

“I don’t say that bored kids hanging about are bad, but they are scary!”¹

Exploring attitudinal factors that affect public perceptions of anti-social behaviour

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Abstract

Anti-social behaviour (ASB) has been at the forefront of Home Office policy for over a decade provoking numerous additions to the statute book as well as substantial investment in support and prevention programmes. The extent of problems caused by ASB is measured nationally by calculating the proportion of British Crime Survey (BCS) respondents deemed to perceive high levels of ASB in their local area. This paper provides a critical appraisal of measuring perceptions of ASB, before moving on to present new findings that show a number of attitudinal factors have been found to predict perceived high levels of ASB. These include: the perceived motivation of ASB, whether respondents feel informed about local ASB, and the perceived financial investment being made to tackle ASB locally.

Key Words: anti-social behaviour, measurement, perceptions, attitudinal predictors

Introduction

Perceptions play a central role in the crime and disorder reduction landscape, be they the perceptions of residents, victims of crime, offenders or practitioners. Understanding people’s perceptions of anti-social

¹ The title quotation is taken from a completed questionnaire received during the course of this research.

behaviour (ASB) and the processes that influence these is a prerequisite for developing effective policy and practice in reducing the negative impacts of ASB (and its anticipation) upon people's quality of life.

The importance of reducing perceptions of high levels of ASB is underlined by the national performance indicators for England and Wales within which they feature. Public Service Agreements (PSAs) 23 and 25, as well as National Indicator 17 (NI17) of the Assessment of Policing and Community Safety (APACS) framework all contain targets relating to the reduction of perceived high levels of ASB.

But how much do we really know about what shapes perceptions of ASB, considering their centrality to ASB measurement and consequently ASB policy? This paper will highlight the issues surrounding the measurement and research of public perception data and present the findings from a public perception survey into the factors that affect perceptions of ASB in hard-pressed ACORN areas (ACORN is 'A Classification Of Residential Neighbourhoods' and will be expanded upon later).

Defining and measuring anti-social behaviour

The most common method of assessing the extent of problems caused by ASB is through the collection and analysis of public perception data. This information can give an indication as to the types of problems which are causing public concern and that are impacting negatively on communities (Harradine et al., 2004). However, a number of definitional and measurement issues need to be addressed before examining levels of public perceptions and what shapes such perceptions.

The definition of ASB in the 1998 Crime and Disorder Act focuses on the consequences of ASB; namely harassment, alarm and distress, instead of the behaviour that is causing the problem. Defining ASB as acting "in a manner that caused or was likely to cause harassment, alarm or distress to one or more persons not of the same household" (CDA, 1998, Section 1 (1a)), allows what is considered anti-social to be interpreted by individuals as opposed to adopting a more restrictive legal definition. However ASB is defined, it remains difficult to measure because of the way incidents are reported and counted (Wood, 2004). For example, there may be multiple reports of a single incident, particularly if it affects a large number of people in the same neighbourhood. Conversely, if few people are affected the incident may go unreported. An additional dimension which further complicates this picture concerns the tolerance of behaviour. What one person deems to be anti-social may be considered acceptable by others. Thus some people may tolerate certain forms of minor ASB, whereas others may not, leading to further discrepancies in what is, and what is not reported. This element of subjectivity allows what constitutes ASB to be governed by factors such as context, location, community tolerance and quality of life expectations (ODPM, 2003). A broad, subjective definition can however be a positive device. It embraces all victims of ASB, as their experience of the behaviour and the consequences it has upon their quality

of life is taken into account. From a victim's perspective "the use of such a permeable, all-encompassing definition is justified in terms of the need to protect the self-governing, law-abiding citizen from the dangerous, uncivilised 'other'" (Flint and Nixon, 2006:943). Nevertheless, a wide-ranging definition can simultaneously produce negative outcomes. It "is open to objection on the basis that it will catch conduct which is unorthodox or unusual, eccentric or bizarre, but which, nevertheless is conduct which ought not to be the subject of the legal process" (Card and Ward, 1998:108). Therefore the definition of ASB has the potential to affect law-abiding citizens whose behaviour may be deemed unconventional in a particular context.

Academically, debate has focused on how the CDA definition of ASB can be understood. Budd and Sims (2001: 1) note "the terms anti-social behaviour and disorder are often used interchangeably", demonstrating how the interpretation of ASB can be loaded with preconceptions of disorder and incivility, when some of the behaviour that is considered anti-social is relatively innocuous, for example cycling on footpaths. Others propose a different approach. Bannister and Scott (2000) consider ASB to contain three 'distinct phenomena', namely neighbour problems, neighbourhood problems and crime problems. Millie et al. (2005) go one step further by suggesting that ASB is viewed as a spectrum of behaviour, ranging from minor misdemeanours that warrant no sanction, to behaviour that could provoke criminal proceedings.

