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# **Equine welfare assessment: An exploration of British stakeholder attitudes using focus group discussions**

1

## **2 Abstract**

3 The equine industry in Great Britain (GB) has not been subject to the same pressures as the  
4 farming industry to engage with welfare assessment but this may change as concern about  
5 equine welfare increases. Stakeholder perceptions of, and attitudes towards, welfare  
6 assessment may impact on the implementation of welfare assessment practices. Focus group  
7 discussions regarding the development of a welfare assessment tool were conducted with six  
8 equine stakeholder groups: leisure horse owners (n=4), grooms (n=5), veterinary surgeons  
9 (n=3), welfare scientists n=4), welfare charity workers (n=5) and professional riders (n=4).  
10 Three themes emerged from the discussions: 1) participants predominantly interpreted  
11 welfare assessment as a means of identifying and correcting poor welfare in an immediate  
12 way; 2) participants believed that horse welfare varied over time; and 3) attributes of the  
13 assessor were viewed as an important consideration for equine welfare assessment. The  
14 views of equine industry members give insight into the value welfare assessments may have  
15 to the industry and how equine welfare assessment approaches can achieve credibility within  
16 the industry and increase the positive impact that welfare assessments can have on equine  
17 welfare.

18 **Keywords: attitudes; focus group; horse; stakeholder; welfare assessment**

19

## 20 **Introduction**

21 Animal welfare assessment is vital for welfare improvement in all animal species as it allows  
22 for the identification of problems and associated risk factors (Whay, 2007). In Great Britain  
23 (GB) assessment of the welfare of horses currently only occurs in limited circumstances, for  
24 example the licensing of riding schools (Gov.UK, 2015). In contrast, pressure from  
25 consumers has resulted in substantial investment in the development of welfare assessment  
26 tools for use on farms which are now an integral part of food assurance schemes such as The  
27 Red Tractor scheme (Red Tractor, n.da), RSPCA Assured (RSPCA Assured, n.d) and the Soil  
28 Association organic accreditation (Soil Association, n.d). As concern about the welfare of  
29 the equine population increases (Royal Society for the Prevention of Cruelty to Animals  
30 (RSPCA), Redwings, Blue Cross, World Horse Welfare, Horse World and British Horse  
31 Society (BHS), 2012 &2013), welfare assessment across the horse population may be  
32 advocated as a means of identifying problems and targeting the resources available for  
33 improvement most effectively. As such, the equine industry may be required to engage more  
34 in welfare assessment and there have been suggestions from both within and outside the  
35 industry that assessment should become more widespread, for example through the licensing  
36 of livery yards (Owers & MacMillan, 2011).

37 The tools currently available for assessing the welfare of equids both at a population level  
38 and individual horse level have been reviewed by Hockenhull and Whay (2014), and recently  
39 holistic welfare assessment protocols for use by the equine industry have been developed  
40 within the Welfare Monitoring System (Wageningen UR Livestock Research, 2011) and  
41 the European Animal Welfare Indicators (AWIN) project (AWIN, n.d). In addition, on-going  
42 work, for example that being carried out in Sweden to develop a welfare assessment tool for  
43 use in horses in line with the Welfare Quality® protocols (Viksten, Nyman, Visser, &

44 Blockhuis, 2012) is likely to yield further protocols as another step towards promoting and  
45 supporting equine welfare assessment and improvement.

46 Evidence from the farming industry suggests that stakeholder attitudes to welfare assessment  
47 can vary and challenges to the implementation of welfare assessment have been identified.

48 Hubbard, Bourlakis, and Garrod (2007) found that UK pig farmers often felt they had no  
49 choice but to join an assurance scheme and engage in assessment to ensure they could sell  
50 their produce. Whilst many of the farmers interviewed by Hubbard et al. (2007) felt that the  
51 schemes were well organized and run, they felt negatively about the amount of paperwork  
52 that resulted through the process of auditing. Roe, Buller and Bull (2011) observed the on  
53 farm assessment process and found that few farmers looked “comfortable” whilst their farm  
54 was being assessed describing audit day as a “nervous time” for farmers, suggesting that  
55 farmers may have negative emotional reactions to the process of assessment.

56 The equine industry differs from the farming industry in a number of distinct ways. Firstly,  
57 whilst horses are often kept to fulfil a purpose, for example competition horses, they can also  
58 be considered a companion animal. In this sense they are neither a production animal nor a  
59 pet, but hold a dual function that is less often seen in farm or companion animal species.

60 Secondly, the equine industry could be considered to be much more diverse than the farming  
61 industry both in terms of the many different purposes horses have and the ways in which  
62 horses are managed. Wylie, Ireland, Collins, Verheyen, and Newman (2013a) found that  
63 horses in GB are used for a number of purposes including leisure (including hacking and  
64 hunting), competition (including dressage, show jumping, racing and endurance) and  
65 breeding. There was variation in the premises that horses were kept on and management  
66 methods including stable vs. pasture keep. As such, it could be argued that the farming  
67 industry is more uniform than the equine industry. These fundamental differences may mean  
68 that equine stakeholders differ from farmers in their perceptions of welfare assessment and

69 different barriers and motivating factors may exist compared to those associated with farm  
70 animal welfare assessment. The benefits of incorporating equine stakeholder perspectives  
71 into the development of equine welfare assessment approaches have been noted by Minero  
72 (2014) who describes how stakeholders were consulted about welfare indicators and barriers  
73 and solutions to the implementation of the AWIN protocol in Europe. To date no research  
74 has looked at the attitudes of equine stakeholders in GB to equine welfare assessment. Such  
75 research may be beneficial for facilitating equine welfare improvement in GB through the  
76 implementation of equine welfare assessment tools.

