

The effectiveness of staff training focused on increasing emotional intelligence and improving interaction between support staff and clients

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Abstract

Background Recent research addressed the relationship between staff behaviour and challenging behaviour of individuals with an intellectual disability (ID). Consequently, research on interventions aimed at staff is warranted. The present study focused on the effectiveness of a staff training aimed at emotional intelligence and interactions between staff and clients. The effects of the training on emotional intelligence, coping style and emotions of support staff were investigated.

Method Participants were 214 support staff working within residential settings for individuals with ID and challenging behaviour. The experimental group consisted of 76 staff members, 138 staff members participated in two different control groups. A pre-test, post-test, follow-up control group design was used. Effectiveness was assessed using questionnaires addressing emotional intelligence, coping and emotions.

Results Emotional intelligence of the experimental group changed significantly more than that of the

two control groups. The experimental group showed an increase in task-oriented coping, whereas one control group did not. The results with regard to emotions were mixed. Follow-up data revealed that effects within the experimental group were still present four months after the training ended.

Conclusions A staff training aimed at emotional intelligence and staff-client interactions is effective in improving emotional intelligence and coping styles of support staff. However, the need for more research aiming at the relationship between staff characteristics, organisational factors and their mediating role in the effectiveness of staff training is emphasised.

Keywords challenging behaviour, coping, emotional intelligence, emotions, intellectual disabilities, staff training

Introduction

Research regarding individuals with intellectual disabilities (ID) conducted the last decades has shown the importance of aiming at interpersonal relationships of clients in order to investigate or

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improve quality of life (Schalock & Verdugo 2002; Hastings 2010; Asselt-Goverts *et al.* 2014). Additionally, the role of support staff in the social network of people with ID is more and more recognised (Verdonschot *et al.* 2009; Asselt-Goverts *et al.* 2013). Individuals with ID often heavily depend on support of their support staff. Because people with ID are more prone to develop forms of challenging behaviour (CB) than people without ID (Wallander *et al.* 2003), support staff are often confronted with CB, such as aggressive behaviour. Staff members dealing with CB often implement interventions that appear to reinforce maintenance of CB (Hastings & Remington 1994; Hastings 1995). For instance, clients who show CB often gain attention from their staff, which serves as a reinforcer (Lambrechts *et al.* 2010).

Challenging behaviour of clients often causes emotional reactions in support staff, such as fear, anger and annoyance (Bromley & Emerson 1995; Hastings 1995; Hatton *et al.* 1995). These negative emotional reactions may, in turn, lead to higher levels of stress and burnout (Jenkins *et al.* 1997; Rose *et al.* 2004). Emotional reactions may also negatively affect staff behaviour. Staff who feels threatened by a client's CB will most likely react inadequately to the behaviour (Allen & Tynan 2000). More specifically, within residential facilities where staff reported low levels of stress, higher levels of support and more positive staff-client interactions were found (Rose *et al.* 1998).

Staff behaviour

Research on interpersonal style has shown that support staff who are confronted with CB are less friendly and more controlling than staff working with clients who do not exhibit CB (Willems *et al.* 2013). Also, staff who experience more negative emotions when working with clients show more hostile and controlling styles (Zijlmans *et al.* 2012). These phenomena expressed themselves over the past few years in dreadful events that occurred within health services for people with ID and CB. For instance, in 2011 national media in the United Kingdom revealed that clients staying in a residential facility suffered from physical and psychological abuse by support staff. In the same year, a Dutch television program showed shocking images

of a young man with mild ID living in a residential facility in the Netherlands, being tied up to the wall of his bedroom. These are just two examples among many others revealing the powerlessness that staff experiences in working with people who show severe forms of CB. Thus, support staff working with clients with ID and severe forms of CB are in dire need of more adequate interaction and coping styles to deal with these behaviours.

Individual characteristics of staff

Although research increasingly aims at staff emotions and well-being related to client characteristics, staff psychological factors and organisational factors, little research has been conducted with respect to staff characteristics and individual differences related to CB, emotions and stress. An important factor that has been subject of a number of psychological studies and that addresses staff characteristics is coping. Lazarus & Folkman (1984) defined coping as the 'cognitive and behavioural efforts a person makes to manage demands that tax or exceed his or her personal resources' (Lazarus 1995, p. 6). Two main coping strategies can be distinguished: problem- or task-oriented coping (aimed at resolving or changing the problematic situations) and emotion-oriented coping (focused on managing the emotions one experiences as a result of a stressful situation). Coping can be seen as a mediator in the relationship between a stressful situation and the emotional outcome within an individual. Devereux *et al.* (2009), for instance, suggested that wishful thinking mediates the relationship between demands and emotional exhaustion.

