



Students Perception of Campus Safety: A Case of Kumasi Campus of University of Education, Winneba, Ghana

Abena Serwaa Amoatema^{1*}, Dorcas Darkoah Kyeremeh² and Yarhands Dissou Arthur³

¹Department of Operations, University of Education, Winneba, P.O.Box 25, Ghana.

²Faculty of Vocational Education, University of Education, Winneba, P.O.Box 25, Ghana.

³Department of Interdisciplinary Studies, University of Education, Winneba, P.O.Box 25, Ghana.

Authors' contributions

This work was carried by all the authors. Author ASA designed the study and the questionnaires, searched for relevant literature and participated in the first as well as the final write up. Author DDK also participated in the initial design of the study. Author YDA supervised the data collection, analysed the data and contributed to the first draft of the manuscript. The discussion was done by all authors and approved the final manuscript.

Article Information

DOI: 10.9734/ARJASS/2017/32265

Editor(s):

(1) Raffaella Giovagnoli, Pontifical Lateran University, Piazza San Giovanni in Laterano 4, Rome, Italy.

Reviewers:

(1) Ümit Şahbaz, Ege University, Turkey.

(2) Sofia Santos, Universidade de Lisboa, Portugal.

(3) Rosana Angst Pasqualotto, PUCPR, Curitiba, Brazil.

Complete Peer review History: <http://www.sciencedomain.org/review-history/18811>

Received 17th February 2017

Accepted 13th April 2017

Published 26th April 2017

Original Research Article

ABSTRACT

Higher educational institutions are working assiduously towards achieving high security environment to promote teaching and learning. This is undoubtedly changing the learning environment but very little is known about how students experience and perceive safety on campus. This study examined students perception of campus safety specifically the College of Technology Education of University of Education, Winneba, Ghana. The study used convenience sampling techniques to select two hundred and fifty (250) students from distance, sandwich and regular session out of which two hundred and twenty-four (224) responded to the questionnaires. Questionnaires were used to collect data from students to find answers to four research questions which guided this study: (i) to what extent are students concerned about safety

*Corresponding author: Email: amoserw@yahoo.com;

on campus (ii) which areas and routes on campus are considered safe/unsafe (iii) which periods within a day are considered safe/unsafe (iv) what factors contribute to students safety/unsafe on campus?. The study used descriptive statistical techniques for the analysis of the data. SPSS was used to generate the statistics needed for realisation of the objectives. The findings revealed that 87.5% of the respondents were most concerned about safety on campus. It became evident that, places or routes which were relatively poorly lit, isolated and not well travelled, especially after dark were found to be unsafe on campus. Also students felt safer on campus during the day as compared to after dark, especially for females. Last, bushy areas, lack of close circuit television (CCTV), absence of police patrols and emergency phones to call the security were the major factors contributing to students feeling of insecurity on campus.

Keywords: Students; students perception; campus safety; security; university.

1. INTRODUCTION

The university learning experience is being fundamentally transformed with safety in the learning environment gaining prominence in recent years. This could be due to campuses being re-engineered for round the clock use, increased enrolment and realities of potential vulnerabilities being covered by the national media. Whatever the reason, a safe environment has long been identified as a prerequisite for productive learning [1,2]. Creating and maintaining a safe learning environment has been identified to be an institutional responsibility and one that requires participation and commitment from multiple parties within the institution [3]. [4] has also stated that the most effective way to do this is through making resources available, raising awareness that threat exist and maintaining open lines of communication. Security, surveillance, and other preventative measures have also been identified to increase or decrease students' feelings of safety within their schools depending on how they are implemented [5, 6]. Today high security environment is being maintained by employing police officers, security cameras, and metal detectors as well as strict discipline policies to get students in line and ensure safe campuses [7]. Although these strategies are undoubtedly changing the learning environment, very little is known about how students experience and perceive safety on campus. This paper looks at whether the students of College of Technology Education (Kumasi campus) of the University of Education, Winneba perceive the learning environment to be safe.

