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Irish cattle farmers' experiences and perceptions of negative framing of farm animal welfare in the media

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Abstract

Increased urbanisation in recent decades has created a knowledge gap between farming and the Irish public. Mainstream media has begun filling this gap through reports on farm animal welfare (FAW) incidents that sometimes frame farming in a negative way. This negative framing can influence how farmers perceive the information communicated in these media stories and colour their experiences. Furthermore, perceived societal pressures may contribute to farmers feeling overwhelmed or negatively impact their mental health. In the context of FAW, the latter is particularly relevant as poor farmer mental health has been associated with poorer animal welfare. However, little is known about how the negative framing of FAW stories influence farmers' perceptions and experiences. The aim of this study was to explore how negatively framed media stories about FAW incidents affect cattle farmers' perceptions of animal welfare. Face-to-face interviews were conducted with seven Irish beef and dairy farmers using vignettes displaying negatively framed FAW incidents presented in the media. Five themes were identified: (1) job satisfaction and motivation, (2) impact on the human–animal relationship, (3) the importance of community, (4) negative portrayal of farmers and (5) need for FAW education. Findings suggest that negative framing of FAW in the media, as well as rural restructuring in Ireland, may negatively affect farmers' motivation which could have indirect implications for the welfare of their animals.

Keywords

Agriculture • farm animal welfare • farmer perception • media framing • rural sociology

Introduction

Dairy and beef farmers are the leading livestock producers in Ireland with dairy accounting for nearly 40% and meat and livestock accounting for 26% of Ireland's total food and drink exports in 2020 (Bord Bia, 2021). However, many Irish farming communities are affected by rural restructuring through declining population, changes to traditional farming practices, commercialisation and changes in consumer habits (McDonagh, 2017). One of the topics that is considered an important issue by both consumers and farmers is that of farm animal welfare (FAW). Welfare is concerned with an individual's ability to cope with their environment (Broom, 1991). Poor FAW can include injury, disease and suffering (Broom, 1991) and can present as high mortality and increased risk of disease, among other issues (Harrington *et al.*, 2013). This is important to consumers and farmers from moral, ethical and economic perspectives.

One aspect of a livestock animal's environment is its relationship with the farmer and the influence this can have on fulfilment of their needs. Indeed, research shows that there is an observable link between farmer wellbeing and the welfare of the animals in their care (Devitt *et al.*, 2015, 2018; Pinillos, 2018), which is illustrated in the One Welfare approach. Similar to One Health, One Welfare is a multidisciplinary concept that provides a structure to envision the connections between animal welfare, farmer wellbeing and the environment. It is useful for understanding FAW issues and can be used to address some of the underlying difficulties that can contribute to poor FAW including social problems, farmer wellbeing and community support (Pinillos, 2018). One Welfare addresses both human welfare and animal welfare indicators and discusses the importance of engaging with producers to educate them and prevent animal welfare issues from arising (Pinillos, 2018).

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Whether a farmer views animal welfare through an economic or moral lens, the relationship they have with their animals plays an important role in their job satisfaction (Hemsworth *et al.*, 2002; Hemsworth, 2003; Kielland *et al.*, 2010). The human–animal relationship can be one of three types: positive, negative or neutral (Hosey, 2008). A positive relationship occurs when animals show high trust in humans and little fear, while a negative relationship is characterised by high fear of humans; neutral relationships occur when animals have low fear of humans but avoid contact with them (Hosey, 2008). The wellbeing of both the farmer and their animals is reliant on having a positive human–animal relationship (Devitt *et al.*, 2018). This bond has been found to ease farming-related stress and improve job satisfaction and productivity (Hemsworth *et al.*, 2002; Hemsworth, 2003; Kielland *et al.*, 2010) which may indirectly impact animal welfare.

Indeed, farmers are susceptible to high stress as well as mental health problems (Fraser *et al.*, 2005; Parry *et al.*, 2005; Firth *et al.*, 2007). They can have little opportunity for social activities or interaction, with isolated farmers, older farmers and those with limited social supports being more at risk to farming-related stressors (Devitt *et al.*, 2018). Added stressors may have serious implications for farmer wellbeing and productivity as “stress, anxiety and depression, production-related pressures and pressures in family life can cause impaired functioning on the farm, compromising farm safety, and disrupting everyday farming patterns and activities” (Devitt *et al.*, 2018). Moreover, FAW indicators can be a sign of a farmer’s ability to cope (Pinillos *et al.*, 2016), which is a concern not only for farmers, but also for the general public.

Public concern for animal welfare has risen in recent decades (Bennett & Blaney, 2003; McEachern *et al.*, 2007), with 80% of Irish respondents, in the 2015 Eurobarometer survey, rating protection of FAW as “very important” (European Commission, 2015). However, there are marked differences in which values are placed on FAW. While citizens tend to have moral and ethical interests relating to FAW, farmers tend to focus more on economic interests (Te Velde *et al.*, 2002; Vanhonacker *et al.*, 2008; Cornish *et al.*, 2016). The divergence between the perceptions of farmers and consumers towards FAW has been well researched, with farmers being more likely to report positive perceptions of animal welfare and consumers being more likely to report negative perceptions (Te Velde *et al.*, 2002; Vanhonacker *et al.*, 2008; Cornish *et al.*, 2016). Regardless of their perspective, farmers must also take into consideration citizen expectations surrounding FAW if they are to continue farming.

Social trust is a key consideration in the maintenance of the social licence, and farmers who do not respond to expectations of change may lose consumer support (Williams *et al.*, 2011). The social licence farmers possess, or their ability to continue farming, is based on the trust that consumers have in farmers

to carry out their work in a way in which they morally approve (Williams *et al.*, 2011). Traditionally, the law has been the means by which society communicates its expectations to farmers (Williams *et al.*, 2011). However, newfound reliance that consumers have on the media to provide them with agricultural information may also be used as a tool to communicate their approval or disapproval to farmers (i.e. renegotiating the terms of their social licence). One of the various ways the general public obtains farming-related information and communicates their concerns with farmers is through the media.

The public has become increasingly reliant on mainstream media to inform its values, norms and ultimately shape modern culture (Dyer & Whitaker, 2000). Television, internet and newspapers are thought to have a strong influence on consumer perceptions (European Commission, 2015), as well as social media which can also be supported by these traditional media sources (Buddle *et al.*, 2017). Social media provides a platform to share FAW stories and allows public discourse on matters of FAW and direct communication with farmers and farming organisations. Notably, mass media stories have been identified as an indirect source of information on FAW issues (Miele, 2010). Furthermore, the volume and tone of this media can contribute to changes in consumer perceptions on farming practices and animal welfare (Verbeke & Ward, 2001; Vanhonacker *et al.*, 2008). Indeed, people have changing perspectives of animal welfare (Bennett, 1995) which is partly shaped by the media that they consume. Media stories sometimes frame the farming community in a negative way which may do more harm than good in convincing farmers to shift their attitudes and practices to meet evolving consumer expectations (Devitt *et al.*, 2018). Therefore, how these messages are framed is important to consider.

Framing in communication broadly encompasses the way in which a message or information is conveyed to an individual (Entman, 2007). It is often not what is said but how something is said which impacts human perception and behaviour. The particular words used in communication and how they contribute to making positive or negative frames salient are found to have a direct influence on how individuals interpret that message and, consequently, how they perceive and respond to it (Druckman, 2001; Chong & Druckman, 2007). Furthermore, as such, the way in which FAW narratives are presented in the media may promote a certain interpretation of a story through highlighting particular aspects while giving less attention to others.

This *framing effect*, where a piece of information is presented in either a positive or negative way, results in differing responses from an individual (Levin *et al.*, 1998; Lee *et al.*, 2018). In relation to farmers’ attitudes and behaviours, framing can be conceptualised as farmers being part of the solution

to society's problems (i.e. positive framing) or farmers being responsible for said problems (i.e. negative framing) (Thomas *et al.*, 2019). Little is known about how this attribute framing in negative media, where the focus is placed on one aspect of an object or event (Levin *et al.*, 1998), influences farmers' perceptions and experiences, and there is limited analysis of framing regarding FAW issues (Buddle & Bray, 2019). This is an important issue for exchange between citizens and farmers as negative framing may hinder open communication about FAW between the two groups.

