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Working Paper Series

**A Chain of Adverse Consequences: The
Impact of Medicine Use Reviews on
Pharmacists**

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A chain of adverse consequences: The impact of Medicine Use Reviews on Pharmacists

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INTRODUCTION

This paper aims to provide detailed insights into how Medicine Use Reviews (MURs) have altered the working relationships of managers to pharmacists and the impact these changes have had on pharmacists' work strain, stress and turnover intentions. The Medicines Use Review (MUR) service was introduced in 2005, as part of a new contractual framework between the UK department of Health and community pharmacies (known to the public as their local chemist or pharmacy). The new contractual framework 'was intended to make greater use of pharmacists' expertise, encouraging them, simply not to dispense but to offer an ever expanding range of clinical services' (Department Of Health, 2008).

The 'MUR' service attracts a fee to the business owner, currently £28 per 'MUR' achieved until a maximum of £11,200 (400 MURs) annually. In recent years government payments to pharmacies for dispensing have been reduced so business owners will obviously be keen to achieve the full income from MURs by achieving the maximum of 400 MURs from their pharmacy service (PSNC, 2009). Pharmacists have expressed anecdotally that the 'MUR' service was introduced without adequate consultation or a consideration of their increased workload caused by an ever larger volume of prescriptions dispensed. This was 500 million in 1997 increasing to 800 million in 2007 (NHS-Information centre, 2008).

Since the introduction of the MURs there have been anecdotal reports of increased conflict between pharmacists and their line managers and increasing use of bullying behaviour by managers such as emails dictating levels of 'MUR' performance, threatening verbal insults and disciplinary threats against pharmacists for not achieving the maximum MUR target. As a consequence there have been reports of stress amongst pharmacists whose excessive workload compromises their duty to provide a safe service to patients. In 2008, a stress audit of 2000 pharmacists was undertaken by the Pharmacist Defence Association, using the Health and Safety Executive (HSE) standards for managing workplace stress (HSG218). This audit found that pharmacists were operating in a stressful work environments that required 'urgent action' as there were poor work relationships, role conflict, a lack of supportive management and a poor organisational culture (PDA, 2008).

The paper aims to advance organisation theory by combining known theory on bullying with exchange theory's findings on supportive management and employee commitment. The paper analyses a causal chain of consequences from unsupportive management and bullying behaviours to extra work strain of MURs on pharmacists. The consequences are then assessed by the impact on pharmacists' emotional stress, employee commitment and level of intentions to quit their employer.

The paper starts by detailing the theoretic under-pinning of the model used in the analysis.

THEORETICAL BACKGROUND

Research advancing our understanding of the influence of management behaviour on the organization has used exchange theory ideas to explore the exchange factors that can lead to positive behavioural outcomes such as employee commitment.

In this article the opposite side of this relationship is examined, what are the consequences for employees when the organization is failing to offer exchange reciprocity for their efforts? Does this breach of exchange reciprocity, go beyond a reduction in employee commitment (Restubog, Hornsey, Bordia and Esposito, 2008) to cause a breakdown in interpersonal relationships that can precipitate increased work strain, harassment/bullying behaviours and emotional stress? I characterise this breach of reciprocity as existing where management is perceived as unsupportive by employees. Looked at from an exchange theory perspective (Blau, 1964), experiencing bullying from managers is a breach of exchange parity and should also result in the bullied withdrawing commitment to the organization.

Although there has a wide range of research showing those experiencing workplace harassment/bullying (hereafter called bullying) have reduced job satisfaction, emotional distress, illness, higher rates of absenteeism, higher turnover and lower productivity (Keashly & Jagatic 2003; Hoel et al. 2004; Leymann, 1996; Lutgen-Sandvik 2006; Wu, Yin, Kwan & Zhang 2011), my review of the literature shows an absence of studies that simultaneously analyse breach of exchange reciprocity from unsupportive management combined with bullying behaviours. The paper aims to close this gap in the literature by showing how these different breaches of exchange reciprocity react with work strain, employee commitment, stress and turnover intentions.

Employee commitment

Good organization performance is viewed by many as fundamentally dependent on the commitment offered by the workforce (Whitfield and Poole, 1997). Mowday et al. (1982) defined this type of employee commitment as the 'relative strength of an individual's identification with, and involvement in, a particular organization'. Thus employee commitment can be considered as the extent to which employees identify with their organization's values and goals, show a willingness to invest effort, participate in decision making and internalise managerial values (O'Reilly & Chatman, 1991). Thus committed employees are more likely to contribute to the organization in more positive ways than less committed workers and bring cost benefits through lower absenteeism, and lower turnover rates (Meyer, Becker & Vandenberg, 2004; Smek, Eisinga, Teelken & Doorewaard, 2006; Bhatnagar, 2007).