Counting incidents of ASB is consequently problematical. Complications arise because it is not clear what should be measured and which agency, or agencies, are responsible for data collection (Whitehead et al., 2003). In order to provide an indication of the extent of ASB, the Home Office conducted a 'One Day Count' of ASB incidents in September 2003. All reported incidents to key public agencies, such as the police and local authorities, were counted over a 24-hour period. This provided a snapshot of ASB activity generating a total of 66,107 incidents (Harradine et al., 2004). Despite providing a baseline figure, no multi-agency data collection currently exists to build upon this figure. It also fails to acknowledge the impact ASB has upon individuals and communities.

These definitional and measurement complexities are further compounded by the relationship between ASB and crime. Innes (2004: 345) suggests that many people have trouble in establishing "a clear distinction between crime and anti-social behaviour when constructing judgements about levels of risk in an area". Filtered in alongside issues of tolerance and subjectivity, this makes measuring and understanding ASB a major challenge. As a result of these issues, measuring public perceptions of ASB, albeit a proxy measure, is currently the main method used to assess the impact of ASB on a local and national scale. It is therefore important to analyse what influences public perceptions in order to put policies and interventions in place to reduce the number of people perceiving ASB to be a problem.

What we know about perceptions of ASB - Nationally

The BCS sheds light on a number of facets of ASB. These include; changes over time in levels of public concern, the socio-demographic profiles of those who perceive high levels of ASB and factors that influence people's perceptions.

The BCS and additional analyses conducted by the Home Office provide a measure of trends in ASB perceptions over time. The combined perceptions measure² has been employed to assess the proportion of respondents perceiving high levels of ASB³ in their local area. Since the first data were generated in 2001/02, the proportion of respondents perceiving high levels of ASB has remained relatively stable, with the score remaining between 16% and 18% from 2003/04 to 2008/09 (Walker et al., 2009). The BCS collects considerable amounts of additional information concerning the characteristics of those who perceive levels of ASB to be high. As Upson (2006: 25) states, a number of factors, "interact to mean that the likelihood of perceiving problems or experiencing anti-social behaviour is not even across the population". Such factors include; the area people live in, personal demographics and lifestyle choices. The most recent BCS findings in this area published by Flatley et al. (2008) show that the characteristics most strongly and independently associated with perceiving high levels of ASB are:

- Living in a 'hard-pressed', 'moderate means' or 'urban prosperity' ACORN areas
- The level of deprivation, particularly living in the most deprived wards
- Disagreeing that people from different backgrounds get on well in the local area
- Being a victim of crime in the past 12 months
- Not living in the Northern regions of England
- Age; being less than 65
- Having lived in an area for 3 years or more

ACORN categorises households according to their demographic, housing and employment characteristics into 5 main groups, as outlined in Table 1.

² The BCS asks respondents how much of a problem 7 different types of ASB are in their local area; 'Noisy neighbours or loud parties?', 'Teenagers hanging around on the streets?', 'Vandalism, graffiti and other deliberate damage?', 'Rubbish and litter lying around', 'People using or dealing drugs?', 'People being drunk or rowdy in public places?', 'Abandoned or burnt-out cars?' These questions are also referred to as the seven strand index.

³ Responses to the seven questions that constitute the combined perceptions measure are combined to generate an overall measure of perceptions of ASB. This measure is calculated using a scoring scale assigned to each response, for example; 'very big problem' = 3, 'fairly big problem' = 2, 'not a very big problem' = 1, and 'not a problem at all' = 0. The score for each of the seven questions are added together, with the maximum being 21. Those who score 11 or more are considered to perceive high levels of ASB, which generates the overall percentage calculated by the BCS and measured against the PSAs.

