

Research Paper

Perceived social attitude towards role of women in rural dairy enterprise

S. J. Jadav^{*}., Durgga Rani V., K. K. Tyagi V. V. Gamit and V.D. Chauhan

Department of Veterinary & Animal Husbandry Extension Education, Vanbandhu College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari-396450, Gujarat, India

*Corresponding author: sanjay.jadav89@gmail.com

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Abstract

Present study was conducted to elucidate structure of social attitude towards perceived role of women in rural dairy enterprise agreed upon by society. Total of 160 respondents from 8 villages belonging to 4 talukas of Dahod district (Gujarat) were selected using stratified random sampling. Role of women in rural dairy enterprise was hypothesized to have 5 major roles viz. Nutrition, Management, Breeding, Healthcare and Finance. There were 10, 8, 4, 7 and 5 sub roles (Likert variables) allotted to each major role. Responses on these 34 five points Likert type variables measuring social attitude towards different aspects of role of women in rural dairy enterprise were collected using pre-structured questionnaire. Analysis using Kruskal-Wallis (KW) test revealed an arrangement of major roles as 'Management→Nutrition→Healthcare→Breeding→Finance' ordered in decreasing trend of women role in these major activities. Role of women if depicted as five stratum pyramid, management and finance had occupied highest and lowest positions respectively. Further data mining using Mann-Whitney (M-W) test brought healthcare and breeding under common stratum with no significant differences ($p < 0.05$). Therefore, our hypothesized major roles of women with five stratum pyramid were actually agreed as four stratum by society ordered as 'Management→Nutrition→Healthcare and Breeding→Finance'. Exploration of sub-roles under each major role was carried out in similar way using Friedman and Wilcoxon Signed Ranks (WSR) tests. Hypothesized sub-roles with 10, 8, 4, 7 and 5 stratum under respective major roles were finally found to be stratified into 4, 4, 2, 4 and 4 stratum respectively. These findings indicated that the perceived role of women in rural dairy enterprise was actually stratified into 18 sub roles instead of 34. Stratified structure of women role in rural dairy enterprise depicted in this study will provide baseline framework for further women role oriented studies. Rural dairying is women dominated enterprise. Women spent more time than men in rural dairy activities.

Keywords: Women, Rural dairy enterprise, Nutrition, Management, Breeding, Healthcare, Finance.

Dairying is one of the important enterprises, which supports the rural households by providing gainful employment and steady income. The importance of milk and milk products for the physical development and well being of human beings is universally recognized. In India, women's involvement in livestock management is a long standing tradition

and dairy farming has been an integral part of a homestead farming system. About 75 million women as against 15 million men are engaged in dairying in India (Thakur and Chander, 2006). Although much of the work related to livestock farming is carried out by women (Durgga and Subhadra, 2009) but studies related to the structure of their perceived role agreed upon by society are scarce in the literature.

Materials and Methods

The study was conducted in Dahod district of Gujarat state. Four randomly selected talukas, namely Jhalod, Dahod, Fatepura and Limkheda were included in the study out of seven talukas of Dahod district. Two villages were randomly selected from each *taluka*. Data on 160 respondents were collected by randomly selecting 20 respondents from each village using stratified random sampling. Five point agreement scale 1= strongly disagree, 2= disagree, 3= neither, 4= agree and 5= strongly agree (Likert, 1932) was used in the present investigation. The role of women in rural dairy enterprise was hypothesized to have 5 major roles viz. Nutrition, Management, Breeding, Health care and Finance. There were 10, 8, 4, 7 and 5 sub-roles (Likert variables) allotted to each major role (Figure 1). Five point Likert type were collected responses on 34 variables measuring social attitude towards different aspects of the role of women in rural dairy enterprise using a pre-structured questionnaire. The factor programme of SPSS (2001) statistical package was used for the Mann-Whitney Test, Friedman Test, Wilcoxon Signed Ranks Test and Kruskal-Wallis Test.

