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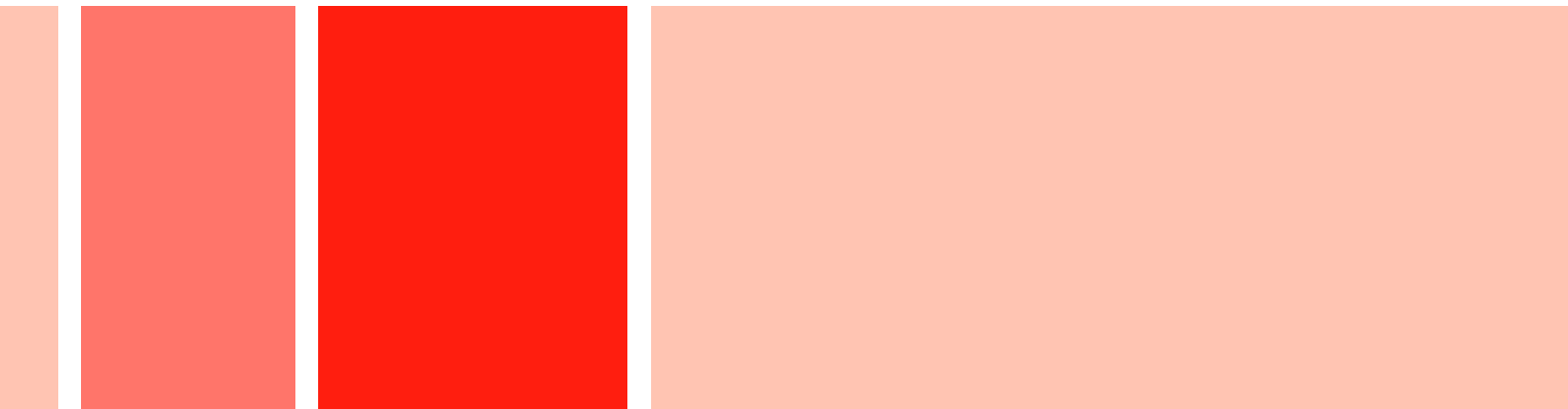
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Understanding public attitudes towards organ donation: A media analysis



Understanding public attitudes towards organ donation: A media analysis

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Views expressed in this report are those of the researchers and not necessarily those of the Welsh Government.

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Key Findings

1. Following public consultations and the passing of the Human Transplantation (Wales) Bill in July 2013, a 'deemed consent' system for organ donation will be brought into effect in Wales on 1st December 2015 following a targeted communications campaign by the Welsh Government. This research report was commissioned by the Welsh Government in response to the findings of the Public Attitudes to Organ Donation: Baseline Survey 2012 (PAODBS; Welsh Government, 2012) which identified differences between regions in relation to both knowledge of the proposed changes in legislation and attitudes towards the new legislation, in order to inform targeted communications about the legislative change. These differences were not accounted for by socio-economic or demographic differences between these regions.
2. A retrospective content analysis of Welsh media coverage of organ donation legislation covering the period from October 2011 to April 2013 inclusive was carried out on sources from television, newspapers and social media¹ in Wales. In addition to analysing message valence (positive or negative), source credibility and argument strength, an analysis of key themes identified within the sources was also conducted.
3. Analysis of television coverage in English and Welsh languages broadcasting across Wales on national television showed more positive than negative valence, with the pattern of reporting remaining broadly similar across English only, English and Welsh, and Welsh only sources. This suggests that regional differences in knowledge of, and attitudes towards, organ donation legislation are not due to differences in the way in which television stations in Wales convey information relating to organ donation legislation.

¹ The social media and radio analysis conducted was primarily exploratory in nature due to difficulties in obtaining appropriate data within the timeframe of the study (see 1.2.1).

4. Themes relating to political and statistical health issues were the most dominant themes identified in television sources. Whilst both themes featured extensively in positive and negative items, political themes featured in more negative stories whilst statistical health themes were found in more positive stories. The television coverage analysed for this report shows a prevalence of factually objective stories relating to the organ donation legislation rather than religious, moral or emotionally-laden themes.
5. Newspaper analysis provided mixed comparisons with the PAODBS. A balance of positive and negative items were identified in the Western Mail (accounting for just under half of items analysed) and in regional newspapers in North Wales. In contrast, a greater proportion of positive reporting was identified in the Swansea Bay and Mid & West Wales regional newspapers, and a greater proportion of negative reporting in the Cardiff & South-East Wales region. Positive themes reflected emotional, statistical and political information whilst negative themes reflected political, moral and religious themes.
6. The higher than average number of published letters from readers in the Western Mail and in newspapers within the Cardiff & South-East Wales region accounted for a high proportion of negative items in these data. Readers' letters primarily reflect moral themes and, to a lesser extent, political and religious themes.
7. Overall, the coverage of organ donation legislation in Welsh media on television and in newspapers has been broadly balanced, with some regional exceptions. However, these in themselves do not explain the attitudes displayed by respondents to the PAODBS (2012). In conclusion, regional differences in knowledge of, and attitudes towards, organ donation legislation do not appear to reflect differences in the presentation of information relating to organ donation legislation across different types of media in Wales.

1. Introduction

1.1 Background

Since 2011, the Welsh Government has supported legislation to change organ donation in Wales from the current 'opt-in' system to a 'soft opt-out' system. Under the Human Transplantation (Wales) Bill, passed by the National Assembly for Wales in July 2013 and planned to be brought into effect on 1st December 2015, a 'deemed consent' system will be adopted whereby individuals' organs and tissues will be available for transplantation in the event of their death unless they have indicated otherwise. Following the passing of this Bill a two year communications campaign will be implemented prior to the law coming into effect in 2015.

Since the announcement of the proposed legislation change in October 2011, consultations have been held on the White Paper from November 2011 – January 2012, and on the Draft Human Transplantation (Wales) Bill from June 2012 – September 2012. These consultations allowed interested parties to register their views on the legislation with the Welsh Government. In addition, the Public Attitudes to Organ Donation: Baseline Survey 2012 (PAODBS; Welsh Government, 2012) was carried out in June 2012, interviewing 1,006 respondents from five regions in Wales (North Wales, Mid & West Wales, Swansea Bay, Valleys, Cardiff & South East Wales; see Appendix A for unitary authorities covered by these regions) as a representative sample of the adult population. This survey found that, overall in Wales, a significant proportion of the sample (49 per cent) favoured changing to a 'soft opt-out' system of organ donation, 22 per cent were opposed to changing to the 'soft opt-out' system, whilst 29 per cent felt that they needed more information or did not know how they felt about it. However, some significant differences were found between regions in relation to both knowledge of the proposed changes in legislation and attitudes toward the new legislation which were not accounted for by socio-economic or demographic differences between these regions. The most striking of these differences were:

- (1) Respondents from Mid & West Wales reported a significantly higher awareness of proposed legislation changes than respondents in other regions
- (2) Respondents from the Swansea Bay region reported significantly higher opposition to the proposed changes in the organ donation legislation than respondents from other Welsh regions
- (3) Respondents in the 16 – 34 year age group across all regions reported significantly lower levels of knowledge than older age groups regarding changes to legislation in general and the Welsh Government proposal in particular.

In light of these findings the current research was commissioned by the Welsh Government to retrospectively analyse the content of Welsh media coverage of organ donation legislation from October 2011 to May 2013 (when analysis for this report was carried out). The aim of this research was to help inform targeted communications before the law comes into effect by assessing whether there are differences in how regional media coverage have represented issues relating to the change in organ donation legislation, and attempting to understand in what ways media coverage may have influenced certain prevalent attitudes in particular regions of Wales.

1.2 The current research study

A number of previous research studies have found that the media is a primary source of information regarding organ donation (Conesa et al., 2004; Feeley & Servoss, 2005; Morgan et al., 2005). Analysis of information provision about organ donation in areas of mainland Europe that operate similar organ donation systems to that proposed for Wales suggest that the majority of information is provided by television (78 – 86 per cent), by the press (24 – 43 per cent) and radio (21 – 31 per cent; Conesa et al., 2004; Rios et al., 2010). These findings are also supported by those of the PAODBS in Wales, which reported that 76 per cent of respondents became aware of the proposed

changes through television news/programmes, 13 per cent through local or national newspapers, and 10 per cent from radio news/programmes.

Studies examining the influence of the media on organ donation are scarce, but those that have been carried out (Conesa et al., 2004; Morgan et al., 2005; Quick et al., 2007; Reinhart, Marshall, Feeley & Tutzauer, 2007; Rios et al., 2010) suggest an association between amount and type of media coverage and transplantation rates. However, Morgan et al highlight that reporting on organ donation in news reports and fictional depictions of organ donation scenarios can have a negative impact upon organ donation due to the myths that exist about it in public consciousness; it is often the case that negative information can feed these myths.

Whilst the research studies mentioned above have focused upon organ donation in general, there is little research regarding media portrayals of legislation changes to organ donation. Whilst some experimental studies have explored attitudes to organ donation opt-in or opt-out decision-making (Coppen et al., 2008; Davidai, Gilovich, & Ross, 2012; Johnson & Goldstein, 2003, 2004; McKenzie, Liersch, & Finkelstein, 2006), there are no studies that have examined the content of media information presented to the public regarding legislation *per se*. Therefore, the current study will utilise an adaptation of the content analysis methodology that has been successfully used in previous organ donation studies (e.g., Quick et al., 2007).

Since the announcement by the Welsh Government of the potential legislation change there have been news reports, commentary pieces, comments from the public, politicians, religious leaders and health experts regarding the move to a soft opt-out system of organ donation. The topic of organ donation is a highly emotive subject and this has led to a variety of arguments both for and against the proposal in the media; health and statistical issues relating to the availability of organs and ability to carry out transplantation; moral, ethical and religious arguments relating to 'ownership' of the human body; and political arguments of both geographical and practical boundaries of consent.

1.2.1 Focus of media analysis for current study The original analysis for the current project intended to focus on four forms of media in Wales; television, newspapers, radio and social media. Television and newspaper coverage have been identified by previous research as being most influential, with radio influence also having been acknowledged. Early discussions with local radio stations, however, revealed difficulties in accessing stored content combined with a limited online presence which meant analysis of radio sources was not possible at the time of the current study. A brief summary of this attempted analysis can be found in Appendix B, with the implications of this and insights gained from discussions with local radio stations discussed in Section 5.