Table 1. Outline of main ACORN groups from Flatley et al. (2008: 42)

ACORN Group	Household characteristics
Hard-Pressed	low income families, residents in council areas, people living in high rise, and inner city areas.
Moderate Means	Asian communities, post-industrial families and skilled manual workers.
Comfortably Off	young couples, secure families, older couples living in the suburbs, and pensioners
Urban Prosperity	prosperous professionals, young urban professionals and students living in town and city areas.
Wealthy Achievers	wealthy executives, affluent older people and well-off families

Overall, “the relationship between level of deprivation and perceptions of ASB remained the most strongly independently associated factor” (Flatley et al., 2008: 17). In addition to highlighting the factors associated with perceptions, the BCS also explores the sources of perceptions. All previous Home Office analysis suggests that those who perceive high levels of ASB in their local area develop those perceptions from their own personal experience (Flatley et al., 2008; Upson, 2006; Wood, 2004). However, it is important to acknowledge that “not everyone who had experienced such behaviour actually considered there to be a problem in their area” (Upson, 2006: 9). This relates to some of the issues raised earlier regarding tolerance, subjectivity and definitions of ASB.

Overall, the BCS provides a comprehensive analysis of demographic factors that are associated with those who perceive high levels of ASB. In addition, this information is complemented by the information about what shapes perceptions, albeit fairly limited. The strength of the BCS is that it provides this data on a national scale. However, its major limitation is that it tells us little about why certain demographic groups are more likely to perceive high levels of ASB.

What we know about perceptions of ASB - Locally

In addition to the research conducted nationally by the BCS, in England local information is also collected biennially by the Place Survey. The Place Survey is a statutory survey that collects data at a local authority level, with the results measured against a number of national performance indicators (including NI17). This was introduced in 2008 to replace the Best Value Performance Indicator (BVPI) User Satisfaction Survey (also previously known as the Local Government User Satisfaction Survey (LGUSS)). The overall remit of the survey is to capture the views of local people on a range of local authority functions, so that future service delivery can reflect local priorities. The combined perceptions measure is employed to collect data about public perceptions of ASB, with results published by local authority area as well as for England as a whole. The Place Survey and its

predecessor the BVPI have produced markedly different national results to the BCS in previous years, as demonstrated in Table 2.

Table 2. BCS and Place/BVPI Survey Results for the proportion of people perceiving high levels of ASB in 2003/04, 2006/07 and 2008/09

%	2003/04	2006/07	2008/09
BCS	16	17	17
BVPI/Place Survey	38	23	20

Sources: BCS - Walker et al., (2009); BVPI - Ames et al., (2007); Place - DCLG (2009)

However, the gap between the scores appears to be reducing. An element of caution should be exercised when comparing these figures, due to the Place Survey only sampling local authorities in England, compared to the BCS which surveys England and Wales. The Place Survey may not be as methodologically rigorous as the BCS in terms of representativeness (Ames et al., 2007), but it does allow local authorities to make comparisons to their own previous performance as well as other neighbouring authorities and members of their most similar Crime and Disorder Reduction Partnership (CDRP) family group.

Overall, the research into public perceptions of ASB is conducted on a national and local scale. The data is collected on a regular basis and is quantitative in form. However, the overall topic appears highly under-researched as this work does not consider the underlying factors affecting public perceptions, which ultimately is needed to apply relevant, evidence-based policy interventions.

Research Methodology

From the above summary of current research, it is evident that public perceptions play a crucial role in measuring the extent of ASB. This paper provides the results of phase one of a multi-phase research project⁴, aimed at building a greater understanding of what drives public perceptions of ASB at a neighbourhood level.

⁴ The results presented in this paper are from phase one of a mixed methods PhD study into public and practitioner perceptions of ASB. Phase 2 involved conducting public focus groups in four case study areas, to discuss the factors significantly and independently associated with perceiving high levels of ASB generated by the Phase 1 survey. Phase 3 involved interviewing key ASB stakeholders in each case study area to determine how practitioners address perceptions of ASB in a local context. This research is currently ongoing. Overall inferences will be generated by combining the results of each phase.

With practical considerations in mind, this research is focused on one of the factors previously found to be associated with perceiving high levels of ASB - living in hard-pressed ACORN areas. Since 2004, living in a hard-pressed ACORN area has been the most significant predictor of those who perceive high levels of ASB, according to the BCS. Those considered to be hard-pressed “are experiencing the most difficult social and economic conditions in the whole country, and appear to have limited opportunity to improve their circumstances” (ACORN User Guide, 2006: 82). By generating information about those perceiving the highest levels of ASB, it is anticipated there will be future policy implications for reducing perceived high levels of ASB, when all phases of the research are complete.

