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UTILISATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENTS IN URBAN INFORMAL SETTLEMENTS OF LUSAKA DISTRICT, ZAMBIA

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Abstract

Sexual and reproductive health and right of adolescents is a global priority as the reproductive choices made by them have a massive impact on their health and economy. This study aimed at assessing factors associated with utilization of sexual and reproductive health services among adolescents at Kanyama, Chibolya and George compounds. A cross-sectional study was done between June and August 2023. The study used a random sampling method to select participants. Data collection was done using structured questionnaire. Associations were determined using chi-square or Fishers exact test based on assumptions. Logistic regression analysis was conducted to explore the associations between these factors and SRH service utilization at 5% level of significance. STATA version 16 was used for analyses. A total of 388 adolescents were analyzed in this study. Overall, few adolescents had utilized SRH while majority of them not in the last 3 months. The study found that adolescents living with both parents or a single parent have a higher likelihood of utilizing SRH services compared to those under the care of other guardians (AOR = 3.47, 95% CI = 1.57, 7.64, p= 0.002). Adolescents who relied on pocket money were less likely to utilize SRH services compared to those with alternative funding sources such as boyfriends or financial clubs (AOR = 0.25, 95% CI = 0.06, 0.99, p= 0.049). Relationship status also played a crucial role, with dating adolescents and sexually active adolescents exhibiting higher odds of SRH service utilization (AOR = 0.18, 95% CI = 0.03, 1.00, p = 0.049). Moreover, age at first sexual intercourse was found to be a pivotal factor, with both early and delayed initiations associated with increased SRH service utilization (AOR = 4.50, 95% CI = (2.24, 9.05), p < 0.0001). Importantly, awareness of the existence of SRH service providers emerged as a significant predictor of utilization (AOR = 2.83, 95% CI = (1.56, 5.14), p < 0.001). The utilization of SRH services remains below optimal levels. Factors such as living with both parents and being sexually active increase the likelihood of seeking SRH services. Conversely, reliance on pocket money for payment is associated with a lower likelihood of utilizing these services. Effective interventions aimed at improving the utilization SRH services among adolescents should consider the significance of factors such as family support and financial accessibility.

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1. Introduction

The global priority of adolescent sexual and reproductive health (ASRH) underscores its impact on health, education, and economies. With a large young population, especially in developing countries, organizations like WHO and the UN define adolescence as ages 10 to 19, highlighting this critical stage for health interventions (1,2).

ASRH concerns arise due to increasing rates of unsafe sexual practices, early pregnancies, and STIs, including HIV/AIDS, among adolescents (Tiwari et al., 2021; Mendelsohn et al., 2018). Despite misconceptions about youth health, adolescents face significant risks like unwanted pregnancies, STIs, and HIV/AIDS (Magadi and Magadi, 2017; Napit et al., 2020a).

These challenges are compounded in low-resource settings, with barriers like limited access to services, cultural stigma, and lack of healthcare knowledge hindering SRH service utilization (Yeneneh et al., 2018; Munakampe, Nkole, Silumbwe, et al., 2020; Tiwari et al., 2021). Such disparities are evident in Zambia and other LMICs, leading to compromised SRH outcomes and higher HIV/AIDS prevalence among youth (ZSA, 2018; Munakampe, Fwemba, Zulu, Michelo, 2020; Barrow et al., 2022).

Efforts to address these issues include policies like Zambia's Adolescent Health Strategic Plan and SDG 3's focus on universal SRH service access (MOH, 2011; UN, 2018). However, the effectiveness of these interventions remains uncertain, especially in informal settlements and low-income areas (Haile et al., 2020b; Mulubwa, Munakampe, Namakula, Hernandez, Ssekamatte, Atuyambe, Birabwa, Chemonges, Namatovu, Makumbi &

Tetui, 2021). Thus, this study aims to highlight adolescent SRH rights, enhance access to services, and reduce barriers through evidence-based interventions, ultimately contributing to improved SRH outcomes and social equality in Lusaka's informal settlements to inform targeted interventions and promote better SRH outcomes among adolescents.

The study sought to establish the following two objectives:

1. To determine the prevalence of sexual reproductive health service utilization in its various forms among adolescents at Kanyama, Chibolya and George compounds.
2. To assess the demographic and socioeconomic factors associated with utilization of sexual and reproductive health services among adolescents at Kanyama, Chibolya and George compounds.

2. METHODOLOGY

Study Design

The study utilized a quantitative, cross-sectional design to evaluate the utilization of sexual and reproductive health services among adolescents in the informal settlements of Lusaka district. This was also essential for making sound inferences regarding factors that potentially influenced utilization in low-resource settings, as was the case in low- to middle-income countries. The research was conducted within the informal setting of the Lusaka district from June 2023 to August 2023, involving adolescents residing in Chibolya, Kanyama, and George compounds of Zambia. The proliferation of squatter settlements in Zambia's capital, during the period from 1967 to 1970, saw a rise from 9 to 32, constituting over one-third of the city's population (CSO, 2010). Squatting emerged as a response among ordinary citizens to Zambia's evolving economic structure, particularly during the colonial era when Zambia integrated into a capitalist production system. According to the 2010 Central Statistics Office (CSO) report, Chibolya township was among the densely populated areas situated a short distance from Lusaka city's central hub (CSO, 2010). Other densely populated townships surrounding the capital city included Kanyama and George compounds.

