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**Fraudulently Claiming Following a Road Traffic Accident: A Pilot Study of UK
Residents Attitudes**

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Fraudulently Claiming Following a Road Traffic Accident: A Pilot Study of UK Residents Attitudes

Abstract

The UK Government recently expressed concern regarding the financial repercussions that feigned whiplash claims following road traffic accidents (RTA) are having on the economy. Indeed, this is a problem that is a likely result of a significant percentage of otherwise law-abiding citizens, who interpret this behaviour to be victimless. Previous research has indicated that a substantial prevalence of malingering exists across a variety of contexts; however, establishing the ground truth is problematic. This paper presents an alternative approach that provides an insight into the problem of malingering following a RTA. 197 participants completed a hypothetical questionnaire that examined their likelihood of malingering either: depression, PTSD or whiplash following a RTA. The results suggest that a substantial percentage indicated they would be likely to malingering using either a partial malingering or false imputation strategy. Malingering following a RTA appears to be regarded with little severity and this paper discusses the implications.

Keywords: Malingering, Insurance Fraud, RTA, Deception, Victimless Crime

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Introduction

Criminology has traditionally concerned itself with acts of criminality that are associated with the stereotypical offender who is portrayed in a negative light compared with the so-called law-abiding citizen. In reality, how many citizens actually abide by all the laws, all of the time, which are set by the government? In truth, very few individuals are probably worthy of this title which intentionally sets the majority of the general public apart from the moral less portrayal of the stereotypical criminal (Youngs and Canter, 2014).

In an article published in the *Telegraph* in 2008, it was stated that, on average, British citizens commit seven crimes a week; this was according to a survey of 5000 UK residents. The survey indicates that a third of the population were not concerned that they regularly broke the law, with 20% stating they didn't see the crimes as illegal because '*everybody else does it*' (British Telegraph, 2008). Moreover, social psychology has long speculated why individuals might regularly break the law, through explanations such as attribution theory (Heider, 1958); take for example, the actor observer bias, which states that we are inclined to attribute other people's behaviours to their personal (internal) disposition, whilst we believe our own to be situational determined (i.e. external causes) (Jones & Nisbett, 1972).

Criminologists Sykes and Matza (1964) further demonstrate why otherwise law-abiding citizens can rationalise their behaviour prior to breaking certain laws through five techniques of neutralisation: 1) *denial of responsibility*, 2) *denial of injury*, 3) *denial of the victim*, 4) *condemnation of the condemners* and, 5) *appeal to higher loyalties*. A further appropriate factor that can be taken from criminological research relates to the perceived seriousness of unlawful and antisocial behaviour. Research indicates that acts producing physical harm are

consistently regarded as the most serious, followed by behaviours causing property loss or damage, whereas victimless crimes are generally viewed as the least serious (Stylianou, 2003).

We suspect that such early criminology and social psychology theories alongside the rationalisation that ‘everybody else does it’ can go a long way in explaining why the law-abiding majority are able to rationalise everyday ‘minor’ crimes; and we hypothesise this is something that is likely to be relevant for crimes committed against the insurance industry, such as fraudulent claims for compensation.

The UK: The Whiplash Capital of the World

In a recent inquiry conducted for the UK government the UK was labelled the ‘Whiplash Capital of the World’ (Transport Committee, 2013) and it is likely that there is a prevalent ‘everybody does it’ attitude, which contributes significantly to the high rates of whiplash claims found in the UK. High rates are demonstrated statistically by the paradox that between 2006 to 2011 the amount of road traffic accidents dropped by 20% although the amount of personal injury claims actually increased by 60% (Merton et al, 2013). If one considers that a high percentage of people who are now involved in accidents claim for personal injury coupled with the hypothesis that feigning injury for compensation is not viewed as a serious crime, this exemplifies how a fraudulent health claim can offer a lucrative and alternative avenue for potential fraudsters to exploit (Cartwright, Roach, Wood & Wood, 2014).

Malingering refers to the ‘intentional production of false or grossly exaggerated symptoms motivated by external incentives’ (APA, 2013). At present there is paucity of research which investigates malingering claims in insurance fraud. This is surprising if one considers that insurance fraud currently costs the UK economy £2.1 billion per year (NFA, 2013). At present the base rates for malingering are relatively arbitrary mainly due to the complication

in calculating such figures, furthermore, malingering occurs in a wide array of forensic contexts but we specifically focus here on malingering for financial compensation following a road traffic accident (RTA).

A survey of practicing medico-legal psychiatrists and psychologists conducted in the United States indicated that in approximately 29% of personal injury cases, assessed by the professional showed signs of malingering (Mittenberg, Patton, Canyock and Condit, 2002). Moreover, a recent study conducted in the UK reported that 40% of 100 RTA cases claiming for personal injury following a RTA (that were evaluated by a forensic psychiatrist), aroused suspicion of involving some extent of malingering (Cartwright, Roach, Wood & Wood, 2015). Previous research by Lees-Hayley (1997) reported a similar finding reporting that 20 – 30% of 492 personal injury claimants' psychometric testing results using the MMPI-2 suggested malingering behaviour (Lees-Haley, 1997). What is more, base rates as high as 40% in disability claimants (Resnick, 1977) and 75% in examined Vietnam veterans claiming symptoms of PTSD (Burkett & Whitley, 1988) has been evidenced. The implication of such high base rates that have been demonstrated in research specifically developed to investigate malingering has recently been evidenced. Chafetz and Underhill (2013) utilised the average base rate of 40% suggested by Larrabbe et al (2009) to estimate the economic cost that malingered disability claims have on the United States; the results suggest that the economic costs of malingered disability claims for 2011 amounted to \$20.02 billion (Chafetz & Underhill, 2013).

