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Perceptions, knowledge and exercises of sexual and reproductive health rights and associated factors among adolescents in Arsi zone, Ethiopia: A sequential explanatory mixed method study

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Abstract

Sexual and reproductive health rights (SRHRs) are the rights of all people regardless of their age, sex and other characteristics to make choices about their own reproductive issues. However, evidence showed that adolescents lacked the capacity to exercise due to various factors. This study aimed to investigate the perceptions, knowledge and exercises of SRHR and associated factors among secondary school adolescents in Arsi zone. In this study a sequential mixed-method study design with two phases of data collection was conducted. In Phase I, the quantitative data were collected from adolescents (15-19 years) using self-administered questionnaires. In Phase II, an interview guide was used to collect data from 12 key informant interviews with teachers and health care providers and 4 focus group discussions with adolescents. Quantitative data was analysed using SPSS 25 while thematically used in the qualitative phase. Overall, less than half (26.1%) adolescents had the ability to exercise their SRHRs. Age 17-19 years (AOR=3.30, 95% CI: 2.17-5. 23), grades 11-12 (AOR=1.69, 95% CI: 1. 23-2.35) and knowledge (AOR=1.47, 95%CI: 1.05-2.05) were significantly associated with SRHRs exercises. Adolescents had misperceptions and limited knowledge to exercise their reproductive health rights. *(Afr J Reprod Health 2022; 26[11]: 67-78).*

Keywords: Adolescents, knowledge, perceptions, sexual and reproductive health rights, Ethiopia

Résumé

Les droits à la santé sexuelle et reproductive (SDSR) sont les droits de toutes les personnes, quels que soient leur âge, leur sexe et d'autres caractéristiques, à faire des choix concernant leurs propres problèmes de reproduction. Cependant, les preuves ont montré que les adolescents n'avaient pas la capacité de faire de l'exercice en raison de divers facteurs. Cette étude visait à enquêter sur les perceptions, les connaissances et les exercices de SDSR et les facteurs associés chez les adolescents du secondaire dans la zone Arsi. Dans cette étude, une conception d'étude séquentielle à méthode mixte avec deux phases de collecte de données a été menée. Dans la phase I, les données quantitatives ont été recueillies auprès d'adolescents (15-19 ans) à l'aide de questionnaires auto-administrés. Dans la phase II, un guide d'entretien a été utilisé pour collecter des données à partir de 12 entretiens avec des informateurs clés avec des enseignants et des prestataires de soins de santé et de 4 discussions de groupe avec des adolescents. Les données quantitatives ont été analysées à l'aide de SPSS 25 tout en étant utilisées de manière thématique dans la phase qualitative. Dans l'ensemble, moins de la moitié (26,1 %) des adolescents avaient la capacité d'exercer leurs DSSR. Âge 17-19 ans (AOR=3,30, IC à 95 % : 2,17-5,23), années 11-12 (AOR=1,69, IC à 95 % : 1,23-2,35) et connaissances (AOR=1,47, IC à 95 % : 1,05-2,05) étaient significativement associés aux exercices de SDSR. Les adolescents avaient des perceptions erronées et des connaissances limitées pour exercer leurs droits en matière de santé reproductive. *(Afr J Reprod Health 2022; 26[11]: 67-78).*

Mots-clés: Adolescents, connaissances, perceptions, droits à la santé sexuelle et reproductive, Éthiopie

Introduction

According to the definitions of World Health Organization (WHO), the word adolescence is age between 10-19 years while the age 15-24 years is considered as youth[1,2]. Adolescence is a critical time associated with a numerous of dramatic changes, leading to complexity and testing, in which teens is not properly informed of their sexual and reproductive health (SRH) needs. This young people have the rights of sexual and reproductive health rights (SRHRs), as do older people, but being low in social status, or economy, lack of independence, and physical vulnerability make it very difficult for them to exercise such rights[3]. The components of the adolescents sexual and reproductive health rights (ASRHRs) includes the prevention of sexually transmitted infections

(STIs)/ human immunodeficiency virus (HIV), sexual violence, right to consent of marriage, education and essential health services access and utilization[4]. Moreover, SRHRs include access to SRH care services, such as information relating to sexuality, sexuality education, respect for bodily integrity, choosing own partner, deciding to be sexually active or not, consensual sexual relations and marriage, decision whether or not and when to have children and pursuing a satisfying and pleasurable sexual life[5].