One notable challenge in these areas was the inadequacy of existing communication infrastructures to facilitate sufficient information dissemination and awareness among the youth population. As a result, these areas faced a range of challenges, including problems with informal housing infrastructure, alcohol and substance abuse, and neglect of sexual and reproductive health issues. In response, Children International Zambia, an organization that has been active since 2005, has been supporting adolescents in these areas, sponsoring approximately 14,000 children, of whom 12,500 fall within the age group of 10 to 19.

Study Participants

The study involved a targeted population of 12,500 adolescents currently residing in the informal settings of the Lusaka district. These participants were specifically selected from Chibolya, Kanyama, and George compounds, which are key areas within the district.

Inclusion Criteria

This study focused on adolescents aged between 10 and 19 years, who were permanent residents of the urban informal settlements located within the Lusaka district, situated in the southern region of Zambia.

Exclusion Criteria

The exclusion criterion applied in this study pertained to adolescents who were unable or unwilling to provide informed consent or in a situation where an assent could not be obtained. This criterion was established to ensure ethical considerations and respect for participants' autonomy in the research process.

Sampling Size calculation

The study aimed to recruit a total of 388 participants to complete a self-administered questionnaire. The formula takes into account the desired level of precision (0.05) and the size of the study population (12,500) to determine an appropriate sample size for the research. 10 percent of the calculated sample size was added for non-response rate.

Sampling Size Technique

The study utilized simple random sampling as its sampling technique, aiming to ensure fairness and impartiality in participant selection. This method involved choosing individuals from the study population, which consisted of adolescents residing in the urban informal settlements of Lusaka district, Zambia. Each adolescent within the age range of 10 to 19 years had an equal and independent chance of being selected, ensuring unbiased representation.

By employing simple random sampling, the study aimed to create a sample that accurately reflected the broader population. This approach resulted in a sample size of 388 participants, accounting for a 10% non-response rate. The use of this sampling method strengthened the study's capacity to derive meaningful and generalizable conclusions from the data collected.

Data Collection

Data was collected over a two-month period from June to August 2023 by the Principal Investigator (P.I) and Research Assistants (RA). To enhance data quality, the researcher ensured the piloting of the data collection tool before its deployment in the field. Any concerns that emerged during the pilot test were promptly addressed prior to the final data collection phase. Moreover, to ensure consistency and appropriateness during data collection, the research assistants underwent training. Regular reviews of the collected data were conducted to verify its accuracy and reliability. The primary approach to data collection involved administering a structured questionnaire to the respondents. The questionnaire had been meticulously designed to explore the factors that influenced adolescents' access to and utilization of sexual reproductive health services.

Data Management and Analysis

Prior to data analysis, the collected data was cleaned and checked for completeness, validity, and consistency to identify and rectify any potential data entry errors. Subsequently, the cleaned data was entered into Excel spreadsheets and later exported to the statistical software Stata version 16 for analysis. The dependent variable in this study was a binary dichotomous variable. Categorical demographic and socioeconomic factors were summarized using descriptive statistics, including frequencies and percentages. For the continuous variable "age," normality assumptions were assessed, and the mean and standard deviation were reported.

Bivariate analysis was conducted using the Chi-square test and Fisher's exact test, where applicable, to examine the associations between each independent variable and the dependent variable (access). A significance level of p-value=0.05 and a 95% confidence level were employed. In the multivariate analysis, logistic regression was utilized to identify the demographic and socioeconomic factors associated with the accessibility and utilization of sexual and reproductive health services among adolescents.

Ethical Considerations

Ethical clearance for conducting this research was obtained from the University of Zambia Biomedical Research Ethics Committee (UNZABREC). The study adhered to social and legal obligations concerning study participants and various stakeholders. Strict measures were implemented to ensure confidentiality and anonymity. These crucial aspects, along with others, were communicated to respondents during the study's introduction, before obtaining informed consent for their participation. To conduct research within the specified compounds, further permission was secured from facility in-charges at Kanyama, Chibolya and George compounds. Access to collected information was restricted solely to the researcher for study purposes. Sharing of results would only occur with explicit permission from concerned stakeholders. Respondents were granted the autonomous right to remain engaged or withdraw at any stage of the study. Although direct benefits were not available to participants, the information obtained significantly contributed to enhancing knowledge on the subject.

3. RESULTS

Table 1 below shows the description of demographic and social economic characteristic of the participants for the cross-section study collect between June 2023 and August 2023.

Table 1: Descriptive Statistics

Variable	Frequency (n=389)	Percentage (%)
Socio-demographic and Socio-economic variables		
Age: Median (IQR)	17 (15 18)	389
Sex		
Male	174	44.73
Female	215	55.27
Guardian lived with		
Both my parents	171	43.96
Single Parent	120	30.85
Other	98	25.19
School Enrolment		
Yes	310	79.69
No	79	20.31
Education level		
None	5	1.29
Primary	126	32.39
Secondary	237	60.93
Above secondary	21	5.40
Income source		
Pocket money	36	9.25
Family/relative	273	70.18
Part-time work	55	14.14
Other (e.g. boyfriend/football club)	25	6.43
Individual factors		
Relationship status		
Dating	99	25.45
Not dating	262	67.35
Intentions to date	8	2.06
No intentions to date	20	5.14
Sexually active		
Yes	61	84.32
No	328	15.68
Age at first sexual intercourse		
Less than 18 years	179	46.02
At least 18 years	6	1.54
Not had sex	204	52.44

