

Assessment of Factors Influencing Sexual Reproductive Health Communication between Parents and Adolescents in Tabora Region

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Abstract

The study assessed the factors influencing Sexual Reproductive Health (SRH) communication between adolescents and Parents in Tabora region. It adopted a mixed study design whereby both qualitative and quantitative methods of data collection were used in the field. The general objective of the study is to provide an understanding on the factors influencing parent-adolescent communication on sexual and reproductive health behaviours in Tanzania. The specific objective of the study was to assess the factors influencing parent-adolescent communication on SRH in Nzega District. It also used in-depth interview, focused group discussion and observation to answer the research objective. The results indicated that, communication on SRH were gender sensitive with more communication between female adolescents and mothers leaving male adolescents with low levels of communication with both parents. This was the result of gender gap in children grooming which attach a big role to mothers than fathers. Apart from that religion was also found to be an important predictor of SRH communication between parents and adolescents. Moreover, parents' attitude on the importance of SRH communication and their perceived ability to communicate SRH topics with adolescents also predicted the levels of communication concerning SRH because positive parents' attitudes and perceptions were associated with high levels of SRH communication. The study recommends that SRH should be strengthened at community level to reduce early adolescent child birth and maternal mortality. Also, it concludes that SRH communication is essential for raising awareness on issues of reproductive health which govern future population growth. Therefore, it should be enhanced through promoting positive parents' attitude and perception towards such communications.

Keywords: Adolescent, Parents, Sexual Reproductive Health, parent-adolescent communication

1.0 INTRODUCTION

The study assessed the factors influencing Sexual Reproductive Health (SRH) communication between adolescents and Parents in Tabora region. It adopted a mixed study design whereby both qualitative and quantitative methods of data

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collection were used in the field. The general objective of the study is to provide an understanding on the factors influencing parent-adolescent communication on sexual and reproductive health behaviours in Tanzania. The specific objective of the study was to assess the factors influencing parent-adolescent communication on SRH in Nzega District. It also used in-depth interview, focused group discussion and observation to answer the research objective. The results indicated that, communication on SRH were gender sensitive with more communication between female adolescents and mothers leaving male adolescents with low levels of communication with both parents. This was the result of gender gap in children grooming which attach a big role to mothers than fathers. Apart from that religion was also found to be an important predictor of SRH communication between parents and adolescents. Moreover, parents' attitude on the importance of SRH communication and their perceived ability to communicate SRH topics with adolescents also predicted the levels of communication concerning SRH because positive parents' attitudes and perceptions were associated with high levels of SRH communication. The study recommends that SRH should be strengthened at community level to reduce early adolescent child birth and maternal mortality. Also, it concludes that SRH communication is essential for raising awareness on issues of reproductive health which govern future population growth. Therefore, it should be enhanced through promoting positive parents' attitude and perception towards such communications.

Tanzania is experiencing high risky sexual behaviours among adolescents and their associated health outcomes (MoHCDGEC, 2018). Moreover, communication concerning sexuality with young people has a long history in Tanzanian societies as it was practiced in different regions and was commonly known as "Jando na Unyago" (Anu, 2017). The practice was done before puberty to initiate a child to adolescence with key messages with respect to elders, life skills, personal hygiene, family life as well as sexuality and sexual activities (Halley, 2012). During these events adolescent communication responsibilities were done by elders in the community locally known as "kungwi" rather than parents themselves. This practice was superseded by indirect SRH communication through external sources such as teachers, grandparents, aunts and uncles (Maina et al. 2020). Mekonen et al. (2018) and Adam et al. (2020) put parents especially mothers at the central point of SRH information sharing to adolescents. Despite the increasing demand of parent-adolescent communication about SRH issues, the level of communication is very low with limited topics of discussion (Baku et al. 2017; Akida, 2018). Parents especially mothers communicate more with female adolescents than male counterparts due to the assumptions that female adolescents are more vulnerable to negative reproductive health outcomes than male adolescents (Akida, 2018; Oyebuyi et al. 2019). Hence as indicated above the study recommends that SRH should be strengthened at community level to reduce early adolescent child birth and maternal mortality. Also, it concludes that SRH communication is essential

for raising awareness on issues of reproductive health which govern future population growth. Therefore, it should be enhanced through promoting positive parents' attitude and perception towards such communications.

A number of studies indicate low rates of parent-adolescent communication concerning SRH issues in high and low-middle income countries. For example, the study by Vongsavanh et al. (2020) in Vientiane found that only a quarter of high school adolescents had frequently discussed SRH topics with their parents. Similarly, in the studies by Habte et al. (2017) and Ojebuyi et al. (2019) in Ethiopia and Nigeria respectively, they found low rates of parent-adolescent SRH communication. However, gender differentials have been the main determinant of parent-adolescent SRH communication. For instance, mothers discuss SRH issues more with daughters than sons. Whereby, the discussions are in many cases dominated by menstruation and pregnancies topics (Ojebuy et al. 2019). On the other hand, Guilamo-Ramos et al. (2019) found that fathers feel comfortable to discuss sexuality issues with their adolescent sons than daughters although in rare cases. These studies indicate that the low levels and gender biasness in SRH communication prevail without geographical location limits.

Parents education has been addressed as one of the factors influencing SRH communication between parents and adolescents whereas having formal and higher education promotes such communication (Sailaja and Nana, 2017; Ojebuyi et al. 2019). However, this was contrary to the study by Malango, Hegena and Assefa, (2020) on SRH discussions between parents and adolescents and the associated factors in Ethiopia who found that parents do not need high levels of education to communicate SRH topics with their children. On the other hand, religious and cultural beliefs have been documented as the barriers to SRH communication between parents and adolescents. The study done by Baku et al. (2018) in the Accra Metropolis, Ghana revealed different feelings on SRH communication among religious believers whereby Pentecostal believers were against such communication while the Catholics were in support of such communication with more caution about condoms and contraception discussions. This indicated that, religion is misconstrued by parents as the barrier to SRH communication while in the actual sense it is not against such communication rather it insists about abstinence (Motsomi et al. 2016; Bikila et al. 2021).