Social media has not been identified in previous studies as being highly influential for organ donation information provision. This may be due to the fact that many of the earlier studies were carried out prior to the widespread use of social media. Initial searches of social media sources (e.g., Facebook, Twitter, websites, blogs, etc.) revealed an expansive and diverse range of materials that did not fall into clearly defined categories for content analysis. Limited statistical analysis of social media was therefore only carried out where strictly-defined boundaries could be ascertained, supported by a narrative analysis. As this analysis did not sufficiently meet the criteria required for a detailed content analysis, this narrative report and some statistical analysis are provided in Appendix C, with wider discussion regarding this issue carried out in Section 5.

The analysis presented in the main body of the following report therefore focuses primarily upon the two forms of media identified by the previous research as being most influential; that is, television and newspaper coverage.

2 Methodology for media content analysis

The research presented in this report analyses the content of media directly relating to the proposed changes to organ donation legislation through the Human Transplantation (Wales) Bill between October 2011 and the end of April 2013. Whilst it is acknowledged that many sources of information for much of the Welsh population are found outside of Wales, including London-based and wider UK media, the focus of the current analyses are on media based in Wales.

When carrying out a content analysis it must be recognised that there are numerous elements to the content and interpretations of information in each item analysed that can be taken into account. It is therefore necessary to set out criteria regarding the data to be analysed, with the single most important factor being consistency, particularly when analysing multiple media formats and sources (Krippendorf, 1980; Weare & Lin, 2000). However the content is chosen to be analysed, this analysis must be consistent across items and also across researchers coding the items. The criteria set out here are applicable to the two main media types, with any issues specific to television or newspapers addressed in the analysis itself. For each media item identified as relevant and suitable for analysis in this research a content analysis algorithm was applied by each researcher. The content analysis for each item focused upon the following criteria:

2.1 Search Strategy

A systematic search strategy (see Appendix D) was used to identify suitable sources for analysis within the timeframes being targeted (October 2011-May 2013). Sources that did not specifically focus upon the proposed legislation change (e.g. general stories about donation of organs) were not included in the analysis.

2.2 Analysis of themes.

Piloting of the analysis by the researchers led to the identification of six key themes that appear to encapsulate the majority of discussions in the data. These themes were therefore used as coding variables for the broad content analysis:

Health Statistical: Information containing statistical information relating to organ donation.

Political: Information relating to the passage of the Bill and political issues surrounding it.

Religious: Information relating to religious debate on the topic.

Emotional: Information using 'real-life' stories relating to the topic of organ donation.

Moral: Information on moral issues not directly related to religious issues.

Health Non-statistical: Information relating to the health debate not directly using statistical information.

Due to the importance of these themes, which encapsulate type of argument (e.g., health statistical and non-statistical, political, emotional, religious, and moral), they are presented both as a separate analysis and are entered into the main algorithm for overall message weight set out in 2.4. For both of these analyses, where multiple argument types are used in the same media item these are all reported (e.g., if statistical, emotional and political issues are discussed in one media item, all of those argument types are coded for that media item).

2.3. Analysis of message frame valence.

This analysis classified the media message as either positive (supportive of the legislation changes) or negative (opposed to the legislation changes).

Positive information was classified as statistics on positive outcomes in terms of increased organ donations, explicit statements of support for the proposed legislation, and arguments against negative outcome statistics. *Negative information* was classified as statistics indicating negative outcomes, arguments against positive organ donation statistics, and explicit statements

of opposition. An additional message frame category of *mixed* was also used when raters felt that the media presented a balanced argument of positive and negative information. Due to many media articles containing both positive and negative elements in the same report, initial attempts were made to quantify the amount of positivity/negativity as a percentage. However, the inter-rater reliability between researchers (amount of agreement) produced a Cohen's Kappa of .55 which was not considered acceptable as a measure of inter-rater reliability (Kappa values of $<.4$ are considered to be poor, whilst values $>.75$ are considered to be good; Fleiss, Levin & Paik, 2003). The researchers therefore agreed to classify articles judged as having at least 60 per cent positive coverage as categorically positive; at least sixty per cent negative coverage as categorically negative, and articles falling between these boundaries as categorically mixed. Tests of inter-rater reliability indicated that a Cohen's Kappa of .94 was achieved for positive/negative judgments and .85 for mixed.

The categorisation of message frame valence is used in the calculation of overall weight of argument outlined in 2.4 below. Additionally, as the measurement of message frame valence follows a robust previously defined analytic approach (e.g., Riff, Lacy & Fico, 2005; Tversky & Kahneman, 1981, 1986), the message frame valence data is also presented separately to allow for independent analysis of this variable.

2.4. Overall weight of argument

The overall weight of argument for each source is calculated through a combined analysis of valence (as described in 2.3), source credibility and argument strength.

2.4.1. Source credibility. A credible source (in the case of organ donation, someone seen as having expert knowledge such as a health care professional) will carry more weight than a non-credible source (such as a member of the public; Jones, Sinclair & Courneya, 2003). A topic such as organ donation legislation change may understandably attract commentary from a wide variety of sources, and many of these sources may be used by

the media. However, this credibility can be subjective in terms of the expertise and trustworthiness of the communicator (Lui & Standing, 1989). In an attempt to encompass the subjective nature of source credibility, the researchers coded this into three categories; high credibility (medical professionals), medium credibility (non-medical members of organisations related to health; senior clergy; politicians directly related to health policy), and low credibility (members of the public² unless reported in a health-related job; other). Where a number of sources were presented in the same media item, the most credible source level reached by the dominant valence was selected.

2.4.2 Argument strength. A robust body of literature suggests that weak arguments (such as general opinion) tend to have less of an impact on attitude change than strong arguments (Petty, Wegener & Fabrigar, 1997). However, there is also evidence to suggest that weak arguments can have a greater influence when people are not fully attending to that argument (Bless, Bohner, Schwarz, & Strack, 1990). This could impact upon the type of messages that should be used in relation to argument strength across different media types depending upon who they are trying to influence and in what situation. For the media examined in this analysis, research suggests that television and newspapers will require high levels of attention and so strong arguments should be more effective (Bolls & Lang, 2003; Drew & Weaver, 1990). For research purposes the research team classified arguments based on solid use of statistical data as strong arguments (supported by evidence), arguments that alluded to statistical data but did not present them explicitly as medium strength arguments (implicit evidence support) and arguments that used no empirical evidence as weak arguments (not supported by evidence). Where multiple levels of strength of argument were presented in the same media item, the strongest level reached by the dominant valence was selected.

² Whilst there is a suggestion in recent literature (Edelman Trust, 2012) that the public report higher levels of trust in the general public compared to more expert sources, this was not explicitly measured in the current research.

2.4.3 Overall calculation of argument weight. Using the above methodology, a quantitative judgment of weight of argument between -6 and +6 can be calculated, with the former indicating a strong negative argument given by a high credibility source and the latter a strong positive argument given by a high credibility source³. This approach to analysing message weight has enabled the measurement of these important variables which have been consistently highlighted as key to understanding how messages influence attitudes (Chaiken & Maheswaran, 1994).

2.5. Analysis pre- and post- PAODBS

Finally, to allow comparisons to be made with the findings of the PAODBS (2012) as well as an overall analysis of data from October 2011 – April 2013, the data was also analysed pre-June 2012 (prior to the PAODBS) and post-June 2012. This afforded the research team the ability to make direct comparisons between the regional findings in the PAODBS and the current study, and will also allow future analyses of attitudes to organ donation to examine any trends in the data post-PAODBS. As the PAODBS data collection took place in the middle of June 2012, it was decided by the research team to include the month of June 2012 in the 'post' data.

³ Message frame valence is coded as positive, negative or mixed. Source credibility is coded as: 1 = low; 2 = medium; 3 = high. Argument strength is coded as: 1 = low; 2 = medium; 3 = high. Therefore each media item can score between 2 and 6 on message strength and positive or negative on valence; when arguments are considered by the researchers as 'mixed' the message strength is coded as zero.

3 Television coverage of organ donation legislation in Wales

3.1 Background

Television coverage in Wales is available to the public on a national level, with two main providers of independent news (BBC Wales and ITV Wales). Whilst S4C, the Welsh language channel, now broadcasts through the medium of Welsh only, its news service is provided by BBC Wales with the content therefore being largely the same. In the following analysis, where Welsh language-only coverage is identified, this is supplied exclusively by S4C. It was considered important to analyse data by language (whether produced in English only, English and Welsh, or Welsh-only) as it may be an important factor in understanding regional differences in certain parts of Wales.

Requests for access to materials were sent to all three national television stations. As it was not possible to access the materials within the timescales of the project searches of their website archives were carried out using the standardised search terms set out for all items in this report analysis (see Appendix D). Excluding duplicate items⁴, 49 television items were available for analysis, 18 in English language only, 6 in Welsh language only, and 25 available in English and Welsh⁵. These ranged from 30-second news items, through 2 – 3 minute segments of larger programmes, to 30-minute programmes on the topic of organ donation and legislation changes. Due to difficulty in obtaining and reporting accurate viewing figure data for the period in question, the focus of the following analysis is on content of the media items (valence of items and themes covered), rather than impact upon the viewer.

⁴ Duplicate television items were considered to be news stories that were repeated at different times. The exception to this was where a news item reported on the organ donation legislation using information from a dedicated programme on the topic e.g., ITV news report on 11/02/13 using footage from the *Wales This Week, From The Heart* broadcast.

