation, the focus was on her blood results and it seemed that she would not have learnt about the *mDiabetes* without my question. Nutrition too was learnt from an expert, like in the counselling session, who presented the diabetic diet of dos and don'ts. In recommending the diet in relation to good health, the nutritionist seemed to

instrumentalise food, disregarding social practices around food and, crucially, affordability. The recommendation to eat more vegetables and fish and less carbohydrates, implies the ability to pay for this diet and also, does not take into account the housewife's responsibility for ensuring that all family members are satiated by the meal. The participants did not seem to challenge the nutritionist's recommendations in their questions. To sum up, the diabetes education I witnessed was rather traditional, supporting an individual understanding of health risks and recommending prescriptive actions. The social determinants of health such as poverty and gender equity were not raised: in short, this echoes the banking education Freire wrote about (Freire, 2000). Moreover, this way of sharing knowledge about food contrasts with some of the learning practices I analysed in Chapter 5, notably the transgenerational learning in the kitchen, the informal talks about food and health on the mat.

I was intrigued by the health-related activities and places in Malika, wondering why Nene did not seem to engage with them. Compared with other diseases, diabetes did not often appear in community-based health activities during my fieldwork. In the next section, I will look at what health related activities were organised, with a particular attention on nutrition-related material and how food is understood by the provider.

6.3 The healthcare situation in Malika

To know more about the healthcare system in Malika, I met with Talla, the city councillor, head of the public health and hygiene commission since 2013. As discussed in Chapter 2, since the decentralisation health reforms introduced in the 1990s, local authorities collaborate with health workers on the health plan. The councillor described the community health system in place and the roles and responsibilities of the various actors. One of the city council's priorities in health was and remained to encourage Malika residents to join the community-based health insurance. This was part of the national health strategy managed at the district and town levels, to create solidarity in health expenditures, including members of the extended family and not only the immediate family nucleus. With the support of

trained community relays, the insurance committee has implemented various communicative activities such as home visits, talks and conferences, to inform the population about the benefits of the community-based health-insurance. The programme seeks to encourage residents to anticipate screenings and consultations they may need but the message tends to be undermined by the widely held belief that "*it is God's will*", as I often heard.

In Malika, there were two public health-posts and a private one, five health huts and 14 outreach sites, each site managed by a Community Watch and Alert committee. The health huts are located at the community level and run by a community health worker who can address basic care. The head nurse of the health post trains the health workers and is the reference person at the health huts. The mosques are also included in Talla's list; there are 32 mosques in Malika where imams are told about health-related activities with the expectation that they will spread the word; some of them are also involved in the organisation. NGOs like Rainbow for Africa, Renken and Enda Santé and companies in the private sector such as SEDIMA, the large neighbouring poultry company, and Sonatel, the Senegalese group of Orange[89], have supported the city council in health-related actions. For instance, some of them have contributed to the purchase of ambulances for the town.

In each health-post, there is a head-nurse and a midwife only in one health-post. To see a doctor, Malika residents needed to go to neighbouring towns. In the three health-posts, the nurses were men when I was there, supported by a relatively large team of health-workers to reach each neighbourhood of Malika, 40 community relays (the majority of them were women) and 50 *bajenu gox* all volunteering in health programmes.

I would like first to explore the practices of the community-health system looking at the programmes that focus on child and mother's nutrition and health. I will then look at communicative practices and the training plan developed for the volunteer health-workers.

[89] Telecommunication company based in France and the eleventh-largest mobile network operator in the world

6.3.1 Visiting the healthcare structures

To explore Malika on foot, I asked Adama, my walking companion, to guide me (see 4.2.4.2). I asked him to accompany me to visit the health-care posts: we visited two out of the three health-posts and met the nurses. We also met with health-workers but as our visits were during opening hours, my conversations with them were brief. I was curious to know more about the main health issues in Malika and how they addressed diabetes. I took photographs of the health posts and anything that could be related to health education and communication.

<u>Cité Sonatel health-post</u>

Figure 22 - Health Post and maternity ward of Cité Sonatel
consultations – Family Planning Antenatal care – vaccination – delivery

Figure 23 - Posters in the entrance hall
vaccination (measles, rubella, polio immunisation schedule), neglected tropical diseases, measures for the control of rotavirus diarrhoea – consultation fees

We entered the recently renovated health-post of Cité Sonatel. There were few people and after a short wait, we met Mamadou, the nurse assistant. He told us that the main cases

diagnosed were acute respiratory infections and diarrhoea. Regarding diabetes prevention and management, they had organised a screening event over three days: out of 300 people, 40 were diagnosed with diabetes, representing 13%. He did not have any leaflets or posters to show or give patients, he said that the significance of frequent urination often alerted people. To warn patients about diabetes, he simply gave dietary advice orally; he agreed with me that having brochures could be helpful.

Fieldnotes, 13/02/19, Malika

Darra health-post

We went to Darra Malika, the private health post in the town. The premises were in a bad state; there were benches and chairs in the courtyard under a modest covered waiting area. It was 8 am; there were few people. Mr Ndiaye, the registered nurse of the post, welcomed us. He had been working there for 25 years, every day except Sundays. He had a reputation for being dedicated to the service and was well known for his devotion throughout the community. It was Adama's wife who advised us to go and see him because "*he is social, he is strong in dermatosis*", she said. The main cases diagnosed at the post were also acute respiratory infections (ARI); at the time of our visit, there was an epidemic of diarrhoea. He showed me the monitoring sheets for January:

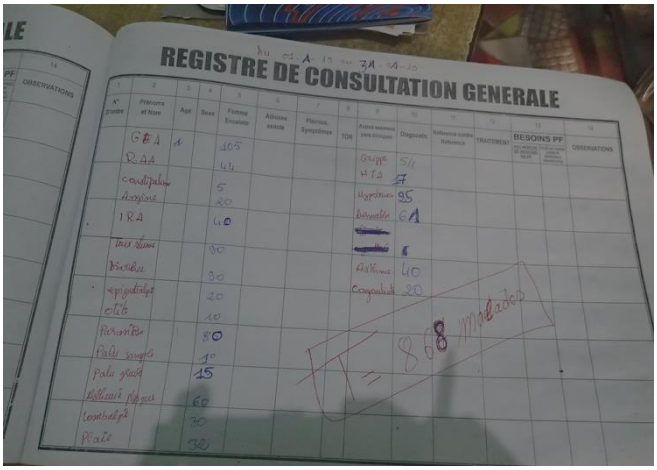


Figure 24 - Consultation register at Darra health-post

GA gastroenteritis	105	12%	Epigastric pain	20	2,3%	Wound	32	3,6%
AAR (acute articular rheumatism)	44	5%	Ear infection	10	1,15%	Flue	54	6,2%
Constipation	5	0,5%	Parasite	80	9,2%	Arterial hypertension	17	1,9%
Throat infection	20	2,3%	Malaria simple	10	1,15%	hypotension	25	2,9%
ARI	40	4,6%	Malaria severe	15	1,7%	Dermatosis	61	7%
Cough cold	90	10,4%	?	60	7%	Asthma	40	4,6%
Diarrhoea	90	10,4%	Lumbago	30	3,5%	Conjunctivae	20	2,3%

name of the disease – number of patients – I added the percentage

Patients could get the blood glucose test done at his post for 1 500 XOF. He gave advice to diabetics, such as "*I tell them to reduce their intake of carbohydrates: seven tablespoons of rice maximum, three teaspoons of sugar in tea. The blood glucose test must be done once every 15 days. Before each infusion, I do it*" (21/02/19).

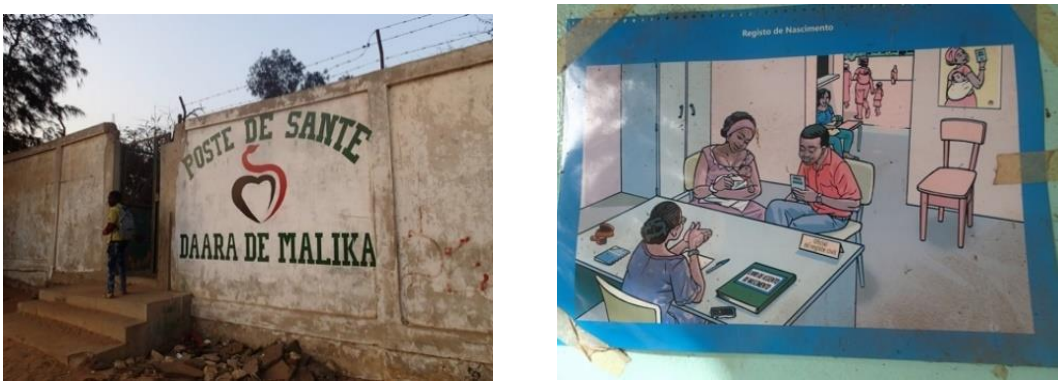


Figure 25 - Darra health-post in Malika
Entrance of the health post (left) and flip chart images displayed on the waiting area wall (right) – the images are about antenatal and postnatal consultations, female genital mutilations, education and intergenerational transmission – the flip chart is in Portuguese, originally used in Guinea Bissau

We also went to the main health-post managed by Mr Thiam, the head nurse, referred to as Dr. Thiam by many Malika residents. He seemed to be the health focal point in the town.

The post was bigger than the two others. We went twice hoping to meet him, but each time there were too many patients waiting to see him, so I did not interview him.

In both health-posts, the displayed posters were mainly related to mother and child health, as well as to health reproduction and vaccination. As acknowledged by the nurses, support for diabetic patients was limited to blood sugar tests and basic diet advice. Compared with communicable diseases such as malaria, tuberculosis and HIV, diabetes had not been the focus of large campaigns of prevention or health education; the materials available remained scarce, despite the increasing prevalence of the disease. The Global Fund's grant for Senegal to tackle malaria, tuberculosis and HIV came to 67 million euros from 2018 to 2020 (ISED/UCAD *et al.*, 2020) whereas to date there has been no national plan to address the rise in diabetes in Senegal (World Health Organization (WHO), 2021a).

Throughout our walks and visits to Mailka's health-posts, Adama reflected on his own health. We talked about health in general and we carried on some conversations with his wife. Before going to the traditional hospital (in the neighbouring town, Keur Massar) I told him that I would take the opportunity to do a check-up; he did not seem interested in doing it. Then he told me about an "*old man*", he meant a Marabout[90] but did not say the word, that he went to see about a haemorrhoids flare up; he was prescribed some plants in powder form. It was not really clear to me whether he had taken them and had relied solely on this treatment. I only explored this informal healthcare through informal conversations with my participants, as a few people would often say casually that they had consulted a Marabout. Indeed, it could be negatively perceived as if they were going to cast a spell - so they tended to visit in the evening when they were less likely to be seen. Though officially Western medicine appears to be the main health care system, in practice, "*all Malika residents have their Marabout!*", I was told by the father in my home, "*Mine is in the village*". I came to see that religious practices and beliefs are intertwined with health in this community. This informal healthcare, however, is hidden and disapproved in the official

[90] Religious man in West Africa who provides spiritual guidance, health solutions, advice, support and hope

health discourse, as illustrated in this excerpt from a national survey on noncommunicable-disease:

> 7.2% of known diabetics consult a practitioner of traditional medicine; nearly 19% are using traditional or herbal treatment. It is reassuring to note that young diabetics (18-29 years old) for the majority insulin-dependent, consult traditional medicine less. (ANDS and Ministère de la Santé et de l'Action Sociale, 2016: 26).

Healthcare facilities in Malika were generally rather poor and limited to primary care. When a member of the family where I lived fell ill, they tended to directly consult a doctor in the neighbouring town. As the father benefited from health insurance through his work, the fees to access healthcare did not seem to be a barrier. Primary care did not include diabetes follow-up so Nene could not rely on the health facilities in Malika to support her with her disease management. On the other hand, although healthcare provision available in Malika was basic, the engagement of community-health actors through the implementation of large programmes around mother and health child, tuberculosis and malaria, significantly strengthened the provision.

6.3.2 Community actors engaged in health activities

6.3.2.1 *Women's groups*

Several health-related activities were organised in Malika. The first one that was visible at my level, a foreigner living in Malika for just a few months, was the eye consultation organised in the association building next to the town hall. I was living next to it and so passed in front of the town hall most days. On a number of occasions, I saw a pitched tent on the parking space in front of the building with chairs provided where patients could wait for a consultation.

These health events, in particular those related to ophthalmology, were not initiated by the town hall. Instead, "*they want to sell their glasses*", as the health councillor at the city council told me when describing these health initiatives. Early December 2018, there was a

two-day ophthalmologic consultation and I met Fatou, the mother of the house where I lived, waiting under the tent. She was queuing for her sister who wanted to have one of her children tested. When I asked her who organised the event, she explained:

> *It is our association that has organised this health event. Our group counts a thousand women, the president is a friend, she lives next door. […] Last year, we organised a cervical screening, I did not go because I did not have time. There were free shuttles to drive us to the hospital. We also organised consultations on family planning. It was free and many people attended.*
>
> *Fieldnotes, 7/12/18, Malika*

Sope Nabi was the name of the women's group. It consisted of 300 women and the president was Ndiawa. When I asked more about who decided the themes, she told me that they met every Wednesday and on the last Wednesday of each month, the whole group gathered to discuss any issues. Once a year, they organised an event, the theme being chosen during these monthly meetings. During my fieldwork, in April 2019, they organised a talk with an Imam to discuss "how to be a good wife", referring to the Quran. Ndiawa is also a *bajenu gox*, engaged in the community health system. Through her training and network, she asked for support from the NGOs and the Imam of her neighbourhood (more on her role as a *bajenu gox* in the following section).

On the day of the eye consultation, a colleague at the NGO who lived in a neighbouring town, regretted that she had missed the opportunity to have her eyes checked: "*My sight is getting worse, I have been careless*", she said, "*I will go to Bopp hospital in Dakar*". This regional hospital specialises in eyes. These one-day consultations were an opportunity to have a basic health check within easy reach, sometimes as a reminder to have a medical check-up. The consultations were not free; for instance, at the International Women's Rights Day in 2019, organised by the House of Women, there were gynaecological and

ophthalmologic consultations available and the cost of the ticket to access them was 2 000 XOF (£2.70)[91].

It seemed to be common in Malika for women's groups to organise and engage in health-related activities to support the communities. The network of health community actors is well anchored and active in Senegal's healthcare system. Indeed, community health workers are central to filling the gaps in key actors the weak and fragmented health systems in many African countries. They implement primary care as envisaged by the Alma Ata declaration (Haines *et al.*, 2007). Nursing assistants and matrons have been involved in mother and child care since the late 1970s; in the 1990s, the community relays appeared, originally responsible for community awareness and information that assists the health workers. In Senegal, their responsibilities have been extended to the delivery and distribution of community care (Faye, 2012). To be a resource person, the roles, status and engagement of a resident in the community are important criteria. For instance, the community relays and the *bajenu gox* were selected based on their participation in their neighbourhood activities.

6.3.2.2 *The Bajenu Gox*

Ndiawa, the *bajenu gox* of my neighbourhood, explained her official role: "The Bajenu Gox (BG) Programme is to identify and strengthen the leadership of women leaders from the community to promote maternal, new-born and child health. For the BG, it is a question of accompanying and supporting the mother / child couple to ensure reproductive health care at the appropriate time by relying on spouses, stepmothers and grandmothers". (République du Sénégal, 2010: 8)

As presented in the training material (ibid.), in Senegal, traditionally and still today, the *bajen*, who is the sister of the head of the family, occupies a strategic place within the family. She enjoys all the considerations through her roles as: - adviser to her brother, - mentor of her brother's wife (*njeké*) - godmother of the children - social and family mediator

[91] An appointment with a midwife in a clinic in the neighbouring town was 5 000 XOF (£6.5) and in the health-care centre of Malika Sonatel (name of the neighbourhood Cité Sonatel) 500 XOF

- psycho-emotional and financial support for the couple. These attributes explain the choice of the *bajen* to deliver the BG programme. The programme aims to contribute to the reduction of maternal, neonatal and infant and child morbidity and mortality (République du Sénégal, 2010).

In Malika, there were about 50 BG and three presidents; with the community relays, they formed the community health team providing support to the community health-workers (nurses, nursing assistant and midwife). They were all selected based on their engagement in the community and then once selected, attended a two-day training. Their main focus was to monitor mother and child's health and look out for tuberculosis and hygiene in their neighbourhood. They organised events, like talks, to raise awareness which tended to be held on a weekday in the morning or the whole day and mainly targeted women, as men were at work. To reach men, the community health workers did home visits.

Ndiawa joined the *Bajenu Gox* programme in 2013. She told me that she was selected to represent the neighbourhood because she was engaged in neighbourhood life in that she was always ready to listen to the community's concerns and was usually aware of problems that arose. She was also known taking care of people. She had run a health hut for a couple of years in her home to address primary care in her neighbourhood. She described her role: "*I observe changes of behaviour, frequent absences of a woman at the women's group meetings for example. Sometimes, some neighbours might also raise the alarm, but they might not feel comfortable about going and talking directly with the family, so they prefer to refer to a community health focal point like me*".

In her neighbourhood, she raised awareness about family planning, encouraged antenatal and postnatal consultations, followed up and monitored the vaccination of children aged 0-5, raised awareness on sexually transmitted diseases and other diseases such as malaria, diarrhoeas, miscarriage, skin diseases (dermatosis), and respiratory diseases, linked to the smoke from Mbeubeuss, the open landfill site of Dakar based in Malika. If she observed someone coughing for several weeks, she would advise them to see the doctor. Every three to four months, she organised with other *bajenu gox* talks on breast and cervical cancer; they contacted nurses and NGOs in health to provide the screenings. She was close to the

Imam and to the head of the neighbourhood, who often supported her in her actions, such as organising events like the eye checks or cervical screenings.

The role of *bajenu gox* can also be held by a man, referred to as uncle in Wolof, *nijaay*. This role, also on a volunteering basis, is a more of an administrative one, involving, for instance, supporting families with registering a birth and is based on the availability of men to engage in the community, considering that their work is often outside Malika and they also have less time due to work. I did not meet a *nijaay* nor heard about anyone who had this role. It was clearly not as common as the *bajenu gox*. These gender roles at the community level seem to mirror the gender role within households. In other words, men's roles tend to be at the representative and decision levels. So for instance, the *nijaay* assists the Imam, and women at the implementation and monitoring levels; the *bajenu gox* organises talks. A colleague at the NGO confirmed this impression. In relation to his children's education, he explained that as the head of the household, he did not have time to follow the educational progress of his children. When there was an issue at school, his wife would go whereas when there was a decision to be taken, he took it.

Ndiawa did not mention diabetes when describing the diseases she tended to see in the community, thus confirming the description of diabetes as an 'invisible' disease. Certainly, it was not easily observable to non-professional health-workers. Nor was diabetes mentioned on information pertaining to the prevention and management of non-communicable diseases such as cancer.

6.3.2.3 *The community relays*

The characteristics of the community relays were stated during the WHO conference in Yaoundé, 1986: "members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have a shorter training than professional workers" (WHO, 1989, p. 6). Community relays are non-statutory agents trained and responsible for providing health-related information, education and communication activities for behaviour change, preventive activities and promotional

activities in their neighbourhood (Faye, 2012). Being able to read and write in French is also a criterion to becoming a community relay, as I observed in Malika.

The training manual for community relays begins by defining communication:

> Communication is the process of exchanging information and experiences between two individuals or several other individuals. The purpose of communication is to create a space for discussion / consultation to share information with a view to adopting behaviours and attitudes favourable to the acquisition or maintenance of good health (USAID, Ministère de la Santé and Child Fund Senegal, 2010: 5).

In this definition, health communication is presented as horizontal and interpersonal, taking place in a group through talks and mobilisation, or in more intimate exchanges between the health-actors and the residents. Nevertheless, it seems guided by an agenda that is about adopting desirable "behaviours and attitudes" regarding health issues as studied during the training.

As health-actors, community relays are trained to take health decisions based on their observations and conversations with the residents of the neighbourhood. They learn to diagnose primary curative diseases, whether the residents need further care that can be addressed by the nurse in the town or the neighbouring hospital. During their training, they review common diseases related to mother and child health such as diarrhoeas, tetanus, malaria and acute respiratory infections. They receive the basics in delivery stages, the dos and don'ts of delivery. They assist the midwife if needed and learn about any complications pre and postnatal for the mother and child, follow-ups and advice on vaccinations for the new-born baby. Through the training and the material received, they are able to address some beliefs regarding family planning, such as that "the IUD[92] rises in the woman's belly", "Pills accumulate in a woman's body" (ibid.: 94).

[92] Intrauterine device

The community relays are involved in community health programmes such as the USAID's Health/Community Health programme (PSSC II[93]), described in the following section. They are also mobilised for other specific actions such as the mutual health subscription, awareness campaigns on the use of impregnated mosquito nets and more recently, on the prevention of COVID-19. In May 2019, I met several of the community relays; they had been mobilised by the community health coordinator to provide home visits and promote the community-based health insurance. They participated in a presentation at the House of Women, where they were all given a one-page briefing with the key points/messages in French regarding the benefits of the insurance and how to conduct the home visit.

The Senegalese government with the support of partners like USAID strengthened the health-community learning and communication programmes to address issues on mother and child health, health reproduction, tuberculosis and malaria (see 2.3.2). As Nene's needs and situation did not match with these health priorities, it is not surprising that she did not have much interest in the health activities organised in Malika.

