LOST IN PREMARITAL SEX

Sexual and Reproductive Health of the Youth in Bolgatanga, Ghana

Jolien van der Geugten

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Photo (cover): Some of the young participants in this research project walking along a road in a rural community of Bolgatanga municipality (Jolien van der Geugten, 2010).

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List of abbreviations

ABC strategy	Abstain, Be faitful or use Condoms strategy
AIDS	Acquired Immune Deficiency Syndrome
FGM	Female Genital Mutilation
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
JHS	Junior High School
NGO	Non-Governmental Organization
SOA	Seksueel Overdraagbare Aandoeningen
SHS	Senior High School
SRH	Sexual and Reproductive Health
STD	Sexual Transmitted Disease
STI	Sexual Transmitted Infection
YHFG	Youth Harvest Foundation Ghana
VOC	Vocational School
WHO	World Health Organization

Contents

Chapter 1

Introduction

This thesis focuses on the conceptions, knowledge, attitudes and behaviour regarding sexual and reproductive health (SRH) of the youth in Bolgatanga municipality, Ghana. The main focus is on premarital and risky sexual behaviour during adolescence, given the adverse consequences of these behaviours with respect to unintended pregnancies and sexually transmitted infections, including HIV/AIDS, and the fact that the youth in Ghana lack comprehensive knowledge of SRH. The overall aim of the studies presented in this thesis was to deliver knowledge that contributes to the improvement of SRH education programmes and their effect.

HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

HIV is a major global health problem. In 2015, some 1.1 million people died from HIV-related causes. Sub-Saharan Africa is the worst affected area: almost 26 million people there are living with HIV, and two thirds of all new HIV infections occur in sub-Saharan Africa [1]. In Ghana, the national HIV prevalence among adults is relatively low (1.5%) compared to other sub-Saharan African countries such as South Africa (19.2%) and Zambia (12.9%) [2-4]. In Ghana, the 15–24 age group accounted for 26% of the more than 11,000 new infections in 2014; the majority of those infected were female [4]. Ghana is, however, still considered a high-risk country for various reasons: people lack knowledge of HIV/AIDS and condom use is relatively low [4], people have multiple sexual partners, there is a high incidence of self-reported sexually transmitted infections (STIs) in Ghana and there are high levels of HIV/AIDS in bordering countries [5]. HIV in Ghana is mostly transmitted through unprotected heterosexual contact (72%) [4].

STIs that are not treated can have severe health implications [6]. An increase was observed between 2008 and 2014 in self-reported STIs and STI symptoms (including bad-smelling/ abnormal genital discharges and genital sores or ulcers), namely from 26% to 35% among females (15–24 years old) and from 8% to 14% among males (15–24 years old) [7,8]. Data on help-seeking behaviour for these complaints in this age group are not available. However, it is known that the stigmatization of people with STIs can discourage them from seeking treatment [6,9].

TEENAGE PREGNANCY

More than 50% of births in sub-Saharan Africa are to 15- to 19-year-old girls. For this age group, there is a high risk for maternal mortality, birth complications and child mortality [10,11]. Their bodies are not sufficiently developed to be pregnant in a healthy way, and these girls are twice as likely to die in childbirth compared to women older than 20 [12]. In Ghana, teenage pregnancy is a major social issue and health issue. In addition, early childbearing greatly reduces a woman's educational and employment

opportunities. In 2014, 14% of females aged 15–19 had begun childbearing [8]. In addition, unsafe abortion is an important cause of morbidity and mortality, particularly among Ghanaian women under 20 years of age [13,14]. It was reported that 16% of young females (<20 years) had an abortion in 2007, while other studies argued that the actual number of unsafe abortions and attempted abortions even higher [15-17].

SRH EDUCATION

The World Health Organization (2002) defines sexual and reproductive health (SRH) as:

> "The ability to have a safe and satisfying sex life and the ability to reproduce. It is strongly linked with the freedom for all to decide if, when, how often and with whom one has sex and their freedom to decide if, when and how often to reproduce" [18].

Various organisations run programmes to educate young people about SRH, and to protect them for the adverse consequences of risky sexual behaviour. However, evaluation data on SRH programmes in sub-Saharan Africa are scarce [19-21]. Studies on the effectiveness of SRH programmes have shown that well-designed and well-implemented programmes can influence young people's knowledge, attitudes and behaviour concerning SRH to varying extents [20,22,23]. Firstly, social and cultural factors influence young people's sexual behaviour [24]. Therefore, it is important that SRH programmes should be tailored to the social and cultural context of young people regarding SRH [21,22,24]. Secondly, young people should be actively involved in the development and evaluation of such programmes, so that researchers can discover their needs and interests regarding SRH education and use this information to improve SRH programmes [25-27]. Finally, more knowledge is required on barriers and facilitators with respect to the implementation of SRH programmes, in order to develop tailored implementation strategies for these programmes and to achieve better outcomes [19,20]. The aim of the studies presented in this thesis was to contribute to these goals.

STUDY AREA

Geographical and demographic characteristics

Ghana lies in West Africa, bordering the Gulf of Guinea, between Cote d'Ivoire, Burkina Faso and Togo. In 1957, Ghana became the first sub-Saharan country in colonial Africa to gain independence (from Britain). Ghana has almost 25 million inhabitants, divided over 10 regions. The country is a constitutional democracy, has one school system and uses English as its official language. Ghana has five major ethnic groups – Akan, Ewe,

Mole-Dagbani, Guan and Ga-Adangbe – and approximately 75 ethnic subgroups. These subgroups speak their own languages and have specific characteristics, customs and traditions, for example regarding puberty rites, marriage, birth and death. The three northern regions (Upper East, Upper West and Northern Region) are, compared to the southern regions, relatively poor and mainly rural with farming as the main income. The majority of the people live in villages and small communities. Education and new media were introduced relatively late in the rural northern regions of Ghana, and school attendance and literacy rates are lower compared to the rest of Ghana.

This study was carried out in Bolgatanga municipality (131,550 inhabitants), the capital of the Upper East Region, which has over one million inhabitants (see Figure 1) [28]. Bolgatanga municipality has a total land area of 729 km^2 and is home to about 213 communities. Although the municipality is becoming more urbanized, the majority of the people depend on farming for their livelihoods and the rural population still accounts for half of the total population [28,29]. The dominant ethnic group in the Upper East Region is the Mole-Dagbani, which has eight subgroups. One of these is the Frafra, and their subgroup the Gurune is dominant in Bolgatanga municipality [28]. The Frafra have a patrilineal structure, whereby women have no explicit (or substantial) inheritance rights [30]. The influence of the traditional system of governance and that of the extended family are important for daily life activities in the communities of Bolgatanga municipality [28]. Because Bolgatanga is the regional capital, also other ethnic groups are found there, such as the Akans, Ewes and Ga-Adanbge [28]. The three main religions in Bolgatanga municipality are traditionalism (practised by 22.3% of the population), Christianity (57.6%) and Islam (17.1%). Only 2.7% have no religious affiliation. It is remarkable that there are more female Christians than male Christians, and that more males than females are affiliated to the traditional religion and Islam [28].

In the past 20 years there have been huge changes in Bolgatanga municipality, and these have affected the youth and their sexual behaviour. This process of change, which is not restricted to Bolgatanga municipality but extends to sub-Saharan Africa as a whole, is associated with colonialism, Christian missionary activities, western education, modernization, civil rights movements and globalization [31].

One of the changes observed in Bolgatanga municipality is that a growing number of villages and communities are now connected with each other and with Bolgatanga town by dirt tracks or paved roads. In the olden days, people left their communities only for special events, such as funerals or weddings, and mainly on foot. Nowadays, young people (mainly males) also use bicycles, motorbikes and buses to go to work, the market, phone stores, hairdressers, the hospital, school, etc. and to visit friends.

The number of school-going children in Bolgatanga municipality is still lower than that in the rest of Ghana, but it has increased in recent years. More schools have been built in rural areas and some children walk or cycle to another community to attend school there. In 2010, 82% of those aged 20–24 years were literate; the figure for those aged 15–19 years was 91%. However, the number attending school decreases sharply

with progression to higher education levels [28]. At secondary school level, some students attend boarding schools outside the Upper East Region, relatively far from home.

Figure 1: Map of Ghana[1]

Another relevant change for the youth in Bolgatanga municipality is the increase in the availability of electricity in town and in some parts of rural communities. It enables them to listen the radio, to watch television, to use smart phones and laptops, to access the internet, and to read and study in the evening. Through these media, young people have unlimited and unguided access to films and music videos, and also to pornographic pictures and videos, from which they learn about relationships and sex. Research in Ghana on the use of internet by the youth on their mobile phones is limited. More than three quarters of adults own a mobile phone, and for 14% this is a smart phone [32]. Statistics on those younger than 18 were not available, but it was noticed that an

[1] http://ghanamap.facts.co/ghanamapof/ghanamap.php

increasing number of young people in sub-Saharan Africa use mobile phones to call their peers, make arrangements, contact their boyfriends or girlfriends, or join Facebook if they have access to a smart phone [33]. Exposure to new media is an important factor influencing the sexual attitude and behaviour of young people. The extent to which this influences individuals is related to their personality and identity, their developmental stage and their context, and whether they find what they see realistic, educative and attractive [34].

Poverty is still a major problem in Bolgatanga municipality, and the youth are confronted with food insecurity, hunger and a lack of cash. The main reason for the poverty is that the majority of the people depend on farming, and variability in climate and rainfall together with perennial flooding spoil the crops [29,35]. Other employment is difficult to find in Bolgatanga municipality. Some try to start their own businesses, while others travel to larger cities such as Kumasi and Accra to look for jobs, which are hard to find there as well [29]. Under these circumstances, educating young males and females – which could help them to get jobs outside farming, such as teaching or nursing – is not given high priority by all parents. Primary education is free, but some children do not go to school because their parents cannot afford, or do not feel obliged to pay for, the small items that schooling necessitates (e.g. broom, uniform, toilet roll, sanitary pads). To understand the motives and decisions of the youth regarding premarital and risky sex in Bolgatanga municipality, this continuation of poverty and unemployment forms an important social and economic context.

Sexual and reproductive health

In Bolgatanga municipality the youth' knowledge of SRH and their familiarity with family planning methods and HIV/AIDS are relatively low compared to other parts of Ghana [36], and research on this topic in this area is limited. Additionally, cultural practices such as polygyny, female genital mutilation (FGM) and child marriage are relatively common. Data on these practices were only available for the Upper East Region, which has the highest percentage of young females who marry before they reach 18 (39%), and the second highest prevalence of FGM (28%) in Ghana [37]. Although there was a decrease in polygynous marriages in the Upper East Region between 2008 and 2014, namely from 25% to 17% among men and from 39% to 32% among women, it is still the second highest prevalence in Ghana [8]. In general, puberty rites were not widely performed in the northern regions of Ghana; the menarche was a sign to prepare girls for marriage [38]. However, FGM used to be a common and very harmful practice to temper sexual desire and preserve the virginity of unmarried women [39].

We expected that modern developments in society and an increase in school attendance in Bolgatanga municipality would increase the median marriage age and thus the prevalence of premarital sex, because the youth would be sexually mature and unmarried for longer [40]. However, only slight changes were reported for the Upper

East Region.[2] The median age of marriage in the region is 24.4 years for males and 18.9 years for females [8]. For females, there is only a slight difference between the median age of first sexual intercourse (18.4) and the median age of marriage (18.9). For males the difference is larger: their median age of first sexual intercourse is 21 and their median age of marriage is 24.4 [8].

Familiarity with the research area

The researcher has been known in the research area since 2000, when she participated in a youth exchange programme with Ghana. She spent three months living with a host family in a rural part of the Upper East Region, together with her Ghanaian (female) counterpart. During the exchange programme, she and her counterpart gave presentations together with five Ghanaian and five Dutch participants in the exchange programme at dozens of schools in the Upper East Region, sharing their cultural experiences regarding differences and similarities between Ghana and the Netherlands. During the presentations, the group also promoted the use of condoms and abstinence from premarital sex to prevent the spread of HIV/AIDS – which at the time was a hot topic in Ghana, and most radio and television stations were playing a song just released by the Ghana All Stars as their contribution to the national HIV/AIDS prevention campaign: *'You can maintain one lover. If it's not on [condom], it's not in. You can wait until marriage. Love life, stop Aids'*. After the presentations at the schools, and during daily life, adolescents asked the researcher about SRH issues such as menstruation, FGM and the transmission of HIV/AIDS. After the exchange programme, the researcher returned to the Upper East Region several times.

Partner organisation YHFG

During one of these trips, the researcher visited the non-governmental organization Youth Harvest Foundation Ghana (YHFG) in Bolgatanga municipality, to discuss its SRH education programme for students. The YHFG was a partner in the studies presented in this thesis. It has been working on sexual and reproductive health and rights since 2003 with various projects in the Upper East Region that target young people. For example, teaching educational programmes at junior high, senior high and vocational schools, running peer education programmes in the communities, organizing debating events and establishing a youth centre with various activities. The following is the YHFG's approach regarding sexual and reproductive health and rights [41]):

> "The lack of comprehensive sexual health education and services causes another series of potential risks for adolescents. When facing problems like sexual violence, sexually transmitted infections (STIs), teenage pregnancies or unsafe

[2] The median marriage age for males was 24.8 years in 2008 and 24.4 years in 2014 (pre-2008 data not available); for females it was 18.8 years in 1998 and 18.9 years in 2014. In Ghana as a whole, the median marriage age is 26.4 years for males and 20.7 years for females [8,16,42].

> abortions, chances are high that youth will drop out of school. Therefore, the YHFG has built up a broad range of programmes supporting and promoting the sexual and reproductive health of young people by providing appropriate education and supporting rights-based advocacy activities".

In 2009, YHFG deputies said explained in 2009 that their SRH programmes for young people had never undergone a scientific evaluation. To continue, improve and expand their work they wanted more insight into their target groups and the effects of their programmes. Moreover, the researcher noticed that research in the Upper East Region, particularly in Bolgatanga municipality, is scarce and research resources are limited. During conversations with Ghanaians in southern parts of Ghana, the researcher was asked several times why she was interested and why she travelled to such a remote area of Ghana. These observations combined with the fact that during the exchange programme young people asked various questions about SRH related issues, motivated the researcher to conduct this study.

Host family

During the periods of data collection, the researcher stayed in Bolgatanga municipality with a Ghanaian family (husband, wife and three children) she has known since 2000, to experience Ghanaian life in the area and to better understand the social and cultural context. She participated in daily activities such as going to the market and to church, helped the children with their chores and homework, and participated in special events such as funerals, marriages and naming ceremonies.

AIM

The aim of this thesis is to increase knowledge about the conceptions, attitudes, motives and practices concerning premarital sex and risky sexual behaviour of the youth in Bolgatanga municipality. This knowledge can be used to develop new or improve existing SRH education programmes in the region. The ultimate aim is to protect young people from the potential adverse consequences of risky sexual behaviour and to promote their healthy development towards adulthood.

Research questions and methods

The studies reported in this thesis focused on the following research questions:

1. What are the conceptions, motives and practices concerning premarital sexual relationships of the youth in Bolgatanga municipality?
2. What are the conceptions and attitudes regarding multiple sexual partners of the youth in Bolgatanga municipality?
3. What are the conceptions and attitudes regarding unprotected and protected sex, and condom use in particular, of youth in Bolgatanga municipality?
4. What are the attitudes and behavioural intentions of students concerning SRH in Bolgatanga municipality, what do they know about SRH and what are the effects of an SRH programme on them?
5. What are the students' opinions about an SRH programme after participation?
6. What are the barriers and facilitators concerning the implementation of an SRH programme, as perceived by the programme's educators?

A combination of qualitative and quantitative research methods was used to answer the research questions. To answer research question 1, we started with a broad qualitative study investigating the conceptions, motives and practices regarding premarital sexual relationships of young people. Research questions 2 and 3 were answered by two qualitative studies focussing on unprotected sex and multiple sexual partners. For research questions 1, 2 and 3, interviews with young males and females, and adults were conducted. In the interviews, young people (14-25 years) could share their ideas, conceptions and experiences concerning premarital sexual relations, protected and unprotected sex, and multiple sex partners. Both semi-structured and focus group interviews were held: the semi-structured interviews provided privacy for the young males and females in a small setting, whereas the focus group interviews encouraged them to share their ideas and to react to each other. Semi-structured interviews were also conducted with adults who were familiar with the local youth, their lives and their problems. These adults were teachers, parents, religious leaders, health and social workers, and ethnicity experts, and they provided complementary information about the sociocultural dynamics and context of premarital sexual relationships, protected and unprotected sex, and multiple sexual partners.

Two quantitative studies were used to answer research questions 4 and 5. To analyse the knowledge, attitude and behavioural intentions of students, and the effect of an SRH programme on this group, pre- and post-intervention measurements were conducted at various junior high, senior high and vocational schools where the YHFG provides its SRH programme. To analyse the opinions of students about this SRH programme, another questionnaire was completed by students at junior high, senior

high and vocational schools after the SRH programme was completed. To answer research question 6, semi-structured interviews were held with the teachers of the SRH programme, to enable them to share their ideas and experiences concerning the programme.

STRUCTURE OF THE THESIS

Chapter 2 describes the dynamics of the premarital sexual behaviour of young people in Bolgatanga municipality by elaborating four repertoires.

Chapter 3 describes the conceptions and attitudes towards multiple sexual partners of young people in Bolgatanga municipality.

Chapter 4 describes the conceptions and attitudes towards protected and unprotected premarital sex of young people in Bolgatanga municipality, in particular condom use.

Chapter 5 describes the pre- and post-intervention measurement regarding the knowledge, attitude and behavioural intentions of young people in Bolgatanga municipality before and after attending the SRH programme.

Chapter 6 describes the opinions of students after attending an SRH programme based on how important and interesting they found the programme, whether their expectations had been met and whether the objectives of the programme had been achieved. This chapter also describes the barriers and facilitators experienced by the teachers of the programme concerning its implementation.

Chapter 7 discusses the main findings, offers recommendations and a conclusion.

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Sex education class at the Senior High School, Bolgatanga municipality (Jolien van der Geugten, 2012)

Break time at the Junior High School, Bolgatanga municipality
(Tom van der Geugten, 2012)

Main road in Bolgatanga municipality
(Jolien van der Geugten, 2012)

Women pumping water from a well, Bolgatanga municipality
(Tom van der Geugten, 2012)

Main road in Bolgatanga town
(Jolien van der Geugten, 2010)

The market in Bolgatanga town
(Tom van der Geugten, 2012)


vodafone

Family compound shaded by a Baobab tree, Bolgatanga municipality
(Rosan van der Geugten, 2009)

Chapter 2

Virginity, Sex, Money and Desire: Premarital Sexual Behaviour Repertoires of Youths in Bolgatanga Municipality, Ghana

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ABSTRACT

Youths in Bolgatanga municipality in the Upper East Region in the rural north of Ghana suffer health and social problems that are caused by their premarital and unsafe sexual behaviour. This study provides more knowledge of and insight into the youths' conceptions, motives and practices concerning premarital sex in the specific cultural and social context of Bolgatanga municipality. The results of this study can contribute to the development of more effective sexual and reproductive health (SRH) programmes. Interviews with 33 youths and 27 key respondents were carried out. Four repertoires were constructed to present the dynamics wherein the youths' premarital sexual behaviour takes place. The dominant ideology of abstaining from premarital sex contrasts with the counter ideology of allowing premarital sex, influenced by increasing modernization. SRH programmes should take into account the increasing influence of modernity, gender differences and the compelling influence of peer groups, all of which contribute to youths engaging in premarital sex, with health and social problems as possible consequences.

Keywords: Bolgatanga, premarital sex, sexual behaviour, youth

INTRODUCTION

In Bolgatanga municipality in the Upper East Region in the rural north of Ghana, youths suffer health and social problems – such as sexually transmitted diseases (STDs), unintended pregnancies and exclusion from their communities – as a result of their premarital and unsafe sexual behaviour. Sexual and reproductive health (SRH) programmes that are intended to help protect youths against the negative consequences of premarital and unsafe sex are carried out in the region. However, little is known about the youths' conceptions, motives and practices concerning premarital sexual relationships in the specific context of Bolgatanga municipality.

Youths in Ghana have more premarital sexual relationships than in the past, and their marriage age has increased. It is thought that urbanization and modernization have contributed to their changing sexual behaviour, for example through the increased school attendance of girls, the reduced influence of elders and the use of new media [1-3]. However, there have been few studies on the influencing factors for Ghanaian youths to engage in premarital relationships and unsafe sex. The majority of studies focus on actual sexual behaviour and the negative consequences of unsafe sex. They conclude that most Ghanaian youths have little knowledge about the transmission of STDs, family planning and contraceptives [1,4-6]. A more fundamental understanding of conceptions, behaviour, practices, knowledge and preferences in specific cultural and social contexts is needed as a basis for the development of effective health programmes [7,8]. Furthermore, most of the studies on youths' sexual behaviour have been carried out among large ethnic groups in urban settings and in the southern parts of Ghana, not the more rural northern regions [1]. Therefore, in this article we study the youths' conceptions, motives and practices concerning premarital sexual relationships in the context of Bolgatanga municipality in the Upper East Region in Ghana.

METHOD

Design

Ethnographic research was used to describe the conceptions, motives and practices concerning premarital sexual relationships in Bolgatanga municipality. Open interviews (individual, in pairs and in small groups) were carried out with 33 youths and 27 key respondents in 2010 and 2011.

Setting

Ghana has almost 25 million inhabitants, divided over 10 administrative regions. Bolgatanga municipality has 132,000 inhabitants and is the capital of the Upper East Region, which has more than one million inhabitants and is one of the poorest regions

in Ghana, together with the Upper West Region (702,000 inhabitants) and the Northern Region (2,479,000 inhabitants) [9]. These three regions are mainly rural. The people live in poor housing conditions in villages and small communities. The main source of income is farming, although some people also engage in such activities as trading, leather work and weaving. School attendance and literacy rates are much lower compared to the rest of Ghana [10-12].

The dominant ethnic group in the Upper East Region is Mole-Dagbani, which has eight subgroups. One of these is the Frafra. The Frafra, in particular their subgroup the Gurune, are dominant in Bolgatanga municipality. The main religions in the region are Traditionalism (practised by 49% of the population), Christianity (26%) and Islam (24%); the figures in Bolgatanga municipality are Traditionalism 53%, Christianity 36% and Islam 9% [10-11]. Some of the Christians and Muslims also abide by traditional elements, such as ancestral beliefs, funerals and marriage rites (10).

Population and sample

The study population comprised youths aged between 14 and 22 years and key respondents from Bolgatanga municipality, representing rural and urban dwellers, and educated and uneducated persons. The key respondents are adults in different age groups (26–36, 36–55 and 55–76 years) and from various backgrounds, such as teachers, parents, religious leaders, ethnicity experts, social workers and health workers. The perceptions of the key respondents are relevant because they provide complementary information about the sociocultural dynamics and contexts in which the premarital sexual practices of youths take place [6].

Purposive sampling for both youths and key respondents was done, taking into account gender, age, urbanization and education. Participants were selected and asked to cooperate with the assistance of the Youth Harvest Foundation Ghana in Bolgatanga (the foundation teaches youths about sexual and reproductive health issues, and was a partner in this study), churches, mosques, key local figures and the Ghanaian host family of the first author (JvdG). The majority of those approached agreed to cooperate; five youths and two key respondents declined the invitation because of obligations at school, home or work. Participants were included until data saturation was reached.

Data collection

Data were collected in three rounds of open interviews. The first and second rounds with youths and key respondents were conducted in April and May 2010 and in October and November 2010. The third round, which included only key respondents, was carried out in November 2011 (not all key respondents could be interviewed during the first and second rounds).

A total of 26 interviews (individual, in pairs and in small groups) were conducted with 33 youths. Of these interviews, 18 were held in English and eight were held in

Gurune and English with the help of a local female interpreter aged 22 years. Twenty-four interviews were held with the 27 key respondents; of these interviews, 19 were held in English, and three were held in Gurune and English and two were held in Gurune with the assistance of two local female interpreters (the previously-mentioned interpreter and an interpreter aged 31 years, who assisted with one interview).

The interviews took place in both formal and informal settings, using the same topic list with all participants. The main topics were their cultural and religious conceptions and practices concerning sexual and relational behaviour, and the sexual and relational behaviour of the youths. The subtopics were boyfriend–girlfriend relationships, falling in love, sexual practices, STDs, unintended pregnancies, condom use, marriage, puberty and parenting. The order in which the topics were discussed depended on the participant's answers to the previous questions. The interviews lasted 20–75 minutes.

Twenty-two of the 26 interviews with the youths and 18 of the 24 interviews with the key respondents were carried out by the first author (JvdG, Dutch woman). Two Dutch female Bachelor students carried out four interviews with the youths and six interviews with key respondents, all in formal settings and supervised by the first author. The interviews in the formal settings (12 with youths, 17 with key respondents) were digitally recorded and transcribed verbatim by the first author and the Dutch students (checked by the first author). The remaining interviews in the informal settings (14 with youths, five with key respondents) were not digitally recorded; however, field notes were processed the same day, based on draft notes taken during the interviews by the first author and on interviewer recall. During the periods of fieldwork, the first author was hosted by a Ghanaian family.

Data analysis

The qualitative data analysis software ATLAS.ti was used to analyse the data. As a first step, open coding was used for both the verbatim transcriptions and the field notes [13]. Based on the interrelated open codes, categories were developed by axial coding. The focus during the development of the categories was on the youths' conceptions of and their reasons to engage in or abstain from premarital sex, and the relevant conceptions and opinions of key respondents. Some categories (e.g. abortion) were deleted because they were not relevant to this study. Based on the links between the categories, central themes were defined. Finally, four interpretative repertoires were inductively constructed, based on the categories and central themes. Repertoires are defined as 'recurrently used systems of terms used for characterizing and evaluating actions, events and other phenomena' [14, p.149]. The coding in ATLAS.ti was carried out by the first author; methodological aspects of the research, the coding processes (development of codes, categories and themes) and contradictions that were identified during the analysis were documented and systematically discussed by the research group (JvdG, BvM, MdU, NdV). For privacy reasons, the names of the participants have been anonymized.

RESULTS

This section presents the demographics of the participants, followed by the four interpretative repertoires that were derived from the data. The repertoires – namely 'Virginity is a treasure', 'Just a boyfriend–girlfriend', 'It's all about the money' and 'The feeling like doing it' – provide insight into the conceptions, motives and practices concerning the youths' premarital sexual behaviour.

Demographics of the participants

The sample comprised 21 male and 12 female youths from Bolgatanga municipality. The male youths were unmarried and aged 16–22 years. The female youths were aged 14–22 years; four were married (aged between 18 and 21 years; two had children and two were pregnant). Information about their religion, ethnic group, urbanization and educational background is given in Table 1. The percentage of youths having the Traditional religion is relatively low. This was taken into account in the analysis of the interviews; however, it did not seem to indicate major differences in the analysis of repertoires. Apart from the youths, open interviews were conducted with 27 key respondents (17 men and 10 women) from various backgrounds: they were teachers, parents, social workers, health workers, ethnicity experts or religious leaders (see Table 2). Ten of them were aged between 26 and 36 years, 12 between 36 and 55 years, and five between 55 and 76 years.

'Virginity is a treasure'

The youths to whom these repertoire apply spoke repeatedly about their abstinence from premarital sex. This emphasis on virginity should be placed in the cultural context of Bolgatanga municipality.

In the locally dominant Frafra culture, it is most important to continue the patrilineal line through new-born children in order to satisfy the ancestors and the spirits and to preserve the family's reputation. Children belonging to the line of their father and baby boys are preferred over baby girls. Moreover, male children are supposed to support the family financially and to take care of their parents when they are old. It is most important for a man to marry a fertile and virgin woman from a good family.

Table 1: Demographics of the youth

Interviews youth (n=33)	Number (%)
Sex	
Male – age range	21 (64%) – 16–22 years
Female – age range	12 (36%) – 14–22 years
Ethnicity	
Frafra	28 (85%)
Hausa	1 (3%)
Bakasan	1 (3%)
Unknown	3 (9%)
Urbanization	
Bolgatanga municipality	30 (91%)
– Rural community	23 (70%)
– Bolgatanga town	4 (12%)
– Not specified	3 (9%)
Bongo District[a]	3 (9%)
Religion	
Christianity	13 (40%)
Islam	5 (15%)
Traditionalism	1 (3%)
Unknown	14 (42%)
Education	
Male youths (n=21)	
No education	1 (5%)
School dropout primary/JHS[b]	3 (14%)
Attending JHS	5 (24%)
Attending SHS[b]	5 (24%)
Completed SHS	6 (29%)
Attending polytechnic	1 (5%)
Female youths (n=12)	
No education	1 (8%)
School drop-out primary/JHS	3 (25%)
Attending JHS	1 (8%)
Completed JHS	2 (17%)
Attending SHS	3 (25%)
Completed SHS or tertiary education	2 (17%)

[a] Schooling in Bolgatanga municipality

[b] JHS: Junior High School; SHS: Senior High School

Following the traditional Frafra culture, marriage is contracted between two families from different lineages of the same ethnic group. Today, however, most men and women find their own husband or wife, who may even be from a different ethnic group, without their parents' intervention. Marriage itself, however, is still an agreement between two families. A traditional Frafra marriage is contracted with the gift of a calabash, a fowl and four cows from the man's family to the woman's family. Only upon the exchange of the fowl (which stands for the woman's virginity) is the marriage traditionally valid and the children belonging to the father and his family line. The marriage rituals are still widely practiced, especially by the Traditionalists and the Christians. The Frafra tradition prescribes abstinence from sex before marriage,

although this sexual ideology might have gone hand in hand with a practice of sexual contacts between youths in the past as well as in the present. This ideology of abstinence corresponds with the vision of the Christian and Islamic religion in the research area. Mamiya (ethnicity expert, 76 years, Christian) said: *'That is what I know about the traditional way. Yeah, the best thing, the most important thing, is that there is no relationship, no coitus!'* Also John (teacher, 31 years, Christian) stated: *'Because sex is for marriage. That is what makes marriage sweet […]. They make every efforts to marry. Because it is only in marriage that you can have sex.'*

Table 2: Demographics of the key respondents

Interviews key respondents (n=27)	Number (%)
Sex	
Men	17 (63%)
Women	10 (37%)
Age	
26–35 years	10 (37%)
36–55 years	12 (44%)
56–76 years	5 (19%)
Ethnicity	
Frafra	18 (67%)
Moshi	1 (4%)
Kassena	1 (4%)
Dagao	1 (4%)
Unknown	6 (22%)
Urbanization	
Bolgatanga municipality	27 (100%)
– Rural community	12 (44%)
– Bolgatanga town	6 (22%)
– Not specified	9 (33%)
Religion	
Christianity	15 (56%)
Islam	4 (15%)
Traditionalism	3 (11%)
Unknown	5 (19%)
Backgrounds	
Teachers	6 (22%)
Parents	3 (11%)
Ethnicity experts	3 (11%)
Health workers	2 (7%)
Social workers	2 (7%)
Religious leaders[a]	4 (15%)
Elderly	4 (15%)
Young adults (26, 29, 34 years)	3 (11%)

[a] Youth pastor, youth president in church, traditional leader, assistant imam

The story of Mary (unmarried, 22 years, Christian) is typical of the repertoire 'Virginity is a treasure'. Mary was very resolute about keeping her virginity until marriage. She explained that as a virgin you will get the right partner, and that your partner and the

community will respect you. Following her Christian religion, she also believes that: *'if you are a virgin, many times you are praying, God answers you very fast.'* She also said that virginity protects you against diseases and pregnancies. It appeared from her stories, however, that people try to encourage her to lose her virginity. To illustrate this, it is relevant to know that Mary's parents died, and that she had to drop out of school because the lady who paid her fees also died.

In school, some female classmates of Mary had sex with men in exchange for money to buy ingredients for the dishes they made for the home economics course. Her classmates also received material gains for their sexual activities, such as biscuits and drinks. However, they did not allow Mary to share any of this, because Mary refuses to have sex with men. Her classmates made fun of her and called her *Osofo Maame* ('pastor's wife'). Her Christian religion is important to Mary: *'I tell them that, the God that has brought me to the school will supply my need.'* Because of her orphaned situation, she thought she would never have the opportunity to go to school again.

Mary defends her virginity in various situations and avoids places and activities where she would meet men. She said: 'I did home economics, so most of times we work in the restaurants, the bar, those who sell food, beer and all that. But me, I just told myself that I won't work there. Because I'm a Christian, I'm praying to live, I'm trying to live a righteous life and working there you see a lot of things, and like men coming there too.'

This avoidance aspect was also found in the interviews with other young women. For example, Grace (20 years, Christian) explained that she will not meet men in private: '*So if you involve into that even though the boy might not have that intention, while you sitting with him talking. Maybe he will touch you like this and you feel* [laughs] *you feel something. And so, that maybe so, say "Oh, hug me". From there* [laughs] *it happens gradually. And you involve yourself into that.'*

Without parents and without a school certificate, Mary's prospects in Bolgatanga municipality are probably not good. However, according to the youths and the key informants, young virgins are still highly valued by in-law families, especially the men and the mothers-in-law. Moreover, they assume that as a virgin you do not have STDs, or mutilations of the womb caused by abortion that can threaten fertility.

The circumcision of girls used to be a common practice among the Frafra and the Muslims in Bolgatanga. Although female genital mutilation (FGM) prevalence among 14- to 25-year-olds has decreased in the research area in recent years (e.g. from 14% in 1995 to 5% in 1999), it is difficult to investigate and monitor this hidden practice [15]. Girls are circumcised when they reach puberty in order to temper their sexual desires and thus keep their virginity. Both the interviewed youths and adults were aware of FGM; the youths, however, did not think that FGM still happens in their area. Some of them explained that they learn about it at school, and that it is forbidden and punishable by Ghanaian law.

In contrast to the women, there are no specific cultural or religious practices concerning the virginity of men. In the Frafra culture, and in the Traditional or Islamic religion, men are allowed to have a polygamous marriage. Samuel (ethnicity expert, 35 years, Christian) said about marriage in the Traditional religion: *'For a man, if you have sex before marriage, one is like it's even difficult to verify. Number two, people who even see it as normal so there is nothing wrong with it. Because if I marry as a man in my custom or my culture, I can marry another woman. I can even keep a concubine.'* As regards the male youths, it became clear that most of them practice premarital sex and that only a few of them want to wait until marriage, in the name of their Christian faith. David (29 years, unmarried, Christian) explained that *'the spirit and the flesh they keep fighting. […] The flesh wants to weaken you'.* He said that you have to be a principled person 'to fight the flesh', indicating that it is difficult not to engage in premarital sex. The male youths who were convinced of the value of their virginity were also being pressured. David explained that *'boys who are principled are tagged as stubborn and arrogant'*. John (teacher, 31 years, Christian) said that they call him *colo* (referring to the olden days) because he is not modern.

Another reason for both male and female youths to abstain from premarital sex is their education. Those who were seriously involved with their education and had ambitions explained that their concentration on their education is more important than engaging in sex. Abdul (21 years, Muslim) said: *'So I sat down and think of it. If I want to take my mind and focus on what, girls, I will not study. So let me quit, if there's love between me and you, one day we will meet. Please let me study.'*

The Ghanaian government also encourages abstinence. Its policy is based on the ABC approach, which stands for 'Abstinence', 'Be faithful if you do not abstain' and 'Condom use if you are not faithful'.