Rose *et al.* (2003) emphasised the importance of personality when developing a model incorporating staff variables, such as coping strategies and general well-being. An association between personality traits and coping strategies was found. Gerits *et al.* (2004) found that individuals using a task-oriented coping style, showed lower levels of burnout. In addition, Chung & Harding (2009) showed a clear relationship between personality traits as extraversion and levels of burnout and well-being of staff. Glidden *et al.* (2006) investigated the associations between coping styles, personality and well-being of parents

with children with ID. Again, neuroticism was found to be positively related to emotion-oriented coping strategies.

Emotional intelligence of staff

An important factor that addresses personal style and individual differences is emotional intelligence (EI). Emotional intelligence can be defined as ‘... an array of emotional, personal and social abilities and skills that influence an individual’s ability to cope effectively with environmental demands and pressures’ (Bar-On *et al.* 2000, p. 1108). The Bar-On model of EI consists of the following factors: intrapersonal abilities, interpersonal capacities, stress management, adaptation skills and general mood (Bar-On 1997). EI is of influence on general functioning and well-being of individuals (Mayer *et al.* 2001; Gerits *et al.* 2004, 2005). Van der Zee *et al.* (2002) found that EI predicted a significant amount of variance in academic and social success. Research conducted by Matthews & Zeidner (2000) revealed that EI affects the selection of coping strategies in demanding and challenging situations, for instance situations in which staff have to deal with CB of clients. In addition, another study found a significant relationship between higher levels of EI and the use of an adequate coping style (Gerits *et al.* 2004). Translating the EI model to care, Birks & Watt (2007) proposed that EI could affect patient-centred care, in which the ability to understand emotions of one self and one’s client is crucial. Finally, research on EI has shown that this construct is trainable (Freedman 2003; Zijlmans *et al.* 2011). For instance, Wasseveld *et al.* (2007) showed that an EI-training lead to increased EI among participants. Slaski & Cartwright (2003) found that a training for managers focusing on EI, resulted in increased well-being and reduced subjective stress experiences of managers. These findings imply that EI-training for staff working with clients with ID and CB could lead to decreased levels of stress and negative emotions. Unfortunately, the effects of EI training on the long term are not available. Summarised, EI is a broad and useful construct related to training of support staff working with individuals with ID and CB, especially seen in the light of recent negative incidents in the United

Kingdom and the Netherlands that address the need for more compassion focused care for these clients.

The current study

Considering the described examples of staff not being able to handle CB in an adequate manner, research on interventions aimed at staff is warranted. A meta-analysis on the effectiveness of staff training showed the importance of a careful selection of training goals, such as the training format and the techniques being used to improve knowledge and skills of staff (Van Oorsouw *et al.* 2009). Additionally, the most effective training method is a combination of in-service training and coaching-on-the-job. An example of coaching on the job is providing video feedback on staff-client interactions, which has shown to improve behaviour of support staff and clients (Embregts 2002, 2003).

The current study focuses on the effectiveness of a staff training aimed at EI and interactions between staff and clients with ID and CB. The training consists of elements of in-service and coaching-on-the-job methods. Based on previous research, we hypothesise that the training has a positive effect on EI, coping and emotions of support staff. The following research questions will be answered in the present study:

- 1 Does the training improve EI levels of support staff?
- 2 What is the effect of the training on coping styles of support staff?
- 3 What is the effect of the training on levels of emotions experienced by support staff?

Method

Participants

Participants were 214 support staff (153 women, 61 men) affiliated with four Dutch residential treatment facilities for children, adolescents and adults with moderate to borderline ID and CB. The age of the participants ranged from 19 to 61 years (mean = 32.6 years, SD = 9.2). The average number of years of working experience with clients with ID and CB ranged from two months to 37