Negative framing is thought to be more effective than positive framing in influencing public perception when used in presentation of stories related to animal agriculture (Gifford & Bernard, 2004; Miele, 2010), though it is important to note that frames are flexible and will be interpreted in different ways by different people (Buddle & Bray, 2019). Therefore, while a range of framing exists in the media, this study specifically focuses only on negative framing of FAW issues and does not include positive or neutral frames. One example of this negative framing is advertisements such as those sponsored by the group Go Vegan World, which can be seen on billboards and buses across the country and include photos of farm animals accompanied by slogans such as "Dairy takes babies from their mothers" and "A terrified child dying for your dinner" (Murphy, 2021). In news media, negatively framed articles relating to Irish farming can be found in both the UK and Ireland. One recent opinion piece in *The Irish Times* states, "Consider the barbaric practice of separating tiny calves from their mothers..." (McAteer, 2020), while another piece in *TheJournal.ie* refers to Irish farming as a "system where calves are just born to be killed" (Rowley, 2021). These examples illustrate the extreme end of negative media that this study aims to explore.

Indeed, the expansion of public reliance on the media for agricultural information and negatively framed agriculture-related stories in the media (Gifford & Bernard, 2004; Miele, 2010) may have a negative impact on farmers. In light of recognition that farmer mental health is of increasing concern, it is important to better understand how negative framing and portrayal of farmers in the media, and the potential influence this has on FAW, impacts farmers so that their wellbeing and FAW can both be better supported and communicated in promotion of a One Welfare approach. As such, qualitative methods were utilised for this study.

Beef and dairy farming are significant facets of Ireland's rural economy and culture. Structural changes to rural Ireland and changes in modern Irish society have resulted in divergent perceptions of FAW between the general public and farmers. The public's consumption of negatively framed media as a means of obtaining agricultural information has created challenges in facilitating communication between farmers and consumers. However, gaining a better understanding

of farmers' perceptions of this type of media may provide opportunities to develop more appropriate ways of achieving positive interactions and improved transfer of knowledge to and from consumers. The way in which consumer concerns about FAW are presented in the media may cause farmers to give them little consideration, further preventing progress from being made. Furthermore, addressing farming-related stressors that farmers experience could provide a more in-depth understanding of why FAW issues develop in the first place (Michie *et al.*, 2011). As such, the objective of this study was to gain an understanding of how negative framing of FAW stories in the media impacts Irish beef and dairy farmers.

Materials and methods

A qualitative approach allows individuals to discuss their own understanding of a particular topic and is particularly useful in exploring topics that are poorly understood (Christley & Perkins, 2010). The type of media stories presented to participants indicate a need to improve communication between the general public via the media and the farming community. Semi-structured face-to-face interviews were conducted on participants' farms in this study to allow participants to talk "freely and in great detail" about their perspectives (Christley & Perkins, 2010). This approach is commonly used when probing farmer attitudes and perceptions as it can help build rapport, in part, by using nonverbal communication to show interest in what the individual is saying (Spradley, 1979) as well as being given a chance to understand the participant's world (Kuehne, 2016).

The semi-structured interview protocol for this study included (1) demographic information, (2) an icebreaker question, (3) vignettes about negatively framed FAW media stories, (4) vignette follow-up questions and (5) general follow-up questions. Demographic information collected included (1) type of operation (e.g. beef, dairy, dairy beef), (2) gender, (3) age, (4) location, (5) tenure, (6) full- or part-time commitment, (7) primary or secondary income from farming and (8) number of animals managed. After collecting demographic information, participants were asked an icebreaker question about whether they believed there was currently a significant amount of negative media relating to FAW in Ireland. Icebreaker questions are used in qualitative research to engage with participants and to create interview conditions where participants can freely answer questions without feeling judged (Brennen, 2017). Participants that answered in the affirmative were then asked if they could recall a recent media story about animal welfare that had caught their attention. Vignettes were then presented and followed by probing questions intended to stimulate conversation about the participant's thoughts and impressions of each story.

Vignettes

Vignettes were utilised in this study to allow participants to define situations in their own terms (Barter & Renold, 1999). These have been described as “short stories about hypothetical characters in specified circumstances, to whose situation the interviewee is invited to respond” (Finch, 1987). As sensitive topics were discussed at the interview (e.g. animal neglect, mental health), vignettes provided a means of exploring these subjects in a less personal way. This made it more likely for farmers to provide an accurate view of their perceptions and attitudes towards a given situation (Barter & Renold, 1999).

Five negatively framed vignettes relating to FAW were developed using situations and negative framing styles

from articles published in major newspapers from Canada, the United Kingdom and the United States (see Table 1). Negatively framed articles were chosen for use in this study as negative framing of agriculture is thought to have more influence on public perception than positive framing (Gifford & Bernard, 2004; Miele, 2010) and negative framing of FAW in the media may prevent discourse among farmers and the public.

Articles from the Irish press were not selected to avoid using stories with which participants may be personally familiar. Additionally, the vignettes used in this study dealt with topics that are currently quite controversial and are often associated with negative public perceptions such as cow–calf separation in dairy farming (Ventura *et al.*, 2013;

Table 1: Vignettes

Vignette #1 (beef) – hot iron debudding

A beef farmer has been accused of poor animal welfare practices on his farm after a member of a local animal rights group went undercover as a worker to assist during spring calving. While working on the farm, the individual reported witnessing several painful and distressing handling practices including calves' horns being removed with a hot iron. He said of the experience, “Farm animals are still largely unprotected by the law, and animal welfare legislation even makes exemptions for brutal procedures that are common practice as the government leaves farmers to regulate themselves. Animals are subjected to agonising pain under industry-created standards and policies which are kept secret from the public.”

Vignette #2 (dairy) – cow–calf separation

A vegan activist group aims to bring to attention the separation of calves from their mothers through a new campaign posted across social media platforms and on local billboards. A spokesperson for the organisation says, “Calves are still routinely ripped from their mothers shortly after birth which causes great distress to both the cow and her child. The outlook is even worse for bull-calves which have no value to farmers and may end up like the ones in this story due to their inconvenience to the farmer. Appallingly, the government seems to be on the side of farmers, permitting these actions, rather than protecting the animals from needless pain and suffering.”

Vignette #3 (dairy/beef mix) – calf neglect

A dairy beef farmer avoided jail this week after authorities uncovered multiple dead calves on his land 18 months ago. Following a phone call from a concerned neighbour, authorities examined the property and discovered several dead calves stacked behind the barn. The veterinarian called to the scene estimated that the calves had been there for weeks with their bodies left to decay just out of sight of the other animals. The farmer claimed he failed to have the bodies removed as his health had deteriorated following the recent death of his brother. This case is a reminder of the daily brutalities that take place while we are not looking. This farmer will go back to keeping animals with no justice for those that have suffered under his care with the government's approval.

Vignette # 4 (beef) – poor ventilation and respiratory illness

A new study has revealed an increase in respiratory illnesses in beef cattle in Ireland. This is partly due to poor ventilation in animal housing where most cows are kept until it is time to send them to the market or for slaughter. Calves are especially vulnerable to respiratory disease as their immune systems are not strong enough to fight them off. Many farmers forego changes to their operations that could save these animals as they would cost more than the loss of calves. While the government requires animals be provided with proper ventilation and enough space to move around, it is unclear if or how well this is enforced. There is no accountability as farmers continue to provide less-than-ideal living conditions for their animals without penalty.

Vignette #5 (dairy) – prodding and hitting dairy cows

A dairy farmer is under investigation after a video footage has surfaced showing animals on his farm being prodded and hit with a sharp stick to force them to walk faster. The animals in the video are obviously frightened and in pain as the agitated and impatient farmer rushes them into the milking shed. The farmer has refused to speak with the media. The video was posted by a former employee who said, “This is only one example of the way animals are mistreated on dairy farms in this country. Most cows suffer daily and this [is] only a mild case of poor handling in comparison to other things they experience on a regular basis.”

