
School Dropout in Rural Uganda: Stakeholder Perceptions on Contributing Factors and Solutions

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Abstract: This theory-based qualitative study reports perceptions on the contributing factors of school dropouts, and recommendations for action and areas of capacity building to reduce the high rate of school dropouts in Uganda. The study which interviewed 101 adolescents, family and community members from rural Budondo sub-county (Jinja district), was based on constructs of the social cognitive theory and analyzed by thematic analysis using Atlas-ti (version 7.5.4). Contributing factors include: poor academic performance, failure to cope with school, lack of social skills to cope with life's challenges, early employment, early pregnancy, lack of parental care and role models, child-headed families, media influence, and drug abuse, poor payment of teachers, poverty among parents, child labor, long distances to school, family gardening, and lack of school/personal effects. Recommendations are: training students in social skills, involvement of national and local leaders in motivating learners, sensitization of parents and community, accessible sexual and reproductive health services, use of school counselors, involvement of the resident of Uganda in discouraging school dropouts, enforcement of laws, compulsory handcraft skills training for high school students in lower classes, increased school budgets and teachers' salaries, income generation skills, job creation for parents, provision of school meals, co-curricular activities, accessible schools, and provision of free sanitary towels. Areas for capacity building are: use of school counselors and trained learner-leaders to motivate learners, training community leaders to handle challenges of learner, reform of school curriculum for vocational training, use of school gardens for skilling and school food, and training learners/teachers in making sanitary towels. Parental/community support to students, introduction of co-curricular and vocational skills in schools may help reduce school dropouts.

Keywords: School Dropout, Factors, Handcraft Skills, Social Skills, Social Cognitive Theory

1. Introduction

Education is not only a human right [1] but also one of the millennium development goals [2] which helps to lay a foundation for a bright future for the young with good employment, socio-economic status and health in general [3]. In Uganda a low developing country, 57% of youths (15-24 years) have not attained primary level education yet 28% do not complete secondary level education. Only 10% of the youths complete primary education and 2% complete secondary level education [4-5] with higher rates of drop out at primary education level being higher (94%) in rural areas compared to 77% in the urban areas of Uganda and, among males (92%) than females (89%) [5]. At the sub-regional levels of Uganda, Busoga, Bukedi, Teso, West Nile, Acholi, Lango, Karamoja, Toro, Ankole, Bunyoro, Kigezi have a

dropout rate ranging between 91% and 97% at primary school level [5]. In particular, Busoga sub-region (where the study district of Jinja is found) has a school dropout rate of 91% at primary school level [5], and this calls for high attention [6].

In this study, a school dropout is defined as any individual aged 6-19 years who had not completed and yet was attending primary or secondary school while rural Uganda refers to geographical areas in the countryside which are neither cities nor towns. Adolescents that drop out of school are at risk of low economic status even in adulthood due to unemployment, low paying jobs, alcoholism, poor health, committing crime [7] and are prone to community detachment [8], all of which are of public health concern. During an extensive study [9] exploring needs, barriers and supports, opportunities, recommendations, and avenues for capacity building towards

the enhancement of adolescent maternal/child nutrition and health, stakeholders constantly gave their perceived views on contributing factors towards the high rate of school dropouts and how this prevalence might be reduced. To date, little is known about the contributing factors of school dropouts in rural Jinja district, and how these could be reduced based on a methodological framework. The goal of this study was, therefore, to describe stakeholder perceptions or interpretations on the contributing factors of school dropouts in Jinja District, and the recommendations and avenues of capacity building to address the matter.

2. Methodology

This study was based on the social cognitive theory (SCT)

(Figure 1) to help identify how individual and environmental factors interface with behaviors [10-12] of pupils/students to culminate into dropping out of school. The study was also inclined towards the epistemological stand of postpositivism with the goal of pinpointing multi-stakeholder perceptions without basing these on the researcher’s prior skills or beliefs [13-19]. The postpositivism stance takes on the approach that theories, background, knowledge and values of the researcher can influence research unlike the positivism stance which leans on statistics and experiments as research approaches where the researchers and participants are independent of each other [13-14]. For comprehensive discussions with participants, both close ended pre-set questions guided by the SCT [13-19] and open ended questions for stakeholders’ personal opinions [14, 20].