Several community actors, mostly women, were committed to bettering the community's health; occasionally, the city council acknowledged their efforts with grants or activities that could make their engagement more visible at the town and district levels. Faye (2012) studied the motivations of the community relays engaged in large programmes and showed how some of them found ways to strengthen their skills and their legitimacy in the health sector to develop their careers. Their efforts and commitment have been key in the inner workings of the Senegalese healthcare, Faye (ibid.) argues, and their ambitions and claims need further attention. In a way, communicative and interactive health literacy as per Nutbeam's definition (3.2.1.2) frames these community-based programmes: health-workers are trained to understand and act on information in a rather supportive environment as their training and acknowledged role gives them legitimacy to act within the communities. I clarify *rather supportive* because the environment of community-based health system is

[93] Programme santé USAID/santé communautaire

constrained by the content of health packages and financial resources. In the next section, I look at the sharing of health-related information through analysing some materials developed for community-based interventions.

6.3.3 Health and nutrition-related communication strategies

For this section, I have selected some nutrition information materials developed by the Ministry of Health and the USAID's Health/Community Health programme (PSSC II[94]) that involved the community relays. I address the question: what do these materials, implemented and used at the national level, reveal about healthcare communication strategies?

6.3.3.1 *Educative activities on nutrition for women*

Some of the community relays I met in Malika had been part of the USAID's Health/Community Health programme (PSSC II[95]) from 2011 to 2016. I met the coordinator to find out more about the programme. In addition to improving the management and equipment of the health huts, one of its components focused on counselling and education on mother and child nutrition, in line with the government's priority of reducing malnutrition and child mortality.

This component targeted pregnant and lactating women with infant and young children aged 0 to 5. The main activities were monitoring a child's weight (monthly weigh-in) and cooking sessions with mothers to show them dishes that were suitable for different stages of the young child's development. The community relays were in charge of these activities and filling in the monitoring forms.

[94] Programme santé USAID/santé communautaire

[95] Programme santé USAID/santé communautaire

The programme, which ran for 3 years and was designed to follow the child till they were 24-months old, was supposed to have been taken over by the city council in 2016 but this did not happen due to constraints on the budget available for health.

Nevertheless, the programme succeeded in mobilising several actors through the 14 health outreach sites in Malika. In each site, the coordinator mobilised the volunteer community relays, informed the neighbourhood representatives, the women's groups and associations, and supervised the volunteering management of the site. The presidency of the programme, the administrative (finance) and secretarial (report writing) tasks were mostly carried out by women. The coordinator and health-post head nurse, both men, organised monthly meetings with the community relays to assess their work and develop an action plan.

All community relays for this programme were women but were not all mothers. Some were young, the selection criterion being their ability to read and write. They attended the four-day training presented earlier (section 6.3.2.3) and received ongoing training with the community focal point and with the health-post head nurse through the monitoring of the sites. As volunteers, the community relays were required to visit households, an approach that draws on colonisation, with the "visiting nurses" as they were called. The visiting nurses visited households to meet with the pregnant women who might be reluctant to be examined by a male doctor. Nonetheless, part of their remit was to encourage women to consult a doctor about their health and that of their offspring, a health practice that was viewed as unnecessary in local communities (Ndao, 2008). The themes of the talks lead by the community relays were pre-selected according to the programme plan, using a flipchart (analysed in the following section); one-to-one talks were also arranged if a participant wanted to know more.

6.3.3.2 *Women as the main target group in nutrition-related activities*

"*In terms of food preparation, it's the woman who is in charge, and it's her choice; men are only concerned about ensuring the daily expenses, this is the reality*", answered two health-workers, both men, when I asked about including men in nutrition-related activities. Women were perceived as the receivers of health and nutrition-related information and activities, an

approach that echoed adult literacy programme mainly that are framed to empower women. The following flipchart was used by community relays in the PSSC II to talk about pre and postnatal consultations and child vaccination.

Figure 26 – Community-based health flipchart
National Family Security Bursary Programme for community relays - "Together to fight social inequalities"

The flipchart was originally developed within the National Family Security Bursary Programme initiated in 2013. The programme contributed to the fight against the vulnerability and social exclusion of families through integrated social protection, in order to promote their access to social transfers and to strengthen their educational, productive and technical capacities, among other things[96].

The content of this flipchart mainly focuses on the well-being of the community, with particular attention given to the health of the mother, infant and young children, as well as the elderly. The material is written in French for the community relay and illustrated with cartoons in large format (30 x 50 cm) for the audience. There are 23 boards organised in five themes:

[96] https://www.sec.gouv.sn/programme-national-de-bourses-de-s%C3%A9curit%C3%A9-familiale-pnbsf

Theme 1: compliance with prenatal consultations for pregnant women
Board 1: prenatal consultations
Board 2: compliance with the 4 prenatal consultations calendar
Board 3: the advantages of prenatal consultations
Board 4: pregnant woman's diet

Theme 2: stay up to date the immunisation schedule for children aged 0 to 5
Board 5: child protection with vaccination
Board 6: vaccination and vitamin A supplementation

Theme 3: children's diet and nutrition aged 0 to 5
Board 7: exclusive breastfeeding of the child aged 0 to 6 months
Board 8: the principles of complementary feeding
Board 9: infant and young child feeding: aged 6 to 12 months
Board 10: infant and young child feeding: aged 12 to 24 months
Board 11: Feeding a child over 24 months

Theme 4: principles of aging well for the elderly
Board 12: the healthy and balanced diet for the elderly
Board 13: food eaten in excess that can be harmful for the elderly
Board 14: physical activities for the elderly
Board 15: avoid isolation of the elderly
Board 16: make health facilities your first choice
Board 17: monitor the oral and eye health of the elderly

Theme 5: hygiene
Board 18: hand washing with soap
Board 19: hand washing techniques with soap
Board 20: water purification
Board 21: drinking water conservation
Board 22: food conservation
Board 23: personal and environmental hygiene

This programme provides women with the essentials regarding child nutrition, post and prenatal consultations. The provider communicates to women as mothers and housewives and focuses on their role as providing nurture to the family; women are positioned as responsible for the growth of the children and the well-being of the elderly. As nutrition studies reveal, women are often targeted in instrumental ways and at specific periods of their life course (pregnancy and mother of young children), an approach that largely fails to address their own health needs (Fox *et al.*, 2019).

To explore the representation of food practices in the material, I selected two boards on nutrition with my translation of the guidance given to the community relays. The participants see the illustrations and, on the reverse, the community relays read the table that provides the main points of the talk.

On board 8 (see below), the instrumentalization of women is intensified by the hands pointing at the woman lactating. She is at the core of the child's healthy growth and development. The father as the head of the household does not appear at all. Interestingly, compared with the images of the Guinean flip chart displayed at the health post of Darra

Malika (picture in 6.3.1), the images of the Senegalese version did not represent the father as often in the antenatal and postnatal care. Moreover, in the Guinean version, women appear in the roles of doctor and nurse, whereas in the Senegalese flip chart, these are all men; this echoes with the earlier discussion regarding gender relations in Malika's healthcare. The vignettes in the Senegalese flipchart represent daily activities that take place mainly inside the house where women have the key roles.

On board 12 (see below), the elderly man seems placed like the child on the previous board, receiving his food prepared by the housewife, even if she is not represented in this image. From my observations, it is the housewife who prepares separate portions for the elders; in my neighbour's house, for instance, the grandmother was on a salt free diet; her meals were served on a plate and she ate in the room next door. In both illustrations, food seems to be a technical subject: the board provides the recommended food items and dishes with the appropriate quantity. As in the nutritionist's talk (6.2.3), the provider of this health programme uses metaphors to explain food: carbohydrates and lipids for the energy (the batteries in the board); proteins to build the house (the brick of the wall); vitamins and minerals to protect it (the key to lock).

Figure 27 - Board 8: the principles of complementary feeding

Board 8: the principles of complementary feeding	
Description of the image	four vignettes representing different food groups; a mother breastfeeding her baby and surrounded by the different food groups; a child of 9 months, another one of 12 months and one of 24 months; a child eating with next to him, three dishes
QUESTIONS	ANSWERS
What do you see in the drawing?	four vignettes - On the first one, some corn, rice and millet, potatoes, sweet potatoes, sugar, oil, palm oil, ghee, butter and an arrow indicating batteries - On the second one, meat, fish, eggs, peanuts, milk, beans and an arrow indicating bricks - On the third one, a mango, a lemon, an orange, green leaves, papaya, melon, ditax[97], cashew apple, aubergine, carrots and an arrow indicating a key and a lock - a mother breastfeeding her baby and surrounded by the different food groups - a child eating, with three dishes next to him - a child of 9 months, another one of 12 months and a third one of 24 months
What do you think this scene means?	These different food families must be used to constitute the complementary food of our children in order to ensure their good growth
MESSAGE(S)	For adequate growth of our children, from 6 months, in addition to breast milk, let's give them at least three meals. The ideal complementary food meal for our child should contain: staple foods, foods rich in energy, protein, vitamins and minerals

[97] Fruit of the Detarium Senegalese tree native to Senegal and West African countries. The fruit is nutritious and commonly used in traditional medicine (source Wikipedia)

Figure 28 - Board 12: the healthy and balanced diet for the elderly

Board 12: the healthy and balanced diet for the elderly	
Description of the image	An elderly man who has three meals, three snacks and drinks a lot of water
QUESTIONS	ANSWERS
What do you see on the drawing?	An elderly man eating; three meals and three snacks; Lots of water in several intakes; A basin, some water and soap for washing hands.
What do you think this scene means?	To age well, older people need to eat well by eating three meals and three snacks daily and drinking plenty of water. The diet of the elderly must be rich and varied.
MESSAGE(S)	Ensure a healthy and balanced diet for the elderly by giving them: three daily meals; three snacks per day (around 10am, 4pm and 10pm in particular for diabetics). Drink at least 1,5 litre of water per day (in several doses and in small quantities). Often offer a drink to the elderly. Before eating, the elderly must wash their hands well with soap.

In terms of health literacy as defined in 3.2.1.2, scientific literacy as per Zarcadoolas and colleagues' definition (2003) is simplistic, even absent, as it was in the counselling session where the nutritionist avoided the use of scientific terms. Once again, we can see the preaching messages that do not give much space for cultural literacy, for instance encouraging a conversation on collective beliefs, customs and worldview.

Nene's age and needs did not match either of these two boards: she was no longer in the reproductive age category and not yet in the senior one. She was actively contributing to the daily expenses and food preparation for the family; she could not sit and wait to be individually served with meals that took into account her dietary needs.

This section has looked at how women seemed central in the health communication both in terms of receiving and disseminating it within the communities. It is a communication system that seems to be well organised and strong, through its network of community actors and the social learning of activities like awareness raising talks. However, the lack of materials and lack of recognition for the volunteering work of community relays and *bajenu gox* is a significant weakness. This emerged during the Health Day we organised in Malika in April 2019 (see 4.2.5.2). Participants stated that meetings for volunteers to come together, think together support each other and maintain their motivation, were rare. They suggested that a think tank for community-based actors should be included in the local authority's operational plan (Cissé and Binesse, 2019).

The above discussion regarding community volunteers in the health programme illustrates the tendency when it comes to health-related issues, to see women providers (volunteer) and also as participants (Subrahmanian, 2001; Moser, 1993). The health activities mainly focused on women but were managed by men (health representative, nurses and the health community coordinator); the activities were implemented by a majority of women: out of 60 community relays, only 15 were men. Women tend to be key targets in health programmes in their identities of mothers and housewives, nourishing and caring for the family.

6.4 Conclusion

This chapter investigated the health and nutrition-related information that is available in Malika. I first explored how Nene managed her diabetes. She had to go to Dakar for her health follow-ups and advice as the healthcare available more locally could not address her needs, diabetes was not being included in the primary care package. The cost of the recommended check-ups and the time dedicated to go to Dakar made it challenging for

Nene to manage her disease, as she was constantly concerned about contributing to the daily expenses, despite her tiredness.

In terms of the interventions implemented by the community-based health system, the health-care centres and community sites, these learning and sharing spaces mainly focus on communicable diseases and nutrition for mother and child; they do not include non-communicable diseases such as diabetes. Moreover, the messages tend to be patronising, telling women what do to, although this tone may vary depending upon how the volunteer health-worker takes hold of and uses the community-based healthcare material.

In terms of the dominant discourse around health, the government's priorities and international donors guide the implementation of the community-based health programmes, including the *Bajenu Gox* programme. The themes of the talks were also based on materials developed by the Ministry of Health. Hence, the themes and priorities of the community-based health system in Malika were not of interest to Nene, as a middle-aged woman with diabetes.

At the regional hospital, the discourse on individualisation of care through diet places the responsibility on the patients. For the women who are actively engaged shopping for and preparing food for the whole family, this simply becomes an additional burden, as I showed in Chapter 5. Nene was not an elder; instead, she, along with her niece, was the one who ensured that there was food on the table each day. Preparing something different was extra work and serving herself the recommended vegetables or fish would mean that family members would have less. Furthermore, the advice to eat more vegetables than rice took no account of taste preferences.

The counselling session at the hospital provided a space for non-formal learning – it is part of the treatment and Nene attended a couple of them. The setting and the nutritionist's approach to presenting the information and interacting, encouraged questions. However, no one asked any critical questions during the session I attended. The space is therefore a place where participants intend to learn about health practices to improve their health. The nutritionist framed his speech with 'preaching' messages (Acharya and Robinson-Pant,

2019); participants were not encouraged or did not position themselves to critically think and co-create knowledge (Hill, 2016). Building on the male health-workers' position regarding women's responsibilities and choices in food preparation (see 6.3.3), they exclude men as 'health co-creators'. I will further discuss the verticality of the intervention model in Chapter 8.

In the next chapter I am going to look at the digital sphere by exploring the use of WhatsApp at the House of Women – what kind of messages are shared? And how?

Chapter 7 - Health communicative practices in a shared digital space

7.1 Introduction

In the previous chapters, I have looked at some health communication on food and nutrition, in particular, information about diets to regulate diabetes or to tackle malnutrition in mothers and children. Through the analysis, I found that food practices and, to a certain extent, ways of cooking, are framed by the image and roles of women, along with religious and economic factors. Tips and tricks are transmitted and reproduced through generations in the kitchen; beliefs and cooking practices, the use of particular ingredients, including plants, may also be related to family habits (see 5.4.4 plant-based drinks). Learning about health and nutrition takes place mostly unconsciously, by osmosis, learned through participating in cooking preparation, in eating together and when talking about food, as I was able to explore through being at the NGO, with my host family and in the House of Women.

In this chapter, I explore another learning space: the digital space I shared with some of my participants. The overall objective is to look at the kind of health and nutrition-related information that was shared in a WhatsApp group, the flow and reactions to messages, posted over a year. To do so, I first explore some everyday digital and face-to-face communicative practices and the virtual environment of WhatsApp. Then, focusing on the WhatsApp group of the House of Women, I study the content of selected forwarded messages, looking at their origin when available, the language and mode used, the message conveyed and its objective. It is a small corpus analysed in the context of the House of Women. I also look at some messages that illustrate the online interactions between participants which are spontaneous and authentic. They were made with my presence as a researcher at the House of Women and participant in the WhatsApp group who was not studying the virtual space when they occurred (see 4.3.2.2 for ethical concerns). I look at the nature of the exchanges and the roles revealed through these interventions.

I then analyse selected health and nutrition posters and videos forwarded in the group by participants. What do these messages reveal in relation to health? What could be the sender's intention in forwarding these messages in the virtual groups? I will go on to investigate reactions to some of these messages on WhatsApp as received a pharmacist and a director of a school and shared with me face-to-face during conversations I had with them. They told me how these messages had impacted on their work.

Through the analysis of the content and mode of the selected messages, I intend to further explore how digital communication platforms like WhatsApp enter and become incorporated into the social and cultural capital of the users. Defined by Bourdieu (1979, 1980) as resources that individuals and socials group have, social, cultural and economic capital allow them to increase or maintain their position within the social hierarchy and to enjoy material and symbolic privileges. Thus, I will also look at the power dynamics within the social arena of the WhatsApp group.

7.2 Communicative practices in Malika

Before looking at specific digital communicative practices, I first explore ways of communicating in Malika, specifically, how Malika residents engaged with their mobile phones but also with other media and face-to-face communication.

7.2.1 Communicating during my fieldwork

In Senegal, most people I met and with whom I exchanged my phone number, had a WhatsApp account, except Nene and Babacar. Nene had damaged her smartphone and could not afford to buy another one. We used to meet on Sunday mornings for the walk and sometimes called each other to meet in the week. After my fieldwork, we maintained contact through her son's WhatsApp number.

Babacar is a taxi driver I often called to take me to Dakar; he was in his thirties, we communicated mainly in French but our discussions were rather limited because of our language level, mine in Wolof and his in French. Babacar did not have a smartphone but said that his wife had one and she was spending a lot of time with it (which sounded like a criticism). He had a simple second-generation mobile phone and did not see the need for a smartphone. He spent most of his days driving or waiting in his car, with the radio on all day long, listening to the news in Wolof. To communicate with him and agree on a time and destination in advance, calling him was the only option. Because of convenience, for instance being in a meeting and not able to easily talk, I suggested that I could send him a text message instead, but he told me that he could not receive them. After some months of regularly meeting him, I came to realize that reading was challenging for him. For instance, when we went to Diamniadio, the new city being built to ease congestion in Dakar, he asked me the way to the new conference hall. I could guide him by relying on the road signage. Oral communication was what worked best for him, and the previous generation of mobile phone seemed to satisfy his needs. It is important to remember the singularity of the users within the universality of the tool. The official literacy rate of men remained higher than the one of women and yet only 65,6% of men in urban areas were considered literate in 2013 (ANSD, 2014).

When I was in Malika, I did not often call my participants, simply because if I wanted to talk with them, I knew where I could meet them. Most of the conversations were face-to-face. During my fieldwork, when I received a WhatsApp message from my participants, it was mainly a forwarded bit of information, or pictures in French either related to health, as they knew it could be of interest to me, or a good morning picture to wish me a good day. The oral channel for sharing information was the main one used at the NGO for instance, especially at lunch time after eating. I often heard and also experienced, the frustration of not having been informed of a meeting or an event because of missing the face-to-face conversation.

As introduced in Chapter 2, Wolof and French are the two main languages; the majority of written information I came across was in French, especially official texts and newspapers,

whereas Wolof was used in advertisements, in the graffiti on walls and in some messages on social media. The texts in Wolof were in the Roman alphabet, largely used in the urban area of Dakar, but often not in line with the codified alphabet much to the regret of national language activists (see. 2.2.2). Later in this chapter, I include the choice of language and the mode in the analysis of the selected messages and explore what it might reveal.

7.2.2 Maintaining the network, the mobile phone and the everyday greetings

Everyone in the family where I lived had a smartphone except the two youngest children (10 and 5 years old during my fieldwork) who were using their mother's one to watch videos on YouTube or play games. Samba, the second son who was 13, used WhatsApp and Snapchat with his friends to share selfies, video clips and songs mainly; "we exchange banalities", he told me when I ask him what they talked about on WhatsApp. He also used his phone to study English; he had installed mobile applications such as a dictionary and grammar exercises.

I often saw Fatou, the mother, and Awa, her young sister-in-law, using WhatsApp to exchange vocal messages and photos but not to have long conversations on the phone. As I demonstrate further (7.4.1), WhatsApp is easy to use and its vocal messages and calls, that can also be video calls, can address the need to maintain social contacts. When possible, the main way to maintain contact was face-to-face; Fatou's relatives or friends would often drop in in the afternoon for a chat. Similarly at the House of Women, it was common to see members stopping by to greet and chat. The first time I walked with Fatou in the neighbourhood to get a certificate of residence from the head of the neighbourhood, we stopped several times to greet residents on our way and spent a couple of minutes with each one. I could progressively make connections between familiar faces and discern what the extended family meant in Senegal. Whereas at the beginning I used to reach the House of Women within 10 minutes, towards the end of my fieldwork it could take 30 minutes: walking through Malika felt like being in a large village, greeting and being greeted, stopping to have a chat along the way.

7.2.3 Organising and communicating on an event

Despite the widespread use of WhatsApp, information was also disseminated through non digital practices. Indeed, to organise the Health Day event in Malika on 16 March 2019 (see 4.2.5.2), we did not exchange any emails among the steering committee members; instead, we had three meetings in Wolof to discuss the objectives, the speakers and agree on a date and the last one, in a smaller group, in French, was to finalise the agenda. On 15 March, the day before the health day, the community-health coordinator and I were in a car driving through the streets of Malika with a speaker on the roof to announce the event. For about half an hour, we repeated the same announcement that he said in Wolof and French; as I was in the car with him, he suggested that I make the announcement in French.

Figure 29 - The speakers installed to announce the Health Day event in Malika

I was asked to prepare a banner for the day and I created a small poster to share through WhatsApp. I wrote both in French, following the instructions of the committee members. The town councillor in charge of health called some participants and sent an official invitation letter on paper and in French to the local authority's representatives, delivered at the last minute because of numerous modifications. At the NGO, events were organised in a similar way: apart from the invitation letter sent to the officials, the use of writing was occasional and not the main communication channel, as the event was mainly for the community members, that is to say within the NGO's network. Interestingly, the Facebook page of the NGO was not used to advertise events but to report them afterwards, with

pictures. Similarly in the House of Women, their page was used to display progress made or the results of their activities. Throughout my fieldwork, I found access online information about upcoming events challenging. I heard about some large conferences taking place in Dakar often by chance, hearing it announced on a radio spot while in the taxi or seeing an advertisement on a billboard in Dakar or broadcast on TV at dinner time; I found out about events in Malika mainly by word of mouth, so as my network grew, I was better informed.

