

Access to Healthcare and Health Seeking Behaviour among Female Head Porters in Kumasi, Ghana: The Impact on Public Health

Justice Ofori-Amoah^{1*}, Justice Thomas Sevugu², Sheila Ofori-Addai³, Emmanuel Nakua⁴,
Michael Rockson Adjei⁵

¹District Health Directorate Ghana Health Service Sekyere East Effiduase-Ashanti Ghana

²Municipal Health Directorate Atwima Nwabiagya Nkawie Ashanti-Ghana

³Municipal Health Directorate, Ghana Health Service Ejisu, Ashanti-Ghana

⁴Kwame Nkrumah University of Science and Technology, School of public Health

Department of Epidemiology, Ghana

⁵Regional Health Directorate, Ashanti-Ghana

Abstract

Given the nodality of Kumasi, the city attracts migrants from all parts of Ghana into its market space. Notable among such migrants are the female head porters popularly called “Kayayie”. As a result of the expensive rents in urban space, female head porters live in kiosks, verandas, and squatters in any available space. This exposes the porters to a myriad of environmental and health risks amidst poor health-seeking behaviour. This study sought to examine access to health and health-seeking behaviour of female head porters in Kumasi. The study adopted quantitative methods in collecting and analyzing data. The primary units of the investigation were female head porters. The study used a sample size of 250 respondents who were interviewed through self-administered questionnaires. Findings show that only 25.2% of the respondents had access to healthcare, as about 74.8% lacked access to basic healthcare. The majority of those who had access to healthcare (54%) go to the health facility by foot, while about 42.9% access the facility by car. Though 71.4% of the head porters were subscribers of NHIS, only 25.2% resort to professional healthcare givers when they are sick. Generally, access to health and health-seeking was poor among the female head porters. The study recommended the expansion of health facilities, especially in poor urban communities, and education on health-seeking among head porters.

Keywords: Female head porters, Health seeking behaviour, Health conditions, Migration; Urban poor.

Introduction

Migration continues to characterize most urban areas, with the majority of people who are susceptible to migration being young adults [1]. Research has argued that one out of every eight migrants are young people within the ages of 15 and 24 years [2].

Young people are always on the move to find greener pastures elsewhere or to secure a livelihood opportunity. Estimates claim that about a quarter of young people desire to

migrate to other countries to seek better opportunities [3]. Though external migration is always blamed for the woes of the youth, internal migrations are on the rise and pose threats to the sustainability of both the urban centers that receive these large numbers and the dwindling rural areas which lose these young people [4].

For example, [5] argues that the youth in Africa are always moving as they desire to migrate from rural areas to urban areas in search for better opportunities and greener

pastures. In this regard, most rural dwellers in Africa, such as Morocco and Ghana, see rural-urban migration as a survival strategy to withstand harsh economic conditions in rural areas [5; 6]. Some scholars argue that lack of decent opportunities such as education and better livelihood options are responsible for this migration trend, though other factors may play [7; 8]. A myriad of reasons exists for the engagement of women and young girls in head porting [9].

According to [10], most girls who engage in head porting do so because they want to go into an apprenticeship, go back to school, raise capital for future business ventures, take care of their families, or to buy wares for marriage. However, it is worth noting that some head porters had multiple reasons for their involvement in porting. Similar results were also obtained by [11, 12, 13]. Other studies established that lack of education, poverty, and socio-cultural factors accounted for some of the reasons why young female adolescents migrate to the South to engage in head porting popularly called in Ghana 'kayayie' [6].

Research shows that open spaces, platforms at lorry stations, makeshift temporary wooden structures, and stalls serve as abodes for most head porters in Accra [14]. In a study conducted by [15] and [16], young girls engaging in head porting activities face problems such as poor health care, poor housing facilities, inadequate sanitation facilities, and harassment by men at their sleeping places [11]. These findings are supported by [17], who revealed that a decent place to sleep after a hard day's work, lack of safety and security of Kayayei and their belongings, harassment, and exploitation from clients were the problems confronting kayayei.