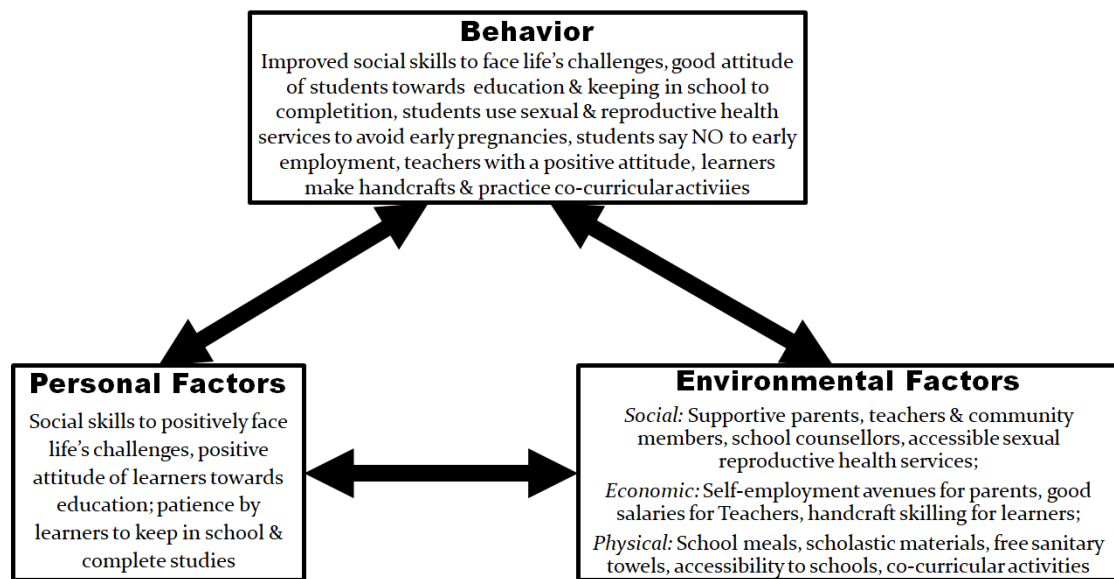


Figure 1. Social Cognitive Theory Framework of Contributing Factors of School Dropouts, Recommendations for Action and Capacity Building to Reduce School Dropouts.

2.1. Study Site

The study was conducted in the rural parts of Budondo sub-county located 25 km from Jinja Town, Jinja district of Busoga region, Eastern Uganda [6]. Eastern Uganda has a poverty rate of close to 25%, [4, 21] a rate that places it in the lowest rank of the poorest regions in Uganda [6]. Of the 51,560 persons living in Budondo sub-county and mainly subsistent farmers, 52% are females and 48% males [6], and moreover, 36% of these residents are underneath the poverty line [22].

2.2. Inclusion Criteria

All participants who were recruited by the study were those that had signed study consent forms and resided within Budondo sub-county or Jinja district for at ≥ 3 years. Adolescents who participated were attending or had attended school in Budondo sub-county at least 3 years prior to study.

2.3. Study Sample and Recruitment

Over 100 study participants (Table 1) were recruited by

purposive sampling [14, 23-24] by 6 study mobilizers with the goal of representing the 6 main participant groups namely: adolescents who had dropped out of school, family members, health-related personnel, educators, area leaders and community workers.

Table 1. Demographics of Study Respondents (N = 101).

| Respondent Category | Gender | | Number |
|--------------------------------------|--------|--------|--------|
| | Male | Female | |
| Adolescent Girls | 0 | 25 | 25 |
| Mothers of Adolescents | 0 | 5 | 5 |
| Grandmothers of Adolescents | 0 | 6 | 6 |
| Teachers | 0 | 5 | 5 |
| Head teachers | 9 | 2 | 11 |
| Doctors | 4 | 0 | 4 |
| Midwives | 0 | 7 | 7 |
| Community Health Workers | 1 | 7 | 8 |
| Agricultural Officers | 3 | 0 | 3 |
| Religious Leaders | 3 | 0 | 3 |
| Local Council I (LCI) Chairpersons | 6 | 0 | 6 |
| District & sub-county Administrators | 7 | 6 | 13 |
| NGO Staff | 3 | 2 | 5 |
| Total | 35 | 66 | 101 |

2.4. Data Collection

Data was collected in March-May 2016. Interview guides translated into the Lusoga language were delivered by the researcher (JN) assisted by local trained research assistants. Key questions were constructed along individual and environmental factors applicable to the contributing factors of school dropouts and how these could be minimised. Interview guides were tried out in rural Butagaya sub-county with a representation of the target groups. At the start of each interview, participants were welcomed by the researcher, told of the study’s objective and assured of anonymity.

2.5. Data Analysis

Interview recordings were transcribed word for word then translated into English. Codes were created from the transcribed interviews guided by the SCT model and inferred themes of contributing factors of school dropouts and recommendations and capacity building to reduce the prevalence of school dropouts under the categories of individual and environmental factors. Using Atlas-ti 7.5.4, phrases in each transcript were connected to the created codes which were then networked towards the major theme of reduction of school dropouts using thematic analysis [14, 25-28] as shown in Figure 2.

