The development of a new psychometric scale: Police and Community Attitudes towards Offenders with 'Mental Illness': PACAMI-O

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Abstract

Research suggested that there was a need for a new psychometric measure to assess attitudes towards offenders with mental health problems. In this article the reliability and validity of a changed version of the 'Community Attitudes towards the Mentally Ill' scale (CAMI) (Taylor and Dear, 1981), called the 'Police and Community Attitudes towards Offenders with Mental Illness' scale (PACAMI-O) was tested. A sample of police and community participants (*N* = 178) completed the PACAMI-O scale through the online surveying system, Psychdata. The new psychometric measure consisted of the same forty items featured in the CAMI; although, the wording was adapted. This modification was observed where 'offender' replaced 'adult' and 'forensic mental health services' replaced 'mental health services'. The internal reliability of the scale for the combined sample was high (α=.929), which implied that the scale holds very good internal reliability. An exploratory factor analysis identified four new factors: Self Preservation, Societal Reservation, Mental Health Awareness and Treatment Ideology. A t-test revealed there was a significant difference between the scores of the Police and Community sample, with the effect size depicting a large magnitude between the means (t (176) = p=. 019, η^2= .16). The PACAMI-O scale appears adequate to be utilised when measuring attitudes towards offenders with mental health problems; however, a future suggestion for research would be to assess attitudes towards offenders with specific mental health problems endorsed.

Key Words:	Attitudes	Offenders	Mental health problems	New psychometric measure	PACAMI-O

Introduction

"But how can we live in safety with so many crazy people?"
(Plato, the Second Alcibiades. Trans. 2005).

Featured in this classical Greek quote is the derogatory perception of dangerousness, associated with individuals who have mental health problems. These views have been reflected through history and remain in multiple nations and cultures throughout the world (Hinshaw, 2006). A pertinent example is the changing classification of homosexuality as a mental health problem, featured in the Diagnostic and Statistical Manual of Mental Disorders published by the American Psychological Association (DSM, formed in 1952; APA) (Herek, 2011). The DSM categorises all recognised mental health problems (Hoermann, Zupanick and Dombeck, 2011). In the 'Symposium' by Plato (Waterfield, 1994), homosexuality in Ancient Greece appears as an ordinary aspect of life, being far from a mental health problem. In more recent times in Westernised society, the DSM II (published in 1968) featured homosexuality as a mental health problem (Herek, 2011). In 1973 this was removed and subsequently replaced in the new DSM III (published in 1980) (Herek, 2011), with '*ego-dystonic homosexuality',* which encompassed two symptoms; one of which stated there must be a persistent lack of heterosexual arousal which interferes with a wanted heterosexual relationship (Herek, 2011). It was not until 1986, in the revised DSM III, that the diagnosis of homosexuality was removed and replaced with: '*Sexual Disorder Not Otherwise Specified'* for individuals experiencing distress due to their sexual orientation (Herek, 2011). Since then, the APA has worked tirelessly to remove the stigmas about homosexuality and other termed 'illnesses' which have since been removed (APA, 1975). There is a subsequent suggestion that attitudes towards mental health problems will be influenced by these changes (Herek, 2011). However, the original proclamation, featured in Ancient Greece, illustrates how, regardless of the mental health diagnosis, a perception of fear relating to individuals with mental health problems, can still be observed in history and in the present day (Angermeyer and Dietrich, 2006).

Statistics suggest that only five percent of men and two percent of women in the general population suffer from two or more mental health problems; this compares with seventy-two percent of male and seventy percent of female offenders in the current prison population (Revolving Door Agency, 2012). Although these statistics appear to suggest a considerable amount of offenders have mental health problems, these individuals are only responsible for five percent of violent crimes (Fazel, Gulati, Linsell, Geddes and Grann, 2009); which questions the perceptions of fear alluding to a risk to personal safety in the writings of Plato.

This perceived risk to personal safety would depend on the mental health problem in question. Individuals who are incarcerated with mental health problems will have been assessed with regards to their risk to society using the DSM (Sluek, 2012). These individuals will rejoin and contribute to the populace, representing those with mental health problems; however, according to the Mental Health Act 2003, if they were perceived as '*dangerous'* by professionals using the DSM, they would not be allowed to reintegrate into society (Sluek, 2012). Furthermore, societal perceptions have been observed to affect individual behavioural reactions towards offenders with mental health problems (Sluek, 2012); research suggests that without adequate support from the wider community and appropriate action taken by the police, these offenders with mental health problems are likely to be caught up in the Criminal Justice System once again (Scott and Moffatt, 2012).

It is, therefore, paramount to understand the attitudes that are held towards people with mental health problems, to ensure the treatment they receive is of a just nature, potentially aiding in the prevention of unnecessary police interaction (Sainsbury Centre for Mental Health, 2009).

Measuring Attitudes and Stigmatization

The two main components associated with attitude formation are: modelling, an element of Social Learning Theory (Bandura, 1977) where individuals, especially children, will model behaviour through observing: others, the mass media and their environment (Niven and Robinson, 1994); and personal experience.

Research addressing attitudes towards people with mental health problems illustrated that the perception of unpredictability and dangerousness, attributed to this specific group of people, was the precursor for public fear of those with mental health problems (Angermeyer and Dietrich, 2006). Individuals with an advanced education and occupation appear to display more positive attitudes towards people with mental health problems; similarly, those with a personal experience of mental health problems are more likely to illustrate positive attitudes (Brockington, Levings and Murphy, 1993). Moreover, a study on Turkish stigmatizing attitudes towards those with mental health problems suggested that, females were less likely to show stigmatizing attitudes than males; additionally, high levels of education in the parents of female participants, procured less stigmatizing attitudes towards those with mental health problems (Savrun *et al.*, 2007).

The theory of Social Stigma defines stigmatization as *'...an attribute that is deeply discrediting within a particular social interaction...'* (Goffman, 1963. p. 3), making reference to mental health and imprisonment as a blemish of individual character. A stigma is a group of negative attitudes held towards another (Goffman, 1963). The stigma attached to mental health problems may prevent those who need treatment actively seeking the necessary support, putting themselves at an increased risk of being caught up in the Criminal Justice System (Andrewartha, 2010).

The link between stigma and mental health problems has been thoroughly addressed in research (Rusch, Angermeyer, and Corrigan, 2005; Martin, Pescosolido, and Tuch, 2000). Findings indicate that the public believe negative attitudes towards mental health problems are decreasing, additionally suggesting that knowledge and awareness has increased over the past decade in Westernised countries (Angermeyer and Matshinger, 2005). Conversely, Jorm, Christensen and Griffiths, (2006) suggest an increase in stigmatization of severe mental health problems has been indicated; largely because of the associations the general public make between mental health problems, dangerousness and violence (Link, Phelan, Bresnahan, Stueve and Pescosolido, 1999; Phelan, Link, Stueve and Pescosolido, 2000; Martin *et al.,* 2000); subsequent findings also support the previous research which suggests that the increase is intensifying due to the perceived relationship with dangerousness (Stier and Hinshaw, 2007). Although the majority of individuals with mental health problems are not dangerous, the assumption may be enhanced by the combination of the offender label (Stier and Hinshaw, 2007). Stigmatization towards offenders is common; though previous research addressing offenders without mental health problems suggests they were viewed in equal stance to other groups in society such as people with mental health problems (Homant and Kennedy, 1982); although this does not imply that these offenders are viewed more favourably. On the contrary, research advocates that there is noticeable stigma in the present day associated with the ability of offenders to achieve employment; impacting various aspects of their lives and complicating their ability to re-enter the work-force (Shivy, Wu, Moon and Mann, 2007). Findings suggest that two thirds of employers would not hire an offender (Holzer, Raphael and Stoll, 2002). The stigma of imprisonment causes employers to demonstrate more reluctance when considering offenders for a vacant position (Travis, Solomon and Waul, 2001). Moreover, research advocates that educating employers and wider society decreases the negative stigma associated with imprisonment and the label of offender (Owens, 2009).