Another evidence suggests that SRHRs focus on fundamental human rights including the right to life, liberty and security of person[6]. As a result, SRH services can be accessed universally through preventing early child marriage, female genital mutilation(FGM) and sexual violence and exploitation and accessing family planning services, safe and legal abortions and comprehensive sexuality education for girls and boys but SRH problems are increasing because of the increasing rates of sexual activity, early pregnancies and STIs[7].

In 1994 the International Planned Parenthood Federation Charter (IPPF) reports that the new SRHRs must focused on health care information and education, health, freedom, privacy, freedom of thought, equality, marriage choice and the number of children, freedom from torture and access to benefits of scientific research[8]. However, early and unprotected sexual activity and misconceptions about HIV/AIDS are prevalent, particularly among rural dwellers[9]. About 50% of adolescents (15–19) gave birth in most countries as a result of the lack of access, demand and knowledge about SRH services among sexually active adolescent girls[10]. In Ethiopia, childhood marriage is one of the challenges in the country and almost half of married girls gave birth within the age of 15–19 years. Though the legal age for marriage in the country is above 18, about 77% of girls gave their first birth before the age of 18 years[11]. Furthermore, in this country laws and policies are generally restrictive and the environment is not conducive to recognize adolescents SRHR for healthy development[7,11]. The existing maternal health programs and school education systems were not encouraging adolescents to have adequate and accurate knowledge, perception and exercises of their SRHRs[11]. Although a few studies have examined adolescents' knowledge of SRH services in Ethiopia, the concept of sexual and reproductive health rights has not been well researched. Therefore, this study was aimed to fill the information gap and used as a baseline data for policy makers to plan and implement appropriate interventions.

Methods

Study setting and design

This study was conducted in randomly selected five secondary schools and two health centres in rural settings of East Arsi zone, Oromia regional state, Ethiopia. Oromia is one of the regional states in Ethiopia and the homeland of the Oromo people. Its capital city is Addis Ababa (Finfinne) and it is the largest region in Ethiopia. Based on the 2007 Census conducted by the CSA, East Arsi zone has a total population of 2,637,657, of whom 1,323,424 are men and 1,314,233 women[12]. A mixed-method sequential explanatory design was applied in two phases. First, a quantitative cross-sectional survey was conducted in five secondary schools with adolescents at rural schools from September 10 to November 30 2021. Thus, after the first quantitative phase, follow-up in-depth interviews (IDIs) with school teachers and health care providers and focus group discussion (FGDs) with adolescents who have not been participating in the first phase are conducted.

Sample size and sampling procedure

In phase I, the sample size was determined using a single population proportion formula with the assumption of 95% confidence interval (proportion of SRH knowledge or P = 57.3% study done in Ethiopia[21], 5% margin of error (d), 2 design effects, and addition of 10% non-response rate. The final sample size was 827. A multi-stage sampling method was applied to select a representative sample of adolescent students. In the first stage, the rural secondary schools in the East Arsi zone were listed, then from the total 19 rural schools five were selected by a simple random sampling method.

Secondly, school adolescents were stratified by their grade level of attendance from 9 to12 grades. Sample size was then allocated proportionally after obtaining a list of students from the respective school administration. Finally, the study participants were selected from each grade by using systematic random sampling every kth from the sampling frame of the student roster. For FGDs, 24 adolescents who did not participate in the quantitative survey were involved until data saturation reached. The FGDs were carried out with 12 boys and 12 girls aged 15-19 years. Each FGD consisted of 8-12 participants. The participants were purposively recruited based on their age and gender to create relatively homogenous groups. Also, 12 in-depth interviews (IDIs) with teachers and health care providers were conducted. School teachers and health care providers were purposely selected to gain additional knowledge and in-depth understanding of the study.