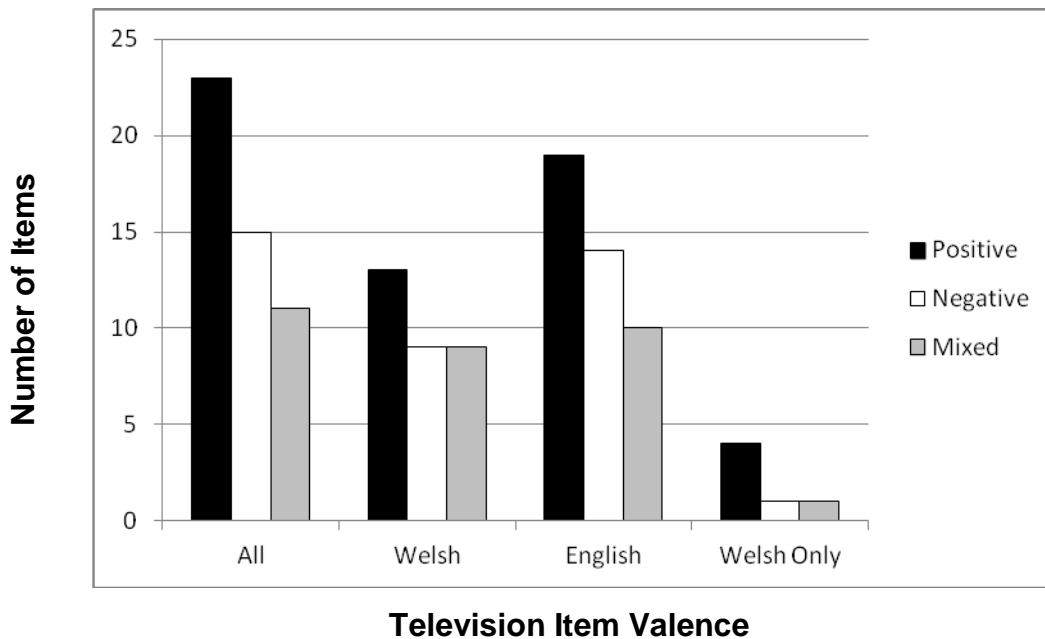
⁵ 'English-only' items are those where a Welsh language version of the media item was not identified. 'Welsh-only' items are those where an English language version of the media item was not identified. 'English and Welsh' items are those where an identical version of the story was identified in both the English and Welsh language.

3.2 Valence of television sources

When analysing overall valence of television coverage of organ donation legislation in Wales, 23 items were judged as positive, 15 items as negative, and 11 items as mixed. Due to the low number of items identified, it was not felt that inferential statistical analysis was suitable for these data and so only descriptive data is reported here. Analysis of valence by language showed that of the 31 items presented in Welsh, 13 items were positive, nine items were negative, and nine items were mixed. Analysis of valence of the six Welsh language-only items (i.e. media items presented by S4C only that had no direct English translation on BBC Wales) showed that four items were positive, one item was negative, and one item was mixed. Finally, analysis of valence of 43 items presented in English showed that 19 items were positive, 14 items were negative, and 10 items were mixed.

As can be seen in Figure 3.2.1, television coverage in both languages broadcast across Wales on national television showed more positive than negative valence for media items. Whilst there were slightly more broadcasts available through the medium of English than Welsh, and few Welsh-only broadcasts, the pattern of reporting remains similar in both languages.

Figure 3.2.1: Valence of TV Coverage (October 2011 – April 2013)

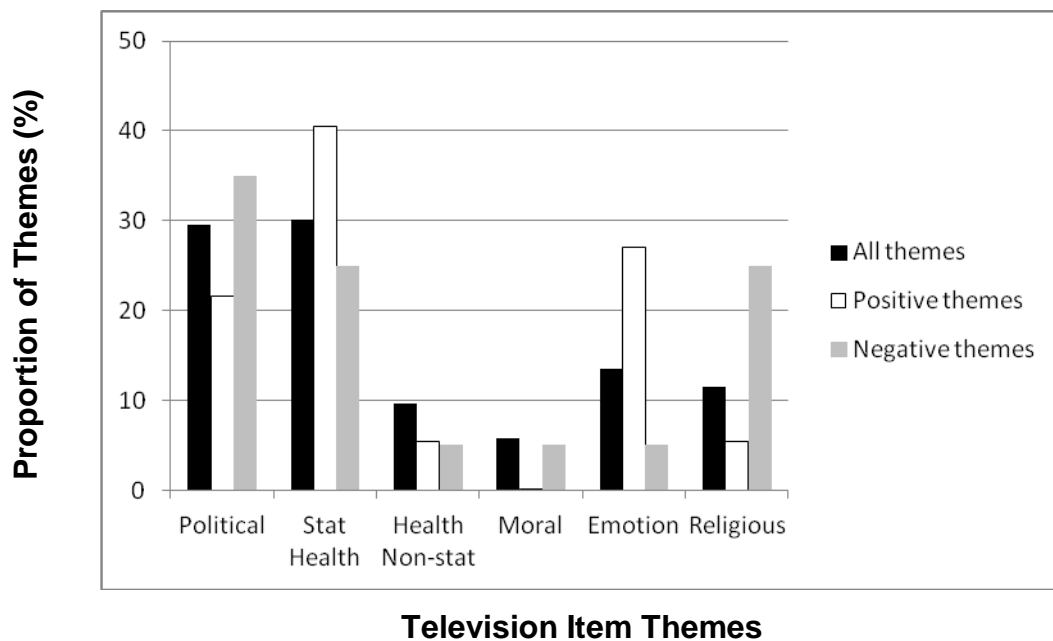


3.3. Theme content of television sources

Within the 49 television programmes analysed, 156 occurrences of the named themes were identified. Of these themes the focus upon the health statistics (47 occurrences, or 30 per cent) and political debate (46 = 30 per cent) were most common, with emotional themes (21 = 14 per cent) and religious arguments (18 = 12 per cent) followed by non-statistical health items (15 = 10 per cent) and non-religious moral arguments (9 = 6 per cent).

An analysis of positive or negative themes within the items coded revealed that political arguments accounted for 22 per cent of positive themes and 35 per cent of negative themes. Statistical arguments accounted for 41 per cent of positive themes and 25 per cent of negative themes. Non-statistical Health themes accounted for 5 per cent of positive themes and 5 per cent of negative themes. Moral arguments accounted for 5 per cent of negative themes and no positive themes. Emotional themes accounted for 27 per cent of positive themes and 5 per cent of negative themes. Religious arguments accounted for 5 per cent of positive themes and 25 per cent of negative themes (see Figure 3.3.1).

Figure 3.3.1: Themes of Television Content



These findings suggest that, in television broadcasts on the subject of organ donation, political and statistical health stories have been the dominant themes. These two themes have been featured extensively in positive and negative items, although the political theme features in more negative stories whilst the statistical health theme was used in more positive stories. Emotion themes also featured regularly and were largely positive, whilst religious themes also featured regularly and were largely found in negative items. Non-statistical health themes and moral themes were rarely used in television items.

3.4. Television coverage pre- and post-June 2012

To allow comparisons to be made with the PAODBS, which was carried out in June 2012, an analysis of the above data pre- and post-June 2012 was also carried out.

3.4.1 Valence Pre-June 2012: When analysing overall valence of television coverage of organ donation legislation in Wales, eighteen media items were identified. Eight items were judged as positive, seven items as negative, and three items as mixed. Analysis of valence by language showed that, for items presented in Welsh (12 items), seven items were positive, four items were negative, and one item was mixed. Analysis of valence of items presented in English (15 items) showed that five items were positive, seven items were negative, and three items were mixed.

3.4.2. Valence Post-June 2012: When analysing overall valence of television coverage of organ donation legislation in Wales, 31 items were identified. Fifteen items were judged as positive, eight items as negative, and eight items as mixed. Analysis of valence by language showed that for items presented in Welsh (19 items), seven were positive, five were negative, and seven were mixed. Analysis of valence of items presented in English (28 items) showed that fourteen were positive, seven were negative, and seven were mixed.

