

Development and testing of a novel instrument to measure health-related quality of life (HRQL) of farmed pigs and promote welfare enhancement (Part 2)

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Abstract

The development of a novel structured questionnaire instrument to measure health-related quality of life (HRQL) in individual farmed pigs was described previously (companion paper). The instrument embraces the measurement of positive welfare, and was developed with farmers and stockpersons, for use by them on-farm. This paper describes the development of a scoring methodology for the instrument and provides evidence for its construct validity. Field testing on four commercial farm units indicated that scores for health and affect correctly allocated 88.7% of pigs to known treatment groups and strongly predicted previously defined intervention levels. The tool was also used in an experimental study alongside other measures to identify the impact of early-life challenges (mixing of pregnant gilts and tail docking neonatal pigs) on subsequent pig welfare, and identified long-term changes in HRQL of prenatally stressed piglets, a finding supported by other measures. This work describes a novel approach to farm-level welfare assessment in which entirely animal-based HRQL measurement can provide a measure of welfare at the herd level while retaining information about individuals within the herd and about aspects of provision that can be targets of intervention to improve welfare, and promotes a move from welfare assurance to welfare enhancement.

Keywords: animal welfare, farmed pigs, health-related quality of life, measurement, validity, welfare enhancement