77 Focus group discussions are a form of qualitative research whereby a group of participants  
78 are brought together for the purpose of discussing an issue or idea predetermined by the  
79 researcher. The discussions are guided by a facilitator but the emphasis is on the interactions  
80 between the group members, the way they respond to and build on each other's views and the  
81 agreement and disagreement between group members (Morgan, 1997). In this way the  
82 approach differs from one to one interviews which explore individual responses. Focus  
83 groups are also a resource-effective way of gathering opinions from a range of stakeholders  
84 and are increasingly being used by researchers as a means of exploring stakeholder  
85 perceptions, attitudes and behaviors in relation to veterinary medicine and animal welfare.  
86 For example, Coyne et al. (2014) used focus groups to explore antimicrobial use and  
87 prescribing behaviors by veterinary surgeons and farmers whilst Kaler and Green (2013)  
88 explored sheep farmer opinions on the role of the veterinary surgeon in flock health  
89 management utilizing focus groups. Qualitative research methods, including focus groups,  
90 were used by Collins et al. (2012) to explore stakeholder perceptions of solutions to equine  
91 welfare problems in Ireland. The aim of this study was to explore, through the use of focus  
92 groups, equine stakeholders' perceptions of, and attitudes towards welfare assessment.  
93 Through the process of discussing approaches to welfare assessment with equine

94 stakeholders, it was envisaged that insight would be gained into more general attitudes and  
95 perceptions in relation to welfare assessment. The authors also aimed, by utilizing focus  
96 groups, to explore any similarities and differences in attitudes or perceptions which may exist  
97 between individuals and/or between different groups of stakeholders. This insight, it was  
98 believed, could subsequently be utilized to inform the successful implementation of welfare  
99 assessment tools within the GB equine industry.

100

## 101 **Materials and Methods**

### 102 *Recruitment*

103 Focus group participants were recruited to reflect the main stakeholder groups within the  
104 equine industry, identified by the research team as: leisure horse owners, grooms,  
105 professional riders, equine veterinary surgeons, equine welfare charity workers and equine  
106 welfare scientists. It was decided that each group should consist of people with similar roles  
107 to prevent the potential effects of power relationships within each group (See Stewart &  
108 Shamdasani 2014, p27 for discussion of social power as a consideration). Therefore six focus  
109 groups were proposed, one for each of the stakeholder groups identified above.

110 Recruitment was conducted using networks known to the first author and associates of the  
111 project via e-mail, telephone and social media. Snowballing techniques were also employed  
112 where participants were recruited by means of informal contact between them. This involved  
113 asking successfully recruited interviewees to nominate others known to them who might be  
114 similarly eligible (Association for Qualitative Research, n.d). As the purpose of this study  
115 was to explore the range of opinions held rather than the relative frequencies of opinions held  
116 across a representative sample of industry stakeholders this sampling strategy was deemed  
117 appropriate. The authors aimed to recruit between three and seven participants for each group

118 to allow a variety of views to be heard and ensure the discussions were practical to facilitate  
119 (See Stewart & Shamdasani 2014, p. 64 for discussion on focus group participant numbers).  
120 During the recruitment process potential participants were informed about the purpose of the  
121 study, and the format and logistics of the focus group discussions. Where recruitment was  
122 successful verbal permission to audio record the focus group discussions was sought. A  
123 mutually convenient time, date and location for the focus group discussion was arranged via e  
124 -mail and telephone correspondence. In accordance with University of Bristol ethical  
125 guidance all participants were sent an information sheet and consent form in advance of the  
126 meeting. The consent form was signed by participants before the focus group discussion  
127 started and guaranteed anonymity and data security and ensured written consent for the audio  
128 recording of the discussions was gained.

#### 129 *Focus Group Discussion Structure*

130 Discussions were held between September and December 2013, at a variety of locations for  
131 the convenience of the participants, and lasted between two and three hours. The group sizes  
132 ranged from three to six individuals, dependent on recruitment response rates and actual  
133 attendance on the day, and a total of 25 individuals took part in the study. The focus groups  
134 were facilitated by the first author, who led the discussions ensuring that the perspectives of  
135 all participants were heard and that any emerging social influence was managed. One of the  
136 co-authors acted as note-taker. A pilot focus group was conducted independently to the main  
137 study with a group of four leisure horse owners. The participants taking part in the pilot  
138 found discussing welfare assessment approaches very difficult and it was observed that this  
139 was due to limited background knowledge about welfare assessment on the part of the  
140 participants. As a result, in subsequent discussions, background information about the  
141 different approaches to welfare assessment, for example using animal based and resource  
142 based measures, was given to participants by the facilitator during the introduction to the

143 subsequent discussions. Following the introduction each member of the group was asked to  
144 introduce themselves and to give a brief description of their background and current role  
145 within the industry. The facilitator then led discussions in two sections. Firstly, the groups  
146 were asked to discuss freely amongst themselves the important elements that contribute to  
147 horse welfare, described to the participants as welfare needs, which should be considered  
148 when designing a welfare assessment. The different ‘needs’ raised were noted on a flip chart  
149 as the participants raised them and were subsequently utilized as a basis for the second  
150 section of the discussions. Here the groups were asked to reflect on their list of the different  
151 elements of welfare and to talk about how these could or should be assessed. Around the two  
152 broad topics/questions (elements of welfare and means to assess) no specific further questions  
153 were asked across the focus groups. Instead, the focus groups followed a semi-structured  
154 approach around the two topics. Follow-up questions asked by the facilitator were in direct  
155 response to the participant’s comments, for example asking for a further explanation or points  
156 of clarity.

### 157 *Data analysis*

158 The audio recordings were transcribed *verbatim* and analyzed by the first author. In the first  
159 instance the transcripts were analyzed to identify the emerging themes within the individual  
160 focus groups and to look for consensus and variance of opinion within the focus groups. A  
161 second level of analysis was then carried out to identify common themes, consensus and  
162 variance between the focus groups. Analysis focused on identifying themes which were  
163 particularly pertinent to the development and implementation of a welfare assessment tool to  
164 assess the welfare of horses across the GB horse population. Having identified the key  
165 themes that emerged from the focus groups and areas where there was agreement and/or  
166 disagreement the first author discussed these with the focus group note-taker who validated  
167 these themes with reference to their notes.



168

169 **Results and Discussion**

170 *The participants*

171 The 25 participants had a wide range of experiences within the equine industry covering the  
172 major disciplines including eventing, racing, show jumping, dressage, endurance and leisure  
173 use. The profiles of the group participants are listed in table 1.

