

International Journal of Agriculture Extension and Social Development

Volume 9; Issue 4; April 2026; Page No. 197-200

Received: 02-02-2026
Accepted: 08-03-2026

Indexed Journal
Peer Reviewed Journal

General health problems of migratory women workers in sugarcane harvesting

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DOI: <https://www.doi.org/10.33545/26180723.2026.v9.i4c.3470>

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Abstract

The present study was conducted to assess general health problems of migratory women workers engaged in sugarcane harvesting. A total of 220 respondents were selected using a random sampling method. Data were collected through a self-structured questionnaire covering demographic details, personal hygiene practices, morbidity conditions, and occupational hazards. The data were analyzed using frequency and percentage for clear interpretation. The findings revealed that most of respondents belonged to the age group of 20–40 years and had low educational levels, with many being illiterate or having only primary education. The majority were from economically weaker sections and migrated periods of four to more than five months. Early age at marriage and first pregnancy were common, along with short birth intervals, indicating limited awareness and access to reproductive health services. Morbidity profile showed that a significant proportion of women suffered from common health issues such as fever, cold, cough, fatigue, and gastrointestinal problems like vomiting and constipation. Fatigue was the most frequently reported problem, mainly due to prolonged physical work. A high prevalence of occupational health hazards was also observed, including musculoskeletal problems such as back pain, shoulder pain, repeated bending, and head loading. Injuries like finger cuts, along with exposure to dust, heat stress, dehydration, and allergic reactions, were commonly reported.

Keywords: Migratory women workers, sugarcane harvesting, general health problems, morbidity pattern, occupational hazards

Introduction

Migratory women workers engaged in sugarcane harvesting represent one of the most vulnerable and marginalized sections of the informal agricultural labour force in India. Seasonal migration, driven primarily by poverty, indebtedness, and lack of local employment opportunities, compels these women to work under harsh and unregulated conditions. Their work involves prolonged hours of physically demanding labour such as cutting, bundling, and loading sugarcane, often without adequate rest, nutrition, or protective equipment. These occupational conditions, combined with poor living environments characterized by temporary shelters, overcrowding, unsafe drinking water, and lack of sanitation facilities, significantly contribute to a wide range of health problems.

The general health problems faced by these women are multifaceted, encompassing physical, reproductive, and nutritional dimensions. Musculoskeletal disorders, including back pain, joint pain, and body fatigue, are highly prevalent due to repetitive strenuous activities and improper working postures. Additionally, exposure to extreme weather conditions, such as intense heat and cold, increases the risk of dehydration, heat stress, and respiratory issues. Poor hygiene and inadequate sanitation further lead to skin infections, gastrointestinal diseases, and urinary tract infections. Nutritional deficiencies, particularly anemia and chronic energy deficiency, are also widespread among

migratory women workers, largely due to irregular meals, low dietary diversity, and increased energy expenditure during labour.

Moreover, limited access to healthcare services exacerbates these health issues. Migratory lifestyles restrict continuity of care, while financial constraints and lack of awareness often delay treatment-seeking behavior. Women frequently neglect their own health due to work pressures and family responsibilities, leading to the progression of untreated illnesses. The cumulative impact of these factors not only affects their physical well-being but also diminishes their overall quality of life and productivity.

Materials and Methods

The population for the study consisted of migratory women workers engaged in sugarcane harvesting in the Belagavi and Bagalkot districts of Karnataka State. These districts were purposively selected as they represent major sugarcane-producing regions that attract large numbers of seasonal migrant laborers from different parts of the state and neighboring regions. The target population included women who migrated temporarily with their families to work in sugarcane fields during the harvesting season. For the purpose of this study, purposive sampling method was employed to select the respondents. This method was chosen because it allowed the researcher to intentionally select participants who met specific criteria relevant to the

study objectives.

Sample

The sample size was determined based on the availability of workers and feasibility of data collection. Finally, a total of 220 sugarcane harvesting migratory women were selected from different sugarcane harvesting sites in Belagavi and Bagalkot districts.

Tool used for study

Self-structured schedule

A self-structured schedule was used to collect baseline information from the respondents. It consisted of basic

demographic data, including age, education, food habits, duration of migration, age at menarche, duration of menstrual flow, age at marriage, age at first pregnancy, spacing between children, incidence of stillbirth, breastfeeding practices, number of children, occupational hazards and morbidity pattern experienced during sugarcane harvesting period.

Statistical tools

Frequency and percentage were used for the analysis of data.