We posit that malingering following RTAs should be of paramount concern to the wider public, the government, and the insurance industry, considering that there were 819,137 claims for personal injury following a road traffic accident in the UK during 2012 (Transport Committee, 2013). The majority (58%) of these claims represented whiplash and the

remaining constituted more severe physical injuries and claims for damages to an individual's mental health (Transport Committee, 2013). Therefore, if the base rate for fraudulently claiming whiplash by feigning or exaggerating symptoms is similar to the base rates suggested in research examining malingering mental health claims (Lees-Haley, 1997; Burkett & Whitley, 1988; Cartwright, Roach, Wood & Wood, 2014; Mittenberg, Patton, Canyock & Condit, 2002), then this will cost the economy hugely as demonstrated in US disability pay outs (Chafetz & Underhill, 2013). Furthermore, we suspect that the base rates for malingering whiplash to be higher than that of mental illness because the system in place is considerably less daunting, as claimants are not required to undergo a thorough assessment and it is widely well-known that insurance companies often settle whiplash claims straight away without the use of an independent medical examiner (Transport Committee, 2013). Claims for whiplash typically yield on average a relatively low return for the claimant of £2500 (Transport Committee, 2013). A mental health claim conversely, can receive compensation in the region of a reported £100,000 for a claim of PTSD, this is attested on personal injury lawyer websites (Bolton, n.d.). However, it may actually make little difference whether lots of little fraudulent claims exist or fewer, great big ones, the end result is the same; a significant loss to the UK economy.

Research suggests that a high proportion of so-called law abiding citizens are willing to engage in insurance fraud (Button, Pakes & Blackburn, 2013; Karstedt & Farrall, 2006). Button, Pakes and Blackburn (2013) for example, indicated that 37% of people that they surveyed in their sample of UK residents would not completely rule out making up an insurance claim. Indeed, 29% thought that it was acceptable to do this, with a further 2% actually admitting to having made a fraudulent insurance claim in the past. Furthermore, when individuals were asked about exaggerating an insurance claim, the proportion of people willing to do so rose to 47% with 40% who believed that it is acceptable to do so and 6%

admitting to having done so in the past (Button, Pakes & Blackburn, 2013). With figures as high as these, the question still remains whether a similar public perception exists with regard to the malingering of mental illnesses and physical injuries in personal injury claims. The present paper explores the UK's public perception to feigning mental or physical impairment for financial compensation by fraudulent means.

Detecting Malingering

Readers may be aware the problem at the heart of malingering is in the detection. Spotting malingering is a very difficult task even for the experienced professional and the difficulty in spotting malingering can be inhibited by the type of malingering strategy being used by the claimant (Resnick & Knoll, 2005; Hall & Hall, 2006; Cartwright, Roach, Wood & Wood, 2015). In addition, our ability as humans to detect deceit is on average even when testing professional lie catchers no better than flipping a two-sided coin, with an average accuracy rate gathered from 24 studies of 55.91% (Vrij, 2008). This highlights one of the main problems: detecting lies is difficult¹.

With this very difficult task given to medico-legal examiners, the problem is not black and white when deciding whether the claimant is providing a truthful account of their health problems caused by the accident. Research has highlighted that malingering occurs in three forms and the ease of the professional detecting malingering can be dependent on the strategy being used (Hall & Hall, 2006; Cartwright, Roach, Wood & Wood, 2014). Resnick (1988) suggests that there are three types of malingering: pure malingering, partial malingering and false imputation. *Pure malingering* occurs when claimants fabricate non-existent symptoms, *partial malingering* refers to the claimants who exaggerate real symptoms that they experience, and finally, *false imputation* refers to the claimant who reports genuine

¹ A review of the detecting deception literature is not attempted here, however, should the reader wish to understand this topic in great detail we recommend Vrij (2008).

symptoms but knowingly attributes the cause of the symptoms to an event, which played no role (e.g. a claimant suffering with life-long depression who is subsequently involved in a RTA and then suggests their depression was instigated by the RTA). Research indicates partial malingering is the most common form (Kleinman & Stewart, 2004; Cartwright, Roach, Wood & Wood, 2014). Additionally, partial malingering and false imputation are much harder to detect than pure malingering due to the existence of in part genuine symptoms (Hall & Hall, 2006; Kleinman & Stewart, 2004; Cartwright, Roach, Wood & Wood, 2014).

Specialised psychometric scales designed to identify malingering such as the validity scales on the Personality Assessment Inventory (PAI, Morey, 1991) have been shown to be poor at identifying this type of malingering with real claimants (Cartwright, Roach, Wood and Wood, 2015). Consequently the difficulties faced by forensic professionals when assessing the veracity of the claimant's mental health condition and in deciding whether the mental health problem occurred as a direct result of the accident is made more difficult when a patient is able to report accurate mental health symptoms; possibly because of previous mental health problems.