It can be concluded that in Bolgatanga municipality, it is much more important for female youths to remain virgins than it is for male youths, as virgin women are traditionally highly valued by their future husbands and in-law families, which enables them to secure their future. In contrast, the premarital sexual activities of male youths will not affect their social status. Both male and female youths stated that they abstain from premarital sex because of the teachings of their Christian or Islamic religion, and because they want to succeed in their education and their career without premarital sex distracting them from it. It was also noted that those who wanted to remain virgins were explicit about their conviction to abstain from premarital sex and to defend their attitude. At the same time, it is obvious that they do not put themselves to the test: they avoid situations and activities were they can meet the other sex, for example in bars. They defend their virginity as a treasure, against pressure from their peers to abandon this principle.

'Just a boyfriend–girlfriend'

The youths who are sexually active explained that premarital sexual relationships are just a normal thing in today's cosmopolitan world. Ayine (male, 21 years, Traditional religion): *'Yeah, yeah we do it before marriage. We believe in it. Actually because I think, I know it's important before marriage because you have to know your partner sexually.'*

The key informants noticed that the sexual behaviour of youths has changed. According to them, these days some of the youths in Bolgatanga have premarital sexual relationships at an early age instead of waiting until they are married. Mohammed (55 years, Muslim) said: *'Islam is against having sex before marriage. […] But like I told you, we are living in a cosmopolite area. Here we have what we call girlfriend, boyfriend, lovers.'*

The influence of modernity was mentioned by both the youths and the key informants. In addition, the availability of new media in Bolgatanga municipality has increased. The youths learn about relationships and sex/premarital sex around the world through television and the internet, in particular sites like Facebook and YouTube.

Parents and schools do not allow youths to have boyfriend–girlfriend relationships, because it is believed they are not of the right age and it might affect their education. Felicity (teacher, 39 years, Christian) said: *'It has some effects on the boy and girl. Those things happen. You know the boys and girls cannot concentrate. Because of that we don't allow them.'*

It is common for youths to have boyfriends or girlfriends, however, particularly if they attend boarding school at secondary and tertiary level, where youths live with their peers, without the authority and influence of their family. Gifty (woman, 18 years, senior high school student, Christian) said: *'Actually with schools like this, having boyfriends and girlfriends, it happens in school. And that one you can't prevent them. The teachers self can't prevent them.'*

Both male and female youths said that they start a relationship because they are 'in love'. Some said, however, that it is not possible to really be in love at a young age, while others said that it is possible to fall in love at school and marry that person in the future. Love was also explained in gender-specific terms: girls said that boys 'fall in love' for sex, while boys said that girls 'fall in love' for money and gifts. Gifts and 'chop money' (money to buy small snacks or drinks) are indeed reasons for some girls to have relationships, although to them it is seen as part of the relationship and not as a direct exchange in sexual practices. Some male youths start stealing for their girlfriends, because they are in love and are afraid that their girlfriends will leave them. Abdul (21 years, Muslim) said: *'If you ask me please I want money to buy brassier or pant, and I don't have and I love you. What will I do? I don't have anywhere to get the money from, but I rather do what, steal and give you the money. That's girls' pressure.'* Another reason to engage in a relationship is peer pressure: when all their friends have boyfriends or girlfriends, some youths feel they should also have one or at least try it.

Popular places for 'marketing' – a term used for finding and meeting your boyfriend or girlfriend – are at school, at funerals, on the street and in the market. Although forbidden, according to the youths it happens regularly that they meet in the night in empty classrooms or in the bush at the campus. Funerals are celebrated for a couple of days in the traditional way, with music and dance, and people drink alcohol. Sexual activities take place on those events in hidden places.

Sex is an important aspect in boyfriend–girlfriend relationships. Both male and female youths said that without sex, there is no love in a relationship. Clement (20 years, Christian) explained: *'You see one thing that is now happening here […] When you pick a girl, and make her your girlfriend, and you don't have sex, they say it's not love. You understand. It's not love, because and they are, when you don't have sex with the girl, like uhh that love is not lasted. It will so end. That's what it is always compelling to do it.'*

According to the youths, having sex in general is important, and so too is the moment of the first sexual act. In a relationship, sex should not be delayed longer than a couple of weeks, or even no longer than one week, otherwise they will think that their boyfriend or girlfriend is cheating. They can also be suspicious when there is no frequent sex in the relationship. Mistrusting each other also involves unprotected sex and the risk of contracting STDs. Peter (19 years, Christian) explained that he does not trust women: *'Nowadays, we don't trust girls. Because the sicknesses are now many. You can't even, if you have a girl, you are going to marry, you have to study the girl, and then you can even go for blood test. Before you get married. If not you can sleep with the girl, maybe the girl or the boy will even have diseases.'*

Another risk posed by unprotected sex is pregnancy. According to the youths and the key informants, unwanted pregnancies regularly occur among the young women in Bolgatanga. A nationwide survey reports that 13% of 15- to 19-year-olds had ever been pregnant and that 9% had ever a child[6]. There are no actual data available about Bolgatanga municipality. These young mothers generally have to take care of their babies. Moreover, they leave school during their pregnancy, and many do not return to school after giving birth. Ruth (26 years, unmarried social worker, Christian) explained what she tells her female students about premarital sex: *'So sometimes if you are students, especially if you are in the senior high school, I will counsel you against it. Because you can easily get pregnant. If you get to the university you are mature enough to take your own decisions. […] But if you are in the senior high school. You don't have anything doing, you can just get pregnant and you have to drop out of school.'*

According to some of the female youths, if a boy gets a girl pregnant, he and his family will deny that he is the father, saying that if the girl had sex with him she will have had sex with other boys, too. Joyce (15 years, Christian) said: *'I have a cousin who is pregnant. And then when my father was questioning her, how she got pregnant, she said she had a boyfriend. [...] He denied it so that girl is now in the house. She can't go to school again. [...] The thing is, you have to believe the boy because there is a saying most*

of these boys use, they say 'If a girl was able to let me have sex with her, then what is the proof that she never had sex with other guys?'.'

Premarital sexual relationships among youths are more common today. However, premarital sex is more tolerated among male than female youths. Although the youths spoke about it as 'just' a boyfriend–girlfriend relationship, there are several expectations in the boyfriend–girlfriend relationships that are contradictory and thus problematic. Different motives to engage in boyfriend–girlfriend relationships appear: peer pressure, love, sex and material gain. Peer pressure, love and sex were found as motives for both male and female youths, but more strongly for the former. Material gain is perceived as a motive only for female youths.

'It's all about the money'

The repertoire 'It's all about the money' includes different aspects of sex in exchange for money. In the research area, there are female youths who have sex with boys and men in exchange for money; this is defined as 'transactional sex'. They do so in order to be able to pay for or buy food, shelter, clothing, school fees, school uniforms, mobile phones, trendy dresses and jewellery. The male youths who engage in transactional sex with them are mostly about the same age or a couple of years older. The men involved are called 'sugar daddies'; many are married and provide the needs of female youths in exchange for sex.

According to the participants, transactional sex is practised by female youths because of poverty, and they think they do not have another option. Mary (22 years, Christian) explained about getting money for the practical assignments in school: *'They have about three boyfriends, they will go to this boy this week, for the money. They will come and cook. After the practical they will send the food to the guy. And the next week again they go to the other one. The next week again they go to the other one. If you are going to say that what they are doing is not good. This is what they will tell you. What else can they do? Where will they get the money?'*

Most of the girls who look for a job to earn money do not succeed, because of the low employment rates. As a result, girls have sex with men in exchange for money. Felix (parent, 63 years, Christian) explained: *'They don't like it, but because of the poverty, the girl runs from the village to town to come and work. She comes the whole day, she has not got a work to do. And just as she's roaming about looking for job, boys and men see them. And they lure them with money. So they get themselves involved in all these things. So poverty can lead them to do that. Normally a normal girl will not like to do that. But because she's hungry.'*

Some female youths have transactional sex because they are pressured by other girls. Girls who do not have transactional sex are not allowed to share the food and other gains, and they do not have money for special clothing and jewellery. Grace (20 years, Christian) explained that a girl does not always have transactional sex because she is in need: *'Though your parents are catering for you, they provide with whatever*

you want for you. But you are not into it and you are moving with a group of people. There's a great influence that will lead you to that. […] So me sometimes it is pressure for this thing, peer pressure or influence from friends that used to that. It is not because of this thing, financial problems.'

It also happens that intercourse first occurs without a transactional purpose, but the male youth then gives the girl or woman money to encourage her to have sex with him again.

Transactional sex in Bolgatanga municipality has both negative and positive consequences. The girls will use all available means to secure a better future than their families have, and they use transactional sex to achieve this. With the money, the material gains and perhaps later their school certificate they can support their family and the family can be proud of them. On the other hand, these girls are seen as prostitutes, because they have transactional sex with numerous boys and/or men. Some key informants said that the girls think that their transactional sexual behaviour is temporary. Nevertheless, when they want to marry, their past can be a barrier. Following tradition, the background of the woman will be investigated in order to find out about her family and her behaviour. John (teacher, 31 years, Christian) explained: *'And she thinks that, 'I am doing this because I am scholar. I need money too. But when I complete I get money and I will stop'. That's what they think. […] And for us here, I must be frank with you, the very man who go around sleeping with the same women, do not want to marry any women that people have slept with. […] And so they will always investigate into your background, to know how far you have been before.'* If the potential family-in-law finds out that a woman has had a lot of sex partners in exchange for money and material gains, the marriage could be cancelled.

Pregnant girls who are involved in transactional sex run the risk of being repudiated by the community, having to undergo mutilating abortions and dropping out of school. Moreover, there is a high chance that they will be dumped by their sugar daddies, for instance if they become pregnant or when they grow older. Eric (teacher, 33 years, Christian) explained: *'Just as you are a young girl, that man was providing your needs for you. If you are growing, just assume the lady has delivered two three times she definitely becomes old. And the man wants this, to be going in for young girls. So he goes in for another young girl. […] So the girl end up by being a single parent and before you realize she run down to Kumasi to be washing bowls in a restaurant.'*

In conclusion, some female youths in Bolgatanga municipality have transactional sex. Their motives are often related to poverty, but the money and material gains can also provide for luxury items. The consequences of transactional sex affect their health, social status and prospects.

This repertoire, although it appeared very clearly from the analysis of the interviews, is the only one that is primarily based on information about the behaviour and motives of others. None of the participants identified themselves directly with this repertoire, which might be because of the size of the sample or the negative view that this behaviour

receives. The character of this repertoire corresponds with research conducted in the south of Ghana; most women expect some support from their partners, also in premarital relationships [16,17]. Women expect support for living and maintenance, financial security and fashion [16]. Also in other African countries, girls have sex to cover education-related expenses, and peer pressure motivates them to have sex in exchange for luxury items. Extreme poverty is usually not their main motive [18,19].

'The feeling like doing it'

This repertoire concerns male youths. According to their stories, and the stories of the female youths and the key informants, some of them want to have sex whenever they feel like it. Their carnal desire can be aroused by their thoughts and feelings, as well as by the appearance of girls or young women. For instance, some male youths stated that they are provoked by the way girls dress and behave. Ayine (male, 21 years, Traditional religion) said: *'You see sometimes the boy will look at the girl and that kind of sexual mind comes to you and sometimes it causes rapes. It brings about rape. […] Because they dress provocatively. Yes, ehh there is a kind of dressing that a girl will dress and you will not admire her. […] Or your mind will not send you to maybe having sex with her. But sometimes they dress in a way that even if you look at her, you can't help yourself. Then if you don't run away, you start, you see yourself forcing her or just raping her in public or something'.* From this citation it becomes clear that Ayine is aware rape is a crime, and that he can be sent to prison for it. He explained that even the threat of prison would not stop this kind of behaviour: *'Because of that feeling. You know sometimes you have strong sexual feeling that you can't do away with it. Unless you have the sex'.*

According to the female youths, boys have brief relationships with girls merely to fulfil their sexual urge. Joyce (15 years, Christian) explained: *'Well, another thing, any of the boys they will just see you as a girl who will go out with you and I don't think they will marry you. They will go out with you and see another girl. And that's if they finish having sex with you. Was like most, like if you see someone saying, o my girlfriend. The only thing he is targeting is sex. And after having sex with you, he dumps you.'*

The male participants (both youths and adults) said that when a man needs to have sex, he is not able to control his behaviour. They need women and girls to fulfil their desire. Some men, even if they are married, have a special interest in young girls. Eric (33 years, Christian) explained: *'Uhmm, well, it happens because uhhh most men, excuse me to say this, part of our country, prepare to go in for young girls, small small girls. Because they believe the small small girls are nicer.'*

Both girls and women confirmed that boys and men need to have sex with them. A couple of mothers explained that men want sexual intercourse all of a sudden, and that women should be in for it as well. The mothers regretted that men do not pay much attention to foreplay. In conclusion, the repertoire 'The feeling like doing it' concerns the conceptions, motives and practices of youths and men who want to have sex whenever they feel like it.

DISCUSSION

In this study, four repertoires were conceptualized to explain the youths' conceptions, motives and practices concerning premarital sex in Bolgatanga municipality: 'Virginity is a treasure', 'Just a boyfriend–girlfriend', 'It's all about the money' and 'The feeling like doing it'. The repertoires cover personal, social and cultural factors influencing youths when it comes to engaging in or abstaining from premarital sexual relationships.

A small number of the youths, girls in particular, want to abstain from sex until they marry, and therefore fit the repertoire 'Virginity is a treasure'. However, the majority were or had recently been sexually active, most of them following the repertoire 'Just a boyfriend–girlfriend'. Some of the female youths had boyfriends and transactional sex, and can therefore also be assigned to the repertoire 'It's all about the money'. Finally, 'The feeling like doing it' repertoire is about boys and men who want to have sex whenever they feel like it, even with an unknown girl or woman. Individual youths can be assigned to more than one repertoire. If they fit one or two sexually active repertoires, they can also act as though they were virgins according to the 'Virginity is a treasure' repertoire, influenced by the dominant norms in their social and cultural environment.

'Virginity is a treasure' can be defined as the dominant ideology in Bolgatanga municipality: people should abstain from premarital sex. This ideology contrasts sharply with the practice: only a small proportion of young people actually behave according to this repertoire. Cultural tradition, religious convictions and government policy all contribute to the ideology of abstinence. First, the Frafra tradition and the Christian, Islamic and Traditional religions promote abstinence from sex until marriage. That this promotion of abstinence holds true today was confirmed by the majority of the interviewed religious leaders, parents, teachers, social workers and health workers in the area.

Second, some of the youths' reasons to abstain from having premarital sex are related to their focus on education. Adults also warn the youths that premarital sex will affect their education negatively. Third, the Ghanaian government has prioritized abstinence through the ABC approach for many years. The tradition of abstinence from sex before marriage is also common in other parts of Ghana and Africa, mainly influenced by culture, religion and the promotion of the ABC policy [1,3,4].

The commonness of premarital sex among youths can be defined as a practice, related to a counter ideology, which is expressed in the repertoires 'Just a boyfriend–girlfriend', 'It's all about the money' and 'The feeling like doing it'. This counter ideology is gaining ground with the growing influence of modernization. Premarital sex is engaged in at schools, at markets and in rural communities. An increasing marriage age goes hand in hand with increased school attendance of boys and girls, often boarding schools where they live for months together with their peers without any supervision by their families. In addition, events such as funerals and harvest celebrations are used by youths as opportunities to engage in premarital sex. Those gatherings have been

practiced for many years, but these days some youths ignore their parents or elders when they warn them about pregnancies, STDs and dropping out of school, as consequences of their sexual activities. Other research in Ghana also found a gap between the low self-perceived risk of HIV infection and negative attitudes toward condom use, and the actual HIV risk [6]. Furthermore, youths are informed about sex/premarital sex outside their own cultural context by the increasing availability of modern media such as the internet and television. This is mentioned in the literature as well: 'the traditional mechanism of grandmothers playing effective roles in educating young females about their sexuality and childbearing in most of Africa is steadily being overtaken by the information and communication technology' [20, p.80].

Although the youths' premarital sexual behaviour is subject to change, gender-related patterns from the dominant ideology still have a strong influence. For instance, there is more tolerance of premarital sexual activity by male than by female youths. The latter are blamed and disrespected for having premarital sex, while for the former it is seen as virile and masculine. Moreover, some of the sexually active male youths promote premarital sex among other youths, even though they want to marry a virgin. The norms among the youths for girls are ambiguous: girls should be sexually attractive but also self-controlled. The male youths feel 'provoked' and feel 'the urgent need to have sex' when girls or women are perceived as looking too sexy. Boys and men blaming girls and women, and *feeling* provoked, be it based on real provocations or not, corresponds with a study in Senegal [21].

It is striking that both male and female youths say that they will never fully trust their partners. This is probably influenced by the general norm that men have unlimited sexual freedom, which makes women constantly suspicious about their husbands. Women are accused of committing adultery, while men are not. The existence of polygamy in the Frafra tradition and in Islam and Traditional religion can also explain the tendency for men to seek multiple sexual partners [16]. A study in Ghana, Burkina Faso and Zambia raised concerns about the risks and consequences of this behaviour, such as the transmission of STDs, and stressed the need to promote the use of condoms by couples [7].

Some of the female youths obtain money and material gains from premarital sex. In the present study, a distinction was made between the exchange of gifts and chop money in boyfriend–girlfriend relationships as part of their relationship and as a way for the male youths to show their interest, and transactional sex with money and gifts in direct exchange for sex. In both situations, the female youths have economic and social motives to have paid sex, such as poverty, education and peer pressure. These findings correspond with other African studies showing that money is not the only object exchanged in transactional sex, that the exchange of material goods is commonly used as an indicator of partner commitment in several African countries, and that not all girls and women who engage in transactional sex are economically disadvantaged, but also have social and complementary motives [8,19,22].

In conclusion, the four repertoires show the dynamics wherein the youths' premarital sexual behaviour in Bolgatanga municipality in the Upper East Region takes place. The dominant ideology of abstinence from sex until marriage contrasts with the counter ideology of allowing premarital sexual relationships, influenced by the increasing modernization whereby the youths go to school, make use of new media, and live on campus under the compelling influence of peer groups and in the absence of familial authority. In addition, the gender differences within the dominant and the counter ideology are ambiguous: girls should both be virgins and have boyfriends, and boys can have multiple girlfriends but prefer to marry virgins.

This study was carried out in Bolgatanga municipality in order to gain more insight into a specific cultural context, as recommended in the literature [7,8]. However, the results of this study could also be of interest outside Bolgatanga. Ghanaian youths in general share social and cultural norms, and encounter similar challenges such as poverty, unemployment, school dropout, increasing modernization, peer pressure, gender differences, and limited authority of the family and elders. In particular the Upper East, Upper West and Northern regions have social and cultural norms and demographic factors in common, such as the rural circumstances, housing conditions, sources of income, school attendance and literacy rates [10-12]. In addition, the Frafra are a subgroup of the Mole-Dagbani, which is the main ethnic group in the three northern regions, and the distribution of Christianity, Islam and Traditionalism in the three regions is relatively similar [12]. Moreover, students from the three northern regions usually attend boarding schools that are not in their own municipalities. Senior high boarding schools in Bolgatanga municipality receive students from the whole of Upper East, Upper West and the Northern Region, and the other way around.

The strength of this study is that youths and adults in urban and rural communities in a remote northern Ghanaian region shared their conceptions, norms and values, which has rarely been done before in the research area. The validity of results is increased because the interviews were held by the first author during three visits (she has been familiar with the area since 2000) and by two Dutch students during one visit. The interviewers experienced that participants looked at them as 'outsiders' who would leave again, thus ensuring the participants' privacy. Had only local interviewers been used, the participants could have been acquaintances and thus reduce the feeling of privacy for the participants. However, some of the interviews had to be assisted by a local interpreter due to the participants' limited English. The two interpreters were well known by the first author, critically selected based on their characteristics and well prepared for their task. In addition, they were not fervent supporters of either abstinence from or engagement in premarital sex.

It was expected that the participants would give socially desirable answers to suit the norms and values in the area. All interviewers stayed with Ghanaian host families during their visits in order to experience living in the research area and to understand and unobtrusively check aspects of the interviews. To increase the credibility of the

findings, a meeting was held with a panel of six Ghanaians (25–35 years) from the research area about the constructed repertoires; only one of them had been interviewed as a key respondent.

This study also has some limitations. The sample included more male than female youths. In general, it was easier to reach the former than the latter. This could be explained by the fact that female youths more often stay at home and have more domestic duties, including after school. They were easier to reach individually, whereas the male youths were easier to reach in groups. Therefore, two group interviews with three and four males youths (of whom two were young adults), and two paired interviews were held. This explains the difference between the number of female youths (12) and the number of male youths (21) interviewed. An additional limitation is that the personal contact with the participants was less in the interviews in the local language with an interpreter, compared to the interviews in English.

The results of this study provide more knowledge of and insight into the youths' conceptions, motives and practices concerning premarital sex, which might contribute to the development of more effective SRH programmes. SRH programmes should take into account the increasing influence of modernity, the gender differences and the compelling influence of peer groups, which all contribute to premarital sexual relationships of the youths, with health and social problems as possible consequences thereof. SRH programmes could address gender-specific issues and the handling of peer-group influence, pay attention to the youths' experience with new media and sex and relationships, and consider the internet as an educational channel. Finally, the youths themselves could be involved in the development and teaching of SRH programmes in order to keep informed about the changing premarital lives of youths.

In this study it became clear that some of the sexually active youths were ignoring the risks and negative consequences of their behaviour (i.e. pregnancies, STDs and dropping out of school). Therefore, further research is recommended concerning the motives of the youths to have unprotected premarital sex, and strategies that will keep them at school and continue their education. In addition, more research on transactional sex in relation to the motives and responsibilities of the male and female participants in such sex, their parents and other caretakers is needed. Finally, evaluation research of SRH programmes in relation to the conceptions, motives, practices and opinions of the youths and their teachers is required.

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Chapter 3

Conceptions of and Attitude Toward Multiple Sexual Partners Among Youths in Bolgatanga Municipality, Northern Ghana

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ABSTRACT

Objective: This study analyses the conceptions of and attitude toward multiple sexual partners among youths in Bolgatanga municipality, northern Ghana.
Methods: Semi-structured and focus group interviews were held with 71 youths and 12 adults.
Results: Youths' multiple sexual partnerships were found to be related to various factors, including infidelity and distrust in relationships, cultural traditions such as the practice of polygyny and the importance of fertility, and modern developments such as increased school attendance and the use of new media. For boys, important motives for having multiple sexual partnerships are sexual prowess, prestige, desire, and pleasure, while for girls financial independence is important.
Conclusion: The various influencing factors and the youths' personal motives, combined with limited knowledge of SRH and risky sexual behavior prevents the youths from making well-advised and healthy choices concerning their sexual and reproductive wellbeing.

Key words: multiple sexual partnerships; risky sexual behavior; adolescents; youths; Ghana; premarital sex;

INTRODUCTION

Individuals who engage in multiple sexual partnerships are at higher risk of sexually transmitted infections (STIs) including HIV, compared to people who are faithful to one partner [1,2]. This applies to both concurrent and sequential sexual partnerships [3]. Additionally, young women who engage in multiple sexual partnerships before marriage are at increased risk of unintended pregnancies, which often results in dropping out of school, stigmatization, unsafe abortions, or single motherhood. In Ghana, 14% of males aged 15-59 and 2% of females aged 15-49 (married and unmarried) self-reported that they had had more than one partner in 2011, and more than three quarters of these people did not use condoms [4]. Almost three quarters of male youths and over one third of female youths are sexually active before marriage, and 6% of males and 3% of females aged 15-24, and 13% of males and 5% of females aged 20-24, self-reported having had more than one sexual partner in 2011.[3] More than half of the youths who had multiple sexual partners did not use condoms [4,5].

The national HIV prevalence is relatively low in Ghana compared to other sub-Saharan African countries: in 2013, it was 1.3% among adults and 0.4% among youths aged 15-24. Compared to 2011 there was a decline for adults from 2.1% and for youths from 1.7% in 2011 [1,6]. Ghana is still considered a high-risk country, however, because men and women engage in multiple sexual partnerships, knowledge of HIV/AIDS and condom use is relatively low, and neighboring countries have high levels of HIV/AIDS [7]. HIV in Ghana is mostly transmitted through unprotected heterosexual contact, and it is estimated that 90% of new infections occur among people aged 15-39 [8].

STIs or STI symptoms (including bad-smelling/abnormal genital discharge and genital sores or ulcers) were self-reported in 2008 by 8% of males and 26% of females aged 15-24 [5]. Data on treatment seeking among this age group are not available. However, the stigmatization of people with STIs can discourage people from seeking treatment, leading to severe complications [9,10]. Further, unintended pregnancies can lead to unsafe abortions, which are an important cause of morbidity and mortality, particularly among Ghanaian women under 20 [11,12]. It was reported that 16% of girls (<20 years) who were pregnant in 2007 had an abortion, while other studies argued that the actual number of unsafe abortions and attempted abortions is higher [13,14].

In sub-Saharan Africa, studies – mainly quantitative ones – have found various factors associated with the tendency to have multiple sexual partners. Important motives for men are sexual prowess and social prestige, and for women money and gifts [15]. Transactional sex is a common practice in sub-Saharan Africa, and is of a different nature than prostitution in western societies [16]. In Ghana, the toleration of men having multiple sexual partners could be influenced by the acceptance of polygyny (men marrying more than one woman), which in 2011 was practiced by 9% of men and 18%

[3] It should be noted that this could be underreported due to the taboo on premarital sex.

of women [4]. Moreover, a married man in Ghana traditionally "has unlimited sexual freedom both in and out of marriage" [17, p.2]. For youths, it is reported that the status of male youths increases with more sexual activity, while that of female youths decreases [18]. For girls, having had recent multiple sexual partners was related to living in small towns and having sexually experienced friends [19]. A study in the northwest of Ghana found that although the majority of youths believed that "faithfulness is ideal," having multiple sexual partners as a young man is seen as winning a competition and a conquest, while most young men still expect women to be faithful [8, p.95].

Several researchers have argued that we need more knowledge of the factors that lead to risky sexual behavior (e.g., multiple sexual partners) in youths in sub-Saharan Africa, in their social and cultural context. This insight could contribute to the development of more tailored and effective SRH programs to protect youths from the potential adverse consequences of risky sexual behavior [3,19-23].

In Bolgatanga municipality, the capital of the Upper East Region in northern Ghana, youths have less knowledge of SRH and are less familiar with family planning methods and HIV/AIDS compared to youths in other parts of Ghana [24]. The dominant ideology, which originates from both the traditional culture and the Christian and Islamic religions, is that people should abstain from premarital sex [25]. The majority of male and a minority of female youths, however, are sexually active before marriage [5]. It was reported for men that the period between the median age (21 years) at first sexual intercourse and the median marriage age (25 years) is relatively longer than for women (17-18 years), and a relative high percentage of girls (40%) compared to boys (6%) marry before the age of 18 in the Upper East Region [4,5]. Specific data on the number of youths engaging in multiple sexual partnerships in this region are not available. As mentioned, in Ghana more male youths than female youths self-reported to have had multiple sexual partners. Female youths have relatively more sexual partners among both age-mates and older men, which puts them and those partners at high risk. Some of these girls have transactional sex with multiple partners, mostly because of poverty [25,26]. It should be noted that polygyny is relatively common in the Upper East Region: In 2011, it was practiced by 25% of men and 39% of women [4].

Research on the youths' conceptions of and attitudes regarding multiple sexual partners in Ghana is limited. Moreover, most research is of a quantitative nature. In the present study, we used qualitative methods to analyze the youths' conceptions and attitude toward multiple sexual partnerships in Bolgatanga municipality.

METHODS

Design

Semi-structured interviews with 32 youths and focus group interviews with 39 youths were held in the period 2010-2012. The individual interviews ensured privacy for the

respondents, and the focus groups motivated respondents to share their ideas and react to each other. Twelve adults who were familiar with the local youths, their lives, and their problems were also interviewed. These respondents provided information about the sociocultural dynamics and context of premarital multiple sexual partnerships.

The Ghana Health Service and the Navrongo Health Research Center (NHRC) were officially informed and consulted about the project. It was also discussed with the Youth Harvest Foundation Ghana (partner organization in Bolgatanga providing SRH education to youths) and various local authorities, which gave their approval.

Setting

Ghana has almost 25 million inhabitants, divided over 10 regions. The Northern, Upper East, and Upper West regions are mainly rural and are the poorest. The majority of the people live in villages and small communities. The main source of income is farming. School attendance and literacy rates are lower compared to the rest of Ghana [4]. Bolgatanga municipality (132,000 inhabitants) is the capital of the Upper East Region (population 1 million), where 24% of the population is aged 10-24 [4]. The dominant ethnic group is the Mole-Dagbani, which has eight subgroups. One of these is the Frafra, whose subgroup Gurune is dominant in Bolgatanga municipality [26]. Data on religious backgrounds in Bolgatanga are available only for 2000. The three main religions were traditionalism (practiced by 53% of the population), Christianity (36%), and Islam (9%). It is, however, notable that between 2000 and 2012 the percentage of Christians in the Upper East Region increased from 28% to 42%, that of traditionalists decreased from 46% to 28%, and that of Muslims increased from 23% to 27% [4,27]. A comparable change can be expected for Bolgatanga municipality.

Population and sample

The study population comprised youths aged 14-25, with varying levels of education, living in rural and urban areas in Bolgatanga municipality. The adults were of various ages; they lived in both rural and urban areas, and had various occupations, such as teachers, parents, religious leaders, ethnicity experts, and social and health workers.

Snowball sampling was done, taking into account gender, age, religion, education, and urbanization. Potential respondents were approached with the assistance of the Youth Harvest Foundation Ghana, churches, mosques, key local figures, and the Ghanaian host family of the first author. The majority of those approached agreed to cooperate. Some refused due to obligations at school, home, or work. Respondents were included until data saturation was reached. All interviewed persons were informed of the research objectives and asked for their consent, and they had the right to end the interview at any moment.

Table 1: Data collection among youth (N=71) and adults (N=12)

	Respondents	Main topic interview
Youths	71	Broad focus on SRH of youth
- Semi-structured interviews (2010)	8	Multiple sex partners
- Semi-structured interviews (2011-2012)	24	Multiple sex partners
- Focus groups (2011)	39	
Adults		Multiple sex partners
- Adults (semi-structured interviews 2010-2011)	12	

Data collection

Data were collected in several rounds. In the first stage of the project (2010-2011), semi-structured interviews were held with 14 youths and 17 adults in Bolgatanga municipality, with a broad focus on SRH and the youths' sexual and relational behavior [25]. From this first research stage, six interviews with eight youths and 12 interviews with adults were selected for a secondary analysis for the present paper, because the interviews addressed the topic of multiple sexual partnerships (see Table 1).

In 2011 and 2012, 22 semi-structured interviews with 24 youths (20 individual interviews, two in same-sex pairs) and five focus group interviews with 39 youths were additionally conducted, focusing on multiple sexual partners and on protected and unprotected sex (the latter issue is addressed in another paper). The topic list for the interviews was based on literature and previous research [25] and contained the following topics: "opinion and conceptions concerning multiple sexual partners," "motives to have different sexual partners," "the role of boys and girls in sexual relationships concerning faithfulness, dependence (money), and their expectations and norms."[4]

The order in which the topics were discussed in each interview depended on the participants' answers to previous questions. The open and semi-structured interviews lasted 20-75 minutes, the focus groups 30-60 minutes. All interviews were digitally recorded and transcribed verbatim.

Most interviews with the youths and adults during the various stages of the research were conducted in English by the first author (Dutch woman, familiar with the research area since 2000). Three Dutch female undergraduates carried out 10 semi-structured interviews individually; another four were jointly conducted by two of these students. Additionally, a male Ghanaian bachelor's graduate carried out three semi-structured and two focus group interviews. He interviewed only male youths; in four of the five interviews, he used the local language Frafra (without an interpreter) in order to include male youths who did not speak English. A local female interpreter (aged 22) assisted in one focus group interview with female youths and 10 semi-structured interviews. These interviews were partly in English and partly in Frafra. Both the interpreter and the

[4] The list also included topics concerning protected and unprotected sex, which are not reported on in this paper.

Ghanaian interviewer were well known by the first author, who had selected them because of their suitability for this task. All interviews with adult respondents were held in English.

During the fieldwork, Ghanaian families hosted the first author and the Dutch students. This allowed the researchers to experience life in the area and to better understand the social and cultural context.

Data analysis

The qualitative data analysis software NVivo 10 was employed. As a first step, open coding was used with the focus on the youths' conceptions of and attitude toward multiple sexual partnerships. Six categories were then defined on the basis of these codes.

The first author carried out the coding in NVivo 10. Methodological aspects of the research, the coding processes (development and consistency of codes and categories), and contradictions that were identified during the analysis were documented and discussed by the research group (JvdG, BvM, MdU, NdV). For privacy reasons, the names of all respondents mentioned in this paper are fictitious.

RESULTS

This section presents the demographics of the respondents, followed by an elaboration of six categories that provide insight into the youths' conceptions and attitude toward multiple sexual partnerships, namely: (1) Cultural traditions: polygyny and fertility, (2) Modernity, (3) "There is no trust in this world," (4) Male motives: "I want to be a big person," (5) Female motives: "One man cannot solve your problems," and (6) "The consequences are many."

Demographics of respondents

Semi-structured interviews were held with 19 male and 13 female youths; all were unmarried and aged 14-25. Regarding sexual experience, 11 males and three females were experienced, two males and five females were not experienced, and for six males and five females this was unknown. The majority of the sexually experienced respondents had had more than one sexual partner. Sample characteristics are summarized in Table 2 and 3.

Table 2: Demographics youth, semi-structured interviews (n=32)

	Number (%)
Sex	
Male – age range	19 (59) – 19–25 years
Female – age range	13 (41) – 14–23 years
Ethnicity	
Frafra	22 (69)
Other	4 (13)
Unknown	6 (19)
Urbanization	
Bolgatanga municipality	27 (84)
-Rural community	14 (44)
-Bolgatanga town	3 (9)
-Not specified	10 (31)
Navrongo[a]	2 (6)
Bongo district[a]	2 (6)
Unknown	1 (3)
Education	
Not educated	3 (9)
Attending JHS[b]	2 (6)
Completed JHS	2 (6)
Attending SHS[c]	11 (34)
Completed SHS	8 (25)
Completed Vocational School	1 (3)
Attending Polytechnic	2 (6)
Attending/completed university	2 (6)
Unknown	1 (3)
Religion	
Christian	19 (59%)
Muslim	7 (22)
Traditional	4 (13)
Unknown	2 (6)

[a]Schooling in Bolgatanga municipality; [b]JHS: Junior High School; [c]SHS: Senior High School

In addition to the semi-structured interviews, 39 youths participated in five focus group interviews. Three focus group interviews were held with 22 male youths aged 16-25. Although the age range was announced when selecting the youths, three men aged 29, 30, and 32 years were also present. Because the interview had already started when they mentioned their ages, it was thought that it would disturb the group if they were sent away. They were therefore included in the study. One of the focus groups with male youths was held in a rural area; the participants were attending junior high school, school dropouts, cowherds, or farmers. The other two focus groups with male youths were held in urban areas; most participants were attending senior high school, one was a teacher, and one a police officer. Two focus groups were held with 14 female youths aged 16-21. One of the focus groups was held in a rural area; these female youths were either school dropouts or junior high school students. The other focus group was held with female youths from a mixed senior high boarding school. The majority of the

respondents in all focus groups were Christian. Sexual experience was not asked for in the focus groups because of the inappropriateness of disclosure.