Summarised next are the key antecedents of commitment. First, managerial factors are considered, which include the research linking commitment behaviours and attitudes to the way an individual is managed and supported by the organization. Second, individual factors are examined which include an individual's age, gender and tenure.

Supervision and managerial antecedents of employee commitment

As suggested by social exchange theory (Fuller, Barnett, Hester & Relyea, 2003) there is evidence that the practices and behaviour of supervisors and managers will influence the level of employee commitment. In the wider literature many studies have revealed that the level of organizational and managerial support an employee feels, their participation decision making (Porter et. al., 1974; Beck & Wilson, 1997; Mowday et. al., 1982; Frenkel & Sanders, 2007; Dick 2011), and satisfaction with supervisor-employee communication processes (Mathieu & Zajac, 1990; Brunetto & Farr-Wharton, 2003) influence whether a person has high or low employee commitment. The review of 70 studies by Rhoades & Eisenberger (2002) provides substantial evidence that a supportive organization environment, where employees' contribution is valued and where the organization signals that it cares about their well-being, is associated with stronger employee commitment and lower levels of intention to change employer.

In summary as suggested by social exchange theory (Fuller, Barnett, Hester & Relyea, 2003) there is ample evidence that positive experiences of managerial/organisational behaviour will have a positive influence on the level of employee commitment. Therefore, it seems reasonable to suggest that when exchange reciprocity is absent the opposite should be true. Thus low commitment and lack of additional effort is found when employees perceive an exchange reciprocity breach by the organization because management/organisation fail to reward or recognise achievements and additional effort (Coyle-Shapiro & Kessler, 2002; Restubog, Hornsey, Bordia & Esposito, 2008). In other words employees who view their management as unsupportive consider this an exchange breach and withdraw their commitment to the organisation.

Demographic variables, employee commitment and bullying

Research on commitment associated with gender is inconclusive. Mathieu & Zajac's (1990) well cited Meta analysis suggested there is a link between gender and commitment but the variations across professional groups led them to conclude that there was no consistent relationship between gender and commitment.

There appears to be some evidence that tenure and years of experience are positively associated with commitment. Previous studies have indicated that position tenure (Mottaz, 1988; Gregersen & Black, 1992) and organization tenure (Mathieu & Zajac, 1990) have positive effects on commitment. This can be explained as a result of the organization's socialisation process. The length of service in an organization is positively related to the level of internalisation of organizational values, which results in greater commitment from the individual (Allen & Meyer, 1990; O'Reilly et. al., 1991; Hellriegel et. al., 1995). However, some studies for instance Lok and Crawford (1999) and Brewer (1996), do not support this relationship. Thus, compared to the research on the influence of supervision and managerial variables, the influences of demographics on employee commitment are ambiguous.

Research on the influence of demographics on bullying prevalence is ambiguous. Einarsen and Raknes (1997) research in Scandinavia found significantly more older workers reporting bullying, while British surveys have indicated the opposite where older or longer tenure respondents are slightly less likely to experience bullying behaviour than younger ones, while gender and seniority have no impact (Dick and Rayner, 2012).

Workplace bullying

Workplace bullying (hereafter referred to as bullying) is about negative interpersonal behaviours perpetuated by colleagues or managers on a 'victim' that are repeated and persistent (Zapf et al., 1996; Einarsen, 1996; Hoel & Cooper, 2000). In terms of content, bullying consists of a range of different negative behaviours such as excessive criticism, excessive work monitoring, withholding information or responsibility, attacking the victim's attitudes or private life, social isolation or the silent treatment (Adams, 1992; Einarsen, 1996; Zapf et al., 1996, 1999; Rayner & Keashly, 2005; Wu et al., 2011). Thus, bullying is interpersonal in nature and is a different construct than anti-social or deviant workplace behaviour because it does not include acts directed at the organization.