Figure 3.4.1. Valence of Television Content pre and post June 2012

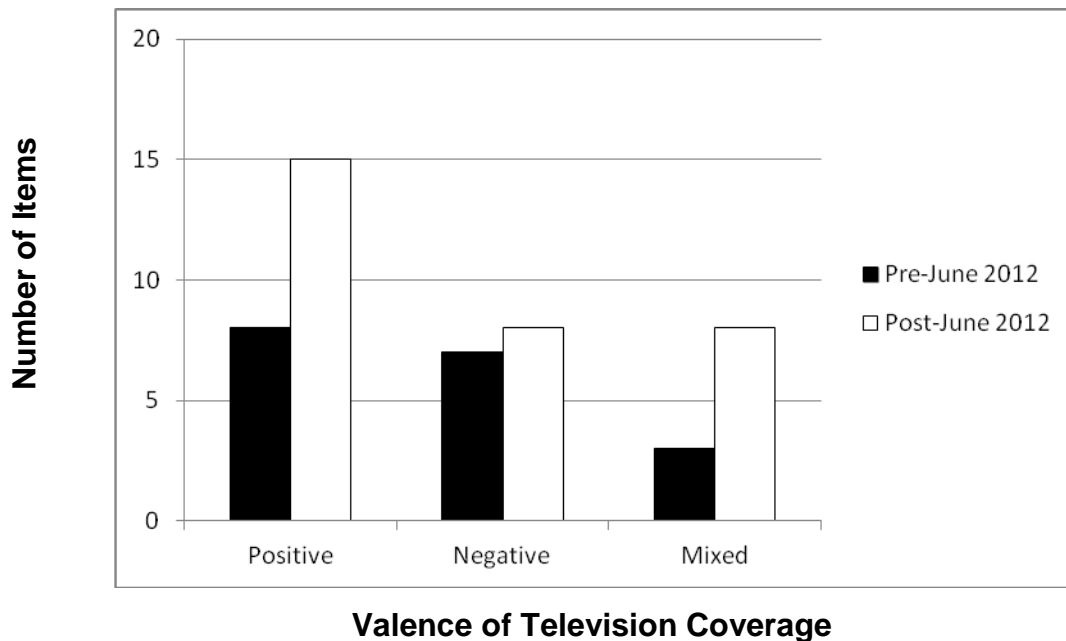


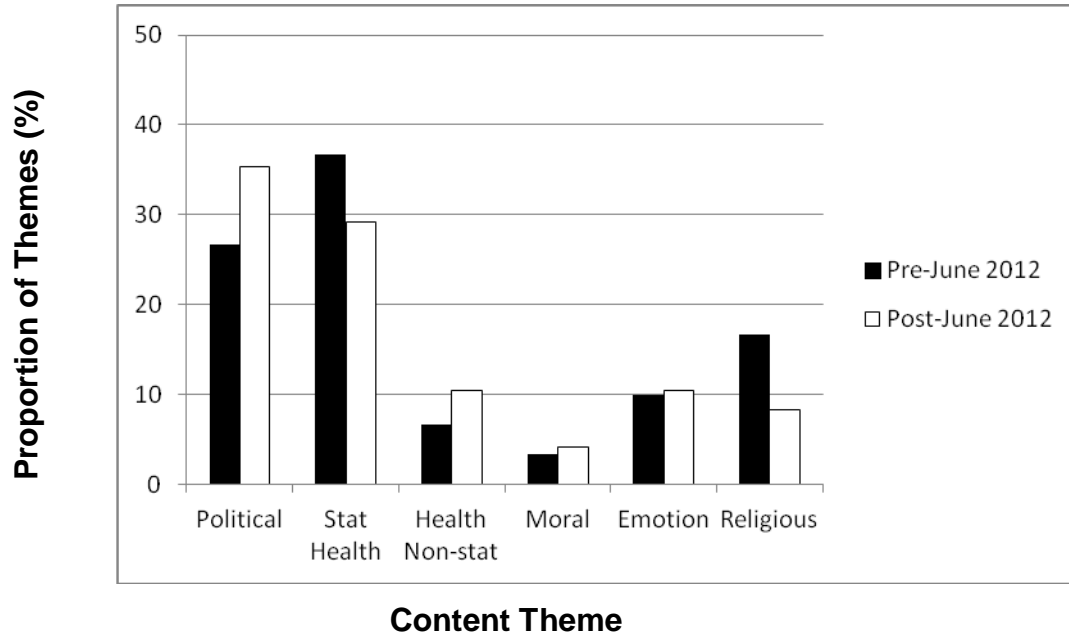
Figure 3.4.1 shows a comparison of television item valence pre and post June 2012. Whilst the longer timescale of the post-June 2012 analysis explains the increase in media coverage compared to the pre-June 2012 analysis (31 items in the 12-month period post-June 2012, versus 18 items in the 8-month period pre-June 2012), it appears that the proportion of positive and mixed news items have increased during the post-June 2012 period, with negative items falling slightly when compared to pre-June 2012 reporting⁶.

3.4.3. Theme content pre- and post-June: Pre-June 2012 political themes accounted for 27 per cent of all themes analysed and this rose to 35 per cent post-June 2012. Conversely, the statistical health theme pre-June 2012 accounted for 37 per cent of all themes but dropped to 29 per cent post-June 2012. Religious themes also dropped from 17 per cent of themes pre-June 2012 to 8 per cent post-June 2012. Moral themes (3 per cent pre-June 2012 versus 4 per cent post-June 2012) and emotional themes (10 per cent pre-June 2012 versus 10 per cent post-June 2012) remained similar whilst non-

⁶ An increase in positive news stories post-June 2012 centred around a UK-wide 'From the Heart' campaign by ITV in February 2013 that focused upon organ donation in the UK. This was reported on in Wales and was also tied to the legislation changes in ITV reporting on the subject.

statistical health themes increased slightly from 7 per cent pre-June 2012 to 10 per cent post-June 2012.

Figure 3.4.2. Content Themes Pre and Post June 2012



These findings suggest that political and statistical themes remained the major themes throughout the period of analysis. Focus upon the politics increased slightly post-June 2012 to become the dominant theme whilst statistical health themes reduced slightly post-June 2012, but this still accounted for a greater proportion of themes than the other four (non-statistical health themes, moral arguments, religious arguments, and emotional themes) combined. Of these four only religious arguments showed a difference pre- and post-June 2012, with the proportion of religious themes halving post-June 2012.

3.5 Argument credibility rating

Due to the low number of items available for analysis, particularly when analysing pre/post-June 2012 data, it was considered to be unfeasible to calculate a statistically robust analysis for television coverage. Argument

credibility rating data are therefore presented as a footnote for information purposes only⁷.

3.6. Summary: television coverage

When dealing with an issue such as a legislative change in the organ donation system, it is to be expected that both arguments for and against the change will be aired on national news. Whilst the trend appears to be for a greater number of positive items post-June 2012, this period also saw an increase in the number of items judged as 'mixed'. The theme data shows a high level of reporting utilising statistical and political themes for both positive and negative television items. Overall, this suggests a broadly balanced set of arguments focusing on presenting factually objective stories of the changes to the organ donation legislation rather than more emotionally-laden, religious or moral arguments. This is likely to be due to the timings of the news items; many of the items analysed were aired at times of key Welsh Government announcements such as consultations and debates in the Senedd. There are large gaps in the timeline between October 2011 and April 2012 where little reporting on the subject occurred, with flurries of activity at other times.

⁷ Analysis of overall coverage produced a mean score of 0.73, indicating a slight weighting toward positive coverage. A one-sample t-test against the baseline of zero was not significant ($t(47) = 1.43$, n.s.). Data pre-June 2012 ($M = .22$) and post-June 2012 ($M = 1.03$) did not differ significantly from zero ($t(18) = .22$, n.s. and $t(30) = 1.03$, n.s. respectively). The difference between pre and post-June 2012 was also not significant, $t(46) = .45$, n.s.

4. Newspaper coverage of organ donation legislation in Wales

4.1. Background

To examine newspaper coverage of the organ donation legislation, searches were carried out using online databases and archive materials where available from Welsh newspapers (see Appendix D for database/newspaper search information). These searches produced 209 items from on-line newspaper databases (including articles that exactly matched printed newspaper articles and those that had either additional or abridged information) that were considered suitable for the purposes of the research.

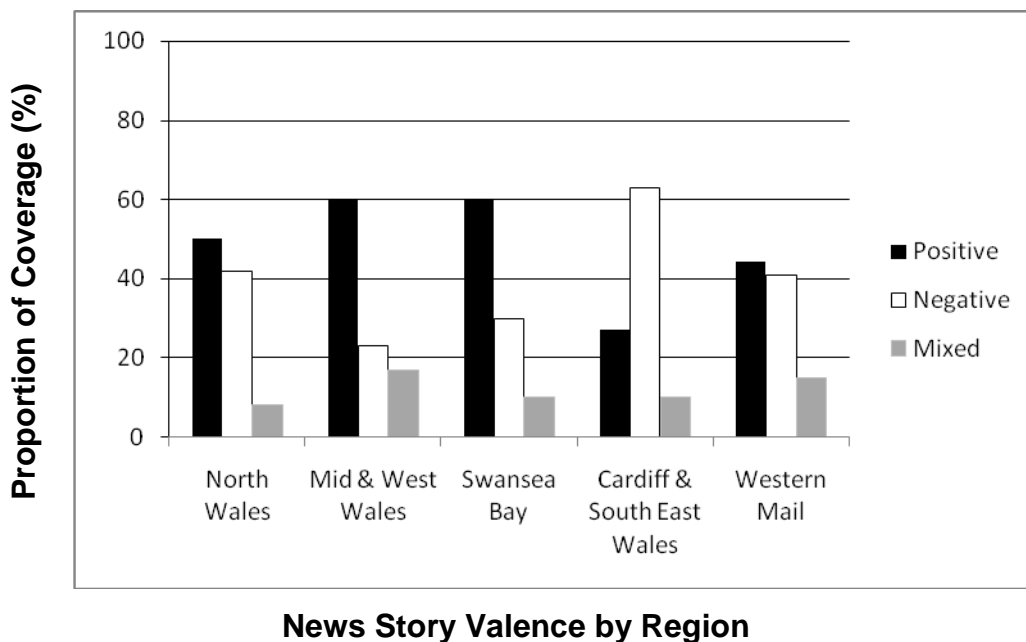
Newspapers were assigned to a region based upon household penetration levels of that newspaper in a region according to JICREG (2013), an online database of newspaper sales in the UK. Based upon household penetration data, it was decided that the Western Mail should be analysed separately due to its high penetration levels across several regions/unitary authorities, particularly in South and Mid-Wales. Due to the low amount of items suitable for analysis found in newspapers specific to the Valleys region, which tended to focus on specific local issues, this area has not been included in the region-specific data.

4.2. Valence of newspaper items

Of the 209 items identified 96 of them (46 per cent) were from the Western Mail and 113 (54 per cent) were identified in regional newspapers. In North Wales, 40 items in total were identified with 20 items (50 per cent) judged as positive, 17 items (42 per cent) as negative and three items (8 per cent) as mixed. In Mid & West Wales, 13 items in total were identified with eight items (60 per cent) judged positive, three items (23 per cent) as negative and two items (17 per cent) as mixed. In Swansea Bay, 30 items in total were identified, with 18 items (60 per cent) classed as positive, nine items (30 per cent) as negative and three (10 per cent) as mixed. In Cardiff & South-East Wales, 30 items in total were identified, with eight items (27 per cent) judged as positive, 19 items (63 per cent) as negative and 3 items (10 per cent) as

mixed. For items found in The Western Mail, 42 of them (44 per cent) were judged as positive, 40 items (41 per cent) were judged as negative, and 14 items (15 per cent) were judged as mixed. To enable comparison across regions, Figure 4.2.1 shows the percentage proportion of overall valence of regional newspaper items.

Figure 4.2.1: Valence of Regional Newspaper Coverage October 2011 – April 2013⁸



These figures show a balance of positive and negative item reporting in North Wales and in the Western Mail, with a greater proportion of positive reporting in the Swansea Bay and Mid & West Wales regions and a greater proportion of negative reporting in the Cardiff & South-East Wales region. It should be recognised that the Mid & West Wales figures are based upon a lower number of items than the other regions and that this may lead to a greater fluctuation in the data.