Data collection procedure and tool

For the quantitative phase, data were collected using a pre-tested, self-administered questionnaire adapted from previous studies conducted in Ethiopia and Pakistan[7,16]. The questionnaire consisted of three sections: socio-demographic, individual perception and knowledge of SRHRs, and exercises. The original questionnaire was developed in English and then translated into the local Afan-Oromo language. The translated version was then translated back to the original English version for consistency. Five data collectors who were BSc degree graduates in midwifery and two supervisors (Msc in midwifery) conducted the data collection following orientation on study objectives, benefits of the study, research ethics and informed consent, and data collection techniques. For the qualitative phase, the interview guides were developed by researchers after the analysis of the quantitative results to enrich the quantitative findings. The FGD and IDI provided detailed information on SRHRs and addressed issues not covered by the questionnaire. The discussions and interviews were recorded with digital tape recorders after permissions were granted from each participant. In addition, non-verbal cues from participants were recorded through note taking. During discussion with adolescents male and female facilitators conducted separately with young males and females adolescents.

Study variables

Dependent

Ability to exercises sexual and reproductive health rights (yes/no).

Independent variables

Socio demographic variables

Age, sex, grade level, marital status, religion, ethnic, father's education level, mother's education level, the pocket money source.

Validity, reliability and trustworthiness

To ensure the quality of study a pretest was conducted in another school with 5% of the samples. The reliability scores were computed using the Cronbach Alpha as follows: perceptions to SRHR (.85) and awareness of SRHR (.81). Furthermore, the face and content validity was ensured by identifying the difficulty in understanding the phrases and words of dimensions, ambiguities and misunderstanding in the questionnaire. It was validated by the experts in the subject matter. To ensure the trustworthiness of qualitative data, analysis and interpretation, credibility, transferability, dependability and conformability of the study was applied.

Data analysis

For the quantitative (phase I), data entry was conducted by using the Epi info version 7.2.4 and exported to the statistical package for social science (SPSS) version 25 for analysis. A binary logistic regression model was employed to assess the association between the outcome variable and explanatory variables. Variables with a p-value less than 0.25 in the bivariable analysis were included in the multivariable analysis. In the final model, the multivariable logistic regression model, variables with a p-value less than 0.05 were taken as statistically significant. For phase II, Transcripts from FGDs and IDIs were thematically analysed using an inductive and deductive approach. Three research assistants read and re-read transcripts to

become familiar with the data. Transcripts were marked with initial codes relevant to the research questions which formed the initial coding frame, and broadly related to: SRHR knowledge, source of information, perception on SRHR and sexual abuse, barriers to exercise SRHR and ability to exercise (table 2). The three research assistants independently coded transcripts and met regularly to review for consistency. Discrepancies were resolved through discussion with the research team. New codes were added as they emerged and analysis continued until no new codes were identified. Similar codes were then grouped into categories and subcategories to form the themes. Quotes from FGDs and IDIs were recorded to illustrate themes. For the verbatim transcription a careful translation was used to guarantee the accuracy of the original messages of the interview. The recordings were listened to several times in order to form a general structure. After this, each audio taped interview was exactly transcribed by the corresponding author of this manuscript and read again and again in order to receive its appearance. The findings from the phases I and II approaches were merged through a comparison of findings side by side. Each quotation was named with the participant's code number as follows: "G1=Group 1, P1=participant 1, then G1/P1 = group 1 participant 1, G3/P3 = group 3 participant 3, etc.

Thematic analysis for qualitative phase

In this study, the following themes, categories and subcategories emerged; five themes emerged and were classified into five categories. Finally, twelve subcategories were derived from the thematic analysis of the descriptions provided by the participants (table 2). The discussions were triangulated with the quantitative results.

Results

Socio-demographic characteristics of participants

As presented in table 1 below, in the quantitative respondents out of the proposed 827 adolescents, 800 adolescents with 96.7% response rate responded. The mean age was 17 years (±1.3SD years). Their socio demographic characteristics were similar to the qualitative study participants (table 4.1). The majority of adolescents 598 (74.8%) were found in 17-19 years. The distributions of the adolescents by grades were almost equally divided between grades 9 and 10 (50.3%) and grade 11 and 12(49.8%). Among adolescents, 457(57.1%) were males while 343 (42.9%) of them were females. Regarding their marital status the majority of the respondents 787(98.4%) was single. Nearly half of the respondents, 359 (44.9%) were Muslims followed by 270(33.8%) orthodox. Regarding adolescents interviewed 554 (69.3%) were living with their parents as only 31(3.9%) lived in a rental house. For details, see table1 below. The qualitative research participants included 6 school teachers of 35-5 years and 5-20 years of teaching experience. Also, 6 health care providers (aged 32-54 years) were interviewed during IDIs. During FGDs 24 adolescents aged 15-19 years participated in discussion.