It has been reported by one of the most influential researchers in deception that as humans we possess a truth bias, whereby our starting assumption is that others are telling the truth (Vrij, 2008). Furthermore, in a paper published by Neal and Grisso (2014) titled: *'the cognitive underpinnings of bias in forensic mental evaluations'*, the authors review how biases in decision making relate to forensic mental health evaluations. Neal and Grisso (2014) discuss many biases that have been evidenced in decision making and directly highlight the applicability in the formation of decisions in forensic mental health contexts. Moreover, due to the nature of a RTA, the plausible mental ill health that a claimant may

suffer with is PTSD, this is because of the trauma that is associated with a collision and in 15 to 30% of cases results in genuine PTSD (Hall & Hall, 2006b). Unsurprisingly, research to date has focused mainly on malingered PTSD, and what is apparent is that due to the subjective nature of PTSD symptoms the illness can be easily malingered (Hall & Hall, 2006; 2007; Guriel & Fremouw, 2003), with some researchers concluding: '*there is no one way to identify the malingering of PTSD*' and '*it is critical to examine multiple sources of data and to use sound clinical judgement*' (Hall & Hall, 2007). Consequently, this is a further area which complicates the assessment of malingering and this paper by no means is a gibe on how forensic mental health assessments are undertaken, it is more the aim to highlight to the reader the difficult task faced by professionals.

The Present Study

It is apparent, that at present the odds are very much in favour of the determined fraudster who is willing to try their hand at malingering, mainly in part because there are so many vulnerabilities in the system: from (1) the system is designed to process honest claims, (2) there are many complications in spotting fraudulent mental health claims and (3) there is a substantial lack in negative repercussions for those who are caught fraudulently claiming. Consequently, the present paper aims to explore this issue further by focusing on the attitudes of people living in the UK towards the act of malingering following a RTA. It is hoped that the present study will gain a better understanding of whether certain malingering strategies are perceived as more acceptable than others and whether people are more likely to malingere certain types of mental illness in comparison with whiplash. In summary, the present paper seeks to add much needed knowledge regarding the act of malingering and it is hoped that by generating a more detailed understanding of the issue that progress can be made in tackling the problem.

Method

Participant recruitment

Participants were recruited using two avenues: social media sites including: 'Facebook', 'Twitter', 'Linkedin', 'The Student Room', 'Reddit' and a participant recruitment webpage called 'call for participants' and from those students studying a third year Criminology module at the University of Huddersfield. In total 220 participants agreed to participate, upon first analysis 23 participants were excluded from the sample as they stated they were not currently living in the UK, thus these participants were removed as the focus of present paper is the UK public perception. Consequently, 197 responses were examined comprising of 67 male (34%) and 130 female (66%) participants with a median age of 23 (SD 11.99) and these ages ranged from 18 to 83 years of age.

Procedure

After deciding to participate, participants were directed to the study's landing page which outlined what was required of participants and asked those who wished to take part to read and sign the study consent form. Upon completion participants were required to answer several demographic questions and four social desirability questions. Participants were then randomly assigned to one of three conditions that explored responses towards the hypothetical malingering of: whiplash, post-traumatic stress disorder or depression. Within each condition participants were presented with a list of common symptoms associated with each complaint.

Participants were then asked to hypothetically indicate how likely they would be to employ a 'pure malingering strategy', a 'partial malingering strategy' and a 'false imputation strategy' in order to receive financial compensation following a RTA. Finally, participants were asked

eight further hypothetical questions which examined their hypothetical behaviour towards: pure malingering the effects of witnessing a traumatic event at work, pure malingering depression to obtain an extension to a deadline, music piracy, not declaring extra income, credit card fraud, identity fraud, filing a bogus household insurance claim, and exaggerating a household insurance claim.

Materials

Brief Social Desirability Scale (Haghighat, 2007)

The Brief Social Desirability Scale was designed to equal at least the minimum reliability of the 10-item version of Marlowe-Crowne Social Desirability Scale (Haghighat, 2007). The scale comprises of four questions (Haghighat, 2007):

- Do you always practice what you preach?
- Do you always keep your promises no matter how inconvenient they may be?
- Would you smile at people every time you meet them?
- Would you ever lie to people?

Perceptions of malingering and the every day crimes questionnaire

The survey developed for the present study, aimed to examine how likely participants were to engage in different types of malingering following a hypothetical RTA scenario, while also controlling for illnesses vulnerable to malingering by randomly assigning participants to questions exploring either whiplash, post traumatic stress disorder or depression. In addition, the study examined how likely participants were to engage in eight further fraudulent behaviours to offer a comparative view of malingering. Data was collected using the online survey collection software, survey gizmo.

Analysis

Non-parametric statistics were used within the present study as the participants' responses were measured using Likert scales, thus making the data ordinal, meaning non-parametric analysis is required (Clegg, 1998). In addition, when examining the skewness and kurtosis scores for all of the present data's independent variables the scores were significantly greater than twice the standard error thus indicating that non-parametric tests are required (Coolican, 2004) as the data is not normally distributed and this was further reinforced by running Shapiro-Wilk's Test of Normality for all variables and for each one a highly significant *P* value was found. Some researchers may argue that even though the data is non-normally distributed, parametric tests can still be conducted as they are more powerful; this can however be a common misconception and for data similar to that of the present non-parametric tests have proven to be three to four times more powerful (Blair & Higgins, 1980; Bridge & Sawilowsky, 1999; Nanna & Sawilowsky, 1998) than their parametric counterparts.