Hötzel *et al.*, 2017). The vignette topics covered included (1) the use of hot iron debudding in beef calves, (2) cow–calf separation in dairy operations, (3) neglect and unreported death of beef calves, (4) poor ventilation and resulting bovine respiratory illness, and (5) poking and prodding of dairy cows with a sharp stick to rush them into the milking parlour. To reflect the inclusion of different types of cattle farmers, two of the vignettes portrayed beef farmers, two dairy farmers and one dairy beef farmer.

Sample

Irish beef and dairy farmers were invited to participate in this study with the assistance of farming press and associations. A callout for participants was published in the *Irish Farmers Journal*, and the Irish Farmers' Association also assisted with recruitment. Convenience sampling was utilised as this method makes it relatively easy to find participants and is inexpensive (Acharya *et al.*, 2013). The inclusion criteria were that the participant must be (1) a beef or dairy farmer located in the Republic of Ireland, and (2) over the age of 18. This study was conducted with a total of seven farmers: two beef, four dairy and one dairy beef.

Data collection

Face-to-face semi-structured interviews were conducted with farmers between January 2020 and February 2020 and lasted for an average of 52 min. All except one interview took place on the participants' own farms. With regard to geographical location in the Irish provinces, four farmers were from Leinster, two from Munster and one from Ulster. Only a selection of the vignettes was shown to each participant in respect of time. The decision on which vignettes to present to each participant was based on points they had already freely elicited and thereby would be likely to engage with the most (see Table 2). A set of sample follow-up questions was prepared in advance (see Table 3), but questions based on issues raised during interview were also used to explore each participant's specific responses more in depth. A set of general follow-up questions was also utilised (see Table 4).

This study was approved by the University of Edinburgh Royal (Dick) School of Veterinary Studies Human Ethical Review Committee (HERC) and all contributors provided written informed consent prior to participating in the study. All participants consented to being audio recorded.

Data analysis

Audio recordings were transcribed verbatim, in full, by the primary researcher (AD). The transcriptions were coded and analysed using QSR NVivo 12 software (NVivo 2018). Once the researcher was familiarised with the data after multiple readings of the transcripts, content analysis of the data was carried out based on the methods devised by Erlingsson

Table 2: Vignettes presented

Participant	Vignettes presented
Dairy farmer 1	(1) – Hot iron debudding (2) – Cow–calf separation (3) – Calf neglect (4) – Poor ventilation and respiratory illness (5) – Prodding and hitting dairy cows
Dairy farmer 2	(2) – Cow–calf separation (3) – Calf neglect (5) – Prodding and hitting dairy cows
Dairy farmer 3	(2) – Cow–calf separation (3) – Calf neglect (5) – Prodding and hitting dairy cows
Dairy farmer 4	(1) – Hot iron debudding (2) – Cow–calf separation (3) – Calf neglect (5) – Prodding and hitting dairy cows
Beef farmer 1	(1) – Hot iron debudding (3) – Calf neglect (5) – Prodding and hitting dairy cows
Beef farmer 2	(1) – Hot iron debudding (2) – Cow–calf separation (3) – Calf neglect (4) – Poor ventilation and respiratory illness (5) – Prodding and hitting dairy cows
Dairy beef farmer 1	(2) – Cow–calf separation (3) – Calf neglect (4) – Poor ventilation and respiratory illness (5) – Prodding and hitting dairy cows

& Brysiewicz (2017). This process ensured that the coded data would be able to be traced to the original transcripts. “Meaning units” were first assigned to statements made by participants within the context of the interviews. This allowed the meanings each farmer was conveying to be condensed into text that was more easily manageable. These “meaning units” were then coded into groups with short descriptions and placed into categories with short, factual titles in order to assist in identification of emerging themes (see Table 5). In total, six categories were identified: “Community”, “Education”, “Emotions”, “Human–animal bond”, “Social pressure” and “Societal changes” from a total of 27 codes (see Table 6). These categories were analysed using thematic content analysis and five distinct themes were identified.

Table 3: Example vignette follow-up questions

- How would you describe the tone of this story?
- How do you think consumers would respond when seeing a story like this in the media?
- What do you think most farmers would think when seeing a story like this in the media?
- What do you think the author of this story would consider important with regard to animal welfare?
- How does that compare to what you think is important when it comes to animal welfare?
- How do you think your opinions compare to other farmers and to consumers?

Table 4: Example general follow-up questions

- How do you feel about being a farmer when there are stories in the media like this written with a negative tone towards farmers?
- Do you think this type of media creates challenges in maintaining consumer trust in the farming industry?
- Would seeing these types of stories in the media make farmers question their abilities or doubt themselves?
- Do you think that seeing this type of story in the media causes farmers to reconsider how they think of animal welfare?

Results

Demographics

Demographic information was collected from all participants (see Table 7). Participants had been farming from a total of 19 to 50 yrs with an average tenure of 34.1 yrs. The youngest participant was 39 yrs of age and the oldest, 65 yrs, with a mean age of 54.3 yrs. All participants were male. Five were full-time farmers and two, part-time farmers with an equal split of income between farming and off-farm work. Participating

farms managed from 70 to 360 head of cattle, all above the State average for cattle farms of 66 (Central Statistics Office, 2018a).

Icebreaker question

Participants were asked if they believed that there was a lot of negative media relating to FAW at the moment in Ireland in order to gauge their familiarity with the topic of this study. Four farmers agreed that there was a significant amount of negative media surrounding FAW in Ireland, while two disagreed that this was the case. The remaining farmer stated that there was some negative media relating to FAW in Ireland, but that its frequency was dependent upon the region and what type of media (e.g. radio, television) was being consumed. The four farmers who answered this question in the affirmative were then asked if they could recall a recent media story about animal welfare that had caught their attention. Three recounted cases of animal welfare-related media in Ireland concerning horses kept by travellers, vegan billboards and a forthcoming television programme on calf welfare. One farmer could not think of a story specific to Ireland but recalled a story about the abuse of calves at a lairage in France.

Responses to media vignettes

Participant narratives revealed that animal health was thought to be directly related to FAW, with nearly all participants expressing the idea that FAW is an inherent part of production. Media framing was a significant factor in how the participants perceived the vignettes that were presented, with four participants pointing to specific vocabulary used that was described as being “antagonistic”, “extreme”, “severe” and “confrontational”:

“I’d describe it as confrontational... people have an agenda are saying it. Maybe they should get their facts right. Calves being ripped from their mothers. I don’t think that’s quite the term I would use.” (Dairy farmer 2)

Vignettes presented were chosen for each participant based on their own background, topics that surfaced during the interview and time constraints.

Table 5: Coding and categories

Original text	Meaning unit	Code	Category	Theme
<i>There’s a certain amount of frustration out there that there’s a campaign there to actually get us to get rid of our animals.</i>	People do not consider farming important anymore	Feeling unappreciated	Emotions	Job satisfaction
<i>There’s no contact and the less human interaction that we have, the more problem that depression is going to be. And I think that’s already a case in agriculture.</i>	Farmers are being negatively affected by the decrease of socialisation in society	Mental health	Needing support	Importance of community

Table 6: Content analysis sample

Code	Category
1. Community action	Community
2. Sense of belonging	
3. Farming organisation action	
4. Government action	
5. Needing support	
6. Education needed for farmers	Education
7. Education needed for consumers	
8. Feeling confident in their abilities	Emotions
9. Feeling helpless or afraid	
10. Feeling insecure	
11. Feeling job-related stress	
12. Feeling judged or threatened	
13. Feeling respected	
14. Feeling shame or embarrassment	
15. Feeling supported	
16. Feeling unappreciated	
17. Feeling upset or frustrated	
18. Feeling job satisfaction	Human–animal bond
19. Animal welfare values	
20. Being a good farmer	
21. Concerns about negative media	Social pressure
22. Conflict avoidance/ignoring issues	
23. Media effects on consumers	
24. Media effects on farmers	
25. Benefits from negative media	Societal changes
26. Changes in farming community	
27. Changes in society	

Themes

Appreciation and job satisfaction, the human–animal relationship, social and environmental stressors and a need for more education were primarily discussed in the context of the emotional impact they had on farmers and are reported on in this section.