The aim of the first phase of research was to gauge public perceptions of ASB in four case study areas, in order for comparisons to be made within and between these areas. The areas were chosen in order to determine whether perceptions vary due to location. All areas were metropolitan boroughs in the north of England, as the public service infrastructure should have been similar in each location opposed to a two-tier local government structure. In addition, two of the four areas were designated Respect areas. The government established forty Respect areas in 2007 to lead its Respect Agenda. This policy was first introduced in 2006 with the publication of the Respect Action Plan, which aimed to widen the remit of ASB policy by going ‘broader’; addressing ASB in all sections of society, ‘deeper’; tackling the causes of bad behaviour; and ‘further’; introducing new enforcement powers to make a sustainable difference to ASB, to tackle all aspects of ASB (Respect Taskforce, 2006). The Respect areas were selected because they had “earned the right to be exemplars of the Respect programme by their strong track record in tackling anti-social behaviour, and a willingness and capacity to do more” (Respect Website, 2007). The chosen areas then signed up to: provide family intervention projects; offer more parenting classes; hold face the people sessions for local accountability; use the full range of tools and powers; and to implement the Respect Standard for Housing Management, receiving additional funding to fulfil these commitments. Despite ASB policy having moved on from the Respect Agenda, the decision to select Respect and Non-Respect areas as a basis for comparison was to explore whether perceptions varied within and between these different case study areas, due to the additional support and elevated status of Respect. To ensure the research was focused on hard-pressed ACORN areas two hard-pressed dominant Wards were selected in each case study area. This means the majority of households in each Ward are classified as hard-pressed. The decision to sample hard-pressed dominant Wards instead of specific hard-pressed ACORN residences was made with the forethought of potential policy implications. Examining hard-pressed dominant Wards provides a realistic neighbourhood setting, at a level that is of greater relevance to practitioners who, through CDRPs and Neighbourhood Policing, operate at that level.

In order to build upon the demographic information provided by the BCS, the emphasis was placed on a number of attitudinal factors to determine whether there were any significant associations between certain attitudes and perceiving high levels of ASB.

Data collection

A self-completion postal questionnaire containing 26 questions (a copy is available from the author) was randomly distributed to 1000 residents in each of the four case study areas during November 2008⁵. Some questions were similar to those employed by the BCS, such as the combined perceptions measure, whether ASB is getting worse, and demographics. These questions were included to see whether the BCS findings were replicable in this hard-pressed setting. Additionally, new attitudinal questions focused around topics such as: whether ASB is deliberately motivated; does ASB or crime cause greater worry; do residents feel informed about what is being done to tackle ASB in their local area; and are residents aware of any local/national projects running in their area to reduce ASB. The questions selected for inclusion were chosen in order to expand on existing themes in ASB literature and acknowledge practical aspects of ASB reduction such as the awareness of local interventions. In addition, the content was finalised through detailed discussions with the Home Office as the collaborating organisation. Six versions of the questionnaire were drafted, with piloting taking place within the Applied Criminology Centre, University of Huddersfield and with a small convenience sample of non-specialists to test the wording and understanding of the questions.

Data analysis

The data were initially analysed using descriptive statistics producing frequencies about the proportion of respondent's perceptions. Secondly, cross-tabulations were generated with significant Chi-square (χ^2) testing to explore whether there were any relationships between the survey questions (independent variables) and respondents perceiving high levels of ASB. The Pearson χ^2 value was used to measure the significance of the association at the $p < 0.05$ level. Finally, in order to determine whether any of the independent variables were significantly associated with predicting those who perceive high levels of ASB (the dependent variable) a logistic regression analysis was conducted.

Logistic regression is a method that models the probability of an event occurring, the event in this case being whether or not the respondent is more likely to perceive high levels of ASB. The analysis was conducted in a systematic manner, with models being created for the full sample, and the

⁵ The response rate for the survey was 10.55% (Full sample n = 422; Respect sub-sample n = 228, Non-Respect sub-sample n = 194; Respect Area 1 sub-sample n = 94, Respect Area 2 sub-sample n = 134, Non-Respect Area 1 sub-sample n = 99, Non-Respect Area 2 sub-sample n = 95).

Respect and Non-Respect sub-samples. Logistic regression analysis was not appropriate to conduct at a smaller sub-sample level due to the sample sizes being too low to produce results of suitable validity (Green, 1991). The independent variables selected for inclusion in each of the separate logistic regression models were selected based upon:

- significant χ^2 associations identified during the early part of data analysis (Hosmer and Lemeshow, 1989);
- χ^2 variables with a value of $p < 0.25$ ⁶ (Bendel and Afifi, 1977; Hosmer and Lemeshow, 2000); and
- strong predictors from previous research (Norusis, 2003, Field, 2005), in this case the BCS.