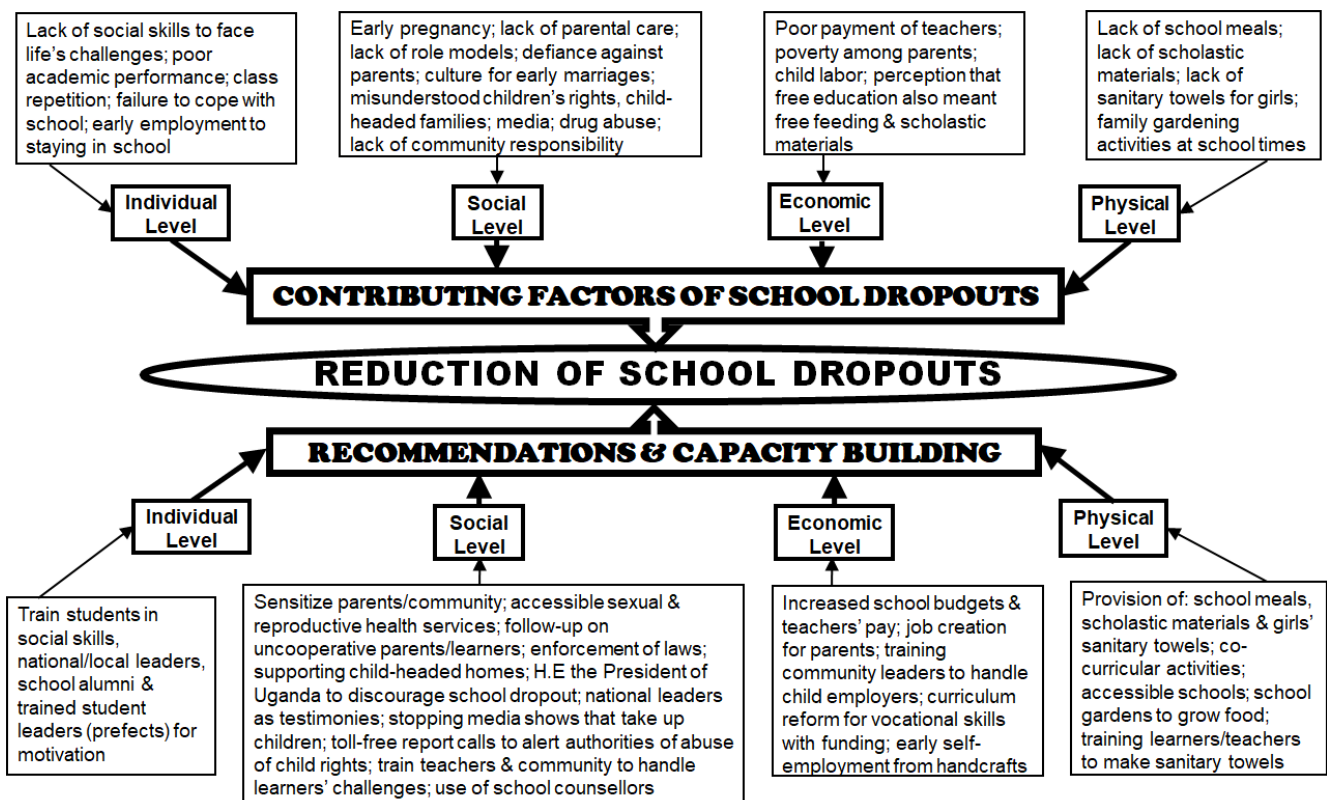


Figure 2. Thematic Network of Framework of Contributing Factors of School Dropouts, Recommendations for Action and Capacity Building to Reduce School Dropouts.

Adapted from: Attride-Stirling J (2001). Thematic networks: an analytic tool for qualitative research. Commission for health improvement, England. Qualitative Research. SAGE Publications. 1 (3): 385-405.

3. Results

3.1. Demographics of the Respondents

Demographic characteristics of all study respondents are in the Table 1. Much as male adolescents did not participate in the study, the views given could be representative of what is happening in the study area.

3.2. Perceived Factors Contributing to School Dropouts, Recommendations for Action and Capacity Building to Reduce School Dropouts

It was perceived that the rate of dropping out of school

was a worrying trend and common for both male and female pupils/students at primary and secondary levels. Against this, stakeholders revealed factors associated with school dropouts and suggested recommendations and areas for capacity building at individual, social, economic and physical levels.

3.2.1. Individual Level

i. Contributing Factors of School Dropouts at Individual Level

It was perceived that some learners in rural Uganda dropped out of school due to poor performance, class repetition, high age for a given class, and poor attitude towards education preferring to be employed at a young age. Other learners failed to cope with knowledge disseminated at school and were termed as 'slow learners' by study

participants. For others, stakeholders thought of them as being disrespectful to their parents and refusing to continue with school.