Table 1. Role of women in major components of rural dairy enterprise

Sr. No.	Major Components	MR	Rank	MW
2	Management	3509.04	1	d
1	Nutrition	3174.63	2	c
4	Healthcare	2499.98	3	b
3	Breeding	2484.06	4	b
5	Finance	1048.46	5	a

MR: Mean Rank, MW: Mann-Whitney Test, Kruskal-Wallis Test

Results and Discussion

The role of women among major components in rural dairy enterprise has been presented in Table 1. Analysis using Kruskal-Wallis (KW) test revealed that management (3509.04) obtained the highest mean rank followed by nutrition (3174.63), healthcare (2499.98), breeding (2484.06) and finance

Table 2. Likert-type variables measuring different aspects of women’s role in rural dairy enterprise

Sr. No.	Variables	MR	Rank
1	Feeding the animals	22.27	11
2	Harvesting fodder crops	21.38	14
3	Taking animals for grazing	20.59	17
4	Fodder collection	21.19	15
5	Storage of feed & fodder	21.06	16
6	Chaffing fodder	15.95	22
7	Soaking of concentrate	18.11	21
8	To offering concentrate	20.45	18
9	Feeding young calf`	23.14	7
10	Watering the animals	22.59	10
11	Cleaning of animal shed	26.60	1
12	Washing & grooming of animals	25.48	3
13	Milking	25.26	4
14	Cleaning of Utensils	25.91	2
15	Disposal of cow dung	24.28	5
16	Maintaining farm & dairy records	6.12	32
17	Care of new born calf	22.90	8
18	Weaning & management of Calf	22.23	12
19	Taking animals for A.I./ natural service	12.96	24
20	Taking animals for pregnancy diagnosis	12.07	25
21	Care during pregnancy	19.43	20
22	Involvement during parturition	20.41	19
23	Care of new born	22.78	9
24	Care of pregnant animals	23.52	6
25	Care of sick animals	22.09	13
26	Taking animals for treatment	13.52	23
27	Taking animals for Vaccination or Deworming	11.07	26
28	Purchase of vet medicine	10.02	28
29	Disposal of carcass	9.10	29
30	Sale of milk & milk products	10.82	27
31	Sale & purchase of animals	7.41	30
32	Purchase of feeds & fodder	6.43	31
33	Getting loans/credit from banks	4.00	33
34	Insurance	3.89	34