A final caveat for inclusion was that no independent variables were to demonstrate correlation with other independent variables at a value of $r > 0.40$, which has been applied in previous BCS analysis (Flatley et al., 2008). A further dimension to consider was the method of logistic regression to employ. As the basis for conducting logistic regression was to initiate loose comparisons to the BCS, consideration was given to the method employed by the BCS in previous analysis. The BCS uses the forward stepwise method. Stepwise methods are used when building a non-theory testing, exploratory model and in circumstances where causality is not of concern (Field, 2005). For more information about stepwise methods see Table 3. This represented an appropriate type of model to use with this data.

Table 3. An explanation of logistic regression stepwise methods

Regression method	Description
Stepwise Methods	The stepwise method uses a statistical algorithm to select or delete variables from a model based on their significance level
Forwards Method	The forwards method starts with a constant and adds independent variables to the model until no significant independent variables remain
Backward Method	Instead of starting with a constant, all independent variables are included in the model. The variables are then removed according to their significance level and impact on the logistic regression model

⁶ A more rigorous value of $p \leq 0.05$ is often applied when selecting χ^2 variables for inclusion. However on this occasion, due to the exploratory nature of the research and the desire to “minimize type II error in selection” (Mickey and Greenland, 1989: 136) using a $p < 0.25$ level was justifiable. A type II error would have occurred if a variable had been rejected in error.

However, there are methodological issues with applying stepwise methods. Pallant (2007: 166) reports that “stepwise methods have been criticised . . . because they can be heavily influenced by random variation in the data”. If a stepwise method is appropriate for the data, a further choice has to be made between using the forward and backward methods. Field (2005) suggests the backward method is superior, which is the opposite method to that employed by the BCS. The forward method is more likely to generate “suppressor effects, which occur when a predictor has a significant effect but only when another variable is held constant” (Field, 2005: 169). Consequently, the forward method is more prone to producing type II errors.

To see whether parity with the BCS could be achieved while maintaining a high degree of methodological integrity, two methods of logistic regression were initially tested. For the full sample and two sub-samples of Respect and Non-Respect, logistic regression models were built using both forwards and backwards stepwise methods. The results were compared, with identical results produced for the full samples and Non-Respect sub-samples, regardless of method employed. The main difference between the methods was identified when comparing the results for the Respect sub-samples. The number of significant predictors varied between the two methods, as did the odds ratios and significance levels produced. As a consequence of these findings and in light of the methodological criticisms of the forward stepwise method, the results generated by the backward method will be reported. As a result of this decision, the methods no longer align to the analysis conducted by the BCS. However, the quality of these findings should be enhanced by this decision.

Results

Proportions perceiving high levels of ASB

The most straightforward comparison to previous research is to examine the proportion of respondents who perceive high levels of ASB in their area using the combined perceptions measure. Table 4 outlines the percentages for the main sample/sub-samples used in this research. When examining the full sample, 28 percent perceived high levels of ASB. This is comparable to the BCS figure for hard-pressed ACORN areas of 30 percent (Flatley et al., 2008). The proportions perceiving high levels of ASB in hard-pressed areas are markedly higher than the general population proportions reported by both the Place Survey and the BCS. In line with the emphasis on locality, it was important to look at the proportions of respondents perceiving high levels of ASB at the Respect and Non-Respect sub-sample level, to see if there were any differences.

Twenty-one percent in the Respect sub-sample and 37 percent in the Non-Respect sub-sample perceive high levels of ASB which - in the first results of this type - demonstrates a great deal of variance. This variance is replicated in the results when each case study area is considered. The

results for each area are not consistent, as they range from 13 percent to 45 percent. This affects and distorts the mean average values reported for the Respect and Non-Respect sub-samples. Variance is also apparent if you break down the figures to Ward level, as shown in Table 5. This shows that perceptions of ASB differ vastly between neighbourhoods, with the highest proportion of residents perceiving ASB to be a problem at 50 percent in Ward A (Non-Respect Area 2) compared to just 12 percent in Ward B (Respect Area 2).

Table 4. Proportion of respondents who perceive high levels of ASB by sample

Sample	Percentage
Full Sample	28
Respect Sub-Sample	21
Non-Respect Sub-Sample	37
Respect Area 1	33
Respect Area 2	13
Non-Respect Area 1	28
Non-Respect Area 2	45

Table 5. Proportion of respondents who perceive high levels of ASB by ward

Area and Ward	Percentage
<u>Respect Area 1</u>	
Ward A	40
Ward B	26
<u>Respect Area 2</u>	
Ward A	14
Ward B	12
<u>Non-Respect Area 1</u>	
Ward A	36
Ward B	23
<u>Non-Respect Area 2</u>	
Ward A	50
Ward B	40

Logistic regression: Full sample

The results from the logistic regression are reported in three sections; full sample, Respect sub-sample and Non-Respect sub sample. Based on the selection criteria outlined earlier, Figure 1 contains the independent variables selected for inclusion in the full sample model.

