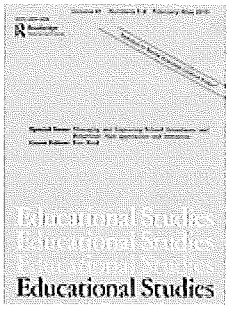

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Some possible effects of behaviour management training on teacher confidence and competence: evidence from a study of primary school teachers in Hong Kong

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This study aims to explore the relationships between the extent and perceived quality of teachers' experience of training in behaviour management (BM), and their awareness of the nature and extent of behavioural problems among school students, and their confidence in their own competence to deal with such problems. Teachers (n = 183) from Hong Kong primary schools were surveyed. The results showed that gender, age and whether teachers have received training had no significant influence on teachers' awareness, conception and confidence regarding BM. A negative correlation was found between teachers' levels of satisfaction in relation to their training experiences and their perceptions of the level of problematic behaviours among students, and the impact of students' problematic behaviour on their teaching. A positive correlation was found between teachers' levels of satisfaction in relation to their training experiences and their confidence in their own competence to deal with students' problematic behaviour.

Keywords: behaviour management; professional training; teacher confidence; teacher competence; Rasch measurement

Introduction

Studies of the effects of training in behaviour management (BM) have tended to focus on the relatively short-term effects of specific training programmes. This study is concerned with exploring the novel question of the relationship between the cumulative experience of training in BM (or lack of training in BM) over time and the possible impact of this on teachers' perceptions of the nature and extent of classroom behavioural problems, and their self-confidence in dealing them. The study took place in Hong Kong.

Background

It has long been recognised that a positive social climate, characterised by good order as well as harmonious and supportive social relationships, is a key feature of successful schools. This is strongly reflected in the "school effectiveness" (Rutter et al. 1979; Purkey and Smith 1983; Mortimore et al. 1988) and "school

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improvement" (Hargreaves and Fullan 2012) research literatures. Successful schools are places where staff and students work together cooperatively and harmoniously on challenging and sometimes stressful academic tasks, success in which is defined by rigorous achievement indicators. Schools also tend to be relatively large social organisations which, by necessity, have to be carefully structured and routinized in complex ways. For example, in state-funded mainstream schools in Hong Kong, actual class sizes averaged 28 in primary schools and between 30 and 33 in secondary schools and it is not unusual for individual schools to cater for as many as 1000 pupils or more at any one time (EDB 2012).

This means that schools are highly complex communities requiring careful regulation that ensures, at the very least, the safety of all its members as well as the efficient and effective pursuit of its educational goals. This situation is made all the more challenging by the fact that the pupils in Hong Kong, in common with those in all parts of the developed world, are compelled by law to be present in school. Evidence from various sources suggests that, in general, this element of compulsion tends to be more or less acceptable to students depending on the extent to which they place value on the goals and/or experience of formal education (Cooper and McIntyre 1996; Cooper et al. 2000), and/or the extent to which the school attendance provides them with rewarding social experiences (Reid 1986; Patterson, Reid, and Dishion 1992). Where students do not regard schooling as valuable they are likely to become disaffected and respond in one of three ways: (1) to withdraw (i.e. avoid attending school); (2) to externalise their disaffection (i.e. become uncooperative and/or disruptive) or (3) to internalise their disaffection (i.e. to be cognitively disengaged and to be passively non-compliant) (Cooper and Jacobs 2011a; Cooper, Bilton, and Kakos 2013). Where students view school primarily as a social activity (i.e. as an opportunity to interact with their friends), there is a danger that they may view formal curricular activities as irrelevant and disruptive to their socialising activities and actively challenge this perceived intrusion. Schooling as a purely social activity may also give rise to a sense of ownership of the school setting as a territory to be defended against the intrusion of other groups and/or individuals (e.g. rival gangs; ethnic minorities; and persons with disabilities), resulting in gang violence and bullying (Eisenbraun 2007).

