Original Research Article

Knowledge and practices regrading food of female domestic workers (FDW/ Housemaids) in selected areas of Pune city

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A B S T R A C T

Aim: To study the knowledge and practices regarding food of female domestic workers (housemaids) in selected areas of Pune city.

Materials and Methods: A non-probability convivence sampling technique was used to interview 150 housemaids in selected areas of Pune city. The study was conducted from March 2023 to April 2023. The data was coded in MS Excel and was analyzed by using SPSS software version 20. The statistical significance was declared at p value < 0.05.

Results: A total of 150 participants were interviewed & the responses were recorded, analyzed & results were observed, the significant correlation between Knowledge and Practices is seen at a 0.001 level of significance, which can be discussed as, the knowledge of the housemaids is high in (70.6 %) of and the housemaids practice the knowledge in their homes as well as work places with a moderate (58%) and high (41.4%) percentages. Practices regarding eating, meal patterns, cooking, dietary habits and food and personal hygiene are also observed.

Conclusion: A significant correlation was found between knowledge and practices regarding food amongst female domestic workers (housemaids) in Pune city.

1. Introduction

Nutrition is vital for health. It consists of not only the inclusion of correct foods in the diet but also the inclusion of correct methods of food preparation, maintenance of hygiene, eating practices and healthy food choices on a daily basis. India as a developing country, although with people having increasing awareness of food and nutrition there lies a part of this country's population which is still unaware of the correct food choices, their preparation methods, their nutritive value, their purpose of inclusion in the diet and correct hygiene practices regarding food.[1] A specific population of people to highlight is the female domestic workers (housemaids), which are very commonly seen in upper middle-class and middle-class house set ups. Having a housemaid has been a common practice either as a full or a part-time housemaid for the household chores in urban cities. Majority of them are illiterate or have had only their basic primary education due to their socio-economic status - a reason why there could be a lack of awareness regarding the basic hygiene, preparation methods, healthy choices regarding food and the eating practices; these practices connected to housemaids are of major concern. As housemaids are responsible for carrying out all the household chores, cleaning, laundry as well as many of the times cooking and serving the food to elders and children in the house; this leads to stress, anxiety and causes mental health issues in housemaids which affects their work quality.[2] Provision of nutrition is carried out by the maids in the house who can unknowingly and sometimes

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knowingly due to external factors such as lack of time, multiple work shifts, etc. can tend to neglect the correct food & hygiene practices. These have an impact on the health of people in the house she works for and on the health of her family[3] as well because of lack of knowledge and awareness regarding correct food practices.[4] A maid's own health is also compromised because of the same, lack of lean mass, high BMI due to obesity, musculoskeletal disorders are common[5,6] this impacts the families the maid works for, her own family and her own health as well and in turn lack of knowledge and inability to put the knowledge to practice, if any, affects the whole community, especially when the world has known the causes and effects of Covid-19 pandemic,[7] it becomes altogether more important to focus on the underrated concern of knowledge and practices of housemaids regarding food.

2. Objective

To study the knowledge and practices regarding food practices among female domestic workers (housemaids) in selected areas of Pune city.

2.1. Operational definitions

Food practices - The practices relating to food consisting mainly of meal pattern, cooking, eating choices, dietary habits and hygiene related to cooking food and personal hygiene.

Female domestic workers (FDWs/housemaids) - Maids working in the house as a full time or a part-time job of handling household chores and many times assisting in cooking food

3. Materials and Methods

A cross-sectional study was conducted in one ward of each geographical zone of Pune city, Domestic workers employed in randomly selected residential areas were included and data was collected by interview technique during house visits; the data was analyzed by using IBM SPSS 25.0 USA statistical software. 573 of total housemaids, 62% were between 20 to 40 years of age, 35% were educated till middle school. Most of the FDWs had their own house with electricity and water supply. Half of the housemaids were employed for 6 to 10 years and were working in 3 to 4 houses. Approximately 50% of the FDWs earned around 4000 to 8000 per month. In the conclusion of the study the living and working conditions of these FWDs are not as pitiful as they are depicted in previous studies (Aarti B. Pokale et al. 2021).[2] (Leila Arfaoui et al. 2021)[8] conducted a study on Food safety knowledge and self-reported practices among Saudi women. The study states that foodborne illnesses due to improper handling of food in home kitchens are one of the significant public health challenges worldwide. This cross- sectional study was conducted to investigate food safety knowledge and self-reported food practices in adult Saudi women. Participants showed an overall knowledge score: 72% and about 4.5%, 57.5% and 38% had low, intermediate and good knowledge scores, respectively. Women had higher scores of knowledges in personal hygiene and purchasing and storage compared to food preparation and cooking. Women aged 26 years and older, those having marriage experience and those with children had significantly higher food safety knowledge than the young, single and women without children. Women with higher levels of education and those employed in health-related professions showed significantly higher knowledge and practice scores. In conclusion, the study reported an intermediate overall food safety knowledge and practices among adult Saudi women.