Workplace bullying research is the description of the construct that has dominated European studies but in the USA this European research has been largely ignored in favour of two constructs that are subsets of bullying. Significant has been Tepper, (2000; 2007) with his concept of Abusive Supervision that focuses on the measurement of negative behaviour by a supervisor perpetrator who uses hostile verbal and non verbal behaviour excluding physical contact on his subordinates. The other is Social Undermining (Duffy,

Ganster & Pagon, 2002) that is negative behaviour by supervisors and co-workers that undermines the victim's work and personal reputation by persistent criticism, belittling, spreading rumours and social isolation. So bullying differs from abusive supervision (Tepper, 2007) as it is not defined by the perpetrator, instead bullying includes negative acts by co-workers as well as supervisors/managers. Implicit therefore in bullying is the idea that the negative acts by a manager towards a victim(s), through a trickle down effect (Ayree et al., 2007), allows/encourages co-managers and co-workers to mimic the negative behaviour towards the victim(s) a process called Mobbing by Leymann (1996). Bullying also includes a wider range of behaviours than abusive supervision as it includes a range of discreet behaviours that mirror all of the behaviours described as Social Undermining by Duffy, et al. (2002).

In the literature on workplace bullying there is agreement that as bullying is about repeated actions; persistency of experience of bullying behaviour over at least the last six months is a standard.

Managerial influences on bullying

Since research shows positive outcomes for employee commitment of a supportive managerial hierarchy and supportive supervision environment it seems reasonable to propose that where exchange reciprocity is absent this will lead to social system relationships that are stressful that can participate bullying. Therefore, it is hypothesised that a lack of management/organisational support may be an enabling gateway, which makes bullying more likely.

So what do we know about the managerial characteristics that are associated with bullying? Vartia (1996) and Einersen et al. (1994) found that frustration due to lack of clear goals, role ambiguity, organizational constraints or poor communication all were associated with increases in bullying behaviours. Quick and Quick (1984) concur and identify that interpersonal stressors between manager and employee are associated with bullying behaviour. However, there is little research on breach of exchange reciprocity and bullying other than Djurkovic et al. (2008) who found that a lack of organization support was linked to higher levels of bullying and also increased the level of intention to leave.

The relationship between bullying and employee commitment.

Looked at from an exchange theory perspective (Blau, 1964), experiencing bullying from superiors is an extreme breach of exchange parity and should result in the bullied withdrawing commitment to the organization and reducing their discretionary effort.

For bullying, no literature other than McCormack et al.'s (2009) study of teachers in China could be found. The teachers being bullied had feelings of lower (affective) commitment to the organization due to the victim feeling 'let down' (exchange breach) by their organization for allowing bullying behaviour to go unpunished. Insights into this process are suggested by Mayhew and Chappell's (2003) who found that 40% of the bullied do not turn to anyone at all for support, but as the bullying continues they reduce their commitment, and then leave the organization. An alternative view of the outcome of negative exchange parity is described by Tepper (2000) who shows that employees abused by their supervisor fear further adverse outcomes and do not reciprocate by withdrawing discretionary effort (Hodson, 2010). Instead, their stress is increased, motivation is reduced and they are more likely to quit (Gould-Williamson, 2007). As only one article could be found that examined bullying's influence on employee commitment, I supplement this with research that uses two subsets of bullying, abusive supervision and social undermining (Tepper, 2007).

Support for harassment/bullying adversely affecting commitment is found in a meta-analysis of workplace aggression by Herscovis and Barling (2009) who found that both supervisor aggression and co-worker aggression are linked to lower levels of commitment. Ayree et al., (2007) concur and identify that abusive supervision is associated with lower levels of commitment. Thus if the majority of employees have low commitment a consequence could be an increase in dog-eat-dog negative behaviour as individuals strive to achieve individual interests at the expense of co-workers (Kuvaas, 2008). Research by Duffy et al (2002) in the police in Slovenia provides some additional insights as they found that supervisors could swing between supportive behaviour and social undermining and this magnified the effect of negative behaviours on commitment.

Overall, the review above provides support for bullying behaviours creating a break in exchange reciprocity that can lead to withdrawal of employee commitment by the victim; this in turn may lead to being stigmatised by their colleagues or supervisor for not 'pulling their weight'. Thus, a circular relationship may exist leading to progressively lower commitment and escalating bullying.

Job strain

The dominant theory for analysis of stress is the Job Demand-Control Model (Karasek, 1979). The theory shows that employees experiencing high job demands or work load (work strain) are the most stressed (De Lange et al, 2003; Tham and Meagher, 2009). In the context of this paper, a new measure was needed to reflect the specific additional work load strain that MURs have caused dispensing pharmacists. The 'MUR Strain' measure was formulated by the authors and the Pharmacists' Defence League to capture pharmacists' experience of changes due to MURs and their impact. To do this 13 questions were asked with positive questions such as: The organisation provides sufficient staff to support the service whilst I perform MURs', Since the introduction of MURs my professional skills are better utilised, My manager values my contribution in performing MURs. Also included were five negative questions such as: I feel that the targets imposed to achieve MURs are excessive and unreasonable, My role has changed for the worse since the in introduction of MURs, There is poor communication and professional understanding from non pharmacist management regarding MURs etc. See the Appendix for details of the 13 questions. The MUR Strain measure is expected to increase where there is an unsupportive management/organisation and is expected to reduce employee commitment and increase emotional stress.