Parents' attitude and self-efficacy were also found to be important determinants of SRH communication between parents and adolescents. Usonwu, Ahmad and Curtis-Tyler (2021) in their qualitative review and thematic synthesis on parent-adolescent SRH communication in sub-Saharan Africa addressed parents' self-efficacy as the factor influencing SRH communication. The study found that lack of self-efficacy among parents was the main barrier to SRH communication. Likewise, Malango, Hegena and Assefa (2020) in their study on Parent-Adolescent Discussion on Sexual and Reproductive Health Issues and Its

Associated Factors Among Parents in Sawla Town, Gofa Zone, Ethiopia found that positive attitude towards SRH communication determined such discussion. This indicates that positive attitude on the importance of communicating SRH issues and positive perception on the ability to communicate SRH topics with adolescents are very important triggers of SRH communication between parents and adolescents. Nevertheless, their interaction effects on individual parents' and adolescents' characteristics are not well addressed hence creating the knowledge gap.

2.0 THEORETICAL LITERATURE REVIEW

2.1 Family Communication Pattern Theory (FCPT)

The FCPT was established in 2006 by Koerner & Fitzpatrick explaining how parents interact with their children to process information coming from the family's external environment. The theory has two predilections which are compliance and conversation. Under conversation predilection parents are committed to unlimited open and frequent discussions with their children on various SRH topics whereas in compliance predilection children are required to abide to family's common attitude, values and beliefs. However, in studying the effects of family communication pattern on family outcomes it is important to consider on both conversation and conformity predilections. This is because the family outcomes depend on the interaction of the two predilections which are protective (high compliance with low conversation), consensual (high compliance with high conversation), pluralistic (high conversation with low compliance) and laissez-faire (low compliance with low conversation families). This theory has been applied to classify different families' typology (Keating et al. 2013) as well as to measure family communication patterns and their effects on family members' behaviour (Mirzaei-Alavijeh1 et al. 2015; Mashalpoore, 2020; Ahmad & Turnip, 2019). The theory has some weaknesses for it just focuses on the actual communication rather than the outcomes of such communication. However, it is suitable for this study for it recognizes that there is neither universal ideal family type nor universal approach of communicating within families (Koerner & Fitzpatrick 2006).

2.2 Integrative Model of Behavioral Prediction (IMBP)

The model was compounded from the Theory of Reasoned Action (TRA), Socio-Cognitive Theory (SCT), Health Belief Model (HBM) and Theory of Planned Behaviour (TPB) (Fishbein & Ajzen, 2010). The model postulates that an individual's behaviour is determined by his/her intention to perform such behaviour which is influenced by cognitive variables (attitude, perceived social norms and perceived behavioural control). Attitude refers to an individual's evaluations on whether performing a certain behaviour is good or bad whereas perceived norms is based on the perception on whether important social networks (society, and peers) are in support of such behaviour. It also posits that individuals background variables like demographic, socio-economic, culture and media exposure can have influence on either those cognitive variables or that

behaviour directly (Fishbein & Ajzen, 2010). However, the model has been challenged for considering intention towards a behaviour as a moderating factor despite the truth that individual’s intention to perform a certain behaviour can be interfered with external environment (Dai et al. 2017). Nonetheless, despite this weakness the model has been widely used to predict different behaviours in diverse population (Byers et al. 2017; Dai et al. 2017). Hence, its integrative nature gives the best conceptual framework to determine the factors influencing SRH communication and the interaction between those factors and parents’ attitudes, perceived social norms and behavioural control in predicting SRH communication between parents and adolescents.

2.3 Conceptual Framework of the Study

The conceptual framework of this study is based on the IMBP by Fishbein & Ajzen (2010) as indicated in Figure 1.

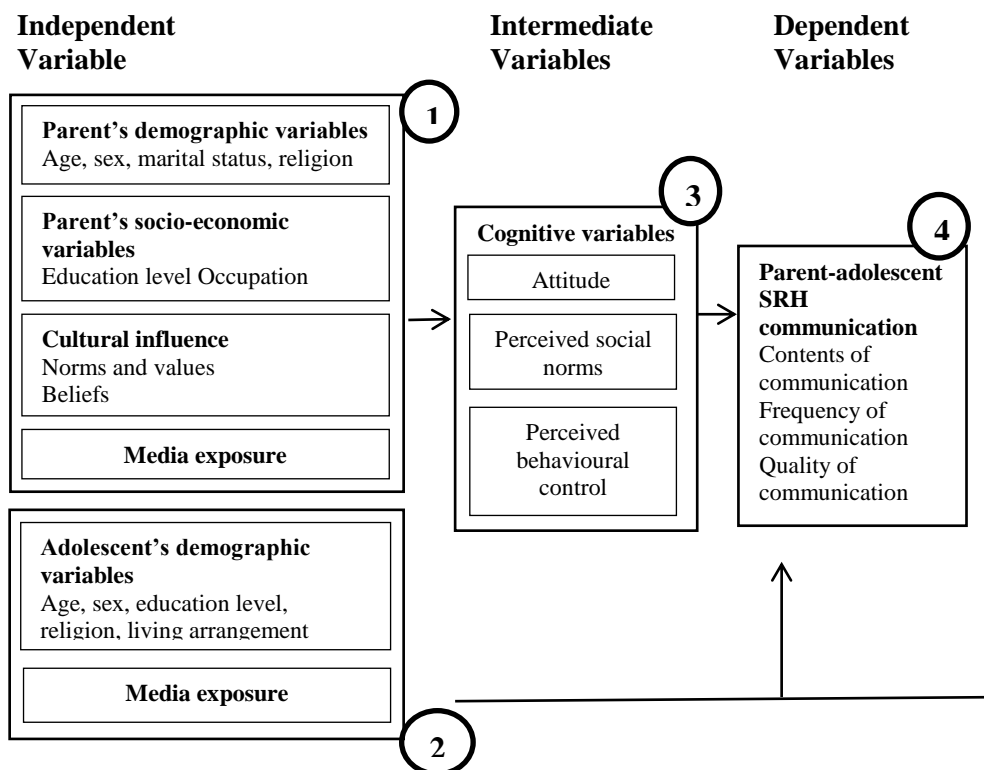


Figure 1: Conceptual framework on factors influencing parent-adolescent communication on SRH
Source: Adopted and Modified from Fishbein& Ajzen (2010)

The model shows how parent’s behaviour in communicating SRH topics can be affected by their demographic characteristics and adolescents’ demographic characteristics either directly or through interacting with their cognitive variables (attitude, perceived social norms and perceived behavioural control). The conceptual framework further indicates independent variables which are more

related to Parents' characteristics like age, sex, marital status, religion, level of education, occupation, religion, norms and beliefs and media exposure (Box 1). Likewise, adolescent characteristics include age, sex, education level, religion, living arrangement and media exposure (Box 2). It also indicates that the nature of parent-adolescent SRH communication (Box 3) is predetermined by both parents' and adolescents' characteristics which can have direct influence or through interaction with parents' attitude, perceived norms and perceived behavioural control towards SRH communication with adolescents (Box 4)

3.0 RESEARCH METHODOLOGY

The study employed an exploratory descriptive cross-sectional design. This design was used so as to get the current overall picture of the determinants and influence of parent-adolescent SRH communication on adolescent SRH behaviours by considering both parents and adolescents. Kumar, (2019) contends that cross-sectional design is useful in obtaining an overall picture of a phenomenon at the time of the study. A total of 384 households with a pair of one parent and one adolescent each were selected from Nzega Town Council and Nzega District Council. Whereby, one ward was selected from each Council. Both bivariate and multivariate analysis were carried out to determine the factors influencing SRH communication between parents and adolescents.