The increase in the severity of stigma attached to offenders and mental health has been attributed to the emphasis on care in the community (Crisp, 1999). Patients diagnosed with a mental health

problem are no longer fully isolated from the public, consequently aggravating the attached stigma if members of the community have negative experiences with these individuals (Crisp, 1999). Nine out of ten individuals with a mental health problem who reside in the community in England report experiencing discrimination (Time to Change, 2008). The aggravation of stigma may be explained by Swaps (1977) suggestions of the Mere Exposure theory (Zajonc, 1968) which advocates negative attitudes are enhanced by more frequent exposure to the person with mental health problems; when negative attitudes are already held towards a group of people, further exposure will only increase hostility towards the group (Bornstein and Craver-Lemley, 2004). Contradictory research implies that community members, who engage in more frequent or intimate contact with those suffering with mental health problems, are less likely to stigmatize this group as dangerous or to engage is social distancing (Corrigan, Green, Lundin, Kubaik and Penn, 2001); supported by Zajonc's (1968) theory of Mere Exposure which suggests negative attitudes will change becoming positive with more frequent exposure. Although, other research proposes that if attitudes are created through personal experience, they are likely to be stronger and more resistant to being changed than those indirectly formed regardless if the focus is negative or positive (Niven and Robinson, 1994).

Research into labelling and stigmatization, utilising a sample of the general public, suggests that the label of schizophrenia endorses more negative than positive reactions in comparison to the label of depression (Angermeyer and Matschinger, 2003). Similar research, utilising a police sample, indicated that police officers associated mental health problems such as schizophrenia, with; aggression, violence and hostility (Wahl, 1987). In addition, Angermeyer and Matschinger (2003) also observed that endorsing the element of dangerousness towards schizophrenia, largely influences the publics' negative emotional reactions to those with mental health problems. Similarly, research into mental health and the prison population revealed that psychosis and depression are more prevalent in prison (Fazel and Danesh 2002), where there appears to be a considerably larger proportion of individuals with a mental health problem, compared to the general populace (Revolving Door Agency, 2012). With regards to this research, Angermeyer's and Matschinger's (2003) findings, may offer an insight into the potential stigmatization and negative responses that a large proportion of the prison population may experience upon release. Without community support and police cooperation, these individuals are more likely to be brought into contact with the Criminal Justice System again (Revolving Door Agency, 2012).

According to Stuart and Arboleda-Florez (2001), the perception of persons with mental health problems, as dangerous criminals, is over exaggerated. The media has been held partially accountable, due to a tendency to sensationalise their news stories (Corrigan *et al.,* 2005). Similarly media is said to affect public opinion more than personal experience (Crisp, Gelder, Rix, Meltzer and Rowlands, 2000); with the allocation of terms such as *"Psycho"* and *"...dangerous time bombs waiting to explode..."* (Ferriman, 2000, p.522). The focal point in the majority of media reports, in relation to those with mental health problems, appears to be the negative aspects of: unpredictability, unsociability and dangerousness, with the single principal focus being dangerousness associated with crime (Corrigan *et al.,* 2005). These negative aspects are also inferred to be causal for the assumption of a mental health problem (Corrigan *et al.,* 2005); observed recently in media and community postulations over the mental health state of Adam Lanza, the Connecticut school shooter, due to his unsociability (BBC News, 2012).

Police and Public Attitudes towards Mental Health

In 2009, the Bradley report was published after being commissioned to address the issues that individuals with mental health problems face, when they become entangled in the Criminal Justice System (Bradley, 2009). Recommendations were made to multiple departments of the government, such as the Local Safer Neighbourhood teams, who were directed by the report to be a main instigator for the identification and support of people with mental health problems in the community;

this would decrease the likelihood of these individuals becoming involved with the police (Bradley, 2009; Ministry of Justice 2009). Guidance was also given for the police with regards to training (Ministry of Justice, 2009). The report suggested that mental health awareness training should be a fundamental element of their training programme; adding that police and community support officers should develop training programmes with the local mental health services (Bradley, 2009). This suggestion follows recommendations presented in 2005, by the Home Office and the National Institute of Mental Health, who made £155,000 available to improve police training, which amounted to £1 for each police officer in England and Wales (Mental Health Act Commission, 2005). A key element of this training was to challenge police officers' stereotypical views towards mental health and individuals with mental health problems in distress; this is because the police are a representative body in society whose attitudes and behaviour may influence the wider public (Pinfold *et al.*, 2003).

Recent research completed by the Department of Health, addressed public stereotypical attitudes towards individuals with mental health problems with a focus on: fear and exclusion of those with mental health problems, and integrating people with mental health problems into the community (Department of Health, 2010). Since 1994, public attitudes relating to fear of those with mental health problems appeared to have decreased from fifteen percent to thirteen percent (Department of Health, 2010). Conversely, public agreement that *"We need to adopt a more tolerant attitude towards people with mental illness."* fell from ninety-two percent in 1994 to eighty-seven percent in 2010 (Department of Health, 2010, p.4). These findings suggest that although public fear has decreased, society's tolerance to those with mental health problems in the community may have depreciated.

Conversely, Cotton (2004) assessed Canadian police officers' attitudes towards those with mental health problems, suggesting police views were exceptionally similar to those of the general public. They were neither isolationist nor penalising towards individuals with mental health problems; following the research a large proportion of the police desired to obtain further information about understanding and working with individuals with mental health problems. Similarly, a study of German police officers suggested that their attitudes towards people with mental health problems were similar to those of non-police officers: police officers engaged more in social distancing than the non-police sample; however, police officers were said to feel significantly less insecure around individuals with mental health problems than non-police officers (Litzcke, 2006).

The Bradley report (Bradley, 2009), which was commissioned in the United Kingdom (U.K.), examined attitudes of police officers by looking at the experiences individuals with mental health problems have when brought to the attention of the police. The report showed how little is known about offender with mental health problems regarding their experiences and needs in the community (Bradley, 2009). This was portrayed through the recommendation that the Office for National Statistics complete further research in order to address, *"…the needs of offenders in the community or at police stations, about which we know very little on a quantitative level."* (Sainsbury Centre for Mental Health, 2009, p.13). There was a subsequent expectation that the report and its recommendation would illustrate areas within the police force with regards to offenders with mental health problems, to initiate further training and education. However in September 2012, the Metropolitan police commissioned an independent review of how the police force handles all aspects of interaction with individuals who have mental health problems, after a number of controversial reports arose of death and injury to many individuals in custody (Metropolitan Police, 2012); consequently suggesting that the recommendations of the Bradley report were not adhered to comprehensively. This may indicate that U.K. police attitudes towards those with mental health problems are not as impartial as those in other Westernised countries (Cotton, 2004; Litzcke, 2006).

