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AWARENESS AND PERCEPTIONS ON REGISTRATION OF BIRTHS AND DEATHS IN SOKOTO STATE, NIGERIA

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Abstract

Lack of clarity about the registration process, coupled with low-level awareness, individual perceptions and attitudes, inadequate knowledge on the importance of birth and death registration, and insufficient centres, especially on death registration, bring low coverage and poor registration records. This creates a gap in fertility and mortality data and, in turn, has severe consequences for policy formulation and planning in human development. This study examines the level of awareness and perceptions on birth and death registration among the parents in Sokoto State. It used quantitative and qualitative methods. Four hundred (400) respondents were sampled using disproportionate quota sampling for the questionnaire, and the data were analysed using descriptive statistics. Also, an interview was conducted with community leaders, and the data were analysed using the qualitative technique. Chi-square was employed to test whether the parents' demographic and socio-economic characteristics influence birth and death registration. In terms of source of awareness on birth registration, sensitisation during antenatal care in hospitals has the highest percentage (90.7%). At the same time, among people, it accounts for 6.8% and not being aware with only 0.5%, indicating a high awareness level for birth registration among the respondents. But respondents who reported a lack of awareness of death registration accounted for 99%. This revealed that awareness among the people on benefits and reasons for death registration is deficient compared to birth registration. The study further showed that all parents' demographic and socio-economic characteristics significantly influenced birth registration, but death registration was reported to be otherwise. The study recommends intensive enlightenment campaigns by National Population Commission with the collaboration of key stakeholders on the importance of birth and death registration. Government should fully enforce registration laws and regulations, especially on death registration.

Keywords: Vital Registration, Planning, Incidents, Demographic, Parents, Mortality and fertility.

Introduction

The process of vital registration means collecting data on vital statistics incidents. It is an essential element of national planning for children since it provides a demographic base (African Union, 2017). Without registration, for example, it is unlikely that countries can have accurate knowledge of child mortality rates, a key indicator for child survival strategies. It can also help identify at-risk populations, compile population estimates and projections, and maintain electoral rolls and personal identification card systems (Abbas, 2012; Saad, 2014). The number of births and deaths can be obtained by enumeration at certain points (for example, censuses and surveys) or through vital registration continuously and is the only demographic source that provides individuals with a legal document. Therefore, birth and death registrations are the foundation of reliable demographic data in any geographical area as it acts as the starting point and ending point and are very important for policy and planning (World Health Organization, 2016; African Union, 2017; Abouzahr *et al.*, 2019; Muhumad, 2019; Barau & Abdulkarim, 2021).

Besides that, several decades after, only a tiny

proportion of these incidents are registered, with the national average for birth registration put at 30%, of which 49% is in urban areas and 22% in rural areas, according to the 2006 census. Thus, about 70% of the over 5 million births annually go unregistered and interestingly, there is no national average for death registration and some other vital registration incidents (National Population Commission NPC, 2009). In addition, it has been observed that poor registration of births and deaths is due to ignorance, low level of awareness, lack of clarity about the registration process, individual perceptions and attitudes, structure of the system and poverty are some of the major obstacles that hinder the registration of these events in many developing countries of the world (Word Bank Group, 2014; Mikkelsen, Phillips & Abouzahr, 2015; Princewill, 2015; Parmar, Jakasania & Rathod, 2016). However, a gross proportion of births and deaths go unregistered; this creates a massive gap in fertility and mortality data which has severe consequences for policy formulation and planning in all aspects of human development (Barau & Abdulkarim, 2021).

Nevertheless, many studies on vital registration incidents have been conducted globally and in Nigeria. For example, Musah *et al.* (2015) examined the effect of births and deaths registration on health service delivery in the Tolon district of Ghana, and the study noted that birth and death registration is one of the most widely used national and local data for identifying and addressing major public health concerns. However, the study employed the survey research design in which questionnaire administration was used for data collection. Another study carried out by Saad (2014) assessed birth registration in the United Republic of Tanzania, and the study explored the relevance of birth registration for planning and maintaining the government statistics for its citizen's identification and for giving priority to services and opportunities offered by the United Republic of Tanzania government. Makinde *et al.* (2016) studied the trends in the completeness of birth registration in Nigeria (2002–2010). They noted that Nigeria is a signatory to the Convention on the Rights of the Child, which identifies birth registration as a child's right.

Therefore, many studies were conducted around the globe on the issues of birth and death registration, but very few studies were conducted in the study area. Low-level awareness, lack of clarity about the registration process, individual perceptions and attitudes, inadequate knowledge, and individual attitudes among people on the importance of registering births and deaths led to poor registration records in Sokoto state. This affects the progress and development of the Sokoto state and its population because governments cannot design effective and efficient public policies and programs that will bring about sustainable development. However, this study examines the level of awareness and perceptions on birth and death registration among the people in the study area. This study is designed to address this research gap.