MR: Mean Rank, Friedman Test

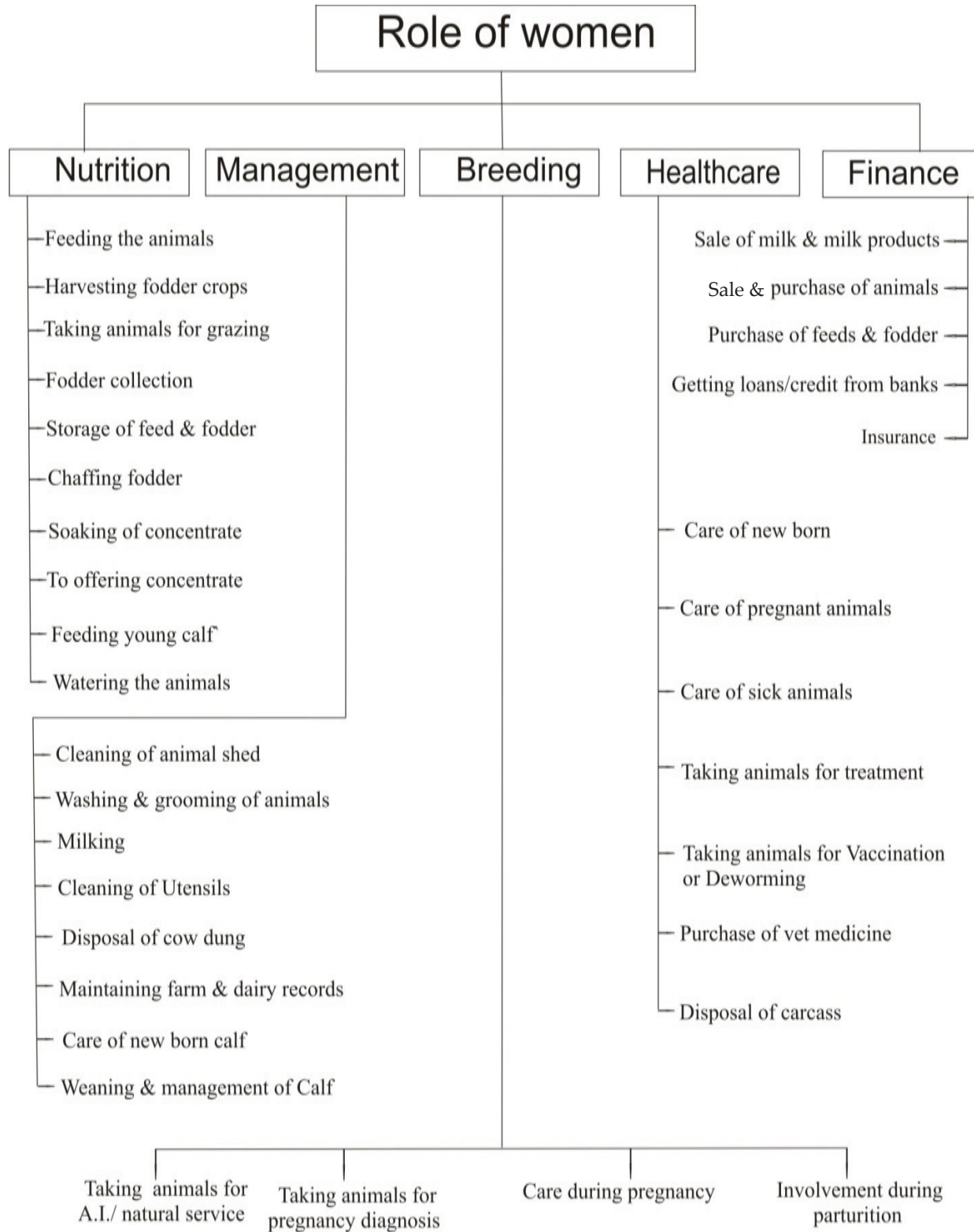


Figure 1: Hypothesized major and sub roles of women in rural dairy enterprise

(1048.46). Involvement of rural women was the highest in management activities. In financial type of activities, women were less involved. Similar findings with the participation of women was less in money transaction like involvement in banking process, purchasing and sell of animals, maintenance of account financial records, involvement in dairy co-operatives and purchasing of equipments (Lahoti *et al.*, 2012). Further data mining using Mann-Whitney (M-W) test brought healthcare and breeding under common stratum with no significant differences ($p < 0.05$). Therefore, our hypothesized major roles of women with five stratum pyramid were actually agreed as four stratum by society ordered as Management → Nutrition → Healthcare and Breeding → Finance.

Mean Rank of 34 Likert- type variables measuring different aspects of the role of women in rural dairy enterprise have been presented in Table 2. Analysing using Friedman test revealed that the maximum mean rank was obtained for variable 11, depicting major involvement of women in cleaning of animal shed and second highest involved with rural women in the cleaning of utensils. Similar results with involvement of farm women in cleaning of utensils and shed was reported as 100% (Lahoti *et al.* 2012). Similar type of activities like washing and grooming of animals got third rank. Milking of animals and disposal of their dung were the next two important activities carried out by women. Care of pregnant animals, feeding young calf and care of new born calf were the common intermediate activities carried out by them. Rural dairy farm women were very least involved in insurance, getting loans/credit from banks, Maintaining farm and dairy records, purchase of feeds & fodder and sale & purchase of animals.

The role of women in nutrition of animal was also analyzed with the use of Friedman test and the presented in Table III, which indicate that most of the respondents were involved in feeding young calf, watering the animals and feeding the animals. Similar results with 86.66 per cent of rural women were found involved in feeding of animals followed by watering of animals (85 per cent) (Rathod *et al.*,

2011). Exploration of sub-roles under the nutrition of animal was carried out using Wilcoxon Signed Ranks (WSR) tests. There were total ten hypothesized sub-roles of women. Basically roles with four stratum were socially perceived under nutrition with ordering as 'feeding young calf, watering the animals and feeding the animals → harvesting fodder crops, fodder collection, storage of feed & fodder, to offering concentrate and taking animals for grazing → soaking of concentrate → chaffing fodder.