1.1 Objectives

The objectives of the study are as follows:

- to determine the extent to which students are concerned about safety on campus

- to determine which areas and routes on campus are considered safe/unsafe to students
- to determine which periods students feel safe/unsafe
- to determine what factors contribute to students feeling of safety/unsafe in these areas, routes and periods on campus

2. REVIEW OF LITERATURE

According to [3] a safe environment is one that provides students with the opportunity to pursue their academic potential in an environment free from discrimination, intimidation and threat to physical and emotional well-being or one that respond to such threats and take decisive, corrective action to eliminate them or one that is monitored for safety with the various dimensions of the environment routinely evaluated and monitored. Prior research has demonstrated that a safe school environment tend to have higher levels of academic achievement [8]. However, students tend to suffer academically when they perceived they are in an unsafe environment [9,10] and what they learn and how much they learn also change [11]. [12] has also pointed out that students who perceived their learning environment to be unsafe are not likely to take the intellectual risk involved in the academic process.

Chekwa, Thomas, and Jones (2013 as cited in [13]) found that college students were concerned with their safety as they walked around campus and recommended that college institutions should create a safe and secure environment. [14] in their study also confirmed that approximately 86 percent of students surveyed reported a high level of concern about being a victim of violence. It is in the light of this that [15] concluded that, it is the responsibility of educators, policy makers and administrator to

provide a safe learning environment for all students.

In their efforts to protect themselves from potential harm, students engaged in precautionary strategies such as walking with others at night, carrying one's keys in a defensive manner, utilizing the campus escort service or avoidance strategy such as isolating oneself from situations perceived to be unsafe [16,17].

Research has shown that many complex factors influence the overall perception of safety on a school campus such as the individual personal characteristics of students and contextual features of a campus [18], presence of gangs and drug problems [19], location of a school [20] and school population [21]. As far back as 1988, [22] explored areas on campus which students considered as dangerous and found that area with more naturalistic vegetation, less populated, and poorer lighting unsafe. Similarly [23] also pointed out in their study that factors such as darkness, desolation, lack of other people in surrounding areas, and poor maintenance can influence perceptions of fear about the public setting. In describing the public setting, they said that such places have hiding areas where one can easily be trapped without possible escape routes. Examining the campus physical environment for necessary information has also been identified to be very important because research has found that there is a strong correlation between a run-down physical environment and a perceived fear in that environment [24,23]. Increasing the efficiency of the lighting across a university campus has been identified to provide more feelings of security for its students and faculty, even more so than Closed Circuit Television (CCTV) [25].

Gaudreault & Riggs in [13] indicated in their study that students perception of campus police is largely guided by positive or negative experiences or encounter with the campus police. They opined that a negative experience was likely to lead to poor perception toward campus police with students unwilling to report criminal activity. [26] in their study confirmed that students prefer police officers to security guards in patrolling the campus. Students tend not to utilize the campus security services offered on campus [24] and in general are pleased with police performance and the excellence of the public safety within their college campuses (Burruss et al., 2010 as cited in [13]).

3. RESEARCH METHODOLOGY

3.1 Research Design

The study adopted quantitative approach using exploratory research design to investigate students concerns on campus safety. The study sought to gather information to describe the perception of students on safety and security on campus.

3.1.1 Data collection procedures and instrument

The data used for the present study were collected from a public university in Ghana between July 2016 and November 2016. The College of Technology Education (Kumasi Campus) is one the campuses of University of Education, Winneba, and had a total enrolment of approximately 30,000 full-time, part-time, sandwich and distance students at the time of the study. The sampling strategy used was convenience sampling. This method was appropriate considering students' schedule and the limited resources of the researchers. The researchers, however, made the necessary efforts to obtain a sample which is representative of the diversity on the demographic composition and discipline of the students in the College. The questionnaire was divided into four sections based on the objectives set for the study. Questions evaluating objective 1 (concerns of students on campus safety) was made up one item and was rated on a 4-point likeness scale (ie Somewhat unconcerned to very concerned); objective 2 (safe/unsafe areas and routes on campus) was evaluated using 16 areas and 11 routes on the Campus and were rated on a 5-points likeness scale (ie 1 as very unsafe to 5 safe); objective 3 (period student feel safe/unsafe) was assessed using five items and rated on a 5-points likeness scale (ie 1 as very unsafe to 5 safe) and objective 4 (factors contributing to feeling unsafe) was evaluated by nine items and rated on a 5-points likeness scale (ie strongly disagree to strongly agree). Questionnaires were distributed to students in their classrooms. The researchers obtained permission from lecturers teaching specific courses, explained the purpose of the study and what students were to do. Lecturers who granted the permission allowed the researcher to administer the surveys at the beginning of the class. A brief introduction was made to the class, followed by an explanation of the intent of the study. Students were then asked if they were willing to participate in the study and those who