The Study Area

In Figure 1, the Sokoto state is located in the extreme North-West of Nigeria between latitudes 12^0 00'N and $13^0$58'N and longitudes $4^0$8'E and $6^0$54'E. By its location, it shares boundaries with the Republic of Niger to the north, Kebbi State to the west and southwest and Zamfara State to the east. The state covers a total land area of about 32,000km^2. It has twenty-three (23) Local Government Areas with three senatorial districts, namely Sokoto East, Sokoto North and Sokoto South (Sokoto, 2006; NPC, 2006), as quoted by Sani (2021).

Based on the 2006 National Population Census, Sokoto state has a population of 3,702,676. It has a total projected population for 2021 of 5,868,742, which is made up of 2,954,371 males, accounting for approximately 50.3 %, and 2,914,370 females, accounting for the remaining 49.7 % of the total population with an average annual growth rate of 2.9%. The projection was done using the Newman's (2001) formula: $\{Pn = Po_{+}(1+R/100 \text{ X } Po)n\}$ as cited by Daukere *et al.*, (2021), where Pn = population in the recent year, Po = population in the base year (3,702,676), R = annual growth rate (2.9%) and n = number of intermediary years (2021-2006 = 15). This population is not equally distributed across the 23 local government areas, with an average density of fewer than 150 persons per kilometre square. Still, in the closed settled zone, population density may exceed 300 people (MBEP, 2012a), as quoted by Sani (2021). The demographic feature of the study area shows that 45% of the population is less than 15 years of age while 35% fall within the active age group of 15-64 years and 65 years and above (old age group) account for 20%. A youthful age structure has enormous implications for future socio-economic development, as most youths are not yet part of the workforce, placing a heavy burden on the working age population (higher youth dependency rate, which is inimical to development) (NPC, 2019; NPC, 2010).

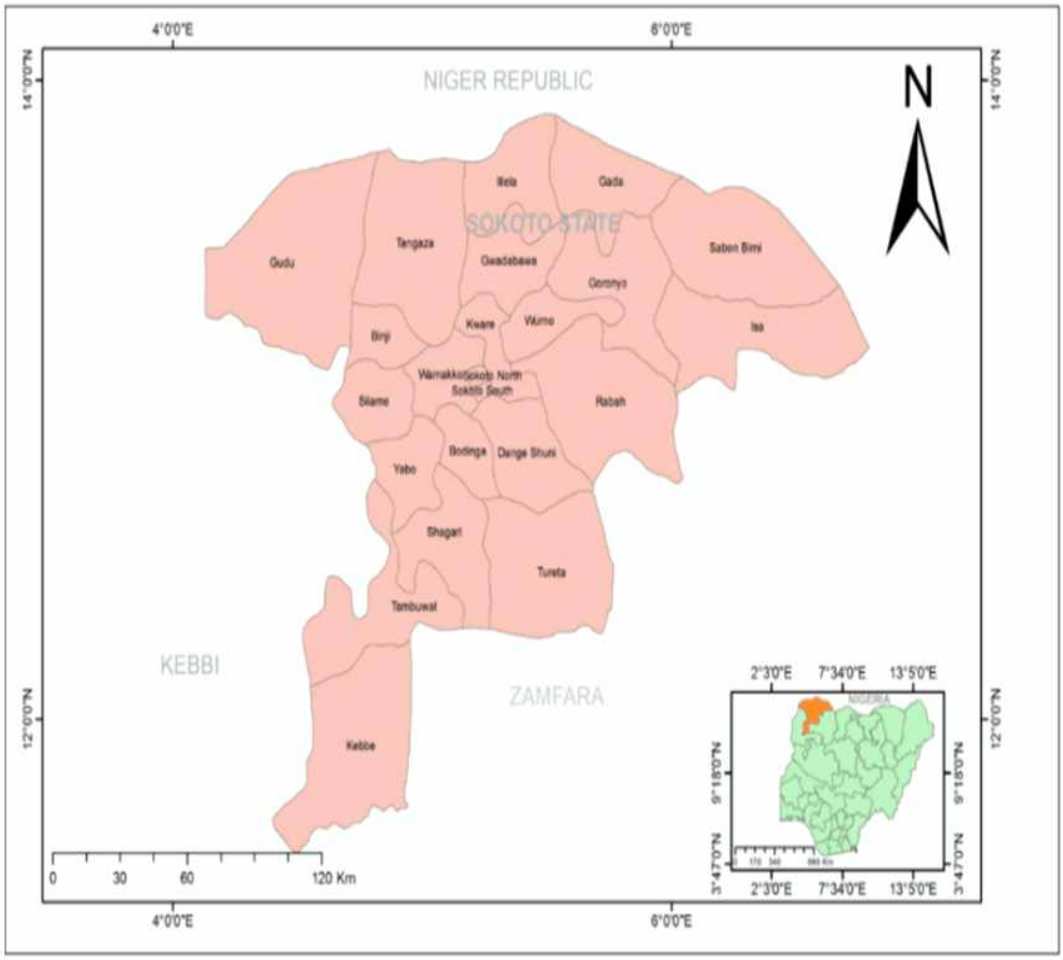

Figure 1 map of Sokoto State
Source: Authors, (2022)