The factors associated with parents and adolescents SRH communication were examined based on adolescents' characteristics such as sex, age, attending school, level of education, person living with, tribe, religion, family type and media exposure. Parents' demographic, socio-economic and cognitive factors were also taken into consideration. The multivariate analysis was based on the logistic regression model transformed from the following logit model

$$Y_j = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_i x_i$$

Furthermore, the interaction effects of parents perceived behavioural control with parent's religion and family type in influencing SRH communication was also tested through separate regression model with interaction term as follows:

$$Y_j = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_n^* Parpercbehavcont$$

4.0 RESULTS AND DISCUSSION

4.1 Association between Adolescents' Characteristics and SRH Communication with Parents

The results in Table 1 indicate that adolescents' sex, religion and family type were the only adolescent characteristics which were statistically significant associated with general SRH communication with parents at 95% CI, (p-value < 0.05). A large proportion (77.6%) of female adolescents communicated with their parents compared to males (67.7%). This is because parents consider

female adolescents to be the most vulnerable to risky sexual behaviours which have more impacts on their reproductive health than males (Akida, 2018; Oyebuyi et al. 2019). On the other hand, adolescents' age, schooling status, level of education, person living with and adolescents' exposure to media were not statistically significant with communication concerning SRH issues.

This gender gap in SRH communication was also confirmed by a 52-year-old female parent at Mambali ward:

"...female adolescents are most prone to risky sexual behaviours and so they are affected more with the outcomes of such behaviours. Therefore, leaving them without telling them to take care of themselves is risky as they can lose their virginity and destroy the family's reputation and some effects are more adverse as they might lead to shame in the family especially when they get pregnancies and/or HIV" (Female parents FGD-Mambali ward on 13/10/2021).

These results are similar with the studies of Kamangu (2017) and Byes et al. (2021) who found that SRH communication was more common among females. Therefore, close monitoring on adolescent girls intends to maintain their virginity until marriage and hence enhance family's prestige (Motsomi et al. 2016). The study further indicates that religion is an important indicator of SRH communication between parents and adolescents whereas more Muslim (78.4%) and Christian (72.9%) adolescents communicated with their parents concerning SRH issues while only (54%) of the adolescents with traditional religion communicated SRH with their parents especially on abstinence. This is confirmed by other studies (Motsomi et al. 2016; Bikila et al. 2021) who clearly established that religious stand on SRH communication depends on the topics of discussion as stated by religious leader:

"... Sexual relationship among unmarried people is not acceptable in Islamic religion. Therefore, the discussion between parents and adolescents should focus on insisting adolescents to abstain from sexual relationship before marriage because promiscuity is against Allah commandments" (Muslim Religious Leader in Nzega Town West on 25/10/2021).

Equally, discussions concerning SRH seem to be high among adolescents in consensual (80.4%) and pluralistic (77.1%) families because these families are characterized by high levels of conversation with more interaction between parents and their children (Koerner & Fitzpatric, 2006). The results further show that less than three quarters of adolescents from protective (60.8%) and *lasses-faire* (60.7%) families communicated SRH topics with their parents. In these families, parents do not value frequent and open communication with their adolescent children due to low closeness between them hence low levels of SRH communication (Carver et al. 2016).

Table 1: Chi-square test between adolescents' characteristics and SRH communication

Adolescents' Characteristics	Had discussion		Chi-square test	
	Yes (n=297)	No (n=105)		
Sex			$\chi^2(1):4.7320$	<i>P-value: 0.030*</i>
Male	67.7	32.3		
Female	77.6	22.4		
Age			$\chi^2(2):2.9556$	<i>P-value: 0.228</i>
15-16	68.7	31.3		
17-18	74.4	25.6		
Above 18	78.9	21.1		
Currently attending school			$\chi^2(1):1.6459$	<i>P-value: 0.200</i>
Attending	70.0	30.0		
Not attending	75.9	24.1		
Religion			$\chi^2(2):8.2801$	<i>P-value: 0.016*</i>
Muslim	78.4	21.6		
Christian	72.9	27.1		
No religion	54.0	46.0		
Tribe			$\chi^2(2):0.6725$	<i>P-value: 0.714</i>
Nyamwezi	73.6	26.4		
Sukuma	72.9	27.1		
Others	66.3	33.7		
Person Living With			$\chi^2(2):4.6506$	<i>P-value: 0.098</i>
Single parent	74.0	26.0		
Both parents	74.7	25.3		
Others	60.0	40.0		
Media Exposure			$\chi^2(1):0.2020$	<i>P-value: 0.653</i>
Exposed	73.9	26.1		
Not exposed	71.8	28.2		
Family Type			$\chi^2(3):15.2040$	<i>P-value:0.002**</i>
Consensual	80.4	19.6		
Pluralistic	77.1	22.9		
Protective	60.8	39.2		
Laisses-fairs	60.7	39.3		

*The test indicates a significant association at 95% level of confidence

Source: Field Survey, 2022

4.2 Association between Parents' Demographic Characteristics and SRH Communication

The results in Table 2 show slight differentials in SRH communication whereby the majority (74.9%) of female parents communicated with their adolescent children concerning SRH compared to male parents (69.9%). The results are similar to the study of Sagnia et al. (2020) in Gambia which showed that SRH communication role was mostly played by mothers than fathers. This is due to cultural settings of African societies whereby the role of child rearing and grooming is mostly put on mothers' hands (Mbachu et al, 2020; Yibrew & Mbwele, 2020). The chi-square test indicates that there was no statistically significant association between parents' demographic characteristics (sex, age, religion, tribe and marital status) and general communication on sexual and reproductive health issues between parents and adolescents (p-value > 0.05).