Table 1 Descriptive statistics of participant groups

| Organization | Experimental group (N = 76) | | | | Control group 1 (N = 71) | | | | Control group 2 (N = 67) | | | |
|--------------------------|-----------------------------|-------|-------|-------|--------------------------|-------|--------|-------|--------------------------|-------|-------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Gender | | | | | | | | | | | | |
| Women | 20 | 13 | 14 | 9 | 10 | 15 | 11 | 13 | 6 | 14 | 12 | 16 |
| Men | 4 | 4 | 3 | 9 | 7 | 4 | 7 | 4 | 3 | 2 | 6 | 8 |
| Age | | | | | | | | | | | | |
| M | 34.83 | 33.65 | 28.24 | 34.22 | 33.71 | 32.00 | 33.17 | 31.53 | 43.56 | 27.63 | 30.89 | 33.75 |
| SD | 10.48 | 11.81 | 5.30 | 10.70 | 9.14 | 8.31 | 6.07 | 6.81 | 10.08 | 4.41 | 7.02 | 16.40 |
| Work experience (months) | | | | | | | | | | | | |
| M | 109.41 | 86.82 | 73.06 | 56.65 | 122.21 | 87.37 | 105.67 | 71.94 | 186.00 | 55.56 | 80.56 | 86.57 |
| SD | 111.53 | 64.03 | 54.05 | 13.35 | 111.68 | 62.51 | 60.95 | 54.26 | 140.71 | 52.99 | 60.14 | 111.80 |

years (mean = 7.7 years, SD = 7). Descriptive statistics of participants for each residential facility are presented in Table 1.

Procedure

The experimenter first obtained permission from the management of the organisations to conduct the research. In addition, the scientific and ethic board of one of the participating facilities authorised the experimenter to collect the data and implement the training program. Managers were provided with information about the main goals of the research project and they selected teams in which support staff served clients with severe CB. According to the guidelines of the British Royal College of Psychiatrists 'Behaviour can be described as challenging when it is of such an intensity, frequency or duration as to threaten the quality of life and/or the physical safety of the individual or others and is likely to lead to responses that are restrictive, aversive or result in exclusion' (BPS/RCP/RCSLT 2007, p. 10). This definition was used as a criterion to base the selection of teams on. Furthermore, the selection was not based on motivation of teams, but on team stability to ensure that most of the staff members would complete the whole study. Within these teams staff members were selected randomly to participate in the experimental group. The remaining staff members of these teams participated in control group 1. To investigate the effects of the training program on the staff members more thoroughly, a second control group was formed by

selecting other teams in which none of the staff members participated in the training. These teams were also selected by managers of the participating organisations.

Participating support staff completed questionnaires before the start of the training and directly after the training ended. In addition, about 65% of staff in the experimental group completed the questionnaires again four months after the training ended.

Intervention

The training is described in detail by Zijlmans *et al.* (2011). In this study the training is described briefly. The main aim of the program was to improve EI and staff-client interactions by using two methods: Verbal feedback on individual Emotional Quotient-inventory (EQ-i) profiles and video-feedback on staff interacting with clients.

Prior to the start of the training support staff selected one client with whom they experienced difficulties in the interaction. The training was provided by professional trainers specialised in emotional intelligence, staff-client interactions and providing staff with feedback. The first one and a half day consisted of in-service, didactic training sessions focused on the concept of EI and its significance for both profession and teamwork. It included extensive information on the five domains of EI (Bar-On 1997), the role of EI in daily life, an explanation of the Bar-On EQ-i and the meaning of scores. Most important, staff received feedback on

their own EQ-i profile. Each staff member formulated two developmental goals related to the needs of the client they selected.

Video feedback was provided during group sessions. Prior to the start of the training, staff made video recordings of themselves interacting with the selected client. Interaction between staff and clients was reviewed and related to the EQ-i scores and developmental goals of staff during six training sessions of 90 minutes. The staff and trainer viewed the video recording, and the staff member being observed was first asked to comment. Then the trainer and the participant related the staff behaviour to the EQ-i profile of the staff member. Four months after the first training session staff members received feedback on their new EQ-i profiles in a group session.

Measures

Emotional intelligence

The Dutch version of the widely used Bar-On EQ-i (Bar-On 1997) was used to measure EI of staff. This questionnaire contains five scales concerning intrapersonal abilities, interpersonal skills, adaptability, stress-management capacities and general mood. These domains are divided in sub-scales containing 133 items using a five-point Likert scale with response categories ranging from 1 (very seldom true or not true of me), 2 (seldom true of me), 3 (sometimes true of me), 4 (often true of me), to 5 (very often true of me or true of me). Several studies found support for a good reliability and validity of the EQ-i (Bar-On *et al.* 2000; Dawda & Hart 2000; Reiff *et al.* 2001). The EQ-i measures a broad range of related emotional constructs (Bar-On 1997; Derksen *et al.* 2002). The mean Cronbach alpha coefficients for the sub-scales ranged from 0.69 to 0.86. The internal consistency of the pre-test EQ-i scores (total EQ-i) in this study was excellent ($\alpha = 0.87$). In addition, it should be noted that the EQ-i consists of three validity scales: inconsistency index, positive impression scale and negative impression scale. We choose to delete EQ-i's with a score higher than 12 on the inconsistency index and scores higher than 130 on the positive or negative impression scale from the data-analyses, because these EQ-i's can be viewed as invalid.