The poor conditions under which head porters live and work exposes them to health risks and complications [18]. Also, it is established that head porters in Southern Ghana are exposed to psychological problems, physical abuse, and health hazards [14]. [19] posit that poor eating habits and lack of

accommodation, harsh working conditions, and lack of knowledge about health conditions exposes head porters to health problems such as skin rashes, cholera, neck pains, stomach ache and malaria.

As a result, [18] found that malaria was a common health challenge amongst female porters. Yet, lack of faith in the National Health Insurance Scheme, financial constraints, and long waiting periods at the health facilities militated against seeking appropriate health care at the hospitals and clinics by female head porters [19]. Access to and utilization of health services has been influenced by the use of the National Health Insurance Scheme. Inability to generate the needed funds to bear the high cost of healthcare service significantly affects the utilization of health [20].

Despite the fact that the health challenges faced by head porters who migrate to the Southern part of Ghana in search of livelihoods, the health-related impacts of their activities have been under-explored. For example, very little is known about health-related issues and the health-seeking behaviour of head porters. Also, the roles of stakeholders in ensuring access to good health and how socially supportive networks developed by porters are used in their health-seeking behaviour have been largely ignored.

Accordingly, this research explores access to health and health-seeking behaviour of female head porters in Kumasi. Rural-urban migration is old in Africa and greatly influences the urbanization pattern to a significant degree. While people migrate from the northern part of Ghana to the southern part in search of economic opportunities, they encounter many challenges [21].

One of these challenges is the poor health-seeking behaviour of head porters [8]. Due to the competitive nature of urban circumstances and the demanding monetary and other returns in professional healthcare services, head porters shirk professional healthcare for self-medication, herbalists, and other traditional

methods. Sometimes, some rely on the directions from their spiritual directors the expense of professional healthcare.

Though some of these head porters are aware of the impact of relying on unprofessional healthcare givers, poverty, expensive nature of professional healthcare, lack of available health infrastructure, socio-cultural factors, and or environmental conditions have influenced their health seeking negatively [21].

The impact of seeking unprofessional healthcare is great and has been estimated to be responsible for the death of about 50% of all patients from developing countries [22]. This raises concerns and makes the subject topic as increasing global concerns on health practices continue to gain center stage in all international and national discourses. This research aims to identify health challenges facing female head porters in Kumasi, identify the health-seeking behaviours and practices of female head porters, and determine the factors influencing head porters' access to health service in Kumasi.

Research Methodology

This study used a quantitative research design in understanding the access to healthcare and health-seeking behaviour among female head porters in Kumasi. Appropriately, a quantitative method was used in the collection and analysis of data.

The study first sought to understand the reasons for migration, the nature and trend of the migration, and the health-seeking behaviour of female head porters in Kumasi. With the estimated study population of 14,000 female head porters (kayayie people), the sample size

of 250 respondents was determined to be surveyed. The sample size was determined through the use of Slovin's formula for the determination of samples. Pre-coded and self-administered questionnaires were used to elicit data from the respondents. The nature of the questionnaire design included both open-ended and close-ended questions. The questions targeted the socio-economic and cultural characteristics and health-seeking behaviour of female head porters.

The author, therefore, sought administrative clearance from the various stakeholders before embarking on the study. This research was conducted in compliance with the ethical guidelines of the Kwame Nkrumah University of Science and Technology and Komfo Anokye Ethical Review Board. The researcher received positive feedback and was cleared to undertake the study based on the protocols and the data collection instruments presented for approval.

Results of the Study

Demographic Characteristics of the Study Population

The mean age of the respondents was 25.06 ± 7.06 years, with those aged between 20-24 years forming the majority (33.6%). About 49.6% of the respondents do not have formal education.