7.2.4 Accessing the news and information using ICTs

At home, the TV and phone were the main digital devices. The TV was often on, most of the time turned on in the background or at dinner time around 9pm, to watch the soap operas. The news at 8pm coincided with dinner preparation; the father would watch from his bedroom. Except for my neighbours, a shop keeper, every household I visited had a TV. The radio seemed to be used less. Over the months spent in Malika, I never heard a radio on at home or in the places I regularly visited, except for my Wolof teacher's father who listened to the news and religious programmes on the radio in his carpentry workshop. Adama, my walking companion and with whom I explored Malika by foot, liked to listen to Radio France International on his mobile phone and to watch the news on France24 on his TV. Through these two channels, both French public media, he could follow international news.

Regarding the written press, Adama's wife gave me a sample of the city council's paper in French, reporting activities in Malika and the surrounding area, such as an update on road construction, a portrait of a Malika resident and future projects in the city. There were two newspaper kiosks situated close to the main junction of Malika that is also the main bus stop but I did not often see readers in my immediate circle. Maybe like the radio, I was not there when they were reading or listening to the news. According to the national survey in 2013, TV and radio were the media used by the Senegalese people; the penetration rate of these two media was 75% whereas the written press was 54% and Internet 30% (Centre National de Régulation de l'Audiovisuel, 2014).

Comparing these statistics with a study implemented by Similarweb in 2018, the tendency to choose video contents was also more dominant in the habits of Senegalese people on the web, with YouTube being the first website visited. I regularly observed this practice at home: the children would be watching singers' video clips or cartoons while the mother would be catching up with a soap opera episode she missed; at the NGO, some colleagues often watched the news or religious leaders' speeches while waiting for lunch. Some of these practices are those documented in a report generated by the Simon Kemp Company[98] (2020) identifying the top query on YouTube as films, Senegalese soap operas and singers.

	Sénégal	Cameroun	France	Monde
1	youtube.com	google.com	google.fr	google.com
2	google.com	youtube.com	google.com	youtube.com
3	facebook.com	facebook.com	facebook.com	facebook.com
4	google.sn	google.cm	youtube.com	baidu.com
5	warime.com	yahoo.com	amazon.fr	instagram.com
6	yahoo.com	torrent9.blue	leboncoin.fr	yahoo.com
7	seneweb.com	google.fr	orange.fr	xnxx.com
8	uvs.sn	xvideos.com	wikipedia.org	twitter.com
9	campusen.sn	wikipedia.org	live.com	vk.com
10	instagram.com	jumia.cm	yahoo.com	wikipedia.org
11	torrent9.blue	myway.com	pornhub.com	xvideos.com
12	xvideos.com	1xbet.cm	instagram.com	pornhub.com
13	live.com	linkedin.com	twitter.com	yandex.ru
14	google.fr	whatsapp.com	free.fr	amazon.com
15	twitter.com	instagram.com	xnxx.com	google.com.br

Figure 30 - The most visited websites in Senegal, Cameroun, France and in the world Source: similarweb - September 2018

To summarise, according to my observations, TV and YouTube were the most popular media, although other media such as the radio and newspapers were also part of the communication landscape. However, in terms of accessing information and being informed about events in Malika, people seemed to rely mostly on their social networks, a result of living in the community and interacting with its members.

[98] Business consulting and service, reports of digital uses in 230 countries

7.3 Exploring the virtual space of the House of Women

7.3.1 The WhatsApp group: a community tool

As discussed in 4.2.5.1, I became a member of the House of Women in late March 2019 and it is where I spent most of my time until the end of my fieldwork in June. The House of Women have a WhatsApp group, created in August 2018 by the manager to share information with the members of the House. It is used to announce any events related to House activities and share the pictures after the event. As one of the community-health sites in Malika, it also announces health-related talks organised at the House. I was added to the group on 3 April 2019, shortly after my first visit to the house, and I remained connected over the following year. During all these months, even once I was back in the UK, I could be informed of activities, events and any shared concerns or issues that arose; as a result, I felt I retained some connection with the community.

The virtual group consisted of members of the House of Women all living in Malika or in its locality. They did not necessarily all know each other personally but they were all linked to the House of Women; thus, the virtual space was a familiar environment. When I was in Malika, there was only one administrator of the online group, the manager of the House. I supported her to create a Facebook page as she also wanted to communicate via this platform, though compared with the WhatsApp group, the Facebook page was not very active. In July 2019, a second administrator, a man, started to support the manager in the gardening project that the House of Women had started, in partnership with ENDA Sahel. He actively took pictures and videos of the gardening activities to share them on the online group (and replied to comments as demonstrated below).

The large majority of the participants in the WhatsApp group were women, about 76%, of different ages. I knew some of them personally. Being a participant for several months, I noticed that not all of the participants reacted to or posted messages. The senders were often the same participants, most of the time forwarding texts or vocal messages, videos, website links, letters in PDF or photos. Moreover, it seemed that some participants in the

group did not seem to be active on the application: when I posted a message in the group, the double tick to the bottom right of the message did not appear to signal that all participants had received the message. This might be because of not having enough credit to activate their 4G mobile data and access the Internet. Coming to the House of Women was often an opportunity for members to connect their mobile phone to the Wi-Fi and check their WhatsApp messages. Another reason could be that some participants had uninstalled the application or changed numbers. When I checked the list of participants in May 2020, there were 3 profiles that seemed totally inactive with no status, no name and no picture.

As a participant in the online group, I saw a multitude of multimedia information flashing up on WhatsApp every day, both in French and Wolof. I ignored some and forwarded others, those pertaining to health or to an event in Malika, to Adama, Nene or Abdou when I thought that it could be of interest. None of them were in the WhatsApp group nor were they a member of the House. When I invited Nene to become a member, she did not seem keen. She told me that she already belonged to a women's group in her neighbourhood.

Being in the WhatsApp group of the House of Women was almost like being in the actual building, in the sense that some faces were familiar and some of them regularly intervened in the group, as they did in the house. Some participants were more discrete and appeared in the virtual group from time to time; others remained silent, just as many members rarely came to the House. Were they reading or listening to the messages? Maybe not all of them, maybe not on a regular basis. The messaging application offers asynchronous communication for groups and as well as one-to-one communication; participants do not need to be concurrently active. In terms of interactions within the online group, it seemed that participants who regularly sent messages that were not community-related, did not expect any reactions to the messages that they posted and equally, participants did not feel forced to react to them; perhaps because the group was large (68 participants), there was less pressure to respond. This absence of reaction intrigued me, especially in March, April and May 2020, when I back in the UK, and it was the first months of the pandemic. As in most parts of the world, there was a proliferation of messages around COVID; anxiety and uncertainty were expressed on social media, it was hardly possible to avoid hearing about

interpretations and theories about the origins of the virus, tips to prevent it and doubts about its effects, among others. As I explained in 4.3.2.2, I started exploring the virtual space and the reactions of members in relation to the contents to better understand how the tool was used by the participants.

In a way, the virtual group acted as a community tool to maintain cohesion and the sense of belonging. These settings and options also give a sense of conviviality and equality in the way that, for example, participants can be invited to join the group discussion, in a similar way to how I have described commensality. In the case of a WhatsApp group, it is sharing a communication space, to access, produce and share information. The group is extendible as the circle around the pot welcomes an additional person (see 5.4.1). But was it really a discussion group or mainly a House of Women initiative to keep a community together through sharing and updating the House's activities?

7.3.2 Learning how to use WhatsApp

Like any communicative Internet platform such as Viber, Messenger or WeChat, the WhatsApp application offers multimodal communication to its users, breaking with the limits and rigidity of SMS *Short Message Service* (usually limited to 160 characters) and MMS *Multimedia Messaging Service* (often limited to 600 Ko[99] and with an additional cost) that were offered by the phone operator via mobile phone waves. Considering the various mobile applications now available, the latter service seems outdated. Using WhatsApp is not free as it requires Internet data or a connection to a Wi-Fi, like at the House of Women, where members can connect using the organisation's Wi-Fi subscription.

Once the application is installed and authorisation granted (e.g. access the contacts, the photo gallery), the user is guided by the interface that application developers thought to be

[99] 16 MG (16 000 Ko) is the maximum file size sent on WhatsApp, this is equivalent to a video from 90 seconds to 3 minutes of video depending on the quality of the image https://faq.whatsapp.com/general/i-get-a-message-that-my-video-is-too-long-and-it-wont-send/?lang=en

intuitive, with *primary affordances*, when clicking on an icon (e.g. camera) is followed by an immediate response (e.g. video call), and *secondary affordances* when the resulting action requires some thought and manipulation to be (e.g. add a contact) (Ruchon, 2019). The first invitation of WhatsApp is to click on the icon representing a dialogue bubble with the application for Androids, or a blank page with a pen when using an iPhone[100], to start a conversation with a contact as we can see below in Figure 31. The list of contacts appears with individual profile pictures that might be a close-up portrait of the person or a picture that represents a place, an object or a message. When the contact is selected, the user is encouraged to choose the oral and visual channels with the icon of the phone to call, the microphone to record a voice message, the camera to send a picture; clicking on them triggers the action. The writing channel is discreetly flashing on the blank space or more dominantly with the keyboard popping up in the iOS version (Apple). The latter version of the application with the icon of the blank page and pen and the keyboard, seems to privilege written communication; it is interesting to notice the different interfaces whereas the green button with the microphone is more visible on the Android version, thereby seeming to privilege oral communication.

Both the administrators of the House of Women's WhatsApp group had the permissions to add or remove participants. When new participants appear in the group discussion, all other participants are notified by an automatic message in the WhatsApp group feed. The application also gives the participants the options to leave the group when they wish to; an automatic message also notifies all participants of the group when someone leaves. Knowing the options of the application, participants can also mute notifications to avoid the constant messages that appear on the phone. This option is not set up by default or easily indicated by an icon; it needs some navigation in the settings, what Ruchon calls *secondary affordance,* for example, one clicks on the three dots on the top-right hand side or the contact's name to access the options of the chat. These two options, leaving and muting,

[100] 88.9% of web traffic was originated by Android devices in Senegal in January 2020 https://datareportal.com/reports/digital-2020-senegal

give a kind of independence and flexibility to individual participants; the rest of the group is not notified when participants mute.

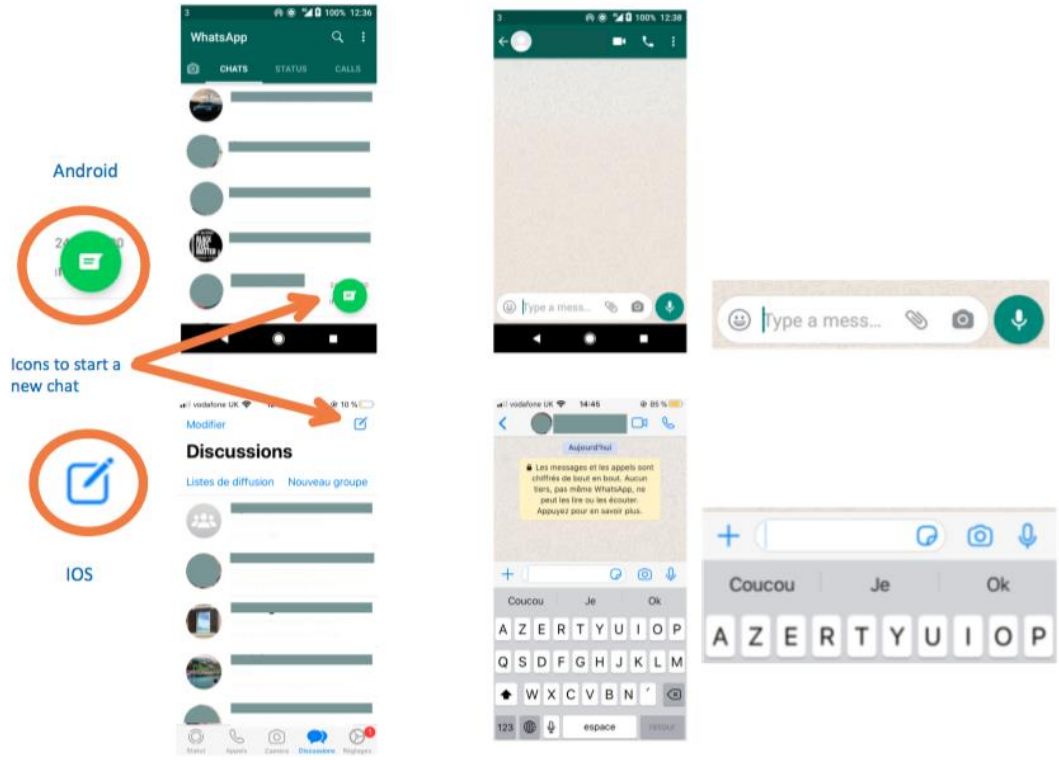


Figure 31 - Screenshots of iOS and Android WhatsApp application to start a new chat

Beyond the *primary affordances*, learning about the several options that the application offers are learnt through peer-learning, in the form of sharing tips. For instance, big multimedia files were regularly sent in the online group so on 20 April 2020, a participant forwarded a message (see Figure 32) with instructions (in French) on how to save the files in the application and not on the phone. This was a tip that I really appreciated, as I kept receiving a warning message about the storage capacity of my phone. The detailed message explained each step numerated from 1 to 5 to accompany the action. The end of the message invited the receiver to share the information with others "now that you know it, take action and inform everyone".

Another interesting option that showed the use of *secondary affordances* by participants of the group, was the possibility of replying to a specific message. Some participants often used

this option as it facilitated a two-way conversation (see Figure 33). To do so with the Android version, the participant needs to tap and hold on the message that he/she wants to reply to and click on the arrow pointing to the left on the top bar or alternatively swipes right on the selected message[101].

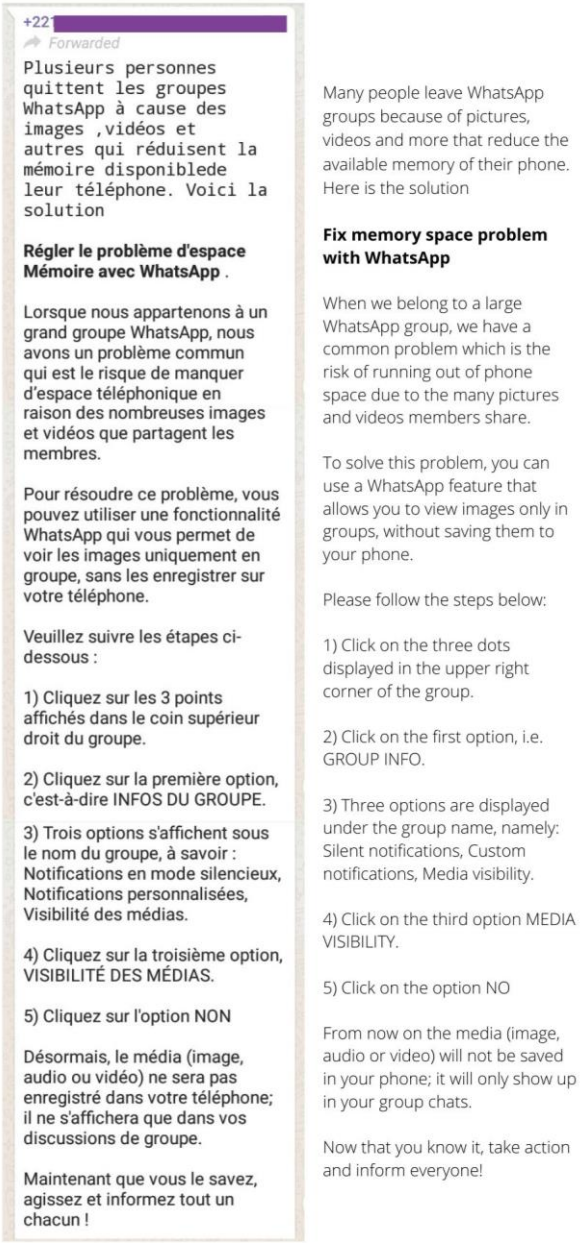


Figure 32 - Forwarded message with the instructions to save multimedia files

Figure 33 - Replying to a specific message

Figure 34 - The quick share arrow

[101] https://faq.whatsapp.com/general/chats/how-to-reply-to-a-message/?lang=en

Finally, *the primary affordance* that seemed known by many was the arrow icon pointing to the right next to some multimedia files that indicated the option “forward the message” that is visible in many of the un-personal messages (see Figure 34).

As described in this section, it is worth noting that using WhatsApp also involved learning a new literacy practice in a specific context.

7.3.3 Typology of messages sent in the WhatsApp group

A variety of messages were sent in the WhatsApp group of the House of Women and as the group was relatively large, almost every day there was at least one message. In this section, I describe the different kinds of messages that participants sent. I intend to give an overall picture of the virtual communicative space, with the flow, variety, forms and languages. I selected some messages to illustrate the diversity of information shared in the virtual group. I describe the content, the format and the language to highlight certain such as code-switching and mode-switching, that reveal how participants took hold of the tool for their own communicative purposes.

The layout of the following pages represents the messages, following one after each other as they would appear on the phone screen. I assembled the screenshots in one when the thread of messages was long; otherwise they are all original screenshots from my smartphone.

I start with messages that participants created or forwarded **relating to the community in Malika and the locality**, such as job and training opportunities, found ID card, lost child and death announcements, among others. These messages were multimodal: the lost child and death announcements often were a picture along with a voice or text message respectively in Wolof and French, created by the sender. Generally, the job and training opportunities forwarded were in French.

Some participants with a business used the WhatsApp group to promote their products, posting photos like in the exchange on this page. A member posted pictures of the clothes and accessories she was selling, informing members about the availability of shoes for 5 000 XOF (£6) which was rather cheap, and another participant commented “very nice” on one of her items. It was common to read or listen to reactions to community related messages expressing wishes, support or encouragement.

The messages directly **linked to the House of Women** were created mainly by the moderators who posted photos of the activities (gardening, cereal processing, trainings and meetings with partners), along with voice messages and the use of emojis. The health-community actors informed the participants about the dates of talks and themes and shared pictures afterwards. In one post (see the side of this page) the administrator posted a short video (20 second) and pictures of the gardening training he took: "further to the home-gardening training at the House of Women in Malika". The pictures of members of the House participating in the training aroused comments in the online group to congratulate them.

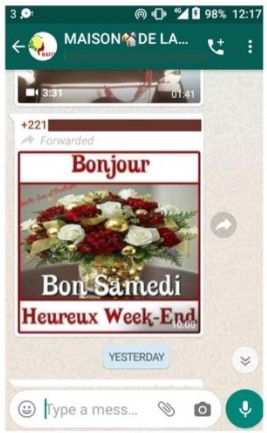
"Well done and congratulations to women and men of Malika for this engagement", wrote a participant of the WhatsApp group; "well done to you as well for your contribution to the development" replied the administrator. Another participant appreciated the video: "it's very nice to see people working; long live the development. Congratulations and good continuation", to which the administrator replied: "Thank you very much. You make us proud. You are the pioneer, the mother nucleus. Thanks again". The development they refer to was not specified. These messages illustrate the common practice of acknowledging and valorising key community members, in particular the answers from the administrator who seemed to act as a *griot*[102] praising other members.

[102] Praise singer, gatekeeper of history in the Wolof tradition

Photos and videos were shared also after activities that took place in the House of Women; the WhatsApp group seemed to be a channel for reporting these activities in a formal way. Indeed, the photos representing the participants in action were sent in a series, like a photo slideshow, telling a story. Moreover, the reactions were consistent with the objectives of the House of Women, all written in a formal way in French. As introduced in Chapter 4, these cooperative houses were set up by the Ministry of Women, Family and Gender, initiated in 2005 to provide women with a place to access training in gardening, tailoring, food processing among others, and to support them in their income generating activities. The reactions of the participants highlight the importance of community development and the development of women through training, participation and engagement of members; its importance is also emphasised with the emoji of the joint hands expressing gratitude.

The community-related posts, especially those initiated by the moderators to showcase the activities at the House of Women, encouraged other participants of the online group to comment; expressions of gratitude work to consolidate the social cohesion of the community.

The following messages are examples of forwarded messages or website links shared in the group were the content is not created by the senders. Using the quick share arrow is the way to post these messages or for some of them, pasting an URL address which requires more digital skills.



The **non-personal posts** regularly sent by any members, like the colourful kind messages, popped up from time to time wishing good morning or a peaceful day. They were usually a forwarded image or a GIF (Graphics Interchange Format, in other words animated images) of flowers, hearts or a few words in French. Participants put up these kinds of messages as a way of just saying hello to maintain the cohesion, in the same way as members passing by the House would drop in just to say hello. Communication is an everyday mundane practice so in a way, the **'good morning' WhatsApp messages** did not seem unusual, reflecting the spontaneous interactions I witnessed in

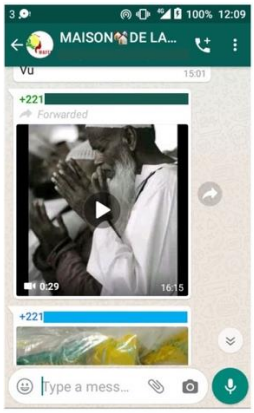
the real, non- virtual world, where people interacted with one another without a particular agenda.

