

Research Article

Isahaq Mohamoud Asker, Abdulkadir Mohamed Nuh*

Utilization of health service and associated factors among women in childbearing age in selected internally displaced persons camps, Hargeisa – Somaliland

<https://doi.org/10.1515/ohe-2023-0023>

received August 09, 2023; accepted January 30, 2024

Abstract

Introduction – Access to and use services in health care are significant to the development of health outcomes in many African countries. In most sub-Saharan countries, the utilization of health care services is very low. Although global strategies have been planned to improve access to high-quality health services, there are still obstacles to attain. Women of childbearing age usually need more health services than other age groups, and they are more likely to experience complications during pregnancy and childbirth, which might result in increased morbidity and mortality.

Objective – The aim of this study is to assess the utilization of health services and associated factors among women of childbearing age in internal displaced person (IDP) camps in Hargeisa, Somaliland.

Methods – A community-based cross-sectional study design was employed among women of childbearing age in the selected IDP camps in Hargeisa. Of eight IDPs in Hargeisa, three were selected by the lottery method. A total of 402 women of childbearing age were selected using a simple random sampling method. Data were collected using an interviewer-administered structured questionnaire.

Results – The overall health service utilization among women of childbearing age in Hargeisa IDPs was found to be 61.5%. The age groups of 23–27 years old and 33–37 years old were five times and three times more likely to utilize health services, respectively (adjusted odds ratio (AOR) 5.2 (confidence interval (CI): 2.1–13.0)) and (AOR 2.7 (CI: 1.2–5.9)). Married women had lower odds of utilizing

health services than single women. (AOR: 0.23 (0.07–0.73)). The Able reading and writing and primary education women have lower odds of utilizing health services than Secondary and above.

Conclusion – The overall health service utilization among women in childbearing in IDPs in Hargeisa was found to be unsatisfactory. Respondents' age group, marital status, and educational level were found to be significantly associated with health service utilization among mothers in childbearing in IDPs in Hargeisa Somaliland.

Keywords: health services utilization, child bearing age, internally displaced people

Abbreviations

AOR	adjusted odds ratio
COR	Crude Odds ratio
CI	confidence interval
IDP	Internally displaced people
OPD	outpatient department

1 Background

Access to high-quality health care is one of the most vital indicators of community progress. Health services are a precondition for advancing human development, and the lack of health care services makes it difficult to improve human development [1].

The utilization of health care services is an important public health problem in developing countries for the accomplishment of global health coverage. Access to and use services in health care are significant to the development of health outcomes in many African countries. In most sub-Saharan countries, the utilization of health care

* **Corresponding author: Abdulkadir Mohamed Nuh**, Department of Nutrition and Dietetics, Addis Ababa Medical University College, Hargeisa, Somalia, e-mail: abdulkadirnuh91@gmail.com

Isahaq Mohamoud Asker: Department of Clinical Nursing and Midwifery, Addis Ababa Medical University College, Hargeisa, Somalia

services is very low [2]. Reproductive health problems are the leading cause of morbidity and mortality among women of childbearing age in developing countries. Although global strategies have been planned to improve access to high-quality health services, there are still obstacles to attain [2,3].

Women of childbearing age usually need more health services than other age groups, and they are more likely to experience complications during pregnancy and childbirth, which might result in increased morbidity and mortality [4–6]. Internally displaced women are more vulnerable to health-related complications due to a lack of access to health care services. Internal displacement is common in Africa in general and in Somalia in particular due to civil conflicts and droughts.

According to the Global Shelter Cluster, Somaliland hosts approximately 85,000 internally displaced people, most of whom are displaced by civil conflicts in neighbouring regions and natural hazards such as repeated droughts. According to the report, the displaced people who escaped their home territories due to civil conflict and severe drought conditions are supposed to be approximately 45,000 in Woqooyi Galbeed, 26,000 in Togdheer, 5,000 in Sool, 8,000 in Awdal, and 1,000 in the Sanaag region, most of whom lack basic health care services [7]. Most of those people were pastoralist which were affected by severe droughts that wiped out their animals. This study aims to assess the utilization of health services and associated factors among women of childbearing age in selected internal displaced peoples (IDPs) camps in Hargeisa, Somaliland.