Figure 1. Independent variables selected for inclusion in the full sample model

Breakdown of independent variables included in the full sample model by selection criteria:

Significant χ^2 associations

- Whether ASB is committed deliberately or without thinking
- Respect / Non-Respect Area
- Does ASB or crime cause most worry?
- ASB: better or worse in last two years in local area
- Any money spent to tackle ASB in local area?
- Tenancy

χ^2 variables with a significant value of $p < 0.25$

- Respondents kept informed about tackling ASB in local area?

Previous Strong Predictors: British Crime Survey Results (Flatley et al., 2008)

- Crime Victim
- Age
- Length of residence at current address

A total of 422 cases were analysed and the full model was significantly reliable ($\chi^2 = 100.31$, $df = 6$, $p < 0.0005$). The model explains 34 percent of the variance in ASB perceptions status based on the Nagelkerke R^2 value, which measures the strength of the association. In addition, 85.3 percent of those who do not perceive high levels of ASB and 57.5 percent of those who perceive high levels of ASB were successfully predicted. Overall 77.4 percent of the predictions were accurate. Four out of the six significant predictors were based on attitudinal factors (see Table 6).

Table 6. Logistic regression results for the full sample

Full Sample: Backward: LR Method		
Significant predictors associated with perceived high levels of ASB		
Predictor Variable	Odds Ratio	Significance
Those who think ASB is committed deliberately	3.137	0.0005
Those who think ASB has become worse in their local area	3.129	0.0005
Those who said that no money is being spent in their area to tackle ASB	2.226	0.031
Living in a Respect area	0.453	0.004
Being more worried about crime than ASB	0.375	0.007
Being an owner occupier	0.336	0.0005

Half of the significant predictors generated by the full sample model are factors that are more likely to predict perceptions of high levels of ASB (odds ratios >1). The strongest relationship uncovered by the model relates to the perceived motivation of ASB. Those who perceive that ASB is committed deliberately are three times more likely to perceive high levels of ASB in their local area in comparison to those who think it is committed without thinking or don't know. Also three times more likely to perceive high levels of ASB are those who believe that ASB has become worse in their local area, compared to those who think it has stayed the same or improved. Those who said that no money was being spent in their local area to tackle ASB were also more likely to perceive high levels of ASB, with them being twice as likely to do so in comparison to those who thought money was being spent.

The remaining significant predictors are associated with being less likely to perceive high levels of ASB (odds ratios <1). Respondents living in a Respect area, being an owner occupier and being more worried about crime than ASB were all less likely to perceive high levels of ASB.

In addition, the significant predictive demographic factors uncovered by the 2008 BCS were re-examined in this model, but failed to demonstrate a significant predictive relationship.

Respect sub-sample

A slightly different set of independent variables were included in the Respect model based on the selection criteria and are outlined in Figure 2.

Figure 2. Independent variables selected for inclusion in the Respect sub-sample model

Breakdown of independent variables included in the Respect sub-sample model by selection criteria

Significant χ^2 Associations

- Whether ASB is committed deliberately or without thinking
- Does ASB or crime cause most worry?
- ASB; better or worse in last two years in local area
- Any money spent to tackle ASB in local area?
- Tenancy
- Ethnicity
- Whether respondents live in Respect area 1 or Respect area 2

χ^2 variables with a significant value of $p < 0.25$

- Respondents kept informed about tackling ASB in local area?
- Respondent aware of local projects to tackle ASB?

Strong Predictors; British Crime Survey Results (Flatley et al., 2008)

- Crime Victim
- Age
- Length of residence at current address

For the Respect sub-sample a total of 228 cases were analysed, with the full model found to be significantly reliable ($\chi^2 = 65.025$, $df = 7$, $p < 0.0005$). Forty-five percent of the variance in ASB perception status is explained by the model, based on the Nagelkerke R^2 value. Furthermore, 96.1 percent of those who do not perceive high levels of ASB and 40 percent of those who do perceive high levels of ASB were successfully predicted. Overall, 84.5 percent of the predictions were accurate. Table 7 contains the odds ratios and significance levels for the significant predictors associated with perceived high levels of ASB.