Also non-personal but with a focused message**, health and nutrition advice** was often shared in a poster with text in French (I will analyse some of these in the next section). The large majority of these health and nutrition written messages were in French. Participants also shared links to websites (mainly in French) or YouTube videos, for instance a channel on nutrition in Wolof "Paix et Santé"[103] (peace and health). I noticed that videos were both in French and in Wolof; some were clearly created by non-professionals as there was no source or contact while others by professionals included a link to a website of a nutritionist or health-practitioner. In the example to the right, a participant shared a link to a website where there was an article on the benefits of okra: "soak okra in cold water overnight, drink on an empty stomach to obtain this result"[104]. The article, short and simple under the name *roi keree*, mainly focuses on the stimulation of ovulation, with no references and links to more detailed information. Participants of the WhatsApp group usually did not react to these messages: as can be seen, the message was directly followed by another forwarded video.

[103] https://www.youtube.com/channel/UCfr2SyiObK0qAG1QnWU8eEA/featured [accessed in April 2020]

[104] https://news.phxfeeds.com/share?docId=16537773795976405 27&source=phx [accessed in May 2020]

In the non-personal message category, I also include prayers shared in the group. There were regular **religious messages**, with forwarded prayers in videos or a text in French, with the time of prayers, especially during Ramadan or during COVID where certain specific prayers were shared. To the right of this page the video is a fixed image with a male voice reciting a short *Dua*, supplication in Arabic from the Quran.



There were also **miscellaneous messages** like the advertisement for a free internet data offer (see illustration to the right), Senegalese news summaries provided by SenCafé (media company), inspiring stories and jokes among others. All these messages were mostly in the form of text messages in French and not created by the sender.

The selected messages above are examples to illustrate the range of material posted for different purposes, from community-related to non-personal messages. Participants engaged most with the community-related messages, more than videos and messages that were not directly linked to the community. Like in the above examples, the language mainly used in text messages is French. Wolof was used in some text messages written by participants, but it was mainly used in voice messages and videos. It is interesting to see that the informal messages exchanged between participants above would have been said face-to-face in Wolof but are written in French in the WhatsApp group. As French remains the schooling language, it is very common for Senegalese people not to have mastered standard Wolof in writing[105], so they prefer to use French (Deumert and Lexander, 2013). The messages were multilingual and multimedia, giving every participant the possibility to communicate in whichever way was most convenient. However, text messages in French

[105] The codified alphabet is based on Roman script

were not as inclusive as audio recordings; reading a website in French or even short messages in French, could be a challenge for those who could not read in French.

7.4 The characteristics of the online group

7.4.1 Compared to face-to-face situations

The WhatsApp group was originally created to inform members about the activities at the House of Women. It reinforced the community spirit in a trusted space, as only members of the House were in the group. As part of this community spirit, reciprocity rested on the flow of messages that maintained social bonds and the instant messages applications on mobile phones facilitate this flow (Molm, Schaefer and Collett, 2007; Goh *et al.*, 2019; Miller *et al.*, 2016). The WhatsApp group became a space where other information not necessarily related to each other, also appeared. Most of the messages shared were related to themes such as religion, health, free internet data offers, among others; senders seemed to select them based on the appropriateness for the group's interests and cohesion. Indeed, participants did not seem to share political information in the virtual space or news that could create tension within the group.

As noted in the section, learning to use WhatsApp (7.3.2), it is important to note that the interface of the application with the arrow icon on the right side of an image, a video or a link, might encourage the action of forwarding, referred to as the techno-discursive gesture (Paveau, 2012). It is difficult to measure the actual influence of the interface in the action of forwarding; however, it is important to consider the participation of the screens in the construction of discourse and experience (Paveau, 2019).

The virtual space could be considered as public and the ties could be defined as weak because of the large group; indeed, members did not share intimacy (see Gil de Zúñiga and Valenzuela, 2011 for impacts of ties on engagement). However, all participants were somehow connected to the House of Women and these ties were strengthened by the community, 'the family' as some of the participants said, like the moderator in the message

below. In this sense, the group could be seen as private, which may impact on the flow of interactions and the extent to which topics not related to the community could be freely discussed. The WhatsApp group is therefore a limited circle and could be represented visually by recalling setting of community-based talks or women's group meetings.

Both code-switching and mode-switching could be observed in the talks of the community-health programme (6.3.3.1): the community-health worker encouraged a conversation on a specific topic with the support of a clip chart illustrated with images (most of the time drawings) and text in French to guide the moderation that was in Wolof (6.3.3.2). These talks were held in health community sites, sometimes in a circle sitting on a mat, or on chairs around a table or in rows. The exact setting depended on the environment and the equipment; however, what seemed a constant was the community ties among the participants. The WhatsApp group seems like the continuity of these face-to-face settings: the participants interact to congratulate one another, offer their condolences, greet each other but not sharing personal information with everyone. The tool seems to be considered as a support for sharing information rather than a space in which topics can be discussed. Active participants would share information with the community but interaction was limited (see above for what kind of responses are enabled on WhatsApp). Furthermore, apart from the community-related messages, the senders and receivers of posts did not engage in any conversations and there was no moderator to facilitate them. Nevertheless, participants did adopt certain roles with some performing as moderators, as I analyse in the next section.

7.4.2 Attitude in the group: participation or dissemination?

In this section, I am looking at the recurrent reactions in the online group over a period of one year (when I was back in the UK). My observations are based on the virtual group only and I am aware that geographical distance may limit my understanding of participants' relation to some of the messages, as I was not able to be part of the face-to-face reactions and conversations regarding the content. The observations are based on patterns identified in the virtual space. As I have already mentioned, the participants of the group mainly

reacted to community-related information; all the other messages were posted one after the other without any comments. There were days when only forwarded videos and messages were posted; sometimes the same picture or video was posted twice by different participants. This habit questions whether and how the various messages were read or watched. This message repetition was particularly prominent in March, April 2020 when information about COVID-19 proliferated in social media (I include this period in more detail later in the section).

Approximately 60% of the messages in the WhatsApp group of the House of Women were forwarded, suggesting that participants received a message from their own contacts or in another WhatsApp group they belonged to, and forwarded it to the House of Women's group. As can be seen in some messages above, under the sender's number, it is made clear that the message has been forwarded and if there is a double arrow next to it, it signals that the content has been forwarded through a chain of five or more chats, which indicates that the message was not initiated by a close contact (WhatsApp, 2020). The message with the double arrow icon can only be forwarded to one chat at a time, a measure taken by Facebook [106] to limit the dissemination of rumours. This measure to signal when a message was not created by the sender and had been shared over five times, was taken after some attacks in India. In 2018, WhatsApp rumours about child abductors generated riots and led to the lynching of 45 people across India[107]. In addition, because of the characteristics of WhatsApp, disinformation in 2019 shared via the platform increased in favour of far-right opinions in Brazil[108]. Contrary to Facebook and Twitter, misinformation and disinformation cannot easily be tracked and stopped on WhatsApp. Therefore, Facebook was urged to develop a feature to tackle the spread of disinformation[109].

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[106] WhatsApp was bought by Facebook in 2014

[107] https://www.bbc.co.uk/news/world-asia-india-44678674 accessed in June 2020

[108] https://www.theguardian.com/world/2019/oct/30/whatsapp-fake-news-brazil-election-favoured-jair-bolsonaro-analysis-suggests accessed in June 2020

[109] https://www.theguardian.com/technology/2019/jan/21/whatsapp-limits-message-forwarding-fight-fake-news accessed in June 2020

It cannot be said that participation was equal in the group. I did not explore contributing factors during fieldwork because I did not pay attention to the dynamic of the online group. Having been added to it in April, in May, it was the month of Ramadan and messages pertained mainly to religion. I left Malika in mid-June 2019 so it is mainly when I was in the UK that I was able to track the flow of messages per day. Being already linked via WhatsApp with most of the people I met and spent time with, we were able to easily maintain the contact, even with the spatial separation. For many months after my return, I did not feel disconnected from "the field": the relationships built during fieldwork were kept alive. In early April 2020, still at the beginning of the pandemic, many videos were shared and some caught my attention. For instance, a video made by a woman, presumably French, addressed her speech to African people. She urged them to 'wake up' and be aware of how 'the white man will slowly kill' them with the vaccine against COVID-19. Insisting on the need to refuse the vaccination, she suggested that they should respond with their 'machetes'. The video was forwarded to the group and none of the participants reacted. This absence of reaction to such a racist and condescending video bewildered me.

Therefore, this online group as it was organised, large, without a clearly defined purpose, seemed to be more often a place for dissemination of information rather than conversations and discussions, especially when the content was not directly linked to the community. As it is with mass media like a TV channel, the audience receives the information; discussions and conversations happen only in person. This WhatsApp group seemed similar to this medium in terms of the variety, the flow of information and the absence of interaction, i.e. expressing opinion on a particular topic.

This was not the case in all WhatsApp groups. When I was in Malika, some of my participants described original ways of taking hold of the online platform. For instance, Talla, the town councillor, told me that he had participated in "a religious conference" run on WhatsApp. He explained that with a group of friends, they had organised weekly religious talks on verses of the Quran. They each chose one and prepared a short presentation on it that they recorded with the voice option and then shared with the group. The other participants could comment and share their views on the verse and the presentation.

Another example was Madame Faye, she was a member of an association of Senegalese female jurists. She briefly explained that the working group she belonged to had organised a discussion plan over a month with identified issues, speakers and moderators for each discussion. The speaker presented the issue, recorded in a voice message; participants discussed it (in written or voiced messages) and the moderator wrapped up the interventions at the end of the week. These online discussions were considered as working sessions by the participants. Talla and Madame Faye both described an organised group with a specific purpose, underlining an important element in engaging participants in an online group, as well as the moderation that was probably missing in the WhatsApp group of the House of Women.

7.4.3 Moderating the online group: who is in charge?

When I joined the WhatsApp group of the House of Women, I received no particular rules or conditions to posting information in the group. Common sense as a tacit rule regulated participation; however, a couple of times I observed some moderation taking place. On one occasion, the head of mutual health insurance called out another participant after they posted a series of pictures. The pictures represented a chocolate bar, sick persons with swollen lips, rashes and one with an open stomach.

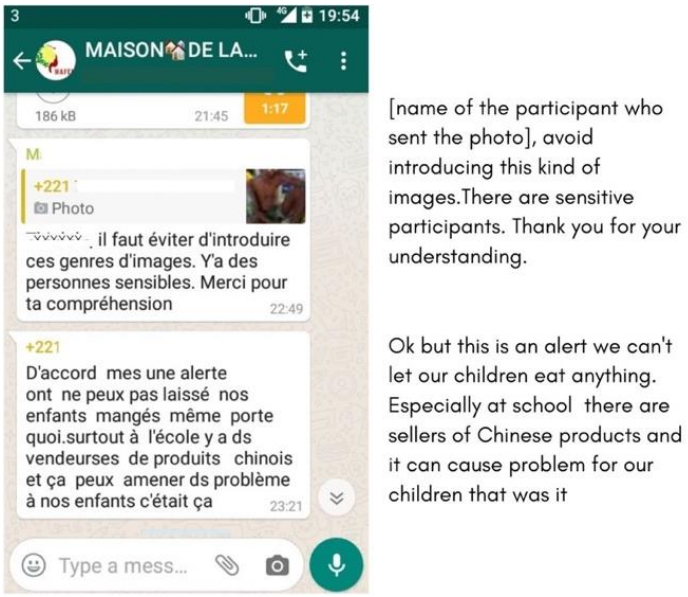

Figure 35 - Screenshot of message exchanges in WhatsApp group – 26 January 2020

After seeing the pictures, the head of the mutual health insurance used the function “reply to a specific message” in the group, visible to all participants, to explicitly point to what cannot be shared. She seemed to speak on behalf of the community: “there are sensitive participants”. The intention of the participant who shared the pictures was clearly to warn about a danger, as we will see in the next section. The reaction did not question the veracity of the information but the shocking images. Once the sender justified her intention, there was no follow up in the online group. However, two weeks later, one of the group administrators sent a formal message, followed by a vocal message.

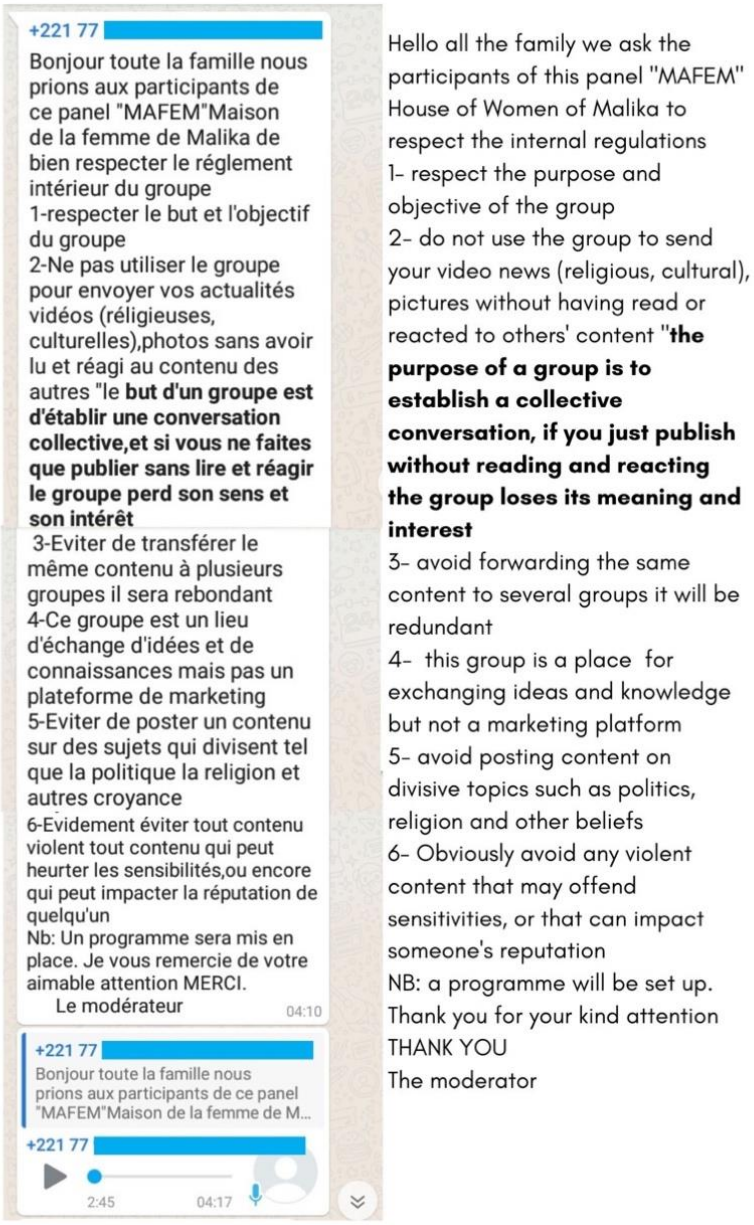

Figure 36 - Group administrator's message

The message written in French was formal, explicitly listing internal rules in a reprimanding tone. The writer of the message did not sign his own name but signed in his role as moderator, maybe to justify the message. To make the message inclusive, the administrator repeated it in Wolof in a voice message. This practice illustrates the status of the two languages: French in writing and Wolof in oral transmission, much as it would be in face-to-face communication. Although was related to the community, the tone did not encourage

further comment. Moreover, the instructions of the moderator reconfirm the earlier point regarding the WhatsApp group being used for disseminating information. His recommendations to "establish a collective conversation" do not seem as straightforward through digital communication, in a context where speaking in a group is regulated by hierarchy, age and gender. As we can observe in the above messages, interaction was often initiated by the same one, either the moderator or the mutual health insurance manager: a man and a woman who both had responsibilities at the House of women, their status seems to allow them to react more freely. I often observed this tacit rule in meetings at the NGO when the first speakers to comment tended to be always the same ones, based on the organisational hierarchy. Similarly, when I went with the family to the village for a family gathering, under the trees, about sixty people formed a kind of circle. From the centre to the extremity of the circle, elderly men and women, heads of the family, wives, young couples, unmarried young men and women and children, all facing towards the centre to listen to some elders and family members who were contributing to the gathering.

It is interesting to note that the online group administrator mainly contributed by posting news about the House of Women's activities and polite and courtesy messages and rules like above. However, his posts did not seem to stimulate proactive comments and conversations, despite suggesting this in his message. Whose responsibility is it? Unlike in the face-to-face community health talks, there is no facilitator or moderator and in any case, the broad range of content shared in the virtual group makes moderation challenging. This virtual space does not seem to challenge the cultural codes of communicative practices so much. The use of French in writing to moderate reveals its enduring symbolic value. Indeed, the formality of the above text seems to impose rules in the group and leaves little space for negotiations. Lack of familiarity with an asynchronous modality does not appear to be the only limitation to engaging online. It is also about the composition and dynamics of the group, to do with those who can moderate, those who want to contribute to the community cohesion, those who share what they think is valuable for the community. Finally, the objective of the online group - "this group is a place for exchanging ideas and knowledge"- might be too broad to engage participants in a conversation unless one participant raises a particular issue, as it is

the starting point in the earlier examples of original uses of the platform (7.4.2). Moderation and purpose are the basis for an online conversation.

7.5 Possible intentions and impacts

In this section, I explore some health and nutrition related messages that were forwarded by participants of the WhatsApp group. I look at the messages and whether and how they were linked to the community, framing them into the possible intention of the senders. I assume that sharing a message in the group implies various intentions. When someone forwards or posts a message in the WhatsApp group, his/her name appears; the act of posting and forwarding content, in other words, seems to be intentional. Despite the 'quick share' arrow icon that sometimes appears next to the file and encourages the user to click and share, the sender is presumably doing it mindfully. Based on my perceptions as a recipient in the group, I identified four possible intentions for sharing health-related information: caring, educating, warning, mobilising.

7.5.1 Possible intentions of sharing

Sharing is caring

This intention seemed to correspond to information such as prayers, job opportunities, recommendations, opportunities (like get free 500 Go internet data) that were for individuals' benefit. The poster to the left in French was to inform members about free consultations for screening (breast and cervical cancers), family planning and ophthalmology in Yeumbeul, a neighbouring town of Malika. The text was not clearly visible but the pharmaceutical caduceus and the medicine in the background signalled that the information was health related.

Such informative messages could support residents in navigating the healthcare services, in particular the ones offered at the community level that were occasional. These health promoting activities were often for women's health, hence their relevance in this online group.

Sharing is educating

Some advice about nutrition and health such as good practices, benefits of some spice/food were shared but they seemed to be more often produced in France. For instance, this poster in French presents the health benefits of vegetables based on their colours. The colours and the photos of the vegetables facilitate the reading. However, some health knowledge was required to fully understand the message: i.e. anti-anaemic, dopamine, immune system. The source is available for further information online, written by a French dietitian.

These medical terms might catch the attention of users and encourage them to make meaning, as the above foods are available in Senegal. In another audio material produced by a Senegalese journalist on social media, a woman (who sounds old) is interviewed (in French) about the benefits of Kinkeliba[110]. In her explanation, she explains how to prepare the infusion, addressing the inadequate practices she has observed in Senegal, such as boiling the preparation too long. Along the same lines, there was a short colourful animated film in French, scientifically explaining what a stroke is, how to spot the signs and how to respond.

[110] Flowering plant in West Africa: the leaves are used for making tea and is used in traditional medicine

Sharing is warning

In French or Wolof, in writing or through videos or photos, the warning messages about dangerous medicines and contaminated food products were meant to be spread often, with a strong visual to be eye catching and to encourage the spread like the poster below.

"DANGEROUS

Please remember it is dangerous to cut an onion and try to cook it the next day. It becomes highly poisonous even for a single night as it develops toxic bacteria which may cause adverse stomach infections because of excess bile secretions and can also contaminate your dish.

SHARE WITH EVERYONE"

Sharing is mobilising

The video to subscribe to the mutual health insurance is an example of mobilisation at the community level, highlighting the togetherness for actions.

The 2.30-minute cartoon in French created by the Ministry of Health, USAID and the Universal Health Cover agency, summarised the main objectives and the conditions of mutual health. This socio-political action needed the whole community to sign up to it, to ensure its feasibility.

Caring, warning, educating and mobilising can be interrelated; indeed, they are in the list of 10 primary factors behind posting on social media (Oh and Syn, 2015). The health-related information shared in the WhatsApp group is similar to the tips transmitted in the kitchen, like warning about the onions. It is reminiscent of when Awa's mother warned her about the

germs left by flies, educating her about the benefits of some spices or how to prepare *kinkeliba*, when Fatou explained that she drank *cepp*, a root to heal stomach-ache.

7.5.2 Messages during the Covid-19 pandemic

During the Covid-19 pandemic, specific prayers were shared in the virtual group, inviting members to pray for their family and the community. There were also messages to publicise the actions in Malika such as the distribution of soap and equipment for hand washing and the promotion on local cereals at the House of Women, both supported by the municipality. The aim of posting these messages in the WhatsApp group was to spread the information as far as possible and reach those in need. Similarly, several messages appeared to explain how to avoid the virus; for example, the need to drink a lot of hot water was widely shared in many contexts. This kind of misinformation often started with "Message from a doctor that I know…"; the content was inexact but not created to cause harm. There were also posters, clips, songs and videos, some created by local artists in national languages. These materials raised awareness on protective measures and hygiene measures to avoid catching and spreading the virus. Finally, updates on Covid cases in Senegal everyday were not only to warn about the dangers but seemed to also raise awareness about the reality of the pandemic and highlight the community's responsibility in tackling the pandemic.

