Original Research Article

Knowledge andBeliefs,towardsSickleCellDiseaseamongSenior High School Studentsin TamaleMetropolis.

ABSTRACT

Aim: Sicklecelldiseaseisapublichealthproblemwith a global spread.Asahereditarydisease, sickle cell diseasecomeswithmanycomplications,includinganemia.With the increasing incidenceof Sicklecelldisease in Ghana, the study assessed the knowledge, attitude and belief of students about the disease.

M**ethods:**a descriptive cross-sectional design was used in the study. A systematic sampling technique was used to select 386 participants.A questionnaire was used to gather the data in fourselectedschools.Data wereanalyzed using SPSS.

Results: About 47%oftheparticipantswerebetween18-20years.The study found that 81%oftheparticipantshaveheardaboutSicklecelldisease.Afewofthem(11.66%)could telltheirsicklecellstatus.Again, 31%believed thatsicklecelldiseaseiscurable. The majority,48.70%,wouldseekspiritualinterventionto treatSicklecelldisease.Different attributions were advanced to explain the causes of the sickle cell includingthebeliefthatsicklecelldiseaseistransmittedatbirth(72.28%),sexualintercourse(20.21%),airborne(3.37%),food(1.5%),andspiritual(13.47%).Again,88.34%hadnotbeenscreenedforsicklecelldisease,andthe reasonsassignedincludednotfallingsickeasily(22.22%),notconsideringitasnecessary(14.53%),andthefearoftestingpositive(13.11%).

Conclusion: There was fair knowledge ofSickle Cell Disease, with few knowing their status. There were statistically significant associationsbetweenclass, the course of study, and knowledge ofSickle Cell Disease.their beliefs include; Sickle Cell Disease istransmittedatbirth,through sexualintercourse,airborne,through food,andspiritually.

Keywords: Belief, Knowledge, Sickle Cell Disease, Senior High School,

1.0 Introduction

Sickle cell disease is a genetic blood disorder, and is associated with complications such as severe anemia, chronic pain, acute chest syndrome and stroke [1-4].These complications are the major causes of hospitalizations, morbidity, and premature mortality among sickle cell patients [5].The World Health Organization[6]has designated Sickle Cell Disease (SCD) as a global health problem. Estimates since 1992 reveal that SCD is an important public health concern in sub-Saharan Africa [7-8].Research show that only 10% of the world's sickle cell disease patientsare from the advanced economies[9].

Early childhood mortalities from SCD-related complications ranged between 50% in places with good access to health care, and 90% in places where access to health care is limited [10-11].Though it is a global problem, sicklecelldiseaseismostcommonamongpeoplewithlineagescomingfromAfricancountries, andthere isgrowingevidence thatthe presence of malaria in Africa is influencing sickle cell disease, and if not treated, may leadto infant death[12-14].

Pain is very common among sickle cell patients [15], and reflects the type of namesgiventothediseaseinpartsofWestAfrica[13].Forinstance,inGhana,SCDiscalled'Ahotutuo'bythep eoplewhospeakTwi,which literally means'bodybiting,' 'bodychewing,'or'beatenup'[13].It is called'chwechweechwee' among the Ga people and'nuidudui'amongtheEwespeople[16].In Ghana, morethan2%ofthepopulationisbornwithsickle cell diseaseevery year,andabout25%to30%aresicklecellcarriers[17].In Ghana, about 5,815 people had SCD in 2010, with an estimated 32.3% growth globally, 46.0% increase in the Sub-Saharan regions, and is projected to increase to 17.9% by 2050 [18].

Good knowledge about SCD is an important strategy for its prevention.Astudyamong universitystudents inGhanafoundlimitedunderstandingandinadequateknowledgeofSCD[19].A similar studyinNigeria,revealedthat 55% of studentsdid notknowtheir genotype andonly18% hadsomerightideasaboutSCD[20].There existsaknowledge gapregardlessofthehighprevalenceofsicklecellcarrierstatusandthecurrentnewbornscreeningprogramin Ghana[21].This makes it imperativetoeducatepeopleonthemisconceptionsaboutSCDandmakethem understand therisksofhavingachildwithSCD. This study sought to explore the knowledge of SHS students on SCD so that gaps if any could be identified for proportionate interventions to be instituted.