Appreciation and job satisfaction

Farmers' responses to negatively framed media stories about FAW incidents were considerably emotional in nature with frustration being widely expressed among participants:

“Most farmers are working from say 8 o'clock in the morning for 5 or 6 in the evening, and maybe busy times longer. And they've limited time for social or sports. But when they do get out, they don't want to be hearing ‘What you were doing today was more or less a waste’, ‘you're producing bad food’, or ‘you're not looking after your animals.’” (Dairy farmer 1)

“There's plenty that farmers already have to deal with and then with stories like this on top that they're seeing that you know might be frustrating them more... it'll weigh on their minds an awful lot more, especially then when you have no one to talk to everyday that you're only talking to yourself or the animals.” (Dairy beef farmer 1)

Farmers felt that this type of media added additional pressure to existing job-related stressors that was unwarranted, compounded the complexity of their work-related stress and negatively impacted on their job satisfaction:

“What has happened now in Ireland... is that the dairy industry is expanded, and farmers are working harder and harder to stand still... they're trying to do more with less

Table 7: Participant demographics

Farmer number (specified in interview quotations)	Gender	Age	Province	Tenure (yrs)	Hours	Income	Number of animals
Dairy							
1	Male	60–70	Leinster	40–50	Full-time	Primary	300–400
2	Male	50–60	Munster	30–40	Full-time	Primary	100–200
3	Male	30–40	Leinster	15–20	Full-time	Primary	100–200
4	Male	60–70	Leinster	40–50	Full-time	Primary	100–200
Beef							
1	Male	50–60	Ulster	25–30	Part-time	50:50	50–100
2	Male	40–50	Leinster	25–30	Full-time	Primary	100–200
Dairy/beef							
1	Male	40–50	Munster	25–30	Part-time	50:50	50–100

time, with less help on farms and so they're feeling that they, the media, is coming down on top of them." (Beef farmer 2)

"I know a guy there he was farming during the snow 2 years ago... he was going from 6 o'clock in the morning 'til 7 or 8 o'clock at night. Getting a cup of tea maybe got something to eat before that. And he said a couple of nights he was going 'til 12 o'clock to get water to the stock, to get silage to them. He had to dump the milk because the lorry couldn't get into it, but he still was going to feed his cattle and that. And he just said he seen something in the press around the same time... some negativity about farming and looking after animals. He said, 'Why the hell would I bother anymore?' and that like... So, within a month he had all his cows sold." (Dairy farmer 1)

This frustration that farmers expressed was not only related to their feelings towards the media and society but also seemed to be part of an internalised negative perception of themselves. This discontent was thought to be problematic by negatively impacting the job satisfaction of farmers:

"They'll [farmers] keep the standards like, but they'll get more uptight with themselves. They'll be more cross with themselves. There is no happy farmer anymore and that's the trouble." (Dairy beef farmer 1)

However, encouragement by the farming community and farming organisations was cited as a positive influence on farmers, providing them with a sense of professional achievement. Recognition by the farming community through competitions was felt to be an important way of reinforcing good farming practices, but may be met with further irritation as those outside of the community remain unaware of the efforts being made:

"It's an acknowledgment of the fact that you're doing the right thing, but I think the problem with that is you know everybody in the farming community knows that. But outside of it... it doesn't hit the headlines of the Irish Independent or anything like that. No good news story ever sells so it's never going to get out there." (Dairy farmer 3).

Thus, participants believed that the efforts they were making to provide good animal welfare were not readily acknowledged by the public or other actors in the sector, creating a sense of alienation and intergroup conflict that cannot easily be resolved. This apparent negative influence on job satisfaction was also discussed in relation to its influence on the human–animal relationship and the knock-on effects this has for FAW.

Human–animal relationship

It was evident from farmers' narratives that the human–animal bond played an important role in their motivation. Vignette #3 on "calf neglect" was presented in all seven interviews and stimulated the most discussion overall. Six of the seven participants surmised that the farmer likely had unaddressed mental health issues. Notably, several participants directly mentioned the link between a farmer's mental health and animal welfare in their narratives:

"You will often find that in animal cruelty cases that... the farmer himself maybe has issues you know mental health issues or depression or something like that." (Dairy farmer 2)

"Sometimes there is an issue with a person you know like... there is people that will have issues with their own health or their mental health... sometimes they have a problem themselves and then the issue develops onto the farm as well where they're not able to look after their animals either." (Beef farmer 2)

Overall, it was evident from participants' narratives that they were aware of mental health issues in their communities that affect farmers' abilities to look after their animals. As discussed below, this is one of the areas that ties into the role of community support.

Importance of community

In addition to providing social supports to peers in times of distress, the importance of community was noted by participants in relation to accountability within farming. This topic was also primarily emphasised by participants when exposed to the "calf neglect" vignette. Societal changes, including increased isolation of individuals in rural communities, was a common topic:

"It's a very enclosed environment like and the majority of people are working on their own so you know if you're someone who's working alone all day, doesn't have any social activity and something gets in very quickly on them and it's very hard to get rid of that thought process... I do worry about people in agriculture that side of it because you know if you're not talking to somebody on a daily basis even just the general chat you know 'not a bad old day out'... people need that." (Dairy farmer 3)

When discussing their perceptions of the "calf neglect" vignette, all seven participants alluded to the importance of the local farming community, perceiving that neighbours would have been aware of what was happening. If neighbours noticed another farmer having issues that may

carry over onto the farm and impact on their animals, there was an expectation to intervene either by offering social support or, in more serious cases, reporting the situation to the authorities:

“It’s just something that the Department and Teagasc and look, all other farmers we have to just keep an eye on them. Because there are people out there that never see anyone week in, week out except maybe the postman when they see him driving in so and it’s tough for them. So, we just have to look after things more, after our neighbours, and to keep a check on them.” (Dairy farmer 4)

“Traditionally people would have kept an eye on their neighbour more... now people are becoming more isolated. So, there can be a possibility of farm welfare cases then more... And that’s the fear that some farmers have that they see where people are isolated, and you know you don’t have to be in the most remote area for that to happen.” (Beef farmer 2)

In addition to the isolation that can come with the farming lifestyle, the lack of professional support services and how this leaves some farmers without needed supports was noted by six of seven participants. According to participants’ reflections, the role of the farming community in providing accountability appears to have been lost. Indeed, further tensions arose in relation to community when participants discussed negative actions of their peers.

Negative portrayal of farmers

The negative portrayal of farming by both peers (e.g. other farmers) and non-farmers (e.g. vegan campaigns, “anti-farming” documentaries) surfaced as another concern participants had surrounding the farming community. Farmers were worried about how they are being portrayed to the public because of the actions of others with which they do not agree. The impact of peer actions, particularly those resulting in poor animal welfare, on others in the farming community appeared as an important external influence. Mentions of “farmers who should not be farming” were common with the express belief that they are the exception among Irish farmers, not the rule. This concept also pointed to farmers defining themselves by good animal husbandry which they equate with good animal welfare. Farmers were aware that these actions carried out by their peers reflected poorly on themselves in society’s eyes:

“Farmers would be shocked to see anything like that happening because particularly that’s a perception on themselves. As I say 99% of farmers are very pro-animal welfare.” (Beef farmer 2)

“There’s a huge element of greed here and profit, and in those situations animal welfare is going to come to the wall... I don’t even know if you would call them farmers there. They are dealing in animals which is unfortunate because animals have life and feeling and feel pain.” (Beef farmer 1)

While participants acknowledged the negative impact caused by this type of portrayal by their peers within their communities, they also pointed out that an inaccurate image of farmers promoted by others also permeates wider society. When speaking about negative media put forth by non-farmers to the public, perceived lack of knowledge of FAW was proposed as a common explanation for these flawed depictions:

“So, this is what infuriates farmers is this type of portrayal from people who don’t understand the nature of farm animals and treat them like humans or like other pets. So, I think that’s a problem.” (Beef farmer 1)

When discussing negative media that aims to intentionally discredit farmers, many participants suggested that the individuals behind these events had a certain agenda when it came to agriculture:

“Another popular opinion at the moment now is ‘don’t have any animals’ you know and again I – that is trying to provoke and recruit people to donate to them, I would say. So, I would severely really question where the money is coming for this propaganda being put out there.” (Dairy farmer 1)

“My thing is sort of as an activist they’re just trying to cause trouble when there’s no need for it. They’re trying to paint farmers in a bad light which is not the case.” (Dairy farmer 4)

Overall, participants expressed feelings of shock and frustration towards individuals and groups that aim to depict them in a particular manner and appeared to feel a lack of control over the image of farmers that is being presented to the society. Furthermore, a lack of agricultural education was suggested as one of the reasons for this type of media coverage.