Table 3: Sexual experience youth (n=32)

Sexual experience	Number (%)
Males	
Yes	11 (58)
No	2 (11)
Unknown	6 (32)
Females	
Yes	3 (16)
No	5 (26)
Unknown	5 (26)

Table 4: Demographics adults, semi-structured interviews (n=12)

	Number (%)
Sex	
Male	9 (75)
Female	3 (25)
Age	
26-35 years	6 (50)
36-55 years	4 (33)
56-64 years	2 (17)
Ethnicity	
Frafra	9 (75)
Moshi	1 (8)
Dagao	1 (8)
Unknown	1 (8)
Religion	
Christianity	9 (75)
Islam	3 (25)
Background	
Teacher	2 (17)
Ethnicity expert	2 (17)
Community nurse	1 (8)
Social worker	2 (17)
Religious leader[1]	2 (17)
Parent	1 (8)
Elderly (who are also parents)	2 (17)

[1]Youth president in church, assistant Imam

The complementary interviews with adults were held with nine men and three women, who had various ages, professions, religions and backgrounds. Sample characteristics are summarized in Table 4.

Cultural traditions: polygyny and fertility

A first finding is that cultural traditions, in particular the practice of polygyny and the cultural importance of fertility, contribute to the practice of multiple sexual partners in Bolgatanga municipality. Polygyny is a common practice in the municipality. According to the majority of the respondents, polygyny is accepted by traditionalists and Muslims, and one respondent said that some Christians "who are not very religious" also practice it. Most respondents said that a man could marry more wives if he is able to take care of them and their future children. Both youths and adults gave examples of men in their community with multiple wives, and some of these men also had girlfriends. For example, Claudia (14, Christian, no sexual experience) knew a man who had many wives: "Somebody at that house is having wives, the house over there. He's having 10 wives, and he's still having girlfriends outside, having plenty children."

In a focus group with male youths, it was said that one reason for men to marry more wives is that, after a few years with one wife, they prefer a "fresh," younger woman. Claudia (14, Christian, no sexual experience) said that "men like women a lot" and that "it's their character." Regarding the youths, some of the males and females said they do not want a polygynous marriage. Rudolf (24, Traditionalist, sexually experienced) said: "But for me in particular, I won't marry more than one. All these modern girls, they don't like being married to more than one guy; they believe one partner, one partner."

Giving birth, particularly to boys, is important in marriage, according to the local patrilineal tradition. It is the man's task to "produce children" within marriage, according to Samuel (ethnicity expert). If there is no child after a few years of marriage, men are encouraged by their family and community to marry a second woman to ensure the continuation of the patrilineal family line. James (24, Christian, sexual experience unknown):

> You see, especially the married couples for instance, if it happens that they're married and then maybe the lady is not, is unable to produce. So when the man realizes that "Oh the fault is from the lady, the lady cannot produce." So you will see that he will be compelled to go in for a different lady. Because you don't want to just be like that, without a child. So you see that is where they always go in for a second girl.

It was remarked by Felix (63, parent, Christian), however, that a highly religious Christian man will remain with his wife even if she does not bear children.

Modernity

Modern developments such as the use of new media (television, cellphones, internet) and increased school attendance, which is accompanied by the growing influence of peers, were found to be contributing factors to having multiple sexual partners. The

number of youths watching movies, music videos, and pornographic videos, either on television or on their cellphones, has increased in recent years. Some youths try to emulate the sexual and relational attitude and behavior they see in these new media, and they experiment with what they see in music and pornographic videos, according to some youths and adults. For example, television programs from abroad nowadays show sexual freedom for youths, according to John (31, teacher). Mohammed (55, Islamic leader/parent) said that youths have porn on their cellphones:

> If you found one porno picture in a paper or a magazine, that was big news here. But today it's everywhere, and I can tell you one thing: make friends with 10 young girls, now all have mobile phones that have memory chips in them and go to multimedia and play the videos. And you will be shocked all the movies are pornographic sex, sex, sex.

James (24, sexual experience unknown) said that some of his friends name themselves after music video stars and like to copy their behavior and their clothes:

> So if it happens that R. Kelly, because for instance he is someone who maybe you see in the movie. Through the movie you will see them sleeping with ladies. Maybe some can only say, it is camera works or something like that. Though it may not be really sex, but the camera can bring them together. So if they see something like that they also try to practice it. (…) The way they always act is with different girls, many girls. So he may even think that that fellow is a role model to him. He may think that "Oh, he wants to be like him."

School attendance has increased in recent years. Youths spend more time at school with their peers without the supervision and authority of their families and their community. It was mentioned by some youths that students have multiple sexual partners particularly at school. Clement (20, sexual experience unknown), a former student at a mixed senior high school, said that students can meet their boyfriends or girlfriends in and out of school:

> Most of the youths here in Bolgatanga are involved in sexual behavior such as, especially schools like this, the secondary schools like this. That means, this is always the place for them to, um, exhibit their feelings for girls. (…) The school like this, the students, the girls they can get up at any time, go out. Because it is not a full boarding school. So they can get up at any time they want. They go out to their boyfriends.

Albert (20, sexually experienced) had attended a mixed full-boarding senior high school and mentioned that students there also had multiple sexual partners. For example, a couple of his friends had sex in a classroom with the same girl. He and his friends called it *gala.* According to an experienced youth worker in the research area, youths use various words, including made-up ones (like "gala"), to refer to sexual issues. Albert:

> Gala, which means two, more than one boy. One boy having sex with a girl, so maybe two, three, four, five. I mean having sex with one girl. They just call it gala. So the guy came and called them, and they followed. But in this case two of them had sex with the girl in the classroom where it was dark. The third years had completed, so that one [classroom] was always closed. So they, they managed to get in there, and they did their thing.

Veronika (20, no sexual experience), a former vocational school student, said that if you do not have multiple sexual partners or are still a virgin, you are laughed at by other students: "Teasing you that you don't like enjoyment, you don't know what enjoyment is."

"There is no trust in this world"

Infidelity between boyfriends and girlfriends, as well as distrust and fear that their partner is cheating on them, are important issues in youths' relationships, according to several male and female youths. These issues are both the causes and results of having multiple sexual partners. For example, Rudolf (24, sexually experienced) said "The first thing is that we don't trust each other," and Akopolka (girl, 17, sexual experience unknown) said "Boys are not to trust. Me, I will never trust a boy." With regard to trust in a relationship, it might also be important not to delay the first sexual intercourse too long. For example, Thomas (21, sexually experienced) said: "When you date a girl, within one week you didn't make love to the person, it's like the girl is cheating on you."

Additionally, the saying "Never put all your eggs in one basket" was mentioned by Rudolf (24, sexually experienced) and in one focus group with males, to explain that you should not focus on one partner only, because you could lose "everything" by having only one partner. Some male and female youths said that male youths have several girlfriends in case one of them disappoints. For example, Christoph (20, no sexual experience) said: "If he is having five girls. Then one day, one says that 'Oh, I don't love you,' he knows well that he is still having four. So it won't hurt him more like the way if he was having only one girl."

Further, it is difficult to break up with a girlfriend you love, even if she is cheating on you. You could also get an extra boyfriend/girlfriend if your boyfriend/girlfriend is cheating, according to some male and female youths. Gregory (24, sexually experienced):

> You see that creates about that, so assuming I'm in love with a girl or I have a relationship with a girl, and I come to hear that this person too is having a relationship with that same girl, you see that I will like to also what, have one adding.

Some girls also appear to be in favor of multiple relationships. Lydia (age and sexual experience unknown): "Why not just play around? Because you stay with one guy and at the end of the day you will get disappointed."

In a focus group with male youths, one reason provided for distrust in a relationship was that "We are Africans" and "We change our mind at any time we want." Abdul (21, sexually experienced) said that apart from not trusting girls, he also distrusts his parents:

> There is no trust in this world. I don't trust my father. Nor my mother. My father can say "Oh, tomorrow I will give you this" and tomorrow he will say "I don't have money." There's no trust, fail and promise. So me I don't trust, if they are my mother or my father. You see so. I don't trust any girl.

Male youths are "soon fed up" with their girlfriend, according to several male and some female youths, and some male adults. They meet other girls who are more beautiful, attractive, or nice, and after having sex a few times their interest fades. For example, Francis (25, sexually experienced) said: "When we're with one girl, it's only for a short while before we get fed up with her and begin chasing other girls around. And the same thing happens with each girl we meet." Mirabel (18, sexual experience unknown) confirmed this and said:

> Uh, the guys they have many, because they will see this girl today, the next day they will see this girl, become attracted to her and the next day they will see another person, that person that get attracted to more than this one.

However, on the other hand, there are also male and female youths who want to be faithful in their relationship. For example, Claudia (14, no sexual experience) knows boys who are "gentle" and who do not want multiple partners, Caroline (18, sexual experience unknown) said she would end her relationship if she were not the only girl. It was also said in a focus group with male youths that there are boys who stay with one partner.

Male motives: "I want to be a big person"

Prestige, sexual desire, and pleasure are important reasons for young men to have multiple sexual partners, according to several male and female youths. Having multiple girlfriends is a matter of prowess for males: They are seen as big, tough, and capable, and males see it as a game and they bet on who can have more girlfriends. For example, Aziz (22, sexually experienced) said: "With the guys, they think that it's something of pride or prestige to sleep with a number of ladies." And Francis (25, sexually experienced) said:

> There are some boys among us, that you hardly see them going out with one girl. Today you see him with Akolpoka, tomorrow he's with Akrupogbila, tomorrow he's with Atampoka and what he's doing, he's having sex with all of them. Trying to show that he's a sort of hard guy or something. To them, it's a matter of

> betting with friends that he can have sex with that girl and proceeds to ensure that he wins the bet.

There is also some peer pressure among boys to have multiple girlfriends, Saida (23, sexually experienced):

> In order to prove that you are really a boss among a group, you have to do some physical things for your people to know that "Oh, you are really someone." Some use this as an excuse and they get themselves involved picking girls. "I want to be a big person, you see because I'm so strong, I'm so handsome, I'm big, that's why I'm able to get this number of girls as my girlfriend."

Girls prefer young men who are popular in the community or are musicians or footballers, and these men will probably have multiple girlfriends, according to male youths in a focus group. One participant said "Because they [girls] know that when you are a star, it will be hard for them [boys] to have you alone."

Apart from prestige, young men are also driven by desire and pleasure-seeking to have multiple sexual partners: One partner would not satisfy their sexual desire or might not be in the mood to have sex, or the young men see "better" girls. For example, Gregory (24, sexually experienced) said: "We think that one person cannot satisfy our sexual desire, that is why we go in for another partner."

Female motives: "One man cannot solve your problems"

Money, basic needs, and luxury items were important influencing factors for female youths to have multiple sexual partners (age-mates and older men), according to the majority of the youths and adult respondents. Most respondents mentioned poverty as a reason for female youths to have multiple sexual partners, because money from only one boyfriend would not be sufficient to buy food and clothes and pay school-related costs. For example, Caroline (18, sexual experience unknown) said:

> But if you are having only one, he will give you only five cedis that one cannot solve your problems! So you have to have more than one so that you can get your plenty money to do what you want to do.

Veronika (20, no sexual experience) said that due to poverty, girls have sex for small amounts: "There is a lady there like that. And I asked her what was the highest amount she has ever received from having sex like that all over. And she said two Ghana cedis."

Some girls also have multiple sexual partners in order to acquire luxury items, such as fashionable dresses or shoes, or to pay for make-up or a hairdo, because they, or their parents, cannot or do not want to pay for them. Girls expect particular expenditures from their boyfriends, according to Aziz (22, sexually experienced). He said there are girls telling boys that "Me, I will not take someone who cannot even buy me, er, pay for my hair!" He also mentioned, however, that in general in every relationship

one need some money to buy something "to show your love." Some girls would only stay with their boyfriend if he has money; if not, they would end the relationship, or get an additional boyfriend, according to some male and female youths. Mirabel (18, sexual experience unknown) said: "Mmm, because we girls, we'll say 'Oh this man he doesn't give me anything. So why should I be with him?' Because of that they'll go for another guy." Hashim (23, sexually experienced) said: "She just dumps me and then go in for the one who can help her. Some don't do it that way. They will still hold on to you while they are still playing around somewhere [having other boyfriends]."

Two female youths said that sex with multiple men was seen as a deal or a transaction. Lydia (age and sexual experience unknown) said it is "a fair deal," men would say "I sleep with you, I give you money." Monica (16, sexual experience unknown) said: "So assuming this man comes and he tells you 'Oh please, I will give you this amount of money if you sleep with me.' They will say 'Fine, okay, then do it and give me my money'."

It was said to be easy to bribe young ladies with money or goods to have sex, particularly when their boyfriend is not providing this, according to Saida (23, sexually experienced) and John (31, teacher). Saida:

> Yeah, because the fact is that, we ladies we are just like that, it's easy for a lady to be convinced, for sure, I know, convinced by a guy. You can be with a guy with an intention you are picking no-one. But immediately someone will just come and get small chance to you, able to convince you to get you things, that your guy, your boyfriend never did for you and all that.

Additionally, some girls have sex with various older and wealthy men, according to several respondents. Most of these men are married and want "fresh" and "young" girls, and they are not attracted to their wives anymore. James (24, sexual experience unknown) said that men picked up female youths in order to have transactional sex:

> Some they just spend the money on the young ladies. Just because, oh, they want to have sex with them. So such people they just jump from a lady, even a day self, they can jump ladies up to four or more. (…) We, those who don't have anything, we are just sitting. You can see that, one day you will see that this fellow will come and pick this lady, a different day too you see a different car, a different person coming to pick that same lady. So that's, meanwhile she is having two boyfriends like that. As for that, it is just common, we are just seeing it.

According to Mary (22, no sexual experience) and John (31, teacher), some female students have transactional sex with wealthy and older men in order to pay school-related costs. Some female students have sex with their teachers, according to David (29, Christian leader) and John (31, teacher). John: "So when they see you, and think that you have something to offer them. Some few cedis to give them. They will accept it."

James (24, sexual experience unknown) explained that girls involved in transactional sex will not stop even if you warn them. He said that if you tell these girls "what you are doing is not good," they say "You should not think you know more." Claudia (14, no sexual experience) said that other students insult girls who have multiple sexual partners, but that these girls do not care about it, and told her that "My life is my life." Sophia (22, no sexual experience, SRH peer educator) said that some parents allow their daughters to have transactional sex, because they, too, benefit from it. Diana (23, sexually experienced) said that she did not engage in transactional sex during her sewing apprenticeship, because a family member had taken care of her.

Apart from money and goods, some girls also have multiple sexual partners to satisfy their sexual desire, for their pleasure, and because of prowess. Some girls cannot stay away from sex, they "take sex as food" and "want it always," according to some male and female youths and one adult. Mirabel (18, sexual experience unknown):

> Many girls they go around having sex for money, but some they do it just for pleasure. You know that, and some girls if they, they can't stay for some minutes without having sex with a man. So they are always, uh, they have reaction to sex. Whenever they don't have sex, they don't always feel well.

Some male and female youths said that some female youths think that having more boyfriends or having sex with multiple partners makes them beautiful and proud. Saida (23, sexually experienced): "And others are there, they take it like it's something that makes them proud. Just to say 'Oh, I'm a lady, I have this number of boyfriends.' Some too just do that." And Aziz (22, sexually experienced) said that there are some girls with multiple boyfriends who think they are "high class" and "hot."

"The consequences are many"

Several respondents said that having multiple sexual partners before marriage can have negative consequences: STIs (including HIV/AIDS), pregnancy, dropping out of school, and low social status for girls in particular. The majority of the youths mentioned the transmission of STIs, HIV/AIDS, or "infections" or "diseases." Some respondents also said that some youths do trust their partner, while he or she might be cheating and could contract an infection. Ruth (social worker): "They forget that each of them can cheat on the other. And come back with a disease." Sophia (22, no sexual experience, SRH peer educator) was concerned, because she knows cases in which a young woman with HIV had sex with various young men:

> It's like they don't hear, the men they don't hear that maybe this person is having this disease. And sometimes I try telling them, but my mother will stop me and say that, "There's a day that they will know."

Apart from STIs, pregnancy as a result of having multiple sexual partners was mentioned by several youths and adult respondents. Particularly unintended pregnancies were

mentioned, and the mothers-to-be often do not know who the father is. It was said that male youths will not take responsibility for the pregnancy when they realize that they are not the girl's only boyfriend or sexual partner, according to several male, female and adult respondents. Samira (21, sexually experienced):

> But if it happens that you are with those three boys and then you get this unwanted pregnancy, sometimes you even end up without even marrying those three. You have to give birth in the house, because this boy will say I'm not the only person, and then this boy will also say I'm not your only boy.

In the case of an unintended pregnancy, families will try to identify the father and arrange a marriage. According to Patrick (42, social worker), girls traditionally bring disgrace to their family if they do not know the father, or if the father refuses to acknowledge the child. Children born outside marriage are seen as unrelated to their patrilineal family even more when the father is unknown. Single mothers can be denied familial support. Unintended pregnancies might therefore lead to unsafe abortions, with severe risks of morbidity and mortality for women, according to some respondents. Caroline (18, sexual experience unknown) said that when boys find out their girlfriend or sexual partner is pregnant, they leave her for another girl and do not take responsibility.

Unintended pregnancies can also lead to girls dropping out of school, according to some respondents. They have to take care of their child at home and thus cannot continue their education. Saida (23, sexually experienced) said that this also applies to some boys: When it is known that he is the father of the child, he needs to earn some money for mother and child, and cannot attend school anymore. Additionally, youths engaged in multiple sexual partnerships might drop out of school or fail their exams. According to one male and one female youth, and one focus group with boys, these youths could be expelled from school for having sex on campus, or for not attending all classes, or they could be distracted from their studies by their various sexual relationships.

Young women who have multiple sexual partners lose their dignity. They are seen as "cheap" and it can be difficult for them to marry, according to several male and female youths. Diana (23, sexually experienced): "You know, if you have been roaming like that, roaming always, then it's only, just like the boys will see you as you are nothing."

Male youths use female youths, according to Aziz (22, sexually experienced): "What the girls also don't realize is that most of the guys out there are there only to use them. They go in for them just for lust. After sex they have no interest in the girl."

In the focus group with boys it was mentioned that girls who have had multiple sexual partners will find it difficult to get married:

> So it's very difficult for most of the girls to get married. Because they are just moving with a lot of boys. So no one always becomes serious about her. Because

> you don't want to marry her and they will say "Oh, I have used this lady before you are coming to take."

John (31, teacher) mentioned that people investigate a woman's background before marriage, to find out if she has had multiple sexual partners.

DISCUSSION

This study analyzed the conceptions of and attitude toward multiple sexual partnerships among youths in Bolgatanga municipality, Ghana. Understanding the factors that lead youths in a specific context to engage in risky sexual behavior, such as multiple sexual partnerships, contributes to the development of more tailored and effective SRH education.

Abstinence from premarital sex is promoted in Bolgatanga municipality by the cultural tradition and the Christian and Islamic religions, and the majority of girls and a minority of boys do not have premarital sex. Being sexually active as a youth, and having multiple boyfriends or girlfriends before marriage, however, is seen as a relatively common practice by both youths and adults in this municipality. Infidelity and distrust in sexual relationships were found to be both the result and the cause of concurrent sexual partnerships. Youths have concurrent sexual partners because they are afraid that they will get hurt if their partners cheat on or leave them. Although researchers in northwest Ghana also found that youths held the opinion that they would not be faithful to one partner [8], distrust and emotional injury as motives for having concurrent sexual partners were not found in previous research among youths in Ghana. However, comparable findings were found in research among Puerto Ricans and African Americans (18-25 years) in Connecticut, USA: The respondents said that they did not want to rely on one partner and preferred to have someone 'waiting in the wings' to prevent emotional injury [23, p. 362]. Research in South Africa showed a relation between the knowledge or suspicion that one's partner has other partners and having concurrent sexual partners oneself [28].

Young men in Bolgatanga municipality have multiple girlfriends because they seek sex and pleasure, and because they gain prestige and prowess, particularly among their male peers. Male peers might have an increased influence because boys these days leave their community to attend school, to work, or to hang out with friends, away from the supervision and authority of the family. In sub-Saharan Africa, and also in the northwest of Ghana, it was reported that the influence of peers is important to prove masculinity through early sexual debut and having multiple sexual partners [8,18, 20]. In the present study, prestige and prowess were found to be motives for boys to have multiple girlfriends, in accordance with other studies in sub-Saharan Africa [15]. However, this finding should be understood within the cultural context. These boys

grew up in Bolgatanga municipality, where polygyny is a common practice, and men are allowed to leave their wives, marry other women or have girlfriends if their wives have not given birth within a couple of years. Moreover, Ghanaian men in general have sexual freedom both within and outside marriage [17]. The increased influence of peers at the interpersonal level combined with the cultural practice of men having multiple wives, leaving their wives, or having girlfriends, might affect the youths' opinion that it is prestigious to have multiple sexual partnerships.

Young women in Bolgatanga municipality have multiple sexual partners mostly to get money to pay for basic needs, school-related costs, and luxury items. The girls' multiple sexual partners are men of their own age as well as older, married, and wealthier men. Most of the girls' families are too poor to pay for their daughters' needs, or they spend the money on their sons (i.e. school-related costs). Engaging in transactional sex is a relatively easy way for girls in Bolgatanga municipality to become more economically independent, in contrast to finding a well-paid job. Apart from the risk of getting HIV and STIs, girls with multiple sex partners are looked down upon by society and they will find it difficult to find a marriage partner. Some parents tacitly accept it that their daughters have multiple sexual partners for money, because it benefits them as well. This finding that some parents will turn a blind eye was also found in southern Ghana and Tanzania [16,18].

SRH educators could help these girls and their parents to understand that risky sexual behavior might affect their future plans [29]. Education in general could support these girls to empower themselves and to create their own future, and protect them from early forced marriages. For most married men, a reason to approach young women for transactional sex is that they do not feel sexually satisfied by their wives, which is in accordance with previous research in southern Ghana and sub-Saharan Africa [15,16,30]. Furthermore, a disturbing consequence might be that young men feel encouraged to have multiple sexual partners when they see that men who have money can have sex with young girls, even if he is old.

New media also influence the youths' conceptions of and attitude toward multiple sexual partnerships. They watch pornographic movies and music videos on television and cellphones, and see others having multiple sexual partners. Research in Ghana on youths' use of internet on their cellphones – and particularly that related to SRH issues, possibly unrealistic views of relationships and sex, and chatting and dating – is limited. Studies in the capital, Accra, reported that youths search the internet for information related to SRH and watch pornographic movies in internet cafes [31,32]. In Nigeria, it was reported that the more youths are exposed to images of naked humans on television and in videos, the more likely they are to have multiple sexual partners [33]. Nigerian boys thought it was okay to have multiple sexual partners because they watched movies with men having sex with several girls [34]. It is worrisome that some youths in Bolgatanga municipality take the risky sexual behavior presented in the media as an example.

The majority of the youths mentioned the transmission of STIs, HIV/AIDS, and various diseases and infections as the consequences of having multiple sexual partners. However, most assumed that sex with multiple partners always occurs without the use of condoms or another contraceptive method. Women or girls who have transactional or polygynous sexual relationships are more vulnerable than men and boys to STIs and HIV [35]. They have less power in decision-making as regards having protected sex. They therefore must be empowered to insist on condom use and challenge gender inequalities [29]. Moreover, damaged or vulnerable vaginal tissues increase the risk of STI and HIV transmission for women. Vaginal tissues could be damaged by violence or rape, or by FGM, which has the second highest prevalence in the Upper East region (28%) compared to the rest of Ghana [4]. In addition, women are in general at more risk compared to men, because many STIs survive well in a woman's vagina. Other reasons for their greater vulnerability are that they are more likely to have undetected STIs that facilitate HIV transmission and disease progression, and that male to female transmission of HIV occurs more often than female to male transmission [35].

Unintended pregnancy was seen as an important consequence of multiple sexual partners, particularly when girls do not know who impregnated them, or when the father denies his fatherhood. This brings disgrace upon the girls' family, leads to a decline in family support, and might lead to unsafe abortion. In Ghana, unsafe abortion is an important cause of morbidity and mortality, particularly among women younger than 20 [11,12]. Dropping out of school for females is a consequence of unintended pregnancy and single motherhood as well. Additionally, dropping out of school also applies to youths who have multiple sexual partners or are looking for sexual partners, and therefore do not attend all classes, do not study seriously, or are expelled because of their sexual behavior. Schools were found to be places where youths engage in multiple sexual partners. Because school attendance in Bolgatanga municipality has increased in recent years, more youths now spend time with their peers at school instead of under the authority of their families. Although school regulations prohibit students from engaging in sexual relationships, it is a relatively common practice among sexually active students, according to both youths and adults. It should be noted, however, that these students might be a minority, since the majority of girls and a minority of boys do not have premarital sex, and the focus on education was found to be an important reason for both boys and girls to not have premarital sex in Bolgatanga municipality [24].

Strengths and limitations

A strength of this study is the use of qualitative methods, which enabled the study to collect data on the respondents' conceptions, opinions, thoughts, and feelings. Moreover, most studies on this topic in sub-Saharan Africa focus on predictors, not on youths' conceptions. Additionally, this study was carried out in a particular region in northern Ghana where research resources are limited, which means that the results

provide insight into a specific, relatively new, research location. Several researchers stress the need to understand factors of risky sexual behavior in their specific cultural and socioeconomic contexts [21,23]. The use of participant observation as a method has both strong and weak points. The strengths lie in the familiarity of the first author with the local situation since 2000. Respondents have grown to trust the researcher, which is especially useful as sexuality is a tabooed topic. However, this last aspect also touches a weak point: Respondents might give desirable answers just to please the researcher. To increase the reliability, different interviewers were used, namely the first author, two Dutch female graduates, and one local Ghanaian male (who interviewed only male youths in order to decrease possible bias caused by only females interviewing males). Colloquialisms and local understandings were clarified with key figures.

The method of snowball sampling might have influenced the results regarding sexual experience, age (more youths were relatively older than ≥18), and religion (relatively more Christian youths and adults were included than Muslims and traditionalists). However, this can also be seen as a strong point, because opinions about multiple sexual partners might be more reflective and explicit when uttered by relatively older youths with sexual experience. It should also be noted that respondents who volunteer to cooperate in SRH research are often more comfortable talking about this topic than those who do not volunteer [29]. With respect to the possible influence on one's sexual behavior of having or not having sexually experienced friends, it can be argued that the sample of this study is representative of the local situation: There are relatively more unmarried sexually experienced male respondents, and relatively more unmarried female respondents who abstain from premarital sex [4,5].

Further, a weak point might be that data on sexual experience, religion, and ethnicity were missing for some of the respondents. In addition, an interpreter was used in some of the interviews, which could have influenced the conversation. Finally, member checks (respondents checking the interview transcripts) could not be done for practical reasons.

Implications

SRH programs should address the contradictory influences concerning SRH issues from the traditional culture, the Christian and Islamic religion, new media, and the peer group of the youths. Additionally, youths need to be educated about the consequences of having multiple sexual partners for their health and their future. SRH education should address peer pressure, unequal gender relations, self-esteem and self-respect, the meaning of prowess, sexual rights, and communication and expectations in sexual relationships. Especially the education of girls should have the highest importance: Send them to school, protect them from child marriage, and empower them to address gender issues and negotiate safe sex in sexual encounters. Adults, and particularly parents, need to be educated about the contradicting cultural, religious, and modern influences regarding multiple sexual partners and premarital sex, and how they can

educate youths and protect them from the adverse consequences. Further, more research is needed in remote areas to get a better understanding of and grip on the boys and girls who are involved with risky sexual behavior, such as multiple sexual partners.

Finally, it is important to educate youths about the safe use of new media, particularly internet on their cellphones, and where to find reliable information about SRH, relationships and sex, and the possible risks involved. Schools and religious institutions could support education about the safe use of new media.

Conclusion

A substantial proportion of youths in Bolgatanga municipality in Ghana have multiple sexual partners. Because their sexual contact is often unsafe – some youths even equate multiple sexual partners with unsafe sex – it must be seen as a risky and dangerous practice, resulting in infections and illnesses such as STIs and HIV, and for girls, unintended pregnancies, social stigmatization, and school dropout.

In this paper, the focus was on youths' conceptions of and attitude toward multiple sexual partners, and the reasons and motives behind their risky behavior. It was found that their attitude and motives are influenced by cultural traditions, by the growing importance of Islam and Christianity, and by such modern developments as increased school attendance and the use of modern media. Although both boys and girls mentioned a culture of distrust and a practice of infidelity that motivated them "to never put all their eggs in one basket," there were substantial and striking differences between the motives of boys and girls to engage in multiple sexual relationships.

These differences can be understood in the context of different cultural messages given to boys and girls. In the local cultural tradition, polygyny is accepted and still widely practiced. Although Christianity preaches monogamy, Islam sanctions polygyny. Both the local tradition and Islam tell boys that it is all right to have multiple sexual partners. Moreover, these messages are enforced by modern media, which give them the idea that sexual prowess, prestige, desire, and pleasure can be expressed by making sexual conquests.

For girls, the cultural messages are different. Although in the local cultural tradition their autonomous sexual drive is acknowledged, it was traditionally (and sometimes still is) controlled by FGM, and it was only with their husband that they should have sex. The majority of girls still obey these cultural prescriptions, which are enforced by churches and Islam. However, girls also are influenced by increased school attendance and by modern media, which results in the growing importance of peer groups and modern ideas of youths' autonomy and sexuality. Girls' motives to engage in multiple sexual relations are in the first place economically vested: They seek money for basic needs, school-related items, or luxury goods. Sometimes their (poor) families silently agree. These sexual practices are for girls even more risky than for boys, as they are more vulnerable to infections and illnesses, or to carry them unnoticed. Unwanted

pregnancies and social scorn are the price they pay; boys can and often will deny fatherhood, whereas girls cannot deny their motherhood.

To understand the choices and motives of girls, it might be worthwhile to look at the context of sexuality, agency and poverty. Girls have to make their decisions in a context of serious poverty and large-scale unemployment. Even if they finish school, a future job and future income are uncertain. Their families are often unable to support them. In a situation like this, getting money by involving themselves in relationships with several, preferably wealthy, men might be a solution not only for themselves, but also for their family members. It might be not only the weaker, easily seducible girls who engage in concurrent relationships, but also the stronger, more entrepreneurial ones. They get involved in these relationships, often without being aware of all the dangers and risks they are exposing themselves to, such as infections, STIs, HIV, unwanted pregnancies, school dropout, and social stigma. Those running educational programs should keep in mind these differences in attitudes, conceptions, and motives of boys and girls, together with the larger social and cultural context.

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Chapter 4

Protected or Unprotected Sex: the Conceptions and the Attitudes of the Youth in Bolgatanga Municipality, Ghana

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ABSTRACT

The youth in Bolgatanga municipality in Ghana have relatively less knowledge of sexual and reproductive health (SRH) compared to the youth in other parts of Ghana. More fundamental knowledge is needed of the factors that influence young people to have protected and unprotected sex in specific social and cultural contexts, in order to protect them from adverse consequences, such as sexually transmitted diseases (STIs), HIV/AIDS and unintended pregnancies. This study therefore analyzed the conceptions and attitudes of the youth toward protected and unprotected sex, and particularly condom use, in Bolgatanga municipality. Semi-structured and focus group interviews were held with 71 young males and females and 17 adults. The results indicated that many of them lack a comprehensive knowledge of STIs, contraceptives and pregnancy, while a group of them had a negative attitude towards contraceptives. Not all parents, schools and organisations provide young people with a comprehensive education about SRH, and some even discourage such education because they believe it would encourage young people to have sex before marriage. In addition, young people also inform each other about SRH issues, sharing stories and personal experiences with their peers. The information they exchange is not always correct, however; sometimes it merely reflects their own personal preferences. The unequal power in the sexual relationships of young people – related to the traditional value system that gives men, but not women, "sexual freedom, both in and outside marriage" – is another determining factor for unprotected sex.

Keywords: condom use, contraceptives, youth, sexual transmitted infections, Ghana

INTRODUCTION

The sexually active youth in Ghana are at risk for contracting sexually transmitted infections (STIs), including HIV/AIDS, and for unintended pregnancies with adverse consequences for their future [1,2]. Almost three quarters of Ghanaian males and over one third of Ghanaian females are sexually active before marriage [3]

In Ghana, the national HIV prevalence among adults is relatively low (1.5%) compared to other sub-Saharan African countries such as South Africa (19.2%) and Zambia (12.9%) [4-6]. In Ghana, the 15–24 age group accounted for 26% of the more than 11,000 new infections in 2014; the majority of those infected were female [6]. Ghana is, however, still considered a high-risk country concerning for various reasons: people lack knowledge of HIV/AIDS and condom use is relatively low [6], people have multiple sexual partners, there is a high incidence of self-reported sexually transmitted infections (STIs) in Ghana and there are high levels of HIV/AIDS in bordering countries [1]. HIV in Ghana is mostly transmitted through unprotected heterosexual contact (72%) [6]. Further, STIs and STI symptoms (including bad-smelling/abnormal genital discharges and genital sores or ulcers) were self-reported in 2008 by 26% of females and 8% of males aged 15–24 [3]. Data on treatment-seeking behavior among this age group are not available. However, the stigmatization of people with STIs can discourage treatment-seeking. STIs that are not treated can lead to severe complications [7].

Concerning pregnancies, in 2013, 12% of Ghanaian females aged 15–19, both married and unmarried, were pregnant. Pregnancy among young females has adverse potential consequences for their health and social life, and the society as a whole [8]. Moreover, in Ghana unsafe abortion is an important cause of morbidity and mortality, particularly among women under 20 years [9,10]. It was reported that 16% of women (<20 years) had an abortion in 2007, while other studies argue that the actual number of unsafe abortions and the attempts could be higher [3,11,12).

Most unmarried Ghanaian males and females aged 15–24 reported to have heard of various contraceptive methods [3,13]. However, a substantial proportion of them lack sufficient knowledge about the use of contraceptives, and use contraceptives inconsistently [14]. Condom use among sexually active young people is low in Ghana [6,15]. For example, in 2014, only 32% of sexually active unmarried females aged 15–19 years used modern contraceptives (e.g., male condom 11%, pill 5.7%, intrauterine device 1.5%, injectables 7.5%, implants 4.4%) [13]. Condom use was reported by less than 40% of males in 2008 [2]. There are various reasons for this, such as their low risk perception, a lack of adequate access, and their concerns about costs and confidentiality [16-19]. Additionally, condom use is seen as unnatural and unpleasant, and it may cause distrust in sexual relations [20]. It was reported that the higher a woman's education, the more likely she is to ask her partner to use condoms. Rich or middle income women are more likely to ask their partners to use condoms compared to poorer women [21]. It is unclear whether transactional sex (i.e., sex for money)

affects condom use [22]. Most churches and religious groups do not promote condoms, because they fear that condom use promotes promiscuity [1].

Several scholars have argued that more fundamental knowledge is needed about factors that influence the unprotected and protected sexual behavior of young people, and about the role of these hindering and motivational factors in various social and cultural contexts. This insight could contribute to the development of more tailored and effective sexual and reproductive health (SRH) programs to protect young males and females from the adverse consequences of risky sexual behavior [21,23-25].

The youth in Bolgatanga municipality, the capital of the Upper East Region, have relatively less knowledge of SRH, including STIs and HIV/AIDS, compared to the youth in other parts of Ghana, and they have a relatively low level of familiarity with family planning methods [26,27]. A recent study in Bolgatanga municipality reported that 24% of sexual active junior high school students had used a condom the last time they had sex [15]. However, compared to other parts of Ghana, research in this rural, relatively remote northern area is limited.