Table 2: Chi-square test between parents' demographic characteristics and SRH communication

Parents' demographic characteristics	Had discussion		Chi-square test	
	Yes (n=279)	No (n=105)		
Sex			$\chi^2(1):1.1673$	<i>P-value: 0.280</i>
Male	69.9	30.1		
Female	74.9	25.1		
Age (years)			$\chi^2(3):1.0756$	<i>P-value: 0.783</i>
30-39	74.3	25.7		
40-49	69.9	30.1		
50-59	75.6	24.4		
60 and above	71.7	28.3		
Tribe			$\chi^2(2): 1.5789$	<i>P-value: 0.454</i>
Nyamwezi	75.9	24.1		
Sukuma	69.9	30.1		
Others	71.0	29.0		
Religion			$\chi^2(2): 1.2152$	<i>P-value: 0.545</i>
Muslim	75.2	24.8		
Christian	72.5	27.5		
No religion	65.7	34.3		
Marital status			$\chi^2(2): 1.6092$	<i>P-value: 0.447</i>
Never married/Separated	65.2	34.8		
Married/cohabiting	73.3	26.7		
Widow/widower	76.2	23.8		

*The test indicates a significant association at 95% level of confidence

Source: Field Survey, 2022

4.3 Association between Parents' Socio-economic Characteristics and SRH Communication

The results in Table 3 indicate that mothers' education level was an important predictor of SRH communication between parents and adolescents (p-value = 0.006). Adolescents whose mothers had no formal education and primary education (72.3%) and (78.2%) respectively had high levels of SRH communication compared to those with secondary education and above (57.1%). These results contradict with those by Ojebuyi et al. (2019) in Nigeria and Abdissa and Sileshi, (2021) in Ethiopia who found that SRH communication with adolescents was higher among parents with primary education and above. However, the differentials observed can be justified by parents' consideration of communication about SRH issues as the normal parental responsibility which does not need them to have higher levels of education for such communication to be carried out. It was also observed by Malango et al. (2020) that parents' ability to read and write was adequate for parents to communicate SRH issues with adolescents. Likewise, parents' occupations were among important predictors of SRH communication for more adolescents with fathers and mothers in agricultural occupation (78.3%) and (77.8%) respectively reported having SRH communication with parents. Nonetheless, adolescents from families whose parents were in business had low levels of communication because only (58.9%) and (53.2%) of mothers and fathers in business had communicated with their adolescents on SRH issues within six-months prior to the survey. These results are similar to what was found by the study of Bikila et al. (2021) in Ethiopia.

Table 3: Chi-square test on the association between parents' socio-economic characteristics and SRH communication between parents and adolescents

Parents' demographic characteristics	Had discussion		Chi-square test	
	Yes	No		
Fathers' education	(n=239)	(n=91)	$\chi^2(2):3.7048$	<i>P-value: 0.157</i>
None formal	65.3	34.7		
Primary	76.1	23.9		
Secondary and above	67.1	32.9		
Father's occupation			$\chi^2(2):14.8577$	<i>P-value:</i>
			0.001**	
Agriculturalists	77.8	22.2		
Business persons	53.2	46.8		
Others	70.6	29.4		
Mothers' education	(n=271)	(n=97)	$\chi^2(2): 10.3463$	<i>P-value:</i>
			0.006**	
None formal	72.3	27.7		
Primary	78.2	21.8		
Secondary and above	57.1	42.9		
Mothers' occupation			$\chi^2(2): 12.0615$	<i>P-value:</i>
			0.002**	
Agriculturalists	78.3	21.7		
Business persons	58.9	41.1		
Others	65.2	34.8		

*The test indicates a significant association at 95% level of confidence

Source: Field Survey, 2022

4.4 Association between Parents' Cognitive Variables and SRH Communication

The results in Table 4 indicate that more than three quarters (77%) of adolescents whose parents had positive attitudes towards SRH communication discussed at least any SRH topic with their parents within six-months prior to the survey compared to those whose parents had negative attitudes (65.8%). Likewise, the level of SRH communication was higher among adolescents whose parents had positive perceived behavioural control (77.3%) than negative counterparts (56.5%). Parents' attitude and perceived behavioural control were statistically significant (p-value < 0.05) predictors of SRH communication between parents and adolescents. However, parents' perceived norms had no significant association (p-value > 0.05) with SRH communication. These results concur with the study by Byers et al. (2018) in Canadian Province which found mothers' attitude and perceived behavioural control to be among important predictors of mother-adolescent sexual communication while perceived social norms were not significant. This indicates that having positive evaluation on the importance of SRH communication with adolescents is very important for parents to have such communication. Moreover, parents' self-confidence on communicating SRH topics with adolescents is required in promoting such communication. Hence, parents' knowledge on SRH issues should be enhanced through continuous mass media campaigns so that their can increase confidence on communication SRH topics with adolescents. This should not be taken into granted due to its significance in the future healthy generation.

Table 4: Chi-square test on the association between parents' cognitive variables and SRH communication between parents and adolescents

Parents cognitive variables	Had discussion		Chi-square test
	Yes (n=279)	No (n=105)	
Attitude			$\chi^2(1): 5.8084$ P-value: 0.016*
Positive	77.0	23.0	
Negative	65.8	34.2	
Perceived norms			$\chi^2(1): 0.4770$ P-value: 0.490
Positive	74.0	26.0	
Negative	70.8	29.2	
Behavioral control			$\chi^2(1): 14.3949$ P-value: 0.000***
Positive	77.3	22.7	
Negative	56.5	43.5	

*The test indicates a significant association at 95% level of confidence

Source: Field Survey, 2022

4.5 Logistic Regression Results on SRH Communication between Parents and Adolescents

The logistic regression model was significant at 95% CI, $\chi^2 = 53.74$, $p < 0.000$ and it explained 14.3% (Pseudo R²) the variation of SRH communication. Furthermore, the results in Table 5 indicate that religion specifically being Christian or in other group, being from laissez-faire families, business occupation among fathers and parents' positive behavioural control were significant factors influencing SRH communication between parents and adolescents (p -value < 0.05). It is clearly observed in the table that Christian adolescents were 0.5 times likely to communicate SRH issues with parents compared to Muslims counterparts (OR:0.50; 95% CI: 0.26-0.97). Nonetheless, adolescents who were neither Christians nor Muslims were more less likely to communicate such topics with their parents (OR:0.12; 95% CI: 0.05-0.34). This indicates that Muslim parents communicate more with their adolescents concerning SRH issues compared to other religions. However, the low levels of SRH communication practices among adolescents who were neither Muslims nor Christians portray the message that families with traditional religion are much bounded to cultural norms and traditional beliefs which regard such communication as taboos (Kamangu, 2017). These results are also supported by the findings of Motsomi et al. (2016) who found that parents consider SRH communication with adolescents as culturally unacceptable. Equally, adolescents from laissez-faire families were less likely (OR:0.37; 95% CI:0.17-0.80) to communicate SRH topics with their parents as compared to consensual families. The low odds of SRH communication with parents among adolescents from these families can be explained by low levels of conversation and conformity communication patterns.