Need for education

Many of the concerns discussed up to this point were linked to the underlying need for more agricultural education, with farmers particularly highlighting a lack of consumer education. The education of primary and secondary students was underscored as an important measure in bridging the knowledge gap between farmers and the public:

“There’s a massive disconnect between ag and society now, which we’ve only been seeing in this generation I think because prior to that everybody was either a farmer’s son or daughter, or they had an uncle that was a farmer, you know. But so, it just now unfortunately you’re coming to... three generations of divide gap. So, people just don’t even understand where their food comes from. You know there’s no education.” (Dairy farmer 3)

“Most people are not any more than second generation away from where their ancestors were farmers. And sometimes that comes down to the schools and the education that they give to children in the schools, that they understand how farming works and the importance of the agricultural sector.” (Beef farmer 2)

Along with the emphasis on early education, physical exposure to farms as a means of agricultural education was thought to be a particularly effective method of engaging with the public:

“...I think that’s where society needs like we need to bring back food as, you know, a source of education in schools... our local kids in the primary school I’ll bring them out here in the spring. They walk through the calf sheds, they feed the calves, they see everything that’s going on... the parents have as many questions if not more than the kids and everyone learns a lot going away from it.” (Dairy farmer 3)

Likewise, some farmers drew similar conclusions to the importance of FAW knowledge for individuals promoting negative media about farming:

“I wonder if they ever looked after animals themselves. And have they ever looked after an animal for 365 days of the year and seen what an animal really needs.” (Dairy farmer 1)

“Well unless they have actually worked on a farm they don’t really know what animal welfare is because they just see them, or they just read about it. So, unless they have taken the time out to go and work on a farm and experience it they wouldn’t really know.” (Dairy farmer 4)

This perceived necessity of having to have worked with animals to understand their needs was accompanied by the need for formal agricultural education. Observed generational differences were highlighted when speaking about the positive impact that education of younger farmers has on animal welfare. Farmers with poor knowledge of FAW were emphasised as a risk for FAW issues further stressing the importance of education for farmers:

“Yes, there’s certainly a lack of knowledge. There may be a lack of commitment and a lack of time and generally will fall away from it again but at the expense of pain and suffering may be put on to animals.” (Beef farmer 1)

Nonetheless, the disconnect between society and agriculture was a primary concern for participants and was associated with a need for more consumer education. A combination of experience and education was encouraged, and farmers viewed hands-on experience with animals as a necessity to understanding the needs of animals and how to properly care for them. The importance of understanding animal agriculture in everyday life seemed to be linked to a feeling of loss of Ireland’s agriculture-centred culture and way of life before the Irish society began to move away from its agrarian roots. A collective approach to providing education was favoured with participants agreeing that they need to do their best as farmers to present a positive image, but they also expected organisations with a vested interest in farming (e.g. IFA, Bord Bia) to make more of an effort to communicate the realities of modern agriculture to consumers.

These five themes that were identified to organise the farmers’ responses are not unrelated categories, but rather demonstrate prominent ideas that influence each other in various ways. The impact on the human–animal relationship, lack of access to social supports, need for education, perceptions of negative portrayals of farming by others and other factors impacting job satisfaction and motivation all influenced the perceptions that participants had of their circumstances and of themselves as farmers.

Discussion

This study intended to explore how negatively framed media stories on FAW impact Irish beef and dairy farmers. Findings revealed that, when thinking about FAW, farmers relied heavily on emotions evoked by the situations presented in the vignettes. In particular, emotions and social influences had the most impact on how farmers perceived negative media and FAW in the context of their professional role. Participants were all at least second-generation farmers, indicating that they have been exposed to farming from an early age. This has likely contributed to their occupational identity which is closely linked to motivation (Burton, 1998; Burton & Wilson, 2006). Their long-term involvement in farming has likely shaped their perspectives and experiences relating to FAW and what it means to be a “good farmer” (Burton, 2004).

In line with previous research, the farmers in this study considered good FAW as an inherent part of production (McInerney, 2004; Lagerkvist *et al.*, 2011). Ensuring good animal health and productivity seemed to be particularly

important benchmarks to participants for good animal welfare, in agreement with previous research that illustrates that farmers tend to focus on minimising negative aspects of welfare (e.g. stress, health issues) (Kauppinen *et al.*, 2010; Vigors, 2019). Many participants did not challenge the animal welfare concerns presented in the vignettes or disagree that such situations had occurred in Ireland. Overall, participants agreed with many of the concerns about treatment of animals in these stories, while disagreeing with the way the information was framed. The negative framing of the vignettes provided in this study resulted in emotional responses from participants, though this did not appear to affect the perceived credibility of the stories being reported. Farmers generally granted that the media vignettes presented at interview were indistinguishable from the types of media stories they are exposed to in real life. This indicates that the emotional responses they expressed during the interviews are likely to represent their true feelings. The first theme consisted of a number of factors that impact on both opportunity and motivation and appeared to have an influence on farmers' feelings of job satisfaction. Emotion was a common topic recognised throughout the narratives which indicated that negatively framed media stories on FAW can provoke significant emotional reactions. The impacts of perceived social pressures brought about both directly and indirectly from negative media were also widely discussed. Emotion seemed to play an important role in the participants' perceptions of the vignette stories with farmers feeling frustrated, attacked and angry at the negative media surrounding farming that is circulating through society. The terms that they used to describe the way certain vignettes were framed (e.g. "extreme", "severe", "confrontational", "antagonistic") indicates that the language used was perceived by participants as being meant to provoke them. This may indicate that participants considered these vignettes as potentially undermining their cultural or social capital. Social capital is the network of social relationships and associated resources that members of a group share (Bourdieu, 1986; Sutherland & Burton, 2011). As Sharp & Smith (2003) observed, social capital between farmers and non-farmers can be a significant factor in non-farmers' support of agriculture, which also affects social licence.

Social pressures discussed in narratives further evoked a sense of fear for the future of Irish farming as fewer young people are coming into the sector, as evidenced by the steadily decreasing percentage of farmers under the age of 35 in Ireland (Central Statistics Office, 2018b). Negative media surrounding farming was thought to be a more significant influence on younger individuals, by preventing them from considering farming as a career. This effect has been observed in health care with studies reporting a negative and biased image of nursing among career advisors as well as nurses themselves due to how the occupation is presented

in the media (Naish, 1996; Bosco *et al.*, 2005). Furthermore, nurses have described having actively discouraged others from entering the profession (Schnautz, 2003). Indeed, media can be effective in preventing young people from choosing career paths that are portrayed in a negative light (Chandler & Reckker, 2011). However, there were also elements that surfaced in narratives that indicated that farmers were optimistic about the future and that there are solutions to the issues considered in this study.

The second theme that emerged concerned the human–animal bond and the direct impact a farmer's declining mental health can have on FAW. This relationship was highlighted and readily acknowledged by most participants and reflects findings of previous studies in this context (Devitt *et al.*, 2015, 2018). The importance of the connection between farmers and livestock may be best illuminated in times of disaster as Hall *et al.* (2004) and Convery *et al.* (2005) have shown in the case of the UK's foot-and-mouth disease outbreak in 2001. Indeed, as Convery *et al.* (2005) argues, the bond between farmers and their animals goes beyond the concept of the human–animal relationship as a farmer's livestock are an important fixture in their "whole way of life". In cases of neglect, mental health of the farmer may be a concern. Responses of nearly all participants aligned with previous studies that have reported little access to mental health services in rural areas (Ní Laoire, 2001; Cleary *et al.*, 2012). As such, community was seen as a vital support for farmers.