2 Materials and methods

2.1 Study area and period

The study was conducted from August 15 to August 30, 2022, in selected IDPs in Hargeisa, Somaliland. Hargeisa is the capital city of Somaliland; the city is located at the centre of Somaliland and near the border with Ethiopia. It is located in the Marodijeh valley passing through the city although it is currently dry. It is the largest city in Somaliland, and estimates using a geographic information system survey in 2007 revealed that the population is somewhere between 350,000 and 850,000 people. However, based on rural–urban migration and city growth in general, officials believe that the current population is actually more than 1.5 million people. Currently, it consists of five main districts, three small districts, and four villages [7]. There are eight internally displaced camps in Hargeisa.

2.2 Study design

A community-based cross-sectional study design was conducted.

2.3 Population

2.3.1 Source of population

The source population included all females of reproductive age among the IDPs in Hargeisa.

2.3.2 Study population

The study population was females in the age group of 18–49 years old in selected IDPs in Hargeisa.

2.4 Eligibility criteria

2.4.1 Inclusion criteria

Inclusion criterion is all females in the age group of 18–49 years old in selected IDPs in Hargeisa present at the time of data collection who are seeking health services.

2.4.2 Exclusion criteria

Women of reproductive age (18–49 years old) who were unable to communicate because of physical and mental disability or severe illness were excluded from the study.

2.5 Sample size determination

The total sample size of 402 was calculated using a single population formula, and assuming a proportion of health service utilization of 50, 95% confidence interval (CI), and 5% margin of error and finally adding a 5% nonresponse rate, simple random sampling was used. The first three IDPs were selected out of 8. Then, the childbearing age females in the selected household were interviewed for the questionnaire.

P = prevalence of health care utilization (50%)

Z = level of confidence at 95% certainty (1.96)

$d = 5\%$ margin of errors

$$n = \frac{(Z_{\alpha/2})^2 \times P \times (1 - P)}{E^2} = \frac{(1.96)^2 \times (0.5) \times (0.5)}{(0.05)^2} = 384$$

After adjusting 5% of nonresponse rate, the final sample of study was 402.

2.6 Sampling technique

There are eight IDPs in Hargeisa. Three of them were selected by the lottery method, namely, Digale, Malawle, and Jimcale. The first house was randomly selected, and then every second house (1, 3, and 5) was selected (Figure 1).

2.7 Study variables

2.7.1 Dependent variables

Health Service Utilization

In this study, health service utilization refers to a measure whether the respondents (females of reproductive age) visited a health care giver in the previous 12 months.

2.7.2 Independent (determinant) variables

Sociodemographic characteristics are sex, mother's educational status, family size, age, and employment status.

Exposure to mass media: In this study, exposure to mass media refers to as whether females adhere some mass media like radio, television, and social media like Facebook, and others as a source of information related to health services because it can affect the utilization of health services.

2.8 Data collection procedure

A structured interviewer-administered questionnaire prepared in the English was used and translated into the Somali and then translated back to English to check for consistency.

The first house was randomly selected, and then every second house (1, 3, and 5) was selected. If a female of reproductive age (18–49 years) was not found in the selected house, the next house was taken until the sample size was obtained. Each IDP has an equal proportion of households to be included.

Data were checked manually for completeness during data collection and before data entry. Then, the data were entered into and analysed with SPSS for Windows (version 23).