Added to these potential difficulties is the often perceived mismatch between traditional ways of measuring educational success, dominant in mainstream schools, and the broader social, emotional and learning needs of students in general, and particularly those who may experience delays in their development and/or learning difficulties of one kind or another. In spite of ongoing efforts to meet needs of an increasingly diverse range of students, the emphasis on summative judgments of student performance tend to produce high levels of academic failure, which in turn contribute to social exclusion and disaffection (Trust 2010; Cooper and Jacobs 2011a). This problem is amplified in an educational climate that is increasingly influenced by narrowly focused league tables of student performance, such as PISA, which are being shown to have a significant impact on the thinking and prescriptions of educational policy-makers (Baird et al. 2011; Alexander 2012). This suggests that the challenge of promoting educational engagement for all students will be made increasingly difficult as schools in Hong Kong pursue the Hong Kong legislative council's policy of "Integrated Education" (IE). Whereby mainstream schools are required to cater for the social and educational needs of an increasingly diverse range of students (CSENIE 2012).

It is not surprising, therefore, that prominent among Hong Kong teachers' concerns are issues of "order and discipline" in their schools. Pang's (2004) study of teachers in Hong Kong (n = 554 from 44 schools) found strong associations between their job satisfaction and their degree of satisfaction with levels of "order and discipline" in their schools. These factors were also associated, though to a lesser degree, with their levels of commitment to teaching. In short, this evidence suggests that teachers are happier and work harder when they believe that they are working in a well-ordered environment. A further highly significant factor identified by Pang was teacher perceptions of "sense of community".

Community is perhaps most usefully defined in terms of a shared vision of what a group of people have in common and what it is they need to do, individually and collectively, in order to promote their collective best interests. Traditionally, in Hong Kong, schools were designed to group students according to common characteristics, especially: age, gender and ability. It has been argued that Hong Kong is a country where such segregation has reduced considerably in recent years, but persists to a greater degree than in many other countries (Wiseman 2008). The cumulative evidence has been taken to suggest that Hong Kong's adoption of an IE agenda (Forlin 2007; Forlin and Rose 2010; Forlin and Cooper 2013) may be placing a significant strain on the climate of order and discipline in some schools (CSENIE 2012). It is not surprising, therefore, that there is evidence to show that teachers in Hong Kong, in common with their counterparts in other countries (e.g. MacBeath et al. 2006), have raised concerns about the practical feasibility of catering for students with disabilities in mainstream classrooms (Chen, Jin, and Lau 2006) and the impact of this policy on order and discipline in schools.

A key feature of this area of concern is the adequacy of teachers' skills in relation to classroom and BM. As Chan, Chong, and Ng (2011) indicate, powerful evidence exists to suggest that training has an important role to play in the development of mainstream teachers' and other education professionals' knowledge, understanding and skills in relation to student behaviour. Numerous studies of programmes designed to raise staff awareness of the nature of social, emotional and behavioural problems and provide training in intervention strategies show that such programmes can improve teacher confidence and competence and lead to measurable improvements in student behaviour and educational engagement (Frolich et al. 2002; Marzocchi et al. 2004; Schiff and BarGil 2004; Rossbach and Probst 2005; Zentall and Javorsky 2007).

This is important, not least because of powerful evidence showing that social, emotional and behavioural problems are dynamic. In school settings, serious problems of this type can often be seen to emerge from mild and minor discipline problems which intensify when mishandled by teachers (Patterson, Reid, and Dishion 1992; Cooper et al. 2000). The incidence of such escalation is likely to increase in settings where students with special educational needs associated with social, emotional and or behavioural vulnerabilities are present (DES 1989; Molnar and Lindquist 1989; Cooper et al. 2000). This means that the quality of teachers' skills and understanding of classroom and BM is of vital importance.