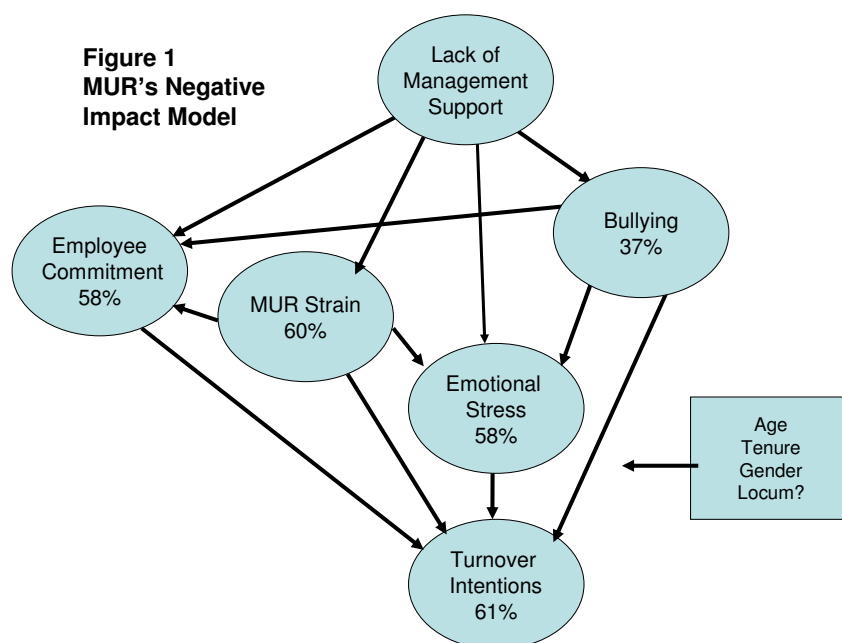
Predictors of stress and intentions to leave

Management relationships that are poor, lack trust, offer little support, or where there is no interest in listening (Arnold et al., 1998; LaRocco et al., 1980) typify poor social system relationships that are stressful. Stress is also associated with abusive supervision (Frone, 2000) and bullying (Hoel & Cooper, 2000).

There is strong support in the bullying literature for persistent bullying behaviour leading to an increase in emotional stress (e.g. Hoel et al., 2004; Wu et al., 2011; Dick and Rayner, 2013). This leads to eventual staff turnover for most as the 'victim' leaves the organization to escape the bullying behaviour (e.g. Rayner, 1998; Lutgen-Sandvik, 2007).

There is also substantial evidence in the review of 70 studies by Rhoades & Eisenberger (2002) that a supportive management/organization is associated with lower levels of intention to change employer. In addition, employee commitment (Porter et al., 1974; Meyer and Allen, 1993) has been found in meta-analyses of previous research to be amongst

the strongest and most reliable predictors of turnover intentions (Cooper-Hakim and Viswesvaran, 2005).



So in summary, Figure 1 shows the hypothesised relationships discussed in the above literature review. The literature review shows that the paths to employee commitment have a firm foundation in the positive exchange reciprocity literature while the paths to bullying as a construct are more speculative, as they are based predominantly on fragments of research on subsets of bullying behaviour. A largely unknown relationship is the effect that bullying has on employee commitment. The construct MUR Strain is new and is theorised as a surrogate for Job Demands (Karasek, 1979) with links to stress and turnover intentions.

The next section outlines the methodology that was used to survey the pharmacists and details the measurement models used.

METHODOLOGY

Measures

To provide substantive evidence of the impact of the MUR changes a survey questionnaire was designed by the authors using constructs that have been widely used and shown in prior research, across different private and public sectors, as having good construct validity and reliability. The constructs items measured pharmacists' perceptions of the management/organisation support they experience (Eisenberger et al., 1997), their feeling of commitment to the organisation (Allen & Meyer, 1990), their experiences of bullying behaviour (Einarsen & Skogstad, 1996; Dick & Rayner, 2012), the degree of emotional stress they feel (Dick and Rayner, 2013) and their likelihood of leaving the organisation (Meyer, Allen & Smith, 1993). The survey also included a new measure 'MUR Strain' which was found to have strong factor loading and a strong reliability statistic (Chronbach's Alpha 0.9), full details of the 13 items and their factor loadings can be found in the Appendix.