Awareness and source of information on reproductive health rights

Respondents were asked nine questions about knowledge of SRHR. Well-known rights are available as rights to control their sexual and reproductive health 450(56.3), use SRHS 265(33.1%), free from any torture 450(56.3), education 385(48.1), life and equality 549 (68.6), free from sexual violence 507(63.4) and right to contraceptive use 283(35.4). Based on the information index to determine the overall knowledge the results show that less than half of the respondents 362(45.3%) were knowledgeable about SRHRs (Table 2). Regarding adolescents' main sources of SRHRs information, Peers 300(37.5%), TV/Radio 191(23.9%), health workers 144(18%), teachers 113(14.1%) and parents 52(6.5%). Also, during the qualitative study discussants knowledge was limited on the SRHRs contents. Each quotation is named with the participant's code number as follows: "G1=Group 1, P1=participant 1, then G1/P1 = group 1 participant 1, G3/P3 = group 3 participant 3, etc. The following quotes demonstrate their awareness about the components of adolescents SRHRs:

Table 1: Socio-demographic characteristics of respondents

Variables	(N=800)	
	Number	(%)
Age group		
15-16	202	25.3
17-19	598	74.8
Gender		
Male	457	57.1
Female	343	42.9
Education level		
Grades 9 to10	402	50.3
Grades 11 to 12	398	49.8
Religion		
Muslim	359	44.9
Orthodox	270	33.8
Protestant	143	17.9
Wakeffata	28	3.5
Ethnic group		
Oromo	629	78.6
Amhara	140	17.5
Gurage	25	3.1
Others*	6	0.8
Marital status		
Single	787	98.4
Married	11	1.4
Divorced	2	0.3
Widowed	0	0.0%
Whom you live with		
Both parents	554	69.3
Father only	52	6.5
Mother only	87	10.9
Guardian/relatives	76	9.5
Live independently in rental house	31	3.9

*Others =any ethnic group out of major groups (Oromo, Amhara & Gurage) in the area

'It is difficult to list the components of the adolescents' SRHRs. Because we did not learn about it, and no one taught us." (G1P5).

''I think adolescents' SRHRs, are the service that adolescents can use to prevent HIV/AIDS by using condom during sex."(G3P2).

During IDIs, concerning their contribution to promote adolescents' awareness of SRHRs, key informants (health care providers and school teachers) were interviewed.

"In our clinic it is not common for adolescents to come and use the services. But I suggest they must inform well." (Healthcare provide)

Most care providers have confirmed that girls and boys often go to them peacefully and shyly to seek advice on their SRH issues, especially with pregnancy / abortion and condom use. Also, most schoolteachers said that they would avoid such conversations because of embarrassment and fear.

Knowledge on sexual assault/harassment

The term "sexual assault" refers to sexual intercourse or conduct that occurs without the express consent of the victim. As outlined in (Figure: 1). under this study adolescents' knowledge of sexual assaults forms was assessed in eight questions. The well-known forms of sexual assaults were forced marriages 278(34.9%), unwanted sexual touching 333(42.5%), abusive language 193(24.2%), attempted rape 291(79.9%) and denial service provision 261(32.7%). Overall, adolescents' knowledge of sexual assaults was poor 326 (40.9%). During FGDs, the majority of the participants were unaware of what direct and indirect sexual assault constituted. Despite the fact that some participants claimed to have heard of both direct and indirect sexual assault, many of them were unsure of what it exactly meant. All adolescents from participating in FGDs noted that they unclearly remembered this classification and were unable to provide an exact explanation. Furthermore, adolescents were asked to give examples of sexual abuse, but the majority of them unable to classify sexual abuse into three forms which is physical, verbal and visual sexual abuse. However, from IDIs there was only one healthcare provider who defined direct and indirect sexual abuse correctly. The participant described direct sexual abuse as an abuse with sexual contact and indirect abuse to not involve sexual contact.