agreed were given the questionnaires to fill on the spot. Before filling the questionnaires, students were given full assurance that participation was voluntary, and refusal will not have any consequence on their performance in the class. Confidentiality was assured by asking students not to write their names anywhere on the questionnaires.

3.2 Sampling Techniques

The study used convenience sampling techniques to select two hundred and fifty (250) students who agreed to respond willingly to structured questionnaires. Out of the two hundred and fifty questionnaires administered, two hundred and twenty-four (224) were filled and returned worthy for analysis, making up a response rate of approximately 90%. In relation to the demography of the respondents, three (3) levels of bio data of respondents were examined and these were gender, mode of study and age. With respect to the mode of study, majority of the respondents (73.2%) were on the full time programmes whilst 1.8% and 25.9% were on the sandwich and distance modes respectively. Again, in relation to gender of respondents, approximately 51% were males whilst 49% constituted females. Lastly, with respect to age of respondents 40% were between the ages of 18-24 years whereas 41.1% were between 25-35 years, 17.9% were within the ranges of 36 years and beyond.

3.3 Data Analyses

The researcher used descriptive statistics (percentages and frequency) and SPSS to analyze the data.

4. SURVEY RESULTS AND DISCUSSION

4.1 Extent of Students Concern on Safety on Campus

To determine the extent to which students were concerned about safety on campus, frequency distributions and descriptive statistics were conducted, and the results are presented in Table 1.

Responses in Table 1. demonstrate that a greater majority of respondents (85.7%) were very concerned about safety on campus with the remaining being somewhat concerned about safety on campus. Further analysis indicates that

there were no significant differences in levels of concern between gender, age or mode of study. Findings from the current study is similar to that of [14] who found that approximately 86 percent of students surveyed reported a high level of concern about being a victim of violence. Another study by Chekwa et al. (2013 as cited in [13]), which investigated students expectations of safety while on campus also found 70% of respondents indicating the importance campus safety even in their choice or selection of college. The findings from the current study differ from that [27] study which was conducted in tertiary institutions in Ghana but showed that students ranked security with respect to hostels as fourth most important factor. This notwithstanding [28] also pointed out in his study that students are not much concern about their own safety and security issues on campus. It has been noted by [29] that campus safety and its related issues cannot be ignored. To them it is the responsibility of educators, campus administrators, campus law enforcement and campus community as a whole to provide education, promote awareness and develop and implement effective measures to address the apparent sources of fear of crime or insecurity. Research has shown that students of this era expect access to warm, comfortable learning hubs, multimedia resources and and grab a great coffee 24/7 if they want to. Whether it's the sports centre, a favourite meeting place or their research lab, students want to know that they can access the facilities they need around the clock. But to take advantage of this flexibility, students have to be confident that their safety is assured at all times, both on and off campus [30].

4.2 Areas and Routes on Campus Considered Safe/Unsafe to Students

The respondents were given lists of areas and routes on campus and asked to indicate how safe they felt in these areas and routes. Table 2 displays the results and highlights the areas that are deemed most unsafe. Table 3 also looks at routes deemed safe and unsafe on campus by students.