It was noted that the Western Mail and the Cardiff & South-East Wales newspapers contained a higher than average number of published letters

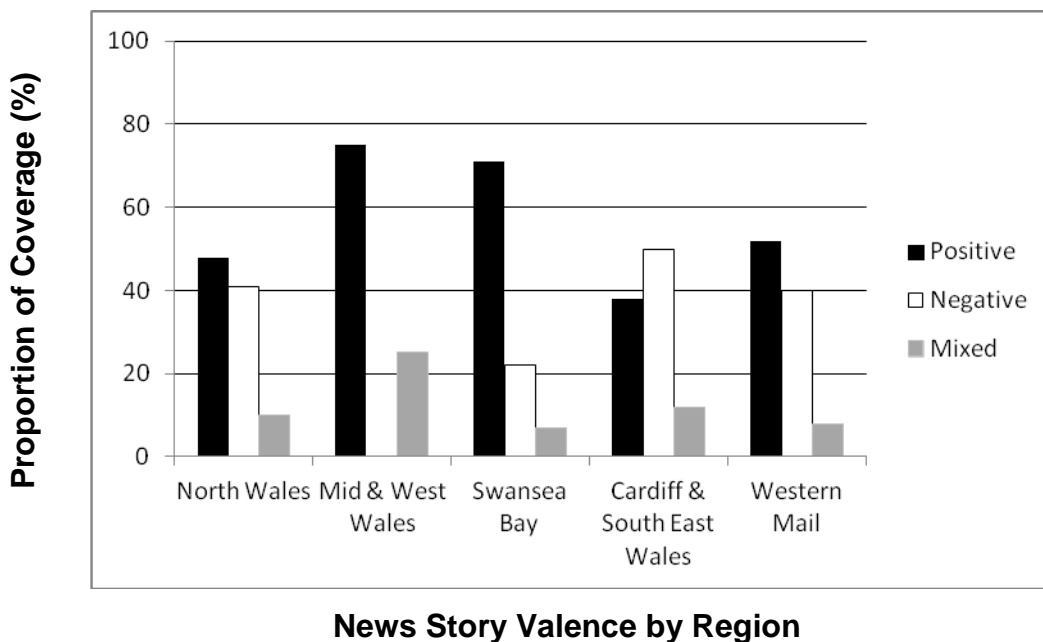
⁸ Valleys region not included in analysis due to low number of articles found in newspapers specifically covering this region.

from readers and that this increased the number of negative items in these data.

4.2.1. Newspaper Valence Pre-June 2012

To allow comparison with the PAODBS (2012) valence data prior to collection of the PAODBS data was analysed (see Figure 4.2.2).

Figure 4.2.2 Valence Data Pre-June 2012

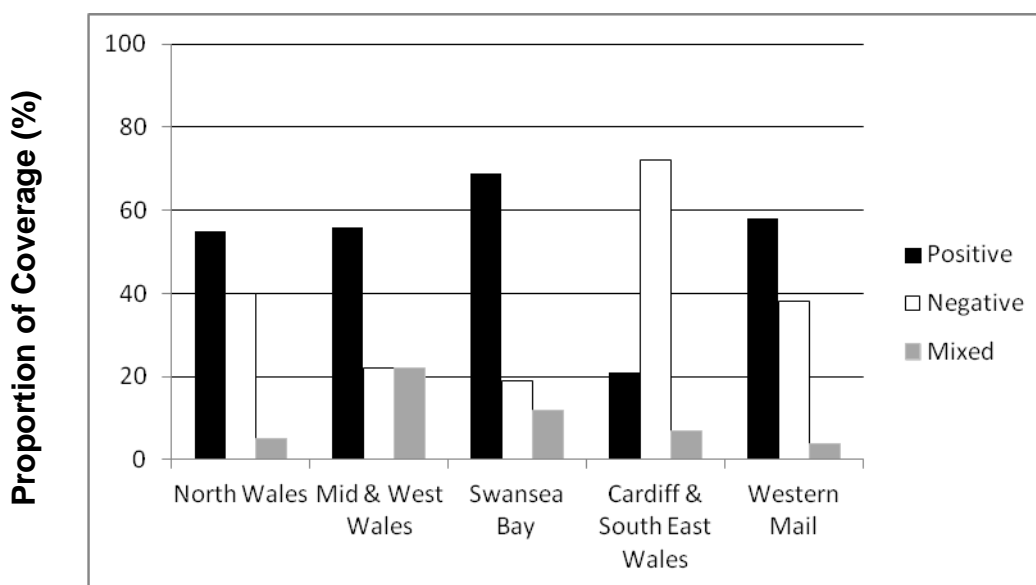


In North Wales, 18 items in total were identified, with nine items (50 per cent) judged as positive, seven items (40 per cent) as negative and two items (10 per cent) as mixed. In Mid & West Wales, four items in total were identified, with three items (75 per cent) judged positive, no items judged as negative and one item (25 per cent) judged as mixed. In Swansea Bay, 14 items in total were identified, with 10 items (71 per cent) judged as positive, three items (22 per cent) judged as negative and one item (7 per cent) judged as mixed. In Cardiff & South-East Wales, 16 items were identified in total, with six items (38 per cent) judged as positive, eight items (50 per cent) judged as negative and two items (12 per cent) judged as mixed. For The Western Mail, 44 items were identified, with 23 items (52 per cent) judged as positive, 18 items (41 per cent) judged as negative, and three items (7 per cent) judged as mixed.

4.2.2. Valence Post-June 2012

To enable comparisons with future collections of attitudes to organ donation, legislation data was also analysed post-June 2012 (after PAODBS data had been collected) to April 2013. These data are presented in Figure 4.2.3.

Figure 4.2.3. Valence Data Post-June 2012



News Story Valence by Region

In North Wales, 22 items were identified in total, with 12 items (55 per cent) judged as positive, nine items (40 per cent) judged as negative and one item (5 per cent) judged as mixed. In Mid & West Wales, nine items were identified in total with five items (56 per cent) judged positive, two items (22 per cent) judged as negative and two items (22 per cent) judged as mixed. In Swansea Bay, 16 items were identified in total with 11 items (69 per cent) judged as positive, three items (19 per cent) judged as negative and two items (12 per cent) as mixed. In Cardiff & South-East Wales, 14 items were identified, with three items (21 per cent) judged as positive, 10 items (72 per cent) as negative and one item (7 per cent) as mixed. For The Western Mail, a total of 52 items were identified, with 30 items (58 per cent) judged as positive, 20 items (38 per cent) judged as negative, and two items (4 per cent) judged as mixed.

The patterns of item valence pre- and post-June 2012 remain largely similar for all regions, with patterns of reporting remaining similar. The only major difference appears to be in the Cardiff & South-East Wales region where the negative valence of items increases post-June 2012. As stated previously, this is likely to be largely driven by the high number of negatively-valenced readers letters printed.

4.3 Theme content of newspaper sources

Themes identified by the research team match those analysed for television, and are reported as proportions of overall positive and negative items to take into account multiple themes in individual items. They are presented by region for ease of comparison between positive and negative themes.

Figure 4.3.1 North Wales Themes

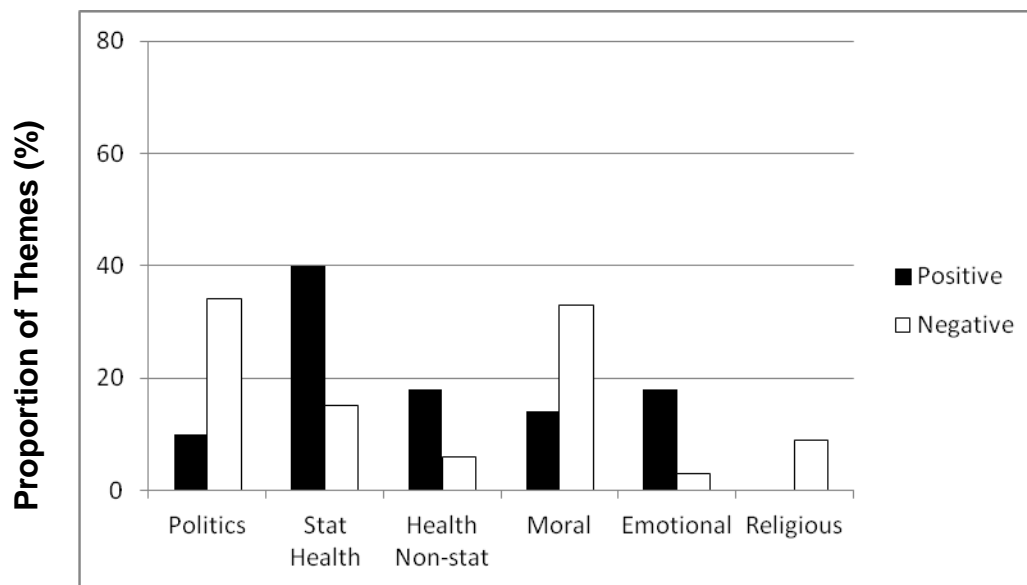


Figure 4.3.1 shows the positive and negative themes identified in the 22 newspaper items from the North Wales region. They show that positive themes focused upon statistical health information (40 per cent) followed by non-statistical health themes (18 per cent) and emotional themes (18 per cent), with politics making up 10 per cent of positive themes and no religious themes identified as positive. Negative items focused upon politics (34 per cent of themes) and moral arguments (33 per cent) with statistical health

information (15 per cent) and religious arguments (9 per cent) followed by emotional themes (3 per cent).

These findings suggest that the focus upon political themes has been largely negative in this region, whilst the use of statistical health themes has largely occurred in positive items. Moral arguments also account for a relatively high proportion of themes, the majority of these being negative.

Figure 4.3.2 Mid & West Wales Themes

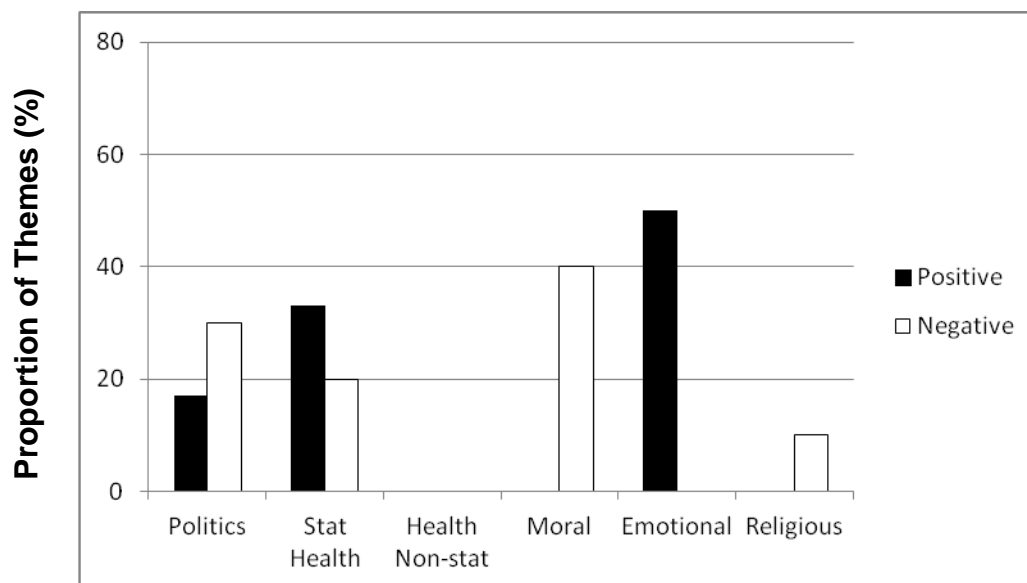


Figure 4.3.2 shows the positive and negative themes identified in the nine newspaper items from the Mid & West Wales region. They show that positive themes focused upon emotional themes (50 per cent), followed by statistical health information (33 per cent) and politics (17 per cent) but with no non-statistical health themes, and no moral or religious positive themes. Negative items focused upon moral arguments (40 per cent), politics (30 per cent), statistical health information (20 per cent) and religious arguments (10 per cent) with no emotional themes or non-statistical health themes used in negative themes.