A cross-sectional study was carried out on 120 female laborers working in construction industries, cashew factories and beedi making factories. Standardized interviews were scheduled to elicit information such as demography, food purchasing patterns and frequency of consuming different foods, weight, height, MUAC were recorded by using standard procedures and equipment. Majority of the participants were daily wagers (72%) and 21% were on monthly payments. Non veg food consumption was done by 82%, food consumption was seen high at 69.4%, curd and green vegetables were a must in the lunch time meals. Type of payment and diet type i.e., food habit (vegetarian/ non vegetarian) exerted an influence on nutritional status of women. 68.5% of daily wagers and 72% of monthly payment receivers were in a normal range of BMI. Occurrence of obesity was less however, 84% of all participants regardless of payment and diet type had a WHR above 0.91 which indicated the prevalence of central obesity. In conclusion of the study, the nutritional status of women laborers was influenced by the type of payments and central obesity was found to be a common feature (Archana Prabhat et al. 2012).[1]

3.1. Methodology

3.1.1. Type of study
An offline study was conducted to study the association between knowledge and practices regarding food in housemaids. The study type was non-probability convenience sampling study and the data collection was collected through an offline survey using one on one survey questionnaire interview to assess the knowledge and practices regarding food.

3.1.2. Study locale
The study participants were adult female domestic workers (housemaids) from selected areas of Pune city (Katraj, Sahakarnagar, Parvati, Santoshi nagar, Kelewadi, Mangalwadi, Paan mala, Ganesh mala, Kothrud, Shivtirtha nagar, Shastri nagar, Bhusari, Kondhwa and Erandwane).

3.1.3. Sampling method

Non probability convenience sampling method was used for data collection.

3.1.4. Sample size

The sample size was calculated using the prevalence from a study conducted on housemaids on living and working conditions of Female Domestic workers in Pune city by Aarti B. Pokale et al. 2021. Sample Size (N) Calculation: According to Cochran Formula,

N=Where,

Z=Z static for CI (For C1 95\%=1.96)

d= Precision (5\%=0.05)

P= Prevalence (%) from previous studies (95\%=0.95)

Using the above formula, Sample Size (N) = 300

N=50%300 =150

3.1.5. Inclusion criteria

1. Participants of age 18-60 years.
2. Gender: females.

3.1.6. Exclusion criteria

1. Participants below 18 & above 60 years of age.
2. Participants who were not housemaids.

3.1.7. Ethical consideration

The study was conducted in accordance with the principles stated in Declaration of Helsinki, 1964 and its amendment. Informed consent was taken from participants prior to their enrolment in this study. Participants were enrolled in this study from March 2023 to April 2023.

3.1.8. Data Collection and tools of data collection

Dependent variables for the present study were the knowledge and practices regarding food. To evaluate more, the factors that were considered in this study for dependent variables were the knowledge and practices related to food consisting of meal patterns, cooking practices, eating practices, dietary habits and food and personal hygiene. The knowledge and practices are the dependent variables which are dependent on the independent variables like age, BMI, educational status and socio- economic status of the housemaids. On the basis of these independent and dependent variables of the respondents a study was conducted to see the correlation between these variables.

Data was primary data. Data was collected using questionnaires. The first page of the survey consisted of informed consent form and participants in this study were completely voluntary. The information obtained was kept confidential and only used for academic purposes. The sections of questionnaire personal data, educational status, socioeconomic status, food knowledge & food practices regarding meal patterns, cooking practices, eating practices, dietary habits and food & self-hygiene practices.

