

Nursing behaviour of dairy cows in different cow-calf-contact conditions

Wednesday, 2nd August - 09:50: Behaviours as Indicators of Positive Welfare (Ruminants) (Bolero hall) - Oral

***Ms. Emma Hvidtfeldt Jensen*¹, *Dr. Heather W. Neave*¹, *Prof. Melissa Bateson*², *Prof. Margit Jensen*¹**

1. Section of Behaviour, Stress and Welfare, Department of Animal and Veterinary Sciences, Aarhus University, Tjele, Denmark,

2. Biosciences Institute, Newcastle University, Newcastle upon Tyne, United Kingdom

Rearing dairy calves with the dam can alleviate some management challenges, making calf care more flexible and reduce workload. However, farmers face other challenges when adopting cow-calf contact, like decreased saleable milk yield and increased stress upon separating cow and calf. A suggested solution to some of these problems is to keep cow and calf together only part of the day. This study investigated whether the duration of maternal behaviour (nursing, grooming) and nursing in the inverse parallel position (IPP) are affected by daily contact duration. Cow-calf pairs were allocated to two contact treatments: full-time contact (23 h/day, 28 pairs) and part-time contact (10 h/day, 27 pairs). The 10 h contact took place during the day, and this was the only time calves had access to milk. Cows' nursing behaviour was recorded 28.4±6.6 d after calving using video cameras, and behaviours were continuously recorded for 24 h using focal animal sampling. Data was analysed using either linear or logistic mixed regressions. Compared to part-time cows, full-time cows spent more time grooming their own calf (23.5 vs. 11.0±1.7 min/d, $p<0.001$) and tended to spend more time nursing their own calf (31.8 vs. 21.4±4.0 min/d, $p=0.098$). However, frequency of nursing bouts did not differ between treatments (12.9 vs. 9.7±1.8 bouts/d, for full- and part-time, respectively). Similarly, there was no difference between treatments in proportion of nursing time spent in IPP (95.2 vs. 93.8±3.2%, for full- and part-time, respectively), nor in the probability of a cow nursing a calf other than her own (i.e. alien calf; 0.34 vs. 0.40±0.10, for full- and part-time, respectively). However, part-time cows tended to have a higher probability to nurse their own calf and one or more alien calves at the same time (0.45 vs. 0.19±0.11, $p=0.0725$); this may be due to part-time calves being hungry when the cows return from morning milking, motivating them to suckle any cow. Though part-time cows spent less time on maternal behaviours than full-time cows, the majority of nursing was performed in IPP, and there was a similar probability of nursing alien calves, on both treatments. This suggests that the maternal bond is not weakened by housing cow and calf together on a part-time schedule, at least within the first month. However, the maternal bond may grow weaker with repeated separations over time, leading to earlier independence between dam and calf; this deserves further research.

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BOOK OF ABSTRACTS