Table 3. Role of women in nutrition of animal

Sr. No.	Variables	MR	Ranks	WX
9	Feeding young calf	6.37	1	d
10	Watering the animals	6.18	2	d
1	Feeding the animals	6.06	3	d
2	Harvesting fodder crops	5.72	4	c
4	Fodder collection	5.69	5	c
5	Storage of feed & fodder	5.59	6	c
8	To offering concentrate	5.46	7	c
3	Taking animals for grazing	5.44	8	c
7	Soaking of concentrate	4.59	9	b
6	Chaffing fodder	3.90	10	a

WX= Wilcoxon Signed Ranks Test

The role of women in management was analyzed and depicted in Table 4. The study revealed maximum role of rural women in cleaning of animal sheds and utensils. They actively participated in washing and grooming of animals, milking, disposal of cow dung, care of new born calf and weaning and management of calf except maintaining farm and dairy records. Examination of sub roles of management was carried out with the use of Wilcoxon Signed Ranks (WSR) tests. There were eight hypothesized sub roles in management.

Actually it was only four sub-roles accepted by the society. The final four stratum order based on mean ranking was 'cleaning of animal sheds and cleaning of utensils → washing and grooming of animals, milking and disposal of cow dung → care of new born calf and weaning & management of calf → maintaining farm

& dairy records’.

Table 4. Role of women in management

Sr. No.	Variables	Mean Rank	Rank	WX
11	Cleaning of animal sheds	5.56	1	d
14	Cleaning of Utensils	5.37	2	cd
12	Washing & grooming of animals	5.31	3	c
13	Milking	5.19	4	c
15	Disposal of cow dung	4.89	5	c
17	Care of new born calf	4.33	6	b
18	Weaning & management of Calf	4.28	7	b
16	Maintaining farm & dairy records	1.08	8	a

Table 5 revealed involvement during parturition, care during pregnancy, taking animals for A.I./ natural service and taking animals for pregnancy diagnosis were ranked 1st, 2nd, 3rd and 4th respectively by rural women. To examine the relation between the sub-roles of breeding was carried out using WSR tests. There were four hypothesized sub-roles of women in breeding. These were actually squeezed into two stratum. These were ordered as ‘involvement during parturition and care during pregnancy→taking animals for A.I./ natural service and taking animals for pregnancy diagnosis’.

Table 5. Role of women in breeding

Sr. No.	Variables	MR	Rank	WX
22	Involvement during parturition	3.07	1	b
21	Care during pregnancy	2.95	2	b
19	Taking animals for A.I./ natural service	2.07	3	a
20	Taking animals for pregnancy diagnosis	1.91	4	a

Table 6 revealed that rural women mostly performed healthcare activities like care of pregnant animals, care of new born and care of sick animals and these findings are in accordance to the earlier findings (Rathod *et al.* 2011). There were seven assumed

sub roles of women in health care that were finally stratified into four as indicated by WSR. Women’s role in animal health care activities ordered like ‘care of pregnant animals, care of new born and care of sick animals→ taking animals for treatment→taking animals for vaccination or deworming→purchase of vet medicine and disposal of carcass’.

Table 6. Role of women in healthcare

Sr. No.	Variables	MR	Rank	WX
24	Care of pregnant animals	5.71	1	d
23	Care of new born	5.54	2	d
25	Care of sick animals	5.28	3	d
26	Taking animals for treatment	3.48	4	c
27	Taking animals for Vaccination or Deworming	2.91	5	b
28	Purchase of vet medicine	2.72	6	a
29	Disposal of carcass	2.38	7	a

Table 7. Role of women in finance

Sr. No.	Variables	MR	Rank	WX
30	Sale of milk & milk products	4.04	1	D
31	Sale& purchase of animals	3.46	2	C
32	Purchase of feeds & fodder	3.33	3	B
33	Getting loans/credit from banks	2.11	4	A
34	Insurance	2.06	5	A

From Table 7 it could be found that rural women were involved in the sale of milk & milk products. They were least involved in insurance, getting loans/ credit from banks, purchase of feeds & fodder and sale& purchase of animals. Similar results with the participation of farm women was the least in the economic aspects i.e. taking loans, purchase and sale of animals and choosing animals for dairy (Upadhyay and Desai, 2011). In finance, there were five sub-roles finally, stratified into four with the help of WSR test