With respect to whether students feel safe or unsafe in areas on campus, Table 2 indicated that students felt most unsafe in student leisure area, faculty block, washrooms and football field areas. These were followed by clinic area, market, TL Blocks and the car park. Administration block and new auditorium were considered to be some of the safest places on campus. This suggests that student leisure area,

Table 1. Extent of students' safety concerns

	Frequency	Percentage	Valid percent
Very concerned	192	85.7%	85.7%
Very unconcerned	0	0%	0%
Somewhat concerned	32	14.3%	14.3%
Somewhat unconcerned	0	0%	0%

faculty block, washrooms and football field areas have very similar, prominent features that make students feel unsafe. All of these places are relatively poorly lit, isolated and not well travelled, especially after dark. With the exception of the washroom, the security officers' presence at these places also seemed minimal. This suggests that lighting and security officers' presence could be the top determinant in whether or not students feel safe in a particular place.

In investigating safety on campus by route to and from campus as shown in Table 3, interestingly majority of the respondents were of the view that the most unsafe route to and from campus are footpath from New Auditorium to Autonomy Hall, Faculty Block to Autonomy Hall, and Franky Jay to West-End Gate. A student was quick to add that aside the lack of pavement and narrowness of the street from IPT to Administration Block, students always share the road with fast moving vehicles making it very unsafe for students. From the Security Office to Opoku Ware II Hall through to Faculty Block were adjudged to be most safe routes (Table 3).

Previous research has found that certain areas and routes on campus are perceived by students to be unsafe [22]. A study by [22] on how students felt in certain areas on the University campus pointed out that those places students mentioned most frequently as being dangerous did not accurately correspond with areas where sexual assaults reported to police had taken place. According to [22] the perceptions of safety in a particular area are not linked so closely to personal experience of a place, but are rather a combination of the appearance of a place, popular myths about the place, and personal characteristics, particularly sex. Findings from the current study confirm what was also reiterated in the study of Fisher and Nasar (1992 as cited in [29]). Their study found that fear of crime on campus stems from fear in relation to low prospect, lack of escape, and high refuge, meaning that students on campus will be more fearful of crime when there is low prospect (such as lack of a clear open view of the area),

lack of escape from a potential offender, and a high possibility of refuge for the offender to hide.

4.3 Periods Students Feel Safe/Unsafe

The study further investigated periods within the day considered safe or unsafe by students. The results as depicted in Table 4 indicated that, students felt most safe on campus between 12 noon and 4.00 pm. However, between 9.00pm and 5.59 am was considered to be unsafe period on campus. Previous researchers found that students and faculty members utilize the campus throughout various times during the day and night but nighttime activity appears to convert natural fear into fear of crime [31,32]. Comparing the results of the current study to that of [24], it confirmed that students feel safer on campus during the day as compared to after dark, especially for females. Similarly, [32] has also noted that students, faculty, and other members of the campus community tend to be more fearful of crime at night than during the day. They suggested that there are differences in fear across the groups comprising the campus community and that their reported levels of fear are primarily a function of age, gender, race, and prior victimization experiences. Furthermore, they also provide evidence indicating that women have a greater fear of crime than men, regardless of their member status in the campus community (whether they were students, faculty, or staff).

4.4 Factors Positively or Negatively Influencing Safety on Campus by Area, Route and Period

Examining factors perceived by students to negatively or positively influence safety on campus, the results showed that bushy areas, lack of CCTV, absence of police patrols and emergency phones to call the security were the major factors contributing to students feeling of insecurity on campus. This was followed by history of crime, isolated areas, poor lighting and poor security presences. However, a greater majority of students, as shown in Table 5, either

agree or disagree that they would feel safer on campus if bushy areas are cleared, better footpaths are available, sufficient lighting are provided and there is low crime levels on campus. Findings corroborates [33] that factors such as emergency phones, lighting and signage positively or negatively influence safety of students on campus. Similarly, [22] has also confirmed students mentioning increase lighting, police patrols and installation of more emergency phones to improve safety. Factors such as darkness, desolation, lack of people in

surrounding areas and poor maintenance have also been cited as influencing perception of fear about the public setting [23]. These notwithstanding Fisher and Nasar (1992 as cited in [23]) have also stressed the importance of structural changes in order to increase campus safety. According to them, the physical arrangements of buildings, parking garages, etc., tend to be relatively permanent; therefore any physical or structural changes that can be made to improve public safety are likely to have long-term effects.