What I found challenging during the proliferation of messages at the beginning of the pandemic was the fact that I could not see or perceive how members were talking about information regarding the coronavirus, because nobody was reacting to the videos shared in the virtual group. Maybe some of the participants were not really paying attention to them. As in many contexts, the quantity of materials and the flow revealed the anxiety and the uncertainty that many of us experienced during this period. Some messages were about political measures (curfew, emergency state); some were reminders of the guidance to protect oneself and the others; some were updates of the daily number of cases and death. These messages were the same as those seen or read in the official news: they seemed to educate and mobilise the community to act together. Many of the videos around the

vaccination, by contrast, focused on the threat to the African continent: conspiracy theories seemed to seek to galvanise mistrust towards the global health system and the international community's interventions when these messages were created by African people. These issues were usually not raised or discussed in the national media, which is perhaps why these videos were widely shared on WhatsApp instead.

7.5.3 Messages impacting on health-related decisions

During my fieldwork, information warning against the cervical cancer vaccination was widely shared on social media. The director of the secondary school near my home expressed regret this had been posted on the WhatsApp group of the students' parent group. A video forwarded of a woman expressing her doubts about the vaccination programme, triggered confusion in the online group. The woman in the video explained that she had seen non-health workers administrating the medication. She expressed her mistrust towards this vaccination, funded and promoted by the World Bank and Bill & Melinda Gates Foundation among others. According to her, the medicine affected girls' future fertility and was a way of preventing pregnancy on the African continent. The director told me that further videos had been forwarded and consequently, the medicine cupboard was full of iron and vitamin supplements, after many parents refused to allow their daughters to take any medications related to the cervical cancer vaccination campaign. He felt helpless faced with the flow of messages and videos.

Another case concerns the generic version of a medicine. Badou, a pharmacist that I met in the walking group, told me that misinformation regarding the medicine had been shared and that some of his customers believed it. He explained that one day, a young man came with a prescription and then refused the medicine Badou selected, saying: "there are needles inside! I don't want that medicine". Badou tried to reassure his customer, explaining that the medicine was safe but the customer refused to believe him because her had seen the warning on WhatsApp. Badou decided to open a box and cut pills to show him that there

was no needle inside. The pharmacist's word seemed to be insufficient to convince the customer.

The general mistrust against vaccines is not specific to Senegal and West-Africa and are not only against Western medicine but also against the power of pharmaceutical companies. I further discuss this point in the next chapter.

7.6 Conclusion

The WhatsApp group as a continuum of the House of Women, originally set up to inform the members of activities and events, provided me with an opportunity to explore the virtual space, as a place where some members dwell (O'Hara *et al.*, 2014) and a place that they take hold of. Sharing information related to the community was also meant to inform those members who do not come regularly to the House; the photos of the activities (gardening, meetings) show the dynamism of the House. The online group was a space in which the work of members, through the activities that were reported, could be acknowledged and celebrated, thereby reinforcing the ties among its members.

As in face-to-face communication, code-switching and use of text in French is very common among participants who have been school educated in French and use literacy in their work, while those who did not attend school, barely use French at all. Participants' education influences how they use the platform. In the virtual space, oral and visual information is dominant, French is mainly used in writing because the messages forwarded are either transnational, from the web or from a Senegalese institution, Wolof is used in the videos and vocal messages; a few text messages are written in Wolof or mix the two languages. Thus, the virtual environment reflects the complexity and power relations of the language uses and choices: French indicates official and educated identities; Wolof, is used for the everyday information. These patterns may be a way for some participants to reaffirm, maybe unconsciously, their (educational) status and their identities.

In this chapter (7.3.2), I have analysed the user-friendly interface with primary affordances, how it encourages users with low literacy skills to engage with the platform and in a way that seems inclusive. WhatsApp offers various communication options that can adapt to different users' preferences and/ or capabilities. For example, the administrator, aware of the participants' skills, added a voice message to his written instructions. Was the text necessary? Maybe it was just to reaffirm his status. In my fieldwork environment, both men and women of all ages were using WhatsApp with a basic smartphone. How regularly they were able to use it depended on their economic situation, whether they could connect with 4G or find a place like the House of Women or a friend's home where they could access WiFi on their device. At 'my' home, there was a WiFi connection and it was common to see Fatou's friends and relatives dropping in for a chat but at the same time, checking their WhatsApp messages.

The large range of materials, often coming from abroad, shows the dynamic and global exchange of information that social media facilitate. Some information shared in the group during COVID were not opinions and discourses easily accessible in TV programmes. Thus, the space was also used to mobilise resources by broadening participants' network and increasing their access to further information. As demonstrated in Granovetter's work (1973), large networks facilitate access to information that is shared by people beyond their immediate circle of contacts. It could in a way enrich their social capital. However, given the spread of diverse perspectives and its rapidity, for instance the resistance and suspicion about cervical cancer vaccines and disinformation about covid, a critical approach is needed. In this often overwhelming information environment, health critical literacy then appears as a cornerstone of citizens. But how to encourage criticality?

In the next chapter, I bring the literacy as social practice lens and gender perspectives to discuss health literacy.

Chapter 8 - The communicative practices around health and nutrition: learning but how much doing?

8.1 **Introduction**

In this chapter, I further discuss the key findings to emerge from Chapters 5 to 7 in relation to literacy, learning about health and sharing health-related information. These are explored in relation to health literacy and from the Literacy as a Social Practice (LSP) and gender perspectives. So far, I have analysed the communicative practices that occur: on the mat when lunch is shared; in the kitchen through the intergenerational transmission of knowledges and practices; in health promoting activities organised in the context of community-based and regional healthcare; and finally, in the digital sphere, more precisely in a WhatsApp group. In this regard, my focus is to demonstrate how Malika residents access, produce and share health and nutrition related information; I explore their individual and collective experiences of learning about/knowing about/sharing health-related issues.

Within the health promotion framework (see 3.2.1 and Figure 6), I am particularly interested in the strategies: *develop personal skills* and *strengthen community action* to look at individual agency and collective actions. As explained in Chapter 3, understanding literacy as situated implies investigating literacy in different settings through the cultural and social practices that are enacted. Including power and identities in this analysis helps to examine the extent to which these settings can influence meaning making. Moreover, situated literacy embraces oral practices, viewing orality and literacy as a continuum. My aim is to explore how the lenses of LSP and gender could contribute to a better understanding of the health promoting activities with regards to health and nutrition, and hopefully to a larger extent, to the health literacy debate or more generally, to education. This chapter brings these findings together to question key points around intervention models, social learning and power relations.

The central points that emerge from this discussion are the following: a) health promoting activities through education and communication remain vertical in Senegal, that is to say, the content and transmission are mainly controlled by health professionals and decision makers. At the same time, the communication on social media seems to challenge this verticality; b) French language dominates nutrition and health-related texts; the communicative practices in local languages bridge the access and transmission of nutrition-related knowledge, though are often unidirectional in healthcare settings; c) the biomedical lens in health promoting activities restricts women's needs by viewing women as recipients while at the same time, insisting on their key role in health activities is limited to reproduction and community management from a gender lens (Moser, 1993).

Throughout this chapter, I highlight the importance of taking a gender lens and literacy as a social practice lens to design and implement health interventions.

8.2 The dominance and limits of verticality in health-related communication

In Chapter 6, I looked at health promoting activities organised in Malika, at the regional hospital and at the national level with a mobile health programme on diabetes. In this section, I look more closely at the communicative practices associated with the health promotion strategies; in other words, how health professionals and participants engage in health information mainly shared orally. I am interested in the question around empowerment, more precisely, the extent to which these health activities encourage participants to take hold of health knowledge. In doing so, I draw on Kulick and Stroud's research (1993) about the inhabitants of a small village in Papua New Guinea who have 'transformed' literacy (see 3.2.2.2). Street stresses that the latter is not only determined by pedagogic and cognitive factors but also by social and cultural practices (2013). I will look at the possibilities for participants' agency, if any, that these learning and social spaces offer.

8.2.1 Mass media communication challenged by infodemic

In the period leading up to international days for specific health issues such as high blood pressure (17th May), tuberculosis (24th March), malaria (25th April) and diabetes (14th November), the Senegalese Ministry of Health and health organisations use mass media to raise awareness. This kind of mass media health communication reflects what has been dominant in public health and was questioned by health promotion strategies in the 80s (Nutbeam, 2019). However, in the Senegalese context, where TV and radio represent a penetration rate of 75% in 2013 (CNRA, 2014), choosing this communication channel appears in line with national media engagement. A recent survey (2020) in Grand Dakar, a district of Dakar City, confirms that these figures remain representative: 84.6% of its population watch TV an average of 5 hours 33 minutes every day and 65.2% listen to the radio for 3 hours 49 minutes per day (Médiamétrie[111], 2021). As such, these media remain central to disseminating information and are sometimes the main source in an environment where the healthcare system is poor (Jung, Lin and Viswanath, 2015); but they can also create communication inequalities (Viswanath, 2006). These inequalities lie among different social groups in the generation, manipulation and distribution of information, as well as at the individual level, in terms of differences in accessing and processing information (ibid.). Jung, Lin and Viswanath (2015) argue that more attention needs to be paid to the social determinants of health that can create these inequalities.

During my fieldwork, participants would sometimes refer to a TV programme when mentioning a particular health issue. For instance, during the cervical cancer vaccination campaign in December 2018, we talked about it at home as the eldest daughter, who was 10, was part of the vaccination programme. Along with a brief note, the parents had received a consent form to fill in. Awa, the younger sister of the father who was studying to become a midwife, said that she had recently watched a TV programme in which a doctor

[111] Médiamétrie is the official body that measures and researches audio-visual and digital media usage in France.

was reassuring the public that there were no side effects for girls and women. The authority of the doctor can suffice to convince in some cases. However, health-related communication via national media is being disrupted by the spread of diverse perspectives through social media; indeed, the latter challenges the command-and-control approach of production and dissemination of health-related information (Viswanath *et al.*, 2012; 2015). Viswanath and colleagues describe the shift from the gatekeeping function performed by what they call *big media* with little interaction between audiences and the producers, to the decentralised, even individual information production (exact or fake) in the digital world that could "enable end-user creation, control, and high interactivity, where information delivery can be tailored and customized to users' perspectives and expectations" (ibid., 2015: 328).

The COVID-19 pandemic has intensified the proliferation of misleading and false information around the virus, leading to an 'infodemic' (see 7.6.3). The practice of sharing misinformation or disinformation was already common before the pandemic. Thus, as analysed in Chapter 7, health-related information shared in social media, in my case study the communication platform WhatsApp, challenged the experts on the cervical cancer vaccination. The students' parents in the school's WhatsApp group, were most likely concerned about the side effects of the vaccine and shared videos and comments they had received from their contacts to warn other parents. This might be because of a lack of access to information and not enough health and medical workers to address this lack (Jung, Lin and Viswanath, 2015). As a result, several parents of the school refused to allow their daughters to receive the vaccine. This hesitancy may also reflect mistrust towards authorities and in particular, BigPharma. This point was demonstrated in the Democratic Republic of Congo during the Ebola outbreak when there was a proliferation of misinformation and disinformation: "Part of the problem is that a lack of faith in government, the health-care system, and pharmaceutical companies is not always irrational" (Lancet Editorial board, 2019:1). McLuhan and Fiore, theorists on mass media communication, argue that the medium of communication can be more influential than the information it conveys (McLuhan and Fiore, 1968); it might be the case here with the mobile digital social communication platform. The head of school felt powerless to react to parents' messages in the WhatsApp group. His authority did not suffice; instead, parents engaged in a

collective action to warn each other and decide for themselves what was conducive to their daughters' health. Without properly addressing this mistrust in health-related information via mass media and social media, can the government blame parents for not getting their daughters vaccinated? It is therefore likely that the responsibility for making choices conducive to health cannot be at the individual level only, as the Commission of Social Determinants of Health has recommended: political, social, economic decisions conducive to health and learning are fundamental to supporting communities and individuals to make health choices in good living conditions (CSDH, 2008).

In the Senegalese National Health and Social Development Plan 2019-2028, mass communication remains central in the strategy to improve health prevention, "strengthening mass communication for behaviour change" (République du Sénégal, 2019b: 57). However, social media communications on Facebook, for instance, do not appear even in the action lines for adolescents and young adults' health. Similarly, the Digital Health Strategic Plan 2018-2023 (République du Sénégal, 2018a) does not refer to social media. It would seem that the government is more willing to create platforms or use SMS rather than using existing social media platforms that are part of the daily communicative practices of many Senegalese. However, as analysed in section 7.5.2, the ministry actively used social media in their communication during the pandemic yet maintained a top-down approach. In other words, they tend to use social media platforms in the same way as they use mass media, disseminating their message through one-way communications. This notion of verticality in social media is not limited to the health sector nor to the Senegalese state.

In the following section, I look at intervention models that reflect the centralisation and control of health and nutrition related information by health professionals, the experts.

8.2.2 Health promoting activities within an autonomous model

8.2.2.1 *Defined by policy-makers - implemented by community members*

In the case studies of health promoting activities that I analysed in Chapter 6, I highlighted the tendency to design and implement activities based on a deficit model. The USAID's

Health/ Community Health programme from 2011 to 2016 in section 6.3.3.1 illustrates this point. In addition to improving the management and equipment of health huts, one of its components focused on counselling and education on mother and child nutrition, based on the government's priorities to fight against malnutrition. Women of a reproductive age were the recipients of the health activities in Malika to strengthen their child's health and their own where the focus was on educating them about the key steps in antenatal and postnatal care. The programme seems to instrumentalise women and did not appear to take into account existing intergenerational learning within the communities. The welfare approach and also the Women In Development approach frame these health-promoting activities in Malika. In other words, the programme essentially looks at women as mothers, the *health guardians at home,* the natural carers and therefore, responsible for the family's health (Moser, 1993; Heller, 1996). Such programmes provide women with free goods and services within their reproductive role (Moser, 1993), considering the latter as women's most important role in society that also contributes to economic development (Kabeer, 1994). The description provided by the coordinator during an interview with me illustrates this vision:

> Most people do not know how to nourish themselves, there are many illiterate people, there are women who don't know about food; for a good meal, the three food groups are needed to balance and fight against malnourishment. These mothers were cooking a local and cheap dish such as *laax*[112]. They already knew these local dishes, but they ignored the nutritive parts of it for children and the ingredients to avoid. The community relays also discussed topics with the mothers; for instance, the pre and postnatal medical checks to encourage mothers to choose skilled birth assistance and vaccinate their child; all these are education themes (interview: 27/05/19, Malika).

The programme considered the need to educate women on malnutrition to become better mothers with little, even no participation of men, as the focus was on food and child

[112] Finely ground millet, cooked in water until becoming a mush, sweetened, and served with curds

development which falls to women. The coordinator's comment above highlights the deficit vision such programmes draw on, i.e. assuming that the women were 'illiterate', 'don't know about food', 'ignore'. As remains common in development discourses, the coordinator assumed a strong link between school education and health behaviour. Women of this programme were seen as a homogeneous group who needed to be educated about 'a good meal'. This kind of health education is designed and implemented as "a technical input with cognitive benefits for the way 'illiterates' think" (Robinson-Pant, 2004: 26).

When viewed through the continuum of approaches to action on gender and health suggested by Pederson, Greaves and Poole (2015: 143), such programmes tend to be gender-unequal as they give sole responsibilities to women to ensure children's health. They therefore perpetuate gender inequalities by reinforcing gender roles and norms. Gender roles are not questioned in the top-down approach and gender relations remain unchallenged (Moser, 1993). Moreover, this approach seems to ignore the gender relations of power within the social and economic determinants of health, in particular income and food expenditure and related to these factors, who is in charge and who has control. In a way, these power relations are also disregarded in the social determinants of women's education in that the opportunities to learn and access education do not simply come down to individual choice. In addition to their targeted approach that focuses on women, such health programmes appear to be gender-blind as they ignore gender relations (Moser, 1993; Kabeer, 1994).

Paradoxically, this programme, like others targeting tuberculosis and malaria, was implemented through health-community actors in a way that made it seem less top-down. The community talks about health (see 6.3.3) may have looked more participatory in that participants sat in a circle and the presentation style of the facilitator was fairly informal, using illustrations to engage the participants. However, the contents were not defined by the community. Instead, they mainly addressed the priorities of the government – during my fieldwork these seemed to be health insurance coverage and malaria. The participants seem to have little control over the programme; in this sense, the learning was formal as per Alan Rogers' distinction of the learning process and exercise of power: "'formal learning' [is

sometimes seen] as that learning which is controlled by the learning opportunity provider" (2008: 2). Exploring women's literacy and development in Nepal, Robinson-Pant (2000) analyses how programmes using participatory methods nonetheless support a development discourse that is mainly built on a deficit approach instead of starting from local practices. Moreover, a group methodology is not necessarily synonymous with participatory approach.

In Malika, the participation of community members in development activities was valued within the community, as expressed in WhatsApp messages (see 7.4.1). The message reported activities at the House of Women in line with the mandate of the cooperative houses, a programme initiated by the Ministry of Women, Family and Gender. Namely, a place to provide women with training in gardening, tailoring, food processing among others and to support them in their income generating activities. These learning activities were not necessarily adopting a participatory approach to address women's needs. They were led by members of the House of Women and framed within what could be seen as the efficiency approach that underpins the Women in Development framework (Moser, 1993; see 3.4.1).

The focus on mother and child's health through the community-based health system reflects the gender equity approach recommended by WHO and the Commission of Social Determinants of Health examining intersectionality (CSDH, 2008; Sen, Östlin and George, 2007). However, Gideon argues that "in practice gender equity approaches often boil down to a very reductionist focus on 'women' and fail to take into account other axes of inequality including race, caste, class, age and ethnicity, while at the same time failing to unpack the category of 'men' and looking more critically at the social relations between them and their female counterparts." (2016: 3). Thus, the community-based health programme reveals itself to be less than adequate in terms of the healthy activities it promotes. For example, it does not provide for those community members who have diseases that are not listed in the community-based interventions. This point has been demonstrated through the analysis of Nene's management of her diabetes (see 6.2) and the many ways in which the community-based health system failed to support her. This system was originally developed within neoliberal policies predicated on inability of the state to fund quality health care (Foley, 2001). Within these policies, the decentralisation and privatisation of the health system was

a central strategy (see 2.3.1). What this research highlights is that these policies generate inequalities and inequities that privilege certain target groups and certain themes (hygiene, cancer screening [breast, cervical screening], family planning, vaccination).

As a middle-aged woman with grown-up children and non-communicable diseases, Nene does not (yet) match the priority criteria of the health policy. Although for the first time non-communicable disease (NCDs) are included in the Sustainable Development Goals, they remain understated. Addressing NCDs, the invisible epidemic as WHO (2021) has named them, is complex but solutions are highly cost-effective. Studies verify that higher risks of NCDs are linked to lower socioeconomic environments; therefore, an whole-system approach to action is required that includes "tackling poverty and inequality, and action across multiple sectors to improve conditions across the life course." (Marmot and Bell, 2019: 10). In other words, the social determinants of health are at the core of the solutions to address NCDs and political actions may be contentious as such actions imply questioning the distribution of power within society (ibid., Solar and Irwin, 2010). In Senegal's public health strategy, NCDs are included but the more urgent need expressed by the government is to improve the quality of and access to services, with better trained staff at the national level (République du Sénégal, 2019b). In addition, training for community health workers includes a package of preventive, curative and promotional services around mother and child's health; non-communicable diseases such as diabetes are not included (see 6.3.2.2). As the government states, including non-communicable disease is not yet feasible in the strategic plan (République du Sénégal, 2014b), mainly because the training of community health workers remains non-specialised and there are not enough qualified practitioners to supervise their activities (ibid.). However, studies in Uganda show promising interventions to address NCDs, for instance a training to empower the community-based health workers, potentially using a smartphone application (Mugisha and Seeley, 2020) and an integrated HIV, diabetic and hypertensive care delivery model (Bukenya *et al.*, 2022) to improve diabetes and hypertension care.

8.2.2.2 *A recommended diet for diabetics in "Candy Land"*

The autonomous model, a universal skills-based approach to literacy (see 3.2.2), could also be perceived at the regional hospital level. The monitoring care provided by doctors and the counselling session like the one I attended with Nene (see 6.2.3), seemed to focus mainly on the downstream, the biological and behavioural determinants (see Figure 37) that are more linked to the individual's agency.

