**Application**: Two-year old Sport Horse stallions can be kept in groups during pre-training. As expected, group housing allows more social interaction between horses, but this includes agonistic behaviour.

**Introduction**: In feral horses, non-harem stallions live in loose bachelor groups; therefore it has been suggested that domestic stallions should be kept in groups. For postpubertal stallions, group housing is, however, a rare exception. In stables preparing Sport Horses for breed registry licensing, young stallions are exclusively housed in individual boxes with limited contact to other horses. This is increasingly questioned, and in Germany Federal Animal Welfare guidelines demand that horses, including stallions less than 30 months old are kept in groups. In contrast, equestrian authorities argue that once puberty is attained, stallions should be stabled individually to avoid aggression and injuries. Therefore, we have analysed the behavior of 24 months-old stallions housed either in a group stable or in individual boxes during pre-training. We hypothesized that group housing is not associated with increased aggression among stallions.

**Materials and Methods:** The study included ten postpubertal, 24 months-old Sport Horse stallions. They were kept in group stables with paddock access or on pasture (depending on the season) from weaning until they were transferred to housing in a group stable (GROUP, n = 5) or individual boxes (BOX, n = 5) for a 12-week pretraining programme. The study therefore included (1) the phase of adaptation to the new housing system and (2) a comparison of the two housing systems thereafter. The pretraining included free movement in an indoor arena, showing at hand, exercise in an automated horse walker, lunging and jumping of obstacles without a rider.. Horses were kept on straw and were fed concentrates and hay twice daily, water was always available. All stallions had daily access to outdoor paddocks, either individually or as a group based on their group allocation. Continuous video observations were made in the stables with one dome IP camera per box or group stable. Data were stored on an HDD video server and for one day per week, two 30-min intervals starting at 6 a.m. (before feeding of concentrates) and 5 p.m. (no activities in the stable) were analysed. Analysis was made with the Behavioral Observation Research Interactive Software BORIS (University of Torino, Italy). The following behavior patterns were defined: Lying in sternal and lateral recumbency, standing with subcategories relaxed and alert, eating, movement in walk, trot and canter, drinking, solitary and mutual grooming, pawing, playing and social interaction. Data were analysed by repeated measures ANOVA with week and time of day as within subject factors and housing system as between subject factor (SPSS statistics programme version 29).

**Results**: BOX stallions spent more time in sternal and lateral recumbency than GROUP stallions (*P* < 0.05). Episodes with the stallions standing either relaxed or alert were more frequent in BOX than in GROUP stallions (*P* < 0.001), but the duration of such episodes was longer in GROUP stallions. The frequency of standing episodes was higher before feeding than when there was no activity in the stable (*P* < 0.001). GROUP stallions were seen eating hay more often than BOX stallions with episodes in both groups shorter before feeding than during observation after 5 p.m. The frequency of walk episodes did not differ between GROUP and BOX stallions but was higher at 6 a.m. than at 5 p.m. in both groups (*P* < 0.001) and decreased throughout the 12-week study (*P* < 0.01). Movement in trot or canter was close to absent in both housing systems. Drinking was hardly observed before feeding but on average once per hour after 5 p.m. (*P* < 0.001) in both groups. The frequency of solitary grooming was similar in both groups and decreased throughout the study period (*P* < 0.001). Mutual grooming was observed only in GROUP stallions but was less frequent than solitary grooming. Play behavior was observed only twice in BOX stallions and more often in GROUP stallions. Pawing the ground occurred regularly in BOX stallions before feeding (*P* < 0.05), decreased over time (*P* < 0.05), but was hardly observed in GROUP stallions. Licking the stable wall or box partition was more evident in BOX compared to GROUP stallions (*P* < 0.05). Social interaction including threatening, biting, and attempted kicking was more evident in GROUP stallions (*P* < 0.01) but - directed towards the stallion in the neighboring box - not completely absent in BOX stallions. The frequency was higher before feeding at 6 a.m. than after 5 p.m. (*P* < 0.01) and decreased throughout the 12-week study (*P* < 0.001).

**Conclusions**: Two-year old Sport Horse stallions housed in a group or individually showed a largely similar behaviour profile. Some agonistic behaviour, potentially causing injuries was evident in GROUP stallions whereas pawing the ground before feeding as a sign of impatience was observed in BOX stallions. None of the stallions in either housing system developed stereotypies or was injured except for minor, superficial skin lesions. Both housing systems appear to be adequate for two-year old Sport Horse stallions, given stallions are regularly exercised, allowed daily free movement and have visual, auditory, and olfactory contact to stable neighbours.

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