Again, only 0.8% of those who have formal education obtained WASSCE certificates (Table 1). The remaining respondents have education up to the basic school level. The majority of the respondents were single (50.4%) with an average monthly income of $\text{GHC } 253.71 \pm 102.37$.

Table 1. Socio-demographic Characteristics of Respondents

Variable	Head porters	
	Frequency (n=250)	Percent (%)
Age of porter (years)		
Mean (\pm SD)	25.06 \pm 7.06	
<20	68	27.2
20 – 24	84	33.6
25 – 29	40	16.0
30 – 39	37	14.8
40 – 49	21	8.4
50 – 59	0	0.0
60+	0	0.0
Marital status		
Single	126	50.4
Divorced	89	35.6
Married	35	14.0
Educational status		
Not educated	124	49.6
Primary	86	34.4
JHS	14	5.6
SHS	2	0.8
Tertiary	0	0.0
Informal	24	9.6
Average monthly income		
Mean \pm SD	253.71 + 102.37	
GHS 100 – 199	63	25.2
GHS 200 – 299	78	31.2
GHS 300 – 399	81	32.4
GHS 400 & above	28	11.2

Indicatively, findings show that health-seeking behaviour is still poor among respondents as only 25.2% of the people interviewed have access to healthcare when they are not well (Table 2a). The majority of the respondents (74.8%) indicated their inability to access healthcare in their threatening health conditions. Among those who accessed healthcare, a majority, 54%, walked for about 3-4 hours before they could

access healthcare services. Car was the major means of transport to the healthcare facility by almost 42.9% of the respondents. Therefore, the medical bills, transport costs, and the time spent seeking healthcare services were revealed to be the major reasons female head porters had low access to health facilities. Tables 2-4 show the results of the study, which were further discussed to inform policy and practice.

Table 2. Access to Healthcare Services by Female Head Porters in Kumasi

Variable	Frequency (n=250)	Percent (%)
Access healthcare when need arises		
No	187	74.8
Yes	63	25.2
Walking distance to health facility (n=63)		
Mean (±SD)	178.33 ± 66.17	
<1 hour	3	4.8
1-2 hours	22	34.9
2-3 hours	4	6.3
3-4 hours	34	54.0
Means of transportation to health facility (n=63)		
Car	27	42.9
Bicycle	3	4.8
Motor cycle	24	38.1
By foot	9	14.3
Mode of payment of health services (n=63)		
National Health Insurance Scheme (NHIS)	45	71.4
On credit (Pay later)	8	12.7
Pay as you go	10	15.9
Properly attended to the last time accessed healthcare services (n=63)		
No	13	20.6
Yes	50	79.4
Reason for visiting health facility (n=63)		
Assured of being treated	28	44.4
Best place for ill health treatment	11	17.5
National health insurance	24	38.1
Conditions for accessing healthcare (n=63)		
Boils	8	12.7
Gonorrhoea	9	14.3
Malaria	23	36.5
Stomach pains	15	23.8
Wounds	8	12.7

Table 3. Health Seeking Behaviours of Female Head Porters in Kumasi

Variable	Frequency (n=250)	Percent (%)
Last time of feeling sick		
1 month	62	24.8
2 months	74	29.6
3-5 months	65	26.0
6 months	49	19.6
Place medical services was sought		
Hospital	29	11.6
Herbalist	91	36.4
Pharmacy	76	30.4

Self-medication	54	21.6
Practice of family planning		
No	248	99.2
Yes	2	0.8
Place of delivery		
Home	28	11.2
Hospital	33	13.2
TBA	41	16.4
Never given birth	148	59.2
Number of ANC visits (n=102)		
No ANC visits	65	63.7
<4 visits	16	15.7
4+ visits	21	20.6
Vaccination of child (n=102)		
No	93	91.2
Yes	9	8.8
Knowledge of first aid		
No	245	98.0
Yes	5	2.0
Availability of first aid at home		
No	246	98.4
Yes	4	1.6