Table 2: Distribution of age at first sexual intercourse among adolescents

Services utilized.		
Not used	295	75.84
Implant	58	14.91
VCT	27	6.94
Others e.g., STDs, ANC	9	2.31
Knowledge about SRH		
Awareness of SRH		
Yes	341	87.89
No	47	12.11
Knowledge SRH services		
Adequate	21	5.40
Inadequate	368	94.60
Information source		
Parents	36	11.50
School	189	60.38
Health Providers	31	9.90
Other e.g., Dreams, CIZ	57	18.21
Parental discussion		
Yes	204	52.44
No	185	47.56
Knowledge of provider existence		
Adequate knowledge	190	48.84
Inadequate knowledge	199	51.16
Knowledge on STIs		
Adequate knowledge	114	29.31
Inadequate knowledge	275	70.69

The study involved the analysis of 389 participants. The adolescents' ages exhibited skewedness, with a median age of 17 (15, 18). The majority of participants were female, comprising 55.27%. Living arrangements indicated that most adolescents resided with both parents, accounting for 43.96%, and 25.19% (98/389) lived with another guardian.

In terms of education, 60.93% had received secondary education, 32.39% had completed primary education, while 1.29% (5/389) had no formal education, and 5.40% had education beyond secondary school. Additionally, only 20.31% of the adolescents were not currently enrolled in school.

Table 2 also presents the distribution of age at first sexual intercourse among adolescents. Specifically, 46.02% individuals reported engaging in sexual intercourse before the age of 18, while 1.54% individuals had their first sexual experience at the age 18 or older. Furthermore, 52.44% participants indicated that they had not yet initiated sexual activity.

Additionally, out of the total sample of 389 adolescents, 9.25% reported receiving money for SRH needs through pocket money, while a predominant portion of 70.18% stated that their primary source of money for SRH needs was their family or relatives. Additionally, 14.14% of adolescents indicated that they got the money for SRH needs through part-time work, and 6.43% mentioned alternative sources such as boyfriends or affiliations with entities like football clubs.

Furthermore, as shown in Table 1, 25.45% indicated that they were currently dating, while the majority of 67.35% reported not being in a dating relationship. A small fraction of 2.06% (8/389) expressed intentions to date, while 5.14% mentioned having no intentions to date at present. Out of the sample analyzed, 84.32% reported not being sexually active in the last three months, while the remaining 15.68% confirmed being sexually active in the last three months.

Most of the adolescents portrayed the awareness of sexual and reproductive health (SRH) services. Specifically, a significant majority of 87.89% affirmed being aware of SRH services, while a smaller portion of 12.11% (47/389) indicated lacking awareness in SRH services. Regarding knowledge of SRH services, among sample analysed, a

mere 5.40% demonstrated adequate knowledge of SRH services, while the overwhelming majority of 94.60% had inadequate knowledge in this domain.

Table 3: Factors associated with utilization of SRH among adolescents, June 2023 to August 2023.

Variables	Utilization of SRH services in the last 3 Months		P-value
Sex	**Yes (%); n=94**	**No (%); n=295**	
Male	51 (54.26)	123 (45.74)	
Female	43 (41.69)	172 (58.31)	**0.033***
Guardian lived with			
Both my parents	47 (50.00)	124 (42.03)	
Single Parent	34 (36.17)	86 (29.15)	**0.014***
Other	13 (13.83)	85 (28.81)	
School Enrolment			
Yes	67 (71.28)	243 (82.37)	**0.020***
No	27 (28.72)	52 (17.63)	
Education level			
None	3 (3.19)	2 (0.68)	
Primary	19 (20.21)	107 (36.27)	**0.006*^F**
Secondary	65 (69.15)	172 (58.31)	
Above secondary	7 (7.45)	14 (4.75)	
Income source			
Pocket money	7 (7.45)	29 (9.83)	
Family/relative	58 (61.70)	215 (72.88)	**0.038***
Part-time work	21 (22.34)	34 (11.53)	
Other (e.g., boyfriend/football club)	8 (8.51)	17 (5.76)	
Continuous variable	**OR**	**95% CI**	**P value**
Age: OR (95% CI)	1.2	(1.12 – 1.50)	**p<0.0001***
Individual factors			
Relationship status			
Dating	42 (44.68)	57 (19.32)	
Not dating	48 (51.06)	214 (72.54)	**p<0.0001*^F**
Intentions to date	2 (2.13)	6 (2.03)	
No intentions to date	2 (2.13)	18 (6.10)	
Sexually active			
Yes	56 (59.57)	272 (92.20)	**p<0.0001***
No	38 (40.43)	23 (7.80)	
Age at first sex			
Less than 18 years	74 (78.72)	105 (35.59)	
At least 18 years	4 (4.26)	2 (0.68)	**p<0.0001*^F**
Not had sex	16 (17.02)	188 (63.73)	
Services utilized			
Not used	0 (0.00)	295 (100)	
Implant	58 (61.70)	0 (0.00)	**p<0.0001*^F**
VCT	27 (28.72)	0 (0.00)	
Others e.g., STDs, ANC	9 (9.57)	0 (0.00)	
Knowledge about SRH			
Awareness of SRH			
Yes	84 (90.32)	257 (87.12)	0.409
No	9 (9.68)	38 (12.88)	
Knowledge SRH services			
Adequate	88 (93.62)	280 (94.92)	0.606^F
Inadequate	6 (6.38)	15 (5.08)	
Information source			
Parents	7 (9.33)	29 (12.18)	
School	37 (49.33)	152 (63.87)	**0.036***
Health Providers	11 (14.67)	20 (8.40)	
Other e.g., Dreams, CIZ	20 (26,67)	37 (15.55)	
Parental discussion			
Yes	42 (44.68)	162 (54.92)	0.084
No	52 (55.32)	133 (45.08)	
Knowledge of provider existence			
Adequate knowledge			
Inadequate knowledge	64 (68.09)	126 (42.71)	**P<0.0001***
	30 (31.91)	169 (57.29)	
Knowledge on STIs			
Adequate knowledge	30 (31.91)	84 (28.47)	0.523
Inadequate knowledge	64 (68.09)	211 (71.53)	