Material and Methods

Two significant sources of data were employed to conduct this research that is primary and secondary data and a mixed-methods design (quantitative and qualitative methods). The face-to-face structured interview was designed and conducted on households, and their responses were filled in the questionnaire. The questionnaire survey selected individual homes from three (3) senatorial districts in the Sokoto state using a non-probability quota sampling technique with a sample frame. Four hundred respondents were sampled for the study based on the guidelines of Krejcie & Morgan (1970). However, the sample was shared among the three senatorial zones based on the disproportionate quota sampling technique adopted by Tobin, Obi, & Isah (2013) and Rilwanu (2014). In addition, the interview was conducted with community leaders to obtain additional information in each study area's senatorial zone. It was based on a checklist of points that guided and directed the flow of the discussions led by a team.

Both the questionnaire and interview were translated and conducted using the native language of the respondents (Hausa language) because people in the study areas felt more at home when discussing issues in their local language. Research assistants were also employed and trained to make them effective communicators and solicitors of information. A pre-test was conducted to ensure the validity and reliability of the instruments, which helped this research to achieve the desired results. However, the data obtained from the households was first entered into Excel Microsoft (2007) application to create a sample database. Simple descriptive statistical techniques such as percentages, tables, pie charts and frequency were used in presenting the data. The research hypothesis was also tested using chi-square (X^2). Moreover, the analysis was made using Statistical Package for Social Science (SPSS) version 20 software. In addition, the qualitative technique was used to analyse the data obtained from community leaders to support the findings from the questionnaire.

Results and Discussions

Sources of Awareness on Birth and Death Registration

Table 1 presents the study's findings on the sources of awareness on birth and death registration. The table shows that sensitisation during antenatal care in hospitals constitutes 90.7% of respondents, getting aware from people accounts for 6.8%, and not being aware scored the lowest percentage (0.5%), which indicates a high level of awareness for birth registration among the respondents. For death registration, the awareness gained from people accounts for 1%, radio and television 0.0% and respondents without any form of awareness constitute the highest percentage (99%). This implies that the majority of the respondents were not aware of death registration, not talk about where and how to do it. In addition, during the interview, most of the community leaders believed that death is the will of God and cannot be changed, so there was no need to register it. This explains why people in the area see no reason for death registration. Respondents were also unaware that National Population Commission was responsible for birth and death registration because they thought the ministry of health was responsible for birth registration and the court for death registration. This implies that people only registered without fully understanding the importance of reporting such incidents in national planning. The study goes contrary to the study of Muhamad (2019), who explained that parents get awareness from their relatives about birth registration. But it coincides with the works of NPC (2018) and Barau & Abdulkarim (2021), whose findings reveal that parents usually get awareness in hospitals for birth registration. Similarly, the study was similar to many studies in that lack of awareness of death registration is the major challenge that hinders the registration of this incident (Musah *et al.,* 2015; Barau & Abdulkarim, 2021).

Reasons for Birth and Death Registration

The reasons and benefits of birth registration among the respondents in the study area are presented in Table 2. The results indicated that out of four hundred (400) respondents, 94% cited school admission as the reason for birth registration, a national identity card accounts for just 5% and obtaining a passport scored the lowest percentage (1%). The study also highlighted that the main reason and benefit of people registering birth was just to get a certificate to use during school enrollment of their children. This appears to be little knowledge of why birth registration was necessary among the respondents. This study agreed with the findings of Parmar *et al.* (2016), which stated that there was a need for adequate knowledge on why birth registration should be done. As explained during the interview by community leaders, delay in birth registration could be attributed to the broader belief of the people that birth can only be registered after a child is named, which is usually seven days after delivery. This tradition has drastically reduced the level of registration. Hence, this was similar to the findings of Parmar *et al.* (2016), that delay in birth registration may be due to the belief of a large proportion of the people that the birth cannot be registered before deciding on the name of the child, which might be decided after few weeks or months according to the rituals of the particular society in India. This was contrary to some developed countries that usually register their children on the day of delivery (WHO, 2016).