“Most of us [students] get tired of failing and repeating classes and so we easily give up with education....we get are demotivated. May be the other reason is that are not determined to keep on with school even under hardships. Any small discouragement like long distance to school, lack of good eats, lack of uniforms, failure to work hard at school, failure to resist men for favors etc, just makes us give up easily.” Adolescent 1.

“Students have a poor attitude towards education and prefer to make money while still young. Some pupils are weak in class, they do not understand what is being taught in class, they are slow learners. They [students] would rather drop out than struggle through school even if we encourage them. Others are disrespectful and so defiant and won't listen to their parents at all even when they plead with them to keep in school.” Teacher 1.

ii. Recommendations to Reduce School Dropouts at Individual Level

National leaders were encouraged to position themselves as testimonies and examples to the young generation in rural Uganda so as to motivate them to complete school at given levels.

“National leaders like members of parliaments and Ministers should be on ground and give community service so that the students can learn from them and be encouraged by these educated ladies and gentlemen. The district and schools should invite prominent members of the society to speak to pupils and students about the goodness of staying in school and completing e.g., the Speaker of Parliament Hon. Rebecca Kadaga who is a daughter of Busoga region. The students will say see how those women and men are happy and looking good because they are educated.” Sub-county Administrator 1.

iii. Capacity Building to Reduce School Dropouts at Individual Level

Stakeholders recommended use of school alumni and trained student/pupil leaders (prefects) to encourage and keep learners in school as examples of the fruits of completing school and peer counselors respectively.

“We have many prominent people who went through our schools and these could come back to speak to our children about the goodness of completing school. Schools also have student leaders who are good mannered and could be trained to advise their mates not to give up on school.” Teacher 2.

3.2.2. Social Level

i. Contributing Factors of School Dropouts at the Social Level

Sadly, girls had no choice of staying in school the moment they became pregnant as school authorities sent them away saying they would set a bad precedence and example to the rest of the students.

“When we become pregnant we aren't allow to remain in school because they [teachers] say we will spoil other

pupils. Teachers think that the other pupils will look at us as examples and think that even when they get pregnant they will also be allowed to continue with school. So we end up staying at home.” Adolescent 2.

There were other social factors perceived as factors contributing towards the rise of school dropouts in rural Uganda including: parents not adequately providing school dues and scholastic materials to their children, inadequate follow-up on children's school life and academic performance, and religions and families that advocated for early marriages making the girls to leave school at an early age. Some stakeholders also perceived lack of suitable role models to motivate children to stay in school as some parents and community members boasted about being financially well off without being educated and to make matters worse, peers that dropped out of school and were working gave an impression of a better life.

“There are families where parents did not go to school and proudly say that their clan does not attend school saying “am not educated but I have a car, I built a house, what is education and in what aspect of life are the educated people better than us?” Religious Leader 1.

“Another thing is that most of them [students] have seen many educated people without jobs and they keep on referring to those saying if so and so went up to Makerere University for their bachelors and masters and they do not have a job, why should I waste time studying? Others families boost so much because they are well off yet they never went to school. So the children see all this and quit school because it is seen as a waste of time.” Head teacher 1.

Child-headship of families due to orphan-hood and broken marriages where the older children take on the responsibility of fending for their younger siblings was also perceived as a factor to dropping out of school. In addition, media influences at local shows or social media platforms in form of movies and music some of which are pornographic and/or sexually oriented enticed and kept children away from school. Moreover, drug abuse of opium and marijuana kept learners mentally unstable and inadequate monitoring of students by community members were also cited as contributing to the high rate of dropping out of school in rural Uganda.

“There are also so many video halls that operate everyday showing films and the children go there as early as 8:00 am. This is the same with music shows and discos that keep our children away from school. There are some students that smoke drugs like opium and marijuana so they are misled and can't go to study. Drugs are being sold covertly and cunningly with an impression that it is a modern thing.” Local Council I Chairperson 1.

“The community and leaders have done nothing to keep the children in school even when they see children getting onto trucks to go and cut sugarcanes on a schooling day. The police also does not take the trouble to arrest such people who take the children to do work during school time.” Health-related Personnel 1.

ii. Recommendations to Reduce School Dropouts at the

Social Level

Compulsory sexual and reproductive health education and services such as use of contraceptives to both male and female students at upper classes of elementary levels and all levels of high school was cited as a way of reducing pregnancies and hence school dropouts. In addition, transferring social skills to students for improved self-esteem, patience to keep in school, assertiveness and working towards a focus on their future could help students to face life's challenges and make better choices life, and avoid early pregnancies which are associated with school dropouts.