The majority of themes contained within these items have been moral (all negative) and emotional (all positive) with political and statistical health themes not playing as large a role when compared to other regions.

However, as has been pointed out earlier in this section, the relatively low number of items (15) makes interpretation of this region more difficult to clarify.

Figure 4.3.3 Swansea Bay Themes

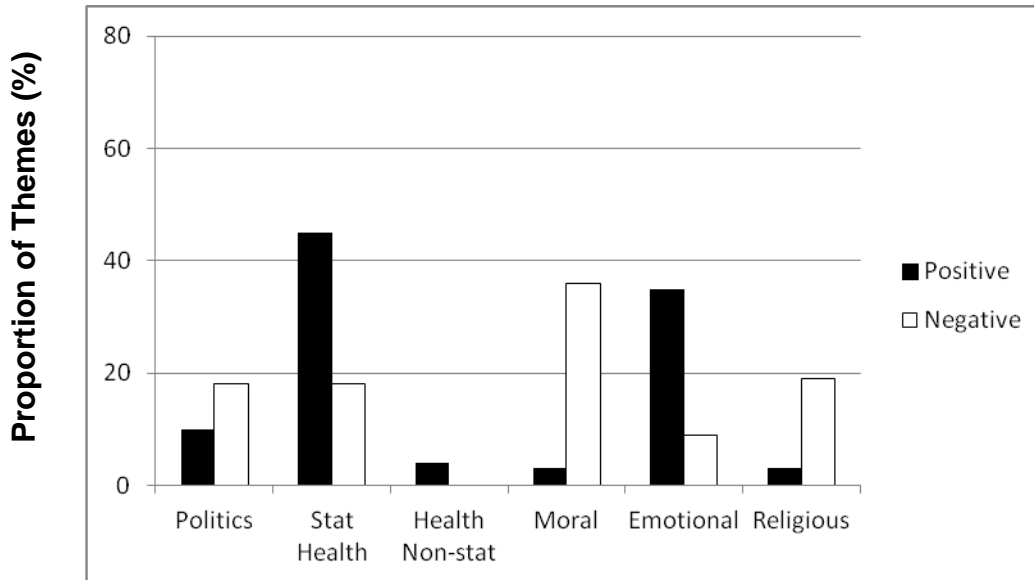


Figure 4.3.3 shows the positive and negative themes identified in the 16 newspaper items from the Swansea Bay region. They show that positive themes focused upon statistical health information (45 per cent) and emotional themes (35 per cent), followed by politics (10 per cent), non-statistical health information (4 per cent), moral arguments (3 per cent) and religious arguments (3 per cent). Negative items focused upon moral arguments (36 per cent), religious arguments (19 per cent), political arguments (18 per cent), statistical health information (18 per cent) and emotional themes (9 per cent), with no non-statistical health themes used for negative themes.

Positive items in this region have largely focused upon statistical health and emotional themes, whilst negative items have focused upon moral and religious arguments. Political themes have been slightly more negative than positive, but account for less of the overall themes than in many of the other regions.

Figure 4.3.4 Cardiff & South East Wales Themes

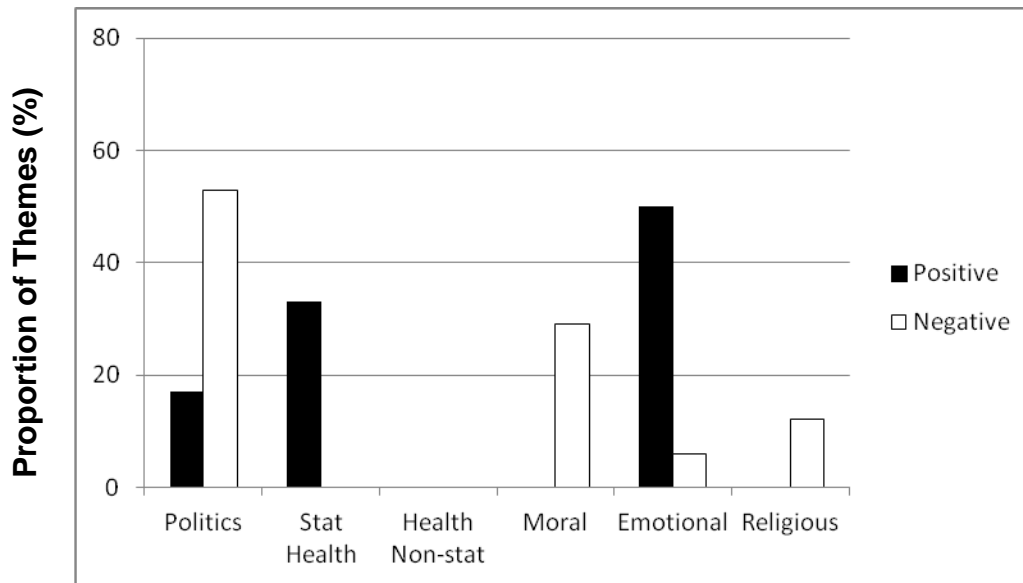


Figure 4.3.4 shows the positive and negative themes identified in the 14 newspaper items from the Cardiff & South East region. They show that positive themes focused upon emotional themes (50 per cent), statistical health information (33 per cent) and politics (17 per cent), with no positive themes for non-statistical health, religion or moral arguments. Negative items focused upon political arguments (53 per cent), moral arguments (29 per cent), followed by religious arguments (12 per cent) and emotional arguments (6 per cent) with no negative themes focusing upon statistical or non-statistical health themes.

The themes for the Cardiff & South-East region appear to be highly dichotomised, with emotional and statistical health themes making up the majority of positive items whilst moral, political and, to a lesser extent, religious arguments account for the themes in negative items. This may be due to the high number of letters printed (see earlier comment) which tend to focus upon one specific theme rather than covering multiple themes as tends to happen in general newspaper reporting.

Figure 4.3.5 Western Mail Themes

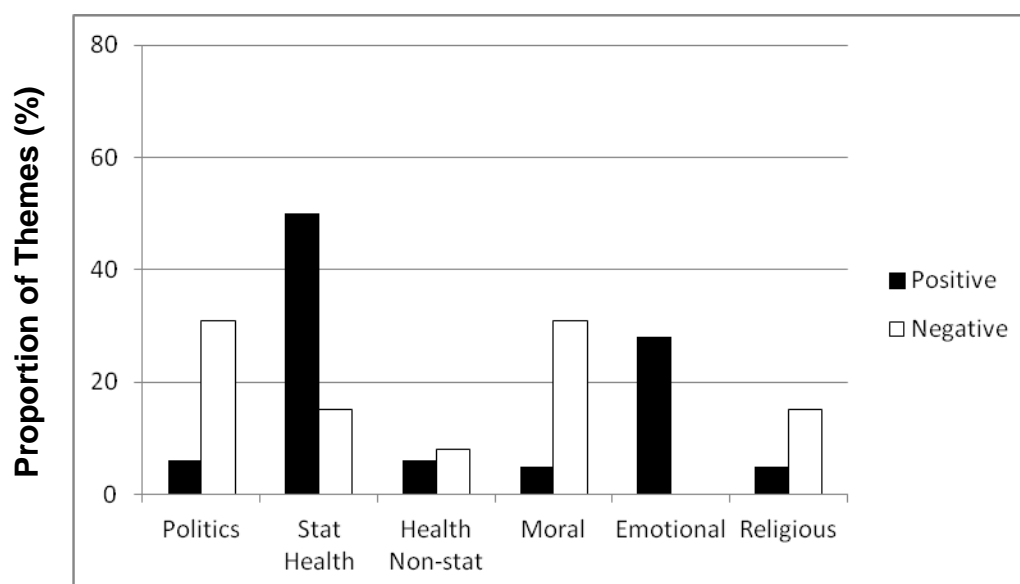


Figure 4.3.5 shows the positive and negative themes identified in the 52 newspaper items from the Western Mail. They show that positive themes focused upon statistical health themes (50 per cent), emotional themes (28 per cent), followed by politics (6 per cent), non-statistical health themes (6 per cent), moral arguments (5 per cent) and religious arguments (5 per cent). Negative items focused upon political arguments (31 per cent) and moral arguments (31 per cent), followed by religious arguments (15 per cent), statistical health arguments (15 per cent), and non-statistical health themes (8 per cent) with no negative emotional themes.

The majority of positive items focus upon statistical health and emotional themes, whilst political, moral and religious themes account for the majority of negative items. The Western Mail accounts for almost half of the news items found for this analysis and so the number of items (and themes) are greater than for region-specific newspapers. This newspaper also shows (alongside the Cardiff & South-East regional newspapers) a high number of readers' letters, and this appears to impact upon the moral themes in particular and, to a lesser extent, the political and religious themes.

4.4 Newspaper Argument Weight

The weighted valence of overall organ donation legislation coverage from October 2011 to April 2013 was calculated by examining the source credibility and strength of argument for positive and negative news items by region, with a positive score indicating overall positivity in coverage and a negative score indicating overall negativity. Further analyses of data pre-June 2012 and post-June 2012 were also calculated, and these data are also presented in Table 4.4.1.