With regards to fathers' occupation, fathers in business occupation were less likely (OR:0.34; 95% CI:0.16-0.74) to communicate with their adolescents concerning SRH compared to fathers in agricultural occupation. This situation is propagated by busy schedules of fathers in business occupation unlike

agricultural activities which are seasonal hence provide ample time for parents to have talks with their adolescents. These results concur with the observation made by Bikila et al. (2021) in Ambo Town Omora State in Ethiopia where business was among the hindrances of communication concerning SRH topics. It was also confirmed during parents' FGDs in Nzega Town ward where a 42-year-old male parent said:

"... Sometimes the nature of occupation determines how free a parent can be to have time to talk to adolescents about SRH topics. For example, we male parents in business occupation when we wake up in the morning we just think about business. We think on how the day will end by focusing on how much we will generate. So usually our minds are too busy thinking about our businesses and we usually come home late so we find ourselves with limited time to talk to adolescents concerning SRH issues" (Male Parents FGD – Nzega Town Ward on 20/10/2021).

Table 5: Logistic regression results on the factors influencing SRH communication between parents and adolescents

Independent Variables	Odds Ratio	S.E	Z	P> z	[95% Conf. Interval]	
Sex						
Female	1.251	0.364	0.77	0.441	0.707	2.213
Religion						
Christian	0.505	0.174	-1.98	0.048*	0.256	0.993
Others	0.119	0.061	-4.13	0.000**	0.043	0.327
Family type						
Pluralistic	0.878	0.329	-0.35	0.728	0.422	1.829
Protective	0.531	0.204	-1.65	0.100	0.249	1.128
Laissez-faire	0.367	0.146	-2.51	0.012*	0.168	0.802
Father's occupation						
Business person	0.336	0.136	-2.70	0.007**	0.153	0.741
Others	0.679	0.322	-0.82	0.413	0.268	1.718
Mother's education						
Primary	1.308	0.461	0.76	0.447	0.655	2.612
Secondary and above	0.874	0.442	-0.27	0.790	0.324	2.355
Mother's occupation						
Business person	0.718	0.325	-0.73	0.464	0.296	1.742
Others	0.782	0.433	-0.44	0.657	0.264	2.318
1.Parentattitude	1.072	0.323	0.23	0.818	0.594	1.935
1.Parbehavcont	2.233	0.704	2.55	0.011*	1.204	4.140
_cons	4.597	2.546	2.75	0.006**	1.553	13.613

*The test indicates a significant association at 95% level of confidence

Source: Field Survey, 2022

4.6 Impact of Interaction of Parents' Perceived Behavioral Control on Predicting SRH Communication

According to Mize, (2019), many relationships of variables of the interests in social sciences are interactive hence necessitating testing for the interaction effects between variables to have sound conclusion. Therefore, the study tested the interaction effects between parents' and adolescents' characteristic and parents' behavioral control which emerged significant predictors of SRH communication between parents and adolescents in the logistic regression model. In order to test for the interaction effects, marginal effects were estimated

in order to enhance correct interpretation of the results (Williams, 2012). Therefore, the margins plots were used for easy visualization and interpretation of the observed interaction. It can be observed in Figure 1 that with regard to the main effect of the model, parents with negative perception on their ability to communicate SRH topics were in general less likely to communicate SRH compared to those who were confident that they can communicate. Whereas, negative perception on the capacity to communicate SRH issues with adolescents has more effect among laissez-faire families which are high in conformity and low in conversation predilection. This is justified by the study of Hemati et al. (2020) in Iran who found the direct correlation between self-efficacy and conversation predilection and vice versa. Hence, parent-child closeness is very important in child growth especially when communication concerning confidential messages is required.

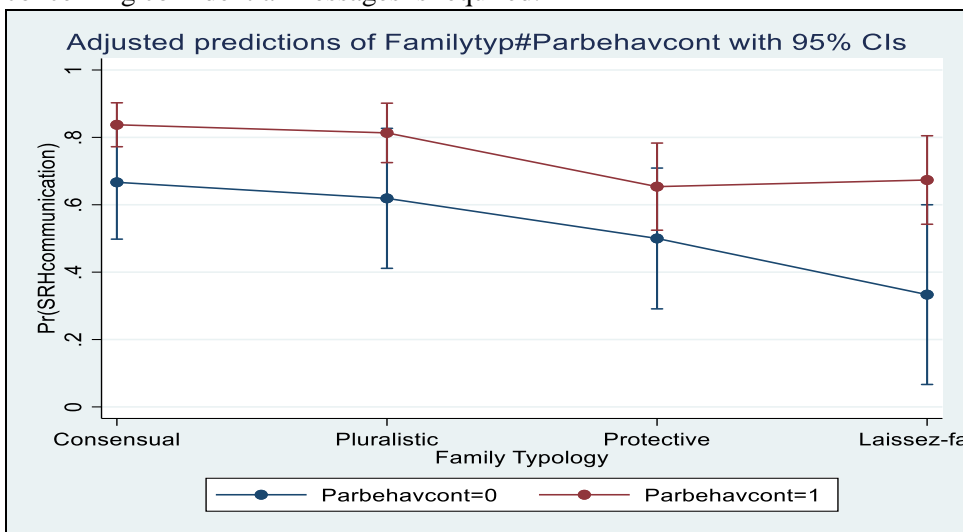


Figure 1: Interaction effects of parents' perceived behavioral control on family type in predicting parent-adolescent SRH communication

Source: Field Survey, 2022

Likewise, the study revealed significant interaction between adolescent religion and parents perceived behavioral control as indicated in Figure 2. The results show that negative parents' perception on the ability to communicate SRH topics with adolescents had more interaction effects with traditional religion than Muslims and Christians. The likelihood of SRH communication was lower among adolescents in traditional religions whose parents had negative perception on their ability to communicate SRH topics with adolescents. This implies that lower communication among adolescents in traditional religious is driven by negative parents' perception on their ability to communicate the topics. This situation reflects the effect of lack of exposure to religious teachings among both parents and adolescents on their confidence to communicate SRH topics. Hence, they abide themselves to traditional norms and beliefs that communication concerning those topics is a taboo (Mekonen et al. 2018; Adam et al. 2020;

Malango et al. 2021; Bekele et al. 2021). On contrary, religious teachings gives parents a starting point to share with adolescents important SRH messages as they advocate abstinence (Svodziwa, Kurete and Ndlovu, 2016). Therefore, during those discussions, parents get chances to discuss with their children issues concerning the effects of premarital sex like unplanned pregnancies and STIs including HIV/AIDS.