2.0 METHODOLOGY

2.1 Research setting and design

The study was conducted in the Tamale Metropolis in the Northern Region of Ghana. TheTamaleMetropolisis made up of three constituencies (TamaleCentral,TamaleSouth,andTamaleNorthconstituencies). The metropolis sharesboundarieswiththeSagnariguDistricttothewestand north,Mion District totheeast,East Gonjatothesouth, andCentral Gonjatothesouthwest.Geographically, the Metropolis lies between latitudes 9º16 and 9º 34 North and longitudes 0º 36 and 0º 57 West. The Metropolis has a total estimated land size of 646.90180sqkm.The design used in the study was a quantitative research approach. A descriptivecross-sectionalstudydesignexamined senior high schoolstudents'knowledge,beliefs,andattitudestowardssicklecelldiseaseintheTamaleMetropolis.

2.2 StudyPopulationand Sampling

Thestudypopulation consistedof studentsfromSenior High School (SHS) (year 1toyear 3)intheTamaleMetropolis.The respondents were drawnfromeachacademicyeargroup(SHS1-3).Simplerandomsamplingbyballotmethodwasusedtoselectfouroutofthetenpublic SHSschoolsintheTamaleMetropolis.Theselected schoolswereAmbariyaSHS,VittinSHS,BusinessSHS,andGhanaSHS.A proportionate sampling technique was used to ensure fairness and equity in the selection process.In all,386participants,consistingof168malesand 218females were selected.

2.3 Inclusionand exclusion criteria

Participantswereeligibleiftheywereaged15to24yearsandwereinSHS.

Participantswerenot eligibleiftheywerebelow15 yearsorabove24yearsandwereinSHS.

2.4 Recruitmentandtrainingoffieldassistants

Thestudyemployedthreefieldassistantswhoweretrainedforthedatacollection.Theyweretrainedtoadminister theresearchquestionnaires.

2.5 DataCollectionand Analysis

Structuredopenandclosed-endedquestionnaireswereusedtogatherresponsesforthisstudy.

StatisticalPackageforSocialSciences,version23 was used in the data analysis. The

resultswerepresentedintables. A determination of the association between variables was done with Chi-square.A statistical significance level of $p<0.05$ was applied in statistical tests.

2.6 **EthicalApproval and Consent to participate**

The research protocol was submitted to the University for Development Studies Institutional and Ethical Review Committee. The study was approved by the University for Development Studies Institutional and Ethical Review Committee. All methods in the study were carried out in accordance with the relevant regulations and guidelines of the Ethical Review Committee. All the participants provided Informed consent to participate before the survey questions were sent to them. The survey questions did not capture the personal identities of the participants.

3. Results

3.1 SociodemographicCharacteristics

Atotalof386participantstookpartinthestudy,whichincluded43.52%malesand56.48%females(Table1) .The mean age was17.94(SD:1.97)years.Also, 47%werebetween18-20years representingthehighestproportion. Again, 43%oftheparticipantswereinForm1,36.53%werein Form2,andtheremaining20.73%wereinForm3.MostoftheparticipantswereMuslims(68.65%),0.78% weretraditionalists,and30.57%professedChristianreligion.About33%oftheparticipantswereGeneralS ciencestudents,31.35%wereHomeEconomicsstudents, and18.91%and16.32%wereofferingGeneralArtsandBusiness,respectively.

Table1:Distributionofsex,age,Form,religion,andcourse

Variable	Frequency	Percent
Sex		
Male	168	43.52
Female	218	56.48
Total	**386**	**100.00**
Age		
15 -17	171	44.30
18 -20	182	47.15
21 -22	21	5.44
23 -24	12	3.11
Total	**386**	**100.00**
Form		
One	165	42.75

Two	141	36.53
Three	80	20.73
Total	**386**	**100.00**
Religion		
Christian	118	30.65
Islam	265	68.83
AfricanTraditionalReligion	2	0.53
Total	**386**	**100.00**
Course		
GeneralScience	129	33.42
HomeEconomics	121	31.35
GeneralArts	73	18.91
Business	63	16.32
Total	**386**	**100.00**

Source:**Field data,2020**

3.2 Distribution of age, sex, and course of study

Regardingthesexdistribution,themajority(56.48%)ofthestudentsinterviewedwerefemales,withthere mainingabout44%reportedasmales.Thehighestnumber(33.42%)ofstudentsinterviewedpursuedGene ralScience,31.35%wereHomeEconomicsstudents,18.91%wereGeneralArtsstudents,andtheremainin g16.32%offeredBusiness (Table 2).