Abstinence from premarital sex is prescribed among the Frafra (in particular the Gurune) and the Christian and Islamic groups in Bolgatanga municipality, and the virginity of unmarried women is highly valued [28]. A considerable number of young males and young females are, however, sexually active before marriage, influenced by increasing modernization, education, and new media [3,15,28]. In the Upper East Region, the median age of marriage in the region is 24.4 years for males and 18.9 years for females. For females, there is only a slight difference between the median age of first sexual intercourse (18.4) and the median age of marriage (18.9). For males the difference is larger: their median age of first sexual intercourse is 21 and their median age of marriage is 24.4 [13].

Qualitative research in the study area with respect to the sexual behavior of the youth, STIs (including HIV/AIDS), and unintended pregnancies is limited. In the present study, a qualitative method was applied to investigate the conceptions and attitude of the youth toward unprotected and protected premarital sex, in particular condom use, in order to arrive at a better understanding of what drives the youth in Bolgatanga municipality in northern Ghana to practice protected or unprotected sex.

METHOD

Design

Semi-structured interviews were carried out with 32 young males and females, and focus group interviews were conducted with a further 39 young males and females. Individual interviews provided a safe setting and privacy for the respondents, while the focus groups motivated respondents to share their ideas and to react to each other. Individual interviews were also held with 17 adults who were familiar with the local

youth and their problems. These respondents (mostly teachers, social workers, and health workers) provided complementary information about the sociocultural dynamics and contexts of the premarital sexual behavior of the youth.

Setting

Ghana has almost 25 million inhabitants, divided over 10 regions. The three northern regions—the Upper East, the Upper West, and the Northern Region—are the poorest. They are mainly rural and the majority of the people live in villages or small communities. The main source of income is farming. School attendance and literacy rates are low compared to the rest of Ghana [29].

Bolgatanga municipality (132,000 inhabitants) is the capital of the Upper East Region, which has more than one million inhabitants. The region's dominant ethnic group is the Mole-Dagbani, which has eight subgroups. One of these subgroups is the Frafra, and its subgroup the Gurune is dominant in Bolgatanga municipality [30]. The three main religions in Bolgatanga municipality are traditionalism (practised by 22.3% of the population), Christianity (57.6%) and Islam (17.1%). Only 2.7% have no religious affiliation [31].

The availability of contraceptives in Bolgatanga municipality varies per area. Various brands of male condoms are available at pharmacies, supermarkets, and health clinics, mainly in Bolgatanga town, but also in some of the rural communities. The average price of a condom is US$ 0.07 [3]. Female condoms were not available in Bolgatanga municipality during data collection. Contraceptive pills and contraceptive injections are available free of charge at government hospitals and clinics upon presentation of a doctor's prescription. Contraceptive pills are also sold at pharmacies (the average price of a month's worth of pills is US$ 0.09).

Population and sampling

The research population comprised young males and females (14-25 years, varying levels of education) and adults (various ages, various background, occupations an religions). For both young people and adults, snowball sampling was done, taking into account gender, age, religion, education, and urbanization. Respondents were approached with the assistance of the Youth Harvest Foundation Ghana (YHFG), churches, mosques, key local figures in the municipality, and the Ghanaian host family of the first author. Respondents were included until data saturation was reached.

Table 1: Data collection among young people (N=32) and adults (N=17)

	Respondents	Main topic of interview
The youth	*71*	-
Semi-structured interviews (2010)	14	Broad focus on SRH
Semi-structured interviews (2011-2012)	18	Protected/unprotected sex
Focus groups (2011)	39	Protected/unprotected sex
Adults		
Semi-structured interviews (2010-2011)	17	Broad focus on SRH

Data collection

Data were collected in various rounds in the period 2010–2012. In the first stage of the research project (2010–2011), semi-structured interviews that addressed the sexual and relational behavior of the youth were conducted with young people and adults [28]. From this first research stage, 12 interviews with 14 young people (two in same-sex pairs) and 17 interviews with adults (six females, 11 males) were selected for the present paper, as they contained the topic "protected or unprotected premarital sex" (see Table 1); a secondary analysis was subsequently applied.

In 2011 and 2012, 16 semi-structured interviews with 18 young males and females (14 individual interviews, two in same-sex pairs) and five focus group interviews with 39 young males and females were conducted (see Table 1). The main focus was on unprotected and protected premarital sex and on having multiple sexual partners (the latter issue is addressed in another paper; author). The topic list for the semi-structured and the focus group interviews was based on literature and previous research [28]. It contained the following five topics: (1) Prevention of STIs; (2) Opinions, conceptions, and motives concerning condom use; (3) Negotiating space for condom use; (4) Expectations of young males and females concerning condom use; (5) Opinions, conceptions and motives regarding other contraceptive methods.[5]

The order in which the topics were discussed in each interview depended on the answers of the participants. The semi-structured interviews lasted 20–75 minutes, the focus groups 30–60 minutes. All interviews were digitally recorded and transcribed verbatim.

Most interviews with the young males and females and adult respondents were conducted by the first author (Dutch woman, familiar with the research area since 2000) and in the English language. Under the supervision of the first author, four interviews with young people were carried out by a female Dutch undergraduate. Three interviews and two focus group interviews with young people were conducted by a male Ghanaian bachelor graduate. He interviewed only young males, and used Gurune (the local language) in four of the five interviews (without an interpreter) in order to allow young males who did not speak English to be included. A local female interpreter (aged 22) assisted in one focus group interview with young females and in 10 semi-

[5] The topic list also included topics concerning multiple sexual partners, which are reported in another paper.

structured interviews with young males and females. These interviews were partly in English and partly in Gurune. Both the interpreter and the Ghanaian interviewer were well known by the first author, and had been selected based on their suitability for this task. Of the interviews with the adult respondents, 16 were held in English and one was held in Gurune with the assistance of a local female interpreter (aged 31). Eleven of the 17 interviews with adult respondents were carried out by the first author; two female Dutch undergraduates carried out six interviews, supervised by the first author.

During the various periods of fieldwork, the first author and the Dutch students were hosted by Ghanaian families. This allowed the researchers to experience life in the area and to better understand the social and cultural context.

Ethical approval

Ethical approval was not needed for this study under Dutch and Ghanaian law during data collection (2010-2012). However, the Ghana Health Service and the Navrongo Health Research Center (NHRC) were officially informed and consulted about the project. The research proposal was also discussed with and approved by the YHFG (partner organization in Bolgatanga providing SRH education to young people) and various local authorities. All interviewed persons were informed about the research objectives by the interviewers, asked to cooperate voluntarily and anonymously, and asked for their consent. The majority of those approached agreed to cooperate. Some refused because they were not interested or due to obligations at school, home, or work. Respondents could discontinue their cooperation at any time and personal information was excluded from data analysis and publication.

Data analysis

The qualitative data analysis software NVivo 10 was used. As a first step, all interviews were coded with the focus on factors that influence unprotected and protected premarital sex, and particularly condom use. Five categories were defined on the basis of these codes.

The first author carried out the coding in NVivo 10. Methodological aspects of the research, the coding processes (development of codes and categories), and contradictions that were identified during the analysis were documented and systematically discussed by the research group (JvdG, BvM, MdU, NdV). For privacy reasons, respondents were given fictitious names.

RESULTS

This section presents the demographics of the respondents and elaborates the five categories that were derived from the data. These categories—namely (1) the influence

of culture and religion, (2) knowledge of contraceptives, STIs, and pregnancy, (3) attitude and behavior regarding buying and possessing condoms, (4) attitude regarding using condoms, and (5) the influence of unequal power relations between young males and females—provide insight into the factors that influence the attitudes toward unprotected and protected premarital sex of the youth in general and condom use in particular.

Demographics

Semi-structured interviews were held with 32 young people aged 14–25 years. Eighteen were male (mean age 21.4) and 14 were female (mean age 18.9; one was pregnant), and they differed in age, religion, ethnicity, and education. All respondents were unmarried. Of the males, 11 were sexually experienced and two were not (for five males this was unknown). Of the females, four were sexually experienced and six were not (for four females this was unknown). Sample characteristics are summarized in table 2.

In addition, 39 young people participated in five focus group interviews. Three focus group interviews were held with 22 young males aged 16–25 years (mean age 21.8). Although the age range was announced when selecting the young respondents, three unmarried men aged 29, 30, and 32 years, respectively, were also present. Because the interview had already started when they mentioned their ages, it was thought that it would disturb the group if they were sent away. They were therefore included in the research. One of the focus groups with young males was held in a rural area; participants were either school dropouts, attending junior high school, cowherds, or farmers. The other two focus groups with young males were held in urban areas; most of these participants were attending senior high school (SHS). Two focus groups were conducted with 14 young females aged 16–21 years (mean age 18.1). One was held in a rural area, with six young females who were either school dropouts or attending junior high school (JHS). The other focus group was held with eight young females, all of whom were attending a boarding SHS. The majority of the respondents in all focus groups were Christian; the others were Muslim or Traditionalist.

Six female and 11 male adults were also interviewed; their ages, religions, and backgrounds varied. Sample characteristics are summarized in table 3.

Table 2: Demographics of the participating young people in the semi-structured interviews (n=32)

	Number (%)
Sex	
Male	18 (56%)
Female	14 (44%)
Age	
Males, mean (range)	21.4 (19–25)
Females, mean (range)	18.9 (14–23)
Ethnicity	
Frafra	23 (72%)
Other (Hausa, Bakasan, Dagomba)	3 (9%)
Unknown	6 (19%)
Urbanization	
Bolgatanga municipality	29 (91%)
– Rural community	15 (47%)
– Bolgatanga town	4 (13%)
– Not specified	10 (31%)
Bongo District[a]	3 (9%)
Education	
Not educated	3 (9%)
School drop-out JHS[b]	1 (3%)
Attending JHS	2 (6%)
Completed JHS	2 (6%)
Completed vocational school	1 (3%)
Attending SHS[c]	8 (25%)
Completed SHS	10 (31%)
Attending polytechnic	1 (3%)
Attending/completed university	2 (6%)
Unknown	2 (6%)
Religion	
Christian	18 (56%)
Muslim	7 (22%)
Traditionalist	5 (16%)
Unknown	2 (6%)
Sexual experienced	
Males	
- Yes	11 (61%)
- No	2 (11%)
- Unknown	5 (28%)
Females	
- Yes	4 (29%)
- No	6 (43%)
- Unknown	4 (29%)

[a]Schooling in Bolgatanga municipality; [b]JHS: Junior High School; [c]SHS: Senior High School

Table 3: Demographics of the participating adults in the semi-structured interviews (n=17)

	Number (%)
Sex	
Male	11 (65)
Female	6 (35)
Age	
26-35 years	6 (35)
36-55 years	7 (41)
56-64 years	4 (24)
Ethnicity	
Frafra	10 (59)
Moshi	1 (6)
Kassena	1 (6)
Dagao	1 (6)
Unknown	4 (24)
Religion	
Christian	13 (77)
Muslim	3 (18)
Unknown	1 (6)
Background	
Teacher	5 (29)
Ethnicity expert	2 (12)
Community nurse	1 (6)
Social worker	2 (12)
Religious leader[1]	3 (18)
Parent	1 (6)
Elderly (who are also parents)	4 (24)

[1]Youth pastor, youth president in church, traditional leader

The influence of culture and religion

In three focus groups, and in four interviews with young females, the respondents spoke about the traditional and religious ideology of abstinence from premarital sex, particularly in relation to the prevention of STIs and pregnancies. It was explained that abstinence is an important way to avoid unprotected sex and its adverse consequences. For example, Gifty (18, SHS student, Christian) said that she believes that, as a virgin, she will not only get the right partner and the respect of the community, but also be protected from STIs and unintended pregnancy. One male (focus group urban area) also said: “But those who prevent it, to have sex, they prevent sickness and at the same time pregnancy.”

It is tradition among the Frafra in Bolgatanga municipality for fathers to talk to their sons, and for mothers to talk to their daughters, about puberty and its physical changes, abstinence from premarital sex, and the duties of a husband or wife. These talks are initiated the moment a child undergoes physical changes related to physical maturity (e.g., menarche or pubic hair growth). Most uneducated parents still give these traditional talks, but they often do not have enough knowledge of SRH and the risks

involved for their children, according to Patrick (social worker) and Sayida (community nurse). In Patrick's words:

> The other category of parents are the illiterate parents who have no exposure to anything of development and new things of our world, our developing world. (…) In my work, especially in the north, I have seen that there are these illiterate parents, who are waiting and still going by the informal way of preparing young people, you know, to face marital life.

A few young people said that their parents had warned them that unprotected sex can have unintended and unwanted consequences. However, Sayida (community nurse) said that only a relatively small proportion of the educated parents actually talk about SRH to their children, while others send them to the health clinic for SRH education. Apart from the parents' knowledge of SRH, talking about SRH-related issues to young people is still a cultural taboo, according to Patrick (social worker), Sayida (community nurse), John (teacher), and Felix (parent). It is seen as immoral and it is feared that it could encourage young people to have sex. Sayida and Ruth (social worker) taught young people about condom use, and were consequently accused of encouraging immoral behavior. Sayida remarked:

> People sometimes confront me personally, telling me that: "I'm spoiling the youths. Why should I talk about condoms? They should stay away from sex." Which is not real, they can't, they can't stay away from sex. They are doing it!

In the interviews, Islamic and Christian leaders said that in the church and the mosque they continue to promote abstinence to the youth and discourage condom use. Patrick (social worker) stated that some of the Christian youth ignored the advice of church leaders and used condoms—some did so secretly—to protect themselves against HIV in particular. George (21, Christian, completed SHS) said that he engaged in premarital sex and advocated condom use: "So if they cannot abstain, then it will be very good for them to use the condom, because you know the abstinence is very difficult for them to do that."

Some of the adults said that parents have a responsibility for the attitude and behavior of the youth regarding unprotected premarital sex, and their knowledge or lack thereof of STIs, contraceptives, and pregnancy. For example, Sayida (community nurse) said: "So it's high time we come out openly to talk to our children about sex and about condoms, because they are becoming pregnant." Felix (parent) confirmed the taboo on talking about sex, but also said that the traditional ideas are losing ground:

> Because we think that sex is secret! Sex should not be mentioned. For example, if I talk about penis, they say I'm immoral. (…) So in Africa, that is the problem. But it's, we are overcoming it. It's changing fast.

Furthermore, the way parents and children communicate has changed because of increasing modernity, according to one young male and one young female and various adults: Young people nowadays do not obey their parents, they go to friends rather than their parents with their problems, and "they do what they want." Felicity (teacher) said that parents found it difficult to control their children. Francis (25, uneducated farmer) said:

> The problem with us the youths of these days is the influence from our own peers. It is our friends. For instance, a young boy or girl may have a problem and instead of talking it out with his or her mother or father so that they can give them good advice on how to solve that problem, they would rather talk it out with their friends who most often all they can give is bad advice.

It was noticed, however, that in general it was not common in the Frafra tradition for parents and children to converse extensively, or for children to approach their parents with questions. Sayida (community nurse) said: "Really, do you see a man and a woman and the children conversing? No, in our tradition, when grownups are there, children don't go near there." Mohammed (parent and Islamic leader) commented that most parents are ignorant about their children's sexual and relational behavior, and do not know whether they use family planning methods. He also said—as did George (21, Christian, completed SHS, sexually experienced) and Joyce (15, Christian, SHS student, not sexually experienced)—that the youth hide their sexual and relational activities from their parents. Joyce:

> But the parents will never know. It's when the pregnancy comes, that you run to your parents. That's the only time they will know that your child is having a boyfriend. Because no parent will support that [having a boyfriend]. Unless you are maybe at the age of marriage.

Moreover, Ruth (social worker) and John (teacher) said that that it would be better if parents were to talk with their children, they "can do a lot." Ruth said that she wishes parents would make time and create opportunities for their children to share their problems with them.

Knowledge of contraceptives, STIs, and pregnancy

The lack of knowledge of a considerable number of respondents about contraceptives, STIs, and pregnancy came to the fore as a factor that influences the protected or unprotected premarital sexual behavior of the youth, and particularly their condom use. The consequences of unprotected sex, and how STIs (including HIV) are transmitted, were not well known among the youth, according to two young males and two young females. For example, Ayine (21, completed SHS, Traditionalist) said: "They [youths] are ignorant because they don't know the consequences of having unsafe sex. They just go ahead and go on to have sex without." Abdul (21, SHS student, Muslim) gave the

following statement, which he claimed to have learned from a teacher: “So, if only the girl has HIV/AIDS and she doesn't have a cut, it's not easy for her to give you HIV/AIDS.”

Regarding contraceptives, most respondents knew where to buy male condoms in Bolgatanga municipality, such as pharmacies, supermarkets, and health clinics. However, not all respondents seemed sure about the safety and usage of contraceptives. For instance, Caroline (18, completed JHS, Traditionalist) asked during the interview: “They always say a condom is not 100 percent safe. Is it true?”

Several respondents, in a focus group and in the individual interviews, also doubted the safety of male condoms: They wondered whether condoms could burst and whether they could be punctured. It was mentioned in the focus group with female SHS students that the female condom is not safe either. The female SHS students in the focus group and two young females in the individual interviews also expressed concerns that contraceptive pills and injections could cause infertility. Insufficient knowledge was also found with respect to pregnancy prevention. To prevent pregnancies, some young people practice the withdrawal method and some of the young females keep track of their “safe” days within their menstruation cycle, without knowing the risks of these methods. In the focus group with the female SHS students, one student said that they could have unprotected sex as long as the young males say that they will not ejaculate inside them. Joyce (15, SHS student, Christian) said about unprotected sex during “safe” days: “Maybe, they will say, well I just had my menses. They think that, oh, I had my menses some time ago, so I don’t think if I do it right now I’ll get pregnant.”

During the interviews, most young people showed interest in learning more about SRH, the risks associated with unprotected sex, and the use of contraceptives. Ayine (21, completed SHS, Traditionalist) said that education might “help” the youth to have protected sex. Particularly education in how to use condoms was mentioned by some of the respondents. One female participant (Christian) in the focus group in a rural area said that “We need to be educated in how to use condoms, which is very important to us,” and Clement (20, completed SHS, Christian) said “Even when you learn that condom is the best way to prevent it, you can go and buy the condom. Yet you don't know how to do it, and it will be useless.”

Sayida (community nurse) confirmed that young people lack knowledge of SRH, and that more females than males come to her with questions and problems regarding STIs and pregnancy.

Attitude and behavior regarding buying and possessing condoms

The attitude and behavior of the youth regarding buying and possessing condoms appears to influence their protected or unprotected premarital sexual behavior, and particularly their use of condoms. A small proportion of the males did not have a problem with going into a shop and buying condoms. George (21, sexually experienced) said: “So I always feel free, I have one drug store that I always buy, so even sometimes when I get there and I place the money on the table, he knows what I want.”

Three young females also said that they would feel comfortable about buying condoms; one of them confirmed she actually bought condoms. Diana (23, Christian, apprentice seamstress):

> Me like this, I don't have fear of anything, if I want to, if I'm, my boyfriend, I will always, I will let him know that me I will do it. Because he did not marry me yet. And you know boys, they go out and they come in, they go out and they get different, different ladies, ahaa. So it's only good.

Most young males and females, however, said that they felt uncomfortable about buying condoms. One female SHS student said in a focus group:

> I think due to that too, like the shyness, I may not go and buy it myself. So, I will say, maybe I feel shy to go to the drugstore and tell the person that I want condom or something like that.

Some of the young males also experienced this barrier. Hashim (23, completed SHS, Muslim, sexually experienced):

> Personally me like this, I feel so shy that I feel heavy to go there to buy a condom (...). You see that like the traditional teaching in Bolga here, is that already sex before marriage is a crime. We see it as something that is odd.(…) It is rampant. It is everywhere but still the elders see it (…) It is a bad behavior.

In the focus group with female SHS students and in the interview with Hashim, it was said that young people could also ask a younger person (it is culturally accepted to assign younger persons, especially younger siblings), or an older brother or friend, to buy condoms for them if they themselves felt too shy to go. Sophia (22) and Claudia (14) mentioned the use of different names to hide their order for a condom such as “cd,” “doncom,” and “this thing.”

Although most young males and females said they felt uncomfortable about buying and possessing condoms, this feeling seemed to be stronger in females than in males. This difference in attitude was brought up in both focus groups with young females, and in the interviews with four young females and two young males (various religions, aged 14–23 years). According to them, buying and possessing condoms can lead to remarks such as “bad girl,” “bad boy,” or “you are too young,” and that young females would be seen as prostitutes. Ruth (social worker) also said that, in general, it was socially more acceptable and easier for males to buy and possess condoms compared to females. Regarding the possession of condoms, some young males and females said that parents do not allow their sons or their daughters to possess condoms, because they should abstain from premarital sex.

Attitude toward the use of condoms

Another factor that influences whether young people have protected or unprotected premarital sex, is their attitude toward the actual use of condoms. Almost half of the young females and three of the young males (14–23 years, various religions, all educated) said that it is important to protect oneself against STIs and pregnancies by using a condom. Rudolf (24, Traditionalist, completed SHS, sexually experienced) said that it is important to have a condom available: "It's not difficult, so far there is any time that you come into my room, I will make sure the condom is always available before having the sex. Don't do it without condom."

Albert (20, Christian, completed SHS, sexually experienced) also explained that his future, and in particular his education, motivates him to use condoms:

> But to me, I believe in using condoms because, you know (…) it's better like, to keep your feelings okay. But I believe in my future more than in sex, so for me going to the high level is better than to have sex and maybe contract any diseases.

However, according to the majority of the respondents (various ages, religions, and educational backgrounds), not all young males and females want to use condoms. In a focus group with young males in an urban area, one participant said:

> Some boys prevent it through using condoms, but some boys don't prevent. They don't even prefer using condom. When you ask them why, they say "Oh, when they use the condom they don't feel." They don't feel like making love.

Gregory (24, completed SHS, rural area, sexually experienced) said the following about what young males and females feel about using condoms:

> Yes, because there are some girls or some boys, that if they are using the condom to have the sex, they don't feel like, they don't feel the percentage they are supposed to, like you see, using a condom to have sex with, or using without condom, the percentage is always different. It's different (…) there is much feeling if you use without condom, and there is less feeling if you use with condom. So that's why some boys and there are some girls that if you even use condom with them they won't like.

Saïda (23, completed SHS, Muslim, rural area, sexually experienced) made a negative statement about condom use: "Some too are there with the decision that they don't want to use it. Simply because they always say they feel when they use it for sex, they don't really enjoy much of the sex." However, George (21, Christian, completed SHS, SRH peer educator, sexually experienced) held a different opinion: "It's the same thing, whether condom or not, it's the same feelings, it's the same, what will happen will still happen." He also said that there are girls who do not like the use of condoms because they can cause heat friction in their vaginas.

One of the social workers (26, female, Christian), who was also an SRH educator, remarked that most young people preferred not to use condoms:

> So if you tell them that, put the condom on before you have sex. They are, like, when you buy a toffee, do you just put it in your mouth like that? (…) So you see they are trying to tell us that, if you put a candy in your mouth like that you don't, uhmm, you don't feel the taste immediately, you have to chew it or something when you come. When they use condom, they don't get satisfied, or they don't get the feeling. So they prefer to go the natural way. They call it the raw way.

It was noted that peers, especially same-sex peers, have an important role in advising and influencing each other regarding SRH. Although most young people said that sexual intercourse with a condom gives less pleasure and less "feeling" than without a condom, most of them did not talk about their own experience, but about what they had heard from their peers. For example, Thomas (21, Christian, completed SHS, not sexual experienced):

> I have enough experience from my friends. That when you use protection with girls it's like you don't feel. You don't feel. (…) Even though sometimes they tell me but I've never been in their shoes before. I've never done such thing. So I believe them. 'Cause they have been doing it.

In two interviews and one focus group with young females, it was said that males sometimes cut off half or the top of the condom, without their partners realizing it, in order to "have more feeling." One female SHS student (Christian) said in the focus group: "Sometimes they will pretend to use it, meanwhile they will remove it. They can intentionally cut half of it."

Mutual trust between boyfriend and girlfriend is an important factor that influences the use of condoms, according to three young males and one young female. When young people trust each other they do not use protection, and in the case of distrust, they like to use a condom. Suggesting using a condom could therefore make a partner suspicious: The one suggesting it might have an STI and not admit it. David (20, Christian, university student) said that young people are afraid their partner would break up the relationship if they were honest about having an STI. In the focus group with the female SHS students, it was mentioned that young males want their first sexual intercourse to be "raw" (without a condom): "Because the first time they have sex with you, they want to do that so that you know that you are getting to like him or not."

Additionally, Francis (25, uneducated farmer) said that it is important to find out soon whether you are "sexually compatible": "It is very necessary for you to try her fast and see how she tastes."

Deciding to use condoms after being tested positive for HIV or another STI was mentioned in a focus group with young males in a rural area, and by three young males

and two young females in individual interviews. However, none of them reported having actually had such a blood test.

Unequal power relations between boys and girls

It was found that unequal power in sexual relationships between young males and females is also important when it comes to the actual use of condoms. Three young females said that if males insisted on not using a condom, females could not force them to do so. Saïda (23, completed SHS, Muslim, rural area) pointed out that young males are physically stronger than young females:

> It's not easy, if the guy doesn't want it, I don't think you can find it easy using it. Because you cannot force him. And mostly the guys have the power over the ladies, that they can force them to do what they want, but you a lady, simply because our strength is not equal.

Another reason given for agreeing to have sex without a condom, is the girl's love for her boyfriend. Samira (21, SHS student, Muslim, rural area): "If the boy says 'I don't like using condom,' and then the girl too thinks that she loves the boy, you see that she will just give herself to him. Without a condom."

A female youth's financial dependence on her boyfriend might also contribute to unprotected sex. According to three young males and three young females and some of the adults, some of the young females in the research area have transactional, unprotected sex with young males in order to provide for their needs. It allows them to buy the food, clothes, and luxury items that their parents are too poor to provide. Some of the young females were encouraged by their female friends to engage in these transactional sexual relationships, despite the health risks. Caroline (18, completed JHS, Traditionalist) said:

> Yes, because when you are about two, three or four girls going, you see that one of the girls can go into a boy, that is giving her much money, or plenty money. And the fellow [girl] can influence you that you also go and friend this guy, he's having money, he also gives you the money. Not knowing that that guy is having these diseases. And you too go into that guy, and he gives you money. After giving you the money he also wants to get something from you.

Condom use was seen as the males' responsibility, according to one young male and two young females. They said that young males are mostly in charge of buying condoms and having them handy, that they should initiate condom use, and that they are the ones who have to wear the condom. Lydia (>20, completed university, Christian) said: "It's like the guy always uses the condom so they [young females] don't really have much to say about that." Rudolf (24, Traditionalist, completed SHS) said:

> And then the selling of condoms is now open to any place, you can go to any shop and then you get the condom to buy. (…) Yeah they normally, mostly it's the boys' one that is common in our community here.

However, not all girls accepted the unequal power relation between males and females. One sexually experienced female youth said that the use of condoms was her responsibility (17, JHS student, Traditionalist, rural area). She said that she would insist on condom use, even if the boy did not agree: "Yes, if he will not agree then I will stop it, I will say I will not do it. And he cannot force you to do it."

DISCUSSION

This study focused on conceptions and attitudes of the youth toward protected and unprotected premarital sex, and in particular condom use, in Bolgatanga municipality, Ghana. Various reasons and motivations for these sexual practices were identified: (1) the influence of culture and religion, (2) knowledge of contraceptives, STIs, and pregnancy, (3) attitudes and behavior regarding buying and possessing condoms, (4) attitudes regarding using condoms, and (5) the unequal power relations between young males and females.

Young peoples' lack of comprehensive knowledge of STIs, contraceptives, and pregnancy, as well as their ambivalent and inconsistent attitude regarding condoms and other contraceptives, is probably rooted in the taboo on premarital sexuality, which is related to the strong promotion of premarital sexual abstinence by the Traditionalist, Christian, and Islamic religions in the research area. Not all parents, schools, churches, mosques, and organizations educate young people comprehensively about SRH, and some even discourage SRH education because they fear it would encourage young people to have sex. Parents' reluctance to teach their children about SRH and limited communication between parents and children were both observed in the present study.

Moreover, it was noticed that parents themselves had a lack of knowledge regarding SRH. It was also found that there is a gap between traditional cultural and religious values on the one hand, and increasing modernity and education on the other hand, which creates a distance between parents and children. The growing influence of Christianity and Islam, which promote abstinence from premarital sex, strengthens the conviction held by parents that premarital sex education is unnecessary. The norms to abstain from premarital sex and the taboo on educating young people about SRH were easy to maintain in the past, when young people mostly remained within their communities until they were married. Nowadays, most young people have more independent and autonomous lives: They visit their friends in other communities, use the internet on smart phones, and go to school or to work.

In order to have a more effective policy regarding premarital sexual behavior, parents, as well as schools and religious organizations, need to adjust to these developments. This requires a different approach, one that may require parents, teachers, and other key figures to increase their knowledge regarding: (1) Sexual and reproductive health and rights in general and particularly contraceptives; (2) the positive effects of early SRH education; (3) places where young people can obtain SRH education or consult an SRH professional; and (4) the adverse consequences of unprotected sex. They might also have to improve their skills in discussing SRH-related issues with young people. Research in other sub-Saharan African countries has shown that communication about SRH between children and parents is not common [32], and that programs can help parents to improve this communication, which has positive effects on the adolescents' health [33].

As stated, national Ghanaian data show that 11% of unmarried sexual active girls used condoms in 2014, and that less than 40% of boys aged 15-19 used condoms in 2008 [2,13]. A recent study among junior high school students in Bolgatanga municipality found that only 24% of them indicated that they had used a condom the last time they had sex [15]. We recommend the execution of more quantitative research on this topic. It is a promising finding in the current study that almost half of the girls and some of the boys had a positive attitude toward using male condoms to prevent STIs and pregnancy. However, the majority were uncomfortable about buying and possessing condoms, which might be related to the cultural and religious taboo on premarital sex.

Other contraceptives—such as pills, injections, and female condoms—were hardly used or mentioned by respondents in the present study. Moreover, the safety of these other contraceptives was questioned by some of the girls, who feared they can cause infertility. Concerns of infertility when using contraceptives were also found among women in Accra [34]. It is worrisome that young people still do not have easy access to contraceptives, or feel uncomfortable about obtaining or using them, particularly since the Ghanaian government has been promoting condom use for more than 10 years now, and research as long ago as 1997 showed that the Ghanaian youth feel embarrassed about buying and carrying condoms [19].

It was found that same-sex peers play an important role with respect to the SRH of the youth in Bolgatanga municipality: Most of the young respondents in this study did not talk about their personal experience with condoms, but mainly about what they had heard from their peers. Peers generally share stories and inform each other about SRH issues, but the "facts" they communicate are not always correct or are merely personal preferences. The fact that most of the youth do not talk about their personal experience can be attributed to various factors, for example, their lack of sexual experience, the cultural and religious taboo, or their personal shyness related to this taboo. In order to improve SRH education, it is important to include the influence of peers in SRH education, particularly because tales of unpleasant experiences with

contraceptives spread rapidly among peers, which was also found in a small study in Accra, the Ghanaian capital [35].

The use of condoms might cause suspicion and distrust between sexually active young people, because it might lead them to doubt each other's faithfulness. This suspicion might also be influenced by the "ABC" strategy that the Ghanaian government has been promoting for over a decade: If one cannot abstain (A) from sex or be faithful (B), then use condoms (C). Using a condom might thus imply that one has other sex partners as well. The prevalence of polygyny in Bolgatanga municipality (in 2011, it was practiced by 25% of men and 39% of women [29] might also contribute to distrust: The acceptance of polygyny coupled with the unlimited sexual freedom of Ghanaian men inside and outside marriage [36], means there will always be suspicion among women, even when their partners declare that they are faithful.

The unequal power balance in premarital sexual relationships between young males and females—which comes to the fore in explanations about physical strength, being helplessly in love, or female financial dependence—also plays a role in whether young people have protected or unprotected sex. It was said that because males are physically stronger, it is difficult for females to insist on condom use. Moreover, condoms were mostly seen as the responsibility of males: The condom is a "male" prophylactic, and it is embedded in a culture in which males have more authority than females.

The findings that young males and females have limited knowledge of SRH and contraceptives, and that condom use is seen as unpleasant and might cause distrust in sexual relationships, are in accordance with previous research in other sub-Saharan countries and northern parts of Ghana [20,27,37]. The qualitative interviews with young people and adults in the present study — which revealed young peoples' feelings, fears, shyness, and dilemmas regarding protected and unprotected sex, condom use, and premarital sexual abstinence — contribute to a better understanding of their premarital sexual behavior. Understanding the influencing factors that motivate young males and females to have protected or unprotected sex, and understanding these factors in specific contexts, can contribute to the development of more tailored and effective SRH education to protect young people from the adverse consequences of engaging in unprotected sex [21,23-25].

Strengths and limitations

A strength of this study is that young people in a remote region in northern Ghana shared their perceptions of sexual relationships, something that has rarely been done before. Another strength is that qualitative research was used, which provides in-depth insights into and information about the research topic. Additionally, using three interviewers increased the credibility of the results. Two Dutch females interviewed both males and females, and they were looked upon as "outsiders" who would leave again. This ensured the privacy of the respondents, which is particularly important for young females, who are supposed to be virgins. One Ghanaian male interviewed only

young males, in order to decrease possible bias caused by only females interviewing young males.

This study also had its limitations. The results might have been influenced by the fact that the study included among the young males and females more older respondents (≥18) than younger respondents (≤17), and relatively more Christians than Muslims and Traditionalists. Further, data on religion and ethnicity were missing for some of the respondents. Finally, an interpreter was used in some of the interviews, which could have influenced the conversation, and for practical reasons, member checks (respondents checking the interview transcripts) could not be done.

Implications

In the development and delivery of SRH programs, it should be taken into account that the traditional and religious ideas concerning premarital sex contradict the modern, western-oriented ideas in Bolgatanga municipality. Both streams of ideas influence the knowledge of contraceptives, STIs, and pregnancy of the youth, which turns out to be limited and sometimes also incoherent. Although the attitudes of young people toward the use of male condoms to prevent STIs and pregnancy are in general positive, there are various reasons why they do not use them consistently. SRH education should address the misinterpretations regarding the safety and side effects of contraceptives, as well as how to deal with distrust in sexual relationships and how to handle the stories told by their peers. Additionally, young males and females should be enabled to access contraceptives easily and without feeling uncomfortable or stigmatized.

It is important to involve parents and other key figures in SRH education. The traditional family role of preparing young people for marriage and informing them about SRH issues needs to change now that an increased number of young males and females have more autonomous lives, go to school, and have premarital sex. For instance, teachers, religious leaders, and health and social workers could promote the healthy sexual and reproductive development of young people by providing comprehensive SRH education or counseling. Additionally, the increased use of the internet on smart phones by young people could contribute to improve their knowledge of SRH, but only when they are taught how and where to find reliable information.

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Chapter 5

Evaluation of a Sexual and Reproductive Health Education Programme: Students' Knowledge, Attitude and Behaviour in Bolgatanga Municipality, Northern Ghana

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ABSTRACT

Evaluation research concerning the impact of sexual and reproductive health (SRH) education in sub-Saharan Africa is scarce. The aim of this study was to obtain more insight into the knowledge, attitudes and behavioural intentions of students concerning SRH in Bolgatanga municipality in northern Ghana, and to study the effects of an SRH programme for this group. This quasi-experimental study used a pre-post-intervention design, with an SRH programme as intervention. A questionnaire was filled in by 312 students before, and by 272 students after the SRH programme. The results showed that before the programme, students answered half of the knowledge questions correctly, they thought positively about deciding for themselves whether to have a relationship and whether to have sex, and their intentions regarding the use of condoms, being tested for STDs and the ABC strategy were positive. The evaluation of an SRH programme showed that this intervention led to a small but significant increase in the students' knowledge. It was also found that the attitude of the students aged 18-20 significantly improved, while the attitude of younger students remained the same. Finally, it was found that female students aged 18-20 were more positive towards changing their behaviour after following the SRH programme, while that of male students remained the same. It can be concluded that the impact of the SRH programme in general was positive. Significant effects were found for gender and age. Recommendations are offered regarding the implementation of SRH programmes considering the students' age differences and limited knowledge. Further research should focus on gender and non-motivational factors to use condoms and be tested for STIs.