174 -----

175 Table 1 about here

176 -----

177

178

179

180 *Themes around welfare assessment*

181 Through analysis of the transcripts three themes emerged relating to equine stakeholders’  
182 perceptions of and attitudes towards the welfare assessment of horses: 1) perceptions of the  
183 purposes welfare assessments could serve, 2) the format they perceived a welfare assessment  
184 should take, 3) the role of the assessor in welfare assessment. In addition to these, other areas  
185 of discussion included physical, mental and “natural” components of welfare and the value of  
186 using technology, for example video recording equipment, in welfare assessments.

187 One of the reasons for utilizing focus groups in this study was to explore group dynamics,  
188 how the individuals in the group disagreed and/or how they came to a consensus, and the  
189 transcripts were analyzed to look for these features. However, whilst there were some

190 differences between the groups, discussed in the following sections, in general there was  
191 consensus within the groups and this is reflected in the presented analysis.

192 In the following sections the three main themes that emerged are expanded on using  
193 supporting quotes from the focus group participants to illustrate and discuss these themes in  
194 relation to the current understanding of welfare and its assessment.

### 195 *The Purpose of a Welfare Assessment*

196 Some of the participants showed an awareness of structures in place within the industry to  
197 monitor and support welfare standards and reference was made to the Codes of Practice  
198 published by the Department for Environment, Food and Rural Affairs (Defra, 2013) and to  
199 local authority riding school inspections. They were also aware of organizations involved in  
200 promoting welfare standards. In the extract below, one of the leisure horse owners discusses  
201 the British Horse Society (BHS), a UK based charity that promotes horse welfare and  
202 provides industry recognized training to those responsible for caring for horses and training  
203 horses and riders, and its role in supporting welfare standards. They go on to suggest how  
204 alternative approaches may be beneficial:

205 *I think to some degree it goes back to what the BHS says, because [according] to BHS*  
206 *standards, should I have my horse? Maybe to go to a more all-encompassing*  
207 *perspective of things, maybe you want not to have the stigma of the BHS, and a much*  
208 *more everyday person welfare sort of thing.....Use them as a frame, like their sort*  
209 *of ideas, but without the stigma and judgement. (Leisure horse owner)*

210

211 Existing structures were sometimes negatively perceived and there was also a perception that  
212 welfare assessment would be viewed negatively within the wider equine population. As one  
213 of the grooms stated in relation to the attitudes of those that may be assessed:

214 *People are going to have a perception that you are there to find things*

215 *wrong.(Groom)*

216 One of the reasons the participants believed that welfare assessment would be viewed  
217 negatively within in the industry may be that they themselves interpreted the concept of  
218 welfare in a negative way and one of the grooms pointed out:

219 *When you think of horse welfare, your immediate thought is RSPCA, or....various*  
220 *charities.....because welfare is always used in that context. You never see the stories*  
221 *about horses that have excellent welfare, because nobody reads about that.” (Groom)*  
222

223 On only one occasion was welfare assessment discussed as a means of specifically  
224 identifying and rewarding good practice:

225 *I suppose you could have encouragement....you could say, this yard is [named*  
226 *facilitator] approved.....you create a sort of idea and a sort of package, that people*  
227 *could openly sign themselves up to and say ‘look, I meet this standard. I’m amazing.*  
228 *Come to my yard.’ (Leisure horse owner)*  
229

230 For those involved in enforcing welfare legislation, the primary purpose of the welfare  
231 assessments that they carry out is to determine whether welfare laws have been broken or to  
232 serve improvement notices to individual owners. For them, discussing welfare assessment for  
233 a different purpose was difficult, supported by the following quote:

234 *I think from your point of view, from what you're trying to do here is, it's quite*  
235 *difficult for us. Because all of us only deal with that situation where it's a welfare*  
236 *problem and that's why we're phoned. All we have to do is why it's a welfare problem*  
237 *and what needs to be done about it. (Welfare charity worker)*  
238

239 It is perhaps unsurprising that those involved with welfare legislation reinforcement  
240 understand welfare assessment as a tool for identifying poor welfare. However, findings  
241 from this current study suggest that this interpretation may be evident in the wider equine  
242 industry.

243 Serpell (2004) and Jones (1997) have both discussed the role of the media in influencing  
244 stakeholders’ perceptions and attitudes towards welfare. Media representations of welfare  
245 and its assessment often focus on extreme cases of abuse and neglect and for many equine

246 stakeholders the only way they may see examples of equine welfare assessment is through  
247 media representations and personal observation of welfare legislation enforcement  
248 (Horseman et al., in press). Welfare assessment for the purpose of reward is relatively  
249 unheard of in the GB equine industry. Where assessments do take place this is often for the  
250 purposes of licensing, for example riding schools and racing training yards. Here passing  
251 means that the license is given or renewed rather than a pass offering a reward per se and as  
252 such the theoretical threat of not receiving the license may result in negative associations.  
253 One exception to this is the British Horse Society (BHS) approval system that offers livery  
254 yards, riding schools and holiday riding centers the chance to be BHS approved with two  
255 additional grades of commended and highly commended also awarded (BHS, n.d). One of  
256 the aims of the AWIN horse welfare assessment protocol is to ‘to highlight positive  
257 conditions’ (AWIN, 2015). However, the current research suggests that the protocol is  
258 currently not widely recognized within the GB equine industry. In contrast, the GB farming  
259 industry have greater experience of welfare assessment as a means of promoting and  
260 rewarding higher welfare standards through a range of “opt in” certification schemes offering  
261 different levels of welfare assurance. Even so, some farmers still view the assessment process  
262 negatively, perhaps because in many instances farmers are unable to access markets for their  
263 produce without “opting in” (Hubbard et al., 2007) and because participation in the schemes  
264 may be costly. Understanding the pre-existing negative associations within the equine  
265 industry towards welfare assessment, and working with the industry to address concerns and  
266 alter perceptions may improve acceptance of compulsory assessment and may also encourage  
267 voluntary uptake of welfare assessment within the industry.