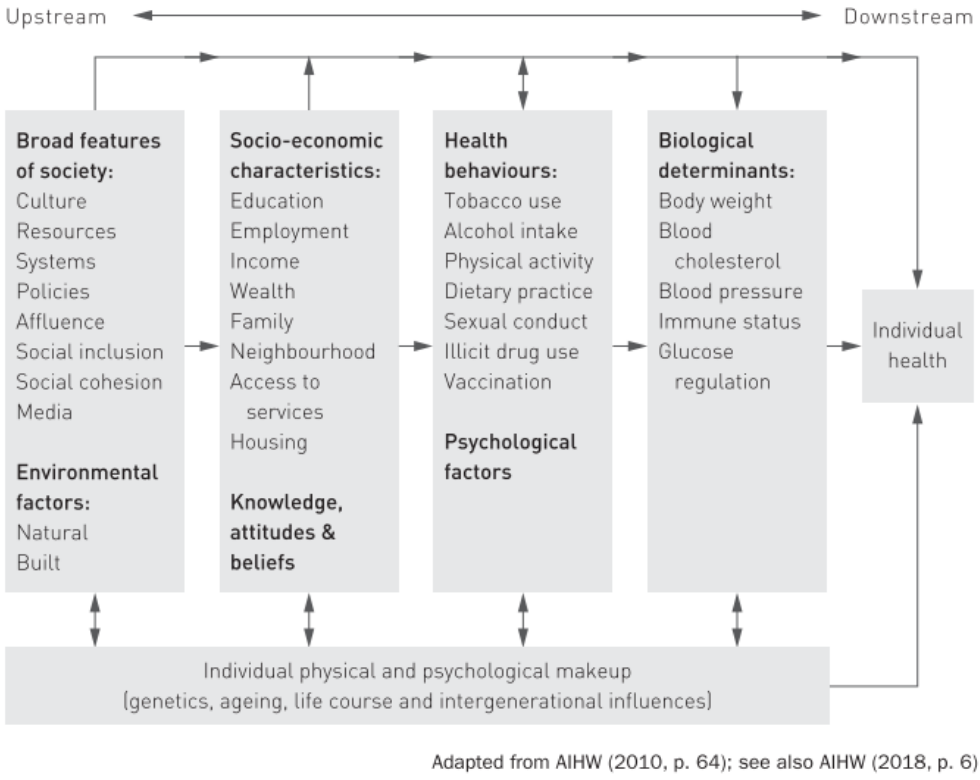

Figure 37 - Determinants of health, a universal skills-based approach a conceptual framework (Liamputtong, 2019: 7)

Communication in the counselling session was rather vertical as well: the nutritionist, as the expert, was telling the participants what to do, giving instructions about the diabetic diet. There was the assumption that all diabetic patients were the same. Yet the gender mainstreaming approach promoted by WHO challenges this assumption, encouraging health professionals to look at how gender norms and roles can influence behaviours (World Health Organization (WHO), 2011). On the face of it, the lay out of the discussion group, where participants sat in a circle, all at the same level, looking at the nutritionist, could have

facilitated horizontal communication. Instead, there were none of the exchanges of recipes or tips that featured in informal horizontal communication. Nor did any participant question any of the recommendations about food habits in relation to their existing food practices and economic constraints. This reinforces the earlier point that a group activity is not synonymous with a participatory approach. Additionally, the nutritionist did not start by asking about participants' habits; instead, he listed examples of bad habits that need to be replaced by a 'proper' diet. The specific needs and living conditions of the participants such as poverty and access to affordable food in quality and quantity, namely the social and economic determinants of health, were not referred to at all. This individualistic vision of diet and nutrition underpinning the presentation reflects the dominance of the biomedical lens in diabetes-related education.

The biomedical lens takes no account of the cultural determinants of health in relation to food like the beliefs and local practices transmitted through generations. Thus, the diet being proposed by the nutritionist took no account of practices such as: the role of rice in communal meals; the importance of the national dish *ceebu jën*; women's tendency to restrain from eating to let men, children and guests eat first. As I analysed in Chapter 5, these were not discussed nor were mentioned by participants. As Claude Fischler (2013) points out, many nutrition studies tend to consider eating as an individualist practice rather than a social one. As a result, health education and activities promoting nutrition focus on giving information to patients with the assumption that they will make 'appropriate' health decisions based on this information. This approach takes no account of their social context (Fischler, 2013). Fischler argues that nutritionists should look at the eater as he/she is rather than how he/she should be, by seeing them in their daily social context (ibid.). The Women and Gender Equity Knowledge Network address this point in their policy briefing:

> Strategies that aim at changing health damaging life-styles of men (or women) at the level of the individual are important but they can be much more effective if combined with measures to change the social environment in which these life-styles and behaviours are embedded (Sen, Östlin and George, 2007: ix).

In her research in the Dakar suburbs, Branwyn Poleykett (2021) adopts a relational lens to analyse the food choices of middle and older aged women with chronic diseases. She highlights the broader negotiations that happen within households and argues for relational health promotion that considers the "social space in which people can exercise and experience agency around food" (ibid: 9).

This analysis of nutrition education resonates with the larger debate on education and development, in particular the ideological approach proposed by the Literacy as a Social Practice scholars where reading and writing are seen from a sociocultural view and in a socioeconomic context (Street, 1984, 2013; Barton, 2007). Similarly, from a gender transformative approach, scholars have highlighted the need for a critical shift that involves questioning socially accepted gendered values and norms (Pederson *et al.*, 2015). In Canada, Rebecca Gewrutz and colleagues (2016) suggest a more comprehensive approach to health promotion, looking at patients' everyday life to reflect on individual and collective experiences of well-being and health. The approach encourages moving away from the individualistic vision I referred to earlier, to encompass the social forces and circumstances that influence lifestyle and behaviour (ibid.). In the next section, I will further explore this point, along with the social determinants of health and power relations that may drive health behaviour and choices in Malika, with specific reference to diabetes.

To sum up, the education programme on diet appears to be pragmatic, comprising of a list of recommendations that participants are encouraged to follow as best they can, rather than any awareness raising about the determinants of the disease. The title of this sub-section, *A recommended diet for diabetics in "Candy Land"*, is a reference to the denial of power relations in the shaping of food consumption. I came across *Candy Land*, a popular American game that does not encourage players to think but just to follow instructions. This was the closest equivalent to an expression used in France, "living in Care Bear world" (based on an American cartoon popular in the 80s), to denote someone who lives in an innocent world. While I did not feel this at the time, when I analysed the counselling session through the framework of social determinants of health, I was reminded of that expression. I do not want to compare the management of disease with a game; rather, I apply the comparison to

the following of instructions without critical thinking. In *Candy Land*, it becomes the diabetic patients' responsibility to follow the rules, i.e. the recommended diet, in an environment that does not necessarily facilitate doing so.

8.2.2.3 *The doctor's advice in the phone*

Finally, I would like to discuss the intervention model using mobile technologies, *mDiabetes* that also appears to use the biomedical lens and be underpinned by an autonomous model. This public health initiative invites diabetic patients, health workers and anyone interested, to subscribe and thus receive a series of SMS for a period of seven weeks, whether they are 'interested in diabetes', 'have diabetes' or 'work as healthcare professionals'. The messages for diabetics, analysed in Chapter 6, target diabetic patients but the approach remains generic and vertical, as they are all programmed via a one-way communication, with no interaction with the producer. Despite the use of the mobile phone that seems more personal, by sending one-size-fits-all messages, the health education programme is designed around biomedical assumptions. Participants are persuaded to adopt a healthy lifestyle, without addressing any of the social and economic determinants of health. An evaluation[113] of a programme monitoring the glycaemic level (HbA1c) of 186 patients in Senegal with type 2 diabetes in two centres, showed an improvement in glycaemic control (Wargny *et al.*, 2018). It concluded that

> As text messaging has a high penetration in low-income, middle-income countries where medical resources are scarce, this kind of mHealth intervention should be developed to facilitate exchanges between people with diabetes and medical teams, and so reduce the risk of diabetes-related complications (ibid.: 146).

This is a rather simplified conclusion: neither "exchanges" nor context are explored in the study; the authors do not examine the nature of the exchanges that might occur between

[113] Also available on WHO website https://www.who.int/publications/i/item/mobile-health-for-diabetes-prevention-and-management-(mdiabetes)

diabetics and medical teams and how to create the environment that would facilitate such exchanges.

In the Senegalese e-health strategic plan, the government considers e-health as a way to "put the citizen and the patient at the centre of medical action" (République du Sénégal, 2018a: 6). Nonetheless, the concept of citizen seems to refer to the right to health[114] rather than encompassing agency as in the critical health literacy debate. Despite using digital and mobile technologies, e-health education through SMS appears traditional and restricts the empowerment at the individual level once again. The design and development of the activities promoted do not encompass a holistic approach towards health promotion (see 3.2.1.1). Instead, the activities are based on the same traditional understanding of health education, based on the KAP model (knowledge-attitude and practice) that also frame mass media communication developed earlier. The autonomous model that frames digital programmes like the *mDiabetes* tends not to facilitate interaction nor does it promote critical health literacy.

Nevertheless, the digital programme does allow participants who have intentionally registered to access written information from health professionals that are scientifically approved and in line with the health-communication at the hospital, unlike information shared on social media that can suggest other approaches to health, for instance traditional plant-based remedies. During the counselling session, the nutritionist did not refer to plant-based complements such as drinking Kinkeliba (seen a video shared in the WhatsApp group). In a way, the *mDiabetes* messages in French complement or reiterate the oral information given by the health-care professionals in Wolof and in this sense, there is coherence. Furthermore, given the scarcity of leaflets and posters on non-communicable disease in Senegal, these SMS provide written information that can be saved, re-read and potentially shared, to encourage talks beyond the healthcare setting. In other contexts like Uganda and

[114] article 17 of the Constitution "guarantees families in general and those living in rural areas in particular access to health and welfare services"

India where information on diabetes is also limited, Laura Oakley and colleagues (2021) investigate the impact of cultural films to improve detection and management of gestational diabetes. The format of the films tailored for pregnant women, their relatives and health providers can be shown in waiting rooms for instance and be shared via smartphones. These literacy and communicative practices could be a fruitful starting point to analyse health literacy, exploring their impact on the process of empowerment at the individual and at collective levels, as Dray and Papen proposed in their exploration of patient participation in the UK context (2004). Examining the intentions health-related information sharing (see 7.6) might also be fruitful in this regard.

To sum up, this first part has highlighted the limits of vertical communication in the above communicative events and practices, through mass media, group activities and mobile health programmes. This unidirectional communication relies on the power of institutions to disseminate one-size-fits-all messages, thereby disregarding the complexity of health choices. On the other hand, the WhatsApp group of the school, intentionally used by the parents, reveals confusion and fear. It also shows how the communication platform may facilitate social learning, whether considered positive or negative, by sharing information beyond one's close social network. Moreover, it pinpoints how power relations can be challenged in the digital world: members can take hold of the space as with the parents who were hesitant about the cervical vaccine. I have argued that interactions and collective thinking in the digital space require moderation just as much as in face-to-face situations; it is this element that is often missing.

8.3 The social determinants of health to highlight power relations

Food choices are complex and the one-size-fits-all approach, either through counselling, discussion or the mobile health programme, conveys the idea that the determinants of food consumption and a healthy lifestyle are common to all diabetic patients. In this section, I would like to further examine the social, economic and, recently identified commercial determinants analysed in Chapter 5, in order to stress the divergence between health

practitioners' recommendations and the living conditions of most people in Malika. To facilitate the discussion, I build on the determinants of health framework (Figure 37, 8.2.2.2). Liamputtong (2019) simplified the framework originally developed by the Commission of Social Determinants of Health in 2008 for the Australian Institute of Health and Welfare. I found using this version easier in categorising the determinants of health that I identified in the management of diabetes in Malika.

8.3.1 Healthcare system: service availability and opportunities for agency

Based on Nene's case, I map the social determinants of health that could influence the prevention and management of diabetes in Malika (Figure 38), thus pinpointing the areas that are beyond diet and individual agency. First, I look at the upstream factors, the broad features of society (Liamputtong, 2019) such as public policies, in particular for health care and health services. The health priorities regarding diseases and care other than diabetes mean that the health training given to community health workers has been limited to malaria, tuberculosis and mother and child's health. The healthcare system in Malika has not been able to provide monitoring of or support for, diabetic patients, as diabetes related care and expertise are at the regional level. Access to information seems mainly restricted to the healthcare setting and not via a proactive delivery by the health professionals. As I described earlier (6.2.2), I saw very few posters in the waiting hall, and it was only when I asked about health education activities in Dakar region that the doctor mentioned the mobile health programme *mDiabetes*. Nene did not know about it; she most likely did not attend the counselling session where it could have been introduced. It looked like it was the patient's responsibility to attend the counselling session, ask questions and be curious. Or perhaps doctors at the hospital assumed that patients would have heard about the programme on TV or radio, as it has been advertised every year before Ramadan since its launch in 2014. In addition, an association like ASSAD (Senegalese association for the support of people with diabetes) that organises health promoting activities in Dakar city in connection with Abass Ndao, the regional hospital, runs on a minimal budget. Nene did not know about their activities either; perhaps she missed some information or did not pay attention.

Nevertheless, it was not easy to access information at the hospital other than by asking health professionals. The latter were busy, and due to limited time available for each patient, they were responsive to patient's specific demands rather than proactively offering information.

The limited information and services Nene had access to, living in the suburbs with very little income, illustrates how poor the healthcare system is in the disadvantaged urban-areas of Dakar. Lack of equipment and qualified health professionals (République du Sénégal, 2014a, 2019b) further undermines its ability to support the prevention and management of diabetes, even though Dakar region has the best service in the country.

8.3.2 The economic and commercial determinants of health

In this section, l look at the economic determinants of health, i.e. how resources are used at the market level, notably the impact of the supremacy of rice and wheat to the detriment of local cereals. The issue is complex and does not only depend on political will, as climate change impacts on local crop production (Branca *et al.*, 2019). As I chronicled in Chapter 5, rice is served every day, its price making it more accessible than local cereals, a result of colonisation that initiated the importation of rice and neoliberal policies with adjustment plans that constrained the state to stabilise the price of rice. Nevertheless, it is important to stress the added burden to diabetic patients in a context where rice and bread are the main staples and resources to ensure food security.

With regards to how goods are sold by producers, I would like to mention the pervasive advertisement of food, in particular stock cubes and condiments that ensure tasty dishes and their impact on everyday cooking. I further discuss this point from a gender perspective in 8.3.5. In addressing non-communicable diseases, the commercial determinants of health (CDoH), "strategies and approaches used by the private sector to promote products and choices that are detrimental to health" (Kickbusch, Allen and Franz, 2016: 895) have been identified as key in public policy (Kickbusch, 2013). What I would like to stress in this section is the power of the food industry as analysed in advertising (5.3.2) and its impact on health.

WHO (2012) has underlined the correlation between high sodium consumption and non-communicable diseases; consequently, public health services have raised awareness in many parts of the world of the need to reduce salt intake; nevertheless, these products are still broadly available and bought. My participants were aware of and concerned about cooking with stock cubes being potentially harmful; some of them, like Awa, tried to use them less (see 5.3.2). Similar observations were made in Ferlo, a rural area in northern Senegal, where Abdou Ka, a Senegalese anthropologist, explored Peul communities' food perceptions in relation to health (2019). His participants also expressed their concerns regarding the use of stock cubes. Older men blamed women's laziness, comparing them to their mothers who used to pick aromatic plants (ibid.). However, Ka also argues that the cubes were ubiquitous as they could be bought at any stall at a cheap price 25 XOF (£0.03).

Doctors and consumers' association have alerted the public to the dangers of over consumption but the authorities, in particular the directorate on internal trade and producers, have rejected these warnings and issued assurances that the quality control of these products is a high priority (ibid.). As for the companies, some have developed new stock cube ranges that are enriched with vitamin A or iron, using the health argument for marketing purposes.

Similarly, with the recent decision regarding tax on stock cubes[115], the state made the decision to address health concerns regarding their use in everyday cooking. However, the tax is a budget response to address covid challenges and not to improve health services nor to respond to the increasing prevalence of non-communicable diseases. Moreover, it does not seem to really address why stock cubes are widely used in everyday cooking: raising its price may mainly impact on poor households that use the affordable condiment for want of fresh tasty vegetables and fish or meat. Stéphane Besançon[116] (2021), nutritionist and

[115] Within the corrective finance law on the 2021 budget of the country, the council of ministers adopted a tax measure that amounts to 25% of the price of a cube. This measure will affect all food cubes, whether imported or manufactured locally, but also regardless of their composition. In Senegal, a cube generally costing 25 XOF or around £0.032, will only generate a tax of £0.009 per cube.

[116] He has a weekly radio programme on RFI (Radio France Internationale) to discuss nutrition and diabetes

executive director of Santé Diabète, an international NGO that supports diabetics in West Africa, positively comments the decision as a "historical measure". He refers to previous measures like the sugar tax in Mexico, that has impacted on the consumption of sweetened drinks and prevention activities such as funding water fountains in schools. He points out that taxation needs to be complemented with changes to cooking practices. For example, he suggests using traditional West African condiments such as *datou* and *sumbala*, both fermented seeds, as well as "preparing cubes at home by making meat or vegetable broths containing some condiments, then filtering them before placing the resulting liquid in small compartments that can be stored in the freezer". These healthy solutions fall to women and overlook the realities of poor households – i.e., being able to buy meat and vegetable and having a freezer.

Socioeconomic characteristics such as employment and income are also important in disease prevention and management. Even if national poverty headcount ratio in Senegal has been lower in the past decades, nevertheless, it remains a major issue. According to the World Bank, the ratio was 46.7% in 2011 and 37.8% in 2020 (ANSD, 2020; World Bank, 2021). The equalisation system on the price of imported rice and the high priority of local rice production on the political agenda, have stabilised and encouraged rice consumption. As analysed in Chapter 5, Nene was the one in charge of buying vegetable and sometimes the 50kg rice bag using all her savings. Accessing quality food and in quantity, requires spending energy and time. Going to the large market was not only time consuming but also physically, given that the urbanisation of Dakar makes any journey by public transportation long and tiring (5.2.2). These life circumstances challenged Nene's ability to manage her diabetes. Moreover, in some months, the family's income was not enough to pay for the blood tests so that putting off the monitoring of her diabetes often seemed the only option. By contrast, the family who hosted me had more class power in terms of actions conducive to health. When the mother had a miscarriage, the father drove her directly to the private clinic in the neighbouring town to be treated. The private health insurance provided by his job allows the family to act quickly. Navarro reminds us that class power is a key element in agency and change and that the concept of class should not be dismissed or substituted by 'status' to interpret realities (2009).

For disadvantaged communities that do not always have alternatives, the economic and commercial determinants of health are intertwined and their impacts on health are intensified. This point relates to the 'create a supportive environment' wing in the diagram of health promotion that I described in 3.2.1.1 and the need to address health through an integrated approach that can 'enable', 'mediate' and 'advocate' health. Without the state's will to create a health conducive environment, actions at community and individual levels have less impact.

8.3.3 Learning opportunities and gaps

In this sub-section, I look at health-related written documents and language used when referring to health. Through these practices, I want to explore the agency of adults and the learning opportunities that are offered. In other words, I want to discuss education as a social determinant of health beyond the individual and community asset, encompassing what the learning environment set up by the healthcare system offers and encourages in terms of actions and choices, as well as what it does not encourage.

First, I focus on the learning events provided in the counselling session for diabetic patients at the regional hospital (6.2.3). The nutritionist orally transmitted the recommended diet; he gave examples of dos and don'ts and repeated key messages in French and Wolof; the discussion was lively with jokes, comments and questions from the participants. There was no text or visual support to support the nutritionist's presentation, apart from the empty packaging of milk and fruit juice bricks, crisp packets and soda cans that he used to illustrate the dos and don'ts. The literacy material in the form of nutritional facts stated on the label of these products, was disregarded, whether because it was seen as not useful or perhaps, too complex. In any case, the participants learnt informally that this written information does not count or is not for them; as Rogers underscores,

> literate and non-literate alike will learn (informally) where literacy is appropriate and where it is not, to whom literacy belongs and to whom it does not belong, who is excluded, which kinds of literacy practices belong to

> which contexts and kinds of people. Informal learning teaches each of us our place in the society we inhabit (2008: 5).

Similarly, when Nene collected her blood test results, she did not want to open the envelope, because *"You know, here it is like that, the doctor will read it; if he sees that I opened it I might be in trouble"*. According to her, this health literacy practice belongs to doctors; she has excluded herself from it. However, when Nene and I read it together (6.2.2), she consciously engaged through my mediation role (ibid.; Papen and Walters, 2008); I supported her in reading the results by finding strategies to make meaning, such as comparing them with her previous results.

Turning to the practices in literacy teaching and learning, Street highlights the power relations and identity that underly them and his point is relevant in the healthcare context too:

> The ways in which teachers or facilitators and their students interact is already a social practice that affects the nature of the literacy being learned and the ideas about literacy held by the participants, especially the new learners and their position in relations of power. It is not valid to suggest that 'literacy' can be 'given' neutrally and then its 'social' effects only experienced or 'added on' afterwards (Street, 2013: 4).

Street stresses how social and cultural practices influence people's new literacy use (ibid.). Thus, within the communicative practices in the healthcare setting I observed, patients tend to listen to the experts, the providers of knowledge, as patients attended the counselling sessions most likely with the intention to learn about the disease and to be given recommendations to manage it. The institutional setting itself is a place of power, often providing patients with limited space to develop their own understanding and views (Dray and Papen, 2004). As Leona English points out, the principles of health promotion suggest change but tend to miss the adult learning model (English, 2012). She introduces a critical theory of adult health learning to challenge the Western medical model promoted by health

literacy that places patients as *health creators* rather than *health consumers,* bringing in the expertise of adult educator to facilitate this change (ibid.: 20).