With the above said it is clear that the assumptions for parametric analysis are not met according to this principle and to be on the safe side we have opted to use the non-parametric statistics. Both descriptive and non-parametric equivalent inferential statistics were implemented including: the Kruskai – Wallis one way analysis of variance, Mann Whitney U tests, Wilcoxon Signed Ranks tests and Spearman's test of correlation.

Results

Table one displays the demographic characteristics for the participants in the present sample.

Table 1.0: Demographic Characteristics for the 197 Participants

Characteristic	n	%
Age (Mdn & SD)	23 (11.99)	
Gender (Females)	130	66
Education		
No Education	3	1.5
Completed Secondary School	9	4.6
Completed A-levels / College	61	31
Completed a Bachelors Degree	68	34.5
Completed a Masters Programme	46	23.4
Completed a PhD	4	2
Other	6	3
Occupation		
Full Time Employment	93	47.2
Part Time Employment	17	8.6
Student	75	38.1
Unemployed	3	1.5
Retired	5	2.5
Disabled (Cannot Work)	3	1.5
Other	1	0.5
Annual Salary		
£0- £15,000	96	48.7
£15,000 -£25,000	53	26.9
£25,000 - £35,000	23	11.7
£35,000 – £45,000	12	6.1
£45,000 - £55,000	5	2.5
£55,000 Plus	8	4.1
Previous Mental Health Complaints	56	28.4
Previous Physical Health Complaints	54	27.4
N=197		

To determine if there were gender differences to the hypothetical questions, Mann-Whitney U tests were conducted. Median scores for males ($Mdn= 3.0$) and females ($Mdn=2.0$) were statistically significantly different for the participants' answers to the hypothetical question examining not declaring extra income $U = 3446.00, z = -2.47, p = .014, r=-0.18$. However no significant differences were found for the remaining hypothetical questions: partial malingering ($M= 2.0$ Vs. $F=2.0$) $U = 4058.50, z = -.81, p = .42$; pure malingering ($M= 1.0$ Vs. $F=1.0$) $U = 4310.00, z = -.14, p = .28$; false imputation ($M= 2.0$ Vs. $F=2.0$) $U = 4179.50, z = -.49, p = .63$; malingering depression for an extension to a deadline ($M= 1.0$ Vs. $F=1.0$) $U = 4329.00, z = -.10, p = .92$; malingering the effects of witnessing a traumatic event at work ($M= 1.0$ Vs. $F=1.0$) $U = 4229.50, z = -.38, p = .70$; music piracy ($M= 3.0$ Vs. $F=4.0$) $U = 4076.00, z = -.76, p = .45$; household insurance fraud ($M= 1.0$ Vs. $F=1.0$) $U = 4307.00, z = -.17, p = .87$; exaggerating a household insurance claim ($M= 1.0$ Vs. $F=1.0$) $U = 4091.00, z = -.77, p = .44$; credit card fraud ($M= 1.0$ Vs. $F=1.0$) $U = 4320.50, z = -.37, p = .71$; and identity theft ($M= 1.0$ Vs. $F=1.0$) $U = 4250.00, z = -.57, p = .57$. Gender was only found to play a role in participants' answers to the question investigating not declaring extra income, with females, reporting that they would be less likely to engage in this behaviour than males. No significant differences were found for the remaining hypothetical questions, suggesting that male and female participants viewed these behaviours in a similar level of seriousness.

Table two shows the Spearman's correlation results for the participants' age and the answers to the hypothetical malingering and fraud questions. As can be seen significant moderate negative relationship were found between the participants' age and their answers to the questions asking how likely they were to illegally download music and how likely they were to use a pure malingering strategy after witnessing a traumatic event at work. Furthermore, several weak negative relationships were found between the age of the participants and their answers to the hypothetical questions examining: pure malingering following a RTA, partial

malingering following a RTA, false imputation following a RTA, credit card fraud, identity fraud and pure malingering depression to gain an extension.

Table 2.0: Spearman's Correlations Between Participants Age and Malingering and Fraud Hypothetical Questions

Hypothetical Question	Spearman's Correlation Participants Age
Music Piracy	-.34**
Tax Fraud	-.04
Partial Malingering Following A RTA	-.16*
Exaggerate A Household Insurance Claim	0.11
Pure Malingering Following A RTA	-.13
False Imputation Following A RTA	-.17*
Pure Malingering To Receive Compensation From Work	-.30**
Make Up An Insurance Claim	-.04
Pure Malingering For An Extension To Deadline At Work	-.19*
Identity Fraud	-.17*
Credit Card Fraud	-.15*

N=197

* Correlation is significant at the 0.05 level (1-tailed).

** Correlation is significant at the 0.01 level (1-tailed).

A non parametric equivalent to the ANOVA: the Kruskal-Wallis test was ran to determine whether there were differences in the participants' answers to the hypothetical questions between the seven groups of participants with different educational levels. The median scores to the hypothetical questions indicated there were no statistically significant differences between the groups answers for questions examining: partial malingering $\chi^2(6, N = 197) = 2.48, p = .87$; pure malingering $\chi^2(6, N = 197) = 4.40, p = .62$; false imputation $\chi^2(6, N = 197) = 7.06, p = .32$; malingering depression for an extension to a deadline $\chi^2(6, N = 197) = 5.16, p = .52$; malingering the effects of witnessing a traumatic event at work $\chi^2(6, N = 197) = 12.23, p = .06$; music piracy $\chi^2(6, N = 197) = 9.57, p = .14$; household insurance fraud $\chi^2(6, N = 197) = 8.11, p = .23$; exaggerating a household insurance claim $\chi^2(6, N = 197) = 2.59, p = .86$; not declaring extra income $\chi^2(6, N = 197) = 11.32, p = .80$.; identity fraud $\chi^2(6, N = 197) = 1.494, p = .55$; and credit card fraud $\chi^2(6, N = 197) = 4.02, p = .67$. Consequently suggesting that the level of education participants had completed had no significant effect on answers to the hypothetical questions.