There is a long tradition of research showing an association between aversive relationships with teachers, social, emotional and behavioural difficulties (SEBD) and educational failure (Hargreaves, Hester, and Mellor 1975; Tattum 1982; Cooper 1993; Myers and Pianta 2008). Conversely, teachers who show warmth, empathy and respect for students and create a nurturing environment are likely to prevent the

development of disruptive behaviour, and encourage positive self-regard and pro-social engagement among students; in contrast, teachers who do not possess these qualities are likely to provoke disruptive behaviour (Cooper et al. 2000; Lodge and Lynch 2003). However, as MacBeath et al. (2006) suggest teachers' good intentions have a limited impact in the absence of appropriate training and support.

Omoteso and Semudara (2011), in a paper on classroom management in Nigeria, claim that personal qualities may be sufficient to equip a teacher with the necessary abilities to be an effective classroom manager. They also refer to a "common belief" that "female teachers are less firm when it comes to management of classroom misbehaviours and may not be able to effectively manage the classroom as their male counterparts" (3). These authors also argue that teachers with longer service are likely to be more effective in classroom management than less experienced colleagues. It should be stressed, however, that the predominant view in the literature is that training is a major component in the development of teacher skills in this area.

The efficacy of behavioural, cognitive behavioural and systemic school-based interventions, for preventing and dealing with emotional and behavioural problems in schools is well evidenced (Poon-McBrayer and Lian 2002; Chan, Chong, and Ng 2011; Cooper and Jacobs 2011a, 2011b). Unfortunately, the use of such interventions in schools is limited. Results from a recent survey carried out in Hong Kong schools (n = 226) found that difficulties they experienced in dealing with emotional and behavioural problems in schools were cited by experienced teachers as making the implementation of a whole school approach to IE extremely difficult (Sin et al. 2011). The same study also noted concern among teachers about their lack of appropriate training in supporting learners presenting with the most challenging types of SEN, such as those associated with emotional, social and behavioural difficulties. Against this has to be placed a recent study which shows that some Hong Kong teachers, in both ordinary and special schools, whilst expressing concern at what they perceive to be an increase in the incidence of emotional difficulties and challenging behaviour, consider themselves to be effective in dealing with it and exhibit a sense of confidence in this respect (Chan, Chong, and Ng 2011). Having said this, the evidence presented in this study refers only to teachers' claims and perceptions and not their actual classroom behaviour.

In Hong Kong, the Education Bureau is well aware of the importance of training in the area of classroom and BM, and devotes considerable resources to in-service training for teachers in this area. People who are currently teaching in Hong Kong schools are likely to have experienced a wide variety of training courses in classroom and BM and approaches to disruptive behaviour. These include block release courses, whereby teachers are released from their schools for varying periods of time to undertake short courses at The Hong Kong Institute of Education (HKIEd) and various of the seven Universities in Hong Kong. This topic is also included in the undergraduate Initial Teacher Training (ITT) curriculum at HKIEd and in the short postgraduate ITT programmes that are available in Hong Kong. Teachers are also able to study the topic at postgraduate Diploma level, at Master's degree level and at Doctoral level. Over the years certain aspects of the pattern of provision have changed, with older members of the teaching profession having experienced different training opportunities from the younger colleagues, both in terms of the nature of the design of certain training programmes as well as their contents (Poon-McBrayer and Lian 2002; Chan, Chong, and Ng 2011).

In spite of this extensive commitment of time and money, little is known of the medium to long-term effectiveness of these different training experiences. The purpose of this study was to explore practising teachers' perceptions of the impact of their training experiences in BM on their current levels of confidence and competence in relation to BM. In particular, teachers were asked about their satisfaction with their experiences and the impact of these experiences on their confidence in relation to BM. They were also asked about their preferred BM approaches.

Central to this study is the intention to test key assumptions regarding the value of formal training in BM in influencing teachers' understanding of student behavioural problems; their confidence in dealing with these problems and the quality of their strategic choices in relation to BM.