Table 4. Factors Influencing Female Head Porters' Access to Health Services in Kumasi

Access to healthcare							
Variables	No	Yes	Total	χ^2	p-value	COR [95% CI], p-value	AOR [95% CI], p-value
	n=187 (%)	n=63 (%)	N = (%)				
Age (years)							
<20	58 (31.0)	10 (15.9)	68 (27.2)				
20-24	64 (34.2)	20 (31.7)	84 (33.6)			1.81 [0.78 – 4.19] 0.164	1.22 [0.29 – 5.22] 0.784
25-29	29 (15.5)	11 (17.5)	40 (16.0)			2.20 [0.83 – 5.78] 0.109	1.16 [0.19 – 7.01] 0.873
30- 34	29 (10.2)	8 (12.7)	27 (10.8)			2.44 [0.84 – 7.08] 0.100	1.54 [0.16 – 14.63] 0.703
35+	17 (17.1)	14 (22.2)	31 (12.4)	11.00	0.027	4.78 [1.80 – 12.66] 0.002	5.88 [0.28 – 121.32] 0.252
Native region							
North East	40 (21.4)	19 (30.2)	59 (23.6)				
Northern	70 (37.4)	24 (38.1)	94 (37.6)			0.72 [0.35 – 1.48] 0.372	1.63 [0.45 – 5.88] 0.455
Savanna	14 (7.5)	9 (14.3)	23 (9.2)			1.35 [0.50 – 3.68] 0.553	2.60 [0.40 – 16.95] 0.319
Upper East	31 (16.6)	6 (9.5)	37 (14.8)			0.41 [0.14 – 1.14] 0.088	0.07 [0.01 – 0.97] 0.047
Upper West	32 (17.1)	5 (7.9)	37 (14.8)	8.17	0.085	0.32 [0.11 – 0.98] 0.045	0.30 [0.05 – 1.90] 0.201
Marital status							
Single	103 (55.1)	23 (36.5)	126 (50.4)				
Divorced	55 (29.4)	34 (54.0)	89 (35.6)			2.77 [1.49 – 5.16] 0.001	2.24 [0.44 – 11.32] 0.328
Married	29 (15.5)	6 (9.5)	35 (14.0)	12.41	0.002	0.93 [0.34 – 2.49] 0.880	4.54 [0.94 – 21.80] 0.058
Educational status							
Not educated	93 (49.7)	31 (49.2)	124 (49.6)				
Primary	70 (37.4)	16 (25.4)	86 (34.4)			0.69 [0.35 – 1.34] 0.287	
JHS	9 (4.8)	5 (7.9)	14 (5.6)			1.72 [0.56 – 5.29] 0.346	
SHS	0 (0.0)	2 (3.2)	2 (0.8)			14.84 [0.69 – 17.51] 0.084	
Informal	15 (8.0)	9 (14.3)	24 (9.6)	10.67	0.031	1.82 [0.74 – 4.49] 0.194	
Residence							
Rented apartment	11 (5.9)	13 (20.6)	24 (9.6)				