''Direct sexual abuse involves having sexual contact with the victim, for example rape, whereas indirect sexual abuse refers to sexual acts without any sexual contact, like having sexual conversations'' (Healthcare provide).

Perceptions on sexual and reproductive health rights

A majority of adolescents 517 (64.6%) reported that adolescents should know about their SRHRs while 283(35.4%) had poor perceptions. Moreover, 439 (54.9%) of adolescents agreed to SRHRs privacy and disagreed with a man should have sex

Table 2: Overview of the themes, categories and sub-categories of the study

THEMES	CATEGORIES	SUB-CATEGORIES
Understanding	Knowledge SRHR	Awareness on SRHR
		Sources of information
		Knowledge on sexual assault
Perceptions	Perceptions on ASRHR	Perceptions on importance of ASRHRs
		Perceptions of victims of sexual abuse
Exercise	Practice to SRHR	Ability to exercise SRHR
Suggestions	Suggestions for improvement	Suggestions to improve adolescents:
		Knowledge of SRHR
		Perceptions of SRHR
		Ability to practice of SRHR
Barriers	Barriers hindering SRHR exercises	Lack of knowledge
		Being Shy and shame
		Religious and cultural norm
		Inaccessibility of services
		Care providers judgmental attitude
		Financial challenge

whenever he wants it regardless of his wife's wishes 225 (59.1%) (Table 3).

In the qualitative phase, discussants desire to gain education about SRHR at school. Also, majority of students felt it better to know about SRHRs education through parents. Almost all participants both during FGDs and IDIs in favour of adolescents SRHRs cannot be overlooked, especially in the current era of information technology. Adolescents stated this as follows:

"I perceived that knowing these rights is essential because it empowers us to know what kind of rights we have and to exercise them." (G3P3).

Health care providers also supported this during IDIs as below:

"Of course, if the adolescents had enough knowledge and experience of SRHRs, they would have improved their health and self-esteem." (Health care provides).

Perceptions of victims of sexual abuse

In FGDs when adolescents asked what kind of person was most likely to be a sexual abuse victim, the vast majority said that women and girls were more vulnerable than men.

''I know of most of the time girls who sexually abuse but I did not hear about a boy'' (G4P2).

From IDIs, although sexual abuse can occur to anyone of any age, every participant in this study agreed that adolescents were most likely to experience sexual abuse. Majority of key informant participants stated that besides their innocence, adolescents are not able to identify an experience of sexual abuse as right or wrong.

''Adolescents can be easily manipulated with gifts or because has limited knowledge so that they gain trust towards the perpetrator and obey when told to keep the sexual experience a secret''. (Teacher, Female).

Exercises to sexual and reproductive health rights

The results showed that less than half of the 208 (26.1%) respondents had the ability to freely use their SRHRs. This is similar to the qualitative findings, in which the majority of participants spoke about the limited independence of the adolescents. As quoted below:

"How can we exercise our rights without being aware of our rights?

I think first we have to know the SRHRs contents allowed to us'' (G3P5).

During IDIs health care providers and school teachers also supported the above statements as below.

"With insufficient knowledge, young people are not able to exercise their rights. But, I think this may be different in urban areas where young people are more knowledgeable and knowledgeable, have more energy to exercise than in rural areas."(Healthcare provider)

''Adolescents should have adequate information and knowledge to exercise their rights.''(Teacher)

All study participants suggested that supporting adolescents in exercising their SRHR, such as the right to education, access and use care, and consent

Table 3: Knowledge of sexual and reproductive health rights (N=800)