To ensure that common method variance was not a problem a Harman one-factor test was conducted with all items in the questionnaire entered into an exploratory factor analysis.

No single factor emerged and no individual factor represented the majority of variance in the variables which indicates a lack of common method variance (Podsakoff & Dennis, 1986 p. 536). Overall, sixty three per cent of the variances can be explained by the factors extracted. The factor analysis confirmed the validity of the constructs as each set of questionnaire items clustered into their respective constructs. There were three exceptions amongst the 94 questions asked and these were removed. After removing a small number of outlier cases, tests showed that all constructs had strong internal reliability (>0.8) and Q-Q plots indicated constructs met the criteria for normality. As expected from previous research the Bullying construct required a log normal transform to provide a normal distribution. Demographics included in the analysis were the respondent's gender, age, and if they were an employee their tenure. Many pharmacists are self-employed locums so a variable Employment Status was included in the survey. Employment status indicates whether the respondent worked as an employee of the organisation or was working as a self-employed locum.

The Survey

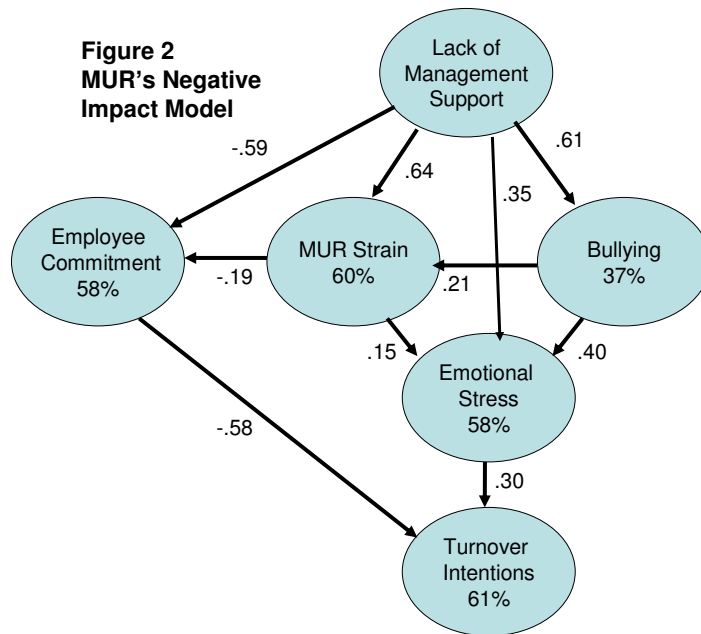
On November 1st 2010 an e-mail was distributed to 9000 Community Pharmacist Members of the Pharmacists Defence League that represents the interests of the vast majority of practicing dispensing pharmacist in the UK. The e-mail had a link to the survey and explained the context of the survey and that the individual responses would be anonymous. After a three week exposure time, a total of 651 respondents had completed the 94 question survey of which 632 were suitable for analysis. These 632 respondents represented seven per cent of the target population, and provide a sufficient sample size for statistically valid analysis of the responses. Details of the sample's demographics can be found in the Appendix and appear to be reasonable match to the demographics of the target population.

FINDINGS.

The analysis of the survey used AMOS 7's a Structural Equation Model (SEM) to test the model shown in Figure 1 using multiple simultaneous regressions with maximum likelihood estimation. The findings for the main variables are summarized in the MURs Negative Impact Model (Figure 2 found on the next page). The findings' model shown in Figure 2 excludes non-significant paths so for instance, the lack of an arrow between MUR Strain and Turnover Intentions means that all the changes caused by MUR Strain on Turnover Intentions are fully mediated via the extra Emotional Stress experienced by pharmacists. When the findings model shown in Figure 2 are compared with the theory model in Figure 1 the only difference is that the findings model show that Bullying has no direct effect on Employee Commitment instead the effect is fully mediated through MUR Strain.

