

ATTITUDINAL BEHAVIOUR AND SATISFACTION OF BUFFALO OWNERS TOWARDS BREEDING SERVICES DELIVERED BY STATE DEPARTMENT OF ANIMAL HUSBANDRY IN HARYANA

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ABSTRACT

The present study was conducted using ex-post facto and exploratory research design in purposively selected Hisar and Jind districts of Haryana to measure the attitude and satisfaction of the buffalo owners towards breeding services delivered by State Department of Animal Husbandry (SDAH). From each of the selected districts, three top most Government Veterinary Hospitals (GVH) that had achieved maximum target of Artificial insemination (AI) (named as locale II) and another three bottom GVH that could achieve minimum targets of AI (named as locale I) during 2015-16 were selected. From each selected GVH (12), 20 buffalo owners who had taken benefits of AI service during last three years (2014-17) were selected randomly making a total of 240 respondents. Data on level of satisfaction were collected through structured interview schedule on a five point continuum scale and attitude of respondents was measured after developing a scale using Likert's summated rating scale method. The study revealed nearly 48 per cent of buffalo owners had moderately favourable attitude and high favourable attitude revealed by 44.2 per cent respondents. Majority of respondents were highly satisfied towards AI service (98.7 per cent), pregnancy diagnosis (PD) services (99 per cent), treatment services (86.7 per cent) and availing the extension service (72 per cent). There is need in part of SDAH to strengthen extension service in order to enhance productivity and income generation of the farmers.

Keywords: Attitude, Breeding services, Satisfaction, State Department of Animal husbandry

SDAH, Haryana is playing an instrumental role in delivery of animal breeding services to enhance the efficiency in dairying. Services of artificial insemination, pregnancy diagnosis, treatment of various reproductive problems and extension activities are provided under broad gamut of breeding services through vast network of 2801 Veterinary institutions including Veterinary hospitals and Veterinary dispensaries (DAHD, 2019). To maintain the quality breeding services, department ensures round the clock availability of semen straws in liquid nitrogen and well equipped semen laboratory, sperm centres. Although Department of Animal Husbandry and Dairying, Government of Haryana is providing breeding services for livestock since long period, through large network of veterinary institutions along with various schemes and programmes but no empirical and comprehensive evaluation of these services has yet been conducted to understand its effectiveness in terms of attitudinal behaviour and perceived level of satisfaction towards breeding services by buffalo owners. Keeping in view the study has been conducted with objectives of understanding attitude and level of satisfaction of buffalo owners towards breeding services delivered by SDAH personnel.

MATERIALS AND METHODS

An ex-post facto and exploratory research design was used to carry out the study purposively in Hisar and Jind districts i.e. Murrah buffalo breeding tract of Haryana. Hisar and Jind districts comprise a network of 85 and 62

Government Veterinary Hospitals (GVH), respectively. From each of the selected districts, three top most GVH that had achieved maximum target of AI (named as locale II) and another three bottom GVH that could achieve minimum targets of AI (named as locale I) during 2015-16 were selected. A list of buffalo owners was obtained separately from each selected GVH (12), who had taken some benefits of breeding services essentially of AI service during 2014-17. From each list, 20 buffalo owners were selected randomly as respondents making a total of 240 respondents. Data were collected through interview schedule using the available test and measurement except for attitude of respondents towards breeding services for which an attitude scale was developed by the researcher using Likert's summated rating scale method. Attitude towards breeding services was operationalized as the degree of positive and negative feelings of buffalo owners towards various breeding services being delivered by SDAH in Haryana. The services were; artificial insemination, pregnancy diagnosis, treatment of various reproductive disorders and extension services. The attitude score of each respondent was calculated by adding up the score obtained by each respondent on all items. Respondents' attitudes were categorized as less favourable, moderate and highly favourable using equal class interval method between the minimum and maximum scores obtained by the respondents. Satisfaction was operationalized as the extent to which respondents were satisfied with the basic mandatory breeding services

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provided by SDAH personnel. Data on level of satisfaction were collected by direct questioning to respondents through structured interview schedule on a five point continuum scale as highly satisfied (HS), moderately satisfied (MS), undecided (U), moderately dissatisfied (MD) and highly dissatisfied (HD) with respective score of 5, 4, 3, 2 and 1. The satisfaction score of each respondent was calculated by adding up the score obtained by each respondent on all items. Respondents' level of satisfaction were categorized as least satisfied, moderately satisfied and highly satisfied using equal class interval method between the minimum and maximum scores obtained by the respondents. Later ranks were calculated on the basis of mean scores obtained by the respondents for each service.