"Why doesn't schools teach students about pregnancies because that is the main reason why students fall out of school whether girls or boys. Boys on making the girls pregnant run away from our villages for fear of the police and go to look for work in towns. Students in secondary schools and those from primary five to seven should be openly talked to about that topic and how pregnancies can be avoided. Contraceptives are not accepted in our cultures as of now but this has to change because the girls and boys are sexually active and may not stop by just speaking to them! The girls out of fear of pregnancies are carrying out unsafe abortions. Let us face the facts and get practical solutions." Health-related Personnel 1.

"Schools should teach students skills which can help them say no to early sex and the many temptations they face due to the challenges of life. Most students think that being poor gives them a right to sleep with older men for money yet they can do with the little we as parents give them. We also grew up in poverty but we were patient and schooled to get some qualifications. Also challenges of parents providing students with little money shouldn't be an excuse for our children to drop out of school. They should be patient and focus on what they will be in future after graduating from school. Please let schools help us out because they stay with or children longer than we do." Religious Leader 2.

Other recommendations to reduce school dropouts at a social level include: community responsibility from national to local levels to advise children, sensitization of parents about the importance of education, use of toll-free telephones for students to report uncooperative parents and teachers, follow-up by teachers and area leaders and organizations over children that do not attend school.

"We all from parents, elder siblings, teachers, local leaders, national leaders, neighbors, should not get tired about talking to the students to keep in school as it were in the earlier days. Continuous sensitization and counselling of parents about the value of education and supporting their children by following them up, attending school meetings and feeding their children at school is also important. These are their [parents] children and not [President] Museveni's children!" District Administrator 1.

Other suggestions included: use of tough laws to force learners in school and to close all media areas that entice students, arresting drug dealers and users, stopping of

students' involvement in media shows, and organizations coming up to support child-headed homes so that even the older children go to school. The office of the President of Uganda was perceived to being of help if he spoke against school dropouts and encouraged parents to keep their children in school.

"There is need to set up tough laws that limit the operation of video halls and music shows in terms of working hours and those that take up children. Government should set up very tough laws that will force students to go to school and arrest them or their parents if they fail to abide." Local Council I (LCI) Chairperson 2.

"The President should pronounce a tough directive on school dropouts and encourage parents to keep children in school because things are out of hand. He is the head of this country and people fear him knowing that what he says cannot be questioned." Teacher 3.

iii. Capacity Building to Reduce School Dropouts at Social Level

Stakeholders recommended training of teachers in service or in teacher institutions, and other community service providers on how to help learners handle challenges they faced especially when in school and advise them so as to motivate them into keeping in and completing school.

"At least if all us teachers are trained both at work and while they are studying on how to help and advice all these children who feel so disappointed to continue with school like those who fail in class. Other people like medical personnel, LCs [Local Council leaders], and VHTs [Village Health Team workers] should also be trained in the same. This will help the children to complete school." Teacher 4.

Stakeholders also recommended training of law enforcers and community and family members on how to follow-up learners so as to help them keep interested in education.

"All of us as community leaders and workers should be trained on how to sensitize and follow up our children and their parents to curb down that bad attitude of refusing to go to school." Health-related Personnel 2.

3.2.3. Economic Level

i. Contributing Factors of School Dropouts at the Economic Level

It was perceived that poor payment of teachers demotivated them such that they gave inadequate moral support to help children stay in school. In addition, poverty among parents also fails them to financially support their children such that students are kept home when sent home by school authorities to bring given school requirements.

"Teachers can only do what they can with the little salary they give us which is not about to change even with our frequent strikes. Teachers are demoralized and have given up on the children, they do not care, encourage or follow them up. We do not even have the scholastic materials for instance, a teacher is supposed to give 10 test questions but he/she instead gives 5 written on a chalk board

because he/she cannot write all the questions on the blackboard in a given short time. When we tell students to go back home and bring some little money to contribute to such costs, parents just tell them to stay at home saying there is no money. With time, such children will lose interest in schooling." Head teacher 2.

Child labor and a temptation for daily money paid from cheap employment for example at sugarcane farms, and a mentality that the government should fully provide free education including meals and scholastic materials were also perceived as economic factors associated with dropping out of school.

"One of the reasons that has caused children to drop out of school is child labor and love for money at a young age. There are many sugarcane growers, the people who hire sugarcane cutters also hire children of an age as low as 8 years who are paid like 2,000 UGX (~\$0.56 USD) on a daily basis. So they wonder why they should go back to school again yet they are earning money." NGO Staff 1.

"You can take the children to school knowing the head teachers will not ask for anything since it is free education but when you reach in the middle of the term you see children sent home for books and some money like 20,000 UGX (~\$5.6 USD) and we keep wondering because we were told its free universal primary education and now they are asking for money." Grandmother.

ii. Recommendations to Reduce School Dropouts at the Economic Level

Introduction of vocational skills within existing curriculum subjects at high school level of Uganda was perceived as an avenue to: help learners make some money from items made, prepare students for future self-employment, and keep learners interested in schooling.