Construct effect size results

Figure 2 shows that a Lack of Management Support explains 60% of the strain of MUR workloads, most of the effect is direct but there is also a significant mediated effect via an increased level of Bullying behaviours reported by pharmacists which in turn further increases MUR Strain. Looking at the detail of MUR Strain experienced indicates there are three different forms. The first is related to pressure from the organisation to achieve unrealistic targets and an unwillingness to provide extra resources to allow pharmacists to perform MURs, resulting in an unrealistic workload. The second relates to a breakdown in relationships with line managers, who are unwilling to listen to concerns or respect the professional status and judgement of pharmacists. The third relates to how MURs have changed the pharmacist's role for the worst so that they feel their professional status is being undermined.



The Lack of Management Support explains the 37 per cent increase in bullying of pharmacists. As mentioned previously, this increase in bullying behaviours by management also increases the MUR Strain experienced by pharmacists. Another effect of this Lack of Management Support is a reduction of 58% in pharmacists' commitment to their employer, with MUR Strain adding to this reduction in Employee Commitment. The overall effect of a Lack of Management Support, MUR Strain and Bullying is a 58% increase in Emotional Stress amongst pharmacists. There is a large body of research evidence that shows Bullying and Emotional Stress are closely linked to health deterioration, increased sickness leave and greater staff turnover (e.g. Steers, 1977). Thus, the substantial increase of 61% in pharmacists' turnover intentions shown in Figure 2 confirms the substantial negative impact from the introduction of pharmacist led MURs.

Demographics

For simplicity Figure 2 does not show the demographic variables, instead the effects of demographics are shown in Table 1 where demographics explain 10% of the variation in Lack of Management Support. Here the dominant influence is the lower level of management support found by locums compared to the experience of pharmacists who are employees. Gender shows no significant influence against any of the model's variables but the effect of gender could be indirect as 71% of women pharmacists are employees compared to men where there are many fewer directly employed (52%). Employee Commitment is higher for those who have been working for their employer longer but is slightly lower for locums; their combined effect is a change of three per cent in Employee Commitment. Three per cent of the change in Bullying experienced is explained by lower levels of bullying among older pharmacists combined with increased bullying for locums. Other effects of being a locum are slight increases in Emotional Stress and MUR Strain. Older pharmacists experience slightly more Emotional Strain but are slightly less likely leave. Overall, the influence of demographics is small compared to the effect of the other variables in the model.

Direct and mediated effects

In Figure 2 the direct effects between the variables are shown. The regression weight numbers are shown on the arrows and represent the effect of the origin variable on the results of the target variable (the one the arrow points to) The larger the number the greater the causal influence between the variables e.g. a regression weight of .60 means the effect on the target variable's mean is a change of 60% of a standard deviation.

Table 1
Path regression weights for antecedents of turnover intentions

	LMS	MUR-Strain	Emp' Com'	Bullying	Emot' Stress	Turnover Intention
Gender	ns	ns	ns	ns	ns	ns
Locum?	30***	.06*	-.07*	.11**	.07*	ns
Tenure	-.13**	ns	.14**	ns	ns	ns
Age	-.06**	ns	ns	-.17***	.09**	-.09***
Demographics effect size	10%	1%	3%	3%	1%	1%
Lack of Man' Support		.64***	-.59***	.61***	.35***	Mediated
MUR Strain			-.19***	.21***	.15**	Mediated
Employee Commitment				Mediated	0	-.58***
Bullying					.40***	Mediated
Emotional Stress						.30***
Total effect size	10%	60%	58%	37%	58%	61%

Regression is statistically significant at <.05* <.005** <.000*** ns = non significant
Mediated = Effect is fully mediated (no significant direct effect)

The high regression weight numbers shown in Figure 2 from Lack of Management Support to MUR Strain (.64) highlight the central influence that the pharmacists' management and organisation have had in failing to support the needs and concerns of pharmacists in the introduction of MURs. The research findings indicate that many employers just expect more income generation from MURs and expect their line managers to push pharmacists to deliver these. The high regression weight (.61) from Lack of Management Support to Bullying indicates that bullying tactics are commonly used to achieve targets. This indicates that at best bullying is tolerated by the organisation and at worst is actively used to achieve MUR targets.

Next we see in Figure 2 that Employee Commitment is negatively influenced by a Lack of Management Support (-.59) with an additional negative influence through MUR Strain (-.19). Shown in the figure is the direct effect of Lack of Management Support (.35), MUR Strain (.15) and Bullying (.40) on the Emotional Stress of pharmacists. Detailed analysis shows that the mediated effect of a Lack of Management Support via MUR Strain and Bullying is .32. The overall predictive effect of Lack of Management Support's on pharmacists' Emotional Stress is strong (.67). Although there is no direct effect of Lack of Management Support on Turnover Intentions, detailed mediation analysis finds the total mediated effects of a Lack of Management Support via Employee Commitment, MUR Strain, Bullying and Emotional Stress is .63 making Lack of Management Support a strong predictor of Turnover Intentions.