Results and Discussion

Table 1: Demographic characteristics of migratory women workers in sugarcane harvesting N=220

Variables	Classification	Frequency	Percentage
Age	20-30 years	81	36.80
	30-40 years	72	32.70
	40-50 years	67	30.50
Education	Professional qualification with technical degrees or diploma e.g. Doctor, Eng, CA, MBA, etc.	-	-
	Post-graduation (non-technical incl. Ph.D)	-	-
	Graduation	-	-
	10 th class pass but < Graduation	4	1.80
	Primary pass < 10 th	42	19.10
	< primary but attended school for at least one year	69	31.40
	Just literate but no schooling	54	24.50
Food habits	Illiterate	51	23.20
	Vegetarian	-	-
	Non- vegetarian	179	81.40
Duration of migration	Eggterian	41	18.60
	< 4 months	45	20.50
	4-5 months	70	31.80
Age at menarche	> 5 months	105	47.70
	10-12 years	63	28.60
	13-14 years	64	29.10
Duration of menstrual flow	> 14 years	93	42.30
	1-3 days	37	16.80
	4-6 days	113	51.40
Age at marriage	> 6 days	70	31.80
	< 18	125	56.80
	18-20 years	72	32.70
Age at first pregnancy	> 20 years	23	10.50
	< 18 years	110	50.00
	18-20 years	68	30.90
Spacing between children	> 20 years	42	19.10
	1-2 years	113	51.40
	2-3 years	107	48.60
Still birth	> 3 years	-	-
	Yes	82	37.70
Breast feeding	No	138	62.70
	Yes	150	68.18
No of children	No	70	31.82
	1-3	151	68.60
	4-6	63	28.60
	>6	6	2.70

The distribution of migratory women workers in sugarcane harvesting by demographic characteristics is shown in Table 1. The results revealed 36.80 per cent of the respondents in the age group of 20–30 years followed by 32.70 per cent in the age group of 30–40 years and 30.50 per cent in 40–50 years. These findings are consistent with the study conducted by Deshpande (2018) on sugarcane migrant workers in Maharashtra, which reported that the majority of

workers belonged to the younger and middle age groups (20–40 years).

With respect to education, about 31.40 per cent had attended school for at least one year but had not completed primary education followed by 24.50 per cent who were just literate with no formal schooling, 23.20 per cent were illiterate, 19.10 per cent had completed primary education below 10th class and only 1.80 per cent had studied 10th class. None of

the respondents reported having completed graduation or professional qualifications. Similarly, a study by Deshpande (2018) reported that the majority of sugarcane migrant workers had low educational attainment, with most being illiterate or having only primary-level education. This low level of education limits their employment opportunities and reduces their awareness regarding health and welfare services. Regarding food habits, majority (81.40%) of them were non-vegetarian, while 18.60 per cent of the respondents were eggitarian. With respect to duration of migration, about 47.70 per cent of the respondents migrated for more than 5 months followed by 31.80 per cent for 4–5 months and 20.50 per cent for less than 4 months. Similarly, Keshri and Bhagat (2013) reported that seasonal migrant labourers in India predominantly migrate for longer durations, typically ranging from four to six months.

In terms of maternal health, 42.30 per cent of the women experienced menarche after 14 years of age, 29.10 per cent between 13–14 years and 28.60 per cent between 10–12 years. The duration of menstrual flow was 4–6 days for more than half (51.40%) of the respondents, while 31.80 per cent reported more than 6 days and 16.80 per cent reported only 1–3 days. With regard to marriage, more than half (56.80%) of the respondents were married before the age of

18 years followed by 32.70 per cent between 18–20 years and 10.50 per cent after 20 years. A study by Rao *et al.* (2015) ^[9] similarly reported that a majority of women agricultural labourers were married before the age of 18 years, reflecting the persistence of early marriage practices in rural and economically weaker communities. With respect to age at pregnancy, half of the women (50.00%) experienced their first pregnancy before the age of 18 years followed by 30.90 per cent between 18–20 years and 19.10 per cent after 20 years. Similarly Raj *et al.* (2009) ^[6] reported that women married at younger ages are more likely to have early and closely spaced pregnancies, especially among marginalized and migrant populations. With respect to spacing between children, about 51.40 per cent of them reported a gap of 1–2 years and 48.60 per cent had a gap of 2–3 years, with none exceeding 3 years. With respect to still birth, around 37.70 per cent of the respondents had still births, while 62.30 per cent had normal child birth. With regard to breastfeeding, majority (68.18%) of them were regularly breastfeeding their children, while 31.82 per cent were irregular in breastfeeding. With regard to the number of children, 68.60 per cent had 1–3 children, 28.60 per cent had 4–6 children and 2.70 per cent had more than 6 children.