Container/Kiosk	123 (65.8)	38 (60.3)	161 (64.4)			0.26 [0.11 – 0.63] 0.003	0.43 [0.06 – 2.99] 0.398
Ghato	53 (28.3)	12 (19.1)	65 (26.0)	12.47	0.002	0.19 [0.07 – 0.53] 0.001	0.28 [0.03 – 2.88] 0.285
Family size							
<10	17 (9.1)	5 (7.9)	22 (8.8)				
10-14	74 (39.5)	32 (50.8)	106 (42.4)			1.47 [0.50 – 4.33] 0.484	
15-19	48 (25.7)	9 (14.3)	57 (22.8)			0.64 [0.19 – 2.17] 0.471	
20+	48 (25.7)	17 (27.0)	65 (26.0)	4.18	0.243	1.20 [0.38 – 3.77] 0.749	
Sex of household head (home)							
Female	36 (19.3)	10 (15.9)	46 (18.4)				
Male	151 (80.7)	53 (84.1)	204 (81.6)	0.36	0.550	1.26 [0.58 – 2.72] 0.550	
Household head was a porter							
No	165 (88.2)	50 (79.4)	215 (86.0)				
Yes	22 (11.8)	13 (20.6)	35 (14.0)	3.08	0.079	1.95 [0.92 - 4.15] 0.083	3.78 [0.87 – 16.32] 0.075
Number of children							
None	122 (65.2)	26 (41.2)	148 (59.2)				
One	19 (10.2)	13 (20.6)	32 (12.8)			3.21 [1.41 – 7.31] 0.005	1.61 [0.30 – 8.62] 0.580
Two	23 (12.3)	12 (19.1)	35 (14.0)			2.45 [1.08 – 5.54] 0.032	0.74 [0.10 – 5.66] 0.775
3+	23 (12.3)	12 (19.1)	35 (14.0)	11.68	0.009	2.45 [1.08 – 5.54] 0.032	0.14 [0.01 – 2.88] 0.205
Monthly income							
GHS 100-199	54 (28.9)	9 (14.3)	63 (25.2)				
GHS 200 – 299	59 (31.5)	19 (30.2)	78 (31.2)			1.93 [0.81 – 4.63] 0.140	1.97 [0.46 – 8.53] 0.362
GHS 300 – 399	58 (31.0)	23 (36.5)	81 (32.4)			2.38 [1.01 – 5.59] 0.047	0.91 [0.23 – 3.56] 0.893
GHS 400 and above	16 (8.6)	12 (19.0)	28 (11.2)	9.08	0.028	4.50 [1.61 – 12.59] 0.004	1.06 [0.19 – 5.93] 0.948
Insurance status							
No	152 (81.3)	10 (15.9)	162 (64.8)				
Yes	35 (18.7)	53 (84.1)	88 (35.2)	88.39	<0.001	23.02 [10.67–49.67] 0.001	4.62 [1.51 – 14.16] 0.007
Place of medical services							
Hospital	0 (0.0)	29 (46.0)	29 (11.6)				
Herbalist	91 (48.7)	0 (0.0)	91 (36.4)			0.01 [0.00 – 0.01] <0.001	0.01 [0.00 – 0.04] <0.001

Pharmacy	48 (25.7)	28 (44.4)	76 (30.4)			0.01 [0.00 – 0.17] 0.001	0.03 [0.00 – 0.47] 0.012
Self-medication	48 (25.7)	6 (9.5)	54 (21.6)	127.89	<0.001	0.01 [0.00 – 0.04] <0.001	0.01 [0.00 – 0.11] <0.001
Source of drinking water							
Ghana Water Company	60 (32.1)	32 (50.8)	92 (36.8)				
Open Market	47 (25.1)	15 (23.8)	62 (24.8)			0.60 [0.29 – 1.23] 0.164	2.45 [0.67 – 8.89] 0.175
Well	80 (42.8)	16 (25.4)	96 (38.4)	8.22	0.016	0.38 [0.19 – 0.75] 0.005	1.02 [0.30 – 3.44] 0.972
Access to home first aid							
No	487 (100.0)	59 (93.6)	246 (98.4)				
Yes	0 (0.0)	4 (6.4)	4 (1.6)	12.07	0.001	28.36 [1.50 – 534.48] 0.026	1.47 [0.03 – 73.16] 0.845

Significant difference. $\alpha < 0.0$

Discussion of Findings

Access to healthcare is fundamental for the development of any economy. The revealing findings of only 25.2% having access to healthcare among the respondents could be disastrous for the health and wellbeing of the female head porters. However, this finding corroborates an earlier study conducted in Accra by [23], who found that only 25% of the head porters have access to healthcare services from health facilities. The current study showed that 74.8% of the female head porters surveyed did not have access to healthcare services due to limited income and other socio-cultural circumstances. Our findings also corroborate studies by [24] and [21] that low income and socio-cultural barriers are a hindrance to health-seeking among female porters. The implication of this is that female head porters may end up complicating their health situations, thereby posing dangers to their health and wellbeing. Poor access to healthcare among female head porters amidst poor health-seeking behaviour suggests that there is the need for appropriate measures to help promote health-seeking and healthy living among the head porters.