Regarding the reasons and benefits for death

Table 1: Sources of Awareness on Birth and Death Registration

Incidents	Medium	Frequency	Percentage (%)
Birth Registration	Radio	6	1.5
	Television	2	0.5
	Sensitisation during Antenatal Care	363	90.7
	From People	27	6.8
	Not Aware	2	0.5
	Total	**400**	**100**
Death Registration	Radio	0	0
	Television	0	0
	From People	4	1
	Not Aware	396	99
	Total	**400**	**100**

Source: Data Analysis, (2022)

Table 2: Reasons for Birth and Death Registration

Event	Benefits	Frequency	Percentage (%)
Birth Registration	School Admission	376	94
	Obtaining Passport	4	1
	National Identity Card	20	5
	Open Account	0	0
	Others	0	0
	Total	**400**	**100**
Death Registration	Pension Claims	4	1
	Insurance Policy	0	0
	Others	0	0
	I Not Know	396	99
	Total	**400**	**100**

Source: Data Analysis, 2022.

registration, almost all the respondents (99%) perceived no reasons to register it because only pension claims account for 1 (Table 2). This study reveals that only four respondents know the reasons and benefits of death registration and where to register such incidences. They know it because they lost someone in their families who happened to be a government worker; consequently, a death certificate was demanded as an essential requirement for the collection of claims and benefits of the deceased. Nevertheless, almost all the community leaders during the interview stated that their people did not know any reasons for death registration. This has to do with a lack of clarity on the registration process and the socio-cultural factors that cut across their religion (the majority of them are Muslims), and they all believe that death was the will of God and cannot be changed, and as such, they pay little or no attention to its registration. This finding corroborated that of Jewkes & Wood (1995), reporting low knowledge of death registration in Egypt as quoted by Parmar *et al.* (2016). However, several studies, like Muhamad (2019) and WHO (2016), already reported serious under-registration of deaths, especially in developing countries.

Respondents' Perceived Proximity to Vital Registration Center for Births and Deaths Registration

The location and access of vital registration centres to the respondents, as indicated in Figure 2, explains how proximity to registration centres influences birth registration. 71% of the respondents indicated that registration centres are located close to their residence, and only 2% of the respondents were unaware of any birth registration centre. This implies that people have easy access since centres are located very close to their residences at the time of this work. But on the contrary, death registration suffers more, as shown in Figure 3, where 99% of the respondents indicate their unawareness of any registration centre, while only 1% revealed that they are aware of the existence of such centres but explained that the centre is located far away from their residential area. This is an indication that centres for death registrations are not easily accessed. One has to travel a long distance before getting to such centres; however, our people almost all are not even aware of where to make such registration, as explained by community leaders during the interview. This indicates that there will be a high level of birth registration if parents register their children at centres that are close and easily accessed without difficulty. Also, there will be the registration of a poor death when there are few centres or when the exiting centres are not close to the people's residences. This finding was contrary to the verdict of WHO (2016), which stated that the most apparent physical constraint is the lack of accessibility and distance to the nearest birth registration centres in rural areas, which makes them always disadvantaged. However, this work was similar to the studies of Musah *et al. (*2015); Princewill (2015) and Barau & Abdulkarim (2021), that the lack of adequate centres and awareness are the major obstacles that are reducing the level of death registration, especially in developing countries.

The Perceived Demographic and Socio-economic Determinants of Birth and Death Registration

Sex as a demographic variable, as shown in Table 3, indicated that female-headed households were the most predominant in obtaining birth certificates for children (86.8%) compared to their male counterparts heading households (77.6%). While the survey indicates that males are responsible for obtaining death certificates for their deceased