RESULTS AND DISCUSSION

Attitude of buffalo owners towards breeding services delivered by SDAH personnel: Table 1 shows that 47.9 per cent buffalo owners had moderately favourable attitude followed by highly favourable (44.2%) and less favourable revealed by about 8 per cent of respondents towards the breeding services delivered by SDAH personnel. The reasons for high favourable attitude may be easy accessibility of farmers to government veterinary institution, well equipped institutions, well trained staff of SDAH, availability of superior germplasm timely and easily, sufficient infrastructure at GVH, nominal charges of breeding services. Results of the study are in consonance with Mandal *et al.* (2010) who also reported favourable attitude among 91 per cent youth towards artificial insemination programme in Bihar state. Table further revealed statistically significance difference (<0.05) between the attitudes of buffalo owners of two different locales.

Respondent's distribution on the basis of mean score and ranking on each attitude statements: Table 2 revealed that the statement i.e. time and money of respondents are saved due to existence of Government veterinary hospitals in village and door-step availability of breeding services secured first rank with highest mean

score of 4.65 followed by preference of respondents to take animals to Government veterinary hospitals rather than to a private practitioner for any reproductive problems (4.59). Table further shows that respondents were also attracted to avail the breeding services from SDAH due to affordable charges and availability of superior germplasm at Government veterinary hospital secured rank III (4.58) and IV. Chi square test showed statistically significant difference (<0.05) between the respondents of two locales on the attitude statement i.e. "giving preference to take their animals to government veterinary hospitals rather than to a private practitioner for any reproductive problems".

Level of satisfaction revealed by respondents in availing breeding services delivered by SDAH personnel:

Level of satisfaction towards Artificial Insemination services: An overwhelming majority of respondents (98.7%) were highly satisfied towards AI services being delivered by SDAH in the selected locales (Table 3). Statistically no significant difference was found in satisfaction level of respondents with respect to AI service after application of chi square test. It indicate that delivery of AI services were uniform in the study area. The finding of the present study are different than studies conducted by Jain *et al.* (2016) who reported that only 45.80 respondents were satisfied with AI service delivered by SDAH in Rajasthan. Reason may be due to difference in study area.

Respondents showed more satisfaction towards present charges of AI at GVH and secured 1st rank with highest mean score followed by infrastructure facilities available at GVH. Cost of AI at door step (4.94) was at number three position with respect to satisfaction of the respondents (Table 4). Charges/fees taken by SDAH for the AI service was nominal i.e. Rs. 30 at GVH and Rs. 100 at door step that may be the reason, of revealing satisfaction by majority of the satisfaction. In each GVH, required infrastructure facilities for AI were available like cryocan for storage of semen, required semen straw, AI gun and along with them cattle crush for doing the AI. Satisfaction of AI service at GVH was more as compared to door step, the reason being to get the service at door step respondents had to wait more for SDAH personnel and charges were also higher as compare to service taken at GVH. This indicates that SDAH were providing artificial insemination services timely, at nominal cost, with well equipped and well competent man-power with required semen that led to high level of satisfaction among the respondents towards the AI services as a whole. Chi square test revealed significant difference (<0.05) for the

Table 1
Attitude of respondents towards breeding services delivered by SDAH personnel

Categories (scores)	Locale I (n=120)	Locale II (n=120)	Pooled (N=240)	χ^2 value
Less favourable (19-26)	6 (5.0)	13 (10.8)	19 (7.9)	31.20*
Moderate (27-33)	64 (53.3)	51 (42.5)	115 (47.9)	
Highly favourable (34-40)	50 (41.7)	56 (46.7)	106 (44.2)	

* 5% level of significance

Table 2
Locale-wise ranking of the each attitude statements on the basis of the mean scores

Statements	Locale I (n=120)		Locale II (n=120)		Pooled (N=240)		χ^2 value
	MS	R	MS	R	MS	R	
My time and money are saved due to existence of Government Veterinary Hospital in my village and door step availability of breeding services	4.71	I	4.59	I	4.65	I	4.386 ^{NS}
Availability of superior germplasm at government veterinary hospital encourages me to visit more for breeding services	4.18	IV	4.15	III	4.16	IV	4.404 ^{NS}
I always prefer first to take my animals to government veterinary hospitals rather than to a private practitioner for any reproductive problems	4.63	II	4.55	II	4.59	II	10.184*
I am attracted to avail the services from SDAH due to affordable charges	4.60	III	4.55	II	4.58	III	0.447 ^{NS}
I rarely visit to GVH because SDAH personnel never take up any follow up activity after providing the breeding services	1.48	VIII	1.70	VI	1.59	VII	3.669 ^{NS}
I prefer to visit to private practitioner because of his/her better communication competency, availability and approachability	1.58	VII	1.56	VII	1.57	VIII	1.614 ^{NS}
SDAH personnel are engaged more in providing breeding services rather than organizing training and extension activities	2.95	V	2.91	IV	2.93	V	0.541 ^{NS}
The interest of SDAH personnel is more in treatment and vaccination activities rather than providing the breeding services	1.79	VI	1.83	V	1.81	VI	1.805 ^{NS}

MS= Mean score, R= Rank, NS= Non significant, *5% level of significance

availability of AI services at GVH only and insignificant differences between the respondents of the two locales with rest of the sub-services related to AI.