The findings from the study also revealed that the majority of the female head porters in Kumasi (74.8%) do not have access to health facilities when they are sick. Again, among those who had access to healthcare, some had to delay for about a year in order to raise the needed income to attend healthcare. This confirms similar findings from leprosy patients in Ethiopia, who had to wait for one year before accessing healthcare [25]. The implication is that the medical conditions of some of these people may be worse off before they get access to healthcare services. Others delayed in accessing medical care because they had to walk for long distances in order to access healthcare services. This study in that regard validates the findings by [18] that many poor female head porters had to walk for long distances before getting physical access to

healthcare. This implies that some patients' conditions may be worsened as a result of the delay in reaching medical centres. This can result in a fatality or exacerbated complications with enormous for public health and wellbeing.

There is inadequate access to and utilization of healthcare services. As asserted by [20], the inability to generate the needed funds to pay the high cost of healthcare services significantly affects the health-seeking of the female head porters. This could have accounted for the low access to healthcare (25.2%) in this study. [21] also found that the majority of the head porters are aware of the existence of a health facility around their residence, although most of them seek healthcare outside formal health facilities. Regarding the factors that influenced the head porter's access to healthcare, our findings revealed that female head porters from the Upper East region were 93% less likely to access healthcare compared to those from the North East region (Table 4). Female head porters with NHIS subscriptions were also 4.62 times more likely to access healthcare as compared to those without NHIS. Clearly, NHIS makes a difference in access to healthcare provision and can influence health-seeking among female head porters.

Although NHIS is known to cut down the cost of medical expenses, some concerns raised were that the scheme could not offer good quality healthcare [26]. Similarly, [23] found that access to and utilization of healthcare services is significantly influenced by the use of NHIS. Though the majority of the female head porters (71.4%) were subscribers of NHIS, only a few of them could renew and utilize their NHIS for healthcare services. This finding agrees with [26], who postulate that the Ministry of Gender, Children and Social Protection enrolled the vulnerable, including head porters, on the NHIS for free. However, due to their poor income status their preference for traditional medicine, most of these enrollees do not utilize the scheme when they are sick.

Another factor that significantly influenced healthcare utilization was the seeking of herbalist and pharmacy services. Comparatively, healthcare utilization in professional medicine were lower as head porters who sought medical services from Herbalist, Pharmacy, and self-medication. About one-third of these head porters sought herbalists when they needed medical services, while quite a proportion also utilized pharmacy or practiced self-medication. This confirms findings of [27] that the popular means of seeking healthcare by head porters was purchasing drugs from pharmacies or drug peddlers instead of professional healthcare givers.

Health challenges facing head porters were also assessed in this current study. Malaria was a major health condition faced by most of the head porters. This confirms earlier studies conducted in Accra by [19], who found malaria as one of the health-related concerns among head porters. Similarly, [18] found out that malaria was a common health challenge amongst female porters. Other health conditions experienced by female head porters in Kumasi include general body pains, typhoid fever, boils, gonorrhoea, and wounds. General body pains experienced by these head porters may be attributed to the heaviness of the loads they carry and the distance they cover carrying the loads. A study conducted by [18] found out that the goods carried by head porters were very heavy.

Recommendations

The research recommended the following for policy and practice based on the findings of the study.