All of the significant predictors in the Respect model are associated with those more likely to perceive high levels of ASB. Three of the predictors were demographic and four were attitudinal. A number of significant predictors from the full sample model are replicated namely: those who think ASB has become worse in their local area, respondents who think ASB is committed deliberately and people who said that no money is being spent.

Table 7. Logistic regression results for the Respect sub-sample

Respect Sub-Sample; Backward: LR Method		
Significant predictors associated with perceived high levels of ASB		
Predictor Variable	Odds Ratio	Significance
Those who think ASB has become worse in their local area	5.294	0.001
Being a council tenant	4.493	0.016
Ethnicity – non-white	4.335	0.037
Those who think ASB is committed deliberately	4.221	0.002
Those who agree they are kept informed about ASB in their local area	3.879	0.007
Living in Respect area 1	3.579	0.007
Those who said that no money is being spent in their area to tackle ASB	3.291	0.035

The Respect sub-sample generated four sub-sample specific significant predictors (see shaded cells in Table 7). The strongest of these unique predictors was being a council tenant - these respondents were nearly four and a half times more likely to perceive high levels of ASB, compared to those occupying other tenures. A similarly strong significant predictor was ethnicity, specifically being non-white. In addition, those who agree they are kept informed about ASB in their local area are three times more likely to perceive high levels of ASB compared to those who feel they are not kept informed. Finally, those who lived in Respect area 1 were three and a half times more likely to perceive high levels of ASB opposed to those living in Respect area 2. This represents the vast difference in proportions perceiving high levels of ASB presented earlier.

Non-Respect sub-sample

The number of independent variables selected for inclusion in the Non-Respect model also varied to the previous two models. Figure 3 contains the independent variables included in the model.

A total of 194 cases were analysed and the full model was found to be significantly reliable ($\chi^2 = 41.987$, $df = 4$, $p < 0.005$). The model accounts for 31 percent of the variance in ASB perception status, based on the Nagelkerke R^2 value. In addition, 88.1 percent of those who do not perceive high levels of ASB and 45.9 percent of those who do perceive high levels of ASB were successfully predicted. Overall, 72.2 percent of the predictions were accurate.

Figure 3. Independent variables selected for inclusion in the non-Respect sub-sample model

Breakdown of independent variables included in the Respect sub-sample model by selection criteria:

Significant χ^2 Associations

- Whether ASB is committed deliberately or without thinking
- Does ASB or crime cause most worry?
- ASB; better or worse in last two years in local area
- Tenancy
- Whether respondents live in Non-Respect area 1 or Non-Respect area 2

χ^2 variables with a significant value of $p < 0.25$

- Respondents kept informed about tackling ASB in local area?
- Any money spent to tackle ASB in local area?
- Length of residence at current address
- Crime Victim
- Local newspaper readership

Strong Predictors; British Crime Survey Results (Flatley et al., 2008)

- Age

In contrast to the previous models, the non-Respect model contains one independent variable that demonstrated a correlation between another independent variable (multicollinearity), which can affect the validity of the predictor variables produced. The independent variable in question was tenancy, more specifically owner occupier. One solution to this problem would be to omit that particular independent variable. However, there is no definite way of knowing which variable 'owner occupier' is interacting with. Field (2005: 263) concludes that in such situations "there are no statistical grounds for omitting one variable over another" and the most appropriate solution is to acknowledge the unreliability of the model. Therefore the results produced by the non-Respect sub-sample model are slightly less reliable than the previous models due to a minor incidence of multicollinearity. Table 8 contains the significant predictors and corresponding odds ratios.

Table 8. Logistic regression results for the non-Respect sub-sample

Non-Respect Sub-Sample; Backward: LR Method		
Significant predictors associated with perceived high levels of ASB		
Predictor Variable	Odds Ratio	Significance
Those who think ASB is committed deliberately	4.990	0.0005
Living in Non-Respect area 2	3.099	0.004
Being more worried about crime than ASB	0.187	0.001
Those who read the local newspaper	0.159	0.023

The number of significant predictors generated by the non-Respect sub-sample model was less than the Respect sub-sample model, with only two predictors being unique (see shaded cells in Table 8). Of the unique predictors, one was a demographic factor and one was attitudinal. Respondents living in non-Respect area 2 were found to be three times more likely than respondents living in non-Respect area 1 to perceive high levels of ASB. This highlights the difference between the proportions perceiving high levels of ASB in each area and demonstrates a similar result to the Respect sub-sample model. Finally, those who read the local newspaper are significantly less likely to perceive high levels of ASB opposed to those who don't read the local newspaper.