Importance of community to farmers comprised the third theme and a lack of social supports to respond to these types of issues was stressed. Farmers' perceived deterioration of the social aspect of farming and the loss of this experience for their children has been lamented (Macken-Walsh, 2009). The departure of these types of cultural norms in the Irish farmer's way of life may present challenges to FAW as their social supports diminish, further compounding issues relating to farmer wellbeing (Uchino *et al.*, 1996; Macken-Walsh *et al.*, 2012). Furthermore, as Macken-Walsh (2009) has suggested, as the structure of rural Ireland continues to change, the social and cultural attachments that farmers have to their occupation are important to incorporate into rural development. Overall, Irish farmers are estranged from rural development and therefore may not feel that they have control over the changes that are occurring (Macken-Walsh, 2011). This feeling of lack of control carries over into the image of farming being portrayed to the public.

In the fourth theme, participants were troubled by poor choices made by their peers and how these individuals were portraying the farming community to the public. These actions can undermine the social licence agreement between farmers and the public which relies on having trust in farmers (Williams *et al.*, 2011). The discrepancies that farmers experience when others depict an image of them that conflicts with

their own experiences, self-image and professional identity can be difficult to reconcile (Hallam *et al.*, 2012). Indeed, as farmers tend to see farming as a way of life rather than just an occupation, their self-concept is complex and varied and their professional and social identities may be more blurred than individuals belonging to other professions (Vanclay, 2004; Groth & Curtis, 2017). These aspects share a strong connection with farming's social-cultural importance (Macken-Walsh *et al.*, 2012), indirectly impacting on their social licence and standing in society. This threat to the social licence can disrupt the community's social harmony, potentially leading to issues on the farm (Williams *et al.*, 2011).

The fifth theme related to the need for more agricultural education. As previous research has shown, how different stakeholders interpret and define FAW can greatly vary as they are influenced by an individual's own opinions, experiences and interests (Te Velde *et al.*, 2002). Reflecting the findings of an EU survey on public knowledge where a majority of respondents claimed they knew "some", "a little" or "nothing at all" about animal farming in their country (European Commission, 2007), participants did not place much value in the level of knowledge Irish consumers have of FAW. Citizens and farmers have differing interests which are reflected in their varied perceptions of FAW. Indeed, when talking about good FAW, farmers focus more on factors related to physical health and optimising productivity, while citizens are more concerned with aspects like an animal's ability to move freely and engage in natural behaviours (Te Velde *et al.*, 2002; Lassen *et al.*, 2006; Vanhonacker *et al.*, 2008). Overall, farmers and consumers have divergent values when it comes to FAW and place varying importance on components based on their personal frames of reference (Vanhonacker *et al.*, 2008).

Many participants suggested that effective ways of reducing the gaps between these perceptions include open farm visits and agricultural and animal welfare education for both consumers and farmers, particularly in early education. Research has shown that consumer trust in farmers is partly associated with urbanisation. In Finland, urbanisation has been slower to occur than in other European countries, and more consumers have visited livestock farms than citizens of other European countries (Jokinen *et al.*, 2012). This first-hand experience of farm practices has resulted in consumers that have high levels of trust in farm animal producers and low levels of concern about FAW issues (Jokinen *et al.*, 2012). Furthermore, participants did agree that farmers also need more education on FAW (Deming *et al.*, 2019) and conveyed an agreement with studies that show that education is important in ensuring that farmers themselves have an awareness of FAW issues (Devitt *et al.*, 2018).

A number of themes that emerged in this study touched on existing concerns in the farming community (e.g. mental

health issues, increased job-related stress) that can be indirectly impacted by negative media. It also seemed to affect participants' professional identities as farmers which are influenced by cultural norms, such as certain practices being accepted and reinforced by peers (Burton, 1998; Macken-Walsh, 2012). Indeed, farmers internalise aspects of farming culture which contribute to their identity and they are expected to be self-reliant and resilient which can guide many of their attitudes and behaviours (Staniford *et al.*, 2009; Gunn *et al.*, 2012; Roy *et al.*, 2014; Hull *et al.*, 2017; Vayro *et al.*, 2020). Additionally, community and connection to the farm can also be vital aspects of a farmer's self-identity (Ellis & Albrecht, 2017) and the perceived loss of these connections by participants further contributed to mounting occupational stress.

Due to the COVID-19 pandemic, the interview period for this study was cut short. Securing agreement from additional farming organisations to assist with recruitment was still in progress and the failure of this to come to completion may have resulted in limited engagement by beef farmers and farmers in regions of the country that have not been represented in this study. Selection of participants for this study was performed through convenience sampling and was limited to farmers recruited through farming organisations so does not represent a comprehensive sample of the farming community. While there was a small sample size for this study, this was not a concern as this was an exploratory study which aimed to provide new insights into this previously unexplored topic rather than determine robust outcomes (Malterud *et al.*, 2016; Vasileiou *et al.*, 2018).

Furthermore, distinct themes surfaced from the narratives despite the small sample size. However, not all vignettes were presented to each participant and may have limited the conclusions drawn on how different types of articles can impact farmer perceptions. Additionally, this study explored farmer experiences of mainstream media that served as a proxy for public perception which may not always be an accurate representation of citizens' beliefs and attitudes. Despite limitations, the findings of this study make a fundamental contribution to the further development of successful communication between farmers and consumers, and to a better understanding of the factors that influence how farmers experience negative media on FAW.

This study was an effort to explore the effects that negatively framed media stories about FAW have on Irish farmers and the implications they may have for FAW. Understanding the variables that influence farmer perceptions towards FAW is essential for developing effective communication between farmers and society. The five themes that were identified were primarily related to emotions, social supports and factors that influence job satisfaction. These provided deeper insight into the specific factors that influence farmers' perceptions towards

negative FAW media in Ireland. The nature of the farmers' reactions suggests that accessing a farmer's emotions on certain topics may be a useful way of gaining insight into their perspectives and experiences and influencing human behaviours that impact on FAW.