First of all, there is the need for educational campaigns throughout the areas occupied by these head porters to educate them on the need for professional medical care and the importance of health-seeking. This educational campaign should extend to the general citizenry to educate and inform them on the need to

maintain the health of the body and soul. In addition, the government should establish healthcare centers in and around slum areas usually occupied by these migrant women and children. Again, social interventions programs should not only register head porters and other urban poor free but make allowance for free premium renewal. This will encourage them to seek professional healthcare. More healthcare facilities should also be established to ensure that facilities are available for all. This will reduce the time and distance covered to access health needs. Lastly, as a behavioural trait, the head porters need cultural orientation on the need for professional medical attention irrespective of one's beliefs. These will help improve the health-seeking among female head porters and generally contribute to improved healthcare delivery.

Conclusion

Access to health and health-seeking behaviour among female head porters in Kumasi is low. Head porters continue to face a myriad of challenges, such as a poor living environment which worsens their health conditions. Again, due to prejudice and perceptual biases, most female head porters resort to traditional medical treatment to neglect of professional healthcare. As a result, the female head porters are not able to make good use of the National Health Insurance Scheme even upon free initial registration. This is because many of them could not get the needed funds to renew their subscription to the NHIS. Basic problems in healthcare provision continue to exist around migrant communities and Zongos, where most of the female head porters live. It is recommended that educational campaigns in addition to infrastructural provision, will help increase the health-seeking behaviour of female head porters. Also, intensification of social vulnerability interventions can help ameliorate the plight of some of these head porters.

Acknowledgement

The author thanks the almighty God for the gift of wisdom, knowledge, and insight in completing this study. Secondly, the author is grateful to the anonymous supervisors who spent every effort to make sure this work was complete. Lastly, the author's thanks all anonymous reviewers for their valuable insights in enriching this work.

References

- [1] Awumbila, M., Kofi Tehe, J., Litchfield, J., Boakye-Yiadom, L., Deshingkar, P. & Quartey, P. (2015). Are migrant households better off than non-migrant households? Evidence from Ghana. Migration Out of Poverty Working Paper No. 28.
- [2] UNICEF (2007). The impact of international migration: children left behind in selected countries of Latin America and the Caribbean, Division of policy and planning, working paper. University of Ghana <http://ugspace.ug.edu.gh>.
- [3] Deshingkar, P. & Grimm, S. (2005) Voluntary internal migration: An update. Overseas Development Institute.
- [4] Owusu, L., & Yeboah, T. (2018). Living conditions and social determinants of healthcare inequities affecting female migrants in Ghana. *GeoJournal*, 83(5), 1005-1017.
- [5] Tufeiru, A. (2014). The Nexus of Female Capital and North-South Labor Migration in Ghana: A Potential Remedy from Microfinance. *Journal of Developing Societies* (Sage Publications Inc.), 30(1), 91-114. <https://doi.org/10.1177/0169796X13504680>.
- [6] Awumbila, M., Manuh, T., Quartey, P., Bosiakoh, T.A and Tagoe, C.A. (2011a) Migration and Mobility in Ghana: Trends, Issues and Emerging Research Gaps. *Woeli Publishing*: Accra.
- [7] Creswell, J.W. (2009). *Research Design: A Qualitative, Quantitative, and Mixed Method Approaches*. Los Angeles: SAGE Publication.
- [8] Owusu, A. (2012). The Living Conditions of Female Head Porters in the Kumasi Metropolis, Ghana.

Funding

No external funding was received for this study. The researchers themselves covered all costs related to this research.

Competing interests

The authors declare that they have no competing interests.