Subsequent Kruskal-Wallis tests were ran to determine whether there were differences in the participants' answers to the hypothetical questions with regard to their stated occupations. The median scores for the hypothetical questions showed no statistically significant differences between the groups answers for questions examining: partial malingering $\chi^2(6, N = 197) = 4.53, p = .61$; pure malingering $\chi^2(6, N = 197) = 3.47, p = .75$; false imputation $\chi^2(6, N = 197) = 6.59, p = .36$; malingering the effects of witnessing a traumatic event at work $\chi^2(6, N = 197) = 5.18, p = .52$; music piracy $\chi^2(6, N = 197) = 9.30, p = .16$; household insurance fraud $\chi^2(6, N = 197) = 10.60, p = .10$; exaggerating a household insurance claim $\chi^2(5, N = 197) = 3.79, p = .71$; identity fraud $\chi^2(6, N = 197) = 4.96, p = .55$; credit card fraud $\chi^2(6, N = 197) = 2.04, p = .92$; not declaring extra income $\chi^2(6, N = 197) = 12.03, p =$

.06; and malingering depression for an extension to a deadline $\chi^2(6, N = 197) = 12.09, p = .06$.

Spearman's correlation analysis was conducted to identify a possible the relationship between the reported level of annual income and the eleven hypothetical questions. A weak yet significant negative correlation was found between the reported level of annual income and the following hypothetical questions: music piracy $r_s(195) = -.145, p < .047$; malingering the effects of witnessing a traumatic event at work $r_s(195) = -.192, p < .007$; and malingering depression for an extension to a deadline $r_s(195) = -.183, p < .01$. However, no significant correlations were found between annual income and the participants answers to questions examining: partial malingering $r_s(195) = -.109, p .13$; pure malingering $r_s(195) = -.057, p .42$; false imputation $r_s(195) = -.137, p .06$; household insurance fraud $r_s(195) = -.052, p .46$; exaggerating a household insurance claim $r_s(195) = -.055, p .44$; credit card fraud $r_s(195) = -.098, p .17$; or identity theft $r_s(195) = -.098, p .17$.

To assess whether social desirability might be a confounding variable in the participants' answers to the hypothetical questions regarding malingering and fraud, a Spearman's test of correlation was conducted between participants' social desirability scores and the hypothetical questions. Table three shows that several significant negative correlations were found, which suggests that as social desirability scores decreased the mean scores for participants believing certain behaviours to be acceptable increased. Consequently this suggests that in some cases social desirability was a confounding variable. The Brief Social Desirability Scale (Haghighat, 2007) in the present study was used to measure the extent to which social desirability influenced the participants' answers. Moreover, it is important to remember throughout, that the results evidenced in the study may not be a true reflection of the participants belief, subsequently when interpreting the results the reader may wish to refer

to table three to observe the extent to which social desirability played within each hypothetical question. This is a well-documented concern with self-report questionnaires and surveys and measures must be taken to gauge the extent to which participants answer in ways that they believe they are supposed to, rather than what they actually believe. Consequently, the results from social desirability testing indicate that in some cases participants under reported their true beliefs, therefore, our results are likely to reveal slightly lower scores to the hypothetical questions than the participants' true beliefs.

Table 3.0: Spearman's Correlations Between Social Desirability Scores and Malingering and Fraud Hypothetical Questions

Hypothetical Question	Spearman's Correlation with Social Desirability Score
Music Piracy	-.16*
Tax Fraud	-.11
Partial Malingering Following A RTA	-.14
Exaggerate A Household Insurance Claim	-.24**
Pure Malingering Following A RTA	-.17*
False Imputation Following A RTA	-.13
Pure Malingering To Receive Compensation From Work	-.20**
Make Up An Insurance Claim	-.11
Pure Malingering For An Extension To Deadline At Work	-.17*
Identity Fraud	-.04
Credit Card Fraud	-.02

N=197

* Correlation is significant at the 0.05 level (1-tailed).

** Correlation is significant at the 0.01 level (1-tailed).

Table four highlights the answers to the hypothetical questions that examine the likelihood of participants engaging in acts of malingering and other types of fraud.

Table 4.0: Mean, median, standard deviations and percentage of participants scoring greater than three on the Likert answers to how likely participants are to partake in the hypothetical malingering and fraudulent behaviours.