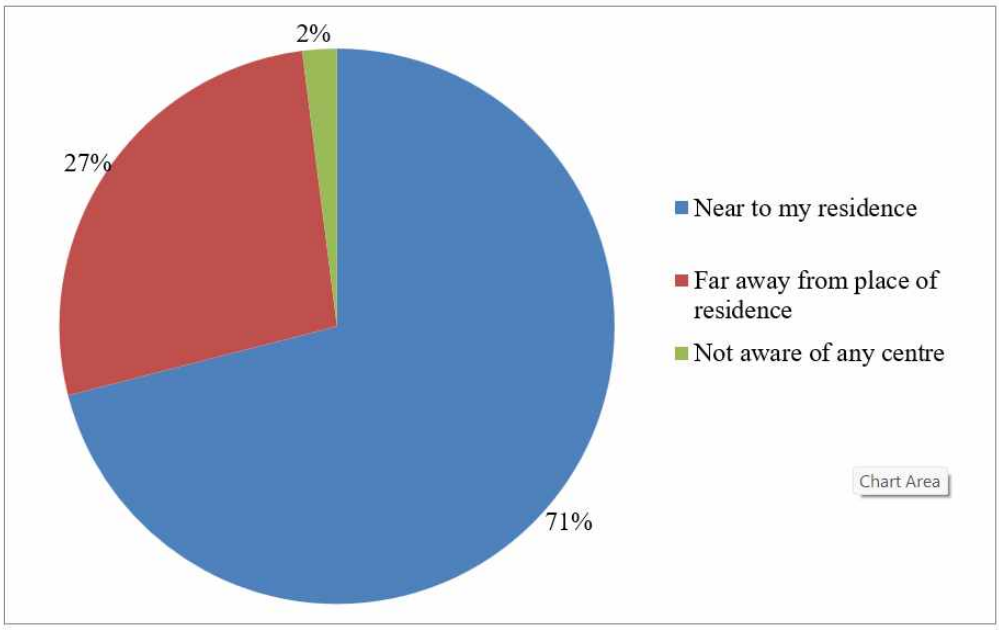

Figure 2: Respondents' Proximity to Registration Center for Birth Registration
Source: Data Analysis, (2022)

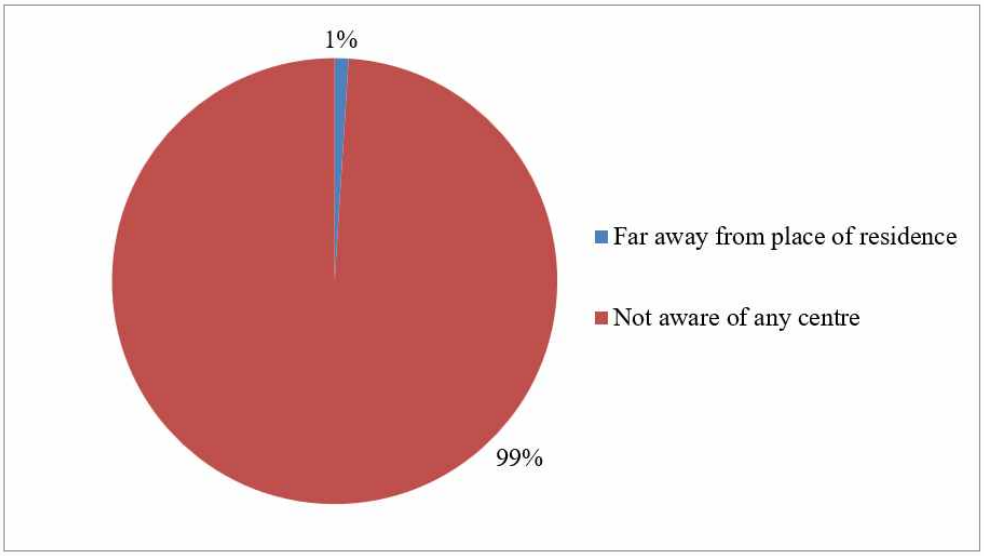

Figure 3: Respondents' Proximity to Registration Centre for Death Registration
Source: Data Analysis, (2022)

because they account for 1.1%, female constitutes 0.0% (Table 4). This means that females are the ones that usually go for antenatal care, which makes them more aware of obtaining the birth certificate for their children. But this is not the case in death registration males are the ones that usually represent the families in obtaining the death certificate for their deceased. Therefore, the chi-square values indicate that sex does not influence birth and death registration because it is not statistically significant (Tables 3 and 4). This coincides with the findings of Princewill (2015), Abbas (2012), and Tobin *et al.* (2013) that sex does not influence birth and death registration.

The age category of the respondents shows that young adults (20-39 years) and mature age (40-59 years) constitute almost the same percentage in collecting birth certificates for their children, with a slight difference of 1% (87.3% and 86.3), respectively. For older adults aged 60 and above, only 37.9% obtained the certificate (Table 3). This reveals that parents did not usually obtain the certificate before. Still, due to awareness, people started to know the importance of registering for their children, especially for school enrollments. This means that those of lower age have the highest birth registration than the older.

