Understanding the connection between dairy farmer mental health and well-being and cattle health in Western Canada and Ontario

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The goal of this study is to explore the connection between dairy farmers' well-being and cattle welfare in tie stall, and loose housing (free stall, and bedded pack barns). Primary and/or secondary decision makers across Western Canada and Ontario completed online surveys (n=88) with validated psychometric scales to assess stress, anxiety, depression, and resilience. Surveys also included questions on farm management, calf mortality, and mastitis. Farms were also visited (n=66) to assess the health of lactating cows using measures similar to proAction for lameness, body condition, and knee, neck, and hock lesions. A representative sample of each herd (30% to a maximum of 69 cows) was assessed. Clinical and severe lameness were defined as cows with a locomotion score of ³3 or ³4 out of 5 respectively in loose housing, or ³2 or ³3 behavioural indicators respectively in tie stalls. Overall prevalence of clinical lameness was 7.9%, severe lameness was 2.3%, self-reported mastitis prevalence was 16.8%. In a linear model, higher anxiety scores were associated *(P*=0.02) with fewer over-conditioned cows (BCS≥3.5). Using t-tests, farmers with reported mastitis rates <10% had lower stress scores (*P*=0.02) compared to those with ³10%. Farmers with a clinical cow lameness prevalence of ≥5% tended to have lower stress (*P*=0.07) and anxiety scores (=0.06), but higher resilience scores (*P* =0.10) than farmers with <5% lame cows. Using chi-square tests with a Bonferroni correction, more farmers who scored high on the stress scale had a clinical lameness <5% as compared to those scoring low (*P*=0.009) and moderate (*P*=0.008).
Take home message: Associations between farmer well-being and animal health were different than what was expected; farmers with better well-being scores were those with greater lameness and higher BC prevalence. However, greater mastitis prevalence was associated with higher stress.