* Represents significant associations at 95% level of significance, **OBS**: Observed Frequency and **F:** Fishers exact test P value

Chi-square test and Fisher's exact test were utilized to establish associations between the outcome variable and independent categorical variables, with Fisher's exact test applied when expected frequencies fell below 5. In addition, a simple logistic regression was employed to scrutinize the correlation with the continuous variable of age.

A significant association was observed between the utilization of SRH services and various demographic and economic factors encompassed within this study. Specifically, the socio-demographic and economic aspects revealing significant associations comprised sex ($p = 0.033$), the guardian with whom the adolescent lived with ($p = 0.014$), the school enrolment status of the adolescent ($p = 0.020$), the education level of the adolescent ($p = 0.006$), the source of money for SRH services ($p = 0.038$), and age ($p < 0.0001$).

Furthermore, as indicated in Table 2, among the individual factors, there existed significant associations with the utilization of SRH services, including relationship status ($p < 0.0001$), the adolescent's recent sexual activity ($p < 0.0001$), age at first sexual intercourse for the adolescent ($p < 0.0001$), and the specific services the adolescent utilized ($p < 0.0001$). Other factors displaying significant associations encompassed the information source for the adolescents ($p = 0.036$) and the utilization of SRH service providers ($p < 0.0001$).

However, certain variables did not exhibit significant associations, including parental discussion about SRH services ($p = 0.084$), knowledge regarding sexually transmitted infections (STIs) ($p = 0.523$), awareness of SRH service provider existence ($p = 0.409$), and knowledge about SRH services ($p = 0.606$). Only significant variables at this stage were considered at multivariate level.

Table 4: Factors associated with utilization of SRH services among adolescents (Multivariate Results)

Variables	Unadjusted Estimate			Adjusted Estimates		
Demographic	**OR**	**95% CI**	**P-Value**	**AOR**	**95% CI**	**P-Value**
Sex						
Male	10.60	Ref	Ref	1	Ref	Ref
Female		(0.38, 0.96)	0.034	0.75	(0.41, 1.37)	0.344
Guardian lived with						
Other						
Both parents	1	Ref	Ref	1	Ref	Ref
Single Parent	2.48	(1.26, 4.86)	0.008	3.47	(1.57, 7.64)	**0.002***
	2.5	(1.27, 5.24)	0.008	3.52	(1.52, 8.13)	**0.003***
Income source						
Other (e.g boyfriend/fb club)						
Pocket money	1	Ref	Ref	1	Ref	Ref
Family/relative	0.51	(0.16, 1.67)	0.267	0.25	(0.06, 0.99)	**0.049***
Part-time work	0.57	(0.24, 1.39)	0.220	0.51	(0.18, 1.49)	0.216
	1.31	(0.48,3.57)	0.594	0.94	(0.29, 3.10)	0.924
Individual factors						
Relationship status						
Dating						
Not Dating	1	Ref	Ref	1	Ref	Ref
Intention to date	0.30	(0.18, 0.51)	p<0.0001	0.61	(0.32, 1.17)	0.138
No dating intention	0.45	(0.09, 2.35)	0.634	0.32	(0.05, 2.07)	0.233
	0.15	(0.03, 0.69)	0.357	0.18	(0.03, 1.00)	**0.049***
Sexually active						
No	1	Ref	Ref	1	Ref	Ref
Yes	8.02	(4.44, 14.51)	P<0.0001	3.13	(1.52, 6.48)	**0.002***
Age at first sex						
Not had sex	1	Ref	Ref	1	Ref	Ref
<18 years	8.28	(4.59, 14.95)	P<0.0001	4.50	(2.24, 9.05)	**p<0.0001***
>= 18 years	23.49	(3.99, 138.30)	P<0.0001	9.51	(1.35, 61.90)	**0.023***
Knowledge of SRH provider existence						
Inadequate	1	Ref	Ref	1	Ref	Ref
Adequate	2.86	(1.75, 4.68)	P<0.0001	2.83	(1.56, 5.14)	**0.001***

* Represents significant associations at 95% level of significance; AOR=Adjusted Odds Ratio;

Socio-Demographic and Economic Factors associated with Utilization of SRH services.

After accounting for all other variables in the best-fit model, adolescents living with both parents exhibited 3.47 times higher likelihood of utilizing SRH services compared to those under the care of another guardian (AOR =

3.47, 95% CI = (1.57, 7.64), p = 0.002). Similarly, adolescents residing with a single parent had 3.52 times higher odds of utilizing SRH services compared to those living under a different guardian (AOR = 3.52, 95% CI = (1.52, 8.13), p = 0.003).

Furthermore, adolescents whose source of money for SRH services was pocket money displayed 0.51 times less likelihood of utilizing these services within the last 3 months compared to those with other funding sources such as from boyfriends or football clubs (AOR = 0.25, 95% CI = (0.06, 0.99), p= 0.049) controlling for all other variables in the best-fit model. However, no statistically significant differences were observed in SRH utilization within the last 3 months between those whose sources were relatives, part-time work, or other sources like boyfriends or football clubs.

