

Assessment of institutional health and safety practices of early years schools in Cape Coast Metropolis, Ghana: a mixed methods approach

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SUMMARY

Objective: Early years schools by their nature present peculiar challenges for infection control and injuries. This study aimed at assessing the health and safety practices of these institutions and find explanations to challenges faced in meeting the recommended standards.

Design: Sequential explanatory mixed methods design was used in the study.

Methods: The quantitative data was collected using a questionnaire. The study involved all early years schools in Cape Coast Metropolis totalling 160. Follow-up interview was conducted using eight Heads and Coordinators of these schools.

Results: Early years schools met majority of the health and safety practices. Chi-square analysis revealed that, school auspices was associated with keeping records of doctor's report [χ^2 (1, N = 160) = 7.27, p = .007, ϕ = .227, odds ratio = 2.79, 95% CI (1.4, 5.7)] and having immunization records up to date [χ^2 (1, N = 160) = 4.35, p = .037, ϕ = .184, odds ratio = 2.88, 95% CI (1.2, 7.7)]. Private early years' schools were almost 3 times likely to meet recommended health and safety practices. Two themes identified as explanations to why most early years schools were not requiring copies of doctor's reports were: "We don't bother to ask" and "Rare cases, they do bring".

Conclusion: Though early years schools were meeting the recommended standards; they were not previewed to doctor's report of children's previous illnesses. This implies that these institutions may not be readily prepared to assist in meeting certain health care needs of the children in their care.

Keywords: health, safety, early years schools, Cape Coast Metropolis, Ghana

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INTRODUCTION

It has been long noted that a number of children worldwide take part in an early education programme made available in a preschool setting before attending a school.¹ Early childhood care and education aims at supporting children from birth till entry into primary school to survive, grow and develop. The model of children's health and its influences developed by the National Research Council and the Institute of Medicine's Committee on Evaluation of Children's Health shows how multiple influences interrelate over time to generate health and that these interactions change in line with every stage of a child's development.²

Among the various categories of multiple influences the model present is the physical environment which captures all the external conditions that affect children's health when they are exposed to them.² These comprise physical, biological and chemical influences that impact on the health of the child through prenatal exposures, childhood exposures as well as the built environment such as home, school, and work settings.

The model also captures services to include those made available by the private and public health system, plus the social, environmental health and the education service systems. It also captures particular health interventions, such as immunization, as well as programmes of integrated services that concurrently deal with treatment, risk reduction, prevention, and promotion. These services can modify or direct the route of healthy development, alter pre-disease pathways and reduce the risk of exposures prior to their occurrence, thus actively supporting healthy development.²

It is very important that educational institutions such as early years schools providing services to children are monitored to ensure that practices in such institutions are geared towards the children's health and safety. The Australian Children's Education and Care Quality Authority asserted that children are unlikely to gain the long-term benefits of early years school programmes unless their basic needs for health and safety are guaranteed.³

Written health and safety policies at early years schools are very vital for the reason that they are the basis of quality practice as it provides information not only on what needs to be done but how and also why it needs to be done to ensure children's health and safety.⁴

It is therefore a recommendation that all early years schools have written policies to inform both parents and teachers about the general rules and procedures to follow at the school to ensure children are safe and healthy such as what to do when children are sick, when there are emergencies, among others.⁵ According to American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education, early years school policies have to vary based on the ages and abilities of the child to make room for special health care needs.⁶

Early years school environment present unique difficulties with infection control particularly because of the vulnerability of the children, they also experience close interpersonal contacts, share toys and other objects and also have inadequate ability to practice proper respiratory etiquette and hand hygiene.⁶ Unfortunately no policy can prevent every person who is likely to spread infections out of these schools,⁷ that is why routine immunization at the correct age is essential for children in child care as they are highly at risk of complications from a lot of vaccine-preventable diseases.⁸

There are indications that the risk of infectious disease transmission can be reduced if individuals ensure that vaccination is up to date for all preschool children.⁹ Early years schools should have immunization records of all the children at the centre to ensure that they are up to date.⁵ It is also recommended that, times or situations that both children and staff have to carry out hand hygiene should be pasted at all food preparation, hand washing, diapering and toileting areas in early years schools.⁶

A study which aimed at assessing the frequency of regulatory non-compliance of certified early years schools in Connecticut, found that most of the centres were compliant with a majority of the early years school regulations.¹⁰ A study in Indiana which aimed at describing the early years schools that met the key national health and safety standards (NHS), also revealed that all the early years schools involved in the study met majority of the NHS items.¹¹ Another study that aimed at determining the readiness of early years schools in Pennsylvania to act in response to emergencies and disasters based on compliance with the national health and safety standards revealed that majority of early years schools were compliant with the recommendations.¹²