Employing an American police force sample, the 'Mental Health Attitudes Survey for Police' (MHASP) (Clayfield, Fletcher and Grudzinskas, 2011) was formulated using elements from the 'Community Attitudes toward the Mentally Ill' scale (CAMI) (Taylor and Dear, 1981). The survey fundamentally measures the effectiveness of training on mental health to improve police attitudes towards individuals with mental health problems. The researchers assumed officers lacked necessary mental health training and knowledge to control the risk associated with such encounters. This illustrates an assumption by the researchers, that in police encounters, individuals with mental health problems are more of a risk than individuals who are without mental health problems. Contradictory evidence mentioned previously, suggests only five percent of violent crimes are committed by those with mental health problems (Fazel *et al.,* 2009).

Nevertheless, the MHASP (Clayfield *et al.,* 2011) utilised thirty-five scale items from the CAMI (Taylor and Dear, 1981) and applied them directly to police, rewording the phrase 'mentally ill' to 'Emotionally Disturbed Persons' (EDP's), to make the terminology relevant to that used by the American police force. They assumed that this alteration would not affect the reliability of the scale, with regards to the original CAMI, and neglected to consider the original scales which the CAMI comprises; subsequently ignoring the affect varied terminology can have on induced responses (Angermeyer and Matschinger, 2003).

The CAMI was developed by Taylor and Dear (1981) from three community oriented mental health scales, the: 'Community Mental Health Ideology' scale (CMHI) (Baker and Schulberg, 1967), 'Opinions about Mental Illness' scale (OMI) (Cohen and Struening, 1962) and the 'Custodial Mental Illness Ideology' scale (CMI) (Gilbert and Levinson, 1956). Each scale was created for a different mental health oriented research purpose: the CMHI for assessing the extent of an individual's beliefs about community mental health, the OMI for the measure of stigma and the CMI for custodial ideologies of mental health workers.

This CAMI (Taylor and Dear, 1981) consists of forty items, also referred to as statements, measured on a five-point Likert scale. These forty statements loaded onto four factors, likened to subscales: Benevolence, Social Restrictiveness, Authoritarianism and Community Mental Health Ideology. The first three factors (Benevolence, Social Restrictiveness and Authoritarianism) originate from the OMI (Cohen and Struening, 1962) the fourth (Community Mental Health Ideology) derived from the CMHI (Baker and Schulberg, 1967). The reliability of this scale shown as an alpha (α) ranged from .68 (Authoritarianism) to .88 (Community Mental Health Ideology) (Taylor and Dear, 1981). Prior to the CAMI's creation, Nunnally (1967) had suggested that although the lowest alpha should be .7, for greater reliability, a maximum of .95 should be reported. Moreover, recent research by Travakol and Dennick (2011) suggests that if the alpha level is too high, then it may imply that some of the items within the scale are redundant, therefore the maximum alpha should be .90; an alpha of .7 is still the lowest value to satisfy the recommendations for a scale to hold internal reliability (Travakol and Dennick, 2011); which the original CAMI adheres to in all but one factor (Authoritarianism).

The CAMI scale (Taylor and Dear, 1981) has been utilised successfully in a variation of studies, one of which aimed to address whether demographic variables, such as: education level, social class and knowledge of mental health, would contribute to the formation of certain attitudes (Addison and Thorpe, 2004). Although the CAMI was unable to decipher a clear link between knowledge and attitude formation using the current scale items, contact and experience amid individuals with mental health problems was suggested to contribute to a reduction in stigmatization (Addison and Thorpe, 2004). Furthermore, the CAMI has been employed to assess the effectiveness of stigma-reducing programs, with regards to mental health problems from a public point of view in America; which demonstrated a significant decrease in negative attitudes after these programs were initiated (Barney, Corser and White, 2010). Similar research suggests that the CAMI can also be applied to

measure high levels of stigmatising attitudes in health workers in non-Westernised countries, such as Southern Ghana; although the researchers stated that the benefit of using the CAMI was the relevance of the English language as the mother-tongue, which alleviated the problems associated with translating a scale (Barke, Nyarkom and Klecha, 2011).

Similarly, research by the National Health Service (NHS) implemented the CAMI (Taylor and Dear, 1981) to address the influence that age and genders can have on attitudes towards mental health problems (NHS, 2011). The CAMI was successfully employed and concluded that participants aged between thirty-five and fifty-four were more likely, in comparison to those aged between sixteen to thirty-five, to believe that those with mental health problems have a right to engage in the same job roles as the rest of society; similarly, female participants were more likely to agree that individuals with mental health problems would benefit most, in therapeutic means, from being part of the community (NHS, 2011). Moreover, the CAMI has been shown to be effective when applied to a more professional sample of the populace, illustrating variations in attitudes between different job roles: when used to study the effect that prison diversion programs have on Canadian police officers attitudes towards individuals with mental health problems, the CAMI effectively revealed a significantly positive effect on attitudes (Abbott, 2011); correspondingly, the CAMI was effective in measuring a decrease in authoritarian and socially restrictive attitudes towards people with mental health problems, in a nursing sample, before and after a mental health training (Morrison, 2011).

Although the CAMI (Taylor and Dear, 1981) has been applied in numerous research studies assessing police and other professional samples, regarding the effectiveness of training courses on attitudes, it appears to address only mental health problems in non-specified public samples, not those of offenders. There is a need to understand peoples' attitudes towards those with mental health problems within the Criminal Justice System, as attitudes vary between different groups in society (Lambert, Baker and Ventura, 2008); therefore the aim of this research is to validate a new psychometric scale which will aid in understanding attitudes towards offenders with mental health problems. The new scale is an adapted version of the CAMI (Taylor and Dear, 1981). The scale has been adapted for 'offenders' and 'forensic mental Health services', as opposed to the original 'adult' and 'mental health services'. The scale will attempt to divulge police and community attitudes towards offenders with mental health problems.

The terminologies used within the original CAMI (Taylor and Dear, 1981) to refer to individuals with mental health problems are variations of the phrase 'mentally ill', a term which may not appear politically correct. The term 'mental illness' was more than likely utilised in the formulation of the CAMI (Taylor and Dear, 1981) in keeping with the 'psycho-*medical'* paradigm of the psychiatric and psychological fields (Coppock and Dunn, 2009); the current preferred terminology to use when addressing these individuals within society is that of 'mental health problem' (Her Majesties Government and Department of Health, 2011). Similarly, this is also the preferred terminology to refer to these individuals within the prison population (All-Party Parliamentary Group, 2006), reflecting the psycho-*social* paradigm from the social-scientific field (Coppock and Dunn, 2009). The title and scale items of the new scale will maintain the original terminology 'mental illness', in all other instances 'Mental Health Problems' shall be employed; this will ensure that the validity of the new scale is not impacted by a change in terminology (Angermeyer and Matschinger, 2003).