Table 3: Demographic and Socio-economic Characteristics Determinants of Births Registration

The Variables		Birth Certificate Obtained				Total			
		Yes		No					
		F	%	F	%	F	%	Chi sq	P-value
Sex	Male	281	77.6%	81	22.4%	362	**100%**	1.731*	0.188
	Female	33	86.8%	5	13.2%	38	**100%**		
	Total	**314**	**78.5%**	**86**	**21.5%**	**400**	**100%**		
Age	20-39	89	87.3%	13	12.7%	102	**100%**	117.792*	0.000
	40-59	182	86.3%	29	13.7%	211	**100%**		
	60 & Above	33	37.9%	54	62.1%	87	**100%**		
	Total	**304**	**76%**	**96**	**24%**	**400**	**100%**		
Marital Status	Single	1	7.7%	12	92.3%	13	**100%**	10.773*	0.013
	Married	291	83.1%	59	16.9%	350	**100%**		
	Divorced	19	90.5%	2	9.5%	21	**100%**		
	Widowed	13	81.3%	3	18.7%	16	**100%**		
	Total	**324**	**81%**	**76**	**19%**	**400**	**100%**		
Ethnicity	Hausa	229	84.2%	43	15.8%	272	**100%**	312.681*	0.000
	Fulani	57	61.3%	36	38.7%	93	**100%**		
	Others	28	80%	7	20%	35	**100%**		
	Total	**314**	**78.5%**	**86**	**21.5%**	**400**	**100%**		
Religion	Islam	305	78.6%	83	21.4%	388	**100%**	2.981*	0.084
	Christianity	9	75%	3	25%	12	**100%**		
	Total	**314**	**78.5%**	**86**	**21.5%**	**400**	**100%**		
Level of Western Education	Primary	22	61.1%	14	38.9%	36	**100%**	152.903*	0.000
	Secondary	131	72%	51	28%	182	**100%**		
	Tertiary	87	91.6%	8	8.4%	95	**100%**		
	Others	60	69%	27	31%	87	**100%**		
	Total	**314**	**78.5%**	**86**	**21.5%**	**400**	**100%**		
Occupation	Farming	25	29.4%	60	70.6%	85	**100%**	110.738*	0.000
	Trading	59	51.3%	56	48.7%	115	**100%**		
	Civil Servant	162	95.3%	8	4.7%	170	**100%**		
	Others	26	86.7%	4	13.3%	30	**10%**		
	Total	**272**	**68%**	**128**	**32%**	**400**	**100%**		
House Ownership	Owned	151	73.7%	54	26.3%	205	**100%**	159.071*	0.000
	Rented	82	80.4%	20	19.6%	102	**100%**		
	Others	50	53.8%	43	46.2%	93	**100%**		
	Total	**314**	**78.5%**	**86**	**21.5%**	**400**	**100%**		
Monthly Income	5,000-25,000	44	25.4%	129	74.6%	173	**100%**	347.985*	0.000
	26,000-45,000	93	86.1%	15	13.9%	108	**100%**		
	46,000-65,000	53	85.5%	9	14.5%	62	**100%**		
	66,000-85,000	21	84%	4	16%	25	**100%**		
	86,000& above	29	90.6%	3	9.4%	32	**100%**		
	Total	**311**	**77.8%**	**89**	**22.2%**	**400**	**100%**		

Source: Data Analysis, (2019) F=Frequency, %=Percentage,*=Significant 0.05 C. Level

Table 4: Demographic and Socio-economic Characteristics Determinants of Deaths Registration

The Variables		Death Certificate Obtained							
		Yes		No		Total			
		F	%	F	%	F	%	Chi sq	P-value
Sex	Male	4	1.1%	358	**98.9%**	362	**100%**	0.424*	0.515
	Female	0	0.0%	38	**100.0%**	38	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
Age	20-39	0	0.0%	102	**100.0%**	102	**100%**	11.804*	0.003
	40-59	4	1.9%	211	**98.1%**	211	**100%**		
	60 & Above	0	0.0%	87	**100.0%**	87	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
Marital Status	Single	0	0.0%	13	**100.0%**	13	**100%**	120.28*	0.000
	Married	4	1.1%	350	**98.9%**	350	**100%**		
	Divorced	0	0.0%	21	**100.0%**	21	**100%**		
	Widowed	0	0.0%	16	**100.0%**	16	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
Ethnicity	Hausa	4	1.5%	268	**98.5%**	272	**100%**	1.901*	0.386
	Fulani	0	0.0%	93	**100.0%**	93	**100%**		
	Others	0	0.0%	35	**100.0%**	35	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
Religion	Islam	4	1.0%	384	**99.0%**	388	**100%**	0.125*	0.724
	Christianity	0	0.0%	12	**100.0%**	12	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
Level of Western Education	Primary	0	0.0%	36	**100.0%**	36	**100%**	40.853*	0.000
	Secondary	0	0.0%	182	**100.0%**	182	**100%**		
	Tertiary	4	4.2%	91	**95.8%**	95	**100%**		
	Others	0	0.0%	87	**100.0%**	87	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
Occupation	Farming	0	0.0%	85	**100.0%**	85	**100%**	14.973*	0.002
	Trading	0	0.0%	115	**100.0%**	115	**100%**		
	Civil Servant	4	2.7%	143	**97.3%**	147	**100%**		
	Others	0	0.0%	53	**100.0%**	53	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
House Ownership	Owned	4	2.0%	201	**98.0%**	205	**100%**	3.843*	0.146
	Rented	0	0.0%	102	**100.0%**	102	**100%**		
	Others	0	0.0%	93	**100.0%**	93	**100%**		
	Total	**4**	**1.0%**	**396**	**99.0%**	**400**	**100%**		
Monthly Income	5,000-25,000	0	0.0%	173	**100.0%**	173	**100%**	5.302*	0.258
	26,000-45,000	0	0.0%	104	**100.0%**	108	**100%**		
	46,000-65,000	4	6.5%	58	**93.5%**	62	**100%**		
	66,000-85,000	0	0.0%	25	**100.0%**	25	**100%**		
	86,000 & above	0	0.0%	32	**100.0%**	32	**100%**		