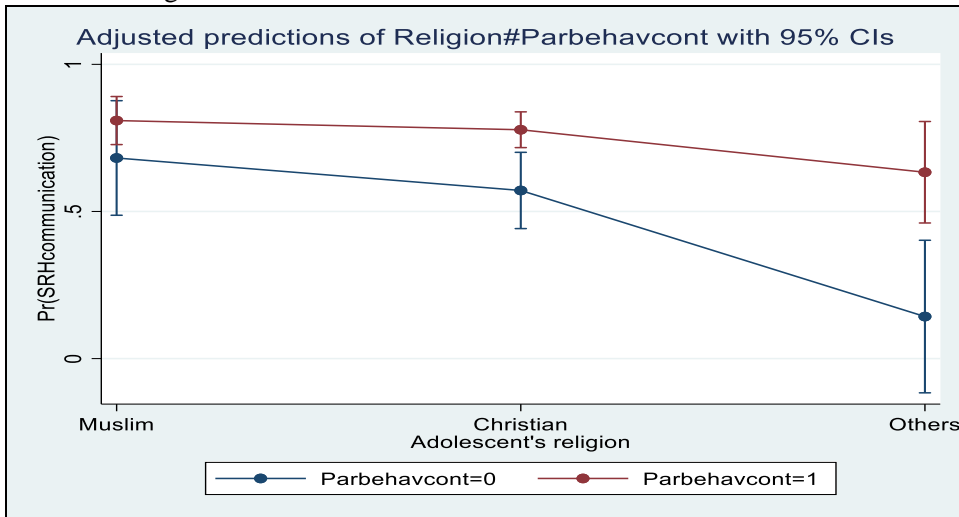


Figure1: Interaction effects of parents' perceived behavioral control on parents' religion in predicting parent-adolescent SRH communication

Source: Field Survey, 2022

5.0 CONCLUSION AND RECOMMENDATIONS

Regarding the assessment of factors influencing SRH communication between parents and adolescents it was observed that it was gender sensitive with more communication between female adolescents and mothers leaving male adolescents with low levels of communication with both parents. This was the result of gender gap in children grooming which attach a big role to mothers than fathers. Unfortunately, mothers feel more comfortable to discuss such topics with female adolescents than male counterparts. On the other hand, fathers find themselves with limited time to share confidential messages concerning SRH issue with their sons. Meanwhile business occupation was among the hindrances of SRH communication between parents and adolescents due to busy schedules associated with it. Apart from that religion was also found to be an important factor of SRH communication between parents and adolescents. However, unlike previous studies which revealed negative influence of religion on SRH communication this study showed that high levels of communication between parents and adolescents were more common among Muslims and Christians. Though, it should be noted that abstinence was the main topic which was promoted by both Islamic and Christian religions which are against condoms and/or other contraceptives use communication. Therefore, more emphasis was put on avoiding premarital sex as to maintain holy lives.

Similarly, family type influenced SRH communication between parents and adolescents. Adolescents in laissez-faire families reported low communication compared to adolescents in consensual families. This is based on the reality that laissez-faire families are basically characterized by low levels of conversation and conformity predilections. Hence, they end up in limited openness and free communication between parents and adolescents due to low parent-child interconnectedness.

Parents' attitude on the importance of SRH communication and their perceived ability to communicate SRH with adolescents also predicted the levels of communication concerning the SRH topics. Positive parents' attitudes and perceptions were associated with high levels of SRH communication. Meanwhile, parents' perceptions on their ability to communicate were also a significant factor in influencing SRH communication between parents and adolescents. Moreover, adolescent religion, family type (laissez-faire) and occupation (business) were important factors in influencing SRH communication between parents and adolescents. Moreover, the low levels of communication in adolescents of other religions and laissez-faire families the evaluation showed their low ability to communicate SRH topics with adolescents. These results justify that parent-child closeness and religion are important factors to in enhancing parents' self-efficacy in communicating SRH topics with adolescents. Hence it also important for parents to have time to monitor their adolescents on SRH regardless their occupations. The study recommends that sexual reproductive health education should be introduced at community level as well as in all levels of education. Furthermore, the study concludes that SRH is essential in order to reduce child birth and maternal mortality.

REFERENCES

- Abdisa, D. & Shilesi, W. (2021) Parent-Adolescent Communication on Sexual and Reproductive Health Issues and Associated Factors Among Secondary and Preparatory School Students in Agaro town, Jimma Zone Southwest Ethiopia. *Research Square* DOI: <https://doi.org/10.21203/rs.3.rs-140401/v1> (Date accessed on December 2021).
- Adam, N.D., Demissie, D.G. and Gelagay, A.A. (2020). Parent-Adolescent Communication on Sexual and Reproductive Health Issues and Associated Factors among Preparatory and Secondary School Students of Dabat Town, Northwest Ethiopia. *Journal of Environmental and Public Health* 2020(375):
- Ahmad, S.F. and Turnip, S.S. (2019). Does Family Communication Pattern Predict Suicide Ideation and Attempt? A Longitudinal Study of Adolescents in Indonesia Joint proceedings of the 3rd International Conference on Intervention and Applied Psychology (ICIAP 2019) and the 4th Universities Indonesia Psychology Symposium for Undergraduate Research (UIPSUR