Individual Factors Associated with Utilization of SRH Services

The relationship status of adolescents emerged as a notable determinant of SRH service utilization within the past 3 months. After accounting for other variables, adolescents who expressed no intentions of dating were 0.18 times less likely to utilize SRH services than those who were dating (AOR = 0.18, 95% CI = (0.03, 1.00), p = 0.049). Additionally, adolescents with intentions to date or those who were not dating also exhibited lower likelihoods of utilizing SRH services, although statistical significance wasn't achieved (AOR = 0.32, 95% CI = (0.05, 2.07), p = 0.233; AOR = 0.61, 95% CI = (0.32, 1.17), p = 0.138).

Furthermore, being sexually active in the last 3 months emerged as a substantial factor linked to SRH service utilization. Adolescents who were sexually active during this period displayed 3.13 times higher likelihood of using SRH services than those who were not sexually active (AOR = 3.13, 95% CI = (1.52, 6.48), p = 0.002), controlling for other explanatory variables. Age at first sexual intercourse also significantly influenced SRH service utilization. Those who had their first sexual experience before 18 years old were 4.50 times more likely to use SRH services compared to those who hadn't engaged in sexual activity (AOR = 4.50, 95% CI = (2.24, 9.05), p < 0.0001). Similarly, adolescents who had their first sexual experience at age 18 years or older were 9.51 times more likely to utilize SRH services compared to those who hadn't had sex (AOR = 9.51, 95% CI = (1.35, 61.90), p < 0.023).

SRH Knowledge Factors Associated with Utilization of SRH Services

Among the SRH knowledge factors considered, only knowledge of provider existence exhibited statistical significance with utilize SRH services. Adolescents possessing adequate awareness regarding the existence of SRH service providers were significantly more inclined to utilize SRH services. Specifically, after accounting for other variables, adolescents with adequate knowledge of SRH provider existence were 2.83 times more likely to utilize SRH services than those with inadequate knowledge (AOR = 2.83, 95% CI = (1.56, 5.14), p < 0.001).

4. DISCUSSION

This study aimed to examine the utilization of Sexual and Reproductive Health (SRH) services among adolescents and identify the socio-demographic, economic, individual, and SRH knowledge factors associated with utilization. The findings of this study revealed several significant factors that influence the utilization of SRH services among adolescents including living arrangements, source of money, relationship status, age at first sexual intercourse and knowledge of sexual and reproductive health services by these adolescents.

One of the noteworthy findings of our study was the influence of living arrangements on SRH service utilization. Adolescents living with both parents or a single parent exhibited a higher likelihood of utilizing SRH services compared to those under the care of another guardian. This may suggest that the presence and stability of parental figures in adolescents' lives may play a crucial role in encouraging them to seek SRH services. It underscores the importance of family support and communication in addressing adolescents' SRH needs. These findings were consistent with other findings which revealed that family support had played a critical role in the utilization of sexual and reproductive health services by adolescents and the youths (Haile et al., 2020a). However, the findings of the current study did not support the previous research findings which were observed in Ethiopia where it was observed that adolescents living with their father were less likely to utilize SRH services (Ayehu et al., 2016a).

Source of money for SRH services was also found to be a significant factor. This study discovered that adolescents who relied on pocket money were less likely to utilize SRH services compared to those with alternative funding sources such as boyfriends or football clubs. This finding raised questions about financial accessibility and highlights the need for targeted interventions to ensure that adolescents, particularly those who dependent on pocket money, can access SRH services without financial barriers. A study conducted by Tsegaw and others revealed that cost of service was significantly associated with the utilization of SRH by the adolescents (Tsegaw

et al., 2022). Likewise, in a Ghanaian study, it was discovered that the most important hinderance when determining whether or not an adolescent would utilize SRH services was the cost element of the service (Awuah et al., 2022).

Relationship status emerged as another significant determinant of SRH service utilization. This study established that adolescents who expressed no intentions of dating were less likely to utilize SRH services than those who were dating. Additionally, sexually active adolescents exhibited higher odds of SRH service utilization. In accordance with the present results, previous studies have demonstrated that relationship status is associated with utilization of SRH services (Ayehu et al., 2016b, Feleke et al., 2013). These findings suggest that adolescents who are dating or sexually active are more inclined to seek SRH services, possibly due to increased awareness of their SRH needs. However, it's crucial to note that some adolescents who were not dating or sexually active also utilized SRH services, indicating the importance of accessible and non-judgmental services for all adolescents.

Perhaps one of the most interesting findings was that age at first sexual intercourse played a pivotal role in SRH service utilization. This study found that adolescents who initiated sexual activity before the age of 18 were more likely to use SRH services compared to those who hadn't engaged in sexual activity. Similarly, those who initiated sexual activity at age 18 or older exhibited higher odds of utilizing SRH services. These results corroborated the findings of a great deal of the previous work in understanding the link between age of an adolescent and SRH service utilization. For instance, a study in Nepal demonstrated that age of an adolescent was positively associated with utilization of SRH services (Napit et al., 2020b). This suggests that early sexual debut or delayed initiation both contribute to increased SRH service utilization. Comprehensive SRH education and services should target adolescents across this spectrum to ensure equitable access to care.