INTRODUCTION

In Ghana, 37% of girls and 22% of boys aged 15-19 years have ever been sexually active, with a median age at first sexual intercourse of 18 years for girls and 20 years for boys [1]. Sexually active Ghanaian youths do not use contraceptives consistently: only 25% of girls and less than 40% of boys (15-19 years) reported condom use at last sexual intercourse. This puts them at risk for sexually transmitted diseases (STIs), including HIV/AIDS, and unintended pregnancies [2].

The national HIV prevalence is relatively low in Ghana compared to other sub-Saharan African countries: in 2013, it was 1.3% among adults and 0.4% among youths aged 15-24 (a decline from 1.7% in 2011) [3,4]. Ghana is still considered a high-risk country, however, because at least 14% of men and 2% of women engage in multiple sexual partnerships, knowledge of HIV/AIDS and condom use is relatively low, and neighboring countries have high levels of HIV/AIDS [5]. HIV in Ghana is mostly transmitted through unprotected heterosexual contact, and it is estimated that 90% of new infections occur among people aged 15-39 [6]. Further, STIs and STI symptoms were self-reported in 2008 by females (26%) and males (8%) aged 15–24 years [7]. In 2008, 13% of girls (15-19 years) were pregnant or had children [2]. STIs and unintended pregnancies have adverse consequences for the youths' health, and can also cause stigmatization, school dropout and forced marriages [7-9].

The Ghanaian government responded to the onset of HIV/AIDS by introducing prevention programmes, such as media campaigns promoting the ABC strategy (Abstain, Be faithful or use a Condom) [10]. Nowadays, schools and private organizations in Ghana run programmes to educate youths in various SRH issues. These programmes contribute to the improvement of the youths' knowledge, attitudes and behaviour regarding SRH to varying extents [11-15]. Previous studies examined Ghanaian youths' attitude and behaviour regarding SRH [1,2,16]. However, evaluation research concerning the impact of SRH education in sub-Saharan Africa, and in Ghana in particular, is scarce [12,13,15].

The Youth Harvest Foundation Ghana (YHFG) runs an SRH programme for students at schools in Bolgatanga municipality in northern Ghana. The aim of the present study was to obtain more insight into the knowledge, attitudes and behavioural intentions of students concerning SRH in the specific context of Bolgatanga municipality, and to study the effects of an SRH programme on this group.

METHOD

Design

This quasi-experimental study was carried out with independent pre- and post-intervention measurements. For the first research aim, the pre-intervention measurements were used cross-sectionally; for the second, the scores of independent experimental groups at pre- and post-intervention measurement were used.

Although under Dutch and Ghanaian law ethical approval was not needed for this study [17,18], Ghana Health Service, Ghana Education Service in the Upper East Region, and the Navrongo Health Research Center (NHRC) were officially informed and consulted. The research proposal was also discussed with and approved by the YHFG (organization in Bolgatanga providing SRH education to youths).

Setting

Bolgatanga municipality (132,000 inhabitants) is the capital of the Upper East Region in northern Ghana, which has more than one million inhabitants, 24% of whom are aged 10-24 years. This region, together with the Upper West and Northern Region, is one of the three poorest regions in Ghana. They are mainly rural, the main source of income is farming, and school attendance and literacy rates are lower than elsewhere in Ghana [19]. In the Upper East Region, 48% of women and 47% of men aged 15-24 years are literate. It was also reported that only 28% of children of secondary school age (>11) attend secondary education or higher, exact ages were not indicated [20].

In Bolgatanga municipality, most people are members of the ethnic group Frafra, a subgroup of the Mole-Dagbani. Information about religious backgrounds in the municipality is only available from 2000; Traditionalism (practised by 53% of the population), Christianity (36%) and Islam (9%). It is however notable that in the Upper East Region Christianity has increased from 28% in 2000 to 42% in 2012, Traditionalism had decreased from 46% in 2000 to 28% in 2012 and Islam increased from 23% in 2000 to 27% in 2012 [19,20]. A comparable development is expected in Bolgatanga municipality.

The municipality has 52 junior high schools (10,100 students), five senior high schools (approximately 4,200 students) and two vocational schools (approximately 100 students) [21,22]. Students at the junior high and vocational schools are mainly locals from Bolgatanga municipality. The majority of the students at the senior high schools come from various municipalities and regions; and live on campus during term time,

The students' knowledge and practices concerning SRH are relatively lower in Bolgatanga municipality than the national average, and they are less familiar with family planning methods [23].

Sample

Junior high, senior high and vocational schools where YHFG taught their SRH programme during data collection were included. The sample comprised first-year students at three junior high and three senior high schools, and first- and second-year students at two vocational schools in Bolgatanga municipality.

SRH Programme

The SRH programme has been provided in Bolgatanga municipality since 2007 at junior high, senior high and vocational schools. The programme's main goal is 'promoting the SRH and rights of adolescents and make a positive contribution to their healthy development into adulthood, particularly by providing accurate information to young people, supporting their advocacy activities for their rights and access to youth-friendly services' [24].

Ghanaian employees of YHFG and foreign volunteers developed the programme and the corresponding manual. The programme consists of 16 lessons given in English (see Table 1). The lessons take 45-60 minutes and are preferably given every week at the same time to classes of 25-50 students. In each lesson a specific topic is elaborated by providing explanations, definitions and examples. Drawings and pictures are used to explain body parts and genitalia, and a memory cards game is used for the HIV/AIDS lessons. At the end of each lesson there is a discussion based on questions posed by the educators. Students can ask questions at any time. Different contraceptive methods are explained during the family planning lessons, and male condoms are demonstrated by checking the expiry date, opening the package and rolling the condom onto a wooden 'penis'. The lessons are given by Ghanaian employees/volunteers or by foreign volunteers. Most have a teaching background or experience in social work.

Although the SRH programme is taught at schools, to attend it young people must pay 1.50 Ghanaian cedis (= 0.30 euro) to join the YHFG club. Membership entitles them to go to the SRH lessons and to use the YHFG youth centre facilities (e.g. free access to computers and counselling support by a social worker).

Measures

A questionnaire was developed to measure students' knowledge, attitudes and behavioural intentions concerning SRH. Personal questions (age, religion, ethnic group, sexual experience, familiarity with SRH education) were followed by 27 knowledge statements to be responded to with 'true', 'false' or 'I don't know'. The knowledge statements had an internal consistency of a=82. Next, two attitude statements on decision-making about relationships and sex (a=.62) and one attitude statement on FGM, and four statements concerning behavioural intentions (a=.67) could be answered on a 4-point scale (do not agree at all, do not agree, agree, totally agree). All statements (see Table 2) were based on the goals of the SRH programme.

Data collection

The questionnaires were distributed before the start of the programme (312 students) and after the end of the programme (272 students). Students from the junior high and vocational schools completed the pre-intervention questionnaire in October 2012 and the post- questionnaire in June 2013 (i.e. within two months after completion of the SRH programme). Students from the three senior high schools completed the pre-intervention questionnaire in January, February and March 2012, and the post-questionnaire in October and December 2012, and May 2013, respectively.

Table 1: SRH programme

Lesson	Topic	Content
1	Male and female body	Male/female genitals, breasts, personal hygiene.
2	Menstruation	The menstruation cycle, female reproductive organs, 'safe' days, sanitary pads and sex during menstruation.
3	Pregnancy	How to get pregnant, how to prevent pregnancy, teenage pregnancy, pregnancy signs and delivery.
4/5	Family planning	Family planning methods and where to buy them: male/female condom[a], contraceptive pill, withdrawal, intra-uterine device, contraceptive injection, implants, vaginal spermicides, sterilization/vasectomy, morning-after pill.
6/7	HIV/AIDS	How to prevent/get HIV, what is HIV/AIDS, testing for HIV, people with HIV. Playing the 'LOVE.check game'.[b]
8	STDs	What is and how to get hepatitis B, Chlamydia, gonorrhoea, genital herpes, syphilis, genital warts. What are their symptoms, how and where to test.
9	Male circumcision and wet dreams	Male circumcision, wet dreams and myths.
10	Female genital mutilation	FGM, the consequences and Ghanaian law.
11	Abortion	Abortion, safe and unsafe methods, risks, and legal reasons for abortion.
12	Relationships and sex	Relationships, falling in love, when to have sex, rights, and myths.
13	Unwanted sex and abuse	Sexual abuse, boundaries and rights. Where to get help.
14	Sexual rights	Definition of sexual and reproductive rights, the right to choose your own partner, and definition of homosexuality.
15	Quiz	Questions to the students about the lesson content.
16	Feedback	Students can give feedback/ask questions to the educators.

Notes: [a]Male condoms are demonstrated by checking the expiry date, opening the package and rolling the condom onto a wooden penis
[b]Developed by the WEB.foundation

Table 2: Statements with the corresponding SRH Lesson Topics

Knowledge (true, false, I don't know)	Corresponding topic SRH lessons
The best way to wash your genitals (penis/vagina) is with water and soap.	Basics of male and female body
When a woman urinates, her urine comes out of her vagina.	Basics of male and female body
When a woman gives birth, the child comes out of her vagina.	Basics of male and female body
The testicles of a man produce sperm.	Basics of male and female body
The first menstruation of a girl is a sign that she can become pregnant after sexual intercourse with a man.	Menstruation
During the menstruation period of a woman, blood comes out of her vagina for about 3 to 5 days.	Menstruation
When a girl is having her period (she's bleeding) she cannot become pregnant.	Menstruation
Women can use sanitary pads during their menstruation period.	Menstruation
Unsafe or induced abortions cannot cause infertility of a woman.	Abortion
Examples of unsafe abortions are putting herbs, leaves or stones in the womb.	Abortion
In certain circumstances it is legal in Ghana to have an abortion in a hospital or health clinic.	Abortion
You can get condoms at pharmacies, supermarkets and family planning clinics.	Family planning
You can get HIV by using the same toilet as an HIV infected person.	HIV/AIDS
A condom can never expire.	Family planning
When a person is HIV infected, you can always notice it from the outside.	HIV/AIDS
Having sex with a condom protects you for sexual transmitted diseases (STDs).	Family planning/STDs
Circumcision of a woman (Female Genital Mutilation) is allowed by law.	Female circumcision
A circumcised woman can have serious difficulties with urinating and giving birth.	Female circumcision
For men it is necessary to have his penis circumcised.	Male circumcision and wet dreams
Boys can have 'wet dreams' in the night, when semen comes out of the penis unexpectedly.	Male circumcision and wet dreams
All people in Ghana have the right to use contraceptive methods.	Sexual rights
A woman cannot become pregnant when the man does not ejaculate in the womb (withdrawal)	Pregnancy
When a woman is pregnant, it is not good for the foetus to have sex.	Pregnancy
The right time to have a sexual relationship is when all your friends also have it.	Relationships and sex
In a boyfriend/girlfriend relationship you need to have sexual intercourse.	Relationships and sex/Sexual rights
Not everybody has the right to choose his/her own marriage partner.	Sexual rights
A woman cannot refuse sex to her husband.	Sexual rights

Attitudes (do not agree at all, do not agree, agree, totally agree)	
Deciding for yourself to have a relationship and sex: - I think that I should decide for myself whether I want to have a boyfriend or girlfriend. - I think that I should decide for myself whether I want to have sex or not.	Relationships and sex Sexual rights
Practice of FGM: - I think Female Genital Mutilation (circumcision of women) should not be practiced again	Female circumcision
Behavioural intention (do not agree at all, do not agree, agree, totally agree)	
- I think that I will always use a condom when I have sex before marriage - I think that I will always use a condom when I have different sex partners - I think I will use the ABC strategy in my relationships (Abstain, or Be faithful, if not use Condom). - I think that I will test myself for sexual transmitted diseases (STDs) if I had unsafe sex.	Family planning, HIV/AIDS and STDs

Data analysis

Data from the questionnaires were processed and analysed in SPSS 20.0. Statistical significance was established at an alpha level of 0.05. Descriptive statistics were used to present the students' mean scores on knowledge, attitudes and behavioural intentions before the intervention. We conducted analyses of variance (ANOVAs) to explore differences between subgroups. Based on the literature, gender, age, sexual experience and religion were initially chosen as independent variables [6,10,13], as was previous SRH education. We did not include sexual experience or religious groups with the other variables in the ANOVAs, as too few students reported them. ANOVAs were therefore done with the variables gender, age and previous SRH education. For the variable age, three age groups were composed: 12-14, 15-17 and 18-20 years. Two students aged 10 and five students aged 21 or above were excluded. Separate ANOVAs were performed for the three religions (Traditionalism, Islam and Christianity) and for sexual experience. Post-hoc comparisons were done using the Tukey test.

The students' mean scores on knowledge, attitudes and behavioural intentions in the pre- and post-intervention measurements were then compared. ANOVAs were used with the variables pre- or post-intervention measurement, gender and age group (12-14, 15-17, 18-20). Since the pre- and post-intervention measurement could only be paired for 28 respondents, the measurement was included as a between-subjects factor. Main effects were tested only for the variable pre- or post-intervention measurement, because main effects are not relevant for the mean of the scores on pre- and post-measurement for gender and age. Interaction effects were tested for all three variables. Sexual experience was not included with the other variables because of the small size of the subgroups, and because in the pre-measurement no significant differences were found between students who were sexually experienced and those who were not

RESULTS

Demographics

The pre-intervention questionnaire was completed by 110 male students (35%) with a mean age of 15.9 years (range 10-19 years), 187 female students (60%) with a mean age of 16.7 years (range 10-23 years) and 15 students (5%) who did not provide gender information. Sample (n=312) characteristics are summarized in table 3.

Table 3: Background variables

Students (n=312)	Number (%)
Sex	
Male students	110 (35%)
Female students	187 (60%)
Missing values	15 (5%)
Mean age (age range)	
Total	*16.4 (10–23 years)*
Male students	15.9 (10–19 years)
12-14 years	30 (28%)
15-17 years	53 (49%)
18-20 years	26 (24%)
Female students	16.7 (10–23 years)
12-14 years	32 (18%)
15-17 years	80 (45%)
18-20 years	66 (37%)
Religion	
Christianity	231 (74%)
Islam	56 (18%)
Traditionalism	15 (5%)
Missing values	10 (3%)
Ethnicity	
Frafra	144 (46%)
Kusasi	18 (6%)
Kassena	9 (3%)
Bissa	9 (3%)
Mole-Dagbani	5 (2%)
Other ethnic group*	42 (14%)
Missing values	85 (27%)
School level	
Junior high school	*183 (59%)*
Male students	77 (25%)
Female students	91 (29%)
Senior high school	*89 (29%)*
Male students	33 (11%)
Female students	56(18%)
Vocational education (all females)	*40 (13%)*
Previous SRH education	
Yes	*89 (29%)*
No	*219 (70%)*
Missing values	4 (1%)

Students (n=312)	Number (%)
Ever been sexually active	
Yes	*59 (19%)*
Male students	26 (8%)
Female students	32 (10%)
No	*249 (80%)*
Male students	82 (26%)
Female students	155 (50%)

*30 other ethnic groups were mentioned

PRE-INTERVENTION MEASUREMENT

Knowledge

The students answered on average 13.76 of the 27 (51%) knowledge questions correctly. Knowledge differed significantly between gender groups ($F(1, 271) = 6.22$, $p<.013$): female students gave more correct answers than male students (see table 4). Significant differences were also found between the age groups ($F(2, 271) = 8.73$, $p<.000$): students aged 18-20 gave more correct answers than students aged 15-17 and students aged 12-14. Students aged 15-17 also gave more correct answers than students aged 12-14 (see Table 4). There were no significant main effects for the other factors (previous SRH education, sexual experience and religion).

Two significant interaction effects were found for knowledge. There was an interaction between gender and previous SRH education ($F(1, 271) = 8.01$, $p=.005$): female students who had already received SRH education gave more correct answers (16.39) compared to male students who had already received SRH education (11.64), and compared to female students (12.59) and male students (12.90) who had not already received SRH education. Secondly, a significant interaction effect was found between age and previous SRH education ($F(2, 271) = 4.23$, $p=.015$): students aged 15-17 (16.43) and 18-20 (16.28) who had already received SRH education provided more correct answers than their peers aged 15-17 (12.17) and 18-20 (14.83) who had not received such SRH education.

Attitudes

On average, students agreed with the first two attitude statements, namely that they should decide for themselves whether they want to have a relationship (3.06) and want to have sex (3.03). Significant differences were found between the three age groups ($F(2, 268) = 3.96$, $p=.02$): students aged 15-17 and 18-20 more often agreed with these statements than students aged 12-14 (see table 4). There also was a significant difference between religious groups ($F(2, 295) = 3.28$, $p=.039$): Christian students agreed more with these statements compared to Traditionalist students (see Table 4).

No significant differences for gender, other SRH education attended and sexual experience were found.

On average, students agreed with the third attitude statement, namely that female genital mutilation (FGM) should no longer be practiced. A significant interaction effect was found between gender and age group ($F(2, 269) = 3.98$, $p=.02$). Female students aged 12-14 agreed significantly less (2.79) with this statement compared to female students aged 15-17 (3.02) and 18-20 (2.77); no differences between age groups were found among the male students. There also was a significant interaction effect between gender, age and previous SRH education ($F(2, 269) = 3.18$, $p=.043$); this, however, was not the case in post-hoc comparisons, possibly because three of the subgroups had few participants (≤5). No significant differences for sexual experience and previous SRH education were found.

Behavioural intentions

Students on average agreed that they would always use a condom if they had multiple sex partners (3.07) and would be tested for STIs if they had had unsafe sex (3.03). Students moderately agreed that they would always use a condom if they had sex before marriage (2.76), and that they would use the ABC strategy (Abstain, Be Faithful or use a Condom) in their relationships (2.92). There was a significant difference between the age groups ($F(2, 254) = 4.68$, $p<.01$): students aged 15-17 and 18-20 agreed more than students aged 12-14 with all four of the abovementioned behavioural intention statements (see Table 4). No significant interaction effects were found. There were no significant differences for gender, sexual experience or previous SRH education.

Effect of the intervention

The post-intervention questionnaire was completed by 272 students. A chi-square test indicated no significant differences in gender, age and religion between these respondents and those who completed the pre-intervention questionnaire. Significantly more students reported, however, ever being sexually active in the post-intervention questionnaire (27%) compared to the pre-intervention questionnaire (19%) ($X^2(1, N = 576) = 4.42$, $p = .036$). The post-intervention questionnaire asked students to state how many SRH lessons they had attended. Although 52 answered 'none' and 88 students did not give an answer, all 272 students were included in the analyses in accordance with the 'intention to treat' principle. Because students who were present and who received a questionnaire should have participated in the programme.

A main effect was found for the difference between pre- and post-intervention scores concerning knowledge: students gave significantly more correct knowledge answers (14.64; 54%) in the post-intervention questionnaire compared to the pre-

intervention questionnaire (13.47; 50%) (F(1, 491) = 5.65, p=.018). This effect is small (η_p^2 = .011). No interaction effects were found for gender and age.

For the attitude statements about having a relationship and having sex, no main effect was found for intervention. A significant interaction effect was found between intervention and age group (F(2, 485) = 4.24, p=.015). This effect is small (η_p^2 = .017). Post-hoc analyses showed a significant increase only for students aged 18-20 between the pre- and the post-intervention measurement (see Table 4). For the attitude towards FGM, no main effect was found for intervention, but there was a significant interaction effect of intervention and age group (F(2, 488) = 3.46, p=.032). This effect is small (η_p^2 = .014). Post-hoc analysis showed, however, no significant differences.

The mean scores on the four behavioural intentions statements showed no main effect for intervention, but a significant interaction effect between intervention and age group (F(2, 459) = 3.48, p=.032) was found. This effect is small (η_p^2 = .015). Post-hoc analysis showed a significant difference for students aged 18-20 between the pre- (12.10) and the post-intervention measurement (13.46), indicating more positive intentions after the programme. The significant interaction effect between the variables pre- or post-intervention measurement, age group and gender (F(2, 459) = 4.31, p=.014) showed that the increase in scores occurred only in the female students aged 18-20 between pre- (6.09) and post-measurement (7.02). This effect is small (η_p^2 =.018).

As mentioned, not all students stated in the post-intervention questionnaire that they had attended the SRH programme. Therefore, separate analyses were performed with all students who had stated that they had attended (‘analysis per protocol’; n=132). These analyses also showed a significant difference only for the knowledge questions between the pre-intervention (13.76) and the post-intervention measurement (14.95) (F(1, 440) = 5.34, p<.021, η_p^2 = .12), and not for attitude or behavioural intentions.

Table 4: Mean Scores in the Pre-intervention Questionnaire (N=312) and the Effect of the Intervention (pre N=312; post N=272)

	Knowledge *(27 questions; mean score of correct answers)*	Attitudes *(1=do not agree at all; 4=totally agree)*		Behavioural intentions *(1=do not agree at all; 4=totally agree)*
		Two statements: deciding to have a relationship and deciding to have sex.	*One statement: FGM should not be practiced again.*	*Four statements: condom use, ABC strategy and STD testing.*
Total	13.76[a]	6.10	2.92	11.82
Gender				
Male	12.27[a]	6.03	3.01	12.00
Female	14.49[b]	6.17	2.64	11.76
Age				
12-14	10.29[a]	5.11[a]	2.40	10.10[a]
15-17	14.30[b]	6.41[b]	3.11	12.30[b]
18-20	15.55[c]	6.29[b]	2.97	12.63[b]
Religion				
Christian	14.16	6.21[a]	3.00	12.04
Muslim	13.13	5.98	2.82	11.76
Traditional	11.93	5.07[b]	2.47	10.33
All students				
Pre-measurement	13.47[a]	6.10	2.92	11.82
Post-measurement	14.64[b]	6.33	2.97	12.23
Students 18-20 years				
Pre-measurement	15.49	6.09[a]	2.90	12.10[a]
Post-measurement	17.08	7.02[b]	3.29	13.46[b]

*Means that do not share the same superscript differ, p<0.05

DISCUSSION

This study focused on the knowledge, attitudes and behavioural intentions of students concerning SRH in Bolgatanga municipality, and the effects of an SRH programme for this group.

Knowledge, attitudes and behavioural intentions before the SRH programme

Students answered on average half of the knowledge questions correctly before the SRH programme. This concurs with other research that has shown that Ghanaian adolescents' specific knowledge about SRH is inadequate, despite their awareness of the existence of HIV, pregnancy and contraceptives [16]. Although knowledge is not sufficient to effect behaviour change, it is often seen as a necessary condition [15].

The students thought positively about deciding for themselves whether to have a relationship and whether to have sex. This is promising in the light of findings that there is some peer pressure among youths to be involved in a relationship and to be sexually

active within relationships [8,25]. Students' negative attitude towards FGM is also promising. According to several sources, FGM is harmful and unwanted but is an on-going cultural practice in the research area [26]. The students' negative attitude towards it might help to decrease its prevalence.

Previous research showed that condom use is low among Ghanaian youths, and the majority reported barriers to being tested for STIs [2,16]. It is therefore encouraging that students' behavioural intentions regarding condom use and being tested for STIs are positive. Positive behavioural intentions could lead to positive changes in actual behaviour. This depends on the opportunities students have 'to decide at will to perform or not perform' their behaviour and on various non-motivational factors, such as the availability and affordability of condoms and STI testing and their skills in using condoms [27, p.182]. More research on such non-motivational, facilitating factors to use condoms and be tested for STIs is required.

The students were mostly positive regarding the behavioural intention to use the ABC strategy. This could be a result of the government's promotion of the ABC strategy to prevent HIV/AIDS [8]. However, the effectiveness of the strategy has received a great deal of criticism over the years, in northern Ghana and worldwide [6]. Abstaining from sex or using condoms correctly might help to prevent the spread of STIs, but pregnancies cannot be prevented through faithfulness to one's partner, and faithfulness protects against STIs only if both partners are faithful.

That older students (≥15 years) had more knowledge and more positive attitudes and behavioural intentions than younger students (≤14 years) might be a result of their being more sexually experienced [28] and having higher levels of self-efficacy and exposure to life events. In addition, there is evidence that the stages of sexual development in youths influence the impact of programmes [15]. Furthermore, the SRH programme appears to have a greater influence on the attitudes and behavioural intentions of the older students (18-20 years), which contradicts previous findings [15]. It concurs, however, with previous research among the same population: students attending senior high and vocational schools more often agreed that the SRH programme helped them to make the right choices for the future regarding SRH, compared to average younger junior high school students [29].

The pre-intervention questionnaire revealed gender differences for knowledge, but not for attitudes and behavioural intentions, and not for the impact of the intervention. This contradicts other research [12].

Effects of the intervention

The results indicate that the intervention led to a small increase in the students' knowledge, an improved attitude among students aged 18-20 and improved behavioural intentions among female students aged 18-20. Effect changes in knowledge and attitude seem to be relatively easy to achieve, but effect changes in intentions and behaviour are more challenging [13]. The limited effect of the programme could be

explained by the fact that not all students attended all lessons, that educators experienced barriers during the implementation of the SRH programme evaluated in the current study [29], and that foreign volunteers who might not understand the culture-related implications of students' questions educate the SRH programme. Nevertheless, the effects were significant. The programme contributed to the students' knowledge and had impact on their attitude and behavioural intentions. The limitedness of the impact might show that behavioural changes – in this case with regards to safe sex – are possible but difficult to accomplish. It might take time and repeated efforts.

Strengths and Limitations

Strength of this study is that it was carried out in sub-Saharan Africa, where evaluation research on the effects of SRH interventions is important, but scarce [12]. In addition, the sample was large and included students from different schools and educational levels. The number of Traditionalist and Muslim participants, however, was relatively small compared to the number of Christian students.

The study also had limitations. The design was quasi-experimental and non-randomized. Only 28 students could be paired between the pre- and post-measurement, because background variables were missing or incorrect. Therefore, pre-/post-intervention comparisons were conducted on the basis of an independent groups design, which has relatively less power than repeated-measures designs [30]. Initially, control groups at junior high and senior high schools were selected, but due to practical reasons their post-intervention questionnaires were not conducted at the same time compared to the experimental group, and were therefore not included in the analysis.

In the sample, there might have been a selection bias; only students who were interested in the SRH programme and did have 1.50 Ghanaian cedis (= 0.30 euro) to join the YHFG club were included. In addition, different educators delivered the programme to the students. Whether the individual educators had influenced the students' scores, however, was not analysed. Finally, there were more sexually experienced students in the post-measurement (27%) compared to the pre-measurement (19%), which might have influenced the students' scores in the post-measurement. In the pre-measurement, however, no significant differences were found between students who were sexually experienced and those who were not. Moreover, the sexual experience in the pre-measurement could be underreported due to the cultural taboo on premarital sex [29].

Conclusion

In this study on student's knowledge, attitudes and behaviour towards SRH, the knowledge of the students was limited; however, they had a positive attitude and positive intentions towards SRH behaviour, such as condom use. This was found for both male and female students. It was also found that they had a negative attitude

towards FGM. The evaluation of the SRH programme showed that this intervention led to a small but significant increase in the students' knowledge, that the attitude of the students aged 18-20 significantly improved and that the attitude of younger students remained the same. Female students aged 18-20 were more positive towards changing their behaviour after following the SRH programme, whereas that of male students remained the same. All in all, the impact of the SRH programme was positive. Significant effects were found for gender and age.

Implications

In the development and delivery of SRH programmes, it should be considered that students' limited knowledge of SRH has increased after attending the SRH programme, and that the programme contributed to an increase of the students' attitudes and the behavioural intentions of females. Changes in knowledge, attitude and behaviour regarding SRH are possible but difficult to accomplish, this might take time and repeated efforts. Age should be taken into account as an important factor in order to tailor SRH programmes to younger and older students. This could be accomplished by varying the level of complexity, and using different participatory learning techniques. Further, more research is required on especially non-motivational factors such as the availability and affordability of condoms and STI testing, and their skills in using condoms. Lastly, the findings of the current study concerning gender contradict other research to some extent. Further research might provide more insight into gender differences in response to SRH interventions.

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Chapter 6

Sexual and Reproductive Health Education: Opinions of Students and Educators in Bolgatanga Municipality, Northern Ghana

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ABSTRACT

There have been few assessments of sexual and reproductive health (SRH) education programmes in sub-Saharan Africa from the students' and educators' perspectives. This study examined students' opinions on an SRH programme in northern Ghana and explored the facilitators and barriers for educators' regarding the implementation of the programme. The sample comprised 147 students and 3 educators. Questionnaires were used to collect data from students, and semi-structured interviews were conducted with educators. According to the students, the SRH programme was both important and interesting. Their expectations were moderately well met. They agreed that the main objectives of the programme and most of the objectives regarding the 'family planning' sessions had been achieved. Significant differences were found for school type, age and religion, but not for gender. For the educators, important facilitators were a clear manual, the presence of foreign volunteers working as educators, the increased influence of new media, students' eagerness to learn, and the feeling that the SRH programme really benefited students' lives. Important barriers were traditional and cultural influences, lack of funding and poor scheduling of the programme within the schools. The paper concludes by offering recommendations regarding the implementation of future SRH programmes in Ghana.

Keywords: sexual and reproductive health; sex education; educators; Ghana; perspectives

INTRODUCTION

Sexual and reproductive health (SRH) programmes are carried out in order to influence young people's knowledge, attitudes and behaviour concerning sex, and to protect them from the adverse consequences of unprotected sex. SRH education for young people in Ghana is of great relevance, because knowledge about SRH concerns is often lacking and some young people do not use contraceptive methods such as condoms [1,2]. In Ghana, the median age at first sex is 18 years for girls/women and 20 years for boys/men, and 37% of girls/women and 22% of boys/men aged 15–19 years have ever had sex [3]. In 2008, condom use among sexually active Ghanaian young people aged 15–19 years was reported for only 25% of women and for less than 40% of men [4]. This potentially puts them at risk of sexually transmitted infections (STIs), including HIV, and unintended pregnancies. In the two years before this study was conducted, the adult national HIV prevalence in Ghana was 1.5%. For the 15–24 year age group, the figure was slightly higher, namely 1.7% [5]. HIV is mostly transmitted by unprotected heterosexual sex [6]. In a survey, STIs or STI symptoms were self-reported by 1 in 8 young women and 1 in 13 men aged 15–24 years [7]. In 2008, 13% of young women aged 15–19 years were pregnant or had children [4]. Of the unmarried young women aged 15–19 years who gave birth in 2004, 52% did not wish to have a child [8]. STIs and unintended pregnancies may have a range of serious personal and social consequences, such as stigmatisation, school dropout and forced marriages [7,9].

Several organisations in Ghana run programmes to educate young people about SRH. The evaluation of SRH programmes in Ghana and other parts of sub-Saharan Africa is, however, limited [10-12]. Studies on the effectiveness of SRH programmes outside Ghana have shown that well-designed and implemented programmes can influence young people's knowledge, attitudes and behaviour concerning SRH to varying extents [11,13,14]. In order to optimise the effects of SRH programmes, such programmes should be tailored to the social and cultural context [12,13], young people should be involved in the evaluation of programmes [15] and insight should be gained into their needs and interests [16]. Gaining the involvement of young people is 'a first step in empowering young people to make decisions that support sexual wellbeing' [16, p.402). Students' lack of interest may affect the way they listen to a teacher, and students' motivation is a necessary aspect of learning [17]. Research is however required on the implementation of SRH programmes, because barriers to the delivery of the programme could affect the outcomes [10,11]. Such research may usefully seek to determine why the outcomes of specific interventions were or were not achieved, and what might contribute to the development of even more tailored and effective SRH programmes.

This study concerns the opinions of students and educators of an SRH programme implemented by the Youth Harvest Foundation Ghana (YHFG) at various schools in Bolgatanga municipality in northern Ghana. Young people in this municipality suffer

from health and social problems caused by their unsafe sexual behaviour [9]. The two research questions to be explored in this study are: (1) what are the students' opinions about the SRH programme after participation, and (2) what are the barriers and facilitators concerning the implementation of the programme, as perceived by the programme's educators?

METHOD

Design

Both quantitative and qualitative research methods were used to analyse students' and educators' opinions regarding the SRH programme implemented. A quantitative method using questionnaires was used to analyse the opinions of students after they had attended the programme. A qualitative method, using semi-structured interviews, was used to explore perceived barriers and facilitators concerning the SRH programme among the educators. Under Dutch and Ghanaian law, ethical approval was not needed for this study [18,19]. However, the research proposal was discussed with the director of Ghana Health Service in the Upper East Region, and the Navrongo Health Research Centre (NHRC) was officially informed about the work. Thus, important members of the NHRC Institutional Review Board were informed and consulted. The research proposal was also discussed with and approved by the YHFG, and the Ghana Education Service in the Upper East Region and various local authorities (e.g. chiefs and religious leaders) were informed.

Setting

Ghana has almost 25 million inhabitants, spread across 10 administrative regions. Bolgatanga municipality (132,000 inhabitants) is the capital of the Upper East Region in northern Ghana, which has more than 1 million inhabitants, and where 24% of the population is aged between 10 and 24 years [5]. The Upper East Region is one of the poorest regions in Ghana, together with the Upper West Region and the Northern Region. These three northern regions are mainly rural, and the main ethnic group living within them is the Mole-Dagbani. School attendance and literacy rates are lower than elsewhere in Ghana, the majority of the housing conditions are poor and the main source of income is farming [20,21]. Although the northern regions have specific characteristics, Ghanaian students in general attend the same educational system, they share broadly similar social and cultural norms and the majority faces similar challenges such as poverty and increasing modernisation [21].

In Bolgatanga municipality, most people belong to the Frafra ethnic group, a subgroup of the Mole-Dagbani people. Information about religious background is available only from 2000. The three main religions are Traditionalism (practised by 53%

of the population), Christianity (36%) and Islam (9%). It is notable, however, that between 2000 and 2012 the percentage of Christians in the Upper East Region increased from 28% to 42%, Traditionalists decreased from 46% to 28% and Muslims increased from 23% to 27% [20,22]. A comparable change might reasonably be expected in Bolgatanga municipality.

In Bolgatanga municipality, there are 52 junior high schools (10,100 students), 5 senior high schools (approximately 4200 students) and 2 vocational schools (approximately 100 students) [23, 24]. Students attending junior high and vocational schools are mainly local young people from the municipality. The majority of the students attending senior high schools come from various municipalities and regions; they live on campus and go home only during school holidays.

SRH Programme

First-year students at junior high, senior high and vocational schools in Bolgatanga municipality have been participating in the SRH programme since 2007. The main goal of the programme is:

> To promote the sexual and reproductive health and rights of adolescents and make a positive contribution to their healthy development into adulthood, particularly by providing accurate information to young people, supporting their advocacy activities for their rights and access to youth-friendly services [25].

Ghanaian employees of YHFG together with foreign volunteers used their insights and their personal experiences to develop the programme manual.

The programme consists of 16 lessons in English about such topics as the male and female body, STIs, pregnancy and contraceptive methods (see Table 1). The lessons are given preferably every week at the same time to classes of 25–50 students and take 45–60 minutes each. In every lesson, a specific topic is focused on through definitions, explanations and examples. Drawings and pictures are used to explain different body parts and the genitalia, and a memory cards game is used for the HIV-related lessons. At the end of each lesson there is a discussion based on questions posed by the educators. Students can ask questions at any time. During the family planning lessons, different contraceptive methods are explained, and special attention is given to the use of male condoms, which are demonstrated by checking the expiry date, opening the package and rolling the condom onto a wooden 'penis'. The lessons are provided either by Ghanaian employees or volunteers, or by foreign volunteers all working with YHFG. Most have a teaching background or have studied different aspects of social work.

