

# EFFECTS OF EARLY PLAY EXPERIENCE ON PLAY BEHAVIOR OF PIGLETS AFTER WEANING

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We hypothesized that play experience gained by piglets during early ontogeny would affect their ability to cope with weaning stress, as indicated by the rate of recovery of play behavior following weaning. We manipulated play experience in three pre-weaning treatments (8 litters per treatment) as follows: (1) Obstacles (play with littermates restricted by barriers), (2) Littermates (unobstructed play with littermates), and (3) Aliens (unobstructed play with littermates and non-littermates). We observed play behavior on the day before weaning and on days 1, 3 and 5 after weaning at 24 d. Log-transformed data were analyzed by repeated measures analysis of variance. In all three play categories studied (locomotor play: scampers, pivots, head tosses, flops and paws; social play: non-injurious bites, levers, and "push-overs"; and transitions to self-handicapping positions: sitting, kneeling or lying), the frequency of play behavior was lower on day 1 after weaning than on the day before weaning, and increased to pre-weaning or higher levels on days 3 and 5 after weaning ( $P < 0.001$ ). On day 3 after weaning, the frequency of social play behavior was in the predicted direction (Aliens>Littermates>Obstacles), resulting in a significant treatment x time effect ( $P < 0.05$ ). Our results indicate that the depression of play after weaning is profound but transient. Early play experience before weaning had some effect on social play after weaning, but not on locomotor play or transitions to self-handicapping postures in the first week after weaning.