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References

- Acharya, A.S., Prakash, A., Saxena, P. and Nigam, A. 2013. Sampling: Why and how of it. *Indian Journal of Medical Specialties* **4**: 330–333.
- Barter, C. and Renold, E. 1999. The use of vignettes in qualitative research. *Social Research Update* **25**: 1–6.
- Bennett, R. 1995. The value of farm animal welfare. *Journal of Agricultural Economics* **46**: 46–60.
- Bennett, R.M. and Blaney, R.J. 2003. Estimating the benefits of farm animal legislation using the contingent valuation method. *Agricultural Economics* **29**: 85–98.
- Bord Bia. 2021. "Annual Report and Accounts 2020". Bord Bia. <https://www.bordbia.ie/globalassets/bordbia.ie/about/governance/annual-reports-pdfs/bord-bia-annual-report-2020.pdf> [Accessed 10 June 2020], 136 pages.
- Bosco, A.M., Ward, C. and Styles, I. 2005. Looking to the future: nursing as a career goal. *Contemporary Nurse* **19**: 105–114.
- Bourdieu, P. 1986. "The forms of capital". *Handbook of Theory and Research for the Sociology of Education*, Greenwood, Westport, 377 pages.
- Brennen, B.S. 2017. "Doing qualitative research". *Qualitative Research Methods for Media Studies*, Routledge, New York, 254 pages.
- Broom, D.M. 1991. Animal welfare: concepts and measurement. *Journal of Animal Science* **69**: 4167–4175.
- Buddle, E.A and Bray, H.J. 2019. How farm animal welfare issues are framed in the Australian media. *Journal of Agricultural and Environmental Ethics* **32**: 357–376.
- Buddle, E.A., Bray, H.J. and Pitchford, W.S. 2017. Keeping it 'inside the fence': an examination of responses to a farm-animal welfare issue on Twitter. *Animal Production Science* **58**: 435–444.
- Burton, R.J. 1998. The role of farmer self-identity in agricultural decision making in the Marston Vale Community Forest. PhD thesis, De Montfort University.
- Burton, R.J. 2004. Seeing through the 'good farmer's' eyes: towards developing an understanding of the social symbolic value of 'productivist' behaviour. *Sociologia Ruralis* **44**: 195–215.
- Burton, R.J. and Wilson, G.A. 2006. Injecting social psychology theory into conceptualisations of agricultural agency: towards a post-productivist farmer self-identity? *Journal of Rural Studies* **22**: 95–115.
- Central Statistics Office. 2018a. "Structure of Farming in Ireland 2016". Central Statistics Office. Available online: <https://www.cso.ie/en/releasesandpublications/ep/p-fss/farmstructuresurvey2016/index.html> [Accessed 10 June 2020].
- Central Statistics Office. 2018b. "Farms and Farmers – CSO – Central Statistics Office". Central Statistics Office. Available online: <https://www.cso.ie/en/releasesandpublications/ep/p-syi/psyi2018/agri/farmsandfarmers/> [Accessed 10 June 2020].
- Chandler, C. and Reckker, E. 2011. Using media to broaden students' knowledge about career choices. *Techniques: Connecting Education and Careers (J1)* **86**: 48–50.
- Chong, D. and Druckman, J.N. 2007. A theory of framing and opinion formation in competitive elite environments. *Journal of Communication* **57**: 99–118.
- Christley, R.M. and Perkins, E. 2010. Researching hard to reach areas of knowledge: Qualitative research in veterinary science. *Equine Veterinary Journal* **42**: 285–286.
- Cleary, A., Feeney, M. and Macken-Walsh, Á. 2012. "Pain and Distress in Rural Ireland; A Qualitative Study of Suicidal Behaviour among Men in Rural Areas". University College Dublin and Teagasc. Available online: https://www.drugsandalcohol.ie/18056/1/Pain_and_Distress_in_Rural_Ireland_Report_summary.pdf [Accessed 3 June 2020], 14 pages.
- Convery, I., Bailey, C., Mort, M. and Baxter, J. 2005. Death in the wrong place? Emotional geographies of the UK 2001 foot and mouth disease epidemic. *Journal of Rural Studies* **21**: 99–109.
- Cornish, A., Raubenheimer, D. and McGreevy, P. 2016. What we know about the public's level of concern for farm animal welfare in food production in developed countries. *Animals* **6**: 74.
- Deming, J., Macken-Walsh, Á., O'Brien, B. and Kinsella, J. 2019. Entering the occupational category of 'Farmer': new pathways through professional agricultural education in Ireland. *The Journal of Agricultural Education and Extension* **25**: 63–78.
- Devitt, C., Kelly, P., Blake, M., Hanlon, A. and More, S.J. 2015. An investigation into the human element of on-farm animal welfare incidents in Ireland. *Sociologia Ruralis* **55**: 400–416.
- Devitt, C., Hanlon, A., More, S.J., Kelly, P.C. and Blake, M. 2018. "Challenges and Solutions to Supporting Farm Animal Welfare in Ireland: Responding to the Human Element". Department of Agriculture, Food and the Marine. Available online: <https://researchrepository.ucd.ie/handle/10197/10470> [Accessed 10 March 2020], 41 pages.
- Druckman, J.N. 2001. The implications of framing effects for citizen competence. *Political Behaviour* **23**: 225–256.
- Dyer, J.E. and Whittaker, B.K. 2000. Identifying sources of bias in agricultural news reporting. *Journal of Agricultural Education* **41**: 125–133.
- Ellis, N.R. and Albrecht, G.A. 2017. Climate change threats to family farmers' sense of place and mental wellbeing: a case study from the Western Australian Wheatbelt. *Social Science & Medicine* **175**: 161–168.

- Entman, R.M. 2007. Framing bias: media in the distribution of power. *Journal of Communication* **57**: 163–173.
- Erlingsson, C. and Brysiewicz, P. 2017. A hands-on guide to doing content analysis. *African Journal of Emergency Medicine* **7**: 93–99.
- European Commission. 2007. “Special Eurobarometer 270: Attitudes of EU citizens towards Animal Welfare”. Europa. Available online: https://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_270_en.pdf [Accessed 25 March 2020], 82 pages.
- European Commission. 2015. “Special Eurobarometer 442: Attitudes of Europeans towards Animal Welfare”. Europa. Available online: https://data.europa.eu/euodp/en/data/dataset/S2096_84_4_442_ENG [Accessed 27 March 2020], 86 pages.
- Finch, J. 1987. The vignette technique in survey research. *Sociology* **21**: 105–114.
- Firth, H.M., Williams, S.M., Herbison, G.P. and McGee, R.O. 2007. Stress in New Zealand farmers. *Stress and Health* **23**: 51–58.
- Fraser, C.E., Smith, K.B., Judd, F., Humphreys, J.S., Fragar, L.J. and Henderson, A. 2005. Farming and mental health problems and mental illness. *International Journal of Social Psychiatry* **51**: 340–349.
- Gifford, K. and Bernard, J.C. 2004. The impact of message framing on organic food purchase likelihood. *Journal of Food Distribution Research* **35**: 1–10.
- Groth, T.M. and Curtis, A. 2017. Mapping farmer identity: why, how, and what does it tell us? *Australian Geographer* **48**: 365–383.
- Gunn, K.M., Kettler, L.J., Skaczkowski, G.L. and Turnbull, D.A. 2012. Farmers’ stress and coping in a time of drought. *Rural and Remote Health* **12**: 1–16.
- Hall, M.J., Ng, A., Ursano, R.J., Holloway, H., Fullerton, C. and Casper, J. 2004. Psychological impact of the animal–human bond in disaster preparedness and response. *Journal of Psychiatric Practice* **10**: 368–374.
- Hallam, A., Bowden, A. and Kasprzyk, K. 2012. “Agriculture and Climate Change: Evidence on Influencing Farmer Behaviours”. The Scottish Government. Available online: <https://www.gov.scot/publications/agriculture-climate-change-evidence-influencing-farmer-behaviours/> [Accessed 19 May 2020], 141 pages.
- Harrington, L.A., Moehrensclager, A., Gelling, M., Atkinson, R.P., Hughes, J. and Macdonald, D.W. 2013. Conflicting and complementary ethics of animal welfare considerations in reintroductions. *Conservation Biology* **27**: 486–500.
- Hemsworth, P., Coleman, G., Barnett, J., Borg, S. and Dowling, S. 2002. The effects of cognitive behavioural intervention on the attitude and behaviour of stockpersons and the behaviour and productivity of commercial dairy cows. *Journal of Animal Science* **80**: 68–78.
- Hemsworth, P.H. 2003. Human–animal interactions in livestock production. *Applied Animal Behaviour Science* **81**: 185–198.
- Hosey, G. 2008. A preliminary model of human–animal relationships in the zoo. *Applied Animal Behaviour Science* **109**: 105–127.
- Hötzel, M.J., Cardoso, C.S., Roslindo, A. and von Keyserlingk, M.A. 2017. Citizens’ views on the practices of zero-grazing and cow-calf separation in the dairy industry: Does providing information increase acceptability? *Journal of Dairy Science* **100**: 4150–4160.
- Hull, M.J., Fennell, K.M., Vallury, K., Jones, M. and Dollman, J. 2017. A comparison of barriers to mental health support-seeking among farming and non-farming adults in rural South Australia. *Australian Journal of Rural Health* **25**: 347–353.
- Jasper, J.M. and Poulsen, J.D. 1995. Recruiting strangers and friends: moral shocks and social networks in animal rights and anti-nuclear protests. *Social Problems* **42**: 493–512.
- Jokinen, P., Kupsala, S. and Vinnari, M. 2012. Consumer trust in animal-farming practices – exploring the high trust of Finnish. *Animal Welfare* **104**: 299.
- Kauppinen, T., Vainio, A., Valros, A., Rita, H. and Vesala, K.M. 2010. Improving animal welfare: qualitative and quantitative methodology in the study of farmers’ attitudes. *Animal Welfare* **19**: 523.
- Kielland, C., Skjerve, E., Østerås, O. and Zanella, A.J. 2010. Dairy farmer attitudes and empathy toward animals are associated with animal welfare indicators. *Journal of Dairy Science* **93**: 2998–3006.
- Kuehne, G. 2016. Eight issues to think about before interviewing farmers. *Qualitative Social Research* **17**: 1–21.
- Lagerkvist, C.J., Hansson, H., Hess, S. and Hoffman, R. 2011. Provision of farm animal welfare: integrating productivity and nonuse values. *Applied Economic Perspectives and Policy* **33**: 484–509.
- Lassen, J., Sandøe, P. and Forkman, B. 2006. Happy pigs are dirty! – conflicting perspectives on animal welfare. *Livestock Science* **103**: 221–230.
- Lee, H.C., Liu, S.F. and Cheng, Y.C. 2018. Positive or negative? The influence of message framing, regulatory focus, and product type. *International Journal of Communication* **12**: 18.
- Levin, I.P., Schneider, S.L. and Gaeth, G.J. 1998. All frames are not created equal: a typology and critical analysis of framing effects. *Organizational Behavior and Human Decision Processes* **76**: 149–188.
- Macken-Walsh, Á. 2009. “Barriers To Change: A Sociological Study of Rural Development in Ireland”. Teagasc. Available online: <https://t-stor.teagasc.ie/bitstream/handle/11019/848/eopr-5574.pdf?sequence=1&isAllowed=y> [Accessed 24 March 2020], 147 pages.
- Macken-Walsh, Á. 2011. “Governance, Rural Development and Farmers’ Participation in Irish Local Food Movements”. Territorial Governance, Physica-Verlag, Heidelberg, 207 pages.
- Macken-Walsh, Á. 2012. Operationalising contemporary rural development: Socio-cultural determinants arising from a strong local fishing culture. *Human Ecology* **40**: 199–211.
- Macken-Walsh, Á., Crosson, P. and Murray, A. 2012. “A Qualitative Study of Irish Beef Farmers’ Production Decisions: Summary and Implications for Extension”. Teagasc. Available online: <https://www.teagasc.ie/media/website/publications/2014/A-Qualitative-Study-of-Irish-Beef-Farmers-Production-Decisions-with-added-Reference.pdf> [Accessed 13 April 2020], 20 pages.
- Malterud, K., Siersma, V.D. and Guassora, A.D. 2016. Sample size in qualitative interview studies: guided by information power. *Qualitative Health Research* **26**: 1753–1760.