Table 2. Safety on campus by area

	Very unsafe	Unsafe	Neutral	Safe	Very safe
Faculty Block	10.7%	19.6%	23.2%	34.8%	11.6%
Administration Block	4.5%	6.2%	22.3%	52.7%	14.3%
Computer Laboratory	10.7%	8.9%	30.4%	30.4%	19.6%
Car Park	1.8%	19.6%	31.2%	34.8%	12.5%
Library	4.5%	7.1%	32.1%	29.5%	26.8%
Faculty of Technical Education	8.9%	3.6%	42.9%	24.1%	20.5%
Faculty of Vocational Education	8.9%	8.9%	33.0%	25.9%	23.2%
TL Block	10.7%	11.6%	20.5%	36.6%	20.5%
New Auditorium	7.1%	8.0%	25.9%	28.6%	30.4%
Old Auditorium	4.5%	11.6%	35.7%	31.2%	17.0%
Clinic	5.4%	18.8%	35.7%	30.4%	9.8%
Student Leisure Area	13.4%	18.8%	38.4%	8.9%	20.5%
Washrooms	12.5%	15.2%	26.8%	24.1%	21.4%
Market	9.8%	12.5%	41.1%	17.9%	18.8%
Fanky Jay	4.5%	3.6%	38.4%	39.3%	14.3%
Football Field	8.9%	17.0%	33.9%	19.6%	20.5%
Kumasi-Sunyani Highway	44.6%	20.5%	15.2%	6.2%	13.4%

Table 3. Safety on campus by route to and from campus

	Very unsafe	Unsafe	Neutral	Safe	Very safe
IPT to Administration block	17.9%	16.1%	34.8%	25.9%	5.4%
Security Office to Opoku Ware II Hall	6.2%	15.2%	9.8%	47.3%	21.4%
Opoku Ware Hall to Faculty Block	13.4%	9.8%	27.7%	44.6%	4.5%
East-end gate to Clinic to Library	25.9%	21.4%	25.0%	17.9%	9.8%
Faculty Block to Credit Union Office	21.4%	11.6%	39.3%	22.3%	5.4%
Opoku Ware Hall to West End Gate	20.5%	23.3%	22.3%	15.2%	18.8%
Fanky Jay to Cemetery Road	22.3%	33.9%	22.3%	12.5%	8.9%
Faculty Block to Autonomy Hall	37.5%	21.4%	20.5%	9.8%	10.7%
Footpath from New Auditorium to Autonomy Hall	36.6%	25.0%	20.5%	0.9%	17.0%
Security Office to UBA/Kwamaman Bank	9.8%	15.2%	26.8%	28.6%	19.6%

Table 4. Safety on campus by period of the day

	Very unsafe	Unsafe	Neutral	Safe	Very safe
Morning : 6.00am – 11.59am	0%	8.9%	31.2%	30.4%	29.5%
Afternoon: 12noon- 4.00pm	8.0%	5.4%	25.0%	37.5%	24.1%
Evening: 4.01pm – 9.00pm	18.8%	15.2%	24.1%	25.0%	17.0%
midnight 9.01pm- 5.59am	45.5%	25.9%	12.5%	2.7%	13.4%

Table 5. Factors perceived by students to influence safety on campus

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Poor security presence	12.5%	11.6%	26.8%	17.0%	32.1%
Poor lighting	8.0%	16.1%	25.0%	22.3%	28.6%
Absence of police patrols	6.2%	7.1%	10.7%	31.2%	44.6%
Lack of emergency phones	8.0%	13.4%	8.0%	42.9%	27.7
Bushy areas	3.6%	8.0%	0.9%	46.4%	41.1%
Isolation	8.0%	10.7%	14.3%	37.5%	29.5%
History of crime	1.8%	8.0%	23.2%	25.9%	41.1%
Lack of CCTV	2.75	9.8%	7.1%	47.3%	33.0%
Open space		16.1%	14.3%	14.1%	28.6%