Hypothetical question	Mean, median, standard deviations and percentage of participants scoring greater than 3			
	<i>M</i>	<i>Mdn</i>	<i>SD</i>	<i>% >3</i>
Music Piracy	3.23	4.00	1.59	51.8
Not Declaring Extra Income	2.76	3.00	1.56	36.0
Partial Malingering Following A RTA	2.42	2.00	1.33	25.4
False Imputation Following A RTA	2.20	2.00	1.30	20.8
Exaggerate A Household Insurance Claim	2.02	1.00	1.35	20.3
Pure Malingering Following A RTA	1.62	1.00	1.07	9.1
Pure Malingering the effects of witnessing a traumatic event at work	1.41	1.00	.98	6.6
Pure Malingering For An Extension To Deadline At Work	1.41	1.00	.90	5.0
Invent an Insurance Claim	1.45	1.00	.91	4.5
Identity Fraud	1.15	1.00	.54	2.0
Credit Card Fraud	1.03	1.00	.22	0.0

N=197

As can be seen a substantial (51.8%) amount of participants said that they were willing to engage in music piracy, not declaring extra income (36%) and exaggerating an insurance claim (20.3%). These three crimes demonstrate everyday offenses that a high percentage of

individuals in this study at least said they would consider engaging in. In respect of the types of malingering, partial malingering was placed somewhere between exaggerating a household insurance claim and not declaring extra income, as 26.6% of participants indicated they would be likely to engage in this form of criminality. False imputation (20.8%) received similar scores to exaggerating an household insurance claim, suggesting that it is perceived at a similar level of seriousness. However, pure malingering was considered to be a serious crime with only 9.1% of participants reporting that they would be likely to engage in this crime.

In order to examine whether the participants perceived the different malingering strategies in general different, Wilcoxon Signed Ranks Tests were conducted. A significant difference was found between the participants' answers to pure malingering ($Mdn=1.00$) and partial malingering ($Mdn=2.00$) ($Z= -8.45, p.001, r=-0.60$) and false imputation and pure malingering ($Mdn=1.00$) ($Z= -6.25 p.001,-0.45$). Additionally, significant differences were found between partial malingering ($Mdn=2.00$) and false imputation ($Mdn=2.00$) ($Z= -2.50 p.012, r=-0.18$) suggesting that participants answered differently to all three types of malingering questions, with partial malingering being the most likely malingering strategy to be used followed by false imputation and pure malingering.

To examine further whether participants would be more likely to commit a certain type of malingering under a certain health complaint, a Kruskal-Wallis one-way non parametric ANOVA was ran to examine the relationship between malingering strategies and different conditions which are vulnerable to malingering (Whiplash, Depression & PTSD). As table five shows no significant differences were found across the three conditions (Whiplash, Depression & PTSD) and the participants likelihood to use a partial malingering strategy

following a RTA $\chi^2(2, N = 197) = 4.25, p = .12$; a pure malingering strategy $\chi^2(2, N = 197) = 5.63, p = .06$, or a false imputation strategy $\chi^2(2, N = 197) = .01, p = .10$.

Table 5.0: *Kruskal-Wallis Non parametric ANOVA of malingering Strategies Across The Three Groups*

	Whiplash n=75		PTSD n=58		Depression n=64		<i>p</i>
	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>	
Pure Malingering	1.00	0.90	1.00	.92	1.00	1.29	.060
Partial Malingering	2.00	1.24	2.00	1.30	2.50	1.42	.120
False Imputation	2.00	1.29	2.00	1.20	2.00	1.43	.996

N=197

Post hoc Mann-Whitney U tests were conducted in order to test for any individual differences between the three groups and the hypothetical malingering questions. A significant difference was found between the depression groups score ($Mdn=2.00, M= 2.65, SD=1.42$) and the whiplash groups score ($Mdn=2.00, M= 2.20, SD= 1.24$) in response to the hypothetical question regarding partial malingering $U = 1935.50, z = -2.03, p = .04, r = -0.17$. A similar finding was also revealed between the two groups in response to pure malingering with the depression group ($Mdn=1.00, M=1.62, SD=1.07$) scoring significantly higher than the whiplash group ($Mdn= 1.00, M= 1.45, SD=.91$) $U = 1940.50, z = -2.33, p = .02, r = -0.20$.

Table six shows the percentage of participants who scored greater than three to each hypothetical malingering strategy question. As indicated above the only significant difference between the groups was found to be between the depression and whiplash group when asked about partial and pure malingering. This suggests that the groups did not differ significantly, however the significant difference found between the depression and whiplash groups score for pure malingering suggests that participants were significantly more likely to fabricate

symptoms of depression, as oppose to whiplash, and the same is true for exaggerating genuine symptoms (partial malingering).

Table 6.0: *Percentage of participants scoring greater than three to RTA malingering hypothetical questions across the three groups*

Malingering Strategy	Whiplash	PTSD	Depression
	n=75	n=58	n=64
Percentage scoring greater than three (%)			
Pure Malingering	6.6	6.9	14.1
Partial Malingering	17.3	29.3	31.3
False Imputation	22.7	18.9	20.3
N=197			

A further important exploration was whether previous mental health problems resulted in participants scoring higher to the hypothetical malingering questions using only the depression and PTSD groups. The results of several Mann Whitney U tests revealed that there was no significant difference between those who stated that they had a previous mental health complaint ($Mdn=2.00$) and those who stated that they had not ($Mdn=2.00$) with regard to the hypothetical question examining partial malingering $U=1476.60$, $z=-.37$, $p=.71$. No significant difference were found between those who had a previous mental health complaint ($Mdn= 1.00$) and those who hadn't ($Mdn=1.00$) in their answers to the hypothetical question examining pure malingering $U=1517.00$, $z=-.15$, $p=.88$. Lastly, no significant difference was found between those with a previous mental health complaint ($Mdn=2.00$) and those without ($Mdn=2.00$) in their answer to the hypothetical question examining false imputation following a RTA $U=1531.00$, $z=-.05$, $p=.96$.