- McAteer, M. 2020. "Live Animal Exports". IrishTimes.com. Available online: <https://www.irishtimes.com/opinion/letters/live-animal-exports-1.4168732> [Accessed 23 September 2021].
- McDonagh, J. 2017. "Renegotiating Rural Development in Ireland". Routledge, London, 235 pages.
- McEachern, M.G., Schröder, M.J., Willock, J., Whitelock, J. and Mason, R. 2007. Exploring ethical brand extensions and consumer buying behaviour: the RSPCA and the "Freedom Food" brand. *Journal of Product and Brand Management* **16**: 168–177.
- McInerney, J. 2004. "Animal Welfare, Economics and Policy". Report on a Study Undertaken for the Farm & Animal Health Economics Division of DEFRA. Available online: https://www.researchgate.net/profile/John_Mcinerney3/publication/294462122_Animal_welfare_economics_and_policy/links/5a0eb1feaca27244d2859e1d/Animal-welfare-economics-and-policy [Accessed 16 May 2020], 77 pages.
- Michie, S., van Stralen, M.M. and West, R. 2011. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation Science* **6**: 42.
- Miele, M. 2010. "Report Concerning Consumer Perceptions and Attitudes Towards Farm Animal Welfare". European Animal Welfare Platform. Available online: https://www.researchgate.net/profile/M_Miele/publication/267250171_Report_concerning_consumer_perceptions_and_attitudes_towards_farm_animal_welfare/links/55150cc60cf283ee08397f47.pdf [Accessed 1 June 2020], 16 pages.
- Murphy, A. 2021. "IFA Munster Chair Hits Back at Go Vegan Ads". Echolive.ie. Available online: <https://www.echolive.ie/corknews/arid-40202324.html> [Accessed 24 September 2021].
- Naish, J. 1996. Scarce resources. *Nursing Times* **92**: 32–33.
- Ní Laoire, C. 2001. A matter of life and death? Men, masculinities and staying 'behind' in rural Ireland. *Sociologia Ruralis* **41**: 220–236.
- Parry, J., Barnes, H., Lindsey, R. and Taylor, R. 2005. "Farmers, Farm Workers and Work-Related Stress". Policy Studies Institute, Health and Safety Executive. Available online: https://eprints.soton.ac.uk/207675/1/Farmers%252C_farm_workers_and_work-related_stress.pdf [Accessed 10 June 2020], 131 pages.
- Pinillos, R.G. 2018. "One Welfare: A Framework to Improve Animal Welfare and Human Well-Being". CABI, 90 pages.
- Pinillos, R., Appleby, M., Manteca, X., Scott-Park, F., Smith, C. and Velarde, A. 2016. One welfare – a platform for improving human and animal welfare. *Veterinary Record* **179**: 412–413.
- Rowley, C. 2021. "Opinion: Vulnerable Unweaned Calves Need Protection in Our Export Trade". TheJournal.ie. Available online: <https://www.thejournal.ie/readme/live-export-calves-opinion-5392127-Mar2021/> [Accessed 23 September 2021].
- Roy, P.G., Tremblay, G. and Robertson, S. 2014. Help-seeking among male farmers: connecting masculinities and mental health. *Sociologia Ruralis* **54**: 460–476.
- Staniford, A.K., Dollard, M.F. and Guerin, B. 2009. Stress and help-seeking for drought-stricken citrus growers in the Riverland of South Australia. *Australian Journal of Rural Health* **17**: 147–154.
- Schnautz, L. 2003. Our own worst enemies (nurses may be discouraging recruitment by projecting a negative image of nursing as a career choice). *The American Journal of Nursing* **103**: 11.
- Sharp, J.S. and Smith, M.B. 2003. Social capital and farming at the rural–urban interface: the importance of nonfarmer and farmer relations. *Agricultural Systems* **76**: 913–927.
- Spradley, J. P. 1979. The ethnographic interview. Holt, Rinehart and Winston, New York, 247 pages.
- Sutherland, L.A. and Burton, R.J. 2011. Good farmers, good neighbours? The role of cultural capital in social capital development in a Scottish farming community. *Sociologia Ruralis* **51**: 238–255.
- Te Velde, H.T., Aarts, N. and van Woerkum, C. 2002. Dealing with ambivalence: farmers' and consumers' perceptions of animal welfare in livestock breeding. *Journal of Agricultural and Environmental Ethics* **15**: 203–219.
- Thomas, F., Midler, E., Lefebvre, M. and Engel, S. 2019. Greening the common agricultural policy: a behavioural perspective and lab-in-the-field experiment in Germany. *European Review of Agricultural Economics* **46**: 367–392.
- Uchino, B.N., Cacioppo, J.T. and Kiecolt-Glaser, J.K. 1996. The relationship between social support and physiological processes: a review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin* **119**: 488–531.
- Vanclay, F. 2004. Social principles for agricultural extension to assist in the promotion of natural resource management. *Australian Journal of Experimental Agriculture* **44**: 213–222.
- Vanhonacker, F., Verbeke, W., van Poucke, E. and Tuytens, F.A. 2008. Do citizens and farmers interpret the concept of farm animal welfare differently? *Livestock Science* **116**: 126–136.
- Vasileiou, K., Barnett, J., Thorpe, S. and Young, T. 2018. Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology* **18**: 1–18.
- Vayro, C., Brownlow, C., Ireland, M. and March, S. 2020. Farming is not just an occupation [but] a whole lifestyle: a qualitative examination of lifestyle and cultural factors affecting mental health help-seeking in Australian farmers. *Sociologia Ruralis* **60**: 151–173.
- Verbeke, W. and Ward, R.W. 2001. A fresh meat almost ideal demand system incorporating negative TV press and advertising impact. *Agricultural Economics* **25**: 359–374.
- Ventura, B.A., Von Keyserlingk, M.A.G., Schuppli, C.A. and Weary, D.M. 2013. Views on contentious practices in dairy farming: The case of early cow-calf separation. *Journal of Dairy Science* **96**: 6105–6116.
- Vigors, B. 2019. Citizens' and farmers' framing of 'positive animal welfare' and the implications for framing positive welfare in communication. *Animals* **9**: 147.
- Williams, J., Martin, P. and Martin, P.V. 2011. "Defending the Social Licence of Farming: Issues, Challenges and New Directions for Agriculture". CSIRO Publishing, Victoria, 224 pages.
- QSR International Pty Ltd. 2018. NVivo (Version 12). <https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home>.