Validation of the new scale is expected to aid a better understanding of attitudes of the public and police towards offenders with mental health problems, for which we know very little about (Sainsbury Centre for Mental Health, 2009; Metropolitan Police, 2012). The 'Community Attitudes towards the Mentally Ill' (Taylor and Dear, 1981) has been selected as the measure to adapt because it has been used in a variety of research which encompassed different cultures and samples (NHS, 2011; Abbott, 2011; Morrison, 2011), including research which adapts the CAMI to address police attitudes

(Clayfield *et al.,* 2011). If successful, the new scale is expected to bridge a gap in psychometric measures in the U.K., to allow for a comprehensive assessment of attitudes of the police and community. This may assist to better inform society, with the possibility of influencing the content and delivery of awareness campaigns and training.

Methodology

Design

This study employed a survey design to pilot a newly developed scale; the dependant variable was the total score. An independent variable was not incorporated for this design.

Participants

Two samples were recruited to pilot the newly developed scale, allowing for an assessment of the scales applicability to varied samples.

Community sample: Seventy-three males (N=24) and females (N=49) were recruited to participate in this study. An opportunity sampling method was used to recruit; friends, family and associates of the researchers. The age of the male participants ranged from twenty-one to sixty-seven (M=39.83, SD=15.9), the age of the female participants ranged from eighteen to fifty-seven (M=31.8, SD=11.2).

Police Sample: One-hundred and five males (N=66) and females (N=39) were recruited to participate in this study. A convenience sampling method was utilised to recruit from various constabularies in England. The age of the male participants ranged from twenty-three to sixty-two, one failed to state their age (M=36.2, SD= 9.7). The age of the female participants ranged from twenty-one to fifty-three (M=35.1, SD=8.8).

Materials

The 'Police and Community Attitudes towards Offenders with Mental Illness' (PACAMI-O), which is the altered version of the 'Community Attitudes toward the Mentally Ill' scale (CAMI) (Taylor and Dear, 1981), was the only material utilised in this study**.** The CAMI was created to assess the attitudes of the community regarding the integration of people with mental health problems and the facilities they access, within the community. The original CAMI was made up of forty items which loaded onto four factors, also referred to as subscales, with their own individual alphas: Benevolence (α .76), Authoritarianism (α .68), Community Mental Health Ideology (α .88) and Social Restrictiveness (α .80). These four factors accounted for forty-two percent of the total variance (Taylor and Dear, 1981). The CAMI was adapted to cover police and community attitudes; the main element of mental health was manipulated to address offenders with mental health problems and forensic mental health settings. An example of this can be seen with the statement: '*As soon as an adult shows signs of mental disturbance, he should be hospitalised*' which has been changed to: '*As soon as an offender shows signs of mental disturbance, he should be hospitalised*', in order to include the aspect of offender. The CAMI has all positively worded items reverse-scored, to establish validity and reliability (Newcomb, 1943). The PACAMI-O scale maintains the original reverse-scored items to ensure minimal alterations (items: 2, 4, 5, 7, 10, 12, 13, 15, 18, 20, 21, 23, 26, 28, 29, 31, 34, 36, 27, and 39). This survey was converted onto the computerised survey system PsychData, to allow for a greater distribution and for a larger response sample.

In redeveloping the CAMI (Taylor and Dear, 1981), the political correctness of the term 'mental illness' and 'mentally ill' had been acknowledged (Her Majesties Government and Department of Health, 2011; All-Party Parliamentary Group, 2006) and taken into consideration; however, the original CAMI implements this wording. Therefore, to enable the PACAMI-O's responses to be

compared to those of the CAMI, the featured terminology remained as originally written, thus ensuring a different meaning was not assumed by participants (Angermeyer and Matschinger, 2003).

Ethical Considerations

To guarantee the participants welfare, ethical issues were considered with regards to Ethical Guidelines relating to the sensitive nature of mental health research; therefore, the participant booklet detailed written guidance, featured within the consent and information form, to explain their rights regarding withdrawal from the research and anonymity. The participant booklet included a debrief form as the final page, which bestowed a detailed explanation of how their information would be utilised and additional contact details for the researcher and supervisor.

Procedure

After acceptance from the Ethics Committee at Buckinghamshire New University, the participant booklet was translated into an online survey, using the PsychData system, which is a method used to collect data electronically. The recruitment process varied marginally for both samples: participants recruited from the police were approached by their superior, who had previously been approached by the researcher via the medium of electronic-mail to ascertain the supervisors' co-operation. Their supervisor provided them with a URL (web address) via an internal email to a PsychData survey page. Their superior explained that the survey was an optional, anonymous survey for them to complete and that further guidance would be provided on selecting the URL.

The community sample comprised of friends, family and acquaintances of the researcher; recruited via email and social networking sites. Each participant was asked, to redistribute the survey via email and their own social network page, to encourage acquaintances to complete the survey.

When participants selected the URL, they were asked to read an information sheet and select the option to consent to taking part in the study. They were given written guidance on their rights to withdraw and their anonymity, consistent with ethical guidelines, this ensured participants were unable to continue if they did not select the consent option. Participants were asked to create a nickname for themselves in order to ensure anonymity if they wished to be withdrawn from the study at a later date. Participants were then asked to state their age, gender and occupation. The occupation variable allowed for any police officers, acquired through the non-police sample, to be identified. The participants were then presented with the forty item PACAMI-O scale, they were asked to rate their level of agreement to each statement (item) on a five-point Likert scale (1 strongly disagree to 5 strongly agree), selecting the response that best suited their personal opinion. Once the participants had finished the scale, they were directed to a debrief form which contained details of the experiment and explained the implications of their responses. Participants were reminded of their right to withdraw from the research at any time and were provided with email contact details for the researcher and email and postal directions for the supervisor of the researcher.

Results

Introduction

According to Taylor and Dear (1981), the original 'Community Attitudes toward the Mentally Ill' (CAMI) is high in internal consistency, also known as internal reliability. The original Cronbach alpha coefficients, for each subscale, were reported at; .76 (Benevolence), .68 (Authoritarianism), .88 (Community Mental Health Ideology) and .80 (Social Restrictiveness). The average Cronbach alpha from all four subscales combined was .78 (Taylor and Dear, 1981).

Reliability Analysis
In order to establish the internal reliability of the 'Police and Community Attitudes towards Offenders with Mental Illness' (PACAMI-O) scale, Cronbach alpha was employed.

The samples were combined and analysed as a whole to determine the collective reliability of the scale. The analysis revealed the PACAMI-O scale holds very good internal reliability, with a Cronbach alpha coefficient of .929, which satisfies the recommendations for the highest acceptable alpha to ensure adequate scale reliability (.90-.95) (Travakol and Dennick, 2011; Nunnally, 1967). Notable item-total correlations for the combined sample are items: one, nine and thirty-seven, which depict lower than average coefficients.