"Our schools must start training students in handcraft skills that could help them make money while at home but that means schools should allow our children to come back home early at about 4:00pm and make the items. Our children seem to only go to school to pass examinations without any handcraft skills to make money. All schools whether here in Budondo or the town of Jinja just teach what student will answer in final examinations but not practical skills. When asked why, schools say that they are not given money by the government. Let me ask you the educated, can't external funds be got for this throughout the country? It is of no use to have children get non-practical education yet there are no jobs and they can't even create their own jobs? So how are we preparing our children to face the unemployment in this country?" Mother 1.

"Entrepreneurship skills must be introduced and well-funded through subjects like Fine Art, Home Economics, Foods and Nutrition and Agriculture, and taught to all high school students in lower classes as it were during our school days. External funding should be sought for by organizations to have these skills taught as a strategy to help them [students] make money and keep them interested in staying in school as the practical skills will break the monotony of studying only theory subjects." Head teacher 1.

Stakeholders also recommended that a firm position of the President of Uganda (H.E Yoweri Kaguta Museveni) about what "free" education the government offers would help in terms of parents taking on the responsibility of providing meals and scholastic materials to their children. Other suggestions included: government's job creation for parents in rural Uganda to earn and financially support their children through school, increase of school budgets, and increase of teachers' salaries for motivation were perceived recommendations to handle the above economic challenges and hence reduce school dropouts.

"The President [of Uganda] should either provide meals and scholastic materials or tell the community that he can't solve their financial problems since they are their children and not his. He gave them free education and they have to do give their children food to eat at school, and buy them books to write on and uniforms and shoes to wear." Health-related Personnel 3.

"The government needs to increase on the amount of money that they give schools because the money we are currently getting both as schools and pay for teachers is very little money and we can't do much." Head teacher 3.

iii. Capacity Building to Reduce School Dropouts at the Economic Level

It was suggested that community leaders and the police be trained into how they could sensitize and/or reprimand all those who use children for child labor.

"The police and LCs should be trained in talking to owners of sugar who use children to harvest sugarcanes especially during school time. If talks fail, force should be used to arrest those law breakers." Mother 2.

3.2.4. Physical Level

i. Contributing Factors of School Dropouts at the Physical Level

It was perceived by many stakeholders that in rural Uganda, lack of school meals where children kept hungry and scholastic materials such as books and pens demotivates the learners from keeping in school. In addition, lack of sanitary towels or use of improper materials by girls during menstruation keeps them at home leading to their dropping out of school with time. Long distances to school which tiresome students that stayed far and parents keeping their children in gardens especially during planting and harvest seasons were also seen as physical factors which contributed to school dropouts.

"Some of those children find being in school very difficult because of lack of lunch, uniforms and scholastic materials like books, mathematical sets, sharpeners, rulers. Some schools are very far and walking for long discourages some children. Some girls lack sanitary materials to use during menstruation, they may use dirty pieces of clothes, sponges, leaves, banana fibers but these can't help. When defeated, they can't go to school and when this continues, the girls will drop out of school." Health-related Personnel 4.

"Time for sowing and harvesting, the children don't

attend school. When it's a dry season, more children attend school but in a rainy season, children are busy working in their parent's gardens and with time, they drop out." Agricultural Officer.

ii. Recommendations to Reduce School Dropouts at the Physical Level

Stakeholders called upon the government to provide school meals, scholastic materials, sanitary towels for girls and fully facilitate co-curricular activities so as to keep children in school. Sensitization of parents to provide school meals that their children was also suggested.

"Government should make the school environment friendly by building several schools, providing sanitary pads for girls and lunch for the pupils such that they can stay at school. They should put in place co-curricular activities like music, games and sports and handicrafts with enough facilities like balls, musical instruments, and craft materials so that children can enjoy school." Sub-county Administrator 2.

"Parents should be sensitized to take on their responsibility of providing school meals to their children. If the child is at home you are providing lunch, if the child goes to school, as a parent you are supposed to provide lunch too. Since the child is not at home and he/she is at school, the lunch should be transferred to school because this is what the child would have eaten while at home. So who eats the children's lunch when they are at school and not home?" NGO Staff 2.

iii. Capacity Building to Reduce School Dropouts at the Physical Level

The government was called upon to introduce school gardens to grow foods to be eaten at school as part of their curriculum, and to train learners/teachers in making sanitary towels from locally available materials.

"Our government should be able to give schools land for gardens so that students dig their food as part of the lessons taught. If parents cannot provide sanitary towels to girls, let our children and teachers be trained in making these from the materials we have here." District Administrator 2.