Emotional reactions

The Emotional Reactions to Challenging Behaviour Scale (ERCBS, Mitchell & Hastings 1998; Jones & Hastings 2003) was used to measure experienced emotions of support staff. This questionnaire focuses on emotions staff members experience when dealing with CB of their clients. The questionnaire was translated into Dutch and checked by a native speaker. The scale comprises 23 4-point Likert items with response categories from 0 (no, never), 1 (yes, sometimes), 2 (yes, frequently) to 3 (yes, very frequently). Staff have to rate to what extent they experience certain emotions when confronted or dealing with CB. The questionnaire is composed of four sub-scales, namely: confident/relaxed, cheerful/excited, fear/anxiety, and depression/anger. Examples of emotions named in the instrument are 'helpless' and 'disgust'. The sub-scales with regard to negative emotions have a high internal consistency and a good test-retest reliability (Mitchell & Hastings 1998). The internal consistency of the sub-scales referring to positive emotions has also shown to be good (Jones & Hastings 2003). The Cronbach's alpha values found in this study indicated a sufficient to good internal consistency, with alphas ranging from 0.69 to 0.79. Scores on items belonging to one sub-scale were averaged to obtain sub-scale scores.

Coping styles

To measure coping styles used by staff members, a Dutch version of the Coping Inventory for Stressful Situations (CISS, Endler & Parker 1999) was used. This instrument is based on the coping theory of Lazarus & Folkman (1984, 1987), who have defined coping as a conscious response to stressful or negative situations and proposed a model which distinguishes between to coping functions, namely problem-focused responses and emotion-focused responses. Other studies have shown a third function of coping which concerns a more avoidance-based coping strategy, for example, seeking social support or focusing on an alternative task. The questionnaire contains 48 items which address three coping strategies (task-, emotion-, and avoidance-oriented coping) and describe to what extent individuals use certain behaviours to deal with stressful or negative situations. An example of an item is

'Come up with several different solutions to the problem'. Endler & Parker (1994) found strong support for the multidimensionality and a good construct and concurrent validity of the CISS. Psychometric properties were identified as very good in several samples, the internal consistency of the three sub-scales ranged from $\alpha = 0.76$ to $\alpha = 0.92$. In this study, the internal consistency for the sub-scales was found to be good to excellent with alpha values ranging from 0.83 to 0.9. In order to obtain sub-scale scores all scores on items belonging to a sub-scale were averaged.

Design and analyses

A pre-test, post-test, follow-up control group design was used to determine the effectiveness of the training program. Prior to the start of the training program and shortly before the last training session staff was asked to complete the Bar-On EQ-i. Staff received feedback on their EQ-i profile during the last training session. Measures with regard to coping styles and experienced emotions were completed before the start of the training and after the training. For all sub-scales of each of the completed questionnaires, difference scores between the post-test and pre-test scores were calculated and used for the analyses. Overall summary statistics for each group are presented in Table 2.

Results

In this section the effectiveness of the training program on EI, coping and emotions is described. Mauchly's test was used to investigate sphericity of the data. When the results of Mauchly's test were significant, Greenhouse-Geisser was used to determine effects. Post-hoc tests were always Bonferroni corrected. Furthermore, analyses for each questionnaire were conducted on participants who completed both pre- and post-test: 146 support staff completed pre- and post-tests of the EI; 168 completed the CISS, and 159 the ERCBS. Stability of the effects in the experimental group were investigated by comparing follow-up scores with pre- and post-test scores, with a total of 45

support staff completing EI questionnaires, 46 the CISS, and 51 the ERCBS. Mean scores are presented in Table 2.