The present study

Study aims

This study set out to explore the relationships between the extent and perceived quality of teachers' experience of training in BM, and their awareness of the nature and extent of emotional, personal, physical and social behavioural problems among school students, and their confidence in their own competence to deal with such problems in classroom. In addition to exploratory statistical analysis involving multiple regression, the authors also set out with four hypotheses, based on the literature review.

Hypotheses

(1) There would be a positive relationship between perceived quality of training (i.e. satisfaction) and teacher confidence.
(2) There would be a positive relationship between perceived quality of training (i.e. satisfaction) and teacher awareness of the nature and awareness of the nature and extent of emotional, personal, physical and social behavioural problems among school students.
(3) There would be a positive relationship between the extent of training and teacher confidence.
(4) There would be a positive relationship between the extent of training and awareness of the nature and extent of emotional, personal, physical and social behavioural problems among school students.

Method

A convenience sample of teachers (n = 183) from Hong Kong primary schools was recruited via schools engaged in various in-service teacher education programmes being run by a Higher Education Institution in Hong Kong. Among the participants, there are 41 (22.4%) males, 141 (77.0%) females and 1 (.5%) without gender information. The majority of participants have undergraduate degree (129, 70.5%); 41 (22.4%) have master or above qualification; 12 (6.7%) with certificate or diploma; and only 1 (.5%) did not provide qualification information. As for teaching

experience, 48 (26.2%) reported experience of 9 years or less; 62 (33.9%) have 10 to 19 years of experience; 43 (23.5%) report 20–29 years of experience; 10 (5.5%) have 30 years or more of experience; and 20 (10.9%) did not provide such information. It is important to note that the institution concerned is responsible for providing 80% of primary school teachers in Hong Kong and a high majority of the in-service training in BM.

Ethical approval for this study was granted by the HKIEd Research Ethics Committee. After informed consent was secured, these participants were surveyed with The Effects of BM Training Scale (adapted by the authors and colleagues) that is designed to collect data from eight domains: (1) demographic information; (2) experience of training related to BM (whether teachers have received training); (3) the level of their satisfaction with the training ranging from 1 (strongly dissatisfied) to 4 (strongly satisfied); (4) awareness of the nature of problematic behaviour of students (emotional, personal, physical and social) they experience in their classrooms (e.g. how often do the children they teach lack motivation to learn); (5) the perceived impact of problematic behaviour of students on teachers (that is, the extent to which teachers felt themselves to be negatively affected by student misbehaviour) (e.g. the extent to which the behaviour of the children they teach results in difficulty in maintaining the class programme); (6) their confidence in their own competence to deal with such problems in classroom (e.g. how much they can do to control disruptive behaviour in the classroom); (7) their BM strategies that we divided into positive and negative strategies, with positive strategies being defined as those with a substantial research evidence base (e.g. using praise and rewards), and negative strategies being defined as those often found in research studies to be associated with the exacerbation of classroom behavioural problems (e.g. using teacher's authority to threaten the child; and (8) further support they will seek when the behavioural problems are more than they can manage (e.g. seeking help from other professionals).

Data analysis

Rasch analysis (1960) was employed to calibrate the teachers' measures on the scales. Based on those Rasch-calibrated person measures, conventional analysis including t-test, ANOVA, correlation was then employed to address the research objective, i.e. to explore the relationships between the extent and perceived quality of teachers' experience of training in BM, their awareness of the nature and extent of behavioural problems among school students, and their confidence in their own competence to deal with such problems.

Rasch analysis is used before applying conventional analysis in order to avoid arriving at misleading conclusions by applying conventional analytical techniques directly to raw scores. Conventional analytical techniques based on classic test theory require interval scale data input (Wright 1997). However, raw data collected through Likert-type scales are usually ordinal, since the categories of Likert-type scales indicate only ordering without any proportional levels of meaning (Wright 1997; Bond and Fox 2007). The Rasch model can overcome this problem by converting ordinal data into interval measures and provide linear measurement from ordered category responses (Linacre 2006). Such interval measures can then be subjected to conventional analysis.