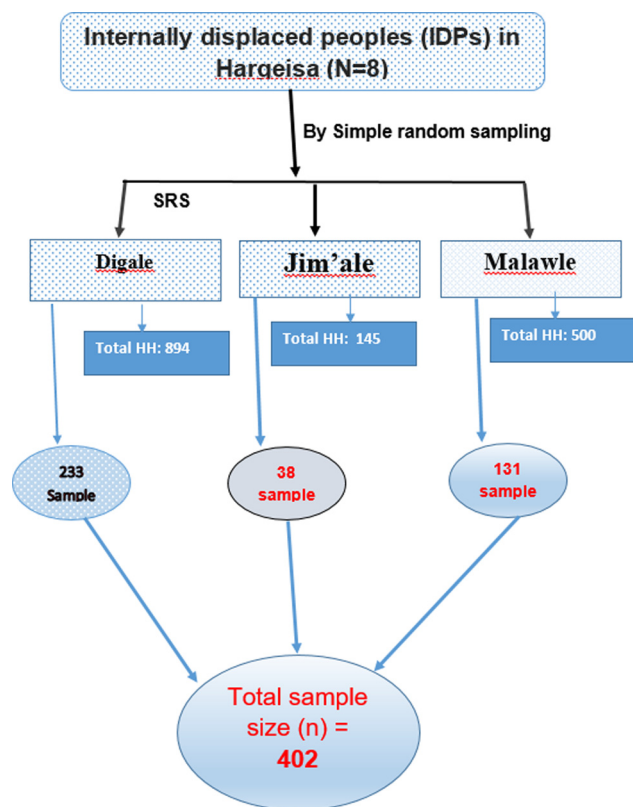


Figure 1: Schematic diagram of the sampling procedure.

2.9 Data analysing

Descriptive analyses, such as proportions, percentages, and measurements of central tendency, were used. Binary logistic regression and multiple logistic regression analyses were used to identify associated variables, and those variables with P values < 0.05 at the 95% CI were considered significant determinants of health service utilization of women of childbearing age.

3 Results

3.1 Sociodemographic characteristics of the study respondents

A total of 402 respondents were interviewed, with a respondent rate of 95%. The mean age of the study participants was

Table 1: Sociodemographic characteristics of study participants ($n = 384$)
Health Service Utilization among IDP Residencies Hargeisa, Somaliland

Variables ($n = 384$)	Frequency	%
Age group		
18–22	37	9.6
23–27	69	18.0
28–32	96	25.0
33–37	80	20.8
≥ 38	102	26.6
Family members		
1–5	162	42.2
6–10	199	51.8
>11	23	6.0
Current marital status		
Married	308	80.2
Divorced	59	15.4
Single	17	4.4
Educational status of respondent		
Illiterate	78	20.3
Able read and written	111	28.9
Primary school	70	18.2
Secondary education and above	125	32.6
Exposure to mass media		
Radio	20	5.2
TV	263	68.5
Social Media	101	26.3

32.40 \pm SD 7.59. Approximately 308 (80.2%) respondents were married, and 111 (28.9%) were able to read and write the local language, which is Somali. More than two-thirds of the study participants (263, 68.5%) were exposed to the media, particularly TV (Table 1).

The majority of respondents (51.8%) had a family size of 6–10 individuals, 42.2% had 1–5 individuals, and only 6% had family members greater than 11. Of the respondents, 80.2% were married, 15.4% were divorced, and only 4.4% were single. At the educational level, 20.3% were illiterate, 23.9% were able to read and write only, and 18.2 and 32.6% were at the primary and secondary levels, respectively (Table 2).

3.2 Health service utilization

The overall health service utilization among Hargeisa IDPs was 61.5%. Two hundred thirty-six respondents visited health facilities in the last 12 months. In total, 87 (36.9%) visited health facilities twice throughout the last year. The majority of study subjects (364, 94.8%) visited governmental health facilities, and 168 (43.8) and 103 (26.8) visited immunization and outpatient department (OPD) sections at health facilities, respectively.