In light of this perspective, I explore the health-related information that was shared in the WhatsApp group of the House of Women to evidence how Malika residents engaged with health information in other literacy domains. In this case, the examples refer to what Zarcadoolas and colleagues (2006) call *civic literacy* that comprises media literacy: "abilities that enable citizens to become aware of health issues through civic and social channels" (ibid.: 61 cited in Frisch *et al.*, 2012: 120). As analysed in Chapter 7, the deluge of multimedia information flashing up on WhatsApp every day could be both in French and Wolof and often in the form of text and voice messages respectively. In a sense then, the participants of the group took hold of the space, sharing information that was sometimes produced in Senegal and sometimes, abroad. The messages were multilingual and multimedia: participants could express in a variety of ways, at their convenience. As a result, contents included information on specific diseases, the benefits of some foods sometimes but not always, with scientific explanations that could raise awareness about specific health issues. Nevertheless, the group was not originally created for health purposes but to share news about the House of Women. Therefore, there was no moderation to mediate the messages beyond the House's activities. Participants were tied to the latter and tended to share materials without commenting but most likely with a sense of contributing to the community. Research in the UK for instance, has revealed the potential digital platforms offer in terms of learning and support for patients and carers (Laurence *et al.*, 2019; Senn *et al.*, 2017 cited in Hay *et al.*, 2020). Given the novel uses of WhatsApp that I have described (7.5.2), there is ample opportunity to explore peer counselling, support and agency among participants in an online group created for a specific issue. But the most important question that needs to be addressed is what kind of facilitation will be built in and who will offer it?

8.3.4 Social learning for social support

From the perspective of the social determinants of health framework (see Figure 37 in 8.2.2.2) within the upstream determinants such as resources and food system, the access to healthy and balanced food was not raised during the counselling session (6.2.3). Instead, the focus was on health behaviours and biological determinants that emphasized individual agency and responsibility. Therefore, the discussions on diet and monitoring seemed narrow and limited to diabetic patients taking decisions conducive to health. At the downstream level, for instance, Nene did not think that her diet was unhealthy: she mainly ate rice with a little fish, vegetables and sauce. Highly processed food was not part of her daily food habits. As the high consumption of vegetable and low intake of white rice seemed to be a central recommendation, targeting diabetics' diet in this way may not suffice. It needs to be accompanied by wider awareness raising that includes the family and friends of the patients with chronic diseases (Cox *et al.*, 1996).

Furthermore, "in considering new preventive efforts, it is important to keep in mind that individuals do not live in a vacuum, rather they are enmeshed in a social environment and in a series of social relationships." (Berkman, 1995: 245). Lisa Berkman shows how social support may promote health by giving the patient a sense of belonging and encouraging them to be more competent. Studies on the impacts of social support in diabetes management has revealed that diabetic people who feel supported by family, friends and health professionals, control their blood sugar more effectively, know more, follow practitioner's' recommendations, have a better quality of life, raise diagnosis awareness and acceptance and are less stressed (Strom and Egede, 2012; BeLue, 2017; Debussche *et al.*, 2020). Moreover, this perceived support decreases patients' distress which has a direct impact on the blood sugar level (Berry *et al.*, 2015). Emma Berry and colleagues underscore the necessity to encompass the emotional aspects of disease management as a diabetes diagnosis requires the patient to take on new responsibilities, planning and self-monitoring (ibid.).

Nene had the support of her family but this support seemed to have a negative impact, as it came across as controlling. For instance, she was advised against eating bananas: "*they don't understand anything*" as Nene told me. This increased her sense of isolation: family members did not attend the counselling session where dietary recommendations were shared. Instead, they relied on their knowledge and beliefs. Social learning therefore seems to be partial in the healthcare provided for diabetics. On one level, the counselling session is an example of a collective and social learning activity. However, the sense of it being a cohesive group and any sense of belonging is ephemeral: no ties were formed among the participants and Nene's relatives did not attend it. Social support beyond the healthcare setting was lacking in Nene's diabetes management, in particular, there was no willingness among family members to adapt their eating practices to the diabetic diet. What I also observed at home during the visit of the family from Mauritania or at the NGO (6.2.3), was that, despite knowing the dos and don'ts of the diet, they did not seem to reflect on their own eating practices, not only to support their diabetic relatives but also as a preventive action for their own health, for instance by reducing their rice intake or sugar in tea.

Our regular talks and the walking group (6.2.1) were important to Nene as she felt supported; mediation in supporting disease management is not necessarily linked to reading and writing texts. Papen and Walters demonstrate how mediation can comprise "advice in terms of where to find support and how to seek help (for example from specialists). It includes much needed emotional support in dealing with experiences of disease, which can affect the person both physiologically and psychologically" (2008: 37). Our talks reduced her distress because she felt more able to share with me than with her family, how tired she felt. At the same time, her main concern was making sure that she sold enough doughnuts to enable her to contribute to the family expenses.

8.3.5 Women as agents of health change?

Sen and Östlin (2009) state that the majority of health workers are women; their contributions are significant but undervalued (Langer *et al.*, 2015). In Malika, women are at

the core of health and nutrition communication on a volunteer basis. As analysed in Chapter 6, the community-based system in Malika functions largely thanks to the volunteers who work as community-relays and *bajenu gox* to assist the nurses and the midwife. While there were only three health-posts run by three male nurses and a midwife, and five health-huts to ensure primary care, these services had the support of 40 community relays and 50 *bajenu gox*. These volunteers, mainly women, are central to health in the community: the local authority relies on them to promote health and support the community with primary care in their roles as mothers, aunts, sometimes grandmothers (Aubel, Touré and Diagne, 2004). The situation in Malika illustrates that access to healthcare is poor and the Ministry of Health faces considerable challenges in addressing health for all. Reliance on volunteer health community actors is central to the government's strategy of ensuring primary care; however, the training they are given is limited to a few themes, mainly pertaining to mother and child health and as a result, creates inequities (see 8.2.2.1).

In studies about community health programmes, Kabeer (1994) highlights the lack of acknowledgment of women's work in the concept of community participation. This work is mostly unpaid or underpaid yet is a key component of these programmes. In misconceived notions of 'community' women become invisible. Through their community management and reproductive role (Moser, 1993), they are perceived to naturally and effortlessly undertake the work in health programmes for the family and the community. Men, by contrast, are either paid or enjoy status and political power (Kabeer, 1994). Ellen Foley (2001) stresses how officials and health actors in Senegal failed to include women's participation and leadership in health reforms, thereby missing their potential contribution. To become sustainable agents for health change, Langer and colleagues (2015) underline that women need to be healthy within a system that can address their needs throughout their life, including non-communicable diseases. They need to be valued, enabled and empowered to socially, economically and environmentally contribute to sustainable development.

With regards to participation in learning about nutrition in particular, when I suggested that men should be included in discussions around diabetes and food, I was told by male health

workers in Malika that women are responsible of the food preparation and they choose what to cook, therefore men have little to do with this. This statement from healthcare professionals highlights just how engrained the gender hierarchy is and how strongly gender roles frame health-related activities. It also lays bare the power relations that prevail in the health institution: given that the nutritionist or the nurse running the activity to dispense knowledge are men, their participation does not seem to be questioned. However, the involvement of men in cooperation for change is important as demonstrated by Rama Narayanan and Nitya Rao (2019) in a participatory action research project with an indigenous community in India. To ensure women's support within their household and social group, men joined in some activities of the project in which women collectively and critically raised issues, learned about and discussed different perspectives and knowledge about nutrition. This is particularly relevant in terms of food and health when men control the money in the household.

Like many other countries, in Senegal, women are often associated with food; their cooking skills are important as they may impact on the family's reputation within the community (Ndoye, 2001). It seems part of social norms, for instance, that a couple of weeks after the wedding, the groom's family invite the larger family to taste the newlywed woman's cooking. It is an important moment for the latter since she will be assessed on her skills and abilities to be a good housewife. I observed this practice when Awa got married. Through cooking, women are perceived as carers: they feed the family and fulfil the expectation of being charming, good housewives; their food must be tasty, generous and appreciated by all. As analysed in Chapter 5, these gender roles are central in food advertising where commercial messages are predicated on women's roles and their femininity. Products such as stock cubes, oil and other condiments are sold as key ingredients for women in their cooking. These advertisements play on gender stereotypes to encourage women to buy their products.

In other words, the instrumentalization of women was clearly observable in the advertisements which were mainly broadcast during dinner time when the TV tended to be on because the soap operas are aired at this time. The women in the advertisements are

made to look ‘empowered’ thanks to the product (see section 5.3.2). Advertisements are invariably either food related, or beauty related, skin-lightening products for instance; all of them clearly target primarily women, thereby intensifying gendered stereotypes. Food marketing does not challenge gender norms; on the contrary, it plays on traditional gendered social structures in which the man works outside the home and the woman takes care of the household. While concerns tend to be expressed about the impacts on children of marketing ploys (De Lacy-Vawdon and Livingstone, 2020), women and men are also affected by food marketing and yet little attention has been paid in research on how commercial markets reinforce gender inequities, undervaluing women’s work and systematically disadvantaging women (Hill and Friel, 2020). The structural power of commercial forces, the institutional and instrumental power of commercial actors, are a major commercial determinant of health; commercial actors are well aware of the concept of gender and exploit and manipulate it in their marketing strategy (ibid.). The determinants of health perspective can broaden research and practices that tend to address health through the biomedical lens (ibid.), highlighting individual choice and ignoring other contextual factors. In the case of learning activities about nutrition mentioned earlier, the determinants of health perspective could encourage men to see how the issues also pertain to them and increase their participation in health literacy.

8.4 Conclusion

As explained in Chapter 4, I decided to focus on the health literacy debate because the understanding and use of the concept of health literacy is central to public health communication and education. Discussing my findings around the intervention model, social learning and power relations, I have demonstrated the inadequacy of health promoting activities in Malika to the health promotion process, i.e. “the process of enabling people to increase control over and to improve their health”. The implementation of health activities I observed and heard about seemed to be firmly embedded in a biomedical understanding of health literacy and a top-down approach. This vertical and narrow intervention model

questions the empowerment of the populations; it does not allow them to make empowered decisions.

I have used the LSP lens to draw a parallel between health promotion and adult literacy interventions that are designed and implemented based on an autonomous model. This lens helps to focus on questions around empowerment in development intervention. As Lindsay Howard underlines, "teaching and learning literacy only through existing literacy practices will not transform or empower people; they also need a critical dimension and this cannot be left to osmosis" (Howard, 2005: 44). In the case of health education activities, the lack of consideration to multiple determinants of health reveals a narrow approach to health education. Adopting this vertical approach questions the will to empower individuals and communities beyond the prevention and management of specific health issues that are in the government's strategy.

For instance, the figure below maps some determinants of diabetes, including those that I have discussed in this chapter. I have highlighted in the circle the health behaviour and biological determinants that were addressed through the diabetic education and management support. Nene could access them, i.e., monitoring appointments with a doctor and counselling sessions with other diabetics in Dakar, and glycaemic control at the pharmacy or health posts in Malika. The circle within the framework shows the narrow approach of diabetic education and the limitations of healthcare to support diabetics' education and monitoring.

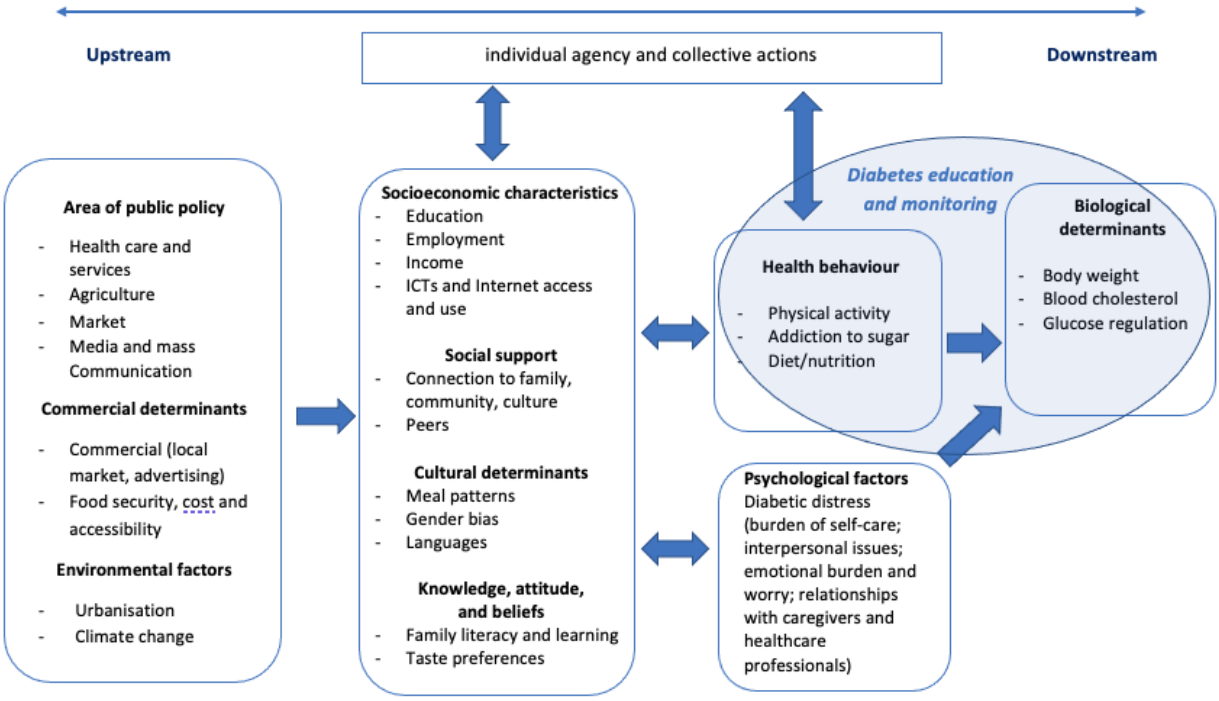

Figure 38 - Conceptual model of determinants of health influencing diabetes prevention and management in Malika – adapted from AIHW, 2020: 110

Other determinants that can directly impact on the food choice and habits were not considered in diabetes education, e.g. I have demonstrated that food access and affordability were ignored in the diet recommendations. Neither the nutritionist nor the participants questioned them during the counselling session. In addition to poverty, cultural practices around food and care were dismissed, in particular gender biased practices that can impact on the health of women but also men, e.g. women serving men and children first or the social pressure to cook tasty food. Another example of gender bias is when I suggested that men could join in with discussions around food and health. The male health workers' answers revealed a reluctance to challenge gender roles and relations. Including a gender lens within the determinants of health can help tackle the inequitable distribution of power, money and resources (CSDH, 2008; Sen and Östlin, 2009).This could ensure a more equal participation in health and ensure that men's health needs are also addressed (Sen, Östlin and George, 2007). The gender lens highlights how inequalities in food management

(women's responsibility) and money (in men's control) often excludes men from discussions around nutrition which may impede the process of change.

In addition, as underlined earlier, the group session did not seem to create any ties among the participants to sustain social relations beyond the session or even during the session through peer-learning. Creating opportunities for social support could help to address the psychological factors in dealing with the disease. Moreover, the counselling sessions were provided only in Dakar; Nene's family were unable to attend them and there was no material that she could bring home to share with them. If health education is a key element in health empowerment, dismissing determinants such as social support and family learning, reduces Nene's agency to manage her diabetes and to a larger extent, denies Malika residents' the agency to learn about the disease and prevent it. Family learning about the disease could impact on social and psychological support and encourage collective actions within the household. Consequently, the interventions described in this thesis reproduce an autonomous model that places the adult patients as recipients, thereby dismissing their capacities to critically think, to mobilise ideas, to cooperate and offer support.

Though verticality is challenged to some extent through the ways in which social media platforms are used, the digital technologies do not in themselves transform social practices. The quantity of contents shared by various members in the WhatsApp group of the House of Women amply evidences that the communication platform gives power to the users to access, receive and share information. Thus, through these digital practices, members are able to eschew to some extent government's hegemony on content and dissemination of health-related information and engage in more bi-multi-directional communication. However, as analysed in Chapter 7, without any moderation and specific purpose, communication can be reduced to reciprocal actions that contribute to the flow of information shared among participants but with no or little interaction. The examples of novel use of WhatsApp shows how users organised their group and took hold of the tool. Adopting an ideological perspective in this study, I have demonstrated that digital communicative practices on WhatsApp are relevant in everyday communication with mobile phone; however, these social practices are not considered in health programmes. Including

online health communicative practices with a critical dimension could challenge some practices that negatively impact on health. I will further develop this point in the next chapter.

Finally, looking at the upstream level of the determinant of diabetes as an example, the policy environment is not supportive to diabetics. First, poor health resources (professionals, equipment, funds and facilities) specialised in diabetes make it difficult to access care and services and those services are less responsive. Moreover, the cost of blood monitoring tests and health check-ups represents a considerable burden to disadvantaged families with no health insurance who cannot afford regular monitoring. This increases the risk of complications linked to diabetes, such as heart attack, stroke, kidney failure, leg amputation, loss of vision and nerve function.

Other policies lie outside the health sector: for instance, the food system with policies in agriculture and the market that favour rice production and consumption. These intensify disparities in the population by increasing the risks and exposure to the disadvantaged who can only afford to buy rice. These examples show the complexity and challenges of the context that directly or indirectly impact on diabetes prevention and management but fail to address at the community level. However, this also invokes the notion of *civic literacy*, the skills that enable citizens to recognise public issues and participate in civil society that Zarcadoolas, Pleasant and Greer (2005) suggest in their expanded model of health literacy. This point requires an intersectoral response, already highlighted by the Abuja Call for Action in 2007, which called upon government to recognise adult literacy as the “invisible glue”. It also reinforces Hill’s argument that the expertise of adult educators, who are potentially co-creators of knowledge, needs to be brought to the policy level so that the promotion of health can “contribute to a more holistic, responsive, and effective system” (Hill, 2016: 49).

Chapter 9 - Conclusion and implications

9.1 Introduction

I began this thesis by highlighting the increase in non-communicable diseases in Senegal, despite a range of health promotion messages. This led me to consider the implications of an ideological model for health literacy as defined in health promotion research and provided through health education and information in Senegal. To do so, I have explored: *how do Malika residents access, produce and share health and nutrition related information?* I have analysed this question looking at the spaces I engaged in at the community level and within households, as well as the institutional level during a counselling session in a hospital in Dakar, to examine some non-formal and informal learning around food and health. My aim was to look at ways of engaging in learning about health and food from a sociocultural perspective and explore whether and how these communicative practices encouraged people to *take hold* of health knowledge (Kulick and Stroud, 1993). For this reason, in Chapter 5, I drew out food practices and informal learning at home and work, then contrasting them with the health education around child and mother's nutrition and the recommended diet for diabetics in healthcare settings in Chapter 6. Investigating a shared digital space with some of my participants, I was able to consider other materials that can contribute to knowledge building. I have demonstrated the verticality of official health messaging and how it places patients as *health consumers*; however, I have not so far discussed the implications of an ideological model for health literacy. Therefore, the following question will be the focus of this conclusion: how can drawing on health communicative practices enhance the impact of health education and information?

In this chapter, I first address my initial research questions to bring together the key findings and research insights around learning about health, digital uses in health communicative practices, and gender stereotypes in health education and healthcare. In the three following sections, I respectively draw out some contributions of this research study to practice in

adult learning and in health education, and to theory. Finally, in the last section, I reflect on the methodology and its implications for practice, as well as my personal learning.

9.2 Summary of findings

9.2.1. Defining learning about food and health in Malika from a sociocultural lens

This ethnographic study set out to explore some spaces within and beyond healthcare structures where Malika residents learn about health and in particular about food and diabetes. Through the NGO, the home where I stayed, the House of Women and the walking group, I met several research participants who shared their perspectives on health and food at the institutional, community-based levels and within the household.

First in the institutional settings, my study has clearly identified traditional understandings and implementations of health education. In Senegal, personal education and development to improve knowledge about health remains vertical: health professionals (doctors, nurses, nutritionist) are the main referees. Transmission is one-way from the experts, i.e. the health professionals, to the patients and takes place in healthcare settings where patients come with the intention of learning from the experts. The authoritative positions of health practitioners with a legitimate status, frame the content and the communication. This vertical transmission was clear during the counselling session on diet recommendations (see 6.2.3.1), where there was no peer-learning or active participation of patients in sharing their knowledges, despite the participatory settings with the group arranged in a semicircle. Their participation was somehow conducted, not to say controlled, by the nutritionist.

The verticality of health education and health promoting activities also reveal the inequalities of knowledge production, as the power allocated to health experts generates little or no space for social support and collective action beyond the setting. How patients engage in these messages is assumed to rely on their individual abilities, skills and social environment, and not on how the institution can create a supportive environment, as I have discussed in Chapter 8.

At the community level, the community-based health system reproduces this vertical transmission through the informal talks provided by large-scale programmes. Despite the setting that favours participation and facilitation by a community member, information is mediated by flipcharts developed at the institutional level and used by community health workers who only receive training on the community-based health package developed in French. The informal talk of the mother and child health programme was guided by an agenda with a "view to adopting behaviours and attitudes"(USAID, 2010: 10) regarding nutrition as studied during the training, and consisting mainly of didactic messages addressed to women.

In these institutional and community-based settings, the participants are *consumers* of information giving (Catford, 2004; English, 2012). The educational interventions draw on biomedical assumptions based on communication for behaviour change and not intended to influence larger changes in the direct environment of the patient. This point has confirmed the comment made by David Houétou (2008) who found that French speaking African countries tends to apply a biomedical approach to health-related activities (see 3.2.1.1).

Adopting an ethnographic approach to explore ways of learning and sharing knowledge, I conducted participant observation within the household and at the community-based level to look at informal learning, local beliefs and practices that are influencing learning about health in communities and everyday life. Within the household, through my detailed ethnographic accounts, I analysed some intergenerational learning in the kitchen and on the mat at lunch that revealed gender roles and relations in buying food, cooking and eating together. In their nourishing and caring roles, women learn to cook as well as to heal specific illnesses with food through the transmission of local beliefs and practices. The latter are learnt from peers or within groups, reproducing the practices of the older generations by trusted members. These local knowledges and social aspects of eating were dismissed in the two health settings (at the hospital and health community-based site), where the individualisation of food framed the health information. The health promoting activities did not include determinants of health that can influence the food and cooking choices or those shaping the practice of eating from a communal bowl.