Table 2: Personal health and hygiene of migratory women workers in sugarcane harvesting N=220

Variables		Frequency	Percentage
Bathing	Yes	220	100.00
Combing	Yes	220	100.00
Brushing	Yes	220	100.00
Washing clothes	Yes	220	100.00
Clipping nails	No	220	100.00
Washing hands before meal and after defecation	Yes	220	100.00
Hair wash	Once in week	-	-
	Once in 15 days	59	26.80
	Once in month	161	73.20
Chewing habits	Pan	29	13.20
	Tobacco	99	45.00
	Areca nut	92	41.80
Eating outside food	Yes	143	65.00
	No	77	35.00

Personal health and hygiene of migratory women workers in sugarcane harvesting is represented in Table 2. Almost all (100.00%) the respondents reported bathing, combing, brushing teeth, washing clothes, washing hands before meals and after defecation regularly. However, 100.00 per cent of them reported not clipping their nails. Similarly, Mohan, (2023) ^[1] found that female migrant workers maintained essential hygiene behaviors, but poor access to water and sanitation limited practices like regular hair

washing and nail care. For hair washing frequency, 73.20 per cent of them washed their hair once a month, while 26.80 per cent did once in 15 days, with none of them washing weekly. In relation to chewing habits, 45.00 per cent of the respondents used tobacco, 41.80 per cent chewed arecanut and 13.20 per cent ate betel leaves. Concerning eating outside food, more than half (65.00%) of them reported consuming outside food, whereas 35.00 per cent did not.

Table 3: Morbidity pattern for last one-month among migratory women workers in sugarcane harvesting N=220

Symptoms	Frequency	Percentage
Fever	72	32.70
Cold	137	62.30
Cough	105	47.70
Vomiting	40	18.20
Constipation	58	26.40
Diarrhoea	-	-
General malaria	-	-
Fatigue	166	75.50

Table 3 pointed out the distribution of migratory women workers in sugarcane harvesting by morbidity pattern for the previous one month. Results revealed that around 32.70 per cent of the women had suffered from fever, 62.30 per cent had experienced cold and 47.70 per cent had cough. Vomiting was reported by 18.20 per cent and constipation by 26.40 per cent of the respondents, while no cases of diarrhoea and malaria were noted. Fatigue was a major complaint experienced by 75.50 per cent of the women.

Table 4: Occupational health hazards of migratory women workers in sugarcane harvesting

Symptoms	Frequency	Percentage
Back pain due to load	220	100.00
Cuts to fingers	220	100.00
Head load	220	100.00
Repeated bending	220	100.00
Shoulder pain	219	99.50
Dust problem	219	99.50
Headache	218	99.10
Leg / foot pain	156	70.90
Heavy bleeding	147	66.80
Dehydration	73	33.20
Heat stress	70	31.80
Chest pain	66	30.00
Itching	64	29.10
Hearing problem	61	27.70
Allergy to insecticides and chemicals	120	54.50
Allergy to hazardous weeds	150	68.20
Allergy to waxy surface of sugarcane	172	78.20
Allergy to serrated leaf blade of sugarcane	180	81.80

Table 4 represents the occupational health hazards experienced by migratory women workers in sugarcane harvesting. The findings revealed that back pain, cuts to fingers, head load and repeated bending were reported by all (100.00%) respondents. Almost all the workers suffered from shoulder pain (99.50%), dust-related problems (99.50%) and headache (99.10%). Other common issues included leg and foot pain (70.90%), heavy bleeding (66.80%) and dehydration (33.20%). Additionally, heat stress (31.80%), chest pain (30.00%), itching (29.10%) and hearing problems (27.70%) were also reported. Further, majority (81.80%) of respondents were affected by serrated leaf blade of sugarcane followed by 78.20 per cent with waxy surface of sugarcane, 68.20 per cent had allergies to hazardous weeds and more than half (54.50%) of them had allergies to insecticides and chemicals. Similarly a study by Gangopadhyay *et al.* (2010) [2] reported that sugarcane cutters experienced a high prevalence of musculoskeletal problems such as back pain, shoulder pain, and joint pain due to repetitive bending, heavy load carrying, and prolonged working hours. Similarly, Ramesh *et al.* (2016) [7] documented frequent injuries like cuts and abrasions to fingers and hands among sugarcane harvesters caused by the use of sharp tools and contact with sugarcane leaves. A study by Mishra and Satapathy (2016) [5] found that agricultural workers were highly exposed to dust, heat, and chemicals, leading to respiratory problems, headaches, skin irritation, and dehydration. Further, Kiran *et al.* (2018) [4] reported that female agricultural labourers commonly suffered from fatigue, heat stress, and excessive physical strain, along with reproductive issues such as heavy menstrual bleeding.

Conclusion

The present study concludes that migratory women workers engaged in sugarcane harvesting are a highly vulnerable group experiencing multiple socio-demographic, health, and occupational challenges. The findings revealed that the majority of the women belonged to the younger and middle age groups, had low levels of education, and were from economically weaker sections. Early age at marriage and first pregnancy, along with shorter birth spacing, were commonly observed, indicating poor reproductive health awareness and limited access to healthcare services. The duration of migration was relatively long, further exposing them to unstable living and working conditions.

The study also highlighted a high prevalence of morbidity and occupational health hazards among the respondents. Common health problems such as fever, cold, cough, fatigue, and gastrointestinal issues were widely reported. Occupational hazards including musculoskeletal disorders, injuries, exposure to dust, heat stress, and allergies were highly prevalent due to the strenuous nature of work and lack of protective measures. Although basic personal hygiene practices were followed, inadequate facilities and poor environmental conditions affected overall health.

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