The community sample PACAMI-O was analysed. The analysis revealed that the scale holds very good internal reliability, with a Cronbach alpha coefficient of .946. Following this, the police PACAMI-O sample was analysed, which exposed that the scale holds very good internal reliability, with a Cronbach alpha coefficient of .909. Both alphas satisfied the recommendations for the highest acceptable alpha (between .90-.95) thus demonstrating the sufficient reliability of the scale, which also suggested that the scale items may not be redundant when used for measuring attitudes (Travakol and Dennick, 2011).

The PACAMI-O appears to have very high internal reliability for measuring both sample types. However, item one of the item-total correlations for the police sample depicts that, the participants may have responded contrary to the scale requirements in order to achieve a greater alpha coefficient (-.057). This observation was not apparent for the community sample; although, the item-total correlation for item one, in comparison to some of the other item-total coefficients, was low (.188); the item was not recoded or removed as this would have increased the item-total correlation; consequently, causing the Cronbach alpha to be higher than the current recommendations (.947) (Travakol and Dennick, 2011).

Exploratory Factor Analysis
The forty items of the 'Police and Community Attitudes towards Offenders with Mental Illness' scale (PACAMI-O) were assessed using SPSS Version 20. Initially the data suitability for factor analysis was addressed. An inspection of the correlation matrix revealed many coefficients of .2 and above. The Kaiser-Meyer-Oklin (KMO) value was .874, beyond the recommend value of .6 (Kaiser, 1970, 1974) and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance (p=.001), supporting the correlation matrix's factorability.

SPSS Version 20 was utilised to subject the forty items to principle components analysis (PCA). This initial analysis revealed the presence of ten components (factors), with eigenvalues beyond 1, explaining; 28.8%, 6.2%, 4.8%, 4.4%, 3.3%, 3.3%, 3.2%, 3.2% 2.9% and 2.7% of the variance respectively. Using Catell's (1966) scree test, the screeplot was assessed and revealed a clear break after the fourth factor, hence four factors were retained. The four-factor solution explained a total of 44.5% of the cumulative variance. The four factors were subjected to orthogonal procedures using Varimax rotation, to simplify the factors, for easier interpretation (Bryant and Yarnold, 1995).

The first factor: Self Preservation (see Table 1.), consisted of fourteen items, which account for 28.8% of the total variance. The second factor: Societal Reservation (Table 1.), consisted of eleven items, which account for 34.9% of the total variance. Item two: '*More tax money should be spent on the care and treatment of offenders with mental illness.*' fell into the second factor; however, the wording of the item would entail that it could equally be placed into the third factor due to the similarity to the other items; the item remained in the original factor as the relationship between the items, depicted through the item-loading, would have been much weaker. The third factor: Mental Health Awareness (Table 1.), consisted of ten items, which account for 39.8% of the total variance.

Item twenty-seven in the third factor is the only negatively worded item: '*Offenders with a history of mental illness should be excluded from taking public office*; however, the other nine items were re-coded, with regards to Newcomb (1943) and reversed scored items. The fourth factor: Treatment Ideology (Table 1.), consisted of five items, which account for 44.2% of the total variance. Item thirty-seven: '*Virtually anyone can become mentally ill'*, within factor four, appeared to have a weak relationship with other items in the factor. This item could have been placed in factor two; moreover, the item-wording could have further suggested that the item could also be better suited in factor three 'Mental Health Awareness'; however, the relationship between this item and the items within the two factors appeared much weaker than the relationship evident between the items in factor four.

Table 1
A table to illustrate the four factors and their item loadings

	Factors			
Item number	**1** *Self Preservation*	**2** *Societal Reservation*	**3** *Mental Health Awareness*	**4** *Treatment Ideology*
Item 3	**0.415**	.404	.343	
Item 6	**0.445**			.334
Item 8	**0.649**			.298
Item 11	**0.605**			
Item 15	**0.578**	.298	.230	
Item 16	**0.680**	.291	.240	
Item 19	**0.584**		.365	.248
Item 20	**0.708**			.264
Item 24	**0.724**	.219		
Item 28	**0.732**	.213		
Item 32	**0.790**		.206	
Item 36	**0.679**			
Item 40	**0.617**	.292		
Item 25	**0.500**	0.492	.255	
Item 1		**0.379**		
Item 9		**0.308**		
Item 17	.250	**0.553**		
Item 18	.315	**0.418**	.353	.233
Item 21	.277	**0.513**		.285
Item 23		**0.447**		
Item 30		**0.536**		.399
Item 31		**0.476**	.234	.299
Item 33		**0.571**		.247
Item 35	.321	**0.567**		.252

Item 38	.368	**0.511**	.294	.239
Item 4	.240		**0.510**	
Item 5		.328	**0.425**	
Item 7	.260	.248	**0.468**	
Item 10			**0.617**	.398
Item 12	.292		**0.451**	
Item 13	.235		**0.629**	-.366
Item 26			**0.578**	
Item 27	.243	.302	**0.409**	.251
Item 29			**0.583**	
Item 39	.233	.207	**0.400**	.236
Item 2				**0.726**
Item 14	.277			**0.641**
Item 22				**0.713**
Item 34		.321	.267	**0.564**
Item 37		.317	.233	**0.324**

t-test

An independent-samples t-test was conducted allowing a comparison of the total scores for the police and community samples. There was a significant difference in scores for the police (M=141.41, SD=16.1) and the community (M=147.93, SD=20.6; *t* (176) = *p*=. 019) (two tailed). Cohen's (1988) effect size illustrated that the magnitude between the means appeared large (η^2= .16).

Discussion

The new psychometric scale, the 'Police and Community Attitudes towards Offenders with Mental Illness' (PACAMI-O) was adapted from the 'Community Attitudes towards the Mentally Ill' scale (CAMI) (Taylor and Dear, 1981). The PACAMI-O scale appears adequate to be utilised when measuring attitudes towards offenders with mental health problems. It could be suggested that the validation of the PACAMI-O has allowed for the scale to potentially bridge a gap in psychometric measures in the United Kingdom (U.K.), for a more efficient and comprehensive measure of attitudes, which may inform society and influence awareness campaigns.

An analysis of the PACAMI-O's reliability suggest the scale to be very high in internal reliability, reporting the combined sample Cronbach's alpha of α.929; the scale achieved alphas of α.946 (Community) and α.909 (Police) for the independent samples. The community sample reliability score (α.946) exceeds that of the original CAMI (α.78) (Taylor and Dear, 1981), which only addressed community attitudes toward those with mental health problems. This may suggest that although the focus of the new scale is different, the CAMI scale items would still be adequate for measuring community attitudes towards those with mental health problems in the present day.