Questions	Yes **Frequency (%)**	No **Frequency (%)**
Right to life, liberty and security	549(68.6)	251(31.4)
Right to partner's consent for health service	495(61.9)	305(38.1)
Right to consent to marriage	218(27.3)	582(72.8)
Right to access and use SRHS	265(33.1)	535(66.9)
Right to enjoy and control their sexual and reproductive life	450(56.3)	350(43.8)
Right not to be subjected to torture	450(56.3)	350(43.8)
Right to be free from sexual violence	507(63.4)	293(36.6)
Right to education and information	385(48.1)	415(51.9)
Right to married women to use contraceptives without her husband's consent	283(35.4)	517(64.6)
Overall knowledge of SRHRs (N= 800)	**f (%)**	
Knowledgeable	362(45.3)	
Not knowledgeable	438 (54.8)	
Mean +SD	4.26+1.54	

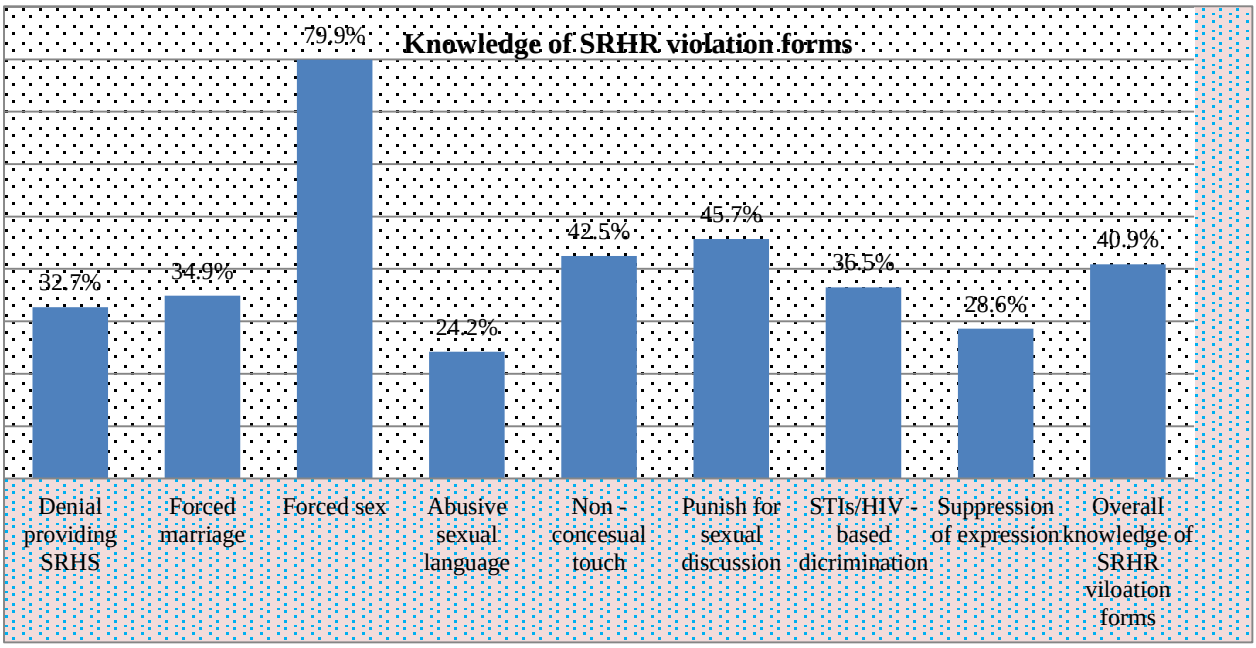

Figure 1: Respondents' knowledge on forms of sexual assaults (n=800)

in marriage and gender equality, autonomy and avoidance of sexual abuse / violence must encourage.

Factors associated with exercises of sexual and reproductive health rights

The relationship between variables and exercise of SRHRs was analysed using binary logistic regressions. Those variables with p-value <0.25 in the bivariable analysis were entered into the multivariable logistic regression model analysis to examine the effect of independent variables on outcome variables (SRHRs exercise) while controlling other independent variables. Aged 17-19 years (AOR = 3.30, 95% CI: 2.17-5. 23). Grades 11 to 12 (AOR=1.69, 95% CI: 1. 23-2.35). Knowledge of SRHR (AOR = 1.47, 95% CI: 1.05-2.05) were all significantly associated with exercises of SRHRs at (p <0.05) (Table 4). During FGDs and IDIs, when participants were asked whether lack of awareness of sexual abuse made an individual likely to become a victim, many agreed. Most participants also mentioned that community