Source: Data Analysis, (2022) F=Frequency, %=Percentage,*=Significant 0.05 C. Level

Moreover, Table 4 implies that only those aged 40-59 years constitute 1.9% in obtaining death certificates for their deceased, while other groups account for zero (0) per cent. This indicates that death registration was not correctly being practised in the area. In addition, the calculated chi-squares of birth and death registration in Tables 3 and 4, parents' age significantly determines the registrations of these incidents. This finding was consistent with the result of NPC (2019), which explained that age structure was one of the demographic attributes that influence birth and death registration in any society. But it was different with Tobin *et al.* (2013), who stressed that age has no significant influence on birth and death registration.

Marital status is another demographic variable that can be used for demographic classification. Table 3 shows that 90.5% of divorced households obtained birth certificates for their children, followed by married and widowed households (83.1% and 81.3%), and singles scored the lowest per cent (7.7%) because they are not married and even the children that they registered for were the children of their relatives. For death registration, it indicates that singles, divorced and widowed households account for 0.0%, and only married households obtained the death certificate for their deceased. Even in this category, the percentage is very insignificant; they only constitute 1.1% of the total respondents (Table 4). This can be attributed to a lack of awareness, and not knowing the importance of registering this incident hinders the registration of deaths in the area. In addition, the calculated chi-square values of birth and death registration in Tables 3 and 4 portray that marital status cannot influence birth registration but significantly influences death registration. This finding agrees with Abbas (2012), who explained that marital status does not affect birth registration. It is also similar to the conclusion of Mikkelsen *et al.* (2015), who stated that marital status determines death registration, but it is contrary to birth registration, which marital status influences it.

However, the social attributes of the respondents on the issues of the vital registration incidents, as indicated in Tables 3 and 4, shows that one of the essential social variables for social classification was ethnicity. The result reveals that among the Hausa ethnic group, 84.2% obtained birth certificates for their children, while other ethnic groups such as Zabarmawa, Yoruba, Ibra and Igbo scored the 81%, and the Fulani constituted the lowest per cent (61.3%). While obtaining death certificates, the Hausa ethnic group accounts for 1.5% of the total respondents, and the remaining ethnic groups constitute nothing (0%), implying that death registration was not fully practised in the area. Therefore, ethnicity determines birth registration but cannot assess death registration, as shown in the calculated values (Tables 3 and 4). This study was almost similar to the studies of Musah *et al.* (2015) and AU (2017), which explained that ethnicity was one of the variables found to be associated with the deferential of vital registration incidents and that association varies between countries as well as in most cases, groups with large population have a higher number of registered births.

Nevertheless, religion as a social variable shows little difference between the two religions, Islam (78.6%) and Christianity (75%), in terms of obtaining birth certificates. The slight difference between the two was based on the fact that Islamic parents were the actual indigenes and the majority in the area (Table 3). In Table 4, obtaining a death certificate for the deceased only households with Islam as a religion constitute 1.0%, their deceased family member happened to be employees, and the certificate was demanded for pension claims. This study also indicates that parents' religious affiliation cannot influences birth and death registration, as shown in the statistical values (Tables 3 and 4). This study coincides with the work of Tobin *et al.* (2013), that explained that religion has no influence on death registration practice but disagreed that religion can influence birth registration practice. But this study was contrary to the study of Abouzahr *et al.* (2019), which highlighted that religion determines death registration practice.

Besides that, Table 3 represents the respondents' level of education and shows that almost all the parents with tertiary education (91.6%) obtained birth certificates for their children, followed by secondary school leavers (72%). In comparison, other (Islamic education) accounts for 69%, and parents with primary school education constitute the lowest per cent (61%) in obtaining certificates during this study period. This reveals that as the level of education increases, then birth registration increases, leading to higher coverage. Death registration was also similar to birth registration because parents with tertiary school education that scored the 4.2% obtained death certificates for their deceased, and other levels of education account for zero per cent (Table 4). In Tables 3 and 4, the result reveals that parents' levels of education influence birth and death registration.