Moreover, the common but unspoken practices involving consultation with a Marabout[117] was also overlooked by the healthcare service. This appeared to be a 'hidden' space to the professionals, though very influential in how people adopted new health practices. Although I did not investigate this religious space in any depth, what we see here and, in the kitchen and on the mat, is the informality of learning that helps people participate in the knowledge and practice building, embedded in the context. This informality was also observable in the digital space.

9.2.2. Learning about health in the digital sphere, what is different?

Mass media health communication is central in Senegal, as this communication channel is used to reach the largest population and ensure the dissemination of the dominant health discourse (see 8.2.1). The vertical approach is similar in the *mDiabetes* programme that also uses a one-way communication in written form and French language only. However, this command-and-control approach is challenged by the abundance of information available and shared on social media (Viswanath *et al.*, 2012; 2015). The health institution communicates through social media, however in a similar way to mass media, i.e. based on the KAP model (knowledge-attitude and practice) and disregards social and cultural practices; consequently, understanding how people engage with the information does not appear to be key in the government's health communication strategy (see 8.2.2.3).

Looking at online communicative practices (see Chapter 7), I analysed some posts that illustrate how "literacy practices change and new ones are frequently acquired through processes of informal learning and sense making" (Barton and Hamilton, 2000: 14). In this study, the digital literacy skills required to use the mobile application WhatsApp – such as the quick share arrow and replying to a message with emojis - are rather new and widely used among my participants; and oral and visual communications were more dominant than written messages. In the WhatsApp group of the House of Women, I looked at a range of

[117] a religious man who provides health solutions among others

multimodal materials and inter-communication messages that reveal the ties among online group members. The mobile application, used as a community tool, maintained the cohesion and the sense of belonging to a community; however, little discussion occurred among the participants. The contributions of the members consisted more of transferring material than producing/creating it, unless it was directly related to the community. Compared to other uses of WhatsApp, this shows that a clear purpose and moderation can help facilitate the more active participation of members.

Furthermore, the broad range of multimodal materials shared in the online group illustrates that dissemination of national and international health-related information can go beyond geographic boundaries but not so much across social boundaries. I have demonstrated the replication of hierarchies observed in face-to-face communication in the online communicative practices, particularly in relation to the speakers and the use of written and spoken languages.

I have demonstrated how participants *took hold of* the mobile application and *dwelled in* the space to disseminate information, including health-related information, to educate, warn, care and mobilise (see 7.5.1). A greater focus on health communicative practices through WhatsApp could be usefully explored in further research to inform digital health development.

9.2.3. Perpetuation of gender stereotypes in health communication

From a gender perspective, I looked at the extent to which health information and education were sensitive to gender and life-course factors. The health information related to food in the large-scale programmes targeted women with patronising messages appealing to their roles of nourishing and caring for children and elders. Nene's case shows that women's health at the community level addressed at a specific age or group only, i.e. pregnant, lactating and elderly people. Her case as a middle-aged woman with a chronic disease was not included in the package of training and awareness campaigns.

Health promoting activities at the community level remain strongly anchored in a women-only approach: men are missing in discussions that could support women's agency within the household and at the community level. For instance, the health education activities around food targeted women only and men were not invited, since cooking tasks were considered as women's responsibilities. Moreover, there is often a focus on women and their role towards the sustainable development goals, underpinning the notion of women's empowerment as a "fixed or polarised notion of identities" (Robinson-Pant, 2008: 787).

The role of women in health is seen as key within the household and is instrumentalised within the community-based health system, where women are actively participating in activities but remain invisible in decision-making and management positions. Gender equality in the health sector remains unbalanced, as the community-based health system relies on women as volunteer workers while men are often given formal responsibilities and paid jobs. In Malika, these gender biases were visible in the local structures - a few women were involved at the decision level, but most of the women were volunteers addressing collective needs. The community managing role was naturally placed on women (Moser, 1993).

9.3 Implications for adult literacy and learning

Drawing on the findings that show the vertical model of intervention, my study reiterates the importance of adult literacy as the 'invisible glue', stated at the Abuja Call for Action in 2007 and more specifically, the role of adult educators as key actors in health empowerment (English, 2012; Hill, 2016). Adult literacy could support critical thinking and media literacy to contribute to a learning environment that is conducive to health and community action. Manifestly, this critical thinking and media literacy is increasingly important in the information-filled world in which we live. The proliferation of information during the current Covid-19 pandemic is a significant example. Addressing this need highlights the "constant changes of society, communities and individual" represented by the breaking wing in the health promotion logo of the Ottawa Charter (see 3.2.2.1). Consequently, to create literate

societies rather than literate individuals (Fransman *et al.*, 2007), the environment needs to be supportive and culturally sensitive to these changes.

Reinforcing previous studies on health literacy from a literacy as a social practice approach (Papen and Walters, 2008; Dray and Papen, 2004; Nikolaidou and Bellander, 2020; Samerski, 2019; Pinheiro, 2019), this study has been looking at the health education activities in a Global South context to investigate the complexities of learning about health that information giving only cannot address.

By studying learning practices beyond healthcare settings, where the learning occurs in everyday activities at home, work and online, existing knowledge that learners already have about health, disease and treatment, allopathic and/or traditional through local and indigenous practices and beliefs, can be recognised and valued. Thus, adopting an ethnographic approach allows us to better understand the assets of the community and the living conditions of the patients in order to bridge the gap between health messages and the social and economic factors that are sometimes tacit or minimised in health education. Through the ideological model, I have paid particular attention to the learning practices that people were already engaged in. This involves exploring the informal learning that is often overlooked. This point needs to be brought to literacy debates because it is a social determinant of health.

9.4 Implications for health literacy and education

Drawing on debates around health literacy, I have explored recommendations conducive to health through the social determinants of health. In the context of *strengthen community action* and *develop personal skills* strategies (Ottawa Charter, 1984, see 3.2.1.1), my case study clearly demonstrates that the educational and communication environment does not automatically facilitate a process of empowerment.

As Nene's case reveals, the management of her disease did not depend on her alone. By bringing ethnographic accounts of Nene's management, I have demonstrated that she could

navigate in the health system: from the health post where she first went, she followed the instructions to go to the regional hospital and to the health centre for the blood monitoring. However, 'the capacity or ability to access information' as it appears in health literacy definitions cannot be a criterion at the individual level only. The situations that I analysed revealed the lack of information in relation to prevention and management of diabetes. Moreover, Nene followed the treatment and advice but her irregular and insufficient income impeded her efforts in this regard. Determinants such as income and employment were important in her willingness and readiness to act. In addition, in Nene's case, family structure - being divorced and remarried with children from a previous union – meant that she felt responsible for the education of her youngest children, it made her less able to act. In short, the main definitions of 'health literacy' (3.2.1.4) do not speak to the context of my study and other contexts where the healthcare system is weak. A reasonable approach to tackle this issue in a Global South context could be to stress the accountability of the state in creating a supportive learning environment that provides information, communication and interaction, as well as facilitating the participation of the extended family in encouraging health conducive actions.

The Social Determinants of Health framework enabled me to look beyond the health promoting activities to which Nene had access. This framework helps to destigmatise the patient's responsibilities in managing the disease. Health education often fails to encourage health critical literacy, consequently limiting health promoting activities to disease management rather than disease prevention. Encouraging family and community members to be involved in learning about the disease in a critical way is fundamental and can also encourage social learning for social support, as I discuss in 8.3.4. Regarding access to health-services, ability and availability were the main barriers for Nene (Chatterjee, 1988 in Sen and Batliwala, 2000). In other words, in Malika, economic factors mostly determined the opportunity costs of health care outside the home and availability of the service sought, including distance, timing, staffing, etc. Therefore, women's empowerment needs to be addressed within the household, giving women income-generating opportunities; at the community and state levels women's health needs to be considered from a life-course perspective (Sen and Batliwala, 2000).

Understanding health literacy through the lens of health promotion offers a holistic vision of health that encompasses the social determinants of health. However, this vision tends to remain at the macro level and overlook the complexities at the micro level regarding education and learning. For instance, in section 8.3.3, I discussed the learning environment provided by the healthcare system and highlighted some power relations in health education that may impede the empowerment of patients. To do so, I drew on the literacy as a social practice lens to analyse the learning spaces, generating insights into the power of languages and their uses, how patients engage with reading and writing.

The volunteer health-workers were informed of the diseases included in the package and had learnt to diagnose primary curative diseases. They were able to ascertain whether the residents needed further care involving visiting the nurse in the town or going directly to the neighbouring hospital. Based on Zarcadoolas and colleagues' expanded model of health literacy (2005), they have *fundamental literacy* and *scientific literacy* in primary care. As members of the community, they also have *cultural literacy*, in that they know the collective beliefs and worldviews, although the materials used do not always represent local practices (see 6.3.3.1). Finally, through their community health roles, they participate in civil society to raise awareness within the community, which could be seen as *civic literacy.* These community actors have a key role in community health and yet, as I showed in relation to the community-based programme implemented in Malika, their participation was not included in the conception of the programme. More attention needs to be paid to enhance their participation.

9.5 Implications for Literacy as a Social Practice Theory

This study was designed to explore health literacy from an ideological model. In this regard, I looked at health communicative practices with "literacy as one of a range of communicative resources" (Barton and Hamilton, 2000: 10), its rules for procedures and documentation within the healthcare institutions. I also examined some ways of sharing health-related information at the institution, community and household levels, including mass media and

online group communication. The use of oral communication in Wolof and health-related texts in French is a pattern that crosses the different levels observed and reflects the linguistic history of Senegal (see 2.2). Through my examples of health communicative practices, written communication in French refers to *scientific literacy* (Zarcadoolas, Pleasant and Greer, 2005) while Wolof is used for the *communicative or interactive health literacy* (Nutbeam, 2000) and spoken communication. During the counselling session, information about diet recommendations was given orally in Wolof language (see 6.2.3); the nutritionist did not use scientific terms but instead, used the metaphor of house construction to talk about the nutrients. Similarly, he did not refer to the labelling of food packaging available in French when using these products to demonstrate good and bad food. Through the colonial and post-colonial linguistic history of Senegal, French remains the dominant written language and Wolof is the widely used spoken language, reflecting a strong hierarchy of languages (Scribner and Cole, 1981). For example, *mDiabetes* messages (see 6.2.3) were only disseminated in French and in written form, despite the technical possibilities of producing vocal messages in Wolof that can be disseminated through WhatsApp and also through the Global System for Mobile communication (for second generation mobile phones) sending a voice call. Considering the paucity of health-related written information provided in the healthcare settings I visited, health-related information is primarily given orally in local languages by health professionals. The health institution favours French literacy practices, demonstrating the power granted to Western medicine and its knowledge; whereas Wolof and other local languages are used in health communicative practices to transmit knowledges and practices to lay people, using repetition to facilitate memorisation. The evidence from this study suggests that the use of Wolof in health communicative practices impedes the written development of Wolof for health-related information as scientific literacy.

These language hierarchies evident in health communication in Senegal most likely speak to other contexts where the dominant language remains the colonial language. My study suggests that these hierarchies need to be recognised to ensure more effective health communication and to increase community outreach.

9.6 Reflecting on the methodology and its implications for practice and my personal learning

Adopting an ethnographic approach has been presented in this study as being important to better inform the development of health education interventions around health and nutrition. As already raised in previous literacy studies which stressed the limitation of questionnaire-based surveys (Robinson-Pant, 2001), the insights from this study reflect the relevance and need for ethnographic studies to inform health education programmes and policies. Nene's case illustrates that health literacy is not a technical set of skills and ethnographic observation enabled me to analyse how the health education she received from the hospital was not enough to impact on her diabetes management.

Through the ethnographic approach, I also experienced another way of living in a foreign setting. Though I could not (and did not attempt to) hide my French origins, the status of a researcher without the organisation's label that I had previously worn, placed me in a position of observer, learner and participant without a defined agenda. Being an outsider was not a problem/disadvantage in this approach: I was outside local hierarchies and could ask difficult and obvious questions, for instance. In the early stages of my fieldwork, I found this position overwhelming and bewildering; however, I subsequently could see that it helped me to build relationships and not hasten the research process. I considered the language learning (of Wolof) as a key element in my integration and also in my learning strategies in this context, i.e. privileging orality over writing. It pushed me to draw away from the conventional and rigid ways in which I was taught and had taught. I would not say that the results have been very successful in terms of language skills and competencies, but after couple of years without practising, I can still remember vocabulary, sentence constructions and grammar points, and above all, I still have the enthusiasm to learn if I were to be in Senegal again.

Being there is not only about observing and participating, but also feeling. Experiential learning through ethnographic empirical practice helped to me to reflect on my role as a practitioner. It helped me to realise how in a poverty context, vulnerability and uncertainty

place ill individuals in a situation of constant adaptation and in some contexts, they also have to adapt to the weaknesses of the health system. This situation increases social injustice. If the debate is to be moved forward, we need to understand how we can work better with people who have to adapt every day to a weak health system; which communicative practices and learning spaces can better support them; and how health education interventions can better adapt to and respond to their needs and situations.

Appendix 1 – Research participants

Space	Participants	Participant observation	Informal conversation	Semi-structured interview
NGO	6 men	x	x	x
	3 women	x	x	x
Home	Fatou – mother	x	x	
	Mbaye - Father	x	x	
	Baldé - son	x	x	
	Samba - son	x	x	
	Jabu - cleaner	x	x	
	Awa – Father's sister	x	x	
	Sokhna – Mother's niece	x	x	
Walking group	Adama	x	x	x
	Nene	x	x	x
	Secretary	x		x
	5 male walkers – 2 women walkers	x	x	
House of Women	Madame Faye - community health insurance manager	x	x	x
	Mrs Diop - president	x		
	Ibrahima - gardener		x	
	Dieynaba – manager and community relay	x	x	x
	community-based health coordinator	x	x	x
	4 female members	x	x	
Abdou's household	Abdou – Wolof teacher	x	x	x
	Abdou's wife	x	x	
Nene's household	Nene's sons Souleymane, Mamadou	x	x	
Adama's household	Adama's wife	x	x	
My neighbours' household	Guinean shopkeeper (5 family members)	x	x	
Health workers	Ndiawa bajenu gox			x
	Ndiawa's husband			x
	Mr Ndiaye – head nurse			x
	Mamadou - nurse			x
	Lamine - health worker in a neighbouring town		x	x
	Health councillor at city council		x	x

	Malick – community relay			x
School and adult literacy	Head of primary and secondary school			x
	Head of school assistant			x
	National adult literacy programme coordinator			x
	Former adult literacy facilitator in Malika			x
	Adult literacy facilitator previously in Malika			x
My neighbourhood	The Iman of my neighbourhood			x
	The chief of my neighbourhood		x	x
Dakar	Ministry of Health officer, former accountant of Santé Diabète (NGO)			x
	Diabetologist, Nene's doctor			x
	coordinator of the National Diabetic Association			x
	Nutritionist at Abass Ndao hospital	x		x
	French National Research Institute for Sustainable Development researcher			x

Appendix 2 – mDiabetes messages

Retrieved from http://www.mdiabete.sante.gouv.sn/?p=928 in February 2019

The original text was in French – I translated it into English

Week 1 pre-Ramadan (fasting safely)

1. You are diabetic, Ramadan is soon. Now consult your doctor: if your blood sugar is between 0.90g / L and 1.20 g/L, you will surely be able to fast
2. Your blood sugar is normal. What about your blood pressure? If it is less than 9/14, you can fast. However, adjust your doses and medication.
3. Balance your diet: 3 meals; each meal: 1 cereal, 2 vegetables, a portion of meat or fish (approximately 200gr) ± 1 fruit ± 1 dairy product.
4. If you have a complication in your heart, kidneys, or eyes, do not take any risks; ask your doctor for advice before deciding to fast
5. You are pregnant with diabetes and the child you are carrying has nutritional needs. Warning! Do not put him/her in danger; it is better to avoid fasting.
6. Warning! If you are taking insulin treatment, do not take any risks: it is best to ask your doctor for advice before deciding to fast.
7. Find all the week's messages and additional information on www.mdiabete.gouv.sn

Week 2 pre-Ramadan (Medicines / Diabetes and hypertension)

1. If your diabetes and blood pressure are well controlled, get in the habit of checking your blood pressure and blood sugar morning and evening before and during Ramadan.
2. Have the doctor check that your heart and kidneys are working properly and adjust your treatment before you start fasting. It is important!
3. Diuretic drugs can increase the risk of dehydration and hypotension while fasting. Ask your doctor for advice.
4. If your treatment includes a diuretic, your doctor will adjust the dose and may ask you to take it in the early evening instead.
5. Some new blood pressure medications can cause hyperglycaemia or hypoglycaemia. Ask your doctor for advice.
6. Some diabetes medicines can increase the risk of hypoglycaemia during the fast if they are not adapted. Ask your doctor for advice
7. Find all the week's messages and additional information on www.mdiabete.gouv.sn

Week 3 Pre-Ramadan and early Ramadan (Food)

1. Whether or not to fast is your decision. But it is dangerous if your diabetes or blood pressure is poorly controlled. Religion gives you alternatives. Check it out.

2. The fast will begin, eat a balanced diet, start to get used to taking your medications as directed by your doctor.
3. The fast has started, eat balanced; reduce salt and fats; drink a litre of water at the end of the night and a litre between the fast breaking and bedtime.
4. Your fast breaking meal (Ndogou) should not be too large, so as not to excessively increase your blood sugar and / or your blood pressure during the night.
5. Delay Kheudd[118] and eat a portion of fish, with a little rice, bread, or millet porridge to avoid hypoglycaemia and hypotension.
6. Do not try to make up for your 3 meals: stick to two balanced meals, (Kheudd and Ndogou). Above all, avoid juice, sodas, dates, honey, and pastries.
7. Happy Ramadan. Find all the messages of the week and additional information www.mdiabete.gouv.sn

Week 4 Ramadan (control)

1. Check your blood sugar and blood pressure at least twice a day, best in the late morning and afternoon. Record the results in your notebook.
2. If your blood sugar is above 2.5 g/L and / or your blood pressure is above 16/9, stop the fast that day and see your doctor to check.
3. You are tired, thirsty and pee a lot, and above all are confused, measure your blood sugar: if greater than 2.5 g/L, Danger! Break the fast!
4. If by midday or afternoon, your blood sugar is below 0.70 g/L, break the fast immediately, eat and report it to your doctor.
5. You have dizziness, sweating, and acute hunger, quickly measure your blood sugar: if less than 0.60 g/L you are in hypoglycaemia. Danger, break the fast!
6. You have headaches, dizziness and ringing in the ears, check your blood pressure: if above 16/9 or below 9/6, break the fast.
7. Find all the messages for the week and additional information on www.mdiabete.gouv.sn

Week 5 Ramadan (organisation)

1. Organise your professional or domestic work for the day and adapt it to the fasting person. Stay fit, maintain your sport 2 hours after the ndogou.
2. Continue to eat two balanced meals: a portion of cereals, vegetables, meat or fish, a piece of fruit, a dairy product for good weight control.
3. Continue to take your diabetes and / or blood pressure medications as prescribed and adapted by your doctor to keep them under control.
4. Remember that stopping your diabetes and / or blood pressure medications for no reason during Ramadan can cause these 2 conditions to be out of balance.
5. The ideal is a blood sugar between 0.90 and 1.30 g/L, a blood pressure below 14/9 to avoid any risk: balanced meal, sport and medication will help you.
6. If you feel unwell, anxious, or irritable during the day, see your doctor to have your blood pressure, blood sugar and heart checked.
7. Find all the messages for the week and additional information on www.mdiabete.gouv.sn

[118] Ramadan early morning meal in Wolof

Week 6 Ramadan (consolidation)

1. The risk of becoming dehydrated becomes greater: remember to keep drinking a litre of water before you start the fasting day and at the end.
2. Your body becomes more sensitive to excess: moderate your consumption of sugar, fat, and salt: your blood sugar and blood pressure increase very quickly.
3. Continue to eat balanced: a portion of cereals, vegetables, meat or fish, a piece of fruit, a dairy product for good weight control.
4. Readjust your sport, always in the evening at least two hours after Ndogou. Do not try to go beyond your physical possibilities.
5. If your blood sugar and / or blood pressure is disturbed for two days while you take your medication regularly, do not hesitate, consult!
6. If you feel unusually tired or unwell or have a fever, even though your blood sugar and blood pressure are normal, seek medical attention immediately!
7. Find all the messages for the week and additional information on www.mdiabete.gouv.sn

Week 7 Ramadan (resumption)

1. You are in the last days of Ramadan, you have been able to manage your blood sugar, your blood pressure, and your weight; maintain your good numbers.
2. Ramadan was an opportunity to test your ability to manage your diabetes, your blood pressure, and your weight on your own. Keep going! Do not give up.
3. Prepare to resume your lifestyle by maintaining a healthy lifestyle and consider resuming your medications according to previous prescriptions.
4. Take the advice of your doctor by showing him your monitoring book: on this basis, he can readjust your medications and give advice.
5. Gradually regain your level of sports activity before Ramadan. Give your organs, especially your heart and kidneys, time to adjust.
6. Missed days of fasting? You have time to catch up with them in the next 11 months. Check with your doctor if you have the capacity.
7. Find all mRamadan's messages and additional information on www.mdiabete.gouv.sn

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