Table 4: Respondents' perceptions of SRHRs

Variables	Agree	Neutral	Disagree
	n (%)	**n (%)**	**n (%)**
Unmarried couples do not have the right to use contraceptives without condoms	139(17.4)	144(18)	517(64.6)
Adolescents should be free from discrimination/abuse/ violence	518(64.8)	128(16)	154(19.3)
Adolescents must access, use and affordable reproductive health information and services	374(46.8)	255(31.90	171(21.4)
The right to use a reproductive health service is kept confidential	439(54.9)	161(20.1)	200(25)
Parents have a right to make decisions about their children	177 (22.1)	122(15.3)	501(62.6)
Right to terminate pregnancy	236(29.5)	199(24.9)	365(45.6)
A man should have sex whenever he wants to, regardless of his wife's wishes	473(28.1)	102(12.8)	225(59.1)
Overall perceptions			
Good perception		517(64.6%)	
Poor perception		283(35.4%)	

Table 5: Binary and multiple logistic regression analysis on SRHRs exercises

Variables	Ever exercised SRHRs		COR [95% CI]	AOR [95% CI]	P-value
	No	**Yes**			
Age category					
15-16	177	25	1.00	1.00	
17-19	414	184	3.14(2.01-4.95)	3.30 (2.17-5.23)	0.01
Gender					
Male	325	132	1.00	1.00	
Female	266	77	0.71(0.51- 0.98)	1.40(0.99-1.97)*	0.04
Education level					
Grade 9-10	317	85	1.00	1.00	
Grade 11-12	274	124	1.68(1.22 -2.32)	1.69 (1. 23-2.35)	0.01
Marital status					
Single	571	190	1.00	1.00	
Married	11	12	1.42(3.27-7.55)	2.89 (1.23-6.83)	0.02
Divorce/widowed	9	7	5.08(0.91-28.30)	5.08(0.91-28.30)	0.06
Have own income					
Yes	144	87	1.00	1.00	
No	447	122	0.45(1.32-0.63)	0.55(1.38-0.78)	0.60
Knowledge					
Not knowledgeable	213	100	1.00	1.00	
knowledgeable	378	109	1.62(1.18-2.24)	1.47(1.05-2.05)	0.024
Perceived susceptibility					
No	360	96	1.00	1.00	
Yes	231	113	1.83(0.33-2.52)	1.86(0.34-2.59)	0.061

References (1.00), has no association (*), Adjusted odd ratio (AOR) and Crude odd ratio (COA)

and family understanding and awareness of sexual abuse was limited. Moreover, when questioned further, some participants explained that factors hindering adolescents from exercising SRHRs were listed: lack of knowledge, cultural and religion, family fear and financial challenges.

Discussion

The main aim of this study was to explore and describe adolescents' perceptions, knowledge and exercises on sexual and reproductive health and rights and associated factors. This study revealed

that less than half (45.3%) school going adolescents knew sexual and reproductive health rights (SRHRs). Also it was affirmed with the qualitative phase, majority of the adolescents were unable to name correctly SRHRs contents asked. This finding is almost similar with the studies conducted in the Shire, northern Ethiopia (47.1%)[21] and Sidama region, Ethiopia (43.9%)[23]. However, this finding is lower than institution-based cross-sectional studies conducted in Wolaita Sodo, southern Ethiopia(54.5%)[14] and southwest Nigeria (60.3%)[19]. This discrepancy might be explained by the methodological differences across the conducted studies. For example, the Nigerian study used fewer items to measure the level of knowledge of SRHRs[19]. Furthermore, the observed variation could also be due to the differences in the study settings and the differences in educational status, set-up, and sociocultural characteristics of the study population across the studies. Evidence suggested that with knowledge gaps identified, raising awareness amongst adolescents and the wider community could address misunderstandings, encourage participation and set the stage for stronger accountability mechanisms[15-16]. Regarding the sources of SRHR information, the study shows that peer ranked as the highest source of SRHRs information by the adolescents with (37.5%). Likewise, qualitative findings revealed that peer group is the only place where majority of adolescents can openly discuss and debate sex related matters among each other because they trust each and they may lack confidentiality among other people especially parents. This high ranking may be attributed to various reasons such concerns of confidentiality which pointed out that adolescents do not seek health care information from parents or health care providers because of concern about confidentiality, lack of trust in them and embarrassment. However, the quality ofinformation passed on through friends, who are of the same age group remains questionable. This also similar to the study done in Vanuatu[17] and another study conducted on Adolescents in Vulnerable Environments (WAVE) study, to focus on very disadvantaged urban adolescents (aged 15–19 years) across five diverse sites, which include: Baltimore (USA), Ibadan (Nigeria), Johannesburg (South Africa), New Delhi (India), and Shanghai (China)[18] states that peers were a common source of information for SRH of adolescents but could not be trusted or selected due to the limited knowledge they have and lack of experiences[18].