Table 6. Factors positively influencing safety on campus

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Visible security	10.7%	3.6%	15.2%	31.2%	39.3%
Sufficient lighting	9.8%	5.4%	10.7%	43.8%	30.4%
Police patrols	16.1%	3.6%	16.1%	36.65%	27.7%
Emergency phones	13.4%	8.9%	16.1%	21.4%	40.2%
Sense of community	11.6%	8.9%	31.2%	25.9%	22.3%
Availability of CCTV	12.5%	2.7%	22.3%	25.0%	37.5%
Cleared bushes	9.8%	1.8%	5.4%	53.6%	29.5%
Better footpath	6.2%	0.9%	9.8%	42.05	41.1%
Low crime levels	9.8%	0.9%	16.1%	36.6%	36.6%

5. CONCLUSION

The purpose of this study was to investigate the perception of students on campus safety. Research has shown that students are not looking forward to only recognize qualifications but the best possible university experience of which security and safety are of major concern to them (White paper by Critical ARC Party). The results of the study indicated that some areas and routes on campus were perceived to be most safe whilst other areas and routes were found to be unsafe. This is consistent with findings in relevant literature, such as Kirk (1988) who found that areas on campus indicated as being unsafe rather tended to have more naturalistic vegetation, less populated and had poorer lighting.

It became evident that cleared bushes, better footpath, sufficient lighting and low crime rate would make campus a safer place for students. Findings from the current study assisted to explain why and how students build up their perception on campus safety. Specifically with areas, routes and periods considered unsafe, the results generally support findings from previous studies and demonstrate the individual characteristics in explaining students' perception about safety on campus.

Although perceptions are not necessarily an indicator of the actual level of danger on a campus, it is still necessary that management of University of Education, Winneba realize the importance of students feeling safe in addition to actually being safe. Just as true danger is a threat to people's physical health, perceived threat can negatively affect mental and emotional health. By ensuring that students have a great sense of safety and security, educational and personal success can better thrive. A few major examples of the factors that can be modified to improve safety perceptions include the physical layout of the campus, visibility of security officers, lighting, and even foliage.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Maslow AH. Motivation and personality. Harper & Row Publishers Inc., New York, NY; 1970.
2. Piaget J. The origins of intelligence in children. Translated by Margaret Cook. International Universities Press, New York; 1952.