Statements regarding the same were included. The final format of all sections statements, rated on three-point response continuum namely 'Yes', 'Sometimes' and 'No'. The scores assigned to these responses categories were 2, 1 and 0 respectively. The all-sections score was calculated by adding up the scores obtained by respondents on all the statements and considered as individual score.

Scores were given to each question accordingly. Three categorizations of the scores in done on the basis of mean + SD into three categories and participants were categorized according to individual score.

4. Result and Discussion

The respondents were studied in terms of their demographic characteristics such as age, BMI, education and socio personal characteristics. These demographic characteristics and socio-economic status have an immense influence on the response's studies from the participants.

The age group which was divided into two main categories and the majority (62.7%) of the housemaids are from the age group 41 to 60 years and the minority (37.4%) of the house maids are from the age group 20 to 40 years.

Table 1: Age of respondents

Age group Category (years)	Respondents (n=150)	Percentage %
20 - 40 years	56	37. 4%
41 - 60 years	94	62.7%
	Total: 150	Total: 100%

Table 2: MI categories

Categories of BMI	Respondents(n=16)	Percentage %
Underweight	29	19.3%
Normal	84	56%
Pre obese	32	21.4%
Obese class 1	2	1.3%
Obese class 2	3	2%
	Total: 150	Total: 100%

Table 2 shows Body Mass Index category groups of the housemaids, the majority (56%) of them fall into Normal category, followed by (21.4%) in Pre obese category, Underweight category (19.3%), Obese class 1 category (1.3%) and (2%) in Obese class 2 category.

Figure 1 depicts the education level of the housemaid's, majority (58%) was illiterate followed by (38%) went to primary school and a minority (4%) of the housemaids went to middle school. The literacy rate of housemaids is mostly towards illiteracy and only a small population of housemaids went to primary and middle school.

The socio-economic status of the housemaids the majority (63.3%) of them are from lower socio-economic strata followed by (32%) are from Upper lower socio-
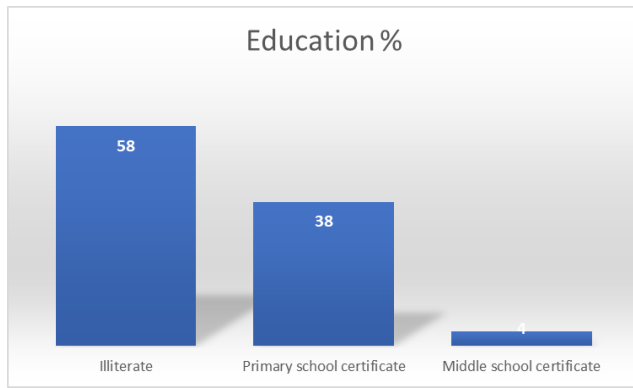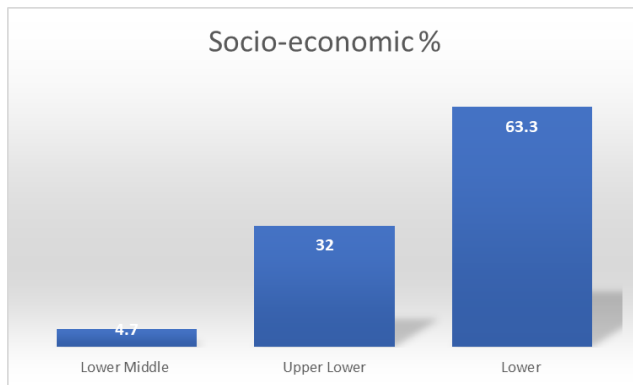
Figure 1: Ducation categories

Figure 2: ES categories

economic strata and lastly minority (4.7%) is towards Lower Middle socio-economic strata of the housemaids. [9]

Table 3: Knowledge level regarding food- meal patterns, cooking practices, eating practices, dietary habits and food and personal hygiene

Categories of Knowledge level	Respondents (n=16)	Percentage %
Low	0	0%
Medium	44	29.4%
High	106	70.6%
	Total: 150	Total: 100%

Table 4: Practices level regarding food- meal patterns, cooking practices, eating practices, dietary habits and food and personal hygiene

Categories of Practice	Respondents (n=150)	Percentage %
Low	1	0.6%
Medium	87	58%
High	62	41.4%
	Total: 150	Total: 100%

The majority (58%) of practices are in the medium category of practice followed by the (41.4%) of the housemaids who range in the High category of practices. Correct food practice prevalence is less than the incorrect food practices. And a (0.6%) of housemaids falls into the category of Low practices which indicates the lesser prevalence for incorrect practices.