Table2:Distributionofage,sexandcourseacrossselectedschools

Variables	**Bisco**		**Ghanasco**		**Ambariya**		**Vittin**		**Pooled**	
	Fre	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Course of study										
Home EconomicsG	41	10.62	40	10.36	25	6.48	15	3.89	121	31.35
eneral ScienceGener	40	10.36	39	10.10	30	7.77	20	5.18	129	33.42
alArts	18	4.66	22	5.70	23	5.96	10	2.59	73	18.91
Business	20	5.18	21	5.44	20	5.18	2	0.52	63	16.32
Total	**119**	**30.83**	**122**	**31.61**	**98**	**25.39**	**47**	**12.18**	**386**	**100.00**

Source:**Fielddata,2020**

3.3LevelofKnowledgeonSickleCellDiseaseamongParticipants

About81% oftheparticipantshaveheard ofSCD,andthemajorityofthem,38.08%,hearditfromtheirfriends (Table 3).A few (11.66%) could tell

their sickle cell status, and the majority (88.34%) did not know their status.About44%wereofthegenotypeAA,34.88%wereofthegenotypeSS,18.60%wereofthegenotype AS,and2.33%wereofthegenotypeSC.About7%oftheparticipantsrespondedthattheyhadfamilymembe rswhosuffered fromSCD,and 59.22%respondednoneof theirfamily membershadSCD. Therestof the33.51%werenotsureifanyfamilymembershadSCD.Also,15%knewpeopleoutsidetheirfamilieswho hadSCD,67.27%didnotknowanyoneoutsidetheirfamilyhavingSCD,and17.92%werenotsureiftheykn ewanyoneoutsidetheirfamilywho hadthecondition.

Table3:Knowledgeofsicklecelldisease

Students'knowledgeofSCD	Frequency	Percent
HaveyoueverheardofSCD?		
Yes	313	81.09
No	73	18.91
Total	**386**	**100.00**
Ifyes,from where?		
Relatives	31	9.60
Friends	123	38.08
Healthpersonnel	97	30.03
Media	48	14.86
Others	24	7.43
Total	**386**	**100.00**
Do youknowyour status?		
Yes	45	11.66
No	341	88.34
Total	**386**	**100.00**
Ifyes,which ofthefollowingisit?		
AA	19	44.19
SS	15	34.88
AS	8	18.60
SC	1	2.33
Total	**386**	**100.00**
DoesanyoneinyourfamilyhaveSCD?		
Yes	28	7.27
No	228	59.22
Notsure	129	33.51
Total	**386**	**100.00**
Do youknowanyoneoutside the family?		
Yes	57	14.81
No	259	67.27
Notsure	69	17.92
Total	**386**	**100.00**

Source:Fielddata,2020

3.4Associationbetweensociodemographiccharacteristicsandlevelofknowledgeof SCD

Pearson'schi-squaretestofassociationwasconductedtoexamineanystatisticalassociationsbetweenwhetherthepartici pantshaveheardaboutSCDandthecharacteristicsmentioned (Table 4).Outof386participants,81.09%respondedintheaffirmativethattheyhaveheardaboutSCDacrossagegr oups.However, the statistical association test wasnot significant(χ^2=*2.86;P-value=0.413*),whichindicatesthattherewasnostatisticalassociationbetweenhavingheardaboutSCDand theagesoftheparticipants.Theresultsforsex,formandthevariouscoursesofstudyaresimilartoage.Regard ingthedistributionofparticipantswhohaveheardaboutthediseasebysex,form,andcourses,44%werefem ale,withmostoftheminFormOne(33.16%)andpursuingHomeEconomics(26.17%).Intermsofstatistica lassociationamongthevariables,Pearson's chi2 test outcomewasinsignificantinallfour(4)tests,implyingnoassociationsbetweensex,form,andcourses;and havingheardaboutSCD.