Summary of logistic regression findings

Overall, a range of attitudinal predictors have been found to have a significant association with perceiving high levels of ASB. The analysis has also shown that different predictors are significant for different sub-samples based on location and Respect status. A summary of the key findings is as follows:

- The proportion of respondents perceiving high levels of ASB in hard-pressed ACORN areas is consistent at a full sample level with BCS findings;
- The proportion of respondents perceiving high levels of ASB vary between Respect and Non-Respect areas, and between case study areas and Wards within the same case study area
- New demographic and attitudinal factors have been found to be significantly and independently associated with being more likely to perceive high levels of ASB, namely:
 - Those who think ASB is committed deliberately
 - Those who think ASB has become worse in their local area
 - Those who said that no money is being spent to tackle ASB locally
 - Those who feel they are kept informed about local ASB
 - Being a council tenant (Respect sub-sample only)
 - Being non-white (Respect sub-sample only)

- Living in Respect area 1 (Respect sub-sample only)
- Living in Non-Respect area 2 (Non-Respect sub-sample only)
- New demographic and attitudinal factors have been found to be significantly and independently associated with being less likely to perceive high levels of ASB, namely:
 - Living in a Respect area
 - Being more worried about crime than ASB
 - Being an owner occupier
 - Those who read the local newspaper (Non-Respect sub-sample only).

Discussion

Reflection on results

The overall remit of this research is to gain a better understanding of what factors affect the public's perceptions of ASB. The rationale for the survey reported here was to produce a set of statistically significant factors associated with perceiving high levels of ASB. The findings presented within this paper demonstrate that attitudinal as well as demographic factors are associated with perceiving high levels of ASB in a hard-pressed dominant setting, which takes forward existing research in this area.

But what are the implications of these findings? The first point to consider relates to the proportions of respondents perceiving high levels of ASB. The full sample findings are similar to those reported for hard-pressed areas by the BCS. However, when examining the proportions at Respect/Non-Respect level, a real variation becomes apparent. This trend of variation is repeated when the samples are broken down to both case study and Ward level, demonstrating that the proportion of people perceiving high levels of ASB is neighbourhood specific. This reinforces the notion that perceptions of ASB are dependent upon location (ODPM, 2003). However, if this variance is apparent at a neighbourhood level, how appropriate are national and local authority surveys in measuring perceptions of ASB, and consequently the extent of problems with ASB? Based on the findings, local authorities would be better served by examining perceptions of ASB at a community level in order to implement appropriate, tailored interventions to reduce perceived high levels of ASB. In addition, it would be useful to understand how local authorities responsible for the reduction of ASB address those who perceive levels of ASB to be high.

Secondly, the logistic regression findings have produced a set of factors that are significantly and independently associated with perceptions of ASB. This has added a new attitudinal dimension to the existing research on perceptions of ASB. Some of the significant factors highlighted by this research are complex in nature - for example, the perceived motivation of ASB. However, like the research that precedes it,

this only reveals a limited amount of information because there is no understanding of why these factors are important. These factors will only begin to be unravelled through an inductive approach. For example, in relation to the perceived motivation of ASB a number of additional questions need to be discussed, namely: if people perceive themselves to be the deliberate target of anti-social acts, do they perceive higher volumes of ASB? Why do they feel they are deliberately targeted, and how does this affect their perception of ASB as a whole? It is only through discussing these intricate topics at greater depth that future policy implications and ways to reduce perceived high levels of ASB can be considered. The issue of locality will also have to be filtered into this debate as the factors driving perceptions may vary between the case study areas in a similar fashion to the proportion of people perceiving ASB to be a problem as reported above. All of the issues raised above warrant further enquiry.

Conclusion

Measuring perceptions of ASB is a useful way of gauging the extent of problems caused by ASB, due to the issues with counting actual incidents of ASB. Current research into public perceptions of ASB is focused on a quantitative approach at a national and local authority scale. This has produced a significant amount of data relating to the proportion of people perceiving high levels of ASB in their local area. In addition, analysis of BCS findings has provided a number of demographic characteristics that are more likely to be associated with perceiving high levels of ASB. This study examined perceptions in four case study areas. The proportion of people perceiving high levels of ASB locally varied due to Respect status, between case study areas and also between Wards within a case study area. Furthermore, a range of new attitudinal and demographic characteristics have been found to predict those who perceive high levels of ASB. Measuring perceptions qualitatively and at a more local, neighbourhood/street level is the next step in order to fully understand the factors that affect public perceptions of ASB. This will facilitate the development of appropriate interventions to reduce perceptions and allow the effectiveness of interventions to be accurately measured.

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