Table 2: Health services utilization among IDP residencies Hargeisa, Somaliland ($n = 384$)

Variables	Frequency	Percent
Have you visit health facility for any purpose for the last year		
Yes	236	61.5
No	148	38.5
How many times did you visit the facilities		
One time	104	27.1
Twice	122	31.8
Three times	10	2.6
Which health facility did you visit		
Gov't Hospital/Health centres	221	57.6
Private Hospital	7	1.8
Traditional Healers	8	2.1
Which health service did you seek		
Maternal health	33	8.6
Immunization child	103	26.8
OPD	77	20.1
ANC	23	6
Travel time to the nearest Health Centre or Hospital on foot		
Near	28	7.3
Medium	166	43.2
Far	42	10.9
Distance to the nearby Health centre/Hospital (in kilometres)		
1–2 km	376	97.9
2–5	8	2.1

3.3 Bivariate and multivariate logistic regression of factors affecting health service utilization among women's residencies at IDP camps ($n = 384$)

Bivariate and multivariate logistic regression was performed. Multiple logistic regression analysis revealed that the respondent's age group was significantly associated with health service utilization, and the age groups of 23–27 years old and 33–37 years old were five times and three times more likely to utilize health services, respectively (adjusted odds ratio (AOR) 5.2 (CI: 2.1–13.0)) and (AOR 2.7 (CI: 1.2–5.9)). Married women had lower odds of utilizing health services than single women (AOR: 0.23 (0.07–0.73) (Table 3).

4 Discussion

Four hundred two females of reproductive age were interviewed, with a respondent rate of 95%. The mean age of the study participants was 32.40 \pm SD 7.59. Approximately 308 (80.2%) respondents were married, and 111 (28.9%) were able to read and write the local language, which is Somali. More than two-thirds of the study participants, 263 (68.5%), were exposed to the media, particularly TV.

Table 3: Bivariate and multivariate analysis of factors affecting health service utilization among women's residencies at IDP camps Hargeisa – Somaliland

Variables	Health service utilization		COR (95%CI)	AOR (95%CI)	P value
	Yes (%)	No (%)			
Age group of respondents					
18–22	23 (9.7)	14 (9.5)	0.91 (0.42–1.9)	2.2 (0.7–6.3)	0.15
23–27	37 (15.7)	32 (21.6)	1.29 (0.69–2.3)	5.2 (2.1–13.0)	0.000
28–32	70 (29.7)	26 (17.6)	0.55 (0.3–1.0)	1.2 (0.5–3.0)	0.57
33–37	45 (19.1)	35 (23.6)	1.26 (0.64–2.1)	2.7 (1.2–5.9)	0.017
≥38	61 (25.8)	41 (27.7)	1	1	1
Marital status of respondents					
Married	199 (84.3)	109 (73.6)	0.29 (0.11–0.8)	0.23 (0.07–0.73)	0.012
Divorced	31 (13.2)	28 (18.9)	0.49 (0.16–1.5)	0.35 (0.11–1.2)	0.088
Single	6 (2.5)	11 (7.4)	1	1	1
Educational status of women's					
Illiterate	46 (19.5)	32 (21.7)	0.83 (0.4–1.5)	0.79 (0.4–1.6)	0.502
Able reading and written	75 (31.8)	36 (24.3)	0.57 (0.3–0.9)	0.50 (0.3–0.9)	0.034
Primary education	47 (19.9)	23 (15.5)	0.58 (0.3–1.1)	0.48 (0.2–0.9)	0.042
Secondary and above	68 (28.8)	57 (38.5)	1	1	1

The overall health service utilization among mothers in childbearing in IDPs in Hargeisa was 61.5% for the last year. The majority of study subjects, 221 (57.6%), visited governmental health facilities, 7 (1.8%) visited private hospitals, and 8 (2.1%) visited traditional healers.

The result of this study is slightly higher than that of a similar study performed in the Dawunt district, North Wollo zone, Ethiopia, which found that the overall health service utilization among fee waiver beneficiaries was 60.98% [8]. This finding was also found to be lower than that of a study performed in southern Ethiopia, which found that health service utilization was 77.2% [2]. The findings of this study are higher than those of a similar study performed in Saesie Tsaeda-Emba District, Tigray Region, Northern Ethiopia, which was found to be 44.3% [9]. The result of this research is almost in line with a research done in districts of Sanandaj City, western Iran, which was concluded that the utilization of health services is 60.8% [10].