Two health intervention studies in early years schools demonstrated improvements in schools' compliance with the national health and safety standards, especially in areas like hand washing, written health policies as well as adherence to food preparation and emergency preparedness standards.^{13,14}

The American Academy of Pediatrics, American Public Health Association, National Resource Centre for Health and Safety in Child Care and Early Education, has also reiterated that the sure way of providing quality early care and education for children is to follow recommended health and safety practices.⁶ In view of the dearth of empirical research on how early years institutions are meeting recommended health and safety practices in Ghana in general and Cape Coast Metropolis in particular, this study fills the knowledge gap by assessing the health and safety practices of early years schools and provide a deeper understanding of challenges faced in meeting any of the recommended health and safety practices for such institutions.

METHODS

Study Design

A cross-sectional descriptive design was mainly used in the study. The design was considered most appropriate because the snapshot data collected from a cross-sectional study gives the researcher the opportunity to do either retrospective or prospective enquiry.¹⁵ Based on the above assertions, a follow-up qualitative data was also collected to get a deeper understanding of the quantitative results, hence the mixed methods approach. The following research questions guided the study:

- What is the health and safety practices of early years schools in Cape Coast Metropolis?
- To what extent are early years schools' characteristics (auspice status of the school whether public or private) associated with health and safety practices in the school?
- What are the explanations to challenges faced in meeting the recommended health and safety practices?

Settings

Cape Coast Metropolis is in the Central Region of Ghana. It is bounded on the south by the Gulf of Guinea, on the east by Abura-Asebu-Kwamankese, on the west by Komenda-Edina-Eguafo-Abrem and on the north by Twifo-Heman-Lower-Denkyira Municipalities. The Metropolis is predominantly urban with three quarters of the population residing in urban areas compared to 23.3% in rural settlements.¹⁶

History has it that early years education in Ghana started in the castles and among the best known castle schools on the Gold Coast included the one operated by the British school at Cape Coast Castle.¹⁷ Cape Coast is often referred to as the citadel of education because the city has some of the finest basic, secondary and tertiary educational institutions in Ghana.

Population and Sampling

The population for the study included all registered early years schools in the Cape Coast Metropolis totalling 163¹⁸ and they were all involved in the study. However, three of the schools were non-existent during the data collection, therefore data was collected from 160 early years schools. Eight Heads and Coordinators of these schools were purposively selected for the follow up interview.

Data Instrument

Based on extensive review of literature on recommended health and safety practices required of educational institutions caring for children, a 10-item questionnaire was developed by the researcher for the study. The first part of the questionnaire had items seeking background information of the early years school and second section had items about the health and safety practices of the schools. Respondents were required to indicate their level of agreement to statements by ticking (✓) the appropriate response, either *Yes* or *No*.

To ensure the validity of the instrument, a pilot study was conducted with 10 Heads and Coordinators of early years schools in Komenda - Edina - Eguafu - Abrem (KEEA) Municipality to make sure the wording and nature of the questions were appropriate. The pilot study helped to confirm the viability of the data collection instrument, the data collection process as well as the analysis. The interview questions were semi-structured allowing for other related questions to be asked during the interview.

Procedure

Consent was sought from the early years school’s Heads and Coordinators who were contacted in their schools. They were given the questionnaires which were collected after two days. It took the researcher four (4) weeks to collect data from the schools. After the analysis of the survey, the researcher contacted the purposively selected Heads and Coordinators to seek their permission and book a date for the face-to-face interview at their schools. These Heads and Coordinators were persons from both private and public early years schools who volunteered more information during the survey data collection and also had lot of experiences in the early year education field. The interviews were audio recorded and on the average an interview lasted 30 minutes. All the interviews were conducted within two weeks.

Ethical Consideration

The Institutional Review Board of the University of Cape Coast gave approval for the study with an identification number UCCIRB/CES/2016/01. Permission to conduct the study was also sought from the Cape Coast Metropolitan Education Office, Social Welfare Department and the early years schools involved in the study.

Data Analysis

The completed questionnaires were collated, coded and subjected to analyses using IBM SPSS Statistics software version 21. Data was first screened for missing values and outliers before the main analysis. For the background information and the health and safety practices, descriptive analyses were performed. All the background information and health and safety practices data were categorical. Pearson’s chi-square test was performed to determine to what extent early years schools’ characteristic was associated with the school’s health and safety practices.

The interview data was transcribed and examined closely by two qualitative researchers. Data coding was done separately by each researcher during the examination of the data. Based on the narratives from the Heads and Coordinators, two broad themes were identified.

RESULTS

Health and safety practices of early years schools in Cape Coast Metropolis

Figure 1 shows the results of the institutional practices of early years schools on five key areas. The results of the health and safety practices of the early years schools in the Metropolis showed a high number of schools meeting the recommended standard of practice.