An observation can be made regarding the internal reliability, conveyed through Cronbach's alpha, when used with the combined sample and Police only sample, the scale holds sufficiently high internal reliability. Previous research suggested that alphas above .90 are too high, which would imply that some of the items within the scale are potentially redundant (Travakol and Dennick, 2011;

Nunnally, 1967), which can be observed for the community sample's reliability (.946). This could be inferred from the significantly lower participant numbers for the community sample, in comparison to the police and combined sample. Similarly, item one, '*As soon as an offender shows signs of mental disturbance, he should be hospitalised',* of the scale, appeared to have a low Item-total correlation when a police sample was utilised (-.057). This same item also appeared considerably low in comparison to other items for the community sample (.188); addressing this item with regards to reverse-coding (Newcomb, 1943) was not suitable, as this would have increased the alpha over .90 to .95 (Travakol and Dennick, 2011). Although a Cronbach alpha of .95 had previously been suggested as adequate to suggest high reliability (Nunnally, 1967), recent research suggests that an alpha of over .90 implies that some items may be redundant, hence reverse coding or item removal did not occur (Travakol and Dennick, 2011).

An exploratory factor analysis was conducted to identify how the items in the scale related to one another, grouping them into factors. The analysis initially identified ten factors, after considering Catell's (1966) screetest a four-factor solution was assumed; these factors being: Self Preservation, Societal Reservation, Mental Health Awareness and Treatment Ideology. The original CAMI (Taylor and Dear, 1981) identified four factors; Authoritarianism, Benevolence, Community Mental Health Ideology and Social Restrictiveness. Each factor in the CAMI is comprised of ten items; the new PACAMI-O scale holds an uneven distribution of items for the four new factors, for example factor one: 'Self Preservation', is comprised of fourteen items, the largest of the four factor distribution. On observing the items in the factors, it was established that item two, which was originally categorised into the second factor: Societal Reservation, could equally be placed in the third factor: 'Mental Health Awareness', as the wording of the item was similar to those within that factor; however, this was not completed due to the weaker relationship between the items, apparent through the item-loadings. Another observation saw that item twenty-seven of the third factor (comprised of ten items), was the only negatively worded item: '*Offenders with a history of mental illness should be excluded from taking public office'*; the item may have fallen into the same factor as the other items, as the process of recoding, which was applied to the positively worded items in the scale, would cause the scores of the items to reflect those of negatively worded items; for example, item thirteen of the third factor: *'Less emphasis should be placed on protecting the public from offenders with mental illness*.' would have a negative focus after recoding; the scale items were subjected to recoding to ensure the reliability of the new scale (Newcomb, 1943).

In comparison to the original CAMI (Taylor and Dear, 1981), the items from each of the original factors have been redistributed into variably different factors in the PACAMI-O scale. For example, of the ten items which were categorised into 'Authoritarianism' for the CAMI; one of these is now categorised into factor one: 'Self Preservation' (item 25), five of these are now categorised into factor two: 'Societal Reservation' (items; 1, 9, 17, 21, and 33), three into factor three: 'Mental Health Awareness' (items; 5, 29 and 13) and one into factor four: 'Treatment Ideology'(item 37). Of these five items which did not originally fall into factor two of the PACAMI-O, three of them (items; 5, 25 and 37) could, after addressing their item wording, potentially be categorised into factor two; however, their item-loading depicted a weaker relationship between those items and the items in factor two (5= 328/425; 25= 492/500; 37= 317/324).

Similarly, of the ten items originally categorised into the factor 'Benevolence' for the CAMI; one item has been placed into factor one: 'Self Preservation' (Item 6), three into factor two 'Societal Reservation' (items; 18, 30, and 38), two into factor three 'Mental Health Ideology' (items 10 and 26) and four into factor four: 'Treatment Ideology' (items; 2, 14, 22 and 34). Of the six items categorised into factors other than factor four of the PACAMI-O scale, five could be re-grouped into this factor (items; 6, 10, 18, 30 and 38). However, the weak relationship depicted through the item-loadings

suggests that the items are better situated in the factors they have been categorised within (6= .334/.445; 10= .398/.617; 18= .233/.418; 30= .399/536; 38= .239/511).

Equally, of the ten original items in the CAMI's 'Social Restrictiveness' factor; four items have been placed into factor one 'Self Preservation' (items; 3, 11, 15 and 19), three in factor two 'Societal Reservation' (items; 23, 31, and 35) and three in factor three 'Mental Health Awareness' (items; 7, 27 and 39). Of the items which have been distributed into factors other than the factor one, four could have been re-categorised into factor one. However the item-loadings illustrated that the relationship between these items and the items in factor one, is weaker than amid the items with which they have been placed (7= .260/.468; 27 = .243/ .409; 35 = .321/ .567; 39= .233/.400). Item twenty-three was restricted solely to factor two (.477); however, item thirty-one could have been distributed between factor three and four; conversely, the item-loadings of this item depicted a much weaker relationship between the other items within these factors in comparison to those in factor two (31= .234; .299/.476).

Finally, of the ten items categorised into the CAMI's 'Community Mental Health Ideology' factor, eight of these items have now been categorised into factor one 'Self Preservation' (items; 8, 16, 20, 24, 28, 32, 36 and 40) and two have been into factor three 'Mental Health Awareness' (items 4 and 12). These two items could have been grouped into factor one; however, they were not re-grouped as their item-loadings depicted that the relationship between these items and the other items in that factor was weaker. There was a much stronger relationship between these items and the items in factor three (4= .240/ .510; 12= .292/ .451).

The difference in the item distribution over the four new factors, in comparison to the original CAMI factors, may be an indication that the original items are no longer suited to measure the style of attitudes they were formerly originated for, illustrated through the reclassification of items in the PACAMI-O scale. Additionally, the type of attitudes held towards individuals with mental health problems may have changed, possibly evident through the new distribution of items. It could also be suggested that: awareness campaigns, education and training are making more of an impact in the present day, as a decrease in authoritarianism and social restrictiveness style attitudes was observed in previous research, due to training and education (Morrison, 2011). With a decline in these attitudes after education is increased, there is a greater chance the behavioural responses of others who have been educated further will be modelled by wider society, which may potentially influence a greater decrease in these attitudes (Bandura, 1977), potentially suggesting why the original attitude styles do not appear prominent in the new scale, compared to the pertinent distribution of the newly classified items into factor one: 'Self Preservation'.

Factor one of the PACAMI-O scale, 'Self Preservation', identifies items which relate to an individuals' concern for their own well being, many of the questions allude to their personal safety. Research suggested that when the terms unpredictability and dangerousness are attributed towards individuals with mental health problems, they become a precursor for negative attitudes, due to an assumption by the populace of fear for their personal safety (Angermeyer and Dietrich, 2006). It could be argued that item six; '*Offenders with mental illness are a burden on society'* and item eleven; '*A woman would be foolish to marry an offender who suffered from mental illness, even though he seems fully recovered.'*, do not fit into this factor on the basis of the difference in item wording from the other items. However, with regards to item six, it could be suggested that the prevalence of offenders with mental health problems in prison, seventy two percent of males and seventy percent of females (Revolving Door Agency, 2012), reflects the prevalence of offenders with mental health problems in society. Research suggested that offenders with mental health problems who are not supported adequately, or dealt with appropriately by the police, are more likely to get caught up in the Criminal Justice System and come into contact with police (Scott and Moffatt, 2012). If the participants of the

police sample have been in the company of offenders with mental health problems on a frequent basis, it could be suggested that they are more likely to assume that these individuals are a burden on society, which is a negative stigma (Swaps, 1977), especially if the participants fear these individuals (Angermeyer and Dietrich, 2006), which may lead to a perceived risk to their own personal safety when interaction occurs, due to self preservation style attitudes; which may suggest why item six was categorised into factor one.