Results

Psychometric properties of the scales

The Rasch analysis was first employed to examine the psychometric properties of the scales. The criteria used to evaluate the quality of the scales included Rasch person/item reliability; item fit statistics; and the amount of variance explained by Rasch measures. Rasch reliability indicates the probability that persons (or items) estimated with high measures actually do have higher measures than persons (or items) estimated with low measures (Linacre 2006). Item fit statistics estimate the extent to which the empirical data match the model. Outfit and Infit mean squares (MNSQ) are widely used indices of item fit statistics. Researchers (e.g. Wright and Linacre 1994; Yan 2014) suggested that MNSQs falling in the range of .6–1.4 indicated a productive measurement for survey data with rating scales. This criterion was adopted as the cut-off value of MNSQ fit statistics in this study. Variance explained by Rasch measures refers to the proportion of variance in the observed data which can be explained by the item difficulties, person abilities and rating scale structures (Linacre 2006). The higher the proportion of variance explained, the better prediction the Rasch model provides. Table 1 summarises the psychometric properties of the nine scales used in the current study.

It can be seen from Table 1 that the nine scales have acceptable psychometric properties. Only three items, from APE, IMP and PMA, respectively, were removed due to misfitting to the Rasch model (MNSQ higher than 1.4). The Rasch item reliabilities for all scale are higher than .90 and the Rasch person reliabilities are all higher than .7 except NMA. A close investigation revealed that the five items in NMA were not well targeted at the respondents. Two items are too difficult to endorse by most of respondents, while the remaining three items did not separate the respondents in terms of their levels on the negative management skills very well. This scale could be improved in future studies by adding some items that are easier to endorse. The Rasch measures explained 45–65% of the variances in the data which is acceptable. The results indicate the appropriateness of the scales for use with the sample in the current study.

Table 1. Psychometric properties of measurement scales.

Scale	Abbr.	No. of Items	Rasch person/item reliability	Variance explained by measures (%)
Confidence in BM	CBM	4	.83/.93	65.2
Awareness of emotional misbehaviour	AEM	9	.78/.98	45.2
Awareness of physical misbehaviour	APH	8	.82/.98	53.4
Awareness of personal misbehaviour	APE	9	.84/.98	54.4
Awareness of social misbehaviour	ASO	6	.69/.96	52.7
Impact	IMP	4	.73/.97	56.2
Positive management	PMA	11	.75/.99	48.5
Negative management	NMA	5	.51/.99	53.0
Further support	FSU	5	.78/.93	50.8

The effects of demographic factors on teacher responses to scales

The first issue to be dealt with was the effects of gender and training experience on teachers' BM since they were proposed by Omoteso and Semudara (2011) as being potentially significant factors in teachers' BM competency. *T*-test was conducted on Rasch-calibrated person measures to examine the difference between male and female teachers; and between teachers with and without BM training on different dimensions in the scale. The results (see Table 2) show that gender and whether teachers have received training had no significant impact on teachers' responses to all scales.

ANOVA was conducted to check the effects of age, teaching experience and qualifications on teachers' responses to different scales. The results are presented in Table 3.

As shown in Table 3, teaching experience has no significant effect on any of the scales except NMA: that is, teachers with more teaching experience indicated a greater tendency to employ unproductive and exacerbating strategies than less experienced colleagues. The effect of age was statistically significant on IMP ($p < .05$) and NMA ($p < .05$). *Post hoc* comparisons indicated that the youngest group (aged between 20 and 29) had significantly lower measures on IMP than their older peers. The effect of qualifications was statistically significant on PMA ($p < .05$). *Post hoc* comparisons indicated that teachers with certificate or diploma had significantly lower measures on PMA than teachers with higher qualifications (degree, master or above).