Table 4. Knowledge of students on the sickle cell disease and student characteristics

Variables	Have you ever heard of SCD?						**Pearson's chi2 (p-value)**
	Yes		No		Pooled		
	Freq.	%	Freq.	%	Freq.	%	
Age							χ^2 = 2.86
15 – 17	144	37.31	27	6.99	171	44.30	p-value =
18 – 20	144	37.31	38	9.84	182	47.15	0.413
21 & 22	15	3.89	6	1.55	21	5.44	
23 & 24	10	2.59	2	0.52	12	3.11	
Total	**313**	**81.09**	**73**	**18.91**	**386**	**100.00**	
Sex							χ^2 = 2.29
Male	142	36.79	26	6.74	168	43.52	p-value =
Female	171	44.30	47	12.18	218	56.48	0.130
Total	**313**	**81.09**	**73**	**18.91**	**386**	**100.00**	
Form							χ^2 = 3.49
One	128	33.16	37	9.59	165	42.75	p-value =
Two	115	29.79	26	6.74	141	36.53	0.174
Three	70	18.13	10	2.59	80	20.73	
Total	**313**	**81.09**	**73**	**18.91**	**386**	**100.00**	
Course							χ^2 = 5.86

Home Economics	101	26.17	20	5.18	121	31.35	p-value =
General Science	96	24.87	33	8.55	129	33.42	0.118
General Arts	63	16.32	10	2.59	73	18.91	
Business	53	13.73	10	2.59	63	16.32	
Total	**313**	**81.09**	**73**	**18.91**	**386**	**100.00**	

Source: Field data, 2020

3.5Knowledgeofcureacrossage,sex,andcourse

Theresultsindicatethat31%thoughtSCDiscurable.Mostoftheparticipantswhoindicatedthat SCDwascurablewereaged18-20(17.62%),werefemale(19.43%)andwere doing HomeEconomics(11.40%).Forthosewhostatedthatthediseasewasnotcurable,again,mostofthemwereaged18-20(14.25%),female(17.62%),andpursuingGeneralScience(12.44%).Intermsofstatisticalassociation,therewasnostatisticalassociationbetweenageandSCDbeingcurableontheonehandandsexandthediseasebeingcurableontheotherhand (Table 5).However,therewas a statisticalassociationbetween the courseofstudyand theperceptionofwhethertheconditioniscurable(χ^2=18.77,P-value=0.027).

Table 5: Knowledge on cure across age, sex, and course

Variables	Do you think the disease is curable?								**Pearson's chi2 (p-value)**
	Yes		No		Not sure		Don't know		
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
Age									χ^2=13.74
15 - 17	39	10.10	54	13.99	36	9.33	42	10.88	p-value =
18 - 20	68	17.62	55	14.25	27	6.99	32	8.29	0.132
21 & 22	8	2.07	5	1.30	5	1.30	3	0.78	
23 & 24	6	1.55	2	0.52	2	0.52	2	0.52	
Total	**121**	**31.35**	**116**	**30.05**	**70**	**18.13**	**79**	**20.47**	
Sex									χ^2=4.16
Male	46	11.92	48	12.44	36	9.33	38	9.84	p-value =
Female	75	19.43	68	17.62	34	8.81	41	10.62	0.244
Total	**121**	**31.35**	**116**	**30.05**	**70**	**18.13**	**79**	**20.47**	
Course									χ^2=18.77
Home Economics	44	11.40	31	8.03	20	5.18	26	6.74	p-value =
General Science	26	6.74	48	12.44	24	6.22	31	8.03	0.027
General Arts	33	8.55	19	4.92	13	3.37	8	2.07	
Business	18	4.66	18	4.66	13	3.37	14	3.63	
Total	**121**	**31.35**	**116**	**30.05**	**70**	**18.13**	**79**	**20.47**	

Source: Field data, 2020

3.6Knowledgeofpreventionacrossage,sex,andcourse

Results show that52%oftheparticipantsthoughtSCDwaspreventable.Those who were neither sure nor knew about the preventable diseaseconstitute14%each.ForthoseparticipantswhoperceivedSCDaspreventable,mostofthemwerea ged18-20(24.35%),werefemale(29.79%),andweredoing HomeEconomics(17.88).ParticipantswhoperceivedSCDtobeunpreventablemainly wereaged18-20(10.10%),alsofemale(11.92%)butwereSciencestudents(8.55%).Regardinganystatisticalassociatio nsamongthevariables,theP-valuesfromallthreetestsindicatenostatisticalassociationsatthe5%level (Table 6).