The effect of the training on EI

To determine the effect of the training on EI, a 3 (condition: experimental group vs. control 1 vs. control group 2) \times 4 (organisation) \times 5 (EQ-i scale: intrapersonal EQ vs. interpersonal EQ vs. stress management vs. adaptation vs. general mood) MANOVA was performed on the mean difference scores of the support staff on the five EQ-i sub-scales. Condition and organisation were both treated as between-subjects factor. Mean scores are presented in Fig. 1.

None of the interaction effects reached significant levels. The main effect of organisation was not significant either ($F < 1$). The main effect of condition was significant ($F_{2,134} = 4.92$, $P < 0.01$) as well as the main effect of scale ($F_{3,4,455.2} = 3.61$, $P \leq 0.05$). Post-hoc tests revealed that the mean change of the experimental group was significantly higher than that of control group 1 ($P < 0.05$) and of control group 2 ($P < 0.01$), whereas the difference between control group 1 and control group 2 was not significant. Mean scores on intrapersonal EQ were significantly higher than those on interpersonal EQ ($P < 0.05$) and on stress management ($P < 0.01$). Scores on the adaptation scale were significantly higher than on stress management ($P < 0.01$). Finally, scores of general mood were significantly higher than those of stress management ($P < 0.05$).

To investigate the stability of the effects in the experimental group, a repeated measure analysis was conducted on the pre-test, post-test, and follow-up scores. The main effect of intrapersonal EQ was significant ($F_{2,44} = 11.5$, $P < 0.001$). Post-hoc tests revealed that significantly higher post-test were than pre-test scores ($P < 0.01$) and follow-up scores ($P < 0.01$). The main effect of interpersonal EQ was also significant ($F_{2,44} = 6.0$, $P < 0.01$). Scores on the follow-up were significantly higher than on the pre-test ($P < 0.01$). The main effect of stress management was also significant ($F_{2,44} = 8.07$, $P < 0.01$). Post-hoc tests revealed significantly higher scores on the post-test than on the pre-test ($P < 0.01$) and the follow-up test ($P < 0.05$). The main effect of adaptation sub-scale was significant

Table 2 Summary statistics of participant groups

| | Experimental group | | | Control group 1 | | Control group 2 | |
|---------------------------|--------------------|-----------|-----------|-----------------|-----------|-----------------|-----------|
| | Pre-test | Post-test | Follow-up | Pre-test | Post-test | Pre-test | Post-test |
| Intrapersonal EQ | | | | | | | |
| M | 103.7 | 110.5 | 111.3 | 103.6 | 106.0 | 106.4 | 107.3 |
| SD (<i>n</i>) | 14.1 (68) | 13.5 (65) | 13.0 (54) | 10.5 (66) | 10.6 (51) | 12.1 (58) | 10.2 (41) |
| Interpersonal EQ | | | | | | | |
| M | 104.3 | 108.6 | 110.2 | 103.6 | 103.9 | 104.5 | 104.4 |
| SD (<i>n</i>) | 13.8 (68) | 13.5 (65) | 12.8 (54) | 10.5 (66) | 12.6 (51) | 9.6 (58) | 11.2 (41) |
| Stress management | | | | | | | |
| M | 107.5 | 112.4 | 112.9 | 108.6 | 108.4 | 108.7 | 107.3 |
| SD (<i>n</i>) | 10.3 (68) | 11.6 (65) | 11.5 (54) | 10.2 (66) | 12.6 (51) | 9.7 (58) | 10.6 (41) |
| Adaptation | | | | | | | |
| M | 101.8 | 110.6 | 113.2 | 101.8 | 105.2 | 106.4 | 106.2 |
| SD (<i>n</i>) | 14.2 (68) | 14.5 (65) | 15.3 (54) | 10.9 (66) | 12.1 (51) | 11.1 (58) | 11.7 (41) |
| General mood | | | | | | | |
| M | 104.5 | 109.7 | 110.5 | 103.9 | 106.0 | 105.2 | 106.7 |
| SD (<i>n</i>) | 12.5 (68) | 11.3 (65) | 11.0 (54) | 10.3 (66) | 11.4 (51) | 10.1 (58) | 8.6 (41) |
| Task-oriented coping | | | | | | | |
| M | 3.7 | 4.0 | 4.1 | 3.7 | 3.8 | 3.7 | 3.7 |
| SD (<i>n</i>) | 0.5 (76) | 0.4 (69) | 0.4 (51) | 0.4 (70) | 0.5 (58) | 0.4 (66) | 0.4 (43) |
| Emotion-oriented coping | | | | | | | |
| M | 2.3 | 2.1 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 |
| SD (<i>n</i>