268 Within the field of welfare science welfare assessment serves several purposes including  
269 identifying welfare problems, carrying out population level surveillance of welfare and  
270 identifying risk factors leading to welfare problems (Whay, 2007) with the ultimate aim of

271 facilitating long term welfare improvement. In this study it was found that the value of  
272 collecting population data about the care, management and welfare of horses in GB was  
273 doubted by some participants. For example, in discussion with the professional riders, the  
274 facilitator described how welfare assessments could be carried out with no immediate  
275 feedback being given to the horse owner to which one participant responded “*What’s the*  
276 *point of it, then?*” The facilitator then discussed the prospect that “results” from the  
277 assessments could be collated to inform our understanding of the current welfare status of the  
278 equine population, to which another participant responded “*There would be no point in doing*  
279 *it.*”

280 One of the reasons for doubting the value of welfare assessment for the purposes of data  
281 collection may have been that many of the participants believed they knew what the main  
282 welfare concerns were and the contexts in which poor welfare was occurring. As one of the  
283 professional riders stated:

284 *Your happy hacker, keep one in the garden, having had four lessons at the local*  
285 *riding school, doing it with the horse in one hand and the book in the other. That is*  
286 *where you’re going to find most of the abuse. (Professional rider)*

287  
288 From this stand point of assumed knowledge, it is easy to see how a welfare assessment  
289 protocol for gathering information may not be perceived as worthwhile and demonstrates that  
290 equine stakeholders believe the current understanding of the welfare status of horses in GB to  
291 be adequate. Research in the field of equine welfare has provided some insight into the  
292 welfare problems facing GB horses. For example Wylie, Collins, Verheyen, and Newton  
293 (2013b) reported on the prevalence of laminitis within the horse population, whilst Mullan,  
294 Szmaragd, Hotchkiss, and Whay (2014) investigated the welfare of tethered and free-ranging  
295 horses on common land in South Wales. To date there has been limited surveillance across  
296 the horse population that also considers the many different facets of welfare. There is

297 therefore limited information of the prevalence of welfare problems across the industry  
298 reducing our ability to target welfare improvement. This knowledge deficit was either not  
299 acknowledged, or seen as important, by most of the participants in this study, the majority of  
300 whom showed confidence in their perceptions.

301 One of the roles welfare assessment can have is to either validate or challenge existing  
302 stakeholder perceptions. Mullan et al. (2014) describe how tethering of horses is an “emotive  
303 subject” within the UK, a practice which the RSPCA refers to as being unsuitable “for the  
304 long term management of an animal”. Mullan et al.’s study (2014) showed that some aspects  
305 of welfare may be compromised through the practice of tethering horses: in only 16.5% of  
306 observations were tethered horses seen to have access to shelter, putting them at risk of  
307 compromised welfare in inclement weather. However, the observed tethered horses showed a  
308 similar behavioral repertoire to free-ranging horses and showed more positive reactions to the  
309 observer during an approach test than free-ranging horses. Severe physical welfare problems  
310 were only infrequently seen in both the tethered and free-ranging horses. The findings  
311 suggest that the welfare consequences of specific management practices may differ from  
312 stakeholders’ perceptions of the effects.

313 Some of our participants felt that industry wide assessment may highlight welfare concerns  
314 which may be difficult for the industry to address:

315 *But I think you have to be careful, there is a whole..... commercial side, competition*  
316 *etc., and much of how they operate couldn't happen if you introduce this same style of*  
317 *requirements for every horse in the country....The Household Cavalry in London, for*  
318 *example, couldn't be kept the way that they are.....Or the racehorses that are kept*  
319 *stabled constantly, apart from the hour and a half when they're out on exercise. They*  
320 *couldn't do that, and the dressage horses and the show jumpers, you know, the elite*  
321 *performers. (Welfare scientist)*

322

323 This may have been another reason why some groups did not discuss welfare assessment as a  
324 means of collecting data. As demonstrated in the quote above, some of the participants

325 recognized that welfare assessment could have purposes beyond that of welfare legislation  
326 enforcement. However, they sometimes articulated that broader assessment posed a “threat”  
327 to the industry, for example by challenging “common” practices. As articulated in the above  
328 quote, and supported by the literature, some horses in GB may be stabled constantly (see for  
329 example Wylie et al., 2013a), directly contradicting their “natural” behavioral needs (Kiley-  
330 Worthington, 1997). Horseman et al. (in press) discuss how some welfare compromises are  
331 either normalized and/or seen as difficult to overcome and that objective welfare assessment  
332 across the industry may be necessary to ensure that all welfare problems are identified. The  
333 findings from this current study suggest that there may be a lack of industry level  
334 appreciation of this. Those interested in promoting welfare improvement across the industry  
335 through objective welfare assessment may need to convince the equine industry of the value  
336 of objective, population level welfare assessment and also address industry level concerns  
337 about the possible ramifications of industry wide assessment sensitively.

338 It should be noted that one group, that of the welfare scientists, appeared to have a different  
339 understanding of the purpose of welfare assessment to that expressed within the other focus  
340 groups, reflecting their academic background in welfare science and their understanding of  
341 our knowledge gaps in relation to the welfare status of GB horses. This group primarily  
342 discussed welfare assessment from the stand point of collecting population level data on  
343 welfare indicators and risk factors and were much more comfortable discussing welfare  
344 assessment as a research tool aimed at more long term, wider welfare improvement.

345 Perceptions of, and attitudes towards, possible purposes of equine welfare assessment framed  
346 discussions about other aspects of the assessment process, including the format and role of  
347 the assessor.

348

349 *The format of welfare assessments*

350 Participants discussed incorporating both resource -based measures and horse- based  
351 measures of health, mental well- being and the adequacy of the environment as important  
352 features of a welfare assessment. In addition, considerable emphasis was put on two specific  
353 aspects of the format of welfare assessments: 1) the need to assess welfare over a period of  
354 time and 2) the value of incorporating dialogue with the horse owner into the assessment.

355 Many group participants discussed how the welfare status of a horse was not fixed in time  
356 and how you could not determine the welfare status of an animal through one assessment:

357 *I think you have to look at things a couple of times to definitely give more of a welfare*  
358 *grade....(Leisure horse owner)*

359

360 In particular, seasonal variation, emerged as an important consideration in deciding how  
361 many times to carry out an assessment and when to assess. As one horse owner said:

362 *I'd say [welfare and welfare assessment is] seasonal isn't it? Going into winter,*  
363 *coming out of winter, half way through summer, potentially. That kind of thing.*  
364 *(Leisure horse owner)*

365

366 Many participants recognized that horses may face different challenges to their welfare across  
367 the seasons, for example over grazing in the summer and muddy conditions in the winter.