Table6:Knowledgeofpreventionacrossage, sex,andcourse

Variables	Do you thinkthe diseaseispreventable?(n = 386)								**Pearson's chi2**
	Yes		No		Notsure		Don'tknow		
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	**(p-value)**
Age									χ^2=7.88
15 -17	87	22.54	35	9.07	23	5.96	26	6.74	p-value =
18 -20	94	24.35	39	10.10	28	7.25	21	5.44	0.546
21 &22	11	2.85	2	0.52	3	0.78	5	1.30	
23 &24	9	2.33	1	0.26	0	0.00	2	0.52	
Total	**201**	**52.07**	**77**	**19.95**	**54**	**13.99**	**54**	**13.99**	
Sex									χ^2=1.92
Male	86	22.28	31	8.03	28	7.25	23	5.96	p-value =
Female	115	29.79	46	11.92	26	6.74	31	8.03	0.589
Total	**201**	**52.07**	**77**	**19.95**	**54**	**13.99**	**54**	**13.99**	
Course									χ^2=9.31
HomeEconomics	69	17.88	19	4.92	14	3.63	19	4.92	p-value =
GeneralScience	59	15.28	33	8.55	17	4.40	20	5.18	0.409
GeneralArts	36	9.33	16	4.15	13	3.37	8	2.07	
Business	37	9.59	9	2.33	10	2.59	7	1.81	
Total	**201**	**52.07**	**77**	**19.95**	**54**	**13.99**	**54**	**13.99**	

Source:Fielddata,2020

3.7BeliefsaboutSickleCellDisease

The results show that the majority(72.28%)oftheparticipantsbelievedthattheSCDistransmittedatbirth. Interestingly,58%thoughtthatSCDisaprobleminGhana.Themajority(61.66%)statedthatSCDisnott

ransmittedspiritually.Again, 48.70% indicatedtheywouldseekspiritualinterventionwhentheyare confronted withSCD.Additionally34%agreedthathavingachildwithSCD can be challenging andscary (Table 7).

Table 7:Students'Beliefs about SCD

Summaryofbeliefsofstudents	Frequency	Percent
SCDtransmission		
Sexualintercourse	78	20.21
Birth	279	72.28
Airborne	13	3.37
Food	6	1.55
Others	10	2.59
IsSCDaproblem inGhana		
Yes	225	58.29
No	43	11.14
Notsure	65	16.84
Don't know	53	13.73
Isthe transmissionofSCDspiritual?		
Yes	52	13.47
No	238	61.66
Notsure	54	13.99
Don't know	42	10.88
Wouldyouseekspiritualintervention?		
Yes	188	48.70
No	149	38.60
Notsure	49	12.69
HavingachildwithSCDcould bescary		
Stronglydisagree	52	13.47
Disagree	79	20.47
Don’tcare	43	11.14
Agree	132	34.20
Stronglyagree	80	20.73
Total	**386**	**100.00**

Source:Fielddata,2020

4.DISCUSSION

Itwasacknowledgedinthisstudythat88.84%of theparticipantsdid notknowoftheirSCD status.This demonstrates

alowlevelofknowledgeamongtheparticipantswhomaysoontransitionintoadultsandprocreatesubsequently.This ties in well with Ogamdi[22]and Singh et al.[23] findings which suggest that majority of theirparticipants,mostlystudents,wereunawareoftheirSCDstatus.Though this may be the case for the current cohort of study participants, other studies such as Acharyaetal.[24]andAmeadeetal.[25] revealed that over half ofmarriedcoupleswereawareoftheirgenotypesofhemoglobin.

Thesedifferencesinknowledgecouldpartiallybeexplainedbythedifferencesinthesample size and the fact that some of the participants could have gone for test when they were getting married.Notwithstandingthesedifferences,thestatisticsportrayedinthesestudiesremainsignificantand disturbing,asknowledgeaboutcarrierstatuswouldguideindividualstomakegooddecisionswhenitcomestomakingdecisionsconcerningtheirreproductivechoices.TheuseoftheHBMinthisstudydemonstratedthatitcouldbereliedontoprovidegoodinformationforsicklecellscreeningprograms.Somepreviousstudieshavealsoreportedlittleor noknowledge ofSCD,evenamongindividualswhomaybeatriskofSCDs.