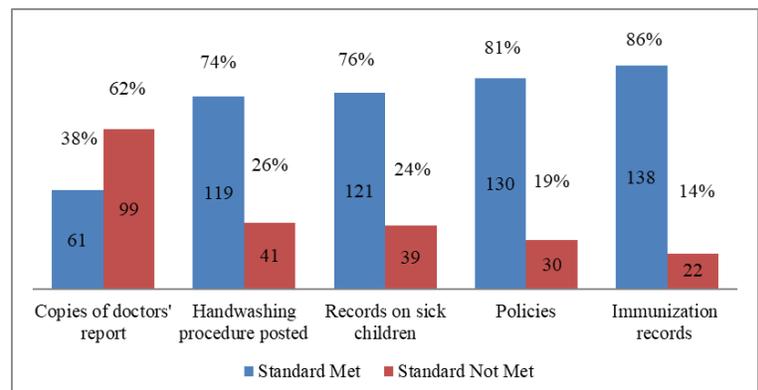


Figure 1 Health and safety practices among early years schools in Cape Coast Metropolis (N =160 Early Years Schools)

From Figure 1, the results indicated that out of the five (5) standards, a range of 74% to 86% of the early years schools met four (4) of the recommended health and safety standards. The results showed that when it comes to the recommended standard that schools should require and keep copies of doctor’s report or permissions for children who are out due to illness, more than half of the early years schools in the Metropolis, that is 62% (n = 99) failed to meet the standard.

Only 38% (n = 61) could meet the standard of requiring and keeping copies of doctor’s report or permissions for children who are out due to illness.

The extent to which early years schools’ auspices is associated with health and safety practices in the schools

Table 1 contains the results of chi-square analyses for association between auspice status of the school (public or private) and five health and safety practices of the early years schools.

Table 1 Chi-square test and descriptive statistics for school auspices by health and safety practices of early years schools in Cape Cast Metropolis

Practices	Standard Not Met	Standard Met	$\chi^2(1)$	<i>p</i>
Copies of doctor’s report are kept.			7.27	.007
Public	45 (76.3%)	14 (23.7%)		
Private	54 (53.5%)	47 (46.5%)		
Handwashing procedure posted.			1.84	.174
Public	11 (18.6%)	48 (81.4%)		
Private	30 (29.7%)	71 (70.3%)		
Records on sick children.			0.18	.669
Public	16 (27.1%)	43 (72.9%)		
Private	23 (22.8%)	78 (77.2%)		
School has health and safety policies.			1.04	.306
Public	14 (23.7%)	45 (76.3%)		
Private	16 (15.8%)	85 (84.2%)		
Immunization records are all up-to-date.			4.35	.037
Public	13 (22.0%)	46 (78.0%)		
Private	9 (8.9%)	92 (91.1%)		

Table 2 Themes identified from interview on why schools did not require a doctor’s report

Theme	Meaning	Number of Codes Assigned
We don’t bother to ask.	Early years schools do not ask of any Doctor’s report from children who were sick and did not go to school.	7
Rare cases, they do bring.	Some parents occasionally do bring doctor’s report.	1

Table 3 Extracted responses concerning the theme: “We don’t bother to ask”

Participants	Narratives
HR 4	No, they don’t bring any report and we don’t even bother to ask because you have sent your child to the hospital, what do we have to ask. What we are expecting is that if the child is well, you bring him back to school.
HR 6	Oh... we don’t ask for that so they don’t.

Table 4 Extracted responses concerning the theme: “Rare cases, they do bring”

Participants	Narratives
HR 4	It is only in rare cases if the child has been away for a very long time. They [parents] do bring in report to show that the child was at the hospital but it is for the school, we only put it on their file just to show that the child was away for some period of time, just because of marking of the register.

From the results, school auspices was found to be associated with keeping records of doctor’s report [$\chi^2(1, N = 160) = 7.27, p = .007, \phi = .227, \text{odds ratio} = 2.79, 95\% \text{ CI} (1.4, 5.7)$] and having immunization records up to date [$\chi^2(1, N = 160) = 4.35, p = .037, \phi = .184, \text{odds ratio} = 2.88, 95\% \text{ CI} (1.2, 7.7)$].

Forty seven percent of private early years schools compared to 24% of public schools met the standard of keeping records of doctor’s notes. Private early years schools were almost 3 times likely to meet the standard of requiring and keeping records of doctor’s report.

Even though there was a statistically significant difference in private and public early years schools regarding their health and safety practice, the effect of school auspices on the health and safety practice (keeping records of doctor's report) was small.