368 Hockenhull and Creighton (2015), Hotchkiss, Reid, and Christley (2007) and Wylie et al.

369 (2013b) all found that a greater proportion of horses are stabled 24/7 (kept in stables 24 hours

370 a day without access to pasture) during the winter than in the summer, whilst Giles, Rands,

371 Nicol, and Harris (2014) found that prevalence of obesity in outdoor living domestic horses

372 and ponies was 27.08% at the end of winter compared to 35.41% during the summer. These

373 research findings suggest that, as noted by our participants, welfare inputs and outputs may

374 vary across the seasons and therefore a single assessment of equine welfare may be of limited



375 value. The existing protocols available for assessing equine welfare, for example that created  
376 as part of the AWIN project (AWIN, n.d) do not specifically consider assessment of seasonal  
377 variation of equine welfare inputs and outputs although the AWIN protocol could easily be  
378 applied at several points during the year to look for seasonal variation. Farm welfare  
379 assessment for assurance schemes are typically carried out on a once a year basis, although  
380 staggered assessments occur in some instances to account for seasonality. For example, The  
381 Red Tractor conducts assessments of dairy farms on an 18 month basis to account for  
382 seasonal variation (Red Tractor, n.db). Once a year or eighteen month welfare assessments  
383 within the farming industry may be a reflection of the need to balance practical constraints,  
384 for example time and labor limitations, with the desire to gather comprehensive and  
385 representative data. In developing tools for assessing welfare in equids, similar practical  
386 constraints may need to be taken into account but careful consideration is needed to ensure  
387 that any compromises do not result in unrepresentative data being gathered as a result of  
388 possible seasonal variation in welfare inputs and outputs.

389 The focus group participants also discussed other reasons why welfare may vary over time,  
390 for example, due to horse injury, illness and consequent human intervention:

391 *In a very short space of time some horses, for example, will experience acute pain. It*  
392 *may even be veterinary introduced pain, dare I say, surgical pain of some sort. I mean*  
393 *that's a compromise to their welfare but generally speaking we say that's acceptable,*  
394 *we rationalize it, we say we're doing it for the horses or the owners .....But then it's*  
395 *when it moves on towards a more acute chronic stage, then you're really, I think, in*  
396 *some difficulty. (Welfare scientist)*

397

398 For some stakeholders, short term compromises of welfare were seen to be justified because  
399 of the long term benefits for the animal, and the implication was that any welfare assessment  
400 should consider both the justification for the immediate welfare compromise and the long  
401 term context. In the following extract, one of the welfare charity group participants involved

402 in enforcing welfare legislation discusses how they seek to understand longitudinal features  
403 of an animals' welfare when deciding whether to take any action:

404 *If somebody complained about the same horse and I have the owner standing there*  
405 *with me and I say, 'Why's it underweight?' and she's got a reason for it. I don't know -*  
406 *it's been in the vets for six weeks because it's had a major colic operation. 'It's the*  
407 *first time it's out; we're just building it up again'. Then that's not a welfare situation,*  
408 *is it? There's a reason behind it. (Welfare charity worker)*

409

410 Interestingly in the above extract the participant describes the scenario as “not a welfare  
411 situation”, despite the horse exhibiting features of reduced welfare, i.e. a low body condition  
412 score. Here we see how inclusion of animal based measures into welfare assessment is seen  
413 to necessitate a degree of interpretation within the assessment and that talking to the owner or  
414 caregiver of the animal may help with this interpretation.

415 In the current study, the need to understand the wider context and to gather information  
416 reflecting more than one point in time was one reason why talking to the owner of the horse  
417 or primary caregiver was seen as an important component of any equine welfare assessment.  
418 As one of the welfare scientists said about horse owners:

419 *.....they can give you a lot of information and a lot of longitudinal [information].*  
420 *(Welfare scientist)*

421

422 Roe et al. (2011) carried out ethnographic studies of farm animal welfare assessment and  
423 found that assessors may talk to farmers about what they are seeing on farm to more fully  
424 understand the situation, especially in cases where non-compliance is suspected. In one of  
425 the “case studies” presented the assessor finds problems with the youngest of the pigs on the  
426 farm that is being assessed. The piglets are found to be “huddling....not playing or  
427 inquisitive, and appear frightened of humans”. On talking to the farmer, the assessor  
428 discovers that the piglets arrived only the night before, information that the assessor views as  
429 “important” and takes this into account in his reporting. In contrast, during a different

430 assessment, this time of a dairy farm, the cows are found to have “inexplicably poor body  
431 condition” and the farms certification is removed (Roe et al., 2011). Evidence from this  
432 current study suggests that those involved with equine welfare assessment, i.e. equine welfare  
433 charity field officers, take a similar approach, utilizing information about the wider context to  
434 inform their decisions. Roe et al. (2011) conclude that the acceptance of welfare assessments  
435 based on outcome measures lies in assessors correctly identifying areas where problems can  
436 be addressed and those which are beyond the control of the farmer and then dealing with this  
437 information “sensitively”. Based on findings from this current study, it is likely that a similar  
438 approach to equine welfare assessment will be valued by equine stakeholders, although  
439 clearly care needs to be taken to ensure that welfare problems are not overlooked. This  
440 approach may also help to address existing defensive attitudes towards welfare assessment,  
441 and in the following extracts, participants from our current study discuss how talking to horse  
442 owners may facilitate a fair assessment:

443 *You need to discuss the behavior with the owner. Because it might be quiet; some*  
444 *horses will quite happily take your head off as you walk down the stairs. Well, that’s*  
445 *just the way they are. It doesn’t necessarily mean there’s something wrong with them.*  
446 *It doesn’t mean that it’s distressed, it’s just a miserable git. You get horses like that.*  
447 *(Welfare charity worker)*

448

449 *My mare, she had ulcers previously, so she is renowned for going to kick at her*  
450 *stomach, as a learnt thing. She is getting better and better, but it’s still there. So if you*  
451 *put the saddle on and she goes and kicks up, are you going to automatically, as a*  
452 *welfare thing, go, ‘Even though the saddle looks okay, there’s clearly a welfare thing*  
453 *because the horse kicked up,’ even if I say, ‘It’s because she had ulcers’. Do you*  
454 *believe me...? (Leisure horse owner)*