The correlations between characteristics of training, teachers' satisfaction with training and teachers' responses to scales

Using the group of teachers who had received BM training as the sample ($N = 40$), correlations were calculated between the characteristics of their training experiences (e.g. the highest level of training (HLT); total length of training (TLT); the elapsed time since last experience of training (ETT); teachers' satisfaction with training (SAT)) and teachers' responses to the scales. The results are presented in Table 4.

Table 2. *T*-test between male and female teachers, and between teachers with and without BM training.

	Gender			Training experience		
Scale	Male ($N=41$)	Female ($N=141$)	p for t test	With training ($N=40$)	Without training ($N=143$)	p for t test
CBM	1.80	1.88	.848	2.53	1.67	.074
AEM	−2.85	−2.95	.697	−2.90	−2.95	.844
APH	−2.07	−2.29	.578	−2.58	−2.16	.293
APE	.41	.58	.624	.52	.53	.974
ASO	−1.33	−1.31	.967	−1.19	−1.37	.676
IMP	−2.34	−2.49	.741	−2.48	−2.48	.988
PMA	1.11	1.31	.316	1.46	1.21	.192
NMA	−.51	−.71	.219	−.56	−.69	.402
FSU	−.43	−.20	.526	.16	−.41	.129

Note: All measures are in logits.

Table 3. *p* values of the main effect of age, teaching experience, qualifications.

	p value of ANOVA		
Scales	Age	Teaching experience	Qualifications
CBM	.247	.619	.118
AEM	.647	.979	.239
APH	.915	.611	.516
APE	.571	.685	.069
ASO	.222	.926	.309
IMP	.047*	.061	.489
PMA	.398	.523	.013*
NMA	.048*	.033*	.251
FSU	.304	.655	.256

*$p < .05$.

As shown in Table 4, there is no significant correlation between the characteristics of training and teachers' responses to scales except a positive correlation ($r = .475, p < .05$) between TLT and teachers' responses to the scale FSU.

However, teachers' satisfaction with trainings they have received, SAT, is found to have significant relations with their responses to many scales. There is a significant positive correlation ($r = .458, p < .01$) between teachers' SAT and CBM. Negative correlations are found between teachers' SAT and teachers' awareness of misbehaviour of children including APH ($r = -.396, p < .05$) and APE ($r = -.391, p < .05$). Negative correlations are also found between teachers' satisfaction with training and their perceived impact of children's misbehaviour on themselves (IMP) ($r = -.448, p < .01$), and further support (FSU) ($r = -.326, p < .05$). In other words, the more satisfied teachers were with their training, the more confident they were about their BM competence; the less frequently they labelled students' physical and personal misbehaviour; the less they experienced negative impact from students' misbehaviour; and the less frequently they sought help from others due to students' misbehaviour.

Most challenging problems

Teachers were asked to identify five problems which they regard as the most difficult to manage from all misbehaviours listed in the scale. Table 5 presents the most challenging problems perceived by teachers with and without BM training.

There is substantial overlap between the choices of the two groups of teachers. Four out of five challenging problems are the same with slightly different order for the two groups. The problem "Make offensive noises (shouting, calling out, screaming, talking back)" ranked 4 for teachers with training is ranked six for teachers without training. There are, however, some special cases. For example, the "Has no friendships with peers", which is no. 4 challenging problems for teachers without training, is ranked as no. 20 by teachers with BM training.

Discussion

Gender and age

The finding that gender and teaching experience have no significant effect on nearly all the scales is consistent with the general trend in the literature which tends to emphasise the primacy of specific skills over such personal characteristics. The

Table 4. Correlations between the characteristics of training, teachers' SAT and teachers' responses to scales.