Moreover, an observation of the samples gender established that more female participants completed the PACAMI-O scale than males; with regards to item eleven '*A woman would be foolish to marry an offender who suffered from a mental illness, even though he seems fully recovered*.' which may have biased the responses. However, if female participants answered from the perspective of a 'female' married to an offender with a mental health problem, this could have potentially influenced the items categorisation into the factor concerned with self preservation style attitudes (factor one), particularly if they felt from the females' perspective that their personal safety may be at risk. If correct, this would suggest that females viewed offenders with a mental health problem in a more negative light, which is contrary to previous research which suggested that females demonstrated less stigmatizing attitudes than males (Savrun *et al.*, 2007); further contradicting previous postulations that females believed individuals with mental health problems should be treated in a community setting (NHS, 2011), which alluded to more positive attitudes. From the PACAMI-O findings it could be inferred that females would appear to be more concerned if offenders with mental health problems were in the community, contradicting the results.

A similar observation can be made for item twenty-five; '*The best way to handle offenders with mental illness is to keep them behind locked doors',* which fell into factor one: 'Self Preservation', this item may have been better placed in factor two: 'Societal Reservation' due to the item-wording. The item-loading for this item suggested that although slight (Table 1; 500/ .492), there was a stronger relationship between this item and the items in factor one. Furthermore, the item-wording could have been suggested to allude to multiple themes; although, the item conveyed the reluctance of society to have people with mental health problems within the community, it could have also been advocated that it expressed the perception of risk to personal safety, evident within the items in factor one.

Although statistically acceptable as reliable items within the scale, items: one (*As soon as an offender shows signs of mental disturbance, he should be hospitalised*), nine (*There is something about offenders with mental illness that makes it easier to tell them from normal people*), and thirty-seven (*Virtually anyone can become mentally ill*), demonstrated the weakest relationships to the other items within the factor they are situated in. There were no alternate factors for item nine or one to be placed into; however, item thirty-seven could have been placed in other factors, although it depicted a weaker relationship with the items. On addressing the alphas of these three items, with regards to the reliability analysis, they demonstrated low item-total correlations with other items in the scale. This may suggest that these items, in comparison to other items, were more likely to be redundant; therefore, less accurate for measuring community and police attitudes towards offenders with mental health problems compared to, solely community attitudes towards adults with mental health problems (Travakol and Dennick, 2011). Another suggestion for this observation could be due to the fact that the CAMI (Taylor and Dear, 1981) has not been revalidated since its construction; consequently, it could be suggested that these items may well appear redundant due to the change in attitudes towards mental health problems over time (Herek, 2011). Overall, the item-loadings for the PACAMI-O factor analysis appear to be considerably larger than the item-loadings for all the items in the original validation of the CAMI (Taylor and Dear, 1981), which suggests a stronger relationship between the items featured in the PACAMI-O, compared to the original validation research of the CAMI.

To gauge the validity of the new scale further, an independent-samples *t*-test was conducted to see the applicability of the scale for assessing attitudes; the test revealed that the attitudes of the police and community were statistically different. On addressing the means of the two groups, it could be suggested that the community sample holds more negative attitudes towards offenders with mental health problems in comparison to the police, as the effect size (Cohen, 1988) illustrated a large magnitude between the means for both samples. Although this finding was not the main focus of the research, it suggests that previous research, which proclaims the community and the police hold similar attitudes, is potentially incorrect (Cotton, 2004; Litzcke, 2006).

Measuring Attitudes and Stigmatization

It should be noted that two stigmatized areas are addressed within the items of the new scale: 'offender' and those with 'mental health problems'. The scale depicts negative attitudes towards these groups of individuals, demonstrating that stigma is still apparent (Goffman, 1963). This would contradict research, if these attitudes can be inferred to mental health alone, which suggested that knowledge and awareness has increased to depreciate negative attitudes towards mental health (Angermeyer and Matschinger, 2005); and support other research which suggested stigmatizations towards mental health has increased due to the assumption of dangerousness, violence and risk associated with these individuals (Jorm *et al*., 2006; Link *et al.,* 1999; Phelan *et al.,* 2000). It could be suggested that these individuals, referred to in the scale, are perceived as being more dangerous and violent due to the offender aspect being applied (Shivy *et al*., 2007; Holzer *et al.,* 2002; Stier and Hinshaw, 2007). It is difficult to decipher whether the perception of risk and dangerousness, possibly attributed to fear for personal safety; seen previously in the writings of Plato, is due to the 'offender' or 'mental health problem' label or a combination of both; although, previous research suggested endorsing the label of offender to someone with mental health problems, increased the likelihood that the element of dangerousness would be assumed (Stier and Hinshaw, 2007). The research also suggested that police still hold negative attitudes towards offenders with mental health problems, even though the publication of the Bradley report (Bradley, 2009) aimed to address these attitudes, in order to decrease them significantly through; awareness, education and additional training; methods previously utilized to improve employers and wider societal attitudes (Owens, 2009). This may suggest why a new report, in September 2012, was commissioned to address how the police force handles all aspects of interaction amid individuals with mental health problems (Metropolitan Police, 2012); the police are a representative body whose behaviour may be modelled by wider society; subsequently, the media's depiction of police behaviour may also have the ability to influence the populace (Pinfold *et al.,* 2003; Bandura, 1977; Stuart and Arboleda-Florez, 2001; Niven and Robinson, 1994). It is, however, difficult to distinguish whether there was a difference between attitudes towards either of these stigmatized groups; although, previous research suggested that offenders were viewed equally to other groups, such as those with mental health problems (Homant and Kennedy, 1982); therefore, according to this research, the new scales depiction of negative attitudes towards offenders with mental health problems would be an accurate portrayal of attitudes.

With regards to the police attitudes, on completion of the PACAMI-O questionnaire, four participants from the police sample provided additional information regarding their responses. Correspondence one and two emphasized that the responses they had given, which depicted negative attitudes, were directed to the aspect of offender not mental health. Correspondence three highlighted that that scale assumes there is a, *"…single clear, stable, and distinct category of "mentally ill offender" for the Police to have an opinion of …there is no way to tell if the concept held by the surveyed is the same as the surveyor…*" which is a pertinent observation. Previous research suggested that attitudes towards mental health problems vary dependant on the diagnosis; if the participants of the public or police sample perceived the offender to have schizophrenia, they would be more likely to endorse negative attitudes towards them in comparison to if they believed the offender had depression (Angermeyer and Matschinger, 2003; Wahl, 1987). Although, psychosis and depression are featured

more prevalently in the prison population (Fazel and Danesh, 2002), a diagnostic scale which addressed individual mental health problem of offenders, may divulge greater information, as attitudes towards mental health vary depending on the diagnosis (Sluek, 2012).