Although the SRH programme is taught at schools, to attend it young people must pay 1.50 Ghanaian cedis (= 0.30€) to join the YHFG club. Membership entitles them to go to the SRH lessons and to use the YHFG youth centre facilities (e.g. free access to computers and counselling support if necessary by a social worker).

Population and sample

The population in this study comprised students attending junior high, senior high and vocational schools in Bolgatanga municipality where YHFG carries out the SRH programme (research question 1), and the educators providing the SRH programme (research question 2). All students who had completed the SRH programme either within a two-month period preceding March 2012 or before August 2013 and were present at the time of data collection were asked to complete the questionnaire anonymously.

Regarding the educators, there is one permanent Ghanaian employee involved in providing the SRH programme, temporarily supported by two to four Ghanaian and foreign volunteers who stay for a minimum of two months. The following issues were taken into account when selecting the educators using purposive sampling: nationality, gender, experience of the programme and educational background. Finally, one Ghanaian man, one Ghanaian woman and one Dutch woman were selected. The Ghanaian woman was a trained social worker with several years' SRH training experience at the time of data collection. The Ghanaian man had a background in public health, had taught the SRH lessons for some years and was an employee of YHFG. Both had been involved in the original development of the programme and were paid members of staff. The Dutch woman had a scientific background, had volunteered for 2 months at YHFG and had taught 24 SRH lessons.

Measures

A questionnaire was carefully developed by the authors, based on the programme's objectives (see Table 2), to analyse students' opinions about the SRH programme in general and the family planning lessons in particular. The latter lessons were selected because they explain contraceptive methods, which is very relevant to the goals of the SRH programme. The questionnaire sought data on gender, age, religion, ethnic group, familiarity with SRH education and the number of lessons attended. Students' opinions were measured by:

- Two questions on how interesting they found the programme in general, and the family planning lessons in particular (*not interesting at all, a little bit interesting, interesting, very interesting, no opinion*).
- Two questions on how important they found the programme in general, and the family planning lessons in particular (*not important, a little bit important, important, very important, no opinion*).
- Two questions on how the programme in general, and the family planning lessons in particular, met their expectations (*not what I expected, a little bit what I expected, what I expected, totally what I expected, no opinion*).

Table 1: SRH programme

Lesson	Topic	Content
1	Male and female body	Male/female genitals, breasts, personal hygiene.
2	Menstruation	The menstruation cycle, female reproductive organs, 'safe' days, sanitary pads and sex during menstruation.
3	Pregnancy	How to get pregnant, how to prevent pregnancy, teenage pregnancy, pregnancy signs and delivery.
4/5	Family planning	Family planning methods and where to buy them: male/female condom[a], contraceptive pill, withdrawal, intra-uterine device, contraceptive injection, implants, vaginal spermicides, sterilization/vasectomy, morning after pill.
6/7	HIV/AIDS	How to prevent/get HIV/AIDS, what is HIV/AIDS testing for HIV, people with HIV. Playing the 'LOVE.check game'.[b]
8	STDs	What is and how to get hepatitis B, Chlamydia, gonorrhoea, genital herpes, syphilis, genital warts. What are their symptoms, how and where to test.
9	Male circumcision and wet dreams	Male circumcision, wet dreams and myths.
10	Female genital mutilation	FGM, the consequences and Ghanaian law.
11	Abortion	Abortion, safe and unsafe methods, risks and legal reasons for abortion.
12	Relationships and sex	Relationships, falling in love, when to have sex, rights and myths.
13	Unwanted sex and abuse	Sexual abuse, boundaries and rights. Where to get help.
14	Sexual rights	Definition of sexual and reproductive rights, the right to choose your own partner and definition of homosexuality.
15	Quiz	Questions to the students about the lesson content.
16	Feedback	Students can give feedback/ask questions to the educators.

Notes: [a]Male condoms are demonstrated by checking the expiry date, opening the package and rolling the condom onto a wooden 'penis'. [b]Developed by the WEB.foundation.

The questionnaire also included a variety of opinion statements: five on the extent to which the general goals of the programme were achieved (see Table 4), and eight on the achievement of the family planning goals (see Table 5). Statements were rated on a five-point Likert scale (*strongly agree; agree; no opinion; disagree; strongly disagree*). Finally, students were asked if there was a topic that they would like to see added to the programme, and whether they had any additional comments.

In addition to the general mean scores, associations with the variables school type, age, gender and religion were also analysed. School type was selected because students at junior high, senior high and vocational schools differ in educational level, and age was chosen because older students are likely to be more sexually active compared with younger students [2]. Both variables may potentially contribute to different opinions about the programme. Gender was selected because research has shown that young women and men may have different conceptions of SRH. Religion was chosen because it is known that Christian, Islamic and Traditional religions influence conceptions of SRH [9,11].

The aim of the semi-structured interviews with the SRH educators was to explore barriers and facilitators concerning the implementation of the programme. The topic list was based on previous evaluations of educational innovations [26]. The topics included educators' perceptions of SRH education; their opinions about the goals and objectives of the programme, the content of the programme, the number of lessons and the background of the educators; and positive and negative factors (facilitators and barriers) affecting the programme.

Data collection

The questionnaires were distributed among the students at the selected schools by the second author in March 2012 and by a Ghanaian employee of YHFG in June and August 2013. The students were asked to gather in a classroom during their break, or after the usual classes had finished, and fill in the questionnaire. The three semi-structured interviews were conducted with the selected educators by the second author in March 2012. The interviews (two in English and one in Dutch) were digitally recorded and transcribed verbatim.

Table 2: Objectives of and statements about the SRH programme and the family planning lessons

General objectives[a]	Objectives of the family planning lessons[a]
1. To provide accurate and comprehensive information on SRH to students and apprenticeship trainees to enable them understand the changes that take place in their bodies and make the right choices for the future	1. Students know how to use a condom properly and they feel secure and comfortable about it, so they will use it and be safe (avoid diseases)
2. To support the Youth Harvest Clubs to undertake advocacy activities to highlight the SRH needs and rights of young people in northern Ghana	2. Confidence and well considered situations, relationships and chosen futures
3. To support the Youth Harvest Clubs to advocate for access to youth friendly health care services	3. Help them to plan their futures and give them knowledge about different family planning methods
4. To provide comprehensive HIV/AIDS education to younger children aged 10-14 years who are not yet sexually active in a way suitable for their age group e.g. using the love check games	4. Students know where they can go for family planning/what to get there
	5. Students know about the costs and responsibilities related to having a baby

Note: [a]Objectives were copied from the YHFG website and the SRH programme manual.

Data analysis

Data from the questionnaires were processed using SPSS 20.0. Descriptive statistics were used to present the students' mean scores on how important and how interesting they found the programme in general, and the family planning lessons in particular. The same statistical measures were used to determine whether the programme in general and the family planning lessons in particular met students' expectations. 'No opinion' responses were excluded from the analysis. A one-way repeated-measures analysis of variance (ANOVA) was conducted for the mean scores on importance, interest and expectations to establish whether students rated these three scores differently (e.g.

very important, but not so interesting). *Post hoc* comparisons were conducted using the Tukey's test. Descriptive statistics were used to calculate students' mean scores on the 13 statements about the programme in general, and the family planning lessons in particular. ANOVAs were used to analyse significant differences between the three school types, between the three religions and between the four age groups (12–14 years, 15–17 years, 18–20 years and 21 years and above). Independent *t*-tests were conducted to test for significant differences by gender.

The transcripts of the semi-structured interviews with the educators were analysed by the first and second authors, with a focus on five themes: programme objectives, programme content, the way the programme was provided, and facilitators for and barriers to teaching the programme. Relevant fragments from the transcripts were coded and placed into one or more of the five themes, which were then divided into two categories: facilitators and the barriers. In a member check, the respondents received the findings section of the article and agreed with the content. For privacy reasons, participants were anonymised.

RESULTS

Students' opinions

The sample comprised 165 students, of whom 18 were excluded (17 had not attended any lessons, and 1 had not provided this information). The final sample therefore comprised 147 students in all. Their demographic characteristics are summarised in Table 3.

There were 41 students from two classes at one junior high school (mean age 15.3), 65 from two senior high schools (mean age 18.1) and 41 from two vocational schools (mean age 19.9). There were 59 males and 88 females, aged 12–27 years. From the vocational school only female students could be included, because no male students attended this school during data collection, probably because the main programme (secretarial education) is preferred by young women. Nearly all the students had a Frafra background (74%). The majority (74%) of the students were Christian; 18% were Muslim and 8% were Traditionalist. Muslim students may have been under-represented because they were attending Islamic junior high schools that were not hosting the SRH programme, or Islamic senior high schools outside the municipality. Furthermore, students who are raised as Traditionalists may not self-identify as such, as they call themselves Christians. Finally, Traditionalists mostly live in rural areas with less access to education.

Table 3: Students' demographic characteristics (N = 147)

	Number (%)
Gender	
Male	59 (40
Female	88 (60)
Age	
Males mean (range, SD)	17.8 (12-26 years, 2.96)
Females mean (range, SD)	17.8 (12-27 years, 3.05)
School type	
Junior High (mean age 15.3)	*41 (28)*
Males	20 (49)
Females	21 (51)
Senior High (mean age 18.1)	*65 (44)*
Males	39 (60)
Females	26 (40)
Vocational (all females) (mean age 19.9)	*41 (28)*
Previous received SRH education	
Yes	57 (39)
No	71 (48)
I don't know	16 (11)
Missing data	3 (2)
Number of lessons attended	
1-5 lessons	65 (44)
6-10 lessons	37 (25)
11-16 lessons	45 (31)
Family planning lessons attended	
Yes	109 (74)
No	29 (20)
I don't know	2 (1)
Missing data	7 (5)
Ethnicity	
Frafra	109 (74)
Kassena	13 (9)
Kusasi	5 (3)
Hausa	4 (3)
Other	13 (9)
Missing data	3 (2)
Religion	
Christian	109 (74)
Traditional	11 (8)
Islam	27 (18)

Students' opinions suggested that the programme was important and interesting, with mean scores greater than 3 (possible scoring range 1–4) (see Table 4). The students' expectations were in the range between 'a little bit what I expected' and 'what I expected', with a mean score of less than 3. A significant difference was found between these three means ($F(2, 129) = 48.22$, $p = .00$): students found the programme more important than interesting, and more interesting than being in conformity with their expectations. Students agreed with statements 1–5 about the programme in general, with mean scores greater than 3.

There were significant differences between the different school types for statement 3 ($F(2, 1.92) = 4.30$, $p = .015$): senior high school students agreed more than junior high school students with the statement that the SRH lessons help them to understand the physical changes that take place during adolescence. Statement 4 was also significantly different between school types ($F(2, 4.95) = 9.75$, $p = .000$): senior high and vocational school students agreed more with the statement that the SRH lessons help them to make the right choices for the future concerning their SRH compared with junior high school students. Despite a significant ANOVA test for statement 5 ($F(2, 1.52) = 3.33$, $p = .039$), *post hoc* comparisons did not indicate significant differences although senior high school students tended to be more positive that the YHFG supports access to youth-friendly healthcare services compared with the other participants.

With respect to religion, a significant difference was found for interest in the programme in general ($F(2, 4.81) = 5.94$, $p = 0.003$): Christian and Muslim students scored higher on interest compared with the Traditionalist students.

For the questions and the statements concerning the family planning lessons, the sample comprised 109 students (38 of the 147 students were excluded: 29 had not attended the family planning lessons, 2 did not know if they had attended them and 7 had not provided this information). The students' opinion was that the lessons were important and interesting, with mean scores greater than 3 (see Table 5). The students' expectations were in the range between 'a little bit what I expected' and 'what I expected', with a mean score of less than 3. A significant difference was found between how important and interesting the lessons were, and if their expectations were met ($F(2, 97) = 18.90$, $p = .001$); students found the lessons more important than interesting, and they found the lessons more important than the lessons met their expectations. The mean scores on expectations differed significantly by school type ($F(2, 3.14) = 3.80$, $p = .026$): the expectations of senior high school students were less met compared with junior high school students. Students agreed with statements 8 and 9 that the family planning lessons gave them knowledge about different family planning methods, and helped them to plan their future regarding SRH, with mean scores greater than 3. Most students agreed with the other statements (6, 7, 10, 11, 12, 13), with mean scores above 2.63 (see Table 5).

There was a significant difference between age groups for statement 10 ($F(3, 8.08) = 6.43$, $p < .001$): students aged 18–20 years agreed more (3.27) than students aged 12–14 (2.00) and 15–17 (2.44) years that they knew where to buy family planning methods. Also for statement 11, there was a significant difference between age groups ($F(3, 5.08) = 2.96$, $p < .036$): students aged 18–20 years (3.27) agreed more than students aged 15–17 years (2.40) that they knew where to go for family planning counselling. Statement 12 was also significant for age groups ($F(3, 6.93) = 3.94$, $p < .011$): students aged 18–20 years (2.86) and 21 years and above (3.08) agreed more than students aged 15–17 years (1.84) that they had sufficient knowledge about the costs related to having a baby.

There was a significant difference between school type for statement 10 ($F(2, 4.74) = 3.45$, $p = .035$): senior high school students agreed more than junior high school students that they knew where to buy family planning methods. This also applied to statement 12 ($F(2, 7.17) = 4.01$, $p = .021$): senior high school students agreed more than junior high school students that they had sufficient knowledge about the costs related to having a baby. For religion, significant differences were found only on statement 11 ($F(2, 6.82) = 4.03$, $p = .021$): Christian and Muslim students agreed more than Traditionalist students that they knew where to go for counselling on family planning. For gender, no significant differences were found on any of the items.

The question whether there was a topic or subject that students would like to see added to the SRH programme was answered affirmatively by 53 (36%) of the participants. The topics/subjects suggested were family planning (20% of the 36% of the participants who answered affirmatively), SRH (18%), menstruation (8%), adolescence (6%), HIV/AIDS (3%) and abortion (3%). Remarkably, 12 of the 13 respondents who mentioned family planning as an additional topic had actually attended the family planning lessons. Fifteen topics related to SRH were mentioned once, such as homosexuality, faithfulness and indecent dressing. Other topics not related to SRH were mentioned by five respondents (8%), and four answers were unclear (6%). The question regarding whether the students had additional comments about the lessons was answered affirmatively by 93 (63%) of the respondents. These additional comments were very diverse and included topics such as condoms, SRH and family planning, relevance of lessons, individual learning aspects and teaching method.

Table 4: Mean scores: SRH programme in general

	Mean	JHS	SHS	VOC	Christians	Muslims	Traditionalists
SRH programme in general							
Importance (1 = not important, 4 = very important)	3.56[a]	3.65	3.46	3.62	3.61	3.42	3.30
Interesting (1 = not interesting, 4 = very interesting)	3.24[b]	3.25	2.28	3.18	3.31[b]	3.33[b]	2.30[a]
Expectations (1 = not what I expected, 4 = totally what I expected)	2.75[c]	2.77	2.60	2.97	2.77	2.76	2.60
Specific statements (1 = strongly disagree, 4 = strongly agree)							
1. The SRH lessons do promote the SRH of adolescents	3.24	3.12	3.32	3.20	3.25	3.19	3.18
2. The SRH lessons do promote the sexual and reproductive rights of adolescents.	3.26	3.20	3.35	3.15	3.30	3.12	3.18
3. The SRH lessons help me to understand the changes that take place in my body and in the bodies of other students.	3.36	3.09[a]	3.52[b]	3.32[ab]	3.38	3.32	3.30
4. The SRH lessons help me to make the right choices for the future dealing with my SRH.	3.31	2.88[a]	3.56[b]	3.28[b]	3.32	3.31	3.27
5. The Youth Harvest Clubs support the access to youth-friendly health care services.	3.30	3.13*	3.47*	3.20*	3.32	3.21	3.36

Notes: JHS = junior high school; SHS = senior high school; VOC = vocational school. Means that do not share the same superscript differ, p <.0 5. Means with an asterisk (*) are significant in the ANOVA, not in the post hoc analysis. Students' scores before attending the SRH programme were not measured; it is unknown whether the programme increased the mean scores.

Table 5: Mean scores: family planning lessons

	Mean	JHS	SHS	VOC	Christians	Muslims	Traditionalists
Family planning lessons							
- Importance (1 = not important, 4 = very important)	3.44[a]	3.53	3.26	3.39	3.56	3.14	3.14
- Interesting (1 = not interesting, 4 = very interesting)	3.05[b]	3.19	2.81	3.12	3.19[b]	2.91[b]	1.86[a]
- Expectations (1 = not what I expected, 4 = totally what I expected)	2.86[b]	3.17[a]	2.58[b]	2.94[ab]	3.00[a]	2.60[ab]	2.14[b]
Statements about family planning lessons (1 = strongly disagree, 4 = strongly agree)							
6. I know how to correctly use a condom.	2.73	2.84	2.91	2.39	2.66	2.82	3.29
7. I feel secure and comfortable to use a condom.	2.90	3.19	2.81	2.73	2.89	2.73	3.57
8. The lessons 4 and 5 with the topic Family Planning gave me knowledge about different family planning methods.	3.30	3.21	3.44	3.21	3.29	3.24	3.71
9. The lessons 4 and 5 with the topic Family Planning help me to plan my future regarding my sexual and reproductive health.	3.12	2.76	3.26	3.27	3.10	3.19	3.14
10. I know where to buy family planning methods (for example condoms).	2.79	2.31[a]	3.02[b]	2.91[ab]	2.71	3.19	2.43
11. I know places where I can go for counselling on family planning.	2.88	2.43	3.00	3.12	2.93[b]	3.14[b]	1.57[a]
12. I have sufficient knowledge about the costs involved when having a baby.	2.63	2.07[a]	2.98[b]	2.67[ab]	2.56	2.90	2.57
13. I have sufficient knowledge about the responsibilities involved when having a baby.	2.94	2.81	3.02	2.97	2.92	3.00	3.00

Notes: JHS = junior high school; SHS = senior high school; VOC = vocational school. Means that do not share the same superscript differ, $p<0.05$. Students' scores before the SRH programme were not measures; it is unknown wheter the programme increased the mean scores.

Educators' opinions

Various facilitating factors emerged from the interviews with the educators. In general, they felt that the lessons informed students adequately about SRH and created awareness of topics related to SRH. A major facilitating factor was the fact that SRH issues were discussed seriously and were removed from the sphere of taboo.

In addition, all three educators mentioned the positive attitude of young people as a motivating factor: they asked questions, they were curious, eager to learn and open to discuss on different topics. Interaction with the students and within the student groups was therefore perceived by educators as positive and motivating. It was said that the young people felt more free to talk about SRH-related issues in a group rather than individually. The feeling that the SRH programme really benefited students' lives was

also mentioned as a motivating factor. One of the Ghanaian educators said, 'You feel you make an impact on young people's lives'.

Another facilitating factor mentioned by one of the Ghanaian educators was the declining influence of culture and tradition, both of which are affected by the growth of new media. Young people now have access to television, the Internet and mobile phones, through which they learn to stand up for their rights and to ask questions. Mobile phones and the Internet help the educators to reach young people individually, whereas in the past parents could be barriers to communicating with them adequately. According to the educators, a further facilitating factor was the fact that the manual is clear about how to deliver the programme, and that a game was used to explain about HIV, unprotected sex and condoms. Both the manual and the game offered them support in providing the programme. Finally, a motivating factor was the presence of foreign volunteers as educators. One of the Ghanaian educators said that students feel comfortable talking to foreigners, because they would not see them again.

The educators also mentioned several barriers. Organisational factors could be a barrier to achieving all the goals of the SRH programme. Although the number of lessons (16) was sufficient, the execution of the programme was a challenge, because the schools did not always allot enough time for these lessons. In addition, schools did not schedule the SRH lessons far enough in advance, which could hinder the proper execution of the programme. The educators also felt that school-related activities often took priority over the content of the SRH programme.

Another barrier mentioned was the position of young people within local tradition and culture. One of the Ghanaian educators said that young people are not supposed to stand up to the elderly and speak for themselves. In addition, in the research area, women traditionally do not have many rights. This inequality conflicts with the educators' tasks to teach both young women and young men about their sexual rights, and to empower them to advocate for these rights. It was also said that parts of society and some of the elderly believe that educating young people about SRH will 'spoil them'.

Moreover, the educators saw it as a barrier that local churches preached that young people should not be educated about sex, and that some school authorities and parents do not want young people to be taught about SRH either. The need for SRH education was questioned, and it is argued by teachers and parents that the programme encourages young people to have sex. This is a particular hindrance to the attainment of one of the general objectives of the programme, namely to educate young students (aged 10–14 years) at junior high schools about SRH. The educators stressed how important it was to provide this group with SRH education, knowledge about changes during adolescence, and the knowledge to protect them from the adverse consequences of unprotected sex. Furthermore, it was difficult to officially include the topic of homosexuality in the programme, because in Ghana such behaviour is a criminal offence and thus punishable by law.

Another barrier was that access to youth-friendly health services (general objective 3) can be complicated because of cultural and religious (i.e. Christian and Islamic) influences. Some health workers have a negative attitude towards young people reporting with SRH-related issues, and young people do not feel comfortable asking SRH-related questions or buying condoms at health services. According to the educators, the first objective of the family planning lessons (teaching young people how to use condoms, and making them feel secure and comfortable in using them) was only partly achieved. Although condom use is explained and discussed during family planning lessons, and the use of condoms is demonstrated, the educators noticed that students still felt uncomfortable when the topic was raised. It was also said that although various family planning methods were explained and discussed, there was insufficient time to discuss the various advantages and disadvantages of each. Also, demonstration tools such as male and female condoms are in limited supply due to a lack of funding.

One further barrier was that in order to take the SRH lessons, young people must attend school and become YHFG club members. Young people who do not go to school or do not join the YHFG club cannot attend the SRH programme. The SRH programme is not compulsory, so even when students pay the membership fee it is up to them whether they will attend any of the SRH lessons. In addition, there are not enough employees to teach the programme locally due to a lack of funding. Therefore, foreign volunteers are needed to support the organisation by providing the lessons for some weeks or months. All volunteers have an affinity with SRH, and some are experienced in teaching SRH. However, most volunteers cannot complete all the lessons with the same classes. They take over classes from other educators or leave before the programme has finished. New educators first have to win the students' trust. Besides, foreign volunteers are often not familiar with aspects of Ghanaian culture and tradition, and cannot understand certain connotations.

DISCUSSION AND CONCLUSION

This study focused on students' opinions after attending an SRH programme, and on the barriers and facilitators experienced by SRH educators concerning the implementation of the programme.

In this study, students from different backgrounds and of different ages found the SRH programme in general, and the family planning lessons in particular, important and interesting and the expectations of most students were met. Students also agreed on average that the general objectives of the SRH lessons were reached. These positive opinions may be an indication that the programme was tailored to the students' needs, which is recommended [27]. Positive opinions are also promising as an indication of the students' empowerment to make decisions that support their sexual wellbeing, and they can be seen as an indication of the programmes' effectiveness [16]. Students who

were interested in the SRH programme and found it important, were thus motivated. Their motivation may have positively influenced their learning outcomes [17].

The majority of the topics the students said were missing from the programme were actually covered by it. For example, 12 respondents who had attended the family planning lessons also suggested the topic family planning. In their additional comments, students said that they would like to learn more about SRH (the overarching subject of the whole course) and specifically about condoms and protected sex. It is possible that students may have expected to encounter other or more detailed information, which may be difficult to incorporate into the available number of lessons. The educators mentioned that although contraceptive methods were talked about, there was not enough time to explain in detail all the advantages and disadvantages of the various methods. Further research could address more fully the remarks of students about missing topics.

Most students agreed with the statements on condoms. This is encouraging, considering that a lot has been published about young people in Ghana and other sub-Saharan African countries lacking knowledge of condoms and finding it difficult to buy them and to use them consistently [2,11]. Different studies reported that teachers and health educators are reluctant to discuss, or even avoid discussing, condom use with young people [11,14]. However, this was not confirmed in this study. The first author participated in some of the SRH lessons in both 2009 and 2010 and saw that neither Ghanaian nor foreign educators were reluctant to explain condom use.

Differences by school type and age were found. After attending the SRH programme, senior high school students compared with junior high school students agreed more to understanding the physical changes during adolescence. Senior high and vocational school students agreed more than junior high school students to making the right choices for the future regarding SRH. Furthermore, senior high school students compared with junior high school students, and older students (≥ 18 years) compared with younger students (≤ 17 years), agreed to having better knowledge about where to buy family planning methods and about the costs related to having a baby. Also older students (≥ 18 years) agreed more than the younger students that they knew where to go for family planning counselling. These findings may in part be related to the age of students: older young people (at senior high and vocational schools) are likely to be more sexually active, have a higher level of self-efficacy and have a higher level of exposure to life events than younger counterparts (at junior high schools) [2,3]. Concerning the costs and responsibilities of a baby, older young people and senior high school students may have more child care experiences, for example within their families or from friends with children. However, it should be noted that this study investigated self-perceived benefits concerning knowledge. This may differ from young people's actual knowledge.

Gender differences were not found in this study. It is notable that, on the one hand, young women in the research area are disadvantaged by traditional culture and religion [9]. On the other hand, there appeared to be no differences between male and female

students regarding their opinions about the SRH programme and self-perceived benefits. Further research should aim to clarify this.

Educators experienced various facilitators and barriers when giving the SRH lessons. The results concerning the barriers concur with those of other research. For example, in Uganda and South Africa, it has also been found that school-based SRH programmes are implemented in a context of limited time, resource constraints, shortage of staff and disorganisation in schools [10,11,28]. To address these problems, it is recommended that SRH programmes should be made a more central part of school curricula [10]. In Ghana, some SRH related topics are already part of the school curriculum. However, these topics are not always taught to the students due to lack of teachers and limited time. In addition, this study shows that although it has been recommended, not all SRH educators were properly trained [12]. This could be why one of the students made the additional comment that teachers should teach in such a way that students understand it better.

The strength of this study is that both students and educators in a remote northern Ghanaian region expressed their opinions on the value of and need for an SRH programme. Asking students for their opinions and needs regarding an SRH programme, and for their self-perceived benefits concerning knowledge, attitude and behaviour related to the programme's objectives, has rarely been done before. In general, it is recommended to include the perspectives and needs of the young people themselves when developing and testing educational interventions [15,16,27,28]. Literature on the evaluation of SRH programmes by educators however remains limited [10,11].

The study has some limitations. Firstly, students' knowledge, attitude and behaviour before and after attending the SRH programme were not measured and could therefore not be compared against their self-perceived benefits and their opinions. Secondly, additional interviews with students could have offered more insight into their views, and could have clarified some of the results. Fluency in English differs among Ghanaian students, and some may have found it difficult to fully understand some of the questions in the questionnaire. Apart from that, the sample included only school-going students who were also YHFG club members. Young people who did not go to school or were not YHFG club members were not included. Furthermore, in general, Traditionalist and Muslim students were under-represented, and the sample from the vocational school students comprised only female students and was smaller compared with the junior high and senior high school samples. Apart from that, only three educators were interviewed due to practical reasons. Interviewing a larger number of educators - which was not possible here – might provide even more information about the barriers and facilitators of implementing the programme.

SRH programme developers and educators should take into account the eagerness of students to learn about SRH, and their interest in SRH and contraceptive methods. Also, students appeared willing to give their opinions regarding SRH programmes, which could contribute to more tailored and effective forms of SRH education in the future.

Other important factors are the influence of religious background, and difference in self-perceived benefits between school types. However, the findings that differences in school type are related to differences in age and educational level need to be taken into account, and this might be further explored in new research. SRH programme developers and managers should also recognise the importance of the motivating factors for SRH educators to keep teaching the programme, and to do their best to eliminate the barriers, particularly those that hinder the organisation of SRH programmes in schools.

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Chapter 7

General Discussion and Conclusion

The overall aim of this thesis was to gain a better understanding of the conceptions, attitudes, motives and practices regarding premarital sex and risky sexual behaviour among the youth in Bolgatanga municipality in Ghana in order to improve sexual and reproductive health (SRH) education programmes. Although various studies have been done on the knowledge, attitudes and behaviour with regard to SRH among young people in Sub-Saharan Africa in general and in Ghana in particular, there is still a need for more knowledge in specific social and cultural contexts [1-6].

This final chapter summarises and discusses the main results of this thesis, while also addressing methodological considerations. The practical implications of the results are discussed, and recommendations for further research are given.

SUMMARY OF THE MAIN RESULTS

In **Chapter 2**, the results of our interviews with young people and key adult figures in Bolgatanga municipality showed that the dominant ideology there, based on the traditional culture but also on the Christian and Islamic religions, prescribes sexual abstinence until marriage. Some of the young respondents who were highly religious, as well as some of the more traditional ones, reported wanting to abstain from premarital sex. Female respondents, in particular, stressed the value of remaining a virgin until marriage. In practice, however, despite the dominant ideology that places such importance on virginity, it is common among another segment of the youth there to be sexually active and have one or more boyfriends or girlfriends. In this behaviour they are apparently guided by a different, newer ideology, related to modern developments, which gives the message that dating and having "just a boyfriend-girlfriend" relationship is acceptable. Some of the young females also reported having transactional sex (for money or goods). Young people who have premarital sex, one or more sexual relationships or transactional sex could be at risk for sexual transmitted infections (STIs) and unintended pregnancies.

Chapter 3 and **Chapter 4** discussed the interviews with young people and key adult figures in Bolgatanga municipality that focused on risky sexual behaviour before marriage. The results of those interviews showed that most of the sexually active young people did not use contraceptives consistently and/or had multiple sexual partners. **Chapter 3** concerned the conceptions and attitudes of young people toward multiple sexual partnerships. Their conceptions in that regard and their motivations for having multiple sex partners were found to be related to various cultural traditions such as the practice of polygyny (whereby man can have multiple wives) and the importance of fertility. In addition to the traditional dominance of males ("I want to be a big person"), we also found a culture of infidelity and distrust in relationships ("There is no trust in this world"). Modern developments such as increased school attendance, the use of new media and the growing importance of peer groups appeared to be accompanied by

a new ideology that stresses individuality and the increasing importance of the money-based economy ("One man cannot solve your problems"). For young males, important motives for having multiple sexual partnerships were sexual prowess, prestige, desire and pleasure, while for young females, financial independence was important. Combined with a limited knowledge of SRH and risky sexual behaviour, these various external influencing factors and the personal motives of young people prevent them from making well-advised and healthy choices concerning their sexual and reproductive wellbeing.

Chapter 4 presented the conceptions and attitudes of the young people interviewed towards protected and unprotected premarital sex. The results indicated that many of them lack a comprehensive knowledge of STIs, contraceptives and pregnancy, while some of them had a negative attitude towards contraceptives. Not all parents, schools and organisations provide young people with a comprehensive education about SRH, and some even discourage such education because they believe it would encourage young people to have sex before marriage. In addition, young people also learn about SRH issues from each other, sharing stories and personal experiences with their peers. The information they exchange is not always correct, however, and sometimes it merely reflects their personal preferences. The inequality of power in the sexual relationships of young people – related to the traditional value system that gives men, but not women, "sexual freedom, both in and outside marriage" – is another determining factor for unprotected sex.

Chapter 5 reported on an evaluative study of an SRH education programme for junior high, senior high and vocational school students in Bolgatanga municipality that was carried out by the Youth Harvest Foundation Ghana (YHFG). The aim of this study was to gain more insight into the level of knowledge, the attitudes and the behavioural intentions of students with regard to SRH in the specific context of Bolgatanga municipality, and to study the effects of an SRH programme in this group. The results showed that before the programme, the students answered only half of the knowledge questions correctly, had a positive attitude about deciding for themselves whether to have a relationship and whether to have sex, and had positive behavioural intentions with regard to the use of condoms, to being tested for sexual transmitted diseases (STDs), and to the Ghanaian government's ABC (Abstain, Be faithful or use a Condom) strategy. The SRH education programme led to a relatively small increase in the students' knowledge. It also led to a more positive (improved) attitude among male and female students aged 18-20 with regard to two statements about engaging in a relationship and having sex, and to improved behavioural intentions among female students aged 18-20 with respect to four statements about condom use, the ABC strategy and STD testing.

Chapter 6 discussed the students' opinions about the SRH programme evaluated in Chapter 5 and explored both the facilitators and the barriers mentioned by the educators in terms of the implementation of that programme. The students evaluated

the SRH programme as having been important and interesting, and gave a moderate score in terms of their expectations had having been met. They agreed that the main objectives of the programme, and most of the objectives regarding the family planning lessons, had been reached. There were significant differences in the scores for school types, age group and religions, but not for gender. For the educators, important facilitators were a) having a clear manual, b) the use of foreign volunteers as educators, c) the increased influence of new media (for example young people can be reached individually by phone, and can learn about their rights through new media), d) students' eagerness to learn, and e) the idea that the SRH programme really affects students' lives. Important barriers that were mentioned by the educators were a) the hindering effect of traditional, religious and cultural influences, b) the lack of funding, and c) the poor scheduling of the programme within the schools.

DISCUSSION

The sexual development of young people in Bolgatanga municipality takes place in a complex and rapidly changing context, with various contradictory factors influencing their premarital sexual behaviour. It is striking that most young people directly linked premarital sexual behaviour to risky sex (e.g. sex without contraceptives and/or with multiple partners), and that most young people lacked sufficient knowledge about safe sex. This situation could have adverse consequences for their health and their future. In the longer term, if the number of (young) adults with STIs including HIV/AIDS and the number of teenage pregnancies increases, it could also affect society as a whole. In this section we discuss why young people choose to abstain from premarital sex or not, and why they practice risky sex if they do have sex. This information is important as it can help improve the (effects of) SRH education programmes in Bolgatanga municipality and help protect the youth there from the harmful consequences of risky sexual behaviour.

To relate the various findings reported in the previous chapters, we use the sexual script theory developed by Simon and Gagnon (1986) [7]. Scripts can be seen as a metaphor for conceptualising sexual behaviour. Sexual behaviour, like the meanings attached to it, is related to "the metaphorical scripts individuals have learned and incorporated as a function of their involvement in the social group" [8, p.7]. Our discussion follows three analytical levels of sexual scripts: cultural, interpersonal and intrapsychic. These three levels of scripts for the premarital and risky sexual behaviour of young people are not only dynamically related [8], but they can contain contradictory elements as well.

Cultural scenarios are "experienced as instructions, norms, guides and ways of thinking", which are transferred by institutions like the family, the community and religious groups [9, p.46]. The notion that one should abstain from premarital sex – an

idea that is promoted by the traditional culture and by Christianity and Islam – can be seen as an important, even dominant, cultural scenario. Moreover, the Ghanaian government has been promoting abstinence as part of its ABC strategy for years. In Bolgatanga municipality, the norm of abstinence before marriage relates to girls in particular; for females, the preservation of one's virginity until marriage (and being fertile in marriage) is highly valued. For most adults, talking with young people about (premarital) sex is still a cultural taboo, and SRH education is not appreciated. Various parents and religious leaders we spoke to confirmed that this is the result of an important cultural message transmitted to the youth, namely that they should not have sex before marriage; it is feared that SRH education could encourage young people to experiment with sex.