	A	B	C	D	E	F	G	H	I	J	K	L	M
A. HLT	—												
B. TLT	.442*	—											
C. ETT	.268	.373	—										
D. SAT	−.040	−.038	.107	—									
E. CBM	−.017	−.023	−.188	.458**	—								
F. AEM	−.199	.284	.324	−.168	.130	—							
G. APH	−.194	.213	.069	−.396*	−.073	.742**	—						
H. APE	−.068	.330	.166	−.391*	−.151	.680**	.777**	—					
I. ASO	−.168	−.076	.235	−.267	−.071	.384*	.660**	.707**	—				
J. IMP	−.074	.318	.197	−.448**	−.297	.525**	.537**	.536**	.297	—			
K. PMA	−.297	.120	.065	−.113	−.035	.259	.295	.538**	.331*	.218	—		
L. NMA	−.044	.379	.133	−.357*	−.186	.233	.360*	.469**	.310	.317*	.549**	—	
M. FSU	−.070	.475*	.328	−.326*	−.130	.260	.269	.407**	.101	.285	.532**	.541**	—

*$p < .05$; **$p < .01$.

Table 5. The most challenging problems perceived by teachers.

	% of participants who selected
Teachers with training (N=40)	
1. Lack motivation to learn	55
2. Refuse to follow instructions (disobey the class rules, challenge teachers' instruction, constantly tell the parents "No" etc.)	35
3. Lack ability to concentrate in the class/school	35
4. Make offensive noises (shouting, calling out, screaming and talking back)	30
5. Have angry outbursts or temper tantrums	30
Teachers without training (N= 143)	
1. Lack motivation to learn	52
2. Lack ability to concentrate in the class/school	43
3. Refuse to follow instructions (disobey the class rules, challenge teachers' instruction and constantly tell the parents "No" etc.)	26
4. Has no friendships with peers	22
5. Have angry outbursts or temper tantrums	21

finding that length of service is associated with "negative management" is, however, interesting. Whilst it is important to treat this finding with caution owing to low reliability of the negative management scale (see above), when considered in relation to the finding that age was also statistically significant ($p < .05$) in relation to the "Impact" of students' negative behaviour on teachers interesting possibilities emerge. This might be taken to suggest that teachers' emotional resilience, amongst this sample, had a tendency to diminish over time. This possibility is supported by the finding that the youngest group (aged between 20 and 29) experienced significantly lower levels of personal "Impact" than their older peers, indicating a higher level of emotional resilience. This may be an indication of the phenomenon of teacher "burnout" (Howard and Johnson 2004), which is characterised as severe psychological distress which often appears after prolonged exposure to highly stressful work environments. For teachers, high among the sources of stress are working with poorly motivated students and the strain of maintaining discipline (Kyriacou 2001; Behan and Blake 2014). It is highly likely that burnout can be a moderator of the effects of BM training, as well as being a possible source of impairment to the utilisation of skills. This suggests that where teacher burnout is an issue, the effectiveness of training in the absence of direct intervention for burnout is likely to be diminished.

Qualifications and training

The finding that level of qualifications was statistically significant on dimension "Positive management" ($p < .05$) and the finding that teachers with certificate or diploma had significantly lower measures on "Positive management" than teachers with higher qualifications (undergraduate, masters' degree, master or above) suggests the importance of continuous award-bearing professional development. This suggests the importance of high-level academic training and is consistent with concerns expressed by newly qualified teachers that pre-service training alone is, on its own, an inadequate preparation for challenges associated with BM and SEBD (Garner 2013). Whilst this argument is often used as a basis for arguing for better

quality and more extensive pre-service training, it also draws attention to the developmental nature of professional learning.

It is widely agreed that professional, as opposed to purely theoretical learning emerges from reflection in and on practice (Schön 1983). One way of thinking about teaching from this perspective is through the lens of the concept of teachers' craft knowledge (Desforges and McNamara 1979; Brown and Donald 1993; Cooper and McIntyre 1996). This posits that teachers learn the "craft" of teaching over time through a cumulative process of practical problem-solving in which may draw on many sources including personal reflection, interaction with professional peers and formal teacher education programmes. This would appear to chime with the finding in the current study that there was a positive correlation ($r = .475$, $p < .05$) between "TLT" and teachers' responses to the scale "further support". This shows that teachers with the highest levels of training were more likely to seek the support of specialist colleagues, which implies knowledge of the limits to the scope of their skills as well awareness of the availability of appropriate support.