DISCUSSION OF FINDINGS.

Anecdotal reports of the adverse effects of MURs from Community Pharmacists' are empirically confirmed by the survey's findings of a chain of strong adverse outcomes. Key is the lack of managerial support that is exerting a substantial adverse effect on pharmacists' job strain along with increasing bullying behaviour towards pharmacists. These have a substantial effect on the pharmacists' emotional stress, which in turn is likely to have negative health outcomes and sickness absence (Steers, 1997). The lack of management support and the increased MUR strain have the effect of substantially reducing pharmacists' commitment to their employer and their desire to quit the organisation. The combined effect of this chain of adverse consequences is an overall 60 per cent increase in pharmacists wanting to quit their place of work.

The original aims of MURs were to help rationalise and optimise medicines use, reduce waste and support patients in taking medicines through improving their understanding and compliance. These original aims of MURs required an autonomous pharmacist professional who has sufficient time available to discuss with patients their medicine use and answer their queries. To achieve this requires a supportive management who agree MUR targets with pharmacists that reflect the reality of pharmacy capacity restraints, or are willing to provide the extra capacity to achieve maximum MUR income. However, the paper's results show that such a supportive environment does not exist in the majority of cases. In many instances, management is going beyond a lack of support by using bullying behaviours towards pharmacists to achieve maximum MUR income. This behaviour represents an attack on pharmacists' professional autonomy as these line managers are effectively putting MUR targets ahead of consideration of the pharmacist's professional judgement of what is a workload level that can be achieved with reliable patient safety. The overriding conclusion is that the findings provide strong evidence that the many anecdotal reports related to MURs are valid. In addition, the paper highlights the potential serious adverse health outcomes for the emotional stress suffered by many pharmacists.

Implications for employers of pharmacists

For employers the findings indicate there will be an increase in organisational costs as a wide range of research shows those experiencing workplace bullying have reduced job satisfaction, emotional distress, illness, higher rates of absenteeism, higher turnover and lower productivity (Keashly & Jagatic 2003; Hoel et al. 2004; Leymann, 1996; Lutgen-Sandvik 2006; Wu, Yin, Kwan & Zhang 2011). In addition, there is the loss of motivation and engagement that lower employee commitment brings. Mowday et al. (1982) defined this type of employee commitment as the 'relative strength of an individual's identification with, and involvement in, a particular organization'. Thus, employees with low commitment are less likely to show a willingness to invest effort or internalise managerial values (O'Reilly & Chatman, 1991). Finally, the report indicates a strong wish for pharmacists to leave their employer, which brings extra organisational costs through increased recruitment and training costs and the lower initial productivity of new staff. (Meyer, Becker & Vandenberg, 2004; Smeek, Eisinga, Teelken & Doorewaard, 2006)

Recommendations

For practitioners the survey's results provide evidence for the profession to show there is a problem with the commercialisation of MURs that is not benefiting patients or pharmacists alike. The findings in this paper inform the PDA, Royal Pharmaceutical Society and the General Pharmaceutical Council, in giving their professional and regulatory input into discussion with the Government on changing MUR guidance and policy. The 'Francis' Inquiry (Francis, 2013) although primarily reporting into the sub-standard care of patients at Mid Staffordshire NHS trust, has sent a clear message across all sectors of healthcare that

performance targets do not lead to better patient care or health outcomes. The Pharmacy profession is no exception so there is a need to embed the principle recommendations of 'Francis' of putting patient safety first before commercial and organisational targets.

On a practical level, to do justice to the original purpose of the MURs, the 'ring-fencing' of timed appointments for assessment of medicines use by a second pharmacist would give a higher level of quality interaction between patient and pharmacist. Implementing the concept of the PDA's 'Roadmap' proposal (PDA, 2012) that aims for a second pharmacist would be a safer way to discuss medication with patients. This would allow the other pharmacist to concentrate on the dispensing and 'counter' sales.

Research implications

The paper aimed to advance organisation theory by combining known theory on bullying with exchange theory's findings on supportive management and employee commitment. The findings here show that bullying and employee commitment are related through the effect of bullying on work stain that in turn reduces commitment. However, although bullying and commitment are equally affected by lack of management support the effect of bullying which represents an extreme breach of exchange reciprocity on reducing commitment is smaller than expected. This suggests that the arguments of Tepper (2000) could be a valid reason for the smaller than expected influence of bullying on commitment. He found that employees abused by their supervisor fear further adverse outcomes and do not reciprocate by withdrawing discretionary effort (Hodson, 2010).