Level of satisfaction towards pregnancy diagnosis (PD) services:

A large majority of respondents (86.7 per cent) from locale I and 88.3 per cent from locale II were availing the service of pregnancy diagnosis through GVH. Rest of the respondents did not visit SDAH personnel to confirm the pregnancy of their animals (Table 3). 99 per cent respondents were highly satisfied with the PD services being delivered by SDAH personnel through GVH irrespective of locales. SDAH personnel maintain records of each AI along with name of the animal owner and his contact number. After 3 months of AI, they generally remind owners for pregnancy diagnosis of the animal. Those animal owners who are residing nearby GVH take their animal to hospital for PD and for owners who face difficulty in taking their animal to GVH get this service at their home by SDAH personnel. This may be the reason for expressing high satisfaction towards service revealed by majority of the respondents irrespective of the locale.

Results are in consonance with finding of Jain *et al.* (2016) who also reported that majority of the livestock farmers were satisfied with the pregnancy diagnosis (95.80%) service delivered by SDAH in Rajasthan state. No significant difference was found among the respondents of two locales with respect to level of satisfaction for PD services after application of chi square test. PD services at GVH secured first rank with mean score of 4.99, charges of PD at GVH and charges of PD at door step both secured rank II with respect to the satisfaction of respondents towards the services rendered by SDAH in selected locales (Table 4).

Level of satisfaction towards treatment services related to reproductive diseases:

About 78 per cent respondents comprising 81 per cent in locale I and 75 per cent in locale II could avail treatment service from them SDAH personnel. Data in Table 3 indicate that 86.7 per cent respondents were highly satisfied with the treatment services rendered by SDAH personnel followed by moderate satisfaction by 8.5 per cent respondents.

Table 3
Level of satisfaction of respondents in availing artificial insemination services

Level of satisfaction (scores)	Locale I (n=120)	Locale II (n=120)	Pooled (N=240)	χ^2 value
Least (≤ 14)	-	-	-	11.025 ^{NS}
Moderate (15-22)	1 (0.8)	2 (1.7)	3 (1.3)	
High (≥ 23)	119 (99.2)	118 (98.3)	237 (98.7)	

Level of satisfaction of respondents towards pregnancy diagnosis (PD) services				
Level of satisfaction (scores)	Locale I (n=102)	Locale II (n=106)	Pooled (N=208)	10.482 ^{NS}
Least (≤ 11)	0 (0.0)	0 (0.0)	0 (0.0)	
Moderate (12-18)	0 (0.0)	2 (1.9)	2 (1.0)	
High (≥ 19)	102 (100.0)	104 (98.1)	206 (99.0)	

Level of satisfaction of respondents towards treatment services related to reproductive diseases in the buffaloes				
Level of satisfaction (scores)	Locale I (n=98)	Locale II (n=90)	Pooled (N=188)	27.172*
Least (4-9)	5 (5.1)	4 (4.4)	9 (4.8)	
Moderate (10 - 14)	12 (12.2)	4 (4.4)	16 (8.5)	
High (15-20)	81 (82.7)	82 (91.2)	163 (86.7)	

Level of satisfaction of respondents towards various extension activities for quality breeding services				
Level of satisfaction (scores)	Locale I (n=93)	Locale II (n=86)	Pooled (N=179)	29.848*
Least (≤ 11)	8 (8.6)	12 (14.0)	20 (11.2)	
Moderate (12 – 18)	18 (19.4)	12 (14.0)	30 (16.8)	
High (≥ 19)	67 (72.0)	62 (72.1)	129 (72.0)	

NS= Non significant, *5% level of significance Figure in parenthesis indicate percentage

Availing treatment services at GVH secured top rank with highest mean score (4.61) followed by treatment services at door-step (4.51). Rank III and IV were secured by statements comprising charges of treatment service at door-step (4.37) and recovery of animal after getting treatment from SDAH personnel (4.15). Chi square test revealed significance difference (<0.05) between respondents of two locales with respect to their satisfaction level for treatment service rendered by SDAH personnel related to reproductive disease and charges of treatment services at door step (Table 4). Reason may be that cost of treatment depends on severity and nature of diseases along with duration of the treatment.