Furthermore, correspondence three emphasized the "prejudicial" terms used within the scale (offender and 'mentally ill'), acknowledging how the terminology 'mentally ill offender' may illicit stereotypical, derogatory views of an offender with a mental health problem. Research suggested how a change in terminology may alter the desired outcome of the scale (Angermeyer and Matschinger, 2003); in order to ensure the validity of the scale, the terminology was not changed from the original CAMI (Taylor and Dear, 1981). It was, however, identified that 'mental health problem' is the preferred term over 'mentally ill' (Her Majesties Government and Department of Health, 2011). Correspondence three also identified that the terms appear coerced by the "medical community", previous research suggested 'mental health problem', as a term, for being more suited to the psycho-social paradigm of social-scientific research (Coppock and Dunn, 2009). However for the purpose of replication, the terminology of the items remained the same, this avoided the same potential errors which were evident in the redevelopment of the CAMI, for an American police sample (Clayfield *et al.*, 2011). The same redevelopment study also made assumptions that individuals with a mental health problem who are brought to police attention, are more of a risk than individuals without a mental health problem brought to police attention, adding an experimented bias, which the PACAMI-O research appears to have avoided (Clayfield *et al.,* 2011).

In comparison to the original research which formulated the CAMI (Taylor and Dear, 1981), the participant numbers were not as representative. The CAMI utilised one-thousand and ninety participants from a community sample, the PACAMI-O only utilised one-hundred and seventy-eight participants from the combined sample. This conveys difficulties with regards to the reliability and validity of the given results. Although the scale appears to demonstrate very good reliability as a measure of attitudes, a larger sample of participants may have influenced the Cronbach alpha of the scale. This may explain why the scale appeared to have very high internal reliability in comparison to the original CAMI, which has been suggested to be an indicator of redundant items if over .90 (Travakol and Dennick, 2011). Correspondence four made suggestions with regards to the recruitment of police officers for the purpose of this research, stating that officers who are more likely to deal with offenders with mental health problems, are less likely to have time to complete questionnaires relating to their attitudes, in comparison to other police staff who remain stationed in an office location, with greater access to their emails. This would indicate that, although all these police officers would have participated in training to reduce their stigmatising attitudes (Bradley, 2009), they would be less likely to encounter people with mental health problems on a daily basis, which may have confounded this research, potentially because more frequent interactions amid individuals with mental health problems is said to improve negative attitudes (Abbott, 2011). Similarly, the officers who have greater contact with offenders with mental health problems would, according to the theory of Mere Exposure (Zajonc, 1968), already be expected to hold more positive attitudes due to their frequent exposure; however, if negative attitude are already held then further exposure was suggested to increase hostility towards this group (Bornstein and Craver-Lemley, 2004).

Future Modifications and Further Research

Future utilisation or replication of the PACAMI-O validation research should initially address the terminology used within the scale, to make it more applicable to the current time, corresponding with the developments of the DSM (Herek, 2011; Her Majesties Government and Department of Health, 2011; All-Party Parliamentary Group, 2006), therefore the term 'mentally ill' would be replaced with 'mental health problem'. To further this, different attitudes are associated with different mental health problems (Fazel *et al.*, 2009); the scale could be redeveloped to address individual mental health problems, as previous research suggested diverse attitudes are held to different classifications of

mental health problems, this will help in understanding the formation of varied attitudes towards offenders with mental health problems; schizophrenia has previously been suggested more likely to be associated with aggression and violence than depression (Angermeyer and Matchsinger, 2003; Wahl, 1987). The scale should also consider how police are recruited, targeting officers who may have had more contact with individuals with mental health problems (Abbott, 2011). Additionally, the scale does not distinguish between negative attitudes towards offenders and negative attitudes towards offenders with mental health problems as separate entities, although there are other scales which address attitudes towards offenders without mental health problems; for ease of analysis, the CAMI or PACAMI-O could be re-developed, correlating the PACAMI-O scale with a new scale of attitudes towards offenders' to allow for a better understanding of these attitudes. Furthermore, the PACAMI-O maintained the original terminology of the CAMI, therefore it could be argued that it would be suitable to assess police and community stigmatising attitudes in other cultures, as it divulged greater reliability than the original CAMI (Taylor and Dear, 1981), suggested previously as adequate for measuring high levels of stigmatising attitudes in non-westernised countries (Barke *et al.,* 2011). Additionally, gender differences in attitudes towards offenders with mental health problems could be addressed cross-culturally utilising the PACAMI-O, as the original CAMI appeared adequate in establishing gender difference and differences across non-westernised cultures (Sarvun *et al.,* 2007). Similarly, the original CAMI was utilised to divulge attitudes towards mental health problems in the National Health Service (NHS) and a Ghanaian sample of health worker (NHS, 2011; Barke *et al.*, 2011), therefore the PACAMI-O may be reliable in assessing attitudes towards offenders with mental health problems from culturally varied and more professional samples (Abbott, 2011). Furthermore, future research could implicate the PACAMI-O in a repeated measures design experiment to assess the effects of awareness campaigns and training on negative attitudes towards offenders with mental health problems, as seen in research utilising the CAMI (Morrison, 2011). Such utilization could be applied to research by the Metropolitan Police, when commissioning independent reviews of all aspects of police interaction with offenders with mental health problems, to enhance their internal understanding of their departments' attitudes towards this stigmatised group of individuals and to support improvements in their departments' practice (Metropolitan Police, 2012).

Conclusion

The completion of this research has established that a new measure assessing the attitudes of police officers and members of community, titled the 'Police and Community Attitudes towards Offenders with Mental Illness' (PACAMI-O), has been validated. The scale has illustrated its applicability to two substantially different samples, one of a more professional body, which may suggest it can be employed for research of other culturally different professional organisations, such as health workers (NHS, 2011; Abbott, 2011). The research has demonstrated that the police and public still hold negative attitudes towards offenders with mental health problems, coinciding with previous suggestions (Cotton, 2004; Angermeyer and Dietrich, 2006). This finding may suggest that awareness campaigns and additional training, which have previously produced significantly positive results for reducing negative stigma when utilized independently with public and police samples (Barney *et al.*, 2010; Angermeyer and Matschinger, 2003; Owens, 2009), are potentially not as functional as first thought. This may allude that other findings, which suggested that stigmatization towards mental health had increased, possibly due to an assumption of dangerousness and violence associated with these individuals (Jorm *et al*., 2006; Link *et al.,* 1999; Phelan *et al.,* 2000) are supported. Similarly, the research has established that the element of risk, associated with dangerousness and violence (Link *et al.*, 1999; Phelan *et al.,* 2000), is still evidently procured by the label of 'mental health problem' (Angermeyer and Dietrich, 2006); stated previously as reflecting throughout history and multiple cultures (Hinshaw, 2006). Therefore these derogatory perceptions of risk and dangerousness associated with mental health problems, previously conveyed through

Plato's classic Greek quote: '*But how can we live in safety with so many crazy people?'* (Plato, the Second Alcibiades, Trans. 2005), may quite possibly be present in the minds of many; consequently, exemplifying the influence that initial label endorsement has on the prevalence of stigmatization, even following the removal of the label (APA, 1975).

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