The study found that adolescents' perceptions of SRHR are not uniform and show wide variation among them. Generally, this research reveals a gap in perceptions about adolescents SRHR in Ethiopia, due to various influencing determinants. This qualitative research also reports a low perception amongst adolescents due to lack of knowledge, cultural values, and religion. This finding is similar with other studies from Ethiopia[22] and Pakistan[7]. The literature also draws attention to the fact that adolescents' wrong perceptions on SRHR, may predispose them to adopt negative behaviour, which further aggravate health risks and social problems[19].

In this study, adolescents' ability to exercise SRHRs was limited. Quantitatively only (26.1%) had exercised SRHRs in the last 12 months. This was positively and significantly associated with knowledge of reproductive health rights. Adolescents who had knowledge of SRHRs were 1.4 times more likely to exercise SRHRS. This was lower than the finding of studies done in southern Ethiopia (37%)[23].The possible reason for the difference could be due to the higher chance of receiving counselling by healthcare workers and educational status of the adolescents.

Moreover, the qualitative data from the study of key informants showed that the majority of adolescents were quite restricted from exercising their SRHR. It seems very plausible that in rural adolescents are less likely to seek health care services compared to urban adolescents because they simply have more freedom in mobility and awareness. This agrees with a study conducted in Sudan among adolescents[20].

Limitations

In this study certain limitations encountered were due to the nature of the topic and taboos associated with discussion on SRH issues. Main limitations faced were hesitation and non-cooperative behaviour of respondents particularly of adolescents under 18 years of age, which resulted in refusal to participate or withdraw from research after providing few responses during FGDs. This reluctance of discussion due to sensitive approach towards the topic was more common in rural areas. The refusal to participate may bias the results, because the experiences of specific groups may be underrepresented. The study was conducted in five rural secondary schools which are difficult to generalise for all in Ethiopia. Another limitation of the study was its cross-sectional nature that creates difficulties in discovering cause and effect.

Ethical considerations

For both quantitative and qualitative phases, the study was conducted in accordance with the Declaration of Helsinki. Ethical approval was obtained from the Research review committee of the University of South Africa (UNISA) with the reference number (REC-012714-039 NHECR). Further approvals for the study were given by Arsi zone education office and school directors. The participants were provided with consent information that clearly stated their right to withdraw from the study at any time without consequences and assurance of confidentiality and anonymity. Also, the risk involved in the conduct of the study and potential benefits on their health were explained to participants before completing the questionnaire. Individual written consent was also obtained from each participating adolescent and key informant. No personal information was included in the study. Parental consent was sought for participants under the age of 18 years.

Conclusion

The study revealed that adolescents' perceptions, knowledge and exercises to SRHRs were poor. This was influenced mostly by community and lack of basic information, cultural and traditional norms and lack of parental support. The research recommends designing specific policies and educational programmes to promote healthy practices among adolescents. This can be done through use of mass media and designing curriculum with adequate SRHRs education or revising the existing curricula.

Contribution of authors

Daniel BW and HDSK conceived and designed the study, collected, analysed data and prepared the manuscript. Habedi DSK supervised the project conception and design, co-analyzed the study data and co-prepared the manuscript. All authors read and approved the final manuscript.

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Competing interest

We all the authors declare no conflict of interest.

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