The results strongly support the proposition that consequences of poor interpersonal management go beyond the normally expected consequences of weak employee commitment because they create an environment in which bullying is more likely. The research shows that bullying research could be advanced if studied in a broader theoretical frame where established managerial constructs such as Leader Management Exchange (Epitopaki & Martin, 1999) and Perceived Organization Support (Rhoades & Eisenberger, 2002) are used to capture the managerial environment in which workplace bullying behaviours are possible and precipitated. The findings also suggest that research based on exchange theory, which has concentrated on the positive aspects could be enriched by considering adverse employee-organization/management exchanges and their outcomes such as workplace bullying.

The findings reported here use only part of the information collected in the survey, so future analysis can investigate the influence of MUR introduction on job satisfaction, engagement and the differences of experiences of MUR introduction by employer type (i.e. different supermarket and pharmacy chains). Also, there is a wealth of qualitative responses in the survey that can be content analysed to provide richer detail of the experiences and impact of MURs on pharmacists.

As with any research there are potential advantages and limitations. Firstly, the advantage of the SEM methodology is that if the model is based on prior theory and the tested model explains a substantial proportion of changes in the model then the causation paths in the theoretical model are proven. The model tested not only had strong causal chains but the parsimonious number of significant paths in the model are consistent with a strong explanatory causal model (Pearl, 2005 p 135-138). Secondly, there is the possible limitation of bias in the survey caused by a higher response rate from those who felt the most strain from the implementation of MURs. This could exaggerate the strength of the results reported here.

Conclusions

Overall, the set of adverse outcomes found in the analysis are not conducive to supporting the genuine, patient health centred delivery of MURs by pharmacists. The findings show a chain of adverse consequences from the implementation of MURs including reduced employee commitment, increased bullying, work strain, emotional stress and a substantial level of intentions to quit. The work strain and emotional stress of pharmacists can only erode their achievement of high levels of safe, quality care for patients. The findings provide a starting point for a cross profession debate to re-establish the original intention of the MUR, providing consultation with patients to identify and correct poor adherence to the correct use of medicines by using the pharmacists' professional knowledge to the full. For employers the findings show clearly that the way pharmacists are managed is in many cases unproductive as the financial gains from extra MUR income are being consumed through the extra organisational costs that arise from an unsupportive management style and bullying tactics that lower pharmacists' commitment, increase their stress and intentions to quit.

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APPENDIX

Factor analysis of questionnaire items loading on MUR Strain

Items	Factor loading
<i>MUR Strain Scale reliability 0.90</i>	
*The organisation considers my best interests and has placed demand on me for MUR service delivery that can be achieved with the resources I have.	.667
I feel the targets imposed to achieve MURs are excessive and unreasonable	.827
I am pressured to achieve MUR targets	.748
*My managers is willing to listen to my concerns related to performing MURs.	.801
*My manager values my contribution in performing MURS.	.798
*My manager respects my professional status and allows me autonomy in deciding how when to undertake MURs.	.672
*The organisation provides sufficient staff to support the service , while performing MURs	.630
Inadequate support from colleagues makes MUR delivery difficult to do.	.579
*I have a good working relationship with management that respects my opinions related to MURs	.647
There is poor communication and professional understanding from non-pharmacists management regarding MUR delivery.	.586
*Since the introduction of MURs my professional skills are better utilised.	.848
My role has changed for the worst since the introduction of MURs.	.839
There was insufficient communication and involvement in the implementation of the MUR service.	.661

* items were reverse coded.

Sample characteristics

Employment			Demographic data		
<u>Status</u>			<u>Gender</u>		
Locum (self employed)	211	37%	Female	318	55%
Employee	360	63%	Male	256	45%
Unknown	61		Unknown	58	
Total	632		Total	632	
<u>Tenure of employees</u>			<u>Age</u>		
Less than 1 year	55	11%	21-25	50	9%

1-2 years	69	19%	26-30	113	20%
3 years	40	11%	31-35	70	12%
4 years	31	9%	36-40	69	12%
5 years	34	9%	41-55	53	9%
6 years	19	5%	46-50	61	11%
7 years	15	4%	51-55	75	13%
8 years	17	5%	56-60	48	9%
9-10 years	12	3%	61+	27	5%
More than 10 years	83	23%	Missing	66	
Total	360		Total	632	

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