<https://www.researchgate.net/publication/256932927>

- [9] Otioku, E., Ackah, C. G., & Forkuor, D. (2017). Motivations, income determinants and livelihood vulnerability of female teenage head porters in Kasoa, Ghana. *International Journal of Social Economics*, 44(12), 2396-2408. <https://doi.org/10.1108/IJSE-10-2016-0286>.
- [10] Azumah, F. D. & Onzaberrugu J. N. (2018). The Lifestyle of female head porters: the single mother and her coping strategies at Aboabo, Kumasi. *International Journal of Innovation Education and Research* 6(2).
- [11] ILO (2014). World of work report: Developing with jobs.
- [12] Kwankye, S.O., Anarfi, J. K., Tagoe, (2011) Migration Impacts within the West African Sub-Region. Unpublished paper prepared for the Research Programme Consortium (RPC) on Migrating out of poverty. Brighton: University of Sussex.
- [13] Wilson, A. (2012). Resources for Thriving among Female porters in Accra. A Qualitative study of Migrants from Northern Ghana to Greater Accra Region. A Salutogenic Approach. Retrieved from <https://bora.uib.no/handle/1956/5879>.
- [14] Shamsu-Deen, Z. (2013). Migration and Health Nexus: A Case of Female Porters (Kayayei) in Accra, Ghana. *Research on Humanities and Social Sciences*, 3(3), 103-109.
- [15] Nyarko, S. H., & Tahiru, A. M. (2018). Harsh Working Conditions and Poor Eating Habits: Health-Related Concerns of Female Head Porters (Kayayei) in the Mallam Atta Market, Accra, Ghana.

- BioMed Research International*, 2018, 1–7. <https://doi.org/10.1155/2018/6201837>.
- [16] Shamsu-Deen, Z., & Adadow, Y. (2019). Health-seeking behaviour among migrant female head porters in the City of Accra, Ghana. *Ghana Journal of Development Studies*, 16(2), 138-156–156. <https://doi.org/10.4314/gjds.v16i2.7>.
- [17] Opare, J. A. (2003). Kayayei: The women head porters of southern Ghana. *Journal of Social Development in Africa*, 18(2). <https://doi.org/10.4314/jsda.v18i2.23825>.
- [18] Awumbila, M. and Ardayfio-Schandorf, E (2008). Gendered poverty, migration and livelihood strategies of female porters in Accra, Ghana, *Norwegian journal of Geography*, 62(3):171-179.
- [19] Montgomery, M., R. (2009). Urban poverty and health in developing Countries. *Population Bulletins* Vol. 64, No.2. Stony Brook University.
- [20] Owusu, G., Agyei-Mensah, S. and Lund, R. (2008). Slums of hope and slums of despair: Mobility and livelihoods in Nima, Accra, *Norsk Geografisk Tidsskrift*, 62:180-190.
- [21] Owusu-Ansah, J. K., & Addai, M. (2016). Coping with life in a squatter settlement: The case of migrant women in Kumasi, Ghana. *Journal of Science and Technology*, 33(3).
- [22] Awumbila, M., & Ardayfio-Schandorf, E. (2008). Gendered poverty, migration and livelihood strategies of female porters in Accra, Ghana. *Norwegian Journal of Geography*, 62(3), 171–179. <https://doi.org/10.1080/00291950802335772>.
- [23] Potts, D. (2008). Recent trends in rural-urban and urban-rural migration in sub-Saharan Africa: The empirical evidence and implications for understanding urban livelihood insecurity. Paper No. 6, Department of Geography, King’s College London.
- [24] Kwankye, S.O., Anarfi, J. K., Tagoe, C. A., and Castaldo, A. (2009) Independent North-South Child Migration in Ghana: The Decision-making Process. Migration DRC Working Paper T29.
- [25] Assesfa A., Nash, J., Tefera Tamiru, & Byass, P. (2000). Patterns of health seeking behavior amongst leprosy patients in the former Shao province. *Ethiop. J. Health Dev.*14(1):43- 47.
- [26] Owusu, L. & Yeboah, T. (2017). Living conditions and social determinants of healthcare inequalities affecting female migrants in Ghana. *Geo Journal*.
- [27] Agarwal, S., Attah, M., Apt, N., Grieco, M., Kwakye, E. A., & Turner, J. (1997). Bearing the weight: The kayayoo, Ghana’s working girl child. *International Social Work*, 40(3), 245–263. <https://doi.org/10.1177/002087289704000302>.