455

456 The desire on the part of the horse owner above to “explain” their horses’ current behavior  
457 emphasizes the perceptions of welfare assessment as some form of judgement. The quote  
458 above also demonstrates a perception held by many participants that if a horse has always  
459 behaved in a particular way, or exhibited particular physical characteristics, then these may

460 not be indicators of a current welfare problem. Certainly in some circumstances long term  
461 features, in particular, long term behaviors may not be a reflection of current welfare status  
462 and behaviors may be learnt and emancipated from their original cause. Hothersall and  
463 Casey (2012) state that behaviors in horses caused by pain may continue after the resolution  
464 of the pain because horses learn to avoid situations where there is a risk that they will  
465 experience pain. They therefore do not learn that the situation is no longer pain inducing. As  
466 our participants articulated, talking to the owners may well elicit valuable information that  
467 may help assessors determine whether what they see reflects a current or past welfare  
468 problem for the animal, thus facilitating the welfare assessment process. It may also help to  
469 reassure owners and caregivers that the welfare of their horses is being fairly assessed.  
470 However, care should be taken as research has shown that caregivers do not always  
471 accurately assess the welfare of the horses in their care (Ireland et al., 2012, Lesimple and  
472 Hausberger, 2014) and this was noted in the current study. Whilst many stakeholders viewed  
473 owners as a valuable source of information they also saw possible problems in gathering  
474 information via owners. In particular, they saw that there was the potential for owners to try  
475 and deceive the assessors and for this reason cross validation of owner provided data was  
476 seen to be beneficial:

477 *You've got to assess what you see, and then assess what the owner tells you, so you've*  
478 *got two assessments, effectively. Going back to being completely cynical, you've got*  
479 *to determine that what the owner is telling you is correct as you understand*  
480 *it...(Groom)*

481

482 It is interesting to note that the participants in this current study discussed two important  
483 features, that of longitudinal enquiry and incorporation of owner perspectives, that do not  
484 appear in the AWIN horse welfare assessment protocol (AWIN, 2015). As equine welfare  
485 assessment processes develop, consideration should be given to how to incorporate what are

486 perceived to be very important features of equine welfare assessment in a way that is both  
487 practical and rigorous.

488 In the next section one final feature of the welfare assessment that our participants viewed as  
489 important, that of assessor qualities, is discussed.

#### 490 *The Assessor*

491 All but one group (the welfare scientists) discussed qualities of the assessor as an important  
492 feature of the welfare assessment and the assessor was seen to need to be suitably qualified.

493 One owner stated, if someone asked to assess their horses, they might ask:

494 *what actually qualifies you to decide that my horse is being correctly looked after, or*  
495 *what you consider correctly looked after? (Leisure horse owner)*

496

497 “Qualified” was seen in two distinct ways. Firstly, as a manifestation of formal skills an  
498 assessor could or should have and one veterinary surgeon questioned:

499 *Is the welfare assessor competent to make an orthopedic assessment of a horse? Most*  
500 *of them will not be specialists in that sense. (Veterinary surgeon)*

501

502 Secondly, experience and knowledge emerged as an important quality of the assessor and as  
503 this participant in the welfare charity group stated:

504 *[welfare assessment] comes down to experience because I don't think a novice can do*  
505 *it properly. I think you need the knowledge of the animal, you need the knowledge of*  
506 *being able to read people, and you need the knowledge to be able to interpret what*  
507 *you see. Once you've got that then you can really assess. Without those three pieces*  
508 *of knowledge you're going to struggle. (Welfare charity worker)*

509

510 Where welfare assessments are carried out for research purposes considerable effort is put  
511 into ensuring inter and intra observer reliability in relation to the measures being taken. From  
512 a welfare science perspective, this has as much, if not more to do with the “quality” of the  
513 measures and scoring criteria, than attributes of the assessors. Mullan, Edwards, Butterworth,

514 Whay, and Main (2011) found that when animal welfare assessors were provided with  
515 training in relation to assessing outcome measures their assessment was not confounded by  
516 their attitudes to farm animal welfare. It is perhaps because of this fundamental  
517 understanding of how existing welfare assessment measures have been devised that the  
518 welfare scientists did not put any emphasis on assessor characteristics in contrast to other  
519 groups.

520 One reason for emphasizing assessor qualities was that for many participants, welfare  
521 assessment involved, at least in part, a subjective, preliminary judgement of the environment,  
522 owner and horse on the part of the assessor. As one of the welfare charity participants, who  
523 was involved in welfare legislation enforcement, said of their own approaches to assessment:

524 *Normally on a welfare concern, within five minutes of driving on the yard and*  
525 *speaking to the owners without seeing any of the horses, you get a picture in your*  
526 *brain of what you're going to see. (Welfare charity worker)*

527

528 For some, utilizing this initial instinct was seen as a means of “short cutting” the need to  
529 collect large amounts of data and could help to focus the assessment:

530 *When you go and look at a yard, you walk in, and you instinctively know whether*  
531 *you're going to like it or not. You do make a quick judgement, and maybe it's more*  
532 *that, than necessarily the horse. Then going from your judgement, it's then when you*  
533 *start asking questions, and depending on what they say, or how little, how much, you*  
534 *can then go, 'My instinct was clearly completely wrong, but maybe I should keep an*  
535 *eye on that place. Or, my instinct was completely right'. (Groom)*

536

537 The role of “first impressions” in welfare assessment has also been noted by Roe et al. (2011)  
538 who state that “the assessment begins immediately the car pulls up” and that “impressions are  
539 a powerful component of the assessment process”.