Table 4.4.1 Argument Weight by Region

Region	Overall	Pre-June 2012	Post-June 2012
North Wales	.52	.35	.95
Mid & West Wales	1.42	n/a	.89
Swansea Bay	1.84**	2.06**	1.57*
Cardiff & SE Wales	-.53	.29	-1.1
Western Mail	1.32*	3.1*	1.6

* Indicates significantly different from zero baseline at .05 level

** Indicates significantly different from zero baseline at .01 level

Mid & West-Wales pre-June 2012 not calculated due to low number of data items identified for this period.

The argument weight data show that the Western Mail and Swansea Bay newspapers have been significantly positive in their overall coverage of the organ donation legislation, with Swansea Bay coverage being significantly positive pre- and post-June 2012. Only Cardiff & South-East Wales newspapers show an overall negative weight of argument, but this does not differ significantly from zero; newspapers within the remaining regions (North Wales, Mid & West Wales) show positive argument weight but, again, these differences are not significant (see Footnote 1 for information on statistical calculation). This suggests that the weight of argument in terms of source credibility and strength of argument are stronger for Swansea Bay newspapers and the Western Mail than newspaper coverage in other regions. These data show that the high use of statistical health themes in positive stories provides a strong weight of argument when compared to negative

themes, which tend to come from low credibility sources, in Swansea Bay newspapers and the Western Mail. This is supported by the Cardiff and South-East Wales finding that, despite showing a high level of negative valence for overall items and themes, the argument weighting does not differ significantly from zero due to the low credibility and low argument strength of the negative items.

4.5 Summary: Newspaper Coverage

Exploring organ donation legislation reporting at a regional level provides the ability to carry out direct comparisons with the findings of the PAODBS (2012). Valence data from regional newspapers appears to be positive overall, but provide mixed comparisons with the PAODBS. Despite a lower number of items identified than in other regions, the Mid & West Wales region shows broadly positive coverage of the organ donation topic, and this fits with the higher levels of support found for that area in the PAODBS. However, the broadly equal levels of positive and negative valence of coverage in North Wales (where support for legislation change was also relatively high in the PAODBS) tempers this somewhat. In complete contrast, the data shows a high level of positive valence for newspaper items in the Swansea Bay area, which is in opposition to the findings of the PAODBS which found this area to have the lowest levels of support for the legislation change. Analysis of themes by region revealed a greater range of themes reflected in positive items than for television, with emotional stories often being published in support of organ donation legislation in addition to statistical and political information. Themes within negative items primarily reflected political, moral and religious arguments.

Whilst the Cardiff and South-East area showed relatively low levels of favourability (with a high proportion of respondents in this region being 'undecided' in the PAODBS 2012) towards the legislation change, the newspaper coverage prior to June 2012 was not particularly negative; much of this negativity came post-June 2012 in the form of published letters from members of the public. These letters generated debate and additional letters,

and it is in this arena that newspaper coverage appears to deviate from the television coverage.

5. Conclusions and Recommendations

5.1 Discussion of key findings and recommendations

The Public Attitudes to Organ Donation: Baseline Survey 2012 (PAODBS; Welsh Government, 2012) identified differences between regions in relation to both knowledge of the proposed changes in legislation and attitudes toward the new legislation. These differences were not accounted for by socio-economic or demographic differences between these regions. The current report was commissioned by the Welsh Government in order to identify whether these differences could be accounted for by regional differences in media coverage of the then proposed changes to organ donation legislation in Wales. The findings of this report do not indicate that the regional differences identified through the PAODBS are due to any significant differences in media coverage. Indeed, where regional differences have emerged, these often do not reflect the patterns identified in the earlier PAODBS. The remainder of this report will discuss the implications of these findings in the context of the earlier PAODBS and the wider organ donation legislation changes, with recommendations for future communication strategy and research identified where appropriate.

Overall, the coverage of the organ donation legislation changes in Welsh media appears to be mixed, with a number of positive and negative items appearing across all forms of television and newspapers, but with some regional differences. Whilst television coverage can only be analysed at a broad level (examining coverage across all of Wales, but not at a regional level) the analysis of valence of news items suggests reasonably equal coverage of positive and negative items in both English and Welsh. When analysing the themes covered in television items, it appears that the majority of items, both positive and negative, have focused upon the political and statistical health themes above any of the other themes identified. Television coverage of the organ donation legislation therefore shows a clear pattern of presenting factually objective stories rather than more emotionally-laden or moral arguments.

Analysis of newspaper coverage has enabled the research team to explore the organ donation legislation coverage at a more regional level. These data suggest that, again, coverage tends to be positive overall but that there are some anomalies to these data, most notably in Cardiff and South-East Wales. General valence and argument weight suggest that statistical facts in the health-related stories are often used to provide both positive and negative news coverage in many of the regions. Of particular interest in the newspaper coverage, and a key area of difference between this and television coverage, appears to be the greater prevalence of emotional stories and moral arguments in particular. In the case of emotional stories, these are largely associated with positive news items and are found as a far higher proportion in newspaper coverage than television coverage. Conversely, moral arguments tend to be associated with negative items but are, again, more prevalent in newspaper coverage than television coverage. The emotional stories were often printed by the newspapers themselves, focusing upon those who were either families of donors or recipients of organs. In contrast, moral issues were prevalent in many of the negative letters; to all newspapers in general, but a disproportionately high number of negative letters were received by Cardiff & South East Wales and the Western Mail newspapers in comparison to the other regions.

This report has highlighted that readers' letters have helped contribute to a continuation of the debate around the deemed consent system of organ donation. Whereas television coverage tends to happen over a short period of time (a news item may appear on a programme for one or two days) it then stops until a new item is broadcast at a time when the story becomes newsworthy (this was an element commented upon in the television coverage). Newspapers have the ability to elongate a story when members of the public write to comment on that story, often a few days later. If a published letter receives subsequent comments from other readers, coverage may continue for several days, as was the case with some of the items analysed for this report. Subsequently, whilst an initial news item may be positive, it is possible that the published responses, in the form of readers' letters, may be negative. Accordingly, it is important to ensure that follow-up published

responses (both on-line and in print) are considered when analysing the impact of such media.

Whilst social media has not been identified in previous studies as being highly influential for organ donation information provision, the research team considered it important to attempt to analyse social media data for the purposes of this report, particularly in light of the low levels of knowledge regarding organ donation in 16 – 34 year olds highlighted by the PAODBS. The exploratory analyses that were conducted revealed that the majority of social media coverage was linked to newspaper comments, with surprisingly little structured content found on social media sites such as Facebook or Twitter. In the same way that readers' letters in newspapers are often from those with entrenched viewpoints, where social media comments do exist, they are likely to be driven by individuals with similarly strong viewpoints. It is therefore essential that any social media strategy recognises the importance of providing clear, unambiguous and unbiased information. The researchers are aware that the Welsh Government will be looking at utilising social media as part of their long term communications strategy to promote the legislation and this report suggests that this may well provide the strong framework required for a more structured social media campaign in relation to new organ donation legislation. As has been highlighted in the PAODBS (2012), the 16 – 34 age group self-reports as the least knowledgeable regarding legislation changes, and this is precisely the age group who are more likely than others to attempt to gain their information from online sources. Specifically, social media may be a useful mechanism for targeting younger individuals who were identified in the PAODBS as having lower levels of knowledge than older age groups.

Whilst it was not possible to access radio sources for the purposes of this report, it is important to recognise that radio is a further form of media that, whilst not as well-supported in the literature with regard to providing organ donation legislation information as television and newspapers, also has the ability to inform at a regional level. For example, it is clear from the discussions held by the research team with local radio stations (see appendix

B) that radio may be an important source of message dissemination amongst local populations, particularly if radio personalities are prepared to indicate their support for such initiatives. The Welsh Government has already recognised the importance of working with radio stations in raising awareness of the organ donation legislation changes, and it is likely that the use of social media such as Facebook and Twitter by some radio stations in Wales is likely to become an increasingly powerful tool through which to disseminate information, stimulate debate and raise awareness of the new legislation.

5.2 Limitations

Whilst attempts have been made by the research team to analyse all of the available data, there are a number of limitations to the research that should be recognised. First of all, the time period targeted for analysis (20 months) produced a huge amount of retrospective data requiring analysis in the timeframes of this project, and the researchers recognised that they would be unlikely to capture every item reported on the organ donation legislation topic in Welsh media. This challenge was exacerbated by the difficulty in gaining information from some news organisations, and the researchers recognise that the use of materials gained from databases may not provide a comprehensive coverage of all of the information available. However, by employing a clear systematic search and analysis strategy across the different media sources, the research team is confident that a representative sample of the data has been captured and presented in this report. Whilst the diversity and number of items available did not allow for the intended inferential levels of analysis in some cases, it is hoped that further collection of data on this topic may allow for subsequent analysis at a later date.

Secondly, as this specific research question and data analysis (that is, examining media coverage relating to organ donation legislation changes) had not been carried out before, the research team had to make decisions regarding valence and themes rather than employing more strictly-defined criteria that would have been possible if based upon specific prior research. Whilst the research team is confident that the research decisions made have been applied with consistency across the data, there is a need for future

research of both an applied and experimental nature to gain greater understanding of the underlying mechanisms behind attitudes towards organ donation and the role of media (and other influencing variables) in this process.

Finally, it is widely recognised that understanding attitudes and attitude change processes is a multi-faceted and complex process (Petty & Cacioppo, 1986). Whilst the focus of this report has been upon the messages supplied to the public, it must be recognised that the impact of these messages upon the recipient has not been explored. This is part of a wider issue with regard to the lack of specific research on how people respond to media messages on organ donation legislation change and how this impacts upon their subsequent attitudes. Future data collection through the ongoing PAODBS will enable further monitoring of changes in attitudes towards organ donation. It is also likely that wider social and psychological predictors of attitudes such as cultural norms, personal values and motivations need to be considered to fully understand differences in attitudes towards organ donation legislation in Wales.

5.3 Final conclusion

Overall, the coverage of organ donation legislation in Welsh media on television and in newspapers has been broadly balanced, with some regional exceptions. However, these in themselves do not explain the attitudes displayed by respondents to the PAODBS (2012). Therefore, regional differences in knowledge of, and attitudes towards, organ donation legislation cannot currently be linked to differences in the presentation of information relating to organ donation legislation across different types of media in Wales.