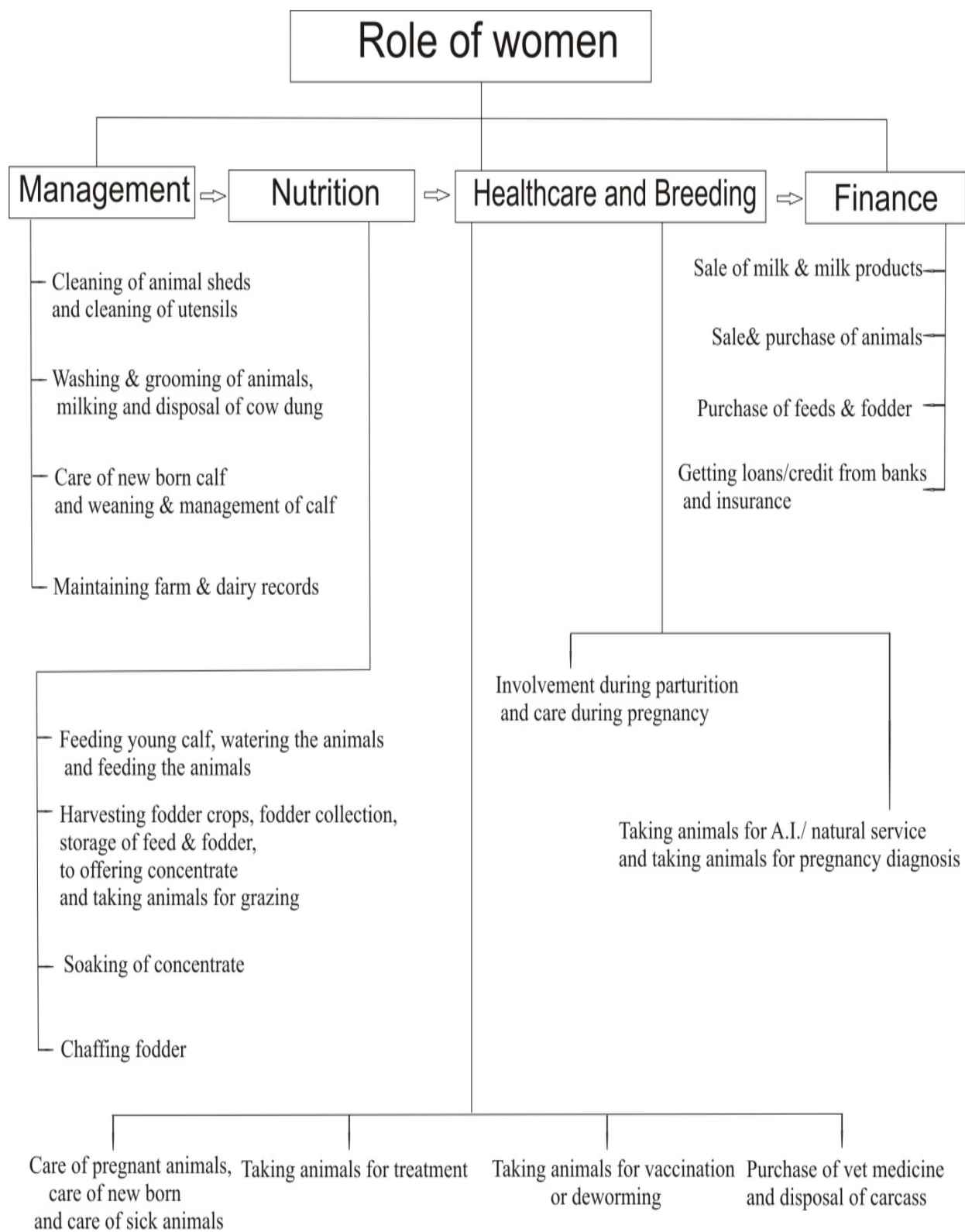


Figure 2: Perceived roles of women in rural dairy enterprise

analysis. The order was like 'sale of milk and milk products→sale and purchase of animals→purchase of feeds & fodder→getting loans/credit from banks and insurance'.

Summary

The stratified structure of women's role in rural dairy enterprise depicted in this study will provide baseline framework for further women role oriented studies (Figure 2.). The inference was drawn that there is still scope of enhancing woman's role in breeding, health and finance to the fullest.

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