3. Rund JA. The changing context of campus safety, new directions for students services. Wiley Library; 2002.
4. Franzosa A. Insecure? Keeping New England college campuses safe from violence. *New England Journal of Higher Education*. 2009;20-21.
5. Kitsantas A, Ware HW, Martinez-Arias R. Students' perceptions of school safety: Effects by community, school environment, and substance use variables. *The Journal of Early Adolescence*. 2004;4:412-430.
6. Schreck CJ, Miller J. Sources of fear of crime at school: What is the relative contribution of disorder, individual characteristics and school security? *Journal of School Violence*. 2003;2(4):57-79.
7. Bracy NL. Students perceptions of high-security environment. *Youth and Society*. 2011;43(1):365-395.
8. Milam AJ, Furr-Holden CDM, Leaf PJ. Perceived school and neighborhood safety, neighborhood violence and academic achievement in urban school children. *The Urban Review*. 2010; 42(5):458-467.
9. Holley LC, Steiner S. Safe space: Students perspectives on classroom environment. *Journal of Social Work Education*. 2005; 41(1):49-64.
10. Keels CL. Keeping students afloat: Noel-Levitz awards recognise retention programs that generate results. *Black Issues in Higher Education*. 2004; 21(18):32
11. Osborn JW, Walker C. Stereotype threat: Identification with academics, and withdrawal from school; why the most successful students of colour might be most likely to withdraw. *Educational Psychology*. 2006;26:563-577.
12. Brophy JE. *Motivating students to learn*. London, England: Routledge; 2013.
13. Aceste AM. Student perceptions of campus safety in Northern New Jersey Colleges: Recommendations for campus police leadership; 2015. Available:<https://dspace.creighton.edu/xmlui/handle/10504/74262> (Accessed 18th August, 2016)
14. McCreedy KR, Dennis BG. Sex-related offenses and fear of crime on campus. *Journal of Contemporary Criminal Justice*. 1996;12:69–80.
15. Akiba M. What predicts fear of school violence among U.S adolescents? *Teachers College Record*. 2010;112(1):68-102.
16. Dobbs RR, Waid CA, Shelley TO. Explaining fear of crime as fear of rape among college females: An examination of multiple campuses in the United States. *International Journal of Social Inquiry*. 2009;2(2):105–122.
17. Hilinski CM. The role of victim-offender relationship in predicting fear of rape among college women. *Criminal Justice Studies*. 2010;23(2):147–162.
18. Roxanne T. *Shaping campus safety perceptions*; 2013. Available:sdevwww.livesafemobile.com/tag/campus-safety/
19. Duszka C. The effects of school safety on school performance. *International Journal of Education and Social Sciences*; 2015. Available:www.ijessnet.com/wpcontent/uploads/2015/09/4.pdf (Accessed 14th April, 2016)
20. Bosworth K, Ford L, Hernandez D. School climate factors contributing to student and faculty perceptions of safety in select Arizona schools. *Journal of School Health*. 2011;81(4):194-201.
21. Bowen GL, Bowen NK, Richman JM. School size and middle school students' perceptions of the school environment. *Children & Schools*. 2000;22(2):69-82.
22. Kirk NL. Factors affecting perceptions of safety in a campus environment; 1988. Available:<https://www.brikbase.org/sites/default/files/EDRA-Kirk-215-221.pdf> (Accessed 18th August, 2015)
23. Loukaitou-Sideris A, Fink C. Addressing women's fear of victimization in transportation settings. *Urban Affairs Review*. 2009;44(4)554-587.
24. Ratti CL. *Student perceptions of campus safety at the University of Mary Washington*. (Undergraduate Thesis); 2010. Available:http://cas.umw.edu/geography/files/2011/09/Ratti_Thesis.pdf (Accessed 17th August, 2015)
25. Parent T, Kuhlke O. An assessment of nighttime lighting conditions on the campus of the University of Minnesota-Duluth: Mapping for Security and Safety; 2009. Available:https://umdsustain.wp.d.umn.edu/wp-content/uploads/.../UMD_Lighting_Study.pdf (Accessed 25th April, 2016)

26. Hummer D, Austin TL, Bumphus VW. Arming the campus cops: A descriptive and multivariate assessment of support. *An International Journal of Police Strategies & Management*. 1998; 21(2):255-68.
27. Nimako S, Bondinuba F. Relative importance of student accommodation quality in higher education. *Current Research Journal of Social Sciences*. 2013;5(4):134-142.
28. Ethel T. Nduka tasks FG on ASUU crises. *Educational Development Uniport Weekly*; 2013.
29. Jennings, Wesley G, Gover AR, Pudrzynska D. Are Institutions of Higher Learning Safe - A descriptive study of campus safety issues and self-reported campus victimization among male and female college students. *Journal of Criminal Justice Education*. 2007;18(191).
30. CriticalArc Party Ltd. *Safeguarding the 24/7 Campus*; 2015. Available:<http://www.criticalarc.com/wp-content/uploads/2015/04/CriticalArc-24hr-Safety-White-Paper-Screen.pdf> (Accessed 24th April, 2016)
31. Brantingham PJ, Brantingham PL. Surveying campus crime: What can be done to reduce crime and fear? *Security Journal*. 1994;5:160–71.
32. Sloan JJ, Lanier MM, Beer DL. Policing the contemporary university campus: Challenging traditional organizational models. *Journal of Security Administration*. 2000;23:1–20.
33. Fletcher PC, Bryden J. Preliminary examination of safety issues on a university campus: Personal safety practices, beliefs and attitudes of female faculty and staff. *College Student Journal*. 2007;41(4):1149-1162.

© 2017 Amoatema et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://sciencedomain.org/review-history/18811>