According to Table 5, it is observed the independent variable; age of the housemaids has been found to be correlated with knowledge at 0.05 level of significance, that is the higher the age of the housemaids, higher the amount of knowledge; as (58%) of the housemaids despite being illiterate have developed an understanding or say knowledge by the means of experience and learning throughout their age. Hence the knowledge of the housemaids is seen to be significantly correlated with age of the housemaids. The education of the housemaids is observed to be negatively correlated with the socio-economic status of the housemaids at a 0.01 level of significance, which states that the low socio-economic status of the housemaids (63.3%) is the one of the main reasons why there is a higher percentage of uneducated housemaids and a low percent of primary school (3%) and middle school (4%) attended housemaids. The significant correlation between Knowledge and Practices is seen at a 0.001 level of significance, which can be discussed as, the knowledge of the housemaids is high in (70.6%) of and the housemaids practice the knowledge in their homes as well as work places with a moderate (58%) and high (41.4%) percentages. Also, interpretation of the same can be stated as the knowledge acquired through the increasing age of the housemaids went on increasing as they implemented the practices in their daily lives. Although the percentage of practices should have been higher in Excellent category of practices which is 41.4% but it is rather slightly high than that in good category of practices which is 58% with a difference of 16.6%. Only a 0.6% of housemaids are observed to practicing Poor category of practices which can be due to less knowledge and experience; lack of time which could be because of multiple working shifts in a day. This states that the Knowledge is higher regarding food practices in housemaids and they practice the correct food practices in their daily lives at home and at work despite being illiterate as the knowledge gained is through experience with increasing age of the housemaids. [10–12]

5. Conclusion

The Knowledge and Practices were studied in which the prevalence of correct knowledge of food is more than the incorrect knowledge and the Practices observed states that the prevalence of correct practices being practiced is more than the prevalence of incorrect food handling practices in housemaids. The age of the housemaids was seen to be significantly correlated with the knowledge of food practices, the conclusion can be drawn from this correlation

Table 5: Correlation between the independent and dependent variables of the respondents

Variables	Age	Bmi	Education	Socio-economic status	Knowledge	Practices
Age	1.000	-.054	-.212**	-.011	-.169*	.026
		-.489	.008	.887	.039	.754
	150	150	150	150	150	150
Bmi	-.054	1.00	-.059	-.024	-0.51	-.080
	.489	0	.434	.748	.508	.297
	150	150	150	150	150	150
Education	-.212**	-.059	1.000	-.294**	-.117	-.065
	.008	.434		.000	.144	.418
	150	150	150	150	150	150
Socio-economic status	.011	-.024	-.294**	1.000	.135	.014
	.887	.748	.000		.090	.863
	150	150	150	150	150	150
Knowledge	.169*	-.051	-.117	.135	1.000	.264**
	.039	.508	.144	.090		.001
	150	150	150	150	150	150
Practices	.026	-.080	-.065	.014	.264**	1.000
	.754	.297	.418	.863	.001	
	150	150	150	150	150	150

**.Correlation is significant at the level 0.01 level (2-tailed)

*.Correlation is significant at the 0.05 level (2-tailed)

that the majority of the housemaids being illiterate the knowledge is high due to the experience of the housemaids, the knowledge is acquired through experience, learning skills of the housemaids. As the socio-economic status of the housemaids is low and almost many of them belong to the lower socio-economic status that means they were not able to afford their education.[13,14] The knowledge of housemaids regarding food practices is actually being practiced by them as the majority of the housemaids are illiterate, we can conclude that the knowledge acquired through them could be because of the experience gained with time, by exchange of thoughts or practices by other people, influence of other people's practices on them, through some traditional practices of various cultures, or by learning and acquiring skill or practices through experiences on their own. In conclusion of the study the knowledge regarding food practices of the housemaids is categorized under moderate category, meaning housemaids have basic to moderate knowledge of the correct food practices, and they practice them in their daily lives in their own house as well as at their workplaces.[15]

6. Source of Funding

None.

7. Conflict of Interest

None.

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