540 Utilizing intuition or instinct within welfare assessments can be considered a largely heuristic  
541 approach and may be used in assessments because the alternatives are either seen to be

542 impossible or impractical, for example due to time constraints. Supporting this, one reason  
543 why many of the group participants emphasized assessor qualities was that they perceived  
544 that without an experienced, knowledgeable assessor, completing a welfare assessment would  
545 be hugely time consuming, especially if the protocol was designed to be used across a  
546 complex and diverse industry:

547 *If you're producing stats .....then you will want to know which headings things fit into.*  
548 *The only way of doing that is possibly by having a form that covers everything. Which*  
549 *is going to be - that would be a book. (Welfare charity worker)*

550

551 One of the major challenges presented to those developing protocols for farm animal welfare  
552 assessment has been designing protocols which are both comprehensive and time efficient  
553 (Andreasen, Wemelsfelder, Sandoe, & Forkman 2013). Roe et al. (2011) describe some of the  
554 skills that the assessors they observed were seen to have that enabled them to carry out the  
555 assessments in a time efficient manner including “skilled observation of animals in different  
556 postures”, “skim reading” and “familiarity with the tick-box form”. Those involved with  
557 developing and implementing welfare assessment protocols for the equine industry are likely  
558 to also need to balance the need for comprehensive and valid welfare assessments with  
559 practical considerations including time constraints.

560 It should be noted that whilst utilizing the instincts of the assessor was seen as important by  
561 our focus group participants, they also discussed potential difficulties with relying on this  
562 approach:

563 *It's difficult to quantify...a gut instinct..... people are different, aren't they? I could*  
564 *walk into a place and have no instinct at all, but you could, and vice versa. It's a very,*  
565 *very personal thing, and I think something like this, it needs to be consistent: you need*  
566 *to be able to prove that you have been consistent. (Leisure horse owner)*

567

568 As such, where heuristic approaches are integrated into welfare assessments, by making use  
569 of assessor knowledge, care should be taken to ensure that assessors are well informed and  
570 that their “judgements” reflect what we know about best practice.

571

572 Finally, many participants believed that they, themselves, had the necessary knowledge to  
573 make the correct subjective interpretations, as this conversation taken from the professional  
574 rider focus group illustrates:

575 *Somebody comes in and gives two up [implies using the whip on the horse]....and the*  
576 *horse behaves like a hooligan, slams the anchors on and you know it's being naughty*  
577 *and give it two up, is that abuse? No, not in that context.... Another replies I think I*  
578 *could recognize the difference. (Professional riders).*

579

580 The value of incorporating animal caregiver instincts and knowledge in monitoring welfare  
581 forms the basis of a welfare assessment tool developed for use in zoos (Whitham &  
582 Wielebnowski, 2009). The WelfareTrak® tool “integrates the knowledge, skills and  
583 expertise of animal caregivers’ allowing them to ‘be the “voices” for the animals under their  
584 care’. Within the assessment keepers have to rate between 10 and 15 items, for example  
585 appetite, interactions with keepers, locomotion and social behavior, on a 5-point Likert scale  
586 (poor, marginal, fair, good, and excellent). The assessment is designed to be conducted in 2-  
587 3 minutes, thus using keeper intuition to allow rapid welfare assessments which can be  
588 carried out regularly to monitor welfare over time (WelfareTrak®, n.d). Greater integration of  
589 caregiver assessments into protocols for both farm animal and other species may be  
590 beneficial and has been found to be effective at improving the welfare of working horses  
591 (Reix et al., 2015). It may result in stakeholders having a less defensive attitude to welfare  
592 assessment and Vaarst (2003) found that farmers felt it important that they could actively use,  
593 benefit from, question and discuss both the indicators used in and results from a welfare



594 assessment. Where farmers felt that assessment was being carried out for the benefit of  
595 “others” they were less inclined to trust those conducting the assessment. Integrating  
596 caregiver assessments also allows longitudinal data to be collected in a more resource  
597 efficient way. As with the WelfareTrak® system, utilizing caregiver assessments offers a  
598 means whereby welfare can be monitored internally by those responsible for ensuring the  
599 welfare of domestic and/or captive animals, both facilitating a different appreciation of the  
600 role of welfare assessment whilst also, if managed carefully, promoting welfare  
601 improvement. It has been noted, for example by Lesimple and Hausberger (2014) that equine  
602 caregivers may not always make accurate assessments of the welfare of the horses in their  
603 care. As such, any welfare assessment tools developed to be used by caregivers should be  
604 designed in a way that facilitates the collection of valid data but may help equine caregivers  
605 make accurate assessments of the welfare of the horses they care for. The Animal Welfare  
606 Indicators (AWIN) project has recently designed a mobile phone app, AWINHorse, based on  
607 the welfare assessment protocol for horses (Dai et al., 2015). In addition, The Donkey  
608 Sanctuary are developing a mobile phone app for recording welfare assessment data (H.R  
609 Whay, personal communication, June 2, 2016). These provide useful tools which could be  
610 utilized by equine caregivers to help them monitor the welfare of their animals.

#### 611 *Notes on the methodology*

612 As the concept of welfare is far from clear cut and can be defined and understood in a number  
613 of differing ways (Fraser, 2008), the level of agreement that occurred within the groups is  
614 surprising. It was perhaps a reflection of the group compositions and that by grouping people  
615 with similar roles the amount of difference of opinion was limited in some groups. The level  
616 of agreement within most of stakeholder groups may also be reflections of the nature of the  
617 horse industry where fitting in and doing and saying what others do and say is an important  
618 cultural feature (Birke, Hockenull, & Creighton, 2010). Therefore whilst the

619 methodological approach seemed to achieve its goal of reducing the influence of power  
620 relationships, it may also have resulted in limited debate and questioning. However, two of  
621 the groups, the welfare scientists, and the veterinary surgeons, showed a lesser degree of  
622 consensus in some of their discussions, although not within the themes discussed in this  
623 paper. The veterinary surgeons debated whether a high body condition score was, in itself, a  
624 welfare problem:

625 *Hang on, you keep on going to the future. I'm talking about at that moment. Can you*  
626 *say to that lady, 'Look at what you've done to your horse. It is suffering'? The answer*  
627 *is no you can't. All you can say is, 'It might suffer in the future if you're not*  
628 *careful.'* (Veterinary surgeon)

629

630 Whilst within the welfare scientist group, there was debate over whether allowing horses to  
631 exhibit natural behavior was a welfare need. One participant outlines “*Grazing and walking*  
632 *as a behavior*”, as important welfare needs, to which another participant responds:

633 *You think [grazing and walking around is] important for [a] horses' welfare rather*  
634 *than [being] stood [in a stable]? ....Right, okay. I don't know why that should be*  
635 *but ....* (Welfare scientist)

636

637 Part of the process of studying equine welfare or equine health involves developing skills in  
638 critically evaluating evidence. It is not surprising then, that the veterinary surgeons and  
639 welfare scientists were more questioning. However, it is noteworthy that even within these  
640 groups there was a large degree of agreement in relation to the main themes discussed in this  
641 paper.