- 2019) *Advances in Social Science, Education and Humanities Research*, volume 494
- Akida, B. 2018. *Challenges of Parents-Children Communication on Sexual and Reproductive Health: A Case of Secondary School Students in Kinondoni Municipality, Dar-es-Salaam*. Master's Thesis. The University of Dodoma.
- Aliyu, T.K and Aransiola, J.O (2021). *Factors Associated with Parent-Adolescent Communication on Sexual and Reproductive Health Issues in Urban Slums of Ibadan, Southwest Nigeria* *International Quarterly Community Health Education* 2021 Apr 6;272684X211007695.
- Anu, N (2017) *Traditional Unyago Training in Tanzania - step to adolescence or a leap to motherhood*. Laurea University of Applied Science. Bachelor's Thesis 2017.
- Baku, E.A., Adanu, R.M.K & Adatar, P (2017). *Socio-cultural factors affecting parent-adolescent communication on sexuality in the Accra Metropolis, Ghana*. *An International Journal of Nursing and Midwifery*. Volume 1. No.2, December, 2017
- Bekele, D., Deksisa, A., Abera, W. and Megersa, G. (2021). *Parental Communication On Sexual and Reproductive Health Issues to Their Adolescents and Affecting Factors at Asella Town, Ethiopia; A Community-Based, Cross-Sectional Study*. Research Square
- Bikila, T.S., Dida, N., Bulto, G.A., Debelo, B.T. and Temesgen, K. (2021). *Adolescent's Communication on Sexual and Reproductive Health Matters with their Parents and Associated Factors among Secondary and Preparatory School Students in Ambo Town, Oromia, Ethiopia*. *International Journal of Reproductive Medicine* Volume 2021, Article ID 6697837, 11 pages <https://doi.org/10.1155/2021/6697837> (Date accessed on June, 2021)
- Carver, H., Elliott, L., Kennedy, C. & Hanley, J. (2017). *Parent-child connectedness and communication in relation to alcohol, tobacco and drug use in adolescence: An integrative review of the literature*, *Drugs: Education, Prevention and Policy*, 24:2, 119-133, DOI: 10.1080/09687637.2016.1221060
- Dai, M. 2018. "Using THE Integrative Model of Behavioral Prediction to Understand Gay Men's Beliefs, Intention, and Behaviour on prep uptake" *Theses and Dissertations Communication*. 74. https://uknowledge.uky.edu/comm_etds/74 (Date accessed on June, 2021)
- Darabi, F., Kaveh M.H, Khalajabadi Farahani F, Yaseri M, Majlessi F, Shojaeizadeh D. *The Effect of a Theory of Planned Behaviour-based Educational Intervention on Sexual and Reproductive Health in Iranian Adolescent Girls: A Randomized Controlled Trial*. *J Res Health Sci*. 2017; 17(4): e00400 (Date accessed 2 December 2021)
- Dilebo, M.E., Lebeso, R.T., Ramathuba, D.U & Makhado, L. (2020). *Talking to teenagers regarding sexual and reproductive health: Exploration of parents/guardians' views in Limpopo province, South Africa*. Research

- Square. DOI: <https://doi.org/10.21203/rs.2.23754/v1> (Date accessed on September, 2021)
- Fishben, M., & Ajzen, I. (2010). Predicting and changing behavior: The reasoned action approach. New York: Psychology Press
- Guilamo-Ramos, V, Lee, J.J & Jaccard, J. (2015). Parent-Adolescent Communication About Contraception and Condom Use *JAMA Pediatr.* 2016 January, 170(1): 14–16. doi:10.1001/jamapediatrics.2015.3109 (Date accessed 12 November 2021).
- Gunawardena N, Fantaye A.W & Yaya, S. (2019) Predictors of pregnancy among young people in sub-Saharan Africa: a systematic review and narrative synthesis. *BMJ Global Health* 2019;4: e001499.doi:10.1136/bmjgh-2019-001499 <https://doi.org/10.1186/s12978-019-0778-6> (Date accessed on March, 2020)
- Habte, N.M., Melku, A.T. & Alemayehu, M.T. (2017) Parent-adolescent Communication on Sexual and Reproductive Health Matters and Associated Factors among Secondary and Preparatory School Students in Robe Town, Bale zone, South-east Ethiopia, 2017. *Journal of Public Health International* DOI: 10.14302/issn.2641-4538.jphi-19-2860 Open access Pub. (Accessed on 11 May 2022).
- Halley, M. (2012). Negotiating Sexuality: Adolescent Initiation Rituals and Cultural Change in Rural Southern Tanzania. PhD. Case Western Reserve University. Research from Research Gate. file:///C:/Users/Anu/Downloads/NEGOTIATING_SEXUALITY_ADOLESCENT_INITIATION_RITUAL.pdf (Date accessed on 30 November 2022).
- Hemati, Z., Abbasi, S., Oujian, P. & Kiani, D. (2020). Relationship Between Parental Communication Patterns and Self-Efficacy in Adolescents with Parental Substance Abuse. *Iran J Child Neurol. Winter* 2020; 14(1): 49-56
- Kamangu, A.A., John, M.R., & Nyakoki, S.J., (2016). Barriers to parent-child communication on sexual and reproductive health issues in East Africa: A review of qualitative research in four countries. *Journal of African Studies and Development*, 9(4). 39-61
- Keating, D. M., Russell, J. C., Cornacchione, J., & Smith, S. W. (2013). Family communication patterns and difficult family conversations. *Journal of Applied Communication Research*, 41, 160-180. doi:10.1080/00909882.2013.781659 (Date accessed on 4 March 2021)
- Koerner, A. F., & Fitzpatrick, M. A. (2006). Family Communication Patterns Theory: A Social Cognitive Approach. In D. O. Braithwaite & L. A. Baxter (Eds.), *Engaging theories in family communication: Multiple perspectives* (pp. 50–65). Sage Publications, Inc. <https://doi.org/10.4135/9781452204420.n4> (Date accessed March, 2020)
- Maina, B.W., Ushie, B.A. & Kabiru, C.W. (2020). Parent-child sexual and reproductive health communication among very young adolescents in Korogocho informal settlement in Nairobi, Kenya. *Reprod Health* 17, 79 (2020). <https://doi.org/10.1186/s12978-020-00938-3> (Date accessed on December, 2021)