Discussion

The present study set out to investigate how malingering is viewed by a small sample of UK residents alongside other acts of criminality, commonly committed by law abiding citizens. More specifically whether certain types of malingering are considered to be more socially acceptable and what illnesses people are more likely to malingering. The results of the study have many implications for a wide range of audiences including: those charged with the assessment of mental health claims, the insurance industry, the Government and academics involved in similar areas of research.

It was found here that individuals consider the three types of malingering differently. Partial malingering appeared to be considered as the most socially acceptable form of malingering with 25.4% of participants indicating they were likely to engage in this form of malingering following a RTA, followed by false imputation (20.8%). Pure malingering, however, was interpreted as a significantly more serious behaviour as only 9.5% of participants indicated they were likely to engage in this behaviour following a RTA.

The findings support previous research, which highlights that partial malingering, is the most common form of malingering (Kleinman & Stewart, 2004; Cartwright, Roach, Wood & Wood, 2014). Moreover, the findings may go some way to explaining why partial malingering occurs most frequently and this maybe due to the perception of the acts criminality.

It would appear that individuals are willing to exaggerate genuine symptoms in order to receive higher amounts of compensation (something that has been found in research investigating insurance claims in general; Button, Pakes & Blackburn, 2013) rather than purely fabricating a bogus claim (pure malingering). The results of the present study also support the notion that partial malingering and false imputation are viewed in a similar way

to exaggerating a household insurance claim, as 20.3% of participants indicated they would be likely to exaggerate a household insurance claim in the present study, which is a somewhat conservative figure in comparison to Button, Pakes and Blackburn's (2013) earlier finding. Participants were far more likely to consider engaging in partial malingering than exaggerating a household insurance claim and the only behaviours which participants were more likely to engage in were: not declaring extra income and illegally downloading music. Subsequently, this provides some evidence in support of our hypothesis that there exists a perception that exaggerating the symptoms of a certain condition following a RTA is less of a crime as it is something everybody does, evidenced by partial malingering in the present study receiving the third highest reported score, only third to music piracy and not declaring extra income; both behaviours that a substantial amount of the UK take part in.

The finding here that partial malingering is considered to be the most acceptable form of malingering, poses many practical problems for those charged with the assessments of mental health claims. This is because, not only is partial malingering the most common form of malingering, it is also the most difficult to spot (Hall & Hall, 2006). This may partly explain why people are more likely to engage in this form of malingering, as the risks of being caught appear to be substantially lower. Richard Rogers (1990) who has written one of the only texts dedicated to the assessment of malingering further supports this by suggesting that would be malingerers engage in a form of cost benefit analysis. Individuals therefore are not likely to utilise a pure malingering strategy as they run the risk of being much easier to spot.

A further important insight that the present study offers is from the examination of different illnesses that are vulnerable to malingering. The results from the present study suggest that no significant differences were found between the types of complaint that participants were asked to hypothetically mangle and that the complaint itself plays a relatively minor role in

an individual's choice to malingering. Consequently this poses the implication that many conditions are vulnerable to malingering, not just whiplash as the UK Government posits or PTSD as academics tend to focus.

Research has consistently indicated the ease at which PTSD can be simulated (Guriel & Fremouw, 2003; Hall & Hall, 2007, Taylor, Frueh & Asmundson, 2007; Sullivan & King 2010) and the majority of research investigating malingering utilises PTSD as the illness that is simulated. The findings of the present study raise the suggestion that the issue of malingering should not be examined exclusively using PTSD as the findings imply that malingering in the context of RTA claims may not be bound by any one complaint. Though, the results do indicate that those asked about pure malingering depression scored significantly higher than those asked regarding whiplash, this highlights that in terms of fabricating symptoms, individuals would be more likely to malingering depression than whiplash, which may be in part, due to, the physical nature of whiplash symptoms and therefore maybe associated with being harder to successfully feign. When examining the partial malingering of depression and whiplash the same result was found. Indeed, this suggests that depression symptoms in the present study were viewed more favourably than whiplash symptoms when asked to hypothetically malingering. The public's increasing understanding of depression, in terms of its symptomology, diagnosis and prevalence, may explain this. Future research in this area would be advised to adopt a specific methodology to investigate whether an enhanced understanding of a mental/physical health complaint plays a role in an individual's choice to malingering.

A further area that the present study explored was the degree to which participants who had experienced previous episode of mental ill health were more likely to malingering following a RTA than those who had not. Previous research has suggested a probable link between

claimants who have entered mental health services in the past and exaggerating claims for financial compensation (Cartwright, Roach, Wood & Wood, 2014). This is somewhat unsurprising when one considers the fact that the majority of malingered personal injury claims use either a partial malingering or false imputation strategy (Klienman & Stewart, 2003; Hall & Hall, 2006), whereby real symptoms are exaggerated or an unrelated event is blamed for the current state of their mental health. The present analysis did not find a significant difference between those participants that indicated they had a previous mental health complaint and those who had not in their answers to hypothetically malingering depression or PTSD.