Among the SRH knowledge factors considered, knowledge of the existence of SRH service providers stood out as a significant predictor of SRH service utilization. The current study found that adolescents with adequate awareness of SRH provider existence were more likely to utilize SRH services. This can be justified as adolescents with good knowledge had adequate information regarding the consequences of SRH problems. These findings were inconsistent with the findings in Ethiopia where it was observed that knowledge of SRH among adolescents was low and had resulted in low uptake of SRH services by these adolescents (Berhe et al., 2022). On the other hand, other studies have also demonstrated the role of knowledge in the utilization of SRH services by the adolescents (Tilahun et al., 2021, Abajobir and Seme, 2014b, Motuma et al., 2016).

This underscores the importance of disseminating information about the availability of SRH services to adolescents, as awareness appeared to be a key driver of utilization. It also highlighted the need for targeted educational campaigns to ensure that adolescents are well-informed about the accessibility of SRH services.

Surprisingly, the current study did not show any significance association between family/relative discussion and utilisation of sexual and reproductive health services among youths and adolescents. These results differ from a number of studies that have demonstrated that family discussion played a cardinal role in utilisation of SRH among adolescents (Tlaye et al., 2018a, Ayehu et al., 2016b, Abajobir and Seme, 2014b). One possible explanation to this discrepancy could be attributed to the fact that this study was conducted within informal settlements which has different contextual factors unlike other previous studies which were conducted within formal and urban settlements. Family discussions about Sexual and Reproductive Health (SRH) can positively impact SRH service utilisation among adolescents by increasing awareness, reducing stigma, promoting informed decision-making, and providing a supportive environment (Ayehu et al., 2016b). However, potential negative implications include privacy concerns, cultural or religious barriers, fear of parental judgment, and the possibility of misinformation. Encouraging open and non-judgmental family communication about SRH is crucial to maximize the benefits of these discussions while respecting adolescents' privacy and cultural sensitivities.

Overall, these findings shed light on the multifaceted nature of factors influencing SRH service utilization among adolescents. The results underscore the importance of addressing socio-demographic, economic, individual, and knowledge-related factors to promote equitable access to SRH services. Interventions should consider the role of family support, financial accessibility, and comprehensive SRH education in empowering adolescents to make informed decisions about their sexual and reproductive health. This study contributes valuable insights to the design and implementation of SRH programs and policies tailored to the unique needs and circumstances of adolescents, ultimately fostering improved SRH outcomes and well-being among this population.

5. CONCLUSION

The findings of this study illuminate the multifaceted landscape of Sexual and Reproductive Health (SRH) service

utilization among adolescents, unveiling the intricate interplay of socio-demographic, economic, individual, and SRH knowledge factors. The findings of the study showed that utilisation of sexual and reproductive health services among adolescents in the informal settlements of Lusaka district were suboptimal and was affecting by interplay of factors including predisposing, enabling resources and health need related factors. These insights carry significant implications for policy and practice in the realm of adolescent healthcare. The study underscores the pivotal role of familial support structures, with adolescents living with both parents or a single parent exhibiting a greater propensity to utilize SRH services. However, financial barriers, particularly among those dependent on pocket money, highlight the need for targeted interventions ensuring universal access. Furthermore, the influence of relationship status and sexual activity on SRH service utilization accentuates the importance of creating inclusive healthcare environments.

All adolescents, regardless of their relational or sexual status, should feel empowered to access SRH services tailored to their unique needs. The age at which sexual activity is initiated is also a critical factor, emphasizing the necessity for comprehensive SRH education and accessible services that cater to adolescents at every stage of sexual development. To promote equitable access, policies and interventions must comprehensively address socio-demographic, economic, individual, and knowledge-related determinants. By doing so, healthcare systems can better serve adolescents' SRH needs, ultimately leading to enhanced SRH outcomes and the overall well-being of this vital demographic.

6. RECOMMENDATIONS

i. Both ministries of health and education should consider advocating for a national policy that mandates the implementation of comprehensive Sexual and Reproductive Health (SRH) education programs in schools and communities, particularly within informal settlements.
ii. Promote Family Involvement and Support: NGOs focusing on SRH should advocate for a policy that encourages the involvement of parents and guardians in discussions about SRH.
iii. Ministry of Health should enhance financial support mechanisms to leverage collaboration with local organizations and NGOs to implement subsidized or free SRH services for adolescents.
iv. Ministry of Health should enhance policy mandates at the implementation of youth-friendly SRH service centers within informal settlements. This policy should outline standards for accessibility, non-stigmatization, professional training, confidentiality, and privacy.

REFERENCES

Alon, T.M., et al. (2020). The Impact of COVID-19 on Gender Equality (Working Paper No. 26947; Working Paper Series). *National Bureau of Economic Research.* Available at: https://doi.org/10.3386/w26947. Accessed on 04/12/2020

Baldwin, R. & Weder di Mauro, B. (2020). *Economics in the Time of COVID-19*. CEPR Press: New Book. Retrieved from https://repository.graduateinstitute.ch/record/298223

Banda, S., Mpolomoka, D.L., Mbono, D. and Sampa, R.L. (2017). Use of questions in qualitative research: How questions guided our study. *International Journal of Development Research*, 7, (12), 17895-17898.