The huge developments that have taken place over the past decades in Bolgatanga municipality have influenced the cultural scenario of abstinence from premarital sex, and that, in turn, is affecting the local youth and their sexual development. Compared to the past, more young people spend time outside of their community and away from the authority of their family. They leave their community to attend school, to work, to visit friends or to go to the market, for instance, and this results in more opportunities for encounters – including sexual encounters – with other young people. The traditional system, in which the youth were watched over and prepared for their future (marriage) by their elders and kin, is rapidly losing ground. It was particularly common for girls to stay at home and be prepared for marriage. The fact that the traditional means of social control are becoming weaker and that parents and community elders are losing their grip on the youth and on the community as a whole was also noticed in a district that borders on Bolgatanga municipality [10]. Moreover, new ways of influencing and controlling the youth have also arisen, for example in schools and on the streets, where young people are subject to peer pressure. They are influenced by these newer cultural scripts, which may contain messages urging them to perform certain sexual behaviours or not to perform certain sexual behaviours.

The Christian and Islamic religions, which promote and prescribe their own norms of sexual abstinence before marriage, are also gaining ground in Bolgatanga municipality, and those could be seen as sending yet another cultural message about desired or undesired sexual behaviour. During our data collection periods in Bolgatanga municipality, we observed that the Pentecostal and charismatic churches in particular are growing in popularity among young people in Bolgatanga municipality. According to Ghana Statistical Service, of the 58% of the population that are Christian, 14% belong to a Pentecostal or charismatic church in 2010 – even if their parents are still traditional believers or Catholics [11]. In regard to Islam, a growing number of Islamic children are now attending one of the various Islamic schools that have been established in Bolgatanga municipality in recent years, rather than one of the public or Christian schools. These various different religious institutions are also influencing the youth,

without authority of their parents, although their messages tend to reinforce rather than contradict their parents' message.

Another relevant development in Bolgatanga municipality that could likewise change the traditional cultural scenario of abstinence from premarital sex is the increased availability of electricity in town and in some of the rural communities. More young people now have access to various media sources, the internet and smart phones. Through these media, they have unlimited and unguided access to movies and music videos, as well as to pornographic pictures and videos. As a result they can see that having relationships and sex before marriage is common and even an accepted part of adolescent dating behaviour in other places.

In short, there are young people who are convinced they want to remain virgins, and there are young people who decide to have premarital sex. This range of behaviour could be represented by four interpersonal scripts, constructed as interpretative repertoires in Chapter 2 of this thesis: "Virginity is a treasure", "Just a boyfriend/ girlfriend", "It's all about the money" and "The feeling like doing it". Young people create interpersonal scripts about having or not having premarital sex "by adapting the general guidelines they have learned from their experiences in the culture to the specifics presented in each social encounter" [8, p.8], which are also dynamic and contradictory. In their social encounters with their peers, young people will find out if they share one or more similar interpersonal scripts (e.g. "we want to stay virgin" or "we have sex for money"), or if they differ in their sexual scripts (e.g. if one wants to remain a virgin, and the other one wants to have sex for pleasure and "feels like doing it"). Social interaction requires negotiating about (implicit or explicit) social scripts. According to [8, p.8], "the specifics of each circumstance differ, requiring modification and improvisation of previously adopted scripts". A social encounter can be influenced by things like peer pressure at boarding school, lessons learned at a church meeting or the insecurity of food. When young people with different interpersonal scripts meet and there are alternative outcomes, they have to choose among potential behaviours and decide for themselves how to interpret and handle different cultural scenarios. For example, a highly religious but poor girl could change in a particular encounter from the "virginity is a treasure" script (to secure her future marriage and satisfy the family) to the "it's all about the money" script (to finance her education and enlarge her future prospects). The pressure one feels from one's peers at school or in the community to change one's interpersonal script – for example to have a boyfriend or girlfriend or to have sex for money – contradicts the cultural scenario of premarital sexual abstinence. Wiederman stated "the ability to engage in mental rehearsal is important for choosing among potential behaviours" [8, p.8]. The scripts on intrapsychic level are the specific plans of an individual for carrying out interpersonal scripts in a contradictory context, but also his or her knowledge, attitude, emotions, fantasies and memories [8,9].

The young people in Bolgatanga municipality who stick to the norm of premarital sexual abstinence – and particularly the young females among those – may be

motivated to do so by their religion, their traditional culture, their peer group or their future prospects and ambitions. Either way, they will not engage in love affairs and sexual relationships. Girls are much more apt to keep their virginity until marriage than boys. It is striking that the majority of young people who do have premarital sex are at high risk of facing adverse health and social consequences. This is because they lack a comprehensive knowledge of SRH and because contraceptives are not common and easy for all young people to obtain or to use. The fact that premarital sex is not accepted by the traditional culture and religions but is considered something to be looked down upon leads to young people having sex in secret. Sexual relationships that are hidden or secret cannot be monitored; young people will sometimes pretend to be a virgin for their family to satisfy the cultural norm, but away at school they might have secret and risky sexual relationships, for instance. The deeply rooted cultural scenario of premarital sexual abstinence in Bolgatanga municipality contributes to the lack of knowledge and the irregular use of contraceptives, which means it contributes to the practice of unsafe sex.

For young people to be able to make well-considered choices regarding their sexual behaviour at the intrapsychic level and to acknowledge that they are susceptible to or at risk of adverse consequences when they have unsafe sex, but also for them to be motivated to change their behaviour, they need comprehensive SRH knowledge [9,12]. In Ghana, various strategies are being used to stop and even reverse the spread of HIV/AIDS and other STIs. Those include the ABC strategy, mass-media campaigns on HIV awareness and transmission, campaigns promoting HIV testing and counselling and the integration of some SRH aspects within school subjects [13,14]. In addition, national and international non-governmental organisations (NGOs) offer SRH programmes for the Ghanaian youth. These programmes are offered for students in cooperation with their schools, or offered as peer-education projects outside of schools [15-17]. Despite the various efforts that have been taken so far, some young people in Bolgatanga municipality still lack a comprehensive knowledge of SRH. This could be because not all young people have attended both primary and secondary school in Bolgatanga municipality [11], and thus do not receive any school-related SRH lesson or programme. For those who are still in school, it is still not certain that they will receive SRH-related education as that is not compulsory in the curriculum [18]. Even where SRH lessons are actually given, those are not structural for various reasons, including a lack of class time, a lack of teachers, and the taboo on talking about SRH issues. Nevertheless, it is promising that our findings show that most young people wished to learn more about SRH issues and were positive about the evaluated SRH programme of partner organisation YHFG. Moreover, the SRH programme we evaluated had a positive impact on the students' knowledge and, for some of them, on their attitudes and behavioural intentions.

In addition to increasing their comprehensive knowledge to enable young people to make well-considered choices regarding their sexual behaviour at the intrapsychic level,

we also need to address the social distrust and gender inequality in Bolgatanga municipality. The youth there make their sexual choices in a context of confusing and contradictory messages. The messages they get from traditional culture, from traditional religion, Christianity and/or Islam regarding premarital sexual abstinence contradict those they get from the new media, from the government (e.g. with regard to HIV testing), from their peers and from some adults. Moreover, all of these messages are promoted in a context where men have more power than women, where having sex as a man is related to sexual prowess, and where the level of trust among young people themselves is low.

The level of distrust in Bolgatanga municipality could be seen as an important cultural background that influences risky sexual encounters between young people. In Chapter 3, the metaphor "there is no trust in this world" was used to describe how young males and females distrust each other in sexual relationships in terms of their faithfulness but also in terms of whether or not they have an STI. With regard to condoms, our research showed that wanting to use condoms in a sexual relationship could imply that you had an STI or that you thought your sex partner might have one.

It is not only among the youth in Bolgatanga municipality that social (or interpersonal) trust is low; the same lack of trust was found to hold for Ghana as a whole [19]. The low level of social trust in Ghana is thought to be due not only to historical factors such as the slave trade and colonialism, but also to the structural inequalities between northern and southern Ghana, between rural and urban populations and between men and women, as well as by the social friction between certain ethnic and political groups [19]. The need for an increase in social trust is seen as an important factor for the economic development of Ghana as a country [19]. Governmental programmes and religious institutions could work to increase social trust [19,20]. Such programmes are needed on the government level because merely educating or training young people about trust in connection with sexual relationships will not be enough, considering how deeply rooted the distrust is in the society as a whole.

The prevailing gender inequality in this region can be explained by cultural norms and practices: the patrilineal structure (21), the prestige that is connected to the sexual prowess of (young) men, the sexual freedom that men enjoy both inside and outside of marriage, and the widespread practice of polygyny among Muslims and traditional believers. These norms and practices influence the intrapsychic scripts that young people have with regard to risky, premarital sex. It should be noted that some of the young males interviewed in connection with this thesis complained about the demands their girlfriends placed on them; the young males felt obligated, but also challenged, to fulfil the needs of their girlfriends in order to sustain their relationships.

Gender inequality not only enforces the low level of social trust among the youth, it also threatens the safety of any sex they have, since young males generally have more power than young females. Sexual prowess is a source of prestige among young males: having one or more girlfriends and being experienced sexually are considered to be a

male prerogative. Thus, a young female can be suspicious if she is her boyfriend's only girlfriend, because he might want to act according to the interpersonal script "I want to be a big person" (see Chapter 4) and he is boasting to his friends that he has various girlfriends. There might be, however, no need for the girlfriend to be suspicious if he is only boasting. Moreover, young males are in a position to determine whether or not condoms are used, and most of the young male respondents reported preferring to have sex without a condom.

Another issue relating to gender inequality is that some young females in Bolgatanga municipality obtain money and goods in premarital sexual relationships. This not only makes them more dependent on men, whether younger or older (see Chapter 2: "It's all about the money" and Chapter 3: "One man cannot solve your problems"), but it also makes it even more difficult for them to negotiate safe sex [22]. In southern Ghana, women have also been known to break up relationships that are not materially rewarding [22], but it is possible that the young females who obtain money and goods in one or more sexual relationships include not just the weaker, more easily seducible girls, but also the stronger, more entrepreneurial ones. A study conducted among Islamic girls in Senegal concluded that women are not just passive objects, but rather exercise agency within the male-centred and male-dominated constructions of female heterosexuality [23]. There is a need for further research on this subject in Bolgatanga municipality.

As discussed in Chapter 2 the respondents mostly spoke of love in terms of having sex (making love), falling in love for sex, and falling in love because of money or goods. A study carried out in southern Ghana confirms these findings, reporting that sexual relationships are "first and foremost legitimised through material practices based on ideas of care" [24], while a study conducted in Senegal concluded that for girls involved in a relationship, survival with socio-economic security might be more important than love in the sense of feeling of affection and intimacy [25]. In conversations with the young people and adults who took part in the studies that make up this thesis, we found indications that love in terms of feelings of affection was more often associated with a (future) marriage partner than with casual premarital relationships. More research on the concept of love in relation to intrapsychic sexual scripts of young people and risky premarital sexual behaviour is recommended.

IMPLICATIONS FOR PRACTICE AND RECOMMENDATIONS

The findings of this research and the insights we developed by analysing our research materials have led us to formulate a series of implications for practice and recommendations in order to protect the youth in Bolgatanga from the potentially adverse consequences of risky sexual behaviour. To be more effective, education on SRH needs to have a multi-level approach [26]. We chose an adaption of the ecological

approach to be able to distinguish several levels of intervening actors in the complex social web of various environments that influence risky sexual behaviour among young people in Bolgatanga municipality [27,28]. Using this approach we distinguished the following levels in our practical implications of our findings: individual, interpersonal, organisational, community, society and supranational. It is important to note here that the higher levels influence the lower levels, with supranational being the highest and individual being the lowest [27]. For example, parents (interpersonal level) who feel helpless when it comes to preventing their children from engaging in risky sexual behaviour may feel empowered when this issue is addressed on a higher level, such as by a religious institution (organisational level). The focus is on agents within the various levels who are in a position to exercise some degree of control over the risky sexual behaviour of young people [28]. This section describes six recommendations pertaining to the different levels with an eye to protecting the youth from the potentially harmful consequences of risky sexual behaviour (see Table 1).

The first recommendation is: *Enable young people in Bolgatanga municipality to attend and complete primary and secondary education*. Education is a human right. As UNESCO formulates it: "It promotes individual freedom and empowerment, and yields important development benefits." [29]. It also creates opportunities for young people to learn a profession and become independent. It creates future prospects, ambitions and reasons to live, which the studies of this thesis found to be as reasons to avoid risky sex. While school attendance has increased in Bolgatanga municipality over the past years, some of the youth there is still not going to school or have dropped out because they did not see it as a priority or because of their poverty or having become pregnant (in the case of young females). Together with the schools themselves, the Ghanaian government could promote education as a human right even more than it already does, but also as a way to increase job opportunities for the youth and to prevent them from roaming around and remaining in poverty. This government promotion could be supported by the United Nations, the protector and the promoter of human rights, and UNICEF. The Ghanaian government already supports public schools with school fees, uniforms and school feeding programmes. Yet, in addition to these efforts, we recommend abolishing or at least reorganising the need (for students or their parents to pay) for other school-related items and working on preventing students from dropping out and otherwise being stigmatised due to poverty. In this way communities and parents (community and interpersonal levels) will feel strengthened in their resolve to send their children to school. Moreover, while part of the young people do attend secondary school all the way to the end, some fail their final exams. A programme guiding that group to help them pass their exams and increase their job opportunities is recommended. Young people who fail to complete their education will not have good job prospects, and particularly the girls will be more susceptible to risky sexual behaviour and become potential victims of early marriage [30]. Such a programme

could be developed by the Ghanaian government, by non-governmental organisations and/or by religious institutions.

The second recommendation is: *Increase the level of SRH education and SRH knowledge among the youth in Bolgatanga municipality.* Young people in Bolgatanga municipality should receive more SRH education so they will have sufficient knowledge of SRH to be motivated to practice safe sex. In particular, they should receive more knowledge about the changes one undergoes during puberty, about risky sexual behaviour and its consequences, about contraceptives, and about sexual rights and the right to gender equality, which at present is limited or not correct for most young people. This could involve various parties, including the Ghana Health Service, Ghana Education Service, non-governmental organisations, religious institutions and individual parents. While some of these parties already promote SRH, this could be increased and made more efficient. Moreover, while more and more adults in Ghana are now educated and getting used to modern developments, they need to become more aware of the need for SRH education (e.g. by means of figures on the number of young people who are practising risky premarital sex and its consequences) and about the (positive) effects of SRH education. Parents could be trained in how to talk with their children about SRH issues. This could be done by non-governmental organisations, but also by religious institutions in Bolgatanga municipality, since those institutions receive many people on a weekly basis. They often organise special meetings; for example, within the Catholic Church there are meetings for people about married life and raising children. Such meetings could include providing information to parents and training them to talk about certain topics with their children. The Ghana Health Service or non-governmental organisations could advise religious institutions on this issue. This strategy to contribute to safe sexual practices among the youth will not be easy considering how local Christianity and Islam favour and preach abstinence until marriage. Nevertheless, for Islamic leaders in Kenya, for instance, it proved to be acceptable to provide information on HIV transmission and condom use when addressing married couples or when counselling individuals who might put others at a risk of infection. Their acceptance was justified by the principles of *Ijtihad* (a decision-making process in Islamic law) which holds that one should choose the lesser of two evils, as long as it serves the public interest, for example by preventing harm to others [31]. This experience seems to point to opportunities for other religious institutions as well. Moreover, SRH education consists of much more than just the promotion of condoms. Training programmes could (start to) address how parents can talk with their children about subjects such as the changes that take place during puberty, sexual rights and gender equality.

The third recommendation is: *Enable young people in Bolgatanga municipality to control and decide freely on matters related to their sexuality.* It is important that both young people and adults alike in Bolgatanga municipality are aware of the sexual rights and the right to gender equality. The youth also need to be trained by non-governmental organisations, schools or religious institutions on how to control and

decide freely on matters related to their sexuality and how to make well-considered choices among possible behaviours; how do you make a decision, what things do you consider beforehand, how do you deal with peer pressure and gender inequality,[6] how do you negotiate safe sexual practices and what are your personal boundaries? Young people have a lot to decide about when it comes to their sexuality: whether or not to have premarital sex, whether to have one or multiple boyfriends or girlfriends, whether or not to have sex for money, whether or not to have sex merely for pleasure, whether or not to use contraceptives, and whether or not to receive precautionary STI testing. During our fieldwork in Bolgatanga municipality we observed that some of the local youth was not used to developing arguments and making decisions, and that they lacked sufficient skills to do those things. In their traditional culture, the relations between older and younger people are strictly hierarchical. Children are told what to do by their families, and they are expected to obey their elders as a sign of respect. As discussed above, the messages children receive from different sources in their surroundings are often contradictory and confusing. Adults could support young people in their attempts to decide for themselves. As mentioned before, a growing number of parents are educated, and they also experienced peer pressure first hand when they were in school. Nevertheless, this remains a huge challenge in a cultural and religious context that avoids talking about personal matters such as sexuality, even within the traditional interaction between children and parents. The new media could also provide an opportunity here to address the need for young people to get educated and decide things for themselves.

That brings us to the fourth recommendation, which is: *Make young people in Bolgatanga municipality media-wise with regard to SRH*. The number of young people in Bolgatanga municipality who have access to smart phones, social media and the internet is increasing fast. Those who are media wise are competent to handle social media and the internet correctly and safely [33] and can enjoy the advantages of that access. For those who are not media-wise, however, such access carries a number of risks, exposing the users to potentially harmful consequences. Those risks include phenomena such as “sexting” (sending and receiving sexually explicit text messages, pictures or videos), “grooming” (building an emotional connection with a child to gain his or her trust for the purposes of sexual abuse or exploitation), creating a reliance on unreliable information, and stereotyping and exposure to extreme pornographic images or videos. The Ghanaian government, the traditional leaders and religious institutions could all work on increasing awareness about new media and the opportunities and risks involved in terms of SRH, both in the society at large and within their specific communities. Schools, religious institutions and non-governmental organisations could inform the youth of where they can obtain reliable information about SRH on the internet. Teachers of SRH programmes (but also parents) could reflect with young

[6]SRH programmes should address gender and power to be more effective [32].

people on the (stereotypical or extreme) images or videos they have seen ("the sex you see on television or the internet is usually not the same as sex in real life"), and parents could monitor and guide their children in using new media in relation to SRH. One obvious problem with this strategy is the fact that some parents, in particular those in rural areas, cannot read or write or understand modern media.

The fifth recommendation is: *Make contraceptives easy to obtain, both practically and socially, for young people in Bolgatanga municipality*. To prevent unprotected sex, contraceptives obviously need to be easily available to the youth in Bolgatanga municipality. But young people in this region still feel uncomfortable buying and carrying contraceptives because of the stigma that go along with asking for them (e.g. in pharmacies or supermarkets), or they are not fully aware of where to obtain them. Therefore, since various efforts in the past few years have not reached a substantial number of young people, the Ghanaian government and the local Ghana Health Service, as well as the more than two hundred communities in Bolgatanga municipality still need to work on securing easy access to condoms [13]. Condoms should be made affordable for young people and need to be sold in youth-friendly places such as vending machines [13]. Moreover, those locations should be made known among young people.

The sixth recommendation is: *Increase the level of social trust among the population*. Our research showed distrust to be an obstacle for young people when it came to negotiating condom use but also a motivating factor for them when it came to having multiple sex partners. Social distrust could be addressed in SRH education to increase the level of trust among young people with regard to their sexual relationships. But the mistrust among the youth is also part of a much wider lack of trust in the society as a whole. Together with social institutions, the government could work on this more general and deeply rooted problem [19]. After all, an increase in the educational level within the population as a whole and improvements made in the quality of governmental institutions can also increase the level of social trust in a society [34].

METHODOLOGICAL STRENGTHS AND LIMITATIONS

The researcher carried out most of the interviews in the period from 2010 to 2012 while also preparing and supervising those who conducted the remaining interviews. The fact that she had been familiar with the area and its cultural traditions since 2000 was experienced as a huge advantage in terms of recruiting respondents for the interviews. She was already acquainted with some of the key local figures, and they could easily introduce her to other key local figures and institutions. During her visits there she knew it was important to show interest in the people's lives, to wear appropriate clothing, to bring some simple presents to the chief, and to exercise patience. During the interviews, the various respondents showed their appreciation for the fact that both the researcher and the other Dutch interviewers were aware of

common customs, stayed with Ghanaian host families, spoke some words in the local language and ate traditional food. A disadvantage of the researcher's familiarity with key local figures was that it could also increase the social desirability of the respondents' answers. For that reason, other key figures were also sought and found; the assisting Dutch and Ghanaian interviewers also found their respondents through their host families or their own social network. During her data collection, moreover, the researcher spent her free time in Bolgatanga municipality, living life together with Ghanaians of various backgrounds and ages in order to be able to listen unobtrusively and to determine if what was said in the interviews in fact corresponded with daily life on the streets, at the market, in church, in the mosque, at schools, during sports and in night clubs.

It is seen as a strength that the SRH programme of partner organisation YHFG could be evaluated scientifically – something that is recommended but not commonly done with relatively small SRH programmes in developing countries. The questionnaires with regard to the SRH programme were distributed in 2012 and 2013. The sampling procedure might have been subject to selection bias, however, as only those students at the selected schools who were interested in the SRH programme and who had joined the YHFG club were included. Moreover, the students' knowledge, attitudes and behaviour as measured before and after attending the SRH programme could not be compared against their self-perceived benefits and their opinions because, due to practical reasons, the questionnaires were not filled in by the same students each time. Apart from that, the design of the pre-post-measurement was quasi-experimental and non-randomised. Pre-/post-intervention comparisons were conducted on the basis of an independent groups design, which has relatively less power than a repeated-measures design. Initially, control groups were selected at senior high schools (with both younger and older students), but due to practical reasons their post-intervention questionnaires were not conducted at the same time as the experimental group's, which meant they were not included in the analysis.

Another strength of the studies presented in this thesis is the combination of qualitative and quantitative research methods. Whereas the qualitative methods enabled us to analyse the ideas, motives and preferences of the youth in a remote area of Ghana, the quantitative methods enabled us to evaluate an SRH programme and gain insight into the knowledge, attitudes and behavioural intentions of the population. Additionally, with qualitative research insight was gained into the effects of the programme and into the students' opinions about it..

Table 1: Recommendations and their practical implications at different levels

Recommendations	*1.Young people in Bolgatanga municipality should be able to attend and complete primary and secondary education.*	*2. Increase the level of SRH education and SRH knowledge among the youth in Bolgatanga municipality.*	*3.Young people in Bolgatanga municipality should be able to control and decide freely on matters related to their sexuality.*	*4.Young people in Bolgatanga municipality should be made media-wise with regard to SRH.*	*5. Contraceptives should be made easy to obtain, both practically and socially, for young people in Bolgatanga municipality.*	*6. The level of social trust among the general population in Ghana should increase.*
Practical implications on the interpersonal level	Send children to primary and secondary school, and support them to completion.[1]	Educate and talk to young people about SRH issues.[1]	Support young people to enable them to control and decide freely on matters related to their sexuality.[1]	Monitor and guide young people in using new media with regard to SRH.[1]		
Practical implications on the organisational level	- Promote completion of primary and secondary education.[2,3] - Abolish or reorganise the need (to pay) for school-related items.[3]	- Educate young people on SRH issues.[2,3,8] - Increase awareness about the need for and effects of SRH education.[2,3,8] - Train parents, community members and religious groups to educate young people on SRH issues.[1,2,8]	- Train young people on how to control and decide freely on matters related to their sexuality.[2,3,4] - Train adults on how to support the youth in controlling and deciding freely on matters related to their sexuality.[2,4,8]	Teach the youth to be media-wise with regard to SRH.[2,3,4]	- Increase easy access to contraceptives for the youth.[8] - Promote the use of contraceptives among sexually active young people.[3,4,5]	Increase the level of social trust by developing programmes and policies that foster social and political inclusion.[2,4]
Practical implications on the community level	Promote education for both boys and girls.[5]	Increase awareness in the community about the need for and effects of SRH education.[5]	Create awareness in the community about sexual rights and the right to gender equality.[5]	Create awareness in the community about new media and about the opportunities and risks they involve in terms of SRH.[5]	Increase easy access to contraceptives for the youth.[5]	

Recommendations	*1.Young people in Bolgatanga municipality should be able to attend and complete primary and secondary education.*	*2. Increase the level of SRH education and SRH knowledge among the youth in Bolgatanga municipality.*	*3.Young people in Bolgatanga municipality should be able to control and decide freely on matters related to their sexuality.*	*4.Young people in Bolgatanga municipality should be made media-wise with regard to SRH.*	*5. Contraceptives should be made easy to obtain, both practically and socially, for young people in Bolgatanga municipality.*	*6. The level of social trust among the general population in Ghana should increase.*
Practical implications on the society level	- Promote education for both boys and girls.[6] - Abolish or reorganise the need (to pay) for school-related items.[6]	Increase awareness in society at large about the need for and effects of SRH education.[6]	Create awareness in society at large about sexual rights and the right to gender equality.[6]	Create awareness in society about new media and about the opportunities and risks they involve in terms of SRH.[6]	Increase easy access to contraceptives for the youth.[6]	Increase the level of social trust by developing programmes and policies that foster social and political inclusion.[6]
Practical implications on the supranational level	Promote education as a human right for both boys and girls.[7]		Promote sexual rights and the right to gender equality.[7]			

[1]Parents and other close relatives; [2]Religious institutions; [3]Schools/Ghana Education Service; [4]Non-governmental organisations; [5]Elders/chiefs/traditional leaders; [6]Ghanaian government; [7]United Nations; [8]Ghana Health Service.

FURTHER RESEARCH

To learn more about the number of young people in Bolgatanga municipality who are sexually active, about the types of risky sexual behaviour they engage in and about their age when they first have sexual intercourse, further research is necessary. The studies in the present thesis found that one group of the young unmarried people, consisting more of males than females, were sexually active before marriage and before the age of 18. This finding was confirmed in a recent study in Bolgatanga municipality that found that almost one-third of the younger junior high school students (gender not indicated), with a mean age of 15.8, reported having had sexual intercourse, and that for the majority of those individuals, their sexual debut took place at age 15 or younger [12]. Thus, a substantial segment of the unmarried youth in Bolgatanga municipality are sexually active and hence susceptible to STIs and unintended pregnancies. We also found that they engage in risky sexual behaviour, that they lack knowledge of protective measures, including condom use, and that they are often involved in multiple sexual relationships. For this reason it is important for those who develop SRH programmes to know at what age young people tend to have their first sexual encounters in order to be on time to prevent them from the potentially adverse consequences. Knowing more about the number of unmarried young people who are sexually active in Bolgatanga municipality, the risky sexual behaviour they engage in and their age when they first have sexual intercourse could help convince institutions and parents with regard to the need for SRH education for the youth in the region. More research is also needed on the culture of social distrust, in particular on how that culture influences the relationships between young people.

There is also a need for more research on the conceptions of parents about educating SRH to children and their potential barriers. These days, more and more parents are educated themselves, having experienced boarding schools and/or peer pressure. They watch television and use smart phones and they would know of girls who unintentionally became pregnant. What are their views about the cultural norm that calls for sexual abstention before marriage? And how do they protect their children from the potentially adverse consequences of risky sex in this rapidly changing society? How do they feel about the traditional values when it comes to raising children and how do they handle conflicts and decision-making when they are confronted with the new educational questions raised by having to bring up the present generation in a globalising culture?

It also seems important to research the possibility that churches or mosques could play an active role in providing sexual education and helping young people make safe decisions when it comes to sexual encounters, as a recent study carried out in Kenya suggests [31].

The use of the internet has increased among the youth in Bolgatanga municipality, particularly via smart phones. This calls for more research to be done on the use and

behaviour of young people with regard to SRH and the internet, and on the opportunities for SRH education through the internet.

Finally, further research is also needed on the dependent status of young females in sexual relationships (providing sex in exchange for money and/or goods), on the distribution of power between young females and young males, and on the possible consequences of that in terms of risks related to sexual behaviour (e.g. negotiating to use condoms), but also for their future prospects regarding marriage and education.

CONCLUSION

The youth in Bolgatanga municipality need to make decisions about their premarital sexual lives within a cultural context that is full of contradictions regarding sex. The various different cultural and religious messages, which are themselves also subject to change, only reinforce the confusion among youths. The youth in Bolgatanga municipality practice various types of risky sexual behaviour before marriage, and choosing between these behaviours demands a comprehensive knowledge of SRH as well as specific skills. Ideally, such a chose should also not depend on their potentially fragile economic situation due to a lack of food security or lack of education. Moreover, young people should be able to control and decide freely on sexual matters, and contraceptives should be easier for them to obtain. More generally, an increase in the level of social trust among the general population is important if young people are also to develop more trust in their peers. Finally, young people should attend and complete both primary and secondary education, and they need to become media-wise when it comes to using the internet and smart phones in relation to SRH.

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Summary

In this PhD thesis various studies are described concerning the conceptions, knowledge, attitudes, motives and behaviour of the youth regarding risky sex before marriage in Bolgatanga municipality in Ghana. In Ghana, young peoples' knowledge of sexual and reproductive health (SRH) is limited, and part of them have risky sex. Moreover, several researchers stress the need to understand risky sexual behaviour of young people in their specific cultural and socioeconomic context. To protect young people against potential adverse consequences of risky sex, such as sexual transmitted diseases (STDs) and unintended pregnancy, recommendations are given on the basis of the studies.

BACKGROUND

Ghana has almost 25 million inhabitants and lies in West Africa bordering the Gulf of Guinea, between Cote d'Ivoire, Burkina Faso and Togo. The present studies have been carried out in Bolgatanga municipality (131,550 inhabitants). Most of the people in this region depend on farming. The dominant ethnic group in Bolgatanga municipality are the 'Gurune' (subgroup of the 'Frafra'), and the three most common religions are traditional (22%), Christian (58%) and Islam (17%). Most people marry young in Bolgatanga municipality (median age males 24, median age females 19). Over the past 20 years there were relative large changes in Bolgatanga municipality, with consequences for the sexual behaviour of young people. Examples are more (paved) roads, increased school attendance of children, increased availability of electricity, new media, mobile phones and internet. Young males more than young females leave their family house or community more often to go to school, to their job, the market, to friends or to the hospital. This is contrary to the past, when people left their community mainly for special occasions such as funerals, harvest celebrations and marriage. In addition, the use of bicycles, motorbikes and cars has increased as well. In short, mobility has gone up, especially for males.

Poverty is a major problem in Bolgatanga municipality. Young people are confronted with food insecurity, hunger and lack of cash. Main reason is that the majority of the people depend on farming, and that variability in climate and rainfall together with perennial flooding spoil the crops. Other employment than farming is difficult to find in Bolgatanga. People travel to larger cities in southern Ghana to look for jobs, which however are hard to find there as well. Under these circumstances education for young people has no priority. Primary education is free, but part of the children do not go to school because of relatively small costs that children and their families cannot afford or feel obligated to pay for (e.g. a broom, toilet rolls).

SEXUAL BEHAVIOUR OF THE YOUTH IN BOLGATANGA

In Chapters 2, 3 and 4 of this thesis qualitative methods are used to collect data on the conceptions, opinions, thoughts, and feelings of young people in Bolgatanga municipality regarding premarital sex, contraceptive use and multiple sexual partners. Individual interviews ensured privacy for the respondents, and focus group interviews motivated respondents to share their ideas and react to each other. Adults who were familiar with the local youth, their lives and their problems were also interviewed. These respondents provided information about the sociocultural dynamics and context of premarital sexual relations. There were three Dutch female interviewers and one local Ghanaian male interviewer. Snowball sampling was done, taking into account gender, age, religion, education, and urbanization, and for adults also their occupation or being a parent or not.

In Chapter 2, the results of interviews with 33 young people and 27 adult key figures show that in Bolgatanga municipality the dominant ideology is abstinence from sex until marriage, as prescribed by the traditional culture, as well as the Christian and Islamic religions. Part of the highly religious young people, and also the more traditional ones want to abstain from premarital sex. Especially young females stress the value of remaining a virgin until marriage. Counter to the dominant ideology, which gives the message that virginity is very important, in practice it is common among part of the youth to be sexually active and have one or more boyfriends or girlfriends. In this behaviour they are guided by another, newer ideology, related to modern developments, which gives the message that dating and having "just a boyfriend-girlfriend" relationship is acceptable. Some of the young females also have transactional sex (for money or goods). SRH programmes should take into account the increasing influence of modernity, gender differences and the compelling influence of peer groups, all of which contribute to the youth engaging in risky sexual practices with sexual transmitted infections (STIs) and unintended pregnancies as possible consequences.

MULTIPLE SEXUAL PARTNERS AND PROTECTED AND UNPROTECTED SEX

Chapter 3 and chapter 4 discuss individual and focus group interviews with 71 young people and 12 key adult figures in Bolgatanga municipality that focused on risky sexual behaviour before marriage. The results of those interviews showed that most of the sexually active young people did not use contraceptives consistently and/or had multiple sexual partners.

Chapter 3 concerns the conceptions and attitudes of young people toward multiple sexual partnerships. Their conceptions in that regard and their motives for having multiple sex partners were found to be related to various cultural traditions such as the practice of polygyny (according to which a man can have multiple wives) and the

importance of fertility. In addition to the traditional dominance of males ("I want to be a big person"), we also found a culture of infidelity and distrust in relationships ("There is no trust in this world"). Modern developments such as increased school attendance, the use of new media and the growing importance of peer groups appeared to be accompanied by a new ideology that stresses individuality and reflects the increasing importance of the money-based economy ("One man cannot solve your problems"). For young males, important motives for having multiple sexual partnerships were sexual prowess, prestige, desire, and pleasure, while for young females financial independence was important. Combined with a limited knowledge of SRH and risky sexual behaviour, these various external influencing factors and the personal motives of young people prevent them from making well-advised and healthy choices concerning their sexual and reproductive wellbeing.

Chapter 4 presents the conceptions and attitudes of the young people towards protected and unprotected premarital sex. The results indicated that many young people lack a comprehensive knowledge of STIs, contraceptives and pregnancy, while some of them had a negative attitude towards contraceptives. Not all parents, schools, and organisations provide young people with a comprehensive education about SRH, and some even discourage such education because they believe it would stimulate young people to have sex before marriage. In addition, young people also learn about SRH issues from each other, sharing stories and personal experiences with their peers. The information they exchange is not always correct, however, and sometimes it merely reflects their personal preferences. The inequality of power in the sexual relationships of young people, related to the patrilineal structure whereby men have more power than women, is another determining factor for unprotected sex.

SRH education should address peer pressure, gender, self-esteem, sexual rights, and communication in sexual relationships. Especially the education of girls should have the highest importance: Send them to school, protect them from child marriage, and empower them to address gender issues and negotiate safe sex in sexual encounters.

EVALUATION OF AN SRH EDUCATION PROGRAMME

Chapter 5 reports an evaluation study of an SRH education programme for junior high, senior high and vocational school students in Bolgatanga municipality that was carried out by the Youth Harvest Foundation Ghana (YHFG). The aim of this study was to gain more insight into the level of knowledge, the attitudes and the behavioural intentions of students with regard to SRH in the specific context of Bolgatanga municipality, and to study the effects of an SRH programme in this group. This quasi-experimental study was carried out with independent pre- and post-intervention measurements. For the first research aim, the pre-intervention measurements were used cross-sectionally; for the second, the scores of independent experimental groups at pre- and post-intervention

measurement were used. The results showed that before the programme, the students answered half of the knowledge questions correctly, had a positive attitude about deciding for themselves whether to have a relationship and whether to have sex, and had positive behavioural intentions with regard to the use of condoms, to being tested for sexual transmitted diseases (STDs), and to the Ghanaian government's ABC (Abstain, Be faithful or use a Condom) strategy. The education programme led to a relatively small increase in the students' knowledge. It also led to a more positive (improved) attitude among male and female students aged 18-20 with regard to two statements about engaging in a relationship and having sex, and to improved behavioural intentions among female students aged 18-20 with respect to four statements about condom use, the ABC strategy and STD testing.