4. Discussion

The study revealed perceived factors related to school dropouts and recommendations to reduce the vice at economic, social and physical levels involving families, communities, and the government making it a collective responsibility. This study was based on the social cognitive theory. By understanding the contributing factors of school dropouts and what the community members suggest to reduce the vice at a range of levels, it may help to consider possible opportunities.

At the individual level, learners' stay in school to continue with education was challenged by a lack of self-drive and resilience to overcome personal negative attitudes. Much as peers may help to build confidence among the learners as exhibited in other public health studies [29-31], a trained

school counselor may help students to open up and cope better with the challenges of life [32]. Trained school counselors have been reported to help to reduce classroom anxiety, class disturbances, dropouts and poor performance [33]. School counselors promote academic and career success preparing the young generation for a productive and well-adjusted adulthood and may play a role of bridging the gap between learners and teachers and parents [33] especially if well received and having good working relations with parents and school administrators [34]. Such an intervention of employing a school counselor may also help correct learners who are looked at as being disrespectful to their parents and those who prefer employment to education. Sensitizing of teachers to handle students challenged with academics may also be very helpful instead of them setting up a uniform learning pace for all learners.

Training of students in social skills may help build confidence and self-esteem hence helping them face life's challenges and keep in school [35-36], avoiding early sex and or early pregnancies, and also completing their studies at given levels for a qualification that can help them acquire gainful employment. Social skills are personal and interpersonal skills that help students to benefit themselves and others, and relate well with others for example, making positive decisions, self-worth, positive decisions, patience, high bargaining power to one's advantage, assertiveness, creativity, self-control, determination, positive attitude to life [35-39]. Students could be equipped with the social skills under subjects such as English Language, Religious Education and General Paper which are already part of the high school curriculum [40], and some of which are compulsory [41-43].

Other challenges faced by learners at the social level could be lessened through sensitization of community members for support. Community-based sensitization has been reported to create awareness and acceptance of public health related interventions [44-46]. This strategy of encouragement could be extended to help both boys and girls who drop out of school. Such information sharing and advocacy could also support a shift in areas such as parental care and follow-up of their children at home and school, standing against early marriages for girls, and talking against issues like use of drugs and media that influences students and keeps them away from school. The hope which communities have in the office of the President of Uganda could be taken advantage of as a point of strength and be used by this office to speak against school dropouts and encourage parents to provide for their children's school needs.

Community-based health facilities and systems should be facilitated with materials and personnel needed to support and provide teenagers with comprehensive sexual reproductive health services and information related such as counselling and contraceptive use so as to avoid pregnancies [47] which lead to dropping out of school. Government, community members and non-government organizations should put up teenage friendly interventions such as private and safe teenage centers and environment for sexually active

teenagers to comfortably receive contraceptives with accurate information and education for teenagers to make healthy and informed decisions to prevention of pregnancies [47].

Compulsory training of both male and female students of lower levels of high school in vocational skills for income generation as part of the existing curriculum subjects like could be explored as such practical skills may help keep learners interested in school [48]. Students may also take these skills back home for early self-employment [49], preparing Uganda's adolescents for the high unemployment rate among Ugandan youths which currently stands at 6.5% (7.4% for women and 5.5% for men) [50]. The situation is not helped by the fact that the total number of youth in Uganda stands at 80% for those under 35 years and 55% for those below age of 18 [50]. Moreover the population of Uganda is so high standing at 34.6 million persons with an annual population growth rate as of year 2014 censuses being 3.03% and total fertility per woman being 5.4 children [6] pointing to a possibility of an increase in youths. Vocational training not only helps to improve the economic status of individuals and communities but has also been reported to enhance motivation, life satisfaction, career development, social coherence and crime reduction [49]. Skilling Uganda, a strategic plan under the Business, Technical and Vocational Education and Training (BTJET) project of the Ministry of Education is mandated with training youths out of school (before or after completion) in practical skills to enhance personal and national economic status [51]. The project however grapples with challenges such as inadequate funding leading to offering majorly theoretical lessons and low-cost skills that do not match with the market demands, inadequate facilities in form of buildings and equipment, lack of specialized teachers/trainers among others [51]. With lobbied funding from national platforms like the Uganda Presidential initiative on skilling the girl child [52] and international organizations, vocational skills training could be expanded to high schools for all students to acquire income generation skills which may not require sophisticated buildings and equipment. Giving high schooling teenagers an early start at vocational skills may be a good strategy of interesting and encouraging them into self-employment at a young age. This strategy of early skilling may be better than waiting to skill youths at higher ages into self-employment as an intervention to their failure of getting gainful employment due to lack of formal jobs or dropping out of school. All year one and two high school students in Uganda could be trained in handcraft skills under subjects like Fine Art, Home Management, Foods and Nutrition and Agriculture which are part of the high school curriculum [40], as these students may be quick at taking on vocational skills. However besides a need for funds to purchase materials needed, training of teachers in modern handcraft skills may also be required [42,43] so that they not only train learners but also assess and grade students' performances.