An important enigma in criminology research is whether there are any predictive factors to identify those who engage in criminality. The findings here suggest little in regard to whether certain individuals would be more likely to malingering for financial compensation following a RTA, as no demographic variables were found that strongly influenced the hypothetical answers; this was consistent for, gender, occupation, education and salary. Although, weak negative relationships were found across all three malingering strategies and the age of the participants. Taken together, this demonstrates that the act of malingering is not something committed by a certain type of individual: it is an offence that appears to sit on the wrong side of a substantial percentage of individuals from varying backgrounds moral breadth.

The present paper endeavours to provide a brief insight into the problem which malingering poses to the UK, however, as the study is hypothetical caution must be taken as it is unknown whether the beliefs emancipated here are synonymous for how participants would act in the real situation. After all, what people say and what they actually do is often two different things. Although dutifully acknowledged, the results suggest that this sample of UK citizens view malingering and fraudulent acts with differing degrees of severity and moral

repugnance. Indeed, ecological validity has proven to be a difficult hurdle to overcome in any vignette study and when the topic is regarding deception even using ecologically valid data does not result in an experiment with high validity; establishing the ground truth is an equally awkward problem, therefore, it is hoped that the reader thoroughly acknowledges that this paper attempts to only capture the perception of the participants and not their intended actions. Nevertheless, the percentage of participants who indicated that they would be likely to engage in malingering behaviours supports that of the base rates of malingering suggested in previous research (Mittenberg, Patton, Canyock & Condit, 2002; Cartwright, Roach, Wood & Wood, 2014 & Lees-Haley, 1997).

A further limitation of the present paper relates to the sample size. The demographic of the individuals included in the present study represented students and those who are in either full or part time employment. Those unemployed were underrepresented in the present sample and this is something that may have been an important influence in an individual's choice to malingering, especially when one considers that malingering is associated with obtaining financial gain. In addition, it is unquestioningly acknowledged that 197 participants is not representative of the UK population and the present study only provides a brief insight into the potential problem, however, the fundamental aim of the present paper is to highlight this potential problem in a significantly under researched area. Future research is encouraged to address this limitation by recruiting participants that represent a wider demographic and that can represent the UK publics' attitude. What is more, the findings are only applicable to the UK, future research examining this issue within different countries may be fruitful and provide some comparison that can substantiate the UK governments claim that the UK is the whiplash capital of the world (Transport Committee, 2013).

A further limitation of the present study is that the participants were not questioned as to whether they had ever been involved in a RTA. This certainly could be an important influence in the commission of this type of fraudulent offence; however, the present paper was concerned with the attitudes of the participants' and not their previous behaviour.

Although, this is an important line of enquiry to follow, as it is unknown as to whether having a previous experience of a RTA (and the litigation process that may follow) influences an individual's decision to malingering. Consequently, this is an important question for future research to address.

Although admittedly somewhat tentative at this stage, the findings of this research do hold significant implications for public policy in the UK, the first of which being the impending implementation of MedCo. From April 2015 the assessment of whiplash claims/injuries (including 'minor psychological injury secondary in significance to the physical injury') must be conducted by medics from an approved list (MedCo, 2015). In essence this means that lawyers seeking assessments for their claimants must now employ the services of a listed medic and not use individuals and organisations with which they have a financial connection (MedCo, 2015). It is hoped that this step will make the process of assessment both more reliable and transparent. We anticipate from the findings of the present research that such a tightening of the whiplash assessment regulations is only likely to 'nudge' (Thaler & Sunstein, 2008) some away from pursuing false claims, but not all. Those most determined (or angry about a perceived injustice) will continue to pursue fraudulent whiplash claims.

With regard to the malingering of mental health following a road traffic accident, although the findings of the present study suggest that any tightening of the whiplash claim process is likely to have little effect on the number of malingering mental health claims in the short term (i.e. a displacement effect), it may well lead to an increase in the mid to long term if the

assessment process for claims for mental health after RTAs remains as it is: at best piecemeal and idiosyncratic and at worst totally neglected (Cartwright, Roach, Wood & Wood, 2015). It would be an understatement to say that future research of this nature is crucial if present vulnerabilities inherent in the system for assessing mental health claims following a RTAs are to be identified and addressed and the amount of fraudulent claiming reduced. By reducing also the number of more costly malingering mental health claims, and not just the more frequent but less costly whiplash claims, significant inroads into the reduction of fraudulent insurance claiming overall in the UK will be made. Although this pilot study constitutes only a small step in this direction, we believe that the findings are significant enough to encourage further research into what has up until now remained a neglected aspect of white collar crime.

In summary the results generate important findings that add to the existing literature of malingering and fraudulent behaviour by offering an insight into how participants residing in the UK view the crime of claiming for personal injury by malingering following a RTA. Indeed, the implications of the present paper are important for those charged with the task of investigating the veracity of personal injury claims, and those academics involved in research of malingering. At the basic level, the results suggest that a considerable proportion of those questioned indicated they were willing to use a partial malingering strategy following a RTA and it would appear that the malingering of depression, PTSD and whiplash are equally susceptible. This is particularly concerning considering that identifying those who malingers is a problematic task that is dealt to even the most experienced forensic examiners.

Accordingly, the study emphasises the problem that faces the civil litigation system and it is hoped that the findings will shape future research and future policy changes, which may lead to the reduction of the number of dishonest health claims that undoubtedly cost the UK insurance industry and consequently those of us who pay insurance millions of pounds a year.

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