Banda, S. and Mpolomoka, D.L. (2018). Culturally relevant education and training for communities: A review. *African Educational Research Journal, 6(2), 88-93.*
DOI: https://doi.org/10.30918/AERJ.62.18.019

Bartik, A.W., et al. (2020). How Are Small Businesses Adjusting to COVID-19? Early Evidence from a Survey (Working Paper No. 26989; Working Paper Series). *National Bureau of Economic Research*. Available at: https://doi.org/10.3386/w26989. Accessed on 28/11/2020

Bartos, V., Bauer, M., Cahlikova, J. and Chytilová, J. (2020). COVID-19 Crisis Fuels Hostility against Foreigners (SSRN Scholarly Paper ID 3593411). *Social Science Research Network.* Available at: https://doi.org/10.2139/ssrn.3593411. Accessed on 01/12/2020

Béland, L.P., Brodeur, A. and Wright, T. (2020). The Short-Term Economic Consequences of CoviD-19: Exposure to Disease, Remote Work and Government Response (SSRN Scholarly Paper ID 3584922). Social Science Research Network. Available at: https://papers.ssrn.com/abstract=3584922

Brodeur, A., Grigoryeva, I. & Kattan, L. (2020). Stay-at-Home Orders, Social Distancing and Trust (SSRN Scholarly Paper ID 3602410). *Social Science Research Network*. Available at: https://papers.ssrn.com/abstract=3602410. Accessed on 01/12/2020

CDC. (2021). COVID Data Tracker. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covid-data-tracker/index.html

Chanda, C.T. (2023). Social-Economic factors affecting small business performance among chisokone marketeers in Kitwe District, Copperbelt Province, Zambia. *International Journal of Science and Research, 10(01), 648-657.* https://doi.org/10.30574/ijsra.2023.10.1.0781

Chatterji, P. and Li, Y. (2020). Effects of the COVID-19 Pandemic on Outpatient Providers in the US (Working Paper No. 27173; Working Paper Series). *National Bureau of Economic Research.* Available at: https://doi.org/10.3386/w27173. Accessed on 02/11/2020

Chelak, K. and Chakole, S. (2023). The role of Social Determinants of Health in Promoting Health Equality: A Narrative Review. *Cureus, 5(15), e33425.* Doi: 10.7759/cureus.33425

Chitondo, L., Chansa, C.T., Mpolomoka, D.L. and Ngulube, L. (2024). Disaster management and mitigation strategies in Zambia: A systematic review. *World Journal of Advanced Research and Reviews*, 2024, 21(03), 2403–2420. https://doi.org/10.30574/wjarr.2024.21.3.0995

Creswell, J.W. (2013). Qualitative Inquiry & Research Design: Choosing among Five Approaches (3rd ed.). Thousand Oaks, CA: SAGE.

Collegepond (2020). Coronavirus – The Pandemic and the Higher Education Pandemonium. Available at: https://www.collegepond.com/coronavirus-the-pandemic-and-the-higher-education-pandemonium/ Accessed on the 27/09/2020

David, M., Morens, Gregory, K., Folkers, Anthony, S. Fauci, (2009). What Is a Pandemic?, *The Journal of Infectious Diseases*, 200(7), 1018–1021, https://doi.org/10.1086/644537

Davillas, A. and Jones, A.M. (2020). The COVID-19 pandemic and its impact on inequality of opportunity in psychological distress in the UK (ISER Working Paper Series No. 2020-07). *Institute for Social and Economic Research*. Available at: https://econpapers.repec.org/paper/eseiserwp/2020-07.htm. Accessed on 02/11/2020

Disease Outbreak News (2020). WHO Country information, Emergencies, Preparedness, Response. Available at: https://www.who.int/csr/don/archive/country/zmb/en/ ; Accessed on the 28/09/2020

Douglas K.M., Sutton R.M. and Chichocka, A. (2017). The Psychology of Conspiracy Theories. Available at: https://journals.sagepub.com/doi/full/10.1177/0963721417718261.

Eikemo, T.A. and Oversveen, E. (2019). Social inequalities in health: Challenges, Knowledge Gaps, key debates and the need for new data. *Scandinavian Journal of Public Health,* 6 (47), 593-597. Doi: 10.1177/1403494819866416

Ellison, G. (2020). Implications of Heterogeneous SIR Models for Analyses of COVID-19 (Working Paper No. 27373; Working Paper Series). *National Bureau of Economic Research.* Available at: https://doi.org/10.3386/w27373. Accessed on 01/12/2020

European Centre for Disease Prevention and Control (2020, 14 December) COVID-19 situation update worldwide, as of 14 December 2020 https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases. Accessed on: 16 December, 2020

Fairlie, R.W., Couch, K. and Xu, H. (2020). The Impacts of COVID-19 on Minority Unemployment: First Evidence from April 2020 CPS Microdata (Working Paper No. 27246; Working Paper Series). *National Bureau of Economic Research.* Available at: https://doi.org/10.3386/w27246. Accessed on 01/12/2020

FNB (2020). Board Rate TT. Available at: http://www.fnbzambia.co.zm

Gupta, S., Montenovo, L., et al. (2020). Effects of Social Distancing Policy on Labor Market Outcomes (Working Paper No. 27280; Working Paper Series). *National Bureau of Economic Research.* Available at: https://doi.org/10.3386/w27280. Accessed on 01/12/2020

Horowit, J. (2020). *The global coronavirus recession is beginning*. CNN. Media report. Available at: https://edition.cnn.com/2020/03/16/economy/global-recession-coronavirus/index.html. Accessed on 08/11/2020

International Labor Organization ILO monitor: COVID-19 and the world of work. Third edition updated estimates and analysis.2020. Available at: https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms743146.pdf Accessed on: 5/5/ 2020

International Monetary Fund. (2020). *World Economic Outlook Update, June 2020: A Crisis Like No Other, An Uncertain Recovery.* IMF. Available at: https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020. Accessed on 08/11/2020

Ioannides, D. and Gyimothy, S. (2020). The COVID-19 crisis as an opportunity for escaping the unsustainable global tourism path. Tourism Geographies, 22(3), 624-632

Macrotrends (2020), Zambia Rural Population 1960 – 2020
Available at: https://www.macrotrends.net.Accessed on: 23/12/2020

Masiye, F. and Kaonga, O. (2019). *Investigating the role of income and non-income determinants of health inequalities in Zambia using a decomposition analysis*. *International Journal for Equity in Health*, 18(1), 1-10.