This study was consistent with many studies like Muhamad (2019), Abouzahr *et al.* (2019) & WHO (2016), which highlighted that parents' educational levels determine the registration of vital incidents. However, this research was contrary to the study of Tobin *et al.* (2013), which explained that educational levels could not influence death registration practice.

In addition, the economic variables of the respondents include occupation; it is considered the most critical economic variable that can be used for the economic classification of parents in any society. The study also implies that civil servants scored the highest per cent (95.3%), followed by other occupations (86.7%), and farming occupations constitute the lowest per cent (29.4%) in obtaining birth certificates for their children, respectively (Table 3). This can be related to some respondents that farming serves as their occupation and usually do not enrol their children in any western school where certificates will be demanded, leading to low registration. Table 4 indicates that civil servants obtained death certificates for their deceased and were the only group out of the total respondents comprising 2.7%. This may be due to their knowledge of the importance of registering it. However, the statistically calculated chi-square of birth and death registrations reveals that parents' occupation determines birth and death registration (Tables 3 and 4). This coincides with the many studies highlighting that nature parents' occupations influenced their families' basic needs. Hence, there was a tendency to register vital incidents for their family members (Mikkelsen *et al.*, 2015; AU, 2017).

Moreover, in terms of house ownership, the result indicated that parents living in rented houses constitute the highest per cent (80.4%), followed by parents with their own houses (73.7%) and the others scored the least per cent (53.8%) in obtaining birth certificates for their children, respectively (Table 3). Parents in rented houses that account for the highest birth registration could be attributed to the majority being civil servants and knowing its importance. Regarding obtaining the death certificate, parents who own houses obtained the certificate for their deceased with 2.0% and the rest account for nothing (0.0%) due to a lack of knowledge on the importance of death registration (Table 4). The value shown in Tables 3 and 4 that the parents' house ownership significantly determines birth registration and does not determine death registration. This study was similar to NPC (2019) and Abbas (2012), that parental house ownership can influence the registration of vital incidents in society. In addition, house ownership contributes to the well-being and happiness of families in any society (AU, 2017; Abouzahr *et al.,* 2019).

For monthly income in Table 3, parents with the highest income lead with the highest percentage (90.6%), followed by parents with an income between 26,000 to 45,000 (86%), and the lowest percentage were parents with the most insufficient income, which account for 25.4% in obtaining a birth certificate. This indicates that as the parent's level of income increases, the birth registration increases since it requires them to pay some amount before collecting the certificate. This was also almost similar to death registration because parents with a monthly income of 46,000-65,000 were the only ones that obtained death a certificate for their deceased with 6.5% (Table 4). Nevertheless, the statistically calculated (Tables 3 and 4) explained that the parent's income level significantly influences birth registration but cannot influence death registration. This was similar to the work of WHO (2016), which highlighted that the economic background of parents could serve as a barrier to birth registration and other vital incidents because it was not universally perceived as fundamental duty and right and, as such, is given low priority at every level.

Finally, from the findings of this study, it has been made clear that almost all parents' demographic and socio-economic characteristics significantly influence birth registration, with the only exception of sex (demographic variable) and marriage and religion (social variables), for death registration was reported to be otherwise because the majority of the parents' demographic and socio-economic variables cannot determine death registration, with the only exception of age as a demographic variable, marital status and education as well as occupation as social and economic variables respectively, which determines death registration. This means that the null hypothesis stated is rejected on birth registration, and the alternative hypothesis was accepted, except for sex, marriage and religion. While the null hypothesis stated is accepted on death registration, and the alternative hypothesis was rejected on death registration, except for age, marital status, education and occupation. Hence, almost all parents' demographic and socio-economic characteristics influenced birth registration but cannot affect death registration in the study area.

Conclusion

It can be concluded clearly that there was low awareness of death registration when compared to births registration among the respondents because a birth certificate is required for many purposes than a death certificate which was also hindered by religious factors, registration centres are few, and the existing ones were located far away from residential areas. Lack of knowledge on the importance of registering the incidences creates a massive gap in fertility and mortality data and has severe consequences for policy formulation and planning in human development. It can also be concluded that demographic and socioeconomic factors positively influence birth registration. But for death registration, the variables cannot determine it.

Recommendations

The study recommends that government should fully enforce registration laws and regulations and establish more centres, especially on death registration, and should be located close to the people, increasing coverage. National Population Commission should do intensive enlightenment campaigns on the importance of birth and death registration at the grass root level. This requires the collaboration of critical stakeholders like traditional councils, media, local government officials, opinion leaders, religious leaders, and non-governmental organisations (NGOs).

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