Level of satisfaction towards various extension activities for quality breeding services: Table 3 shows that 74.6 per cent respondents from locale I and 71.7 per cent from locale II had availed extension service one or the other time as and when camp were organised in the last three years. Table indicates that 72 per cent of respondents revealed high satisfaction followed by moderate (16.8%) in availing the various extension services with special reference to animal breeding. Chi square test revealed

significant difference (<0.05) between respondents of two locales with respect to level of satisfaction towards extension services being provided by SDAH personnel, display material used during the camps (<0.01) and number of camps organised by SDAH personnel (<0.05). Timing of organizing infertility camp obtained highest mean score (3.97) followed by extension method/tools during extension activities (3.93) and types of services provided by SDAH personnel during the camp (Table 4). Respondents revealed less satisfaction with number of camps organised by SDAH personnel (3.68) and display material used during the camps (3.53) and extension services being organised by SDAH personnel.

It can be concluded that the accessibility of farmers to well equipped government Veterinary institutions, availability of superior germplasm and nominal charges of breeding services are the reasons for the satisfaction and moderately favorable attitude of the farmers towards breeding services of SDAH. However farmers showed less satisfaction towards extension service. So, there is need to strengthen extension service by SDAH in order to enhance productivity and income generation of the farmers.

Table 4
Mean score and ranking of statements related to various breeding services

Artificial Insemination services	Mean score and ranks with respect to level of satisfaction towards various artificial insemination services						
Level of satisfaction (scores)	Locale I (n=120)		Locale II (n=120)		Pooled (N=240)		χ^2 value
	MS	Rank	MS	Rank	MS	Rank	
AI service at GVH	4.92	V	4.95	I	4.93	IV	9.434*
AI service at doorstep	4.76	VI	4.83	V	4.79	VI	2.863 ^{NS}
Availability of required semen	4.93	IV	4.89	IV	4.91	V	5.272 ^{NS}
Infrastructure for AI at GVH	4.97	II	4.93	II	4.95	II	10.50 ^{NS}
Charges of AI at GVH	5.00	I	4.92	III	4.96	I	5.613 ^{NS}
Charges of AI at door- step	4.96	III	4.92	III	4.94	III	2.790
Pregnancy diagnosis services	Mean score and rank with respect to level of satisfaction towards pregnancy diagnosis service						
	Locale I (n=102)		Locale II (n=106)		Overall (N=208)		χ^2 value
	MS	Rank	MS	Rank	MS	Rank	
PD services at doorstep	4.86	IV	4.83	V	4.85	III	4.288 ^{NS}
PD services GVH	4.98	I	4.99	I	4.99	I	0.963 ^{NS}
Infrastructure availability for PD at GVH	4.88	III	4.84	IV	4.76	IV	7.567 ^{NS}
Charges of PD at GVH	4.97	II	4.93	II	4.95	II	1.932 ^{NS}
Charges of PD at door-step	4.97	II	4.92	III	4.95	II	4.704 ^{NS}
Treatment services related to reproductive diseases	Mean score and rank with respect to level of satisfaction towards treatment services related to reproductive diseases						
	Locale I (n=98)		Locale II (n=90)		Overall (N=188)		χ^2 value
	MS	Rank	MS	Rank	MS	Rank	
Treatment services at doorstep	4.42	II	4.61	II	4.51	II	3.667 ^{NS}
Treatment services at GVH	4.55	I	4.68	I	4.61	I	1.607 ^{NS}
Recovery of animal after treatment	4.20	IV	4.10	IV	4.15	IV	4.406 ^{NS}
Charges of treatment services at GVH	4.32	III	4.43	III	4.37	III	10.949*
Extension services rendered by SDAH personnel	Mean score and rank with respect to level of satisfaction towards extension activities for quality breeding services						
	Locale I (n=93)		Locale II (n=86)		Overall (N=179)		χ^2 value
	MS	R	MS	R	MS	R	
Display material used during camps	3.39	V	3.69	V	3.53	V	18.487**
Extension methods used for extension activities	4.06	I	3.78	III	3.93	II	4.582 ^{NS}
Services provided during camps	3.70	III	3.80	II	3.75	III	14.403 ^{NS}
Number of infertility camps organised	3.60	IV	3.77	IV	3.68	IV	13.701*
Timing of organising infertility camps	4.04	II	3.88	I	3.97	I	3.387 ^{NS}

MS= Mean score, R= Rank, NS= Non significant, *5% level of significance, **1% level of significance

REFERENCES

- Department of Animal Husbandry and Dairy, Haryana. (2019). <http://pashudhanharyana.gov.in/html/Vety%20Institutions.htm>. Accessed on January 19, 2019.
- Jain, A.K., Sharma, N.K., Rajput, D.S., Meena, O.P. and Mishra, P. (2016). A study on farmer's view on delivery of veterinary services in terms of availability, efficiency and satisfaction. *Vet. Pract.* **17(2)**: 298-300.
- Mandal, B.K., Chaudhary, A.K. and Singh, M. (2010). Attitude of farm youth towards artificial insemination programme. *J. Comm. Mob. Sust. Dev.* **5(1)**: 86-89.