Mkandawire, A. (2014). Sustainable settlement solution to shanties. Zambia institute of planners. Times of Zambia | Sustainable settlement solution to shanties.

Mpolomoka, D.L., Mosha, M., Banda, S., Amadhila, H.N. and Chikopela, R. (2020). *Experiences of Lecturers during the CoviD 19 Era in Zambia and Namibia.* DEASA 2020 Virtual Conference and Annual General Meeting, Maputo, Mozambique, December2-4, 2020.

Mulenga, J.N., Bwalya, B.B. and Chishimba, K. (2017). Determinants and inequalities in access to improved water sources and sanitation among the Zambian households. *Int. J. Dev. Sustain.*, 6(8),746-762.

Mulubwa, C., Munakampe, M.N., Namakula, H., Hernandez, A., Ssekamatte, T., Atuyambe, L.M., Birabwa, C., Chemonges, D., Namatovu, F., Makumbi, F. and Tetui, M. (2021). Framing Contraceptive Use Motivations Among Adolescents and Young Adults Living in Informal Settlements in Kira Municipality, Wakiso District, Uganda. *Front. Glob. Womens Health* 2:658515. doi: 10.3389/fgwh.2021.658515

Munakampe, M.N., Fwemba, I., Zulu, J.M. and Michelo, C. (2020). Association between socioeconomic status and fertility among adolescents aged 15 to 19: An analysis of the 2013/2014 Zambia Demographic Health Survey (ZDHS). Res Square. doi: 10.21203/rs.2.22655/v2

Munakampe, M.N., Nkole, T., Silumbwe, A. et al. (2020). Feasibility testing of a community dialogue approach for promoting the uptake of family planning and contraceptive services in Zambia. *BMC Health Serv Res* **20**, 728. https://doi.org/10.1186/s12913-020-05589-5

Mushibwe, C. and Mpolomoka, D.L. (2022). *Emerging from the Crucible: Employer-Employee Loyaltism Post CoviD 19.* Paper presentation at the International Conference on Business, Innovation and Social Sciences: Re-Strategizing Global Scenario in the Post-Pandemic Era (ICBISS, 2022) hosted by the CCN University of Science and Technology, Cumilla, Bangladesh, December, 3-4, 2022.

Mwai, P. (2020). Coronavirus: What's happening to the numbers in Africa? Available at: https://www.bbc.com/news/world-africa-53181555.Accessed on: 23/2020

Ozili, P.K. and Arun, T. (2020). *Spillover of COVID-19: impact on the Global Economy*. Available at: SSRN 3562570. Accessed on 08/11/2020

Pesala, S. (2020). A SARS-CoV-2 Surveillance System in Sub-Saharan Africa: Modeling Study for Persistence and Transmission to Inform Policy. Journal of Medical Internet Research (JMIR). Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7683024/

Phiri, V.E., Chitondo, L. and Chansa, C.T. (2024). Ensuring National Food Security in Southern Africa: Challenges and Solutions. *International Journal of Novel Research in Interdisciplinary Studies, 11(2), 1-18*

Rojas, F.L., et al. (2020). Is the Cure Worse than the Problem Itself? Immediate Labor Market Effects of COVID-19 Case Rates and School Closures in the U.S. (Working Paper No. 27127; Working Paper Series). *National Bureau of Economic Research*. Available at: https://doi.org/10.3386/w27127. Accessed on 05/12/2020

Schild, L., et al. (2020). *Go eat a bat, Chang!: An Early Look on the Emergence of Sinophobic Behavior on Web Communities in the Face of COVID-19.* ArXiv:2004.04046 [Cs]. Available at: http://arxiv.org/abs/2004.04046. Accessed on 05/12/2020

Sialubanje, C., Sitali, D.C., Mukumbuta, N., et al. (2022). Perspectives on factors influencing transmission of COVID-19 in Zambia: A qualitative study of health workers and community members. *BMJ Open*;12:e057589. doi:10.1136/bmjopen-2021-057589

Stiegler, N. and Bouchard, J. (2020). South Africa: Challenges and successes of the COVID-19 lockdown. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0003448720301785

UNDP (2020). Policy brief mitigating the Socio-economic Impact of CoviD-19 in Zambia: A Rapid Assessment. Available at: https://www.policy-brief-mitigating-the-socio-economic-impact-of-CoviD-19-i. Accessed on 01/12/2020

WHO (2020). Analytical Report of the First, Second and Third Wave Studies. Available at: https://www.unicef.org/georgia/media/4736/file/COVID-19-Study-Analytical-Report-1-st-2nd-and-3rd-waves-Eng.pdf. Accessed on 01/12/2020

WHO (2021). *Coronavirus disease (COVID-19) situation report – 235*. Retrieved from https://www.who.int/docs/default-source/coronaviruse/situation-reports/20210228-covid-19-sitrep-235.pdf

Wu, J.T., Leung, K. and Leung, G.M. (2021). Nowcasting and forecasting the potential domestic and international spread of the 2019-nCoV outbreak originating in Wuhan, China: A Modeling Study. *The Lancet*, 395(10224), 689-697.