When it comes to the practice of schools having children's immunization records all up to date, 91% of private early years schools compared to 78% of public schools met the standard. Private early years schools were almost 3 times likely to meet the standard of having children's immunization records all up to date. The effect of school auspices on the health and safety practice (children's immunization records all up to date) was also small.

Why half of early years schools did not meet the standard of requiring and keeping doctor's report

When early years schools Heads or Coordinators were asked if they required that children bring doctor's report after being absent from school due to illness, all the Heads responded negatively that they do not insist on it. Two major themes came up in their response. Table 2 shows the themes identified and Tables 3 and 4 present extracted responses concerning the themes identified.

In answering the question as to why early years schools in the Cape Coast Metropolis did not do so well in meeting the health and safety standards that looked at schools requiring doctor's report, it was found that early years school Heads did not see it as their responsibility to require doctor's report from a child who was absent from school due to illness. All that they were expecting was for the parent to bring to school a healthy child.

DISCUSSION

The findings of this study revealed that most of the early years schools in the Cape Coast Metropolis met majority of the recommended health and safety standards. The reason for these results could be that because these are registered schools, they had to at least meet the requirement of Ghana's Children's Act 560 (sub-part II) on Daycare centre regulations¹⁸ to operate in the Metropolis.

The results of this study are similar to other studies^{10,11,12} which found most early years schools were compliant with a majority of the health and safety standards. Even though these research works found majority of the schools meeting the recommended health and safety standards, attention was drawn to the fact that the few standards that were not met by these educational institutions needed to be improved.

A closer look at the results of the current study on early years schools meeting the health and safety practices shows that even with the standards that majority of the schools met there is still a need to pay attention to the few schools that could not meet the recommended standards. When it comes to the standard of pasting of hand washing procedures at vantage points, forty-one (41) of the early years schools did not meet the standard. Thirty nine (39) schools did not meet the standard of keeping records on sick children in the school, thirty (30) of these early years schools did not meet the standard of having a written health and safety policy and twenty two (22) schools did not meet the standard of ensuring that children's immunization records are up to date.

Meanwhile, enrolments in crèche and kindergarten in the Cape Coast Metropolis as at May 2015 stood at 4,600 and 6,877 respectively¹⁹ and so averagely an early years school will have about 72 children. This implies that a number of children ranging from 1,584 to 2,952 in early years schools in the Metropolis were at risk of infections⁶ and this would ultimately affect the quality of care and education provided to these children.

The results of the current study also revealed that when it comes to the practice of early years schools requiring and keeping copies of doctor's report on children who were out due to illness, majority of the schools did not meet the standard. From the follow-up interviews, early years school Heads and Coordinators indicated that they did not bother to ask of a copy of a doctor's report because all that they were concern with was that the child who was ill had returned to school well and healthy. The implication of this finding is that these early years schools will not be previewed to the medical conditions the children under their care had been in and this will affect their ability to meet the unique needs of these children.

The finding of this current study brings back into perspective what other research findings have revealed in terms of the other side of requiring doctor's report. Studies have indicated that children in early years schools are frequently ill with mild illness.^{20, 21, 22} However, Hashikawa *et al*'s study²³ found that because of the need to get doctor's report, there was increased use of emergency department by parents whose children were excluded in early years schools even with mild illness. This situation can put a lot of pressure on parents and doctors too.

As at the time of data collection in 2017, Ghana did not have a clear-cut Early Childhood Care and Development (ECCD) standards²⁴ so it appeared early years schools could require doctor's report at their discretion.

Even though Ghana has now developed ECCD standards²⁴ published in 2018 which indicates that early years schools should have policy about the exclusion of children who are ill or infectious, it has not been clearly stated that doctor's reports should be required from children who would be absent from school due to illness.

Stakeholders' discussions on whether it is important that early years schools require and keep doctor's report of children who would be absent from school due to illness, can help the nation as a whole to know the way forward. It has long been observed that while children are in early years schools, they develop unique health care needs and exhibits developmental differences,²⁰ so it is important that every school makes effort to help accommodate as quickly as possible these health care needs to reduce delay or interruption of care.²¹ All these can be achieved if early years schools require and keep doctor's report on children who were absent from school due to illness.

It is highly recommended that early years schools in the Cape Coast Metropolis must require and keep doctor's report of children who would be absent from school due to illness. The Department of Social Welfare and the Cape Coast Metropolitan Education Office should increase their monitoring to ensure that all early year's schools meet the recommended institutional health and safety practices.

CONCLUSION

Early years schools in the Cape Coast Metropolis were meeting a number of the health and safety standards recommended for such educational institutions. However, these schools may not be able to help accommodate as quickly as possible certain health care needs of the children because the schools were not previewed to a doctor's report of children's previous illnesses.

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