642 The authors aimed to recruit between three and seven participants for each focus group  
643 discussion, informed by Stewart & Shamdasani (2014). The actual focus group participant  
644 numbers ranged between three and five, which was within the desired range but at the lower  
645 end. Despite this, the group sizes still allowed for comprehensive discussion of the topics

646 although it is possible that had larger groups been utilized a greater range of opinions may  
647 have been expressed.

648 The themes identified and discussed above were determined by the first author after  
649 comprehensive analysis of the transcripts. These themes were cross-validated by the note-  
650 taker who was present at all of the focus group discussions. However, no other member of  
651 the research team analyzed the transcripts. Whilst this is not considered a vital process when  
652 carrying out social science research the authors note that analysis by a second person may  
653 have led to additional interpretations of the transcripts.

654

## 655 **Summary and Conclusions**

656 This study has shown that the purpose a welfare assessment could or does serve within the  
657 equine industry is understood in limited and often negative terms by equine stakeholders. As  
658 such, careful consideration needs to be taken about the framing and language used when  
659 developing and implementing welfare assessments for use within the industry. Stakeholders  
660 have assumed knowledge about what the main welfare problems are and where these may  
661 occur. Industry wide assessment may be necessary to validate, address or challenge these  
662 assumptions to ensure the recognition of all welfare problems, even those that are common  
663 and/or perceived as normal. However, there may be a need to increase industry level  
664 understanding of the need and value of assessing welfare across the industry and  
665 consideration of industry level concerns should be appreciated.

666 The need for longitudinal data emerged as an important feature of assessing the welfare of  
667 horses both because of seasonal variation in management and welfare and because it will  
668 assist in making fair and accurate assessments. There is a need to consider how to balance  
669 this with practical constraints.

670 Horse owners may provide valuable information which can contribute to welfare assessments  
671 and owners may be well placed to monitor the welfare of their own horses, especially  
672 considering the need for longitudinal data. Encouraging owners to carry out welfare  
673 assessments themselves may help overcome defensive attitudes to welfare assessment and  
674 may support integration of assessor intuition into the assessment process. However, there  
675 may be some problems associated with this approach, for example if owner intuition is  
676 misguided, uninformed or biased by their relationship with their animals. Consideration  
677 should be made of how best to overcome these potential difficulties, for example by  
678 providing caregivers tools to objectively assess equine welfare.

679 There is evidence that whilst differences may exist between the farming and equine industry  
680 similar challenges associated with welfare assessment may also exist. As developments are  
681 made in the field of welfare assessment there is likely to be value in sharing and learning  
682 from experiences across the species to continually improve the process.

683

684

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<b>Group</b>	<b>Participant profiles</b>
<b>Grooms</b>	<p><b>Freelance groom x2</b>, working on a self-employed basis in a number of settings including competition yards and livery yards</p> <p><b>Event groom</b> working for an international event rider</p> <p><b>Riding school groom</b>, working at a large commercial riding school</p> <p><b>Racing yard groom</b>, with 17 year experience working on racing yards</p>
<b>Leisure horse owners</b>	<p><b>Leisure horse owner</b> with two horses kept at a livery yard<sup>1</sup>, one of which was retired</p> <p><b>Leisure horse loaner</b><sup>2</sup> who loaned a horse kept at a livery yard</p> <p><b>Leisure horse owner</b> with one horse kept at a livery yard</p> <p><b>Leisure horse owner</b> with two horses kept on their own land, one retired. Was running a livery yard<sup>1</sup></p>
<b>Professional riders</b>	<p><b>International show horse rider and show judge</b> who had judged at county events and the Horse of the Year Show in the UK and at shows abroad</p> <p><b>Event rider</b>, competing up to 4 star<sup>3</sup></p> <p><b>Dressage rider</b>, competing internationally up to Grand Prix level<sup>4</sup></p> <p><b>Show jumper</b> who was competing in show jumping and was also a British Showjumping coach</p>
<b>Welfare scientists</b>	<p><b>Research Fellow</b> with experience developing welfare assessment protocols for horses. Also a veterinary surgeon.</p> <p><b>Research Associate</b> with a PhD in equine behavior</p> <p><b>Veterinary surgeon</b> with a PhD in equine welfare</p> <p><b>Researcher</b> working for a UK based equine charity with a PhD in working equid welfare assessment. Also a veterinary surgeon.</p>
<b>Welfare charity workers</b>	<p><b>Local authority inspector</b>, retired and currently supporting work to develop an equine welfare assessment qualification and assisting police forces making equine welfare prosecutions.</p> <p><b>Field officer</b> for an equine welfare charity x 2. One was previously in the army</p> <p><b>Local authority worker</b>, health and welfare enforcer who had previously worked on an equine welfare research project</p> <p><b>Equine welfare charity</b> founder</p> <p><b>Equine welfare charity</b> volunteer</p>
<b>Veterinary surgeons</b>	<p><b>Clinician</b>, lecturer, columnist and endurance racing veterinary surgeon</p> <p><b>Clinician</b>, FEI<sup>5</sup> veterinary surgeon (endurance and eventing)</p> <p><b>Clinician</b>, associate at a large equine specialist referral unit</p>

<sup>1</sup> A livery yard is an establishment where people can rent a stable and pasture and in some instances receive help caring for their horse in return for a fee.

<sup>2</sup> A person may borrow, sometimes at cost, a horse from another horse owner and as such is said to have a horse on loan.

<sup>3</sup> 4 star is the highest level a horse and rider can compete at in eventing

<sup>4</sup> Grand Prix is the highest level a horse and rider can compete at in dressage

<sup>5</sup> FEI is the Fédération Equestre Internationale, the governing body for all Olympic equestrian disciplines.



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