Strength of the study in this chapter is that evaluation research on the effects of SRH interventions is important in sub-Saharan Africa, but scarce. In addition, the sample was large and included students from different schools and educational levels. Limitation of the study in this chapter was that the design was quasi-experimental and non-randomized, and pre-/post-intervention comparisons were conducted on the basis of an independent groups design. Initially, control groups were selected, but due to practical reasons their post-intervention questionnaires were not included in the analysis.

STUDENTS' AND EDUCATORS' OPINIONS ABOUT SRH EDUCATION

Chapter 6 discusses the students' opinions about the SRH programme evaluated in Chapter 5 and explored both the facilitators and the barriers mentioned by the educators in terms of the implementation of that programme. The students evaluated the SRH programme as having been important and interesting, and gave a moderate score in terms of their expectations being met. They agreed that the main objectives of the programme, and most of the objectives regarding the family planning lessons, had been reached. There were significant differences in the scores for school types, age groups and religions, but not for gender. For the educators, important facilitators were: a) having a clear manual, b) the use of foreign volunteers as educators, c) the increased influence of new media (for example young people can be reached individually by phone, and can learn about their rights through new media), d) students' eagerness to learn, and e) the idea that the SRH programme really affects students' lives. Important barriers that were mentioned by the educators were a) the hindering effect of traditional, religious and cultural influences, b) the lack of funding, and c) the poor scheduling of the programme within the schools.

That both students and educators in a remote northern Ghanaian region expressed their opinions on the value of and need for an SRH programme, is a strength of the study in this chapter. Asking students for their opinions and needs regarding an SRH

programme, and for their self-perceived benefits concerning knowledge, attitude and behaviour related to the programme's objectives, has rarely been done before. The study in this chapter also has some limitations. Students' knowledge, attitude and behaviour before and after attending the SRH programme were not measured and could therefore not be compared against their self-perceived benefits and their opinions. Apart from that, the sample included only school-going students who were also YHFG club members.

GENERAL DISCUSSION AND CONCLUSION

In Chapter 7 we discuss the main results of the studies in our thesis. The youth in Bolgatanga municipality need to make decisions about their premarital sexual lives within a contradictory context regarding sex. The various cultural and religious messages, that are subject to change as well, reinforce the confusion among the youth. Young people practice various types of premarital and risky sexual behaviour, and choosing between these behaviours demands comprehensive knowledge of SRH and specific skills, and should – ideally – not depend on their fragile economic situation such as food insecurity and lack of education. Therefore, six recommendations are given with an eye to protect the youth in Bolgatanga municipality from the potentially harmful consequences of risky sexual behaviour.

The first recommendation is that young people in Bolgatanga municipality should be able to attend and complete primary and secondary education. Education is a human right. It creates future prospects, ambitions and reasons to live.

The second recommendation is that the level of SRH education and SRH knowledge among the youth in Bolgatanga municipality should increase. Young people should have sufficient knowledge of SRH to be motivated to practice safe sex.

The third recommendation is that young people in Bolgatanga municipality should be able to control and decide freely on matters related to their sexuality. It is important that both young people and adults alike are aware of the sexual rights and the right to gender equality. The youth also need to be trained on how to control and decide freely on matters related to their sexuality and how to make well-considered choices among possible behaviours.

The fourth recommendation is that young people in Bolgatanga municipality need to be media-wise with regard to SRH. The number of young people who have access to smart phones, social media and the internet is increasing fast. For those who are not media-wise, access to internet and the social carries a number of risks, exposing the users to potentially harmful consequences.

The fifth recommendation is that contraceptives should be easy to obtain, both practically and socially, for young people in Bolgatanga municipality. To prevent unprotected sex, contraceptives obviously need to be easily available. Young people in

this region still feel uncomfortable buying and carrying contraceptives because of the stigma that go along with asking for them, or they are not fully aware of where to obtain them.

The sixth recommendation is that the level of social trust among the general population should be increased. Distrust was an obstacle for young people when it came to negotiating condom use but also a motivating factor for them when it came to having multiple sex partners. Social distrust could be addressed in SRH education to increase the level of trust among young people with regard to their sexual relationships. But together with social institutions, the government could work on this more general and deeply rooted problem in the society as a whole.

Samenvatting (Summary in Dutch)

Dit proefschrift beschrijft diverse studies naar de denkbeelden, de kennis, de houdingen, de motieven en het gedrag van jongeren op het gebied van risicovolle seks voor het huwelijk in Bolgatanga municipality in Ghana. In Ghana hebben jongeren beperkte kennis van seksuele en reproductieve gezondheid, en een deel van hen heeft risicovol seksueel gedrag. Bovendien benadrukken verschillende onderzoekers het belang om het risicovolle seksuele gedrag van jongeren te begrijpen in specifieke culturele en sociaaleconomische contexten. Om jongeren beter te beschermen tegen mogelijk negatieve gevolgen van risicovolle seks, zoals seksueel overdraagbare aandoeningen (SOA) en onbedoelde zwangerschap, worden er aanbevelingen gegeven gebaseerd op de studies in dit proefschrift.

ACHTERGROND

Ghana heeft bijna 25 miljoen inwoners en ligt in het westen van Afrika aan de Golf van Guinea, tussen Ivoorkust, Burkina Faso en Togo. Deze studie is uitgevoerd in het noorden van Ghana, in Bolgatanga municipality (131.550 inwoners). De meeste mensen zijn hier afhankelijk van landbouw. De dominante etnische groep in Bolgatanga municipality is de 'Gurune' (subgroep van de 'Frafra'), en de drie meest voorkomende religies zijn de traditionele (22%), de Christelijke (58%) en de Islamitische (17%). De meeste jongeren trouwen in Bolgatanga municipality (jongens met gemiddeld 24 jaar, meisjes met gemiddeld 19 jaar), en volgen hierbij hun traditionele, Christelijke of Islamitische religie. De laatste 20 jaar zijn er relatief grote veranderingen geweest in Bolgatanga municipality, die ook gevolgen hebben voor het seksuele gedrag van jongeren. Denk hierbij aan meer (geasfalteerde) wegen, toegenomen aantal schoolgaande kinderen, grotere beschikbaarheid aan elektriciteit, introductie van nieuwe media, mobiele telefoons en internet. Ook verlaten jongeren (jongens meer dan meisjes) hun gemeenschap/ familiehuis vaker om naar school, werk, de markt, vrienden of het ziekenhuis te gaan. In tegenstelling tot het verleden, toen dit voornamelijk voor speciale gelegenheden als begrafenissen, oogstfeesten en huwelijken gebeurde. Daarbij is er ook een toegenomen gebruik van fietsen, brommers en auto's.

Armoede is een groot probleem in Bolgatanga municipality. Jongeren worden geconfronteerd met onzekerheid over genoeg voedsel of honger en een gebrek aan (contant) geld. Belangrijkste reden is dat de meerderheid van de inwoners afhankelijk is van landbouw, en dat variatie in klimaat en langdurige overstromingen regelmatig de oogst, en dus het inkomen, verwoesten. Werk buiten de landbouw is moeilijk te vinden in Bolgatanga municipality, daarom reizen mensen ook naar grotere steden in het zuiden van Ghana om werk – wat daar ook schaars is - te zoeken. Onder deze omstandigheden krijgt onderwijs voor jongeren geen prioriteit. Basisonderwijs is gratis, maar sommige kinderen gaan nog steeds niet naar school vanwege de (relatief lage)

kosten die ouders met schoolgaande kinderen toch nog hebben of die ze verplicht voelen te betalen (bijvoorbeeld een bezem of toiletpapier).

SEKSUEEL GEDRAG VAN JONGEREN IN BOLGATANGA

In hoofdstukken 2, 3 en 4 van dit proefschrift zijn er kwalitatieve methoden gebruikt om data te verzamelen over de denkbeelden en meningen van jongeren in Bolgatanga municipality over seks voor het huwelijk, het gebruik van anticonceptie en het hebben van meerdere seksuele partners. Individuele interviews zorgden voor privacy voor de participanten, en focus groep interviews motiveerden participanten om ideeën te delen en op elkaar te reageren. Volwassenen die bekend waren met de jongeren, hun levens en hun problemen zijn ook geïnterviewd. Deze participanten gaven informatie over de sociaal-culturele dynamieken en context van seksuele relaties voor het huwelijk. Er waren drie Nederlandse vrouwelijke interviewers en een lokale Ghanese mannelijke interviewer. Er is gebruik gemaakt van een sneeuwbal steekproef, rekening houdend met geslacht, leeftijd, religie, opleiding, woonachtig in de stad of op het platteland. Bij de volwassen participanten is ook hun beroep en het wel of geen vader of moeder zijn meegenomen.

Hoofdstuk 2 beschrijft de resultaten van de interviews met 33 jongeren en 27 sleutelfiguren in Bolgatanga municipality over seksueel gedrag van jongeren voor het huwelijk. De dominante ideologie is dat seks voor het huwelijk niet is toegestaan volgens de traditionele cultuur, en de Christelijke en Islamitische religies. Een deel van de zeer religieuze jongeren, en de meer traditionele jongeren onthouden zich van seks voor het huwelijk. In het bijzonder meisjes benadrukken de waarde van maagdelijkheid tot het huwelijk. Tegenover de dominante ideologie, waarbij de boodschap is dat maagdelijkheid erg belangrijk is, staat de praktijk waarin een deel van de jongeren seksueel actief zijn en een of meerdere seksuele relaties hebben. Bij dit gedrag worden ze gestuurd door een andere, nieuwere ideologie, gerelateerd aan moderne ontwikkelingen, waarbij de boodschap wordt gegeven dat ‘daten’ en het ‘gewoon’ hebben van vriendje of vriendinnetje geaccepteerd is. Sommige meisjes hebben seks voor geld of spullen. Seksuele voorlichtingsprogramma’s moeten rekening houden met de toegenomen invloed van moderniteit, verschillen tussen jongens en meisjes, en de dwingende invloed van leeftijdsgenoten, die allemaal bijdragen aan risicovol seksueel gedrag van jongeren met SOA en onbedoelde zwangerschappen als mogelijke gevolgen.

MEERDERE SEKSUELE PARTNERS EN (ON)VEILIGE SEKS

Hoofdstuk 3 en 4 beschrijven de resultaten van de interviews met 71 jongeren en 12 sleutelfiguren gericht op risicovol seksueel gedrag van jongeren voor het huwelijk in

Bolgatanga municipality. De meeste seksueel actieve jongeren gebruiken anticonceptie niet consistent en/of hebben meerdere seksuele partners. Hoofdstuk 3 zoomt in op de denkbeelden en houdingen van jongeren ten aanzien van meerdere seksuele partners. Hun denkbeelden en motieven om meerdere seksuele partners te hebben kon worden gerelateerd aan verschillende culturele tradities zoals 'polygynie' (mannen mogen meerdere vrouwen trouwen) en de waarde van maagdelijkheid. Naast de traditionele dominantie van mannen en jongens, was er ook een cultuur van wantrouwen en ontrouw. Moderne ontwikkelingen zoals meer kinderen die naar school gaan, het gebruik van nieuwe media en de toegenomen invloed van leeftijdsgenoten gaan vergezeld met een nieuwe ideologie die individualisme en het belang van de geldeconomie benadrukken. Voor jongens zijn belangrijke motieven om meerdere seksuele partners te hebben stoer zijn, prestige en vermaak. Terwijl voor meisjes financiële onafhankelijkheid belangrijk is. De verschillende beïnvloedende factoren, en de persoonlijke motieven van jongeren, gecombineerd met beperkte kennis van seksuele en reproductieve gezondheid en risicovol seksueel gedrag, voorkomt dat jongeren weloverwogen en gezonde keuzes kunnen maken voor hun seksuele en reproductieve welzijn. Hoofdstuk 4 zoomt in op het (on)veilige seksuele gedrag van jongeren. Het werd duidelijk dat relatief veel jongeren beperkte kennis hebben van SOA, anticonceptie en zwangerschap, en een deel van hen heeft een negatieve houding ten aanzien van anticonceptie. Niet alle ouders, scholen en organisaties lichten jongeren volledig genoeg voor over seksuele en reproductieve gezondheid. Sommige van hen ontmoedigen voorlichting over seksuele en reproductieve gezondheid omdat ze denken dat het jongeren aanmoedigt tot het hebben van seks. Daarnaast delen jongeren verhalen en ervaringen met elkaar, en vertellen ze elkaar over seksuele en reproductieve gezondheidsaspecten. Helaas is de informatie die ze uitwisselen niet altijd correct; soms gaat het vooral over persoonlijke voorkeuren. De ongelijke macht in seksuele relaties van jongeren, gerelateerd aan de patrilineaire structuur in de regio waarin mannen meer macht hebben dan vrouwen, is ook een bepalende factor voor het hebben van (on)veilige seks.

Seksuele voorlichting dient zich te richten op druk van leeftijdsgenoten, verschillen tussen jongens en meisjes, zelfvertrouwen, seksuele rechten en communicatie in seksuele relaties. Meest belangrijk is onderwijs aan meisjes: zorg dat zij naar school gaan, bescherm hen tegen kind-huwelijken en maak hen sterk om tijdens seksuele ontmoetingen te onderhandelen over veilige seks en verschillen tussen jongens en meisjes bespreekbaar te maken.

EVALUATIE VAN EEN SEKSUEEL GEZONDHEIDSVOORLICHTINGSPROGRAMMA

Hoofdstuk 5 beschrijft een evaluatiestudie naar het seksuele en reproductieve gezondheidsvoorlichtingsprogramma van de Youth Harvest Foundation Ghana (YHFG, partnerorganisatie in deze studie) voor leerlingen in Bolgatanga municipality. Het doel van de studie was meer inzicht krijgen in de kennis, houdingen en gedragsintenties van leerlingen ten aanzien van seksuele en reproductieve gezondheid in de specifieke context van Bolgatanga municipality, en het bestuderen van de effecten van een voorlichtingsprogramma voor deze groep. In deze quasi-experimentele studie zijn onafhankelijke metingen gedaan voor en na de interventie (het voorlichtingsprogramma). Voor het eerste onderzoeksdoel zijn de metingen voor de interventie cross-sectioneel gebruikt. Voor het tweede onderzoeksdoel zijn de scores van de onafhankelijke experimentele groepen voor en na de interventie gebruikt. De resultaten laten zien dat leerlingen voor aanvang van het programma de helft van de kennisvragen correct beantwoorden, ze positief denken over het zelf beslissen of ze een relatie aangaan en seks hebben, en dat hun gedragsintenties positief zijn ten aanzien van het gebruiken van condooms, het testen op SOA en de ABC strategie ('Abstain (onthouding), Be faithful (wees trouw) or use a Condom (of gebruik een condoom)'). Het voorlichtingsprogramma leidde tot een relatief kleine stijging in de kennis van de leerlingen, een positievere (verbeterde) houding van leerlingen van 18-20 jaar ten aanzien van twee stellingen over het aangaan van een relatie en het hebben van seks, en verbeterde gedragsintenties van meisjes van 18-20 jaar met betrekking tot de vier stellingen over condoomgebruik, de ABC strategie en het testen op SOA.

Sterk aan de studie in dit hoofdstuk is dat evaluatieonderzoek over de effecten van seksuele voorlichting belangrijk is in Afrika bezuiden de Sahara, maar dat het schaars is. Daarnaast was de steekproef relatief groot, en zijn leerlingen van verschillende scholen en onderwijstypen geïncludeerd. Beperking van de studie in dit hoofdstuk is dat het design quasi-experimenteel was en niet gerandomiseerd, en dat vergelijkingen tussen de voor- en na-test gedaan zijn op basis van onafhankelijke groepen. Oorspronkelijk zijn er controlegroepen geselecteerd, maar vanwege praktische redenen kon de na-test niet worden gebruikt in de analyse.

LEERLINGEN EN VOORLICHTERS OVER SEKSUELE EN REPRODUCTIEVE GEZONDHEIDSVOORLICHTING

Hoofdstuk 6 richt zich op de mening van leerlingen over het geëvalueerde voorlichtingsprogramma uit hoofdstuk 5, en inventariseerde de bevorderende en belemmerende factoren voor voorlichters bij het implementeren van het programma. Leerlingen

evalueerden het voorlichtingsprogramma als belangrijk en interessant. Aan hun verwachtingen werd redelijk voldaan. Leerlingen vonden dat de algemene doelen van het programma, en de meeste doelen met betrekking tot de lessen over gezinsplanning en anticonceptie waren behaald. Significante verschillen zijn gevonden voor opleidingsniveau, leeftijd en religie, maar niet voor gender. Voor de voorlichters waren belangrijke bevorderende factoren: een duidelijke handleiding, buitenlandse vrijwilligers als voorlichters, toegenomen invloed van nieuwe media (bijvoorbeeld dat jongeren nu te bereiken zijn per telefoon, en via nieuwe media over hun rechten leren), de gretigheid van leerlingen om te leren, en het idee dat het voorlichtingsprogramma het leven van leerlingen echt beïnvloed. Belangrijke belemmeringen waren: gehinderd worden door traditionele, culturele of religieuze invloeden, beperkt budget en slechte roostering van het programma op de scholen.

Sterk aan de studie in dit hoofdstuk is dat zowel leerlingen als leraren in een afgelegen gebied in het noorden van Ghana hun mening hebben gegeven over de waarde van en de behoefte aan een seksueel voorlichtingsprogramma. Onderzoek waarbij leerlingen gevraagd worden naar hun mening en hun behoefte met betrekking tot seksuele voorlichting en de door hen ervaren voordelen op het gebied van kennis, houding en gedrag in relatie tot de programmadoelen is schaars. De studie in dit hoofdstuk kent ook enkele beperkingen. De kennis, houding en gedrag voor en na het volgen van de seksuele voorlichting is niet gemeten, en kon daarom niet vergeleken worden met hun meningen en de door de leerlingen ervaren voordelen. Daarnaast zijn er alleen jongeren geïncludeerd die naar school gingen en lid waren van de YHFG club.

ALGEMENE DISCUSSIE EN CONCLUSIE

In hoofdstuk 7 worden de belangrijkste bevindingen in het proefschrift besproken. Jongeren in Bolgatanga municipality nemen beslissingen over hun seksuele levens voor het huwelijk in een inherent tegenstrijdige context wat betreft seks. De verschillende – deels tegenstrijdige - culturele en religieuze boodschappen, die ook onderhevig zijn aan verandering, versterken de verwarring van jongeren. Jongeren hebben verschillend (risicovol) seksueel gedrag voor het huwelijk, en het maken van een keuze voor bepaald gedrag vraagt toereikende kennis van seksuele en reproductieve gezondheid en specifieke vaardigheden, en zou in het ideale geval niet moeten afhangen van hun kwetsbare economische situatie zoals onzekerheid over voedsel en gebrek aan educatie. Daarom zijn er zes aanbevelingen gedaan met als doel om jongeren in Bolgatanga municipality te beschermen tegen potentiële negatieve consequenties van risicovol seksueel gedrag.

De eerste aanbeveling is dat jongeren in Bolgatanga municipality naar de basis- en middelbare school moeten kunnen, en deze ook moeten kunnen afronden. Onderwijs is

een mensenrecht. Het zorgt voor toekomstperspectief, ambitie en redenen om voor te leven.

De tweede aanbeveling is dat het niveau van seksuele voorlichting en kennis over seksuele en reproductieve gezondheid onder jongeren in Bolgatanga municipality vergroot dient te worden. Jongeren moeten toereikende kennis hebben van seksuele en reproductieve gezondheid zodat zij gemotiveerd zijn om veilige seks te hebben.

De derde aanbeveling is dat jongeren in Bolgatanga municipality vrij moeten kunnen bepalen en beslissen over aspecten gerelateerd aan hun seksualiteit. Het is belangrijk dat zowel jongeren als volwassenen bewust zijn van seksuele rechten en het recht op gelijkheid tussen mannen en vrouwen. Jongeren moeten getraind worden hoe zij vrij kunnen bepalen en beslissen over hun seksualiteit, en hoe zij weloverwogen keuzes kunnen maken voor bepaald gedrag.

De vierde aanbeveling is dat jongeren in Bolgatanga municipality mediawijs dienen te zijn met betrekking tot seksuele en reproductieve gezondheid. Het aantal jongeren dat toegang heeft tot een smart phone, social media en internet stijgt snel. Jongeren die niet mediawijs zijn, maar wel toegang hebben tot internet en social media lopen het risico op schadelijke gevolgen.

De vijfde aanbeveling is dat anticonceptie makkelijk te verkrijgen moet zijn voor jongeren in Bolgatanga municipality, zowel op praktisch als sociaal gebied. Jongeren in deze regio voelen zich nog steeds niet op hun gemak om anticonceptie te kopen of bij zich te dragen vanwege het stigma dat rust op anticonceptie en het kopen van anticonceptie. Daarnaast is niet bij alle jongeren bekend waar ze anticonceptie kunnen kopen.

De zesde aanbeveling is dat de mate van vertrouwen in de algemene bevolking dient te stijgen. Wantrouwen is een belemmering voor jongeren met betrekking tot het onderhandelen van condoomgebruik, maar ook een bevorderende factor om juist meerdere seksuele partners te hebben. Vertrouwen kan opgenomen worden in seksuele voorlichtingsprogramma's als het gaat om vertrouwen onder jongeren in seksuele relaties. Maar omdat het een dieper liggend probleem is, kan de overheid zich samen met maatschappelijke instellingen ook inzetten om het vertrouwen in de samenleving te verhogen.

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This research is rooted in my participation in the Ghana–Holland Youth Exchange programme way back in 2000. I thank the Dutch and Ghanaian participants, the group leaders and all the other people involved in the programme for giving me such a life-changing opportunity.

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Nanne de Vries: in May 2009, I sent you an e-mail explaining that I was looking for a supervisor as an external PhD candidate and that I had started to write a research proposal. Your response was both rapid and extensive, and you asked several critical questions. After exchanging some emails, and trying to answer your questions, you offered me an appointment. You agreed to become my first supervisor, and this gave me the confidence that I could carry out this research. My first impression of you was correct, and I thank you for your critical remarks and quick responses (sometimes at impossibly short notice or during holidays), for meeting me in Utrecht or Amsterdam, and for your understanding of my personal situation. I learnt a lot from you.

Berno van Meijel: also in May 2009, we had our first meeting to discuss my plan to investigate 'sex in Ghana' – as you called my project in the University's corridors, to the amusement of some and the shock of others. Very soon you were interested in becoming my co-supervisor, and later my second supervisor. Thank you for introducing me to your Research Group of Mental Health Nursing, for your quick and critical replies at short notice, and your concern for my wellbeing. And you supported me in times of reorganization within Inholland University, and helped me to find a new department to work for and in which to finish my PhD thesis.

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Lydia: it was while I was with you in the year 2000 that the seed that developed into my PhD research was planted. We were 17 and 19 years old, a Dutch girl and a Ghanaian girl, living together in rural northern Ghana. We shared a bed, told each other stories, compared our ways of life and taught each other our mother tongues. There were a lot

of things that I didn't understand at first, but you helped me by patiently explaining various cultural traditions, your way of living and your personal life story. You made me realize how young people in Ghana need to make their choices in life. I thank you, your brother and your family for your efforts and for your friendship for all these years.

Youth Harvest Foundation Ghana (YHFG), and all its employees and volunteers in Bolgatanga, was the anchor of my research. I thank you all for your collegiality. John: your personal story and your vision for YHFG made me believe in my mission. We started on the morning of 1 January 2009 by discussing my research draft. It was a pleasure to work with you; as you said, we were 'partners in crime'. Abigail: thanks for answering my questions and for making me feel at home at the office. David: thanks for your practical support and for patiently introducing me to the relevant stakeholders. Finally, thank you Lieneke for linking me up with John and YHFG, and for our journeys together in Ghana.

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My PhD project led to several Dutch students going to Ghana to collect data for their Bachelor's or Master's theses. I thank all of you for promoting research on sexual and reproductive health issues in the rural north of Ghana, and for asking me critical questions. I also thank 'Meet Africa' for its local facilitation.

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While doing my PhD research, I worked at various departments at Inholland University. I thank all my former colleagues for their interest. Special thanks go to my current colleagues from the Master's programmes Advanced Nursing Practice and Physician Assistant for listening to my challenges (and for making me laugh at work!). In particular, I thank Rita van der Hem, Hans Springer and Jaap van der Bijl for your efforts to facilitate working on my thesis and for your confidence in me.

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It also started in 2000 for my parents and my brothers and sister, when we hosted a Ghanaian girl in our home. Almost all of you have travelled to Ghana in recent years to experience life in Bolgatanga. Being there with you, at different times and for different reasons, was unique and unforgettable. Min-Ho, this is not your thing, but I know you support me. Menno, we share nice memories of our first independent travel to Ghana. Rosan, thank you for your honesty and your endless support (together with Tim), and for being my *paranymph*. Papa and mama, you gave me the opportunity to go to Ghana at the age of 17, and various opportunities to continue my education. You are wonderful parents, and it is priceless that I can always count on you.

Dear Stijn and Lucas – my little boys, my dearest gifts. I feel blessed by your presence and the opportunities we can offer you. And of course, when you are older we need to talk about the birds and the bees…

Dear Sander, you stayed with me in rural Bolgatanga at the start of my research, experienced Ghanaian life with all its challenges and met my Ghanaian friends. We have been together for almost 15 years now, and words could not express my feelings for you here. Thank you for believing in me.

Curriculum vitae

Jolien van der Geugten was born on 3 June 1983 in Leiderdorp, the Netherlands. In 2000, she graduated from the Theresialyceum high-school in Tilburg. Subsequently, she participated in a youth exchange programme between Ghana and the Netherlands. In 2006, she was awarded a Bachelor's degree in Communication by Inholland University of Applied Sciences in Amsterdam. For her Bachelor's thesis she investigated teachers' conceptions of HIV in Ukraine and Belarus. In 2008, Utrecht University conferred on her a Master's degree in Arts (Communication Studies). For her Master's thesis she investigated Dutch teachers' perceptions of their profession.

Jolien has been working as a lecturer in research methods and a supervisor of student research at Inholland University of Applied Sciences since 2007. In 2008 and 2009, she supervised Bachelor's students during their fieldwork in Ukraine regarding sexual and reproductive health. From March 2010, she combined her work at Inholland University with a PhD study, for which she collaborated with Maastricht University Medical Centre+ (CAPHRI School for Public Health and Primary Care Maastricht), VU Amsterdam and the Youth Harvest Foundation Ghana.

She is currently working at Inholland University as a lecturer in research methods and a supervisor of student research for the Master's programmes Advanced Nursing Practice and Physician Assistant.

Jolien and her husband Sander have two sons, Stijn (2013) and Lucas (2015).

Publications

Van Der Geugten J, van Meijel B, den Uyl MH, de Vries NK. Virginity, Sex, Money and Desire: Premarital Sexual Behaviour of Youths in Bolgatanga Municipality, Ghana. Afr J Reprod Health 2013;17(4):93-106.

Van der Geugten J, Dijkstra M, van Meijel B, den Uyl MH, de Vries NK. Sexual and Reproductive Health Education: Opinions of Students and Educators in Bolgatanga Municipality, Northern Ghana. Sex Edu 2014;15(2):113-128.

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Van der Geugten J, van Meijel B, den Uyl MH, de Vries NK. Conceptions of and Attitude toward Multiple Sexual Partners among Youths in Bolgatanga Municipality, Northern Ghana J Child Adolesc Behav 2016;4(1):1-11.

Van Der Geugten J, van Meijel B, den Uyl MH, de Vries NK. Protected or Unprotected sex: the Conceptions and Attitudes of the Youth in Bolgatanga Municipality, Ghana. Submitted to Sexuality & Culture.

Valorisation of the thesis

RELEVANCE FOR SOCIETY AND THE ECONOMY

In addition to their scientific relevance, the studies in this thesis also have a clear social and economic relevance. In Ghana, young people's knowledge of sexual and reproductive health (SRH) is limited, and some of them have risky sexual behaviour. Recommendations that are based on the studies presented in this thesis will help protect young people against potential health and social consequences of risky sexual behaviour, such as sexually transmitted infections (STIs), unintended pregnancy and stigmatisation. These consequences affect not only the lives of individual young people, but also society and the economy as a whole. For example, it might lead to young people dropping out of school without having earned a diploma, young people being abandoned by their families and an increase of healthcare costs.

TARGET GROUPS

The findings of the studies in this thesis should be of interest to young people, parents, teachers, social workers, health workers, traditional leaders and religious leaders in Ghana and in Bolgatanga municipality in particular. It is of crucial importance that all these people become aware of the limited knowledge that young people have about sexual and reproductive health, of their motives for engaging in risky sexual behaviour, and of the potentially harmful consequences of such behaviour. The studies in this thesis should also be of interest to various institutions and organisations working with or for the Ghanaian youth, such as the Ghana AIDS Commission, the Ghana Health Service, the Ghana Education Service, and several non-governmental organisations and religious institutions. While some of these parties actively develop and implement policy on SRH, their activities could be further tailored to the content of the studies in this thesis. The results of these studies provide useful information that can be used to develop tailored preventive and health promotion interventions. Youth Harvest Foundation Ghana (YHFG) in Bolgatanga was not only the primary partner in the design and implementation of this study, but also is an important target group for this thesis. For almost 15 years now, YHFG has been one of the pioneers in terms of carrying out SRH programmes for the youth in northern Ghana.

The results of this study could also be of interest in regions other than Bolgatanga. The Ghanaian youth in general share social and cultural norms and face similar challenges such as poverty, unemployment and increasing modernisation. In particular, the Upper East, Upper West and Northern regions have various social and cultural norms and demographic factors in common, including their rural circumstances, housing conditions, sources of income, school attendance and literacy rates. Moreover, students from the three northern regions usually attend boarding schools located outside their own municipalities. Senior high boarding schools in Bolgatanga

municipality receive students from across the Upper East, Upper West and Northern regions, and the other way around.

Beyond the Ghanaian context, the design of the studies presented in this thesis could be of inspiration for several organisations that have SRH programmes for young people, but which have not scientifically evaluated their programmes or did not study their target groups within their specific social and cultural context. While small organisations obviously lack the funding to conduct proper evaluations, well-trained and supervised Bachelor's and Master's students could contribute to this type of research. Also in Western countries this type of research is of value. For example, in the Netherlands, new research on the social and cultural aspects of SRH will be of interest given the increased number of refugees with various backgrounds (e.g. Syrian and Eritrean). It is assumed that some of the young men and women from these countries have limited knowledge of SRH, particularly of contraceptive methods.

ACTIVITIES FOR DISSEMINATING THE RESULTS

To valorise the research results it is important that they are communicated, and this was given high priority during this PhD research project. Four of the five studies in this thesis were published separately over the past few years and made available to the partner organisation YHFG by e-mail. In addition, all of the published studies were announced through media such as Facebook, Twitter and the YHFG website in order to reach those Ghanaian stakeholders in Bolgatanga who use such media, including young people, students, teachers, parents, social workers, health workers and religious leaders. The researcher also wrote blogs on the internet to share her experiences during her fieldwork and to announce the publication of her papers. During the research project, the researcher travelled several times to Bolgatanga, where she updated key informants and colleagues at YHFG about the results so far and shared recent reports and research concerning SRH in general. The YHFG colleagues used this information in their work (e.g. as SRH educators or as social workers). The researcher also gave presentations and workshops about SRH to Dutch volunteers and students who were going to work on SRH in Bolgatanga, to students of different bachelor programmes at Inholland University, and to a group of Ghanaian seamstresses at YHFG.

INNOVATION

Various organisations run programmes to educate young people about SRH and to protect them against the adverse consequences of risky sexual behaviour. Studies on the effectiveness of SRH programmes have shown that well-designed and well-implemented programmes can influence young people's knowledge, attitudes and

behaviour concerning SRH to some extents. However, evaluation data on SRH programmes in sub-Saharan Africa are scarce. The studies presented in this thesis contribute to the knowledge base in the specific context of Bolgatanga municipality, where research is limited and people face poverty, unemployment, food insecurity and a lack of cash. The literature advised that SRH programmes should be tailored to the social and cultural context of the young people being targeted, that young people should be involved in the evaluation of SRH programmes, and that more knowledge is required on what teachers think about the implementation of SRH programmes. To improve SRH programmes in Bolgatanga municipality, these aspects were addressed in the studies contained in this thesis. General recommendations are given in this thesis to protect young people against adverse consequences of risky sexual behaviour. But for the development of SRH programmes, the concrete results of the studies could be used as well. For example, programmes could include and address the specific social and cultural factors that were analysed, and the different types of risky sexual behaviour of young people, their motives and its consequences.

IMPLEMENTATION

To help implement the recommendations, this thesis (or the official e-book of this thesis) will be sent to Ghanaian organisations and institutions such as YHFG, the Ghana Health Service, the Ghana Education Service, the Navrongo Health Research Centre and Afrikids. Copies will also be given to Western organisations that work on SRH education in Bolgatanga or that send volunteers to Bolgatanga, such as 'Ontmoet Afrika', WEB. Foundation, Girls Not Brides and Mary Stopes International. In addition to the thesis itself, these Ghanaian and Western organisations will also receive a popular summary with the conclusions and recommendations written in non-academic English to make it accessible for a wider group in Ghana.

As sending all these organisations a copy of the thesis will not be sufficient to actually implement the recommendations, it will be necessary to advocate for them and to meet with people face to face to explain their urgency and importance. This would normally be a challenge for a researcher based in the Netherlands. In this case, however, the PhD research was started because a stakeholder –YHFG in Bolgatanga – was interested in the research questions that the thesis sought to answer. In January 2009, before the PhD project was officially started the researcher discussed research proposals with YHFG director Dr John Krugu. Indeed, this project aimed to further that organisation's mission to develop and facilitate SRH education and SRH programmes for youth in northern Ghana. Having directed YHFG for more than 10 years now, Dr Krugu obtained his doctorate from Maastricht University in 2016 on the sexual and reproductive health of adolescents in northern Ghana. The research methods and preliminary results of the studies presented in this thesis were discussed continuously

with Dr Krugu. The researcher is confident that the director and various other competent employees at YHFG will use these results and recommendations to develop and improve SRH education programmes and to reach teachers, parents, social workers, health workers, religious leaders and traditional leaders through their advocacy activities. The researcher will also remain involved with YHFG as a board member of their European partner JugendPartnerschaft Ghana (JPG). JPG advises YHFG on projects, including their SRH programmes, and supports them with fundraising.

Furthermore, during her fieldwork, the researcher met various stakeholders who were interested in her research findings and recommendations. A growing number of stakeholders can be reached by Facebook and e-mail, so they will receive the popular summary and can receive the whole thesis if they are interested. Stakeholders who do not have access to Internet, will be reached through YHFG or other key informants. A press release about the research findings and recommendations will be sent to the national and local Ghanaian press and presented on Facebook.

Finally, there are plans to organise a conference in Bolgatanga, together with YHFG, about SRH education for policy makers, SRH educators, teachers, parents, social workers, health workers, traditional leaders and religious leaders, and of course for young people themselves. The aim of the conference will be to transfer knowledge about the sexual behaviour of young people in Bolgatanga, to share ideas and experiences, and to discuss solutions.

This thesis describes the conceptions, knowledge, attitudes, motives and behaviour of young people in Bolgatanga municipality, Ghana, regarding premarital sex, multiple sexual partners and unprotected sex. It also evaluates a sexual and reproductive health education programme for students in the region. It concludes by recommending ways to protect young people in Bolgatanga municipality from the potentially harmful consequences of risky sexual behaviour.