Teaching of vocational skills may also help break the cycle of theoretical lessons but may also require a shorter school timetable for the traditional academic/theoretical studies so

as to give room for learners to practice the said skills whether at school or home. A curriculum reform at secondary level (high school years 1-4) is being conducted by the National Curriculum Development Centre (NCDC) of Uganda where learners will handle less study subjects and reduced content with core and elective options but this new curriculum has not yet been implemented [40]. It is anticipated that the new curriculum will take on more of a hands-on-skills and learner-centered learning approaches [40]. School curricula could also include co-curricular activities such as music, games and sports. Sports as a co-curricular activity has been reported to improve academic performance and guard against school dropouts [48, 53-54]. This may call for fitting of such activities in the present school time tables, construction of play areas and/or provision of play materials by the government.

Avenues of partnering with national and international organizations that could offer credit to parents need to be explored for parents' income generation so as to support their children financially because the socio-economic status of the population in rural Uganda is low [4, 21]. Support through area NGOs in terms of financial credit, agricultural seed grants, and training in income generation skills may help.

Uganda's Free Universal Primary Education (UPE) and Universal Secondary Education (USE) have led to increased enrollment of learners at elementary and high school levels [55-57] although these programs (UPE and USE) have their bottle necks. The bottlenecks include among others: poor/lack of funding, sending pregnant girls out of school [58], high pupil-to-teacher ratio; inadequate classrooms and education materials; insufficient funds to handle the large number of learners, poor performance in examinations leading to attainment of low grades, unsupportive parents who perceive free education to also include meals and scholastic materials, and a high dropout rate [55-57, 59]. However, government's stand and sensitization on what free universal primary and secondary education means could be important for individuals who may perceive it to include free school meals, scholastic materials, and sanitary towels for girls. Parents need to be sensitized and encouraged to provide school meals that their children may have anyway eaten while at home, a principle of transfer from home to school. Uganda could borrow a leaf from Kenya where their President in 2017 signed the Basic Education Amendment Act into law which guarantees that girls in state schools receive free sanitary pads giving them dignity and a chance to stay in school [60]. In addition, a provision of separate sanitary facilities for girls may ensure privacy as recommended by a study carried out in Ethiopia to determine the effect of menstrual hygiene on school attendance and dropout by adolescent students [61]. Such interventions may ensure use of clean and quality sanitary towels hence enhancing the safety of girls by keeping them away from infections. A recent study in Kenya that provided free menstrual cups and sanitary towels to elementary school girls (ages 14-16) reported lower risks of sexually transmitted infections and vaginal infections among the intervention

group [62]. Interventions to skill students of low economic status in making their own reusable and washable sanitary towels from relatively low cost materials may also be a good strategy towards a feasible and sustainable solution.

Several studies in other parts of the world have also proposed recommendations to keep learners in schools such as: accountability for those that dropout of school, policies that reward schools that reduce in school dropouts [7], setting up policies that improve on school retention [7-8], developing positive relationships between teachers and learners, social support for youths that are at risk of dropping out of school, and use of extracurricular arts activities such as art and design [63].

5. Conclusion

Recommendations and areas of capacity building to reduce school dropouts network around the environments that children stay and operate in from family to community level, calling for collective responsibility from students, parents, teachers local and national leaders, and the international community targeting both boy and girl children. Sensitization for parental, school and community support to children, training students in social skills to face life's challenges positively, provision of reproductive health services such as contraceptive use to prevent pregnancies, provision of free sanitary towels to girls in school, use of school counselors, improved economic status of parents and community members, involvement of students in co-curricular and acquisition of income generation skills for students may help reduce school dropouts in Uganda. Findings of this study may help to direct future interventions in developing interventions to reduce school dropouts in Uganda.

Ethics Approval and Consent to Participate

This study was conducted according to the guidelines laid down in the Declaration of Helsinki and all procedures involving human participants were approved by the Office of Research Ethics of the University of Waterloo (ORE # 20708), The AIDS Support Organization Research Ethics Committee (TASO-REC) (TASOREC04/16-UG-REC-009) and Uganda National Council for Science and Technology (UNCST) (number SS4013). Written support was also given by Ministry of Health for Uganda, Ministry of Education for Uganda, and authorities of Jinja district, Budondo sub-county and the local community. Written, informed consent was obtained from all participants.

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Author's Contributions

Josephine Nabugoomu conceptualized and coordinated the study, collected, transcribed and analyzed the data, and wrote the manuscript.

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