

Does the cow-calf bond develop in the absence of nursing?

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The effect of nursing on the cow–calf bond



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The fourth DairyCare conference
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Background and aim of the study



- Welfare advantages: Affiliative behaviours (Boissy et al. 2007), improved health (e.g. Flower and Weary et al., 2003) and natural behavior
- Licking is considered essential in the establishment of a cow-calf bond (Vitale et al., 1986, von Keyserlingk and Weary, 2007), but what about nursing?
- Aim of the study: Determine the importance of nursing for the development of the cow-calf bond

Material and methods

animals and management

- 30 cow-calf pairs
- Cow and calf kept together for 6 weeks but only during the night





Material and methods

datacollection and statistical analyses

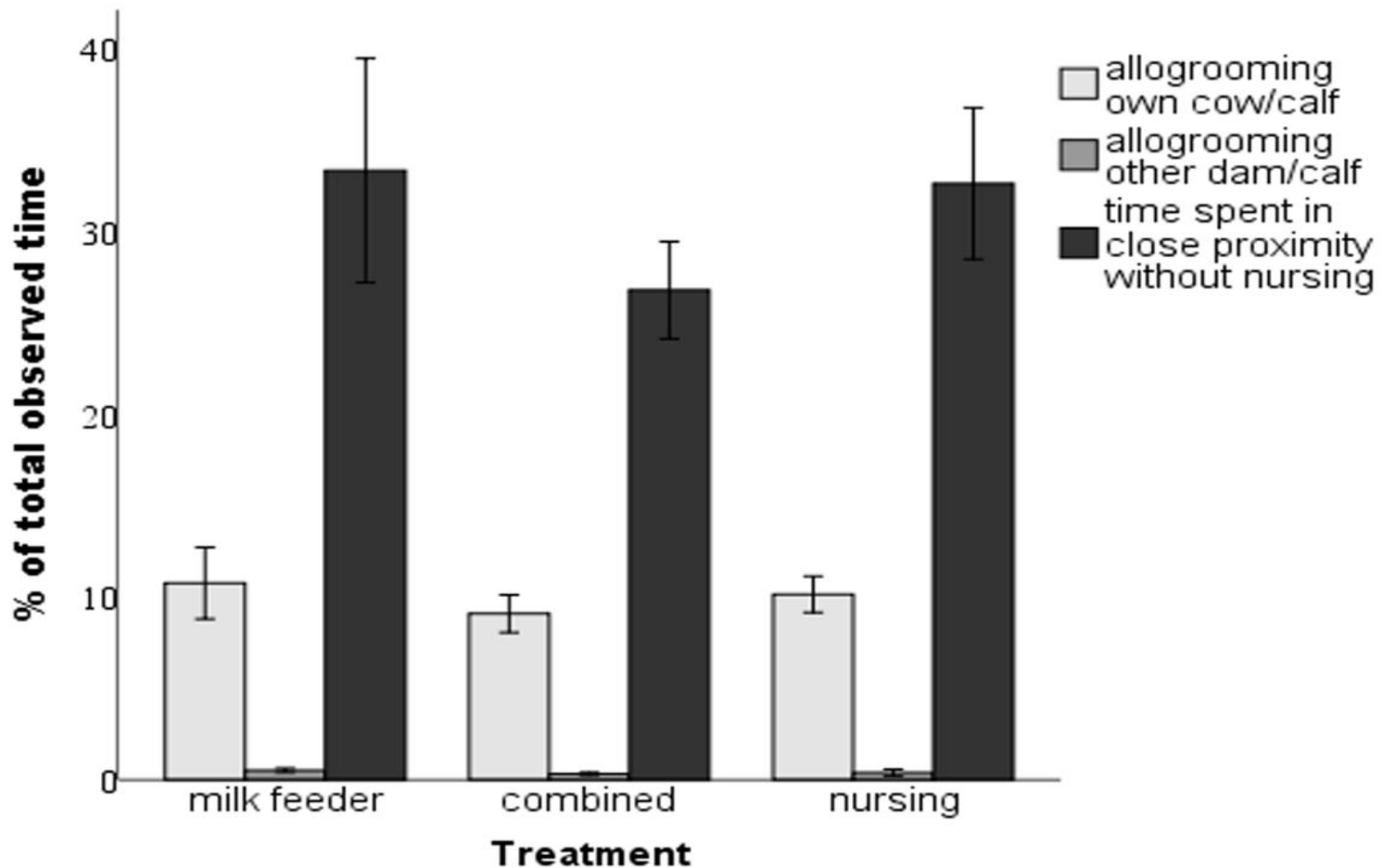
Direct, live observation of cow - calf behaviour:

- Allogrooming: licking, sniffing, rubbing (s)
- Proximity
cow - calf distance
< 1 m (s)
- Latency to reunite
after gate opening
(s)
- One-way ANOVA



Foto: Julie Føske Johnsen

Results *affiliative behaviours*



Conclusions and implications

- Nursing is not a prerequisite for the formation of a bond between a cow and her calf
- Cow and calf spend time together and show affiliative behaviours, regardless of suckling
- Advocates systems where dairy cow and calf can be together





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Photos: Julie Føske Johnsen

Results *reuniting after gate opening*

- Most pairs reunited within 3 minutes, no treatment differences
- Latency to reunite was highest for the *combined* pairs and tended to be lower for *milk feeder* and *nursing* calves



Foto: Julie Föske Johnsen