- Malango, N.T., Hegana, T.Y. & Assefa, N.A. (2021). Parent-Adolescent Discussion on Sexual and Reproductive Health Issues and Its Associated Factors Among Parents in Sawla Town, Gofa Zone, Ethiopia. *Research Square*. DOI: <https://doi.org/10.21203/rs.3.rs-1124759/v1> (Date accessed on December, 2021)
- Mashalpour F.M. (2020). The Relationship Between Family Communication Patterns and Adjustment with Resiliency in Children. *Journal of Research & Health*. 2020; 10(4):267-274. <http://dx.doi.org/10.32598/JRH.10.4.1484.1> (Date accessed on March, 2021)
- Mbachu, C.O., Agu, I.C., Eze, I., Agu, C., Ezenwaka, U., Ezumah, N. & Onwujekwe, O. (2020). Exploring issues in caregivers and parent communication of sexual and reproductive health matters with adolescents in Ebonyi state, Nigeria. *BMC Public Health* (2020) 20:77. <https://doi.org/10.1186/s12889-019-8058-5> (Date accessed on September, 2021)
- Mekonen, M.T., Dagne, H.A., Yimam, T.A., Yimam, H.N. & Reta, M.A. (). Adolescent-parent communication on sexual and reproductive health issues and the associated factors among high school students in Woldia town Northeastern Ethiopia. *Pan African medical journal*. 2018; 31:35 [doi. 10.11604/pamj.2018.31.35.13801] (Date accessed 22 December 2022)
- Mirzaei-Alavijeh, M., Hidarnia, A., Kok, G., Niknam, S., Motlagh, M.I. & Pishdar, M. (2015). Family Communication Pattern and Mothers' Behavioral Intention Regarding Preventing Early-Onset Substance Use in Children: My Family-Study. *Health Education and Health Promotion (HEHP)* (2015) Vol. 3 (1) p 20-45.
- Mize, T. D. (2019). "Best Practices for Estimating, Interpreting, and Presenting Non-linear Interaction Effects." *Socio-logical Science* 6: 81-117.
- Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) [Tanzania Mainland], National Adolescent Health and Development Strategy 2018-2022 Dar es Salaam, Tanzania 2018.
- Motsomi, K., Makanjee, C., Basera, T. & Nyasulu, P. (2016). Factors affecting effective communication about sexual and reproductive health issues between parents and adolescents in Zandspruit informal settlement, Johannesburg, South Africa. *Pan Afr Med J*. 2016 Oct 27;25: 120.doi: 10.11604/pamj.2016.25.120.9208. PMID: 28292083; PMCID: PMC5325495 (Date accessed 11 April 2022)
- Muthengi, E., Ferede, A. & Erulkar A. (2016). Parent-Child Communication and Reproductive Health Behaviour: A Survey of Adolescent Girls in Rural Tanzania. *African Population Studies* Vol, 29. No.2, Supplement, 2015 32-44.
- Noe M.T.N., Saw, Y.M., Soe, P.P, Khaing, M., Saw, T.N., Hamajima, N., et al. (2018). Barriers between mothers and their adolescent daughters with regards to sexual and reproductive health communication in Taunggyi Township, Myanmar: What factors play important roles? *PLoS ONE* 13

- (12): e0208849. <https://doi.org/10.1371/journal.pone.0208849> (Date accessed on 3 March, 2021)
- Omolola, F.F., Olusegun, F.A., Olumuyiwa, A.O., Egun, A.S., Olufemi, A.T., Paulin, O.I. & Akinbode, O.O. (2018). Prevalence and Predictors of Early Sexual Debut among Adolescents in Ogbomoso, Nigeria. *American Journal of Public Health Research*, 2018, Vol. 6, No. 3, 148-154. <http://pubs.sciepub.com/ajphr/6/3/4> (Date accessed on March, 2021)
- Ojebuyi, B.R., Fagbamigbe, A.F. & Akinola, O.O (2019). Prevalence of and factors Influencing Parent-Child communication about HIV/AIDS, and Sexual and Reproductive Health Issues in Nigeria. Retrieved from: <https://us.sagepub.com/enus/nam/open-access-at-sage> (Date accessed on March, 2021)
- Othman, A., Abuidhail, J., Shaheen, A., Langer, A. & Gausman. J. (2022). Parents' perspectives towards sexual and reproductive health and rights education among adolescents in Jordan: content, timing and preferred sources of information. *Sex Education* 22:5, pages 628-639.
- Sagnia, P.I.G., Gharoro, E.P. & Isara, A.R. (2020). Adolescent–parent communication on sexual and reproductive health issues amongst secondary school students in Western Region 1 of The Gambia. *Afr J Prm Health Care Fam Med*. 2020;12(1), a2437. <https://doi.org/10.4102/phcfm.V12i1.2437> (Date accessed on March, 2021)
- Salaija B. & Nana, C. (2017). Barriers of Discussions Concerning Sexual and Reproductive Health Issues Among Adolescents and Parents Hawassa, SNNPR, Ethiopia. *Biomed J Sci & Tech Res* 1(7)-2017. BJSTR.MS.ID.000591.DOI:1026717/BJSTR.2017.01.000519
- Sandra Byers, E., O'Sullivan, L. F., Mitra, K., & Sears, H. A. (2021). Parent-Adolescent Sexual Communication in India: Responses of Middle-Class Parents. *Journal of Family Issues*, 42(4), 762–784. <https://doi.org/10.1177/0192513X20930343> (Date accessed on 17 February 2022)
- Svodziwa M, Kurete F, Ndlovu L (2016). Parental Knowledge, Attitudes and Perceptions towards Adolescent Sexual Reproductive Health in Bulawayo, Zimbabwe, *Int. J. Humanit. Soc. Sci. Educ.* 3(4):62-71
- Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC). Tanzania HIV Impact Survey (THIS) 2016-2017: Final Report. Dar es Salaam, Tanzania. December 2018.
- UNFPA, (2008). Sexual and Reproductive Health. <https://www.unfpa.org/sexual-reproductive-health> (Date accessed on January, 2021)
- Usonwu, I., Ahmad, R. & Curtis-Tyler, K. Parent–adolescent communication on adolescent sexual and reproductive health in sub-Saharan Africa: a qualitative review and thematic synthesis. *Reprod Health* 18, 202 (2021). <https://doi.org/10.1186/s12978-021-01246-0> (Date accessed on December, 2021)
- Vongsavanh, V., Lan V.T.H. & Sychareun, V. (2020) Sexual and reproductive healthcommunication between parents and high school adolescents in

Vientiane Prefecture, Lao PDR, Global Health Action, 13:sup2, 1785145,
DOI:10.1080/16549716.2020.1785145

Williams, R. (2012). Using the Margins Command to Estimate and Interpret Adjusted Predictions and Marginal Effects. *The Stata Journal*, 12(2), 308–331. <https://doi.org/10.1177/1536867X1201200209> (Date accessed on June, 2022)

Yiblew M.S. & Mbwele, B. (2020). Parent-adolescent communication on sexual and reproductive health: the qualitative evidences from parents and students of Addis Ababa, Ethiopia. *Reproductive Health* (2020) 17:18 <https://doi.org/10.1186/s12978-020-000927-6>(Date accessed on December, 2021).