Teacher satisfaction

Teachers' satisfaction with the training they have received was found to have significant associations with their responses to many of the sub-scales, including "Confidence in BM" ($r = .458$, $p < .01$). This indicates a strong association between satisfaction and the effectiveness of training (from the teachers' perspectives). Furthermore, negative correlations were found between teachers' SAT and teachers' awareness (i.e. experience) of the misbehaviour of children including Physical ($r = -.396$, $p < .05$) and Personal ($r = -.391$, $p < .05$). This suggests that teachers who were satisfied with their BM training experienced fewer classroom behavioural problems than their less satisfied peers. Again, this may point to the effectiveness of the training in providing these teachers with necessary skills. Also, the negative correlations between teachers' satisfaction with training and their perceived impact of children's misbehaviour on themselves ($r = -.448$, $p < .01$), and their needs for further support ($r = -.326$, $p < .05$) also suggest a possible positive impact on their ability to manage behavioural problems effectively.

Most common BM challenges

The findings indicate substantial overlap between teachers with and without BM training when it comes to identifying the five most challenging BM challenges that they experience. A majority of teachers in both groups rate students' "lack of motivation to learn" as the common problem. Teachers without training cite students' lack of ability as the second most common problem, whilst this is third among teachers with BM training. "Refusal to follow instructions" is third among teachers without BM. Fourth among this group is "students without friendships with peers". Whilst fourth for the teachers with BM is "students making offensive noises". Both groups list students' behaviour "tantrums" as fifth most common problem. These differences appear negligible for the most part. However, a tentative observation might be that the inclusion of "students without friendships with peers" in the no-training group's list indicates the influence of the perceived negative student peer group being seen as creating difficulties. This might be taken to indicate problems with group management, which is a core skill of BM.

Conclusion

This is a relatively small-scale study, but the first of its kind to be carried out in Hong Kong. It is important to stress the fact that the study focuses solely on teachers' perceptions, and does not deal in detail with the content, quality and format of the training received by participants. In this sense, the study is best seen as a preliminary to more detailed investigation. With these limitations in mind the study can be claimed to provide some interesting findings that make a useful contribution to the literature on the management of behaviour in schools in Hong Kong that are likely to resonate and give rise to reflection on similar issues in other contexts.

Of general significance is the provision of evidence for the psychometric properties of the effects of BM training scale. We have shown that this scale, originally devised by Professor Chris Forlin at the HKIEd, has satisfactory psychometric properties from the perspective of Rasch measurement.

Substantive findings of the study have shown that, in the sample studied, there was a strong relationship between satisfaction with training received and perceptions of confidence. Clearly, satisfaction alone is not a sufficient effectiveness indicator in relation to course quality. In this study, however, it was shown that satisfaction with training, as well as extent of training was associated with the use of positive BM strategies and the perception of experiencing relatively lower levels of BM problems. Lack of training, on the other hand, indicated possible deficiencies in group management skills. Satisfaction was also associated with confidence in relation to BM. This is a very important finding, since lack of confidence in relation to BM is in itself a negative obstacle to effective BM. Having said this, the relationship between age/length of service on the use of negative (i.e. problem promoting) strategies and personal impact of BM problems may indicate that teacher burnout is a moderating factor in the effectiveness of BM training, and that the emotional well-being of teachers, especially those who are more further along in their careers, has to be taken into account when addressing their needs in relation to BM.

This study paves the way for more detailed studies of the relationship between teachers' specific experience of BM training and the classroom performance of teachers. An important way forward would be to explore teacher perceptions in greater depth through interviews, and to triangulate these perceptions with observational data.

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