TheobservationofknowledgeaboutSCDsinthecurrentstudy,combinedwithotherstudiesbyAcharyaetal.[24],Ameadeetal.[25],andBoydetal.[26]givesenoughevidencethatmostpopulationsofreproductiveagearenotadequatelyinformedonSCDs.Thisobservationisdisturbingasmostof

thesepopulationswouldstartchildbearing. Adequate information about SCD its incidence, and the inheritance patterns among individuals within the reproductive stage areconsideredinstrumentalindecisionsconcerningmarriageandchildbearing [27].

BeliefsonSickleCellDiseaseamongStudyParticipants

The current studynotedthat88.34%hadnotbeenscreenedforSCD. Reasons for not screening include notfallingsickeasily,notconsideringitasnecessary,fear of testingpositive, and otherreasons.Belief regarding the causes of SCD point to the fact that it is an inherited disorder [28-29]. However,otherperceivedcauses,asnotedamongtheparticipantsinthecurrentstudy,includedairborne(3.37%)andfood(1.5%).ThisobservationreflectsthemisconceptionsandthesharedlackofknowledgeofSCDamongtheparticipants.

Itringstheclarioncallforstakeholderstoaddresstheobservedmisconceptions,especiallyamongstudents whoalsoformanimportantpartofthegeneralpopulation.Alghamdietal.[30]highlightedsomemisconcep

tionsaboutSCDsinarelatedstudy,indicatingthatsomeparticipantsreported fever, infection, andhighaltitudes believed toberesponsibleforSCDs.Alghamdietal.[30]equallyaddedthatfoods,includingfavabeans,lentils,falafelmadewithfavabeans,and vignanuts,wereassociatedwithSCDsbysomeparticipants.

Though adolescentsmayhaveseveralyearstolivebeforedying [31], if these misconceptions on SCDs, as noted among the current study participants, are not addressed, it may goalongwaytoinfluence their health-seeking behaviors negatively.AnotherstudyinGhanahasshowna significantrelationshipbetweenreligiousbeliefsandmedicalcare.Dennis Antwietal.[32]and Cotton et al. [33]haveindicatedthatyoungadultswithSCDtypicallyattendedreligiousevents, believedinGod, prayedregularly,and hadelevatedlevelsofspirituality.

There wasa significantassociationbetweensex(p-value = 0.004), religion(p-value =0.004)andbeliefthatSCDisaprobleminGhana.Thesefindingsareimportantforpreventionprograms.it is worth noting that another prevention planning measure relatestodemographicdifferences.Results revealnosignificantassociationbetweenage,sex,course,form,andeverhavingsicklecellscreening.Therewasasignificantassociationbetweensex(p-value=0.030)andmakingfriendswithpeople withSCD.Manyoftheparticipants(43.59%)could not provide any reasonfornottesting. Again,13.11%werescaredoftestingpositive,14.53%considereditunnecessarytoscreen,and22.22%saidtheydidnottestbecausetheydon'tfallsickeasily.Consistentwithsimilarfindingsfromotherstudies[34;35],females inthis studyhadmoreknowledgeaboutSCD than males.LookingatthehereditynatureofSCD,bothsexesmustknowaboutthedisease,especiallytheproductiveconsequences.

Conclusion

The studyconcludedthatmostofthestudyparticipantshaveheardaboutSCDs,withonlya fewknowingtheir SCD status.There was an observed statisticallysignificantassociationbetweenthelevelsofstudents(Form)andknowledgeofSCD,thecourseofstudy,andwhethertheyknewSCDornot.Thebeliefs of students on sickle celldiseaseamongthe participants included the belief thatSCDistransmittedatbirth(72.28%),sexualintercourse(20.21%),airborne(3.37%),food(1.5%),and spiritualasamodeoftransmission(13.47%).Thereweresignificantassociationsbetweenmodeoftransmissionandsex(χ^2=13.31,p-value=0.010)andmodeoftransmissionandcourseofstudy(χ^2=22.02,p-

value=0.037).Also,most of the participants had not been screenedfor SCD,andthe reasonsassignedincludednotfallingsickeasily and notconsideringthefear.

Declaration

EthicalApproval and Consent to participate

The research protocol was submitted to the University for Development Studies Institutional and Ethical Review Committee. The study was approved by the University for Development Studies Institutional and Ethical Review Committee. All methods in the study were carried out in accordance with the relevant regulations and guidelines of the Ethical Review Committee. All the participants provided Informed consent to participate before the survey questions were sent to them. The survey questions did not capture the personal identities of the participants.

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