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Appendix A: Regions and Unitary Authorities

Region	Unitary Authorities
North Wales	Isle of Anglesey Gwynedd Conwy Denbighshire Flintshire Wrexham
Mid & West Wales	Ceredigion Powys Pembrokeshire Carmarthenshire
Swansea Bay	Swansea Neath Port Talbot Bridgend
Valleys	Rhondda Cynon Taf Merthyr Tydfil Caerphilly Blaenau Gwent
Cardiff & South East Wales	Vale of Glamorgan Cardiff Newport Torfaen Monmouthshire
Source: PAODBS (Welsh Government, 2012)	

Appendix B: Radio analysis report

Summary of attempted analysis and discussions with radio stations

Radio is a further form of media that, whilst not as influential as television and newspapers when providing organ donation legislation information (Rios et al., 2010) also has the ability to inform at a regional level. The difficulties in obtaining media information from radio broadcasters due to their storage protocols meant that whilst some information was obtained, it was not suitable for statistical analysis.

Analyses of radio coverage of the organ donation legislation changes are limited by the nature of data storage and access across radio stations in Wales. Initial contact was made with the 12 radio stations listed on the Welsh government website as broadcasting in Wales, and with the eight community radio stations currently listed as broadcasting in Wales. Information requested was whether it was possible to access information that they had provided in news stories on the topic of organ donation legislation in Wales since October 2011, and a specific question of whether they had held a phone-in or discussion programme on the topic of the organ donation legislation changes. Of the 20 radio stations contacted, replies were only received from three stations, with replies indicating that they had not carried out specific programmes on the topic of organ donation legislation, but had covered the topic in their news bulletins at times when information was provided from Welsh Government (e.g., when discussion was taking place in the Senedd, or when an issue such as the start and end of the consultation on the draft Bill had taken place; this is in keeping with the general coverage in the television and print media). However, this information is not stored in a way that is accessible for analysis. At the suggestion of one radio station, the research team used their social media sites (Facebook and Twitter) to analyse their coverage on the dates where other forms of media had covered organ donation legislation. However, whilst this was possible to analyse for some stations it became apparent that it would not be possible to analyse all regions

and stations in this manner due to their different uses of social media (e.g., some stations did not use social media and others that did had only recently set this up, making comparisons impossible).

Appendix C: Social Media Analysis Report

Social Media Coverage

Social media now plays an important role in the delivery of information in an online format. Whilst limited research exists examining how social media informs the public regarding issues such as organ donation legislation, an exploratory analysis of relevant sources was carried out using the search terms utilised for other forms of media in this study (see Appendix D) across five areas of social media: Facebook; Twitter; YouTube; blogs; and news media comment pages. A narrative report is provided on each area with statistical support where feasible.

Facebook

Use of search terms within Facebook identified two support groups for the organ donation legislation (one open group with all information available to anyone with a Facebook account and one closed group with information only available to members of that group) with less than 20 members in each. Searches within Facebook identified links to external websites. The first links provided were direct links to the NHS Wales Organ Donation website and the organ donation section within the Welsh Government website.

News stories are also provided with a higher number of 'likes' and 'shares' for stories provided by the BBC Wales news (suggesting a higher level of online engagement with this form of media) than for newspaper stories (e.g., the BBC news story from 8th November 2011 has 370 likes and 370 shares, whilst the link to the Welsh Government organ donation web pages has 4 likes and 15 shares).

Twitter

Twitter provides a forum for users to pass information to one another through either brief comment or links to web pages. The legislation could not be actively promoted by the Welsh Government whilst it was being scrutinised by the National Assembly for Wales and therefore it was not appropriate to host

a dedicated twitter channel specifically for the legislation. However the official Welsh Government Twitter channel was used alongside the Welsh Government Health Minister's twitter feed. We understand that social media, including Twitter, will be considered as part of a wider communications strategy to promote the legislation once it has been passed.

A search of tweets using the search terms defined in Appendix D shows that several thousand tweets have been sent since August 2011 relating to the organ donation legislation changes. Using the search term 'Wales Organ Donation', for example, shows that many of these tweets are direct links to online versions of the news stories analysed in this research (for example, news story transcripts provided by television or newspaper providers). As with the traditional media coverage, these tend to focus around times when the story is appearing in the mainstream Welsh news, with a high number of tweets at times of consultation and debates in the Senedd. During the early period of the research timescale (October – December 2011), when the Archbishop of Wales made several statements to news media, there were a high number of tweets from accounts linked to religious organisations. However, analysis of the last four months (since Jan 1st 2013) using this search term shows only 281 tweets during that time, mostly multiple tweets of the same stories from mainstream media sources.

YouTube

YouTube has become an increasingly popular format for people and groups to present their media campaigns. However, the material available regarding organ donation legislation changes in Wales appears to be limited. Even extending the period of applicable material, eight videos were identified, one negative (with 455 views) and seven positive (with between 3 and 555 views).

Blogs

A sample of 30 blogs were identified by using the search terms identified in Appendix D, through the Google search engine, searches within the Wordpress and Blogger indexes, and Twitter links. All of the blogs accessed contained individual written pieces by the blog author rather than being

dedicated to the topic of organ donation legislation itself. Some blogs were by authors who identified themselves, others were anonymous (identity of author not provided), whilst others appeared to belong to multiple authors/organisations. Of the 30 blogs analysed, eight were classified as presenting positive overall valence, four were mixed and 18 were classified as negative valence. Content of these blog reports largely focused upon political issues (70 per cent), moral arguments (40 per cent), health issues (20 per cent) and emotional issues (13 per cent).

Media Comment Pages

In addition to the media items accessed through databases the online versions of were also viewed. It was noted by the researchers that some online items drew a number of comments that are attached to the media news story (particularly BBC Wales and the South Wales Argus). These comments were analysed for valence. For 1289 comments identified it was calculated that 72 per cent of comments were negative about organ donation legislation, 16 per cent were positive and 12 per cent were either neutral, irrelevant to the subject or had been removed by the site moderator.

Social Media Conclusion

When considering that social media forms such a strong communication element in people's lives, particularly the younger generation, it is surprising that social media discussion of the organ donation legislation changes is so sparse. Particularly surprising was the lack of discussion on Facebook, which has been noted in the past as a useful tool for collective action of individuals. Indeed, the most robust debate on the subject appears to be in the comments pages of traditional media.

Given the negative nature of the comments on these pages and, in some cases, the inflammatory language that is used in these debates, it is of concern that some people may use these online sources as a resource for information on the topic of organ donation legislation change. As has been highlighted in the PAODBS (2012), the 16 – 34 age group self-reports as the least knowledgeable regarding legislation changes, and this is precisely the

age group who are more likely than others to attempt to gain their information from online sources.

The research team noted that information relating to organ donation was only found when searching using specific search engine terms (e.g. when using the keywords 'Welsh organ donation legislation' in Google). Using this search term returned pages of results of which the organ donation pages of the Welsh Government Website was the first on the list. Second on the list was the NHS Wales Organ Donation service that also contains information regarding how to sign up to the organ donation register. However, after these two sites, the next pages to be shown are those relating to media coverage and it is these pages that the comments are attached to. Therefore, it is highly likely that people searching for information on organ donation legislation changes may come across these pages with the negative discussions. It is therefore essential that clear, unambiguous and unbiased information is clearly signposted online. This will ensure that people can find information which will allow them to make the informed choice that is right for them. We understand that once the legislation is passed a dedicated website to organ donation in Wales will be developed and launched as part of the two year communications campaign that will be launched after the legislation is passed.

Appendix D: Database and Search Strategy

Search Dates:

1st October 2011 to 26th April 2013 (inclusive)

Search Terms:

Search Term used in Google	Approx. No. of Results (via Google)
Wales organ donation legislation	170,000
Welsh organ donation legislation	170,000
Wales organ donation	390,000
Welsh organ donation	190,000
Soft opt-out	13,000,000

The above search terms suggest that use of search strategies, including the term 'legislation', provides a more focused search of relevant sources pertaining to the legislation issue. Rudimentary analysis of a selection of the search results showed that many of the results returned were the same news items reported across different formats with little content change. It was therefore decided to use the terms 'Wales organ donation legislation', 'Welsh organ donation legislation' and 'organ donation legislation' as search terms within specific news databases directly related to Welsh news.

Newspaper Databases Searched	No. Of Results	No. Of Items Used in Analysis
Newsbank	308	202
LexisNexis	14*	4
Wrxzen.co.uk/Wales	n/a Database used for area searches by unitary authority	

The database Wrxzen.co.uk/Wales was used to access information on where newspapers in Wales are printed and their readership numbers within each unitary authority. These data were used to assign newspapers to one of the five regions. The Newsbank database provided the majority of search results

(308). A total of 104 items were not deemed suitable for analysis. This was because the information was considered unrelated to the topic of legislation (e.g. focusing only upon the donation of organs and not the legislation issue) or contained brief material not suitable for analysis (e.g. a notice reporting the time and date of a Welsh Government organ donation legislation discussion meeting in an area). The ten items that were not analysed from the LexisNexis database were replications of stories already identified in the Newsbank database, with the four items analysed not accounted for in the Newsbank database.

On-line Websites	No. Of Results	No. Of Items Used in Analysis
BBC Wales	43	27
ITV Wales	21	16
S4C	9	6
WalesOnline	163*	3

For television searches (BBC Wales/ITV Wales/S4C), items were excluded where they were deemed to be repeats of previously broadcast items (e.g. a report on the news of excerpts from a larger broadcast item) or were unrelated to the specific topic of organ donation legislation. The WalesOnline website was analysed but the majority of results found replicated those already identified through Newsbank; therefore the three items used in analysis are those that were unique to WalesOnline.

Newspapers Accessed by Region:

Region	Newspaper
Cardiff & South East Wales	Barry and District News
	Gazette Series
	Penarth Times
	South Wales Argus
	South Wales Echo/Wales on Sunday
Mid & West Wales	Carmarthen Journal
	Llanelli Star Series
	Milford Mercury
	South Wales Guardian
	Tivyside Advertiser
	Western Telegraph
Valleys	Cynon Valley Leader
	Gwent Gazette
	Merthyr Express
	Pontypridd & Llantrisant Observer
	Rhondda Leader
North Wales	Daily Post
	Flintshire Chronicle
	North Wales Weekly News
Swansea Bay	Glamorgan Gazette
	South Wales Evening Post
South/Mid-Wales	Western Mail