Factors that affect health service utilization were marital status, age, and educational level. Being married was less likely to indicate the utilization of health services. This finding is higher than that of a study performed in Jimma [3]. The Able reading and writing and primary education women have lower odds of utilizing health services than secondary and above.

5 Conclusion

Overall health service utilization among mothers in childbearing in Hargeisa IDPs was found to be unsatisfactory

for the last 1 year. Respondent age group and marital status and educational level were found to be significantly associated with health service utilization among mothers in childbearing in IDPs in Hargeisa Somaliland. Younger age groups are more likely to utilize health services compared to older age groups.

5.1 Limitations of the study

This cross-sectional study provided only a snapshot (one point in time) of utilization of health services by the community. There was a lack of baseline information in the study area about basic health services utilization.

Funding information: The authors state no funding involved.

Conflict of interest: The authors state no conflict of interest.

Ethics approval: The research related to human use has been complied with all the relevant national regulations, institutional policies and in accordance with the tenets of the Helsinki Declaration, and has been approved by the Research and Quality assurance office of Addis Ababa Medical University College, Hargeisa campus.

Informed consent: Verbal informed consent was obtained from those participants. Each eligible participant was informed about the purpose of the study. Participants were also assured that their name was not written on the data's questionnaire and confidentiality kept at all levels.

Data availability statement: The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

References

- [1] Hasan Howlader M, Ashfikur Rahman M, Imtiaz Hasan Rahul M. Assessment of factors influencing health care service utilization in rural area of Bangladesh. *Int J Community Med Public Heal*. 2019;6(9):3710.
- [2] Girma F, Jira C, Girma B. Health services utilization and associated factors in jimma zone, South west Ethiopia. *Ethiop J Health Sci*. 2011;21(Suppl 1):85–94. <http://www.ncbi.nlm.nih.gov/pubmed/22435012><http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC3275873>.
- [3] Bitew Workie S, Mekonen N, Michael MW, Molla G, Abrha S, Zema Z, et al. Modern health service utilization and associated factors among adults in Southern Ethiopia. *J Environ Public Health*. 2021;2021:5–11.
- [4] Azevedo MJ. Historical perspectives on the state of health and health systems in Africa, Volume I: The pre-colonial and colonial eras. Springer. 2017. p. 1–73.
- [5] Bazie GW, Adimassie MT. Modern health services utilization and associated factors in North East Ethiopia. *PLoS One*. 2017;12(9):1–10.
- [6] Van Duong D, Binns CW, Lee AH, Hipgrave DB. Measuring client-perceived quality of maternity services in rural Vietnam. *Int J Qual Heal Care*. 2004;16(6):447–52.
- [7] Global Shelter Cluster. Coordinating humanitarian shelter. Overview Somaliland IDPS. <https://sheltercluster.org/hub/somaliland>.
- [8] Elo IT. Utilization of maternal health-care services in Peru: The role of women's education. *Health Transit Rev*. 1992;2(1):49–69.
- [9] Gessesse A, Yitayal M, Kebede M, Amare G. Health service utilization among out-of-pocket payers and fee-wavier users in Saesie Tsaeda-Emba district, Tigray region, Northern Ethiopia: A comparative cross-sectional study. *Risk Manag Healthc Policy*. 2021 Feb;14:695–703. doi: 10.2147/RMHP.S287504, PMID: 33633475; PMCID: PMC7900824.
- [10] Esmailnasab N, Hassanzadeh J, Rezaeian S, Barkhordari M. Use of health care services and associated factors among women. *Iran J Public Health*. 2014 Jan;43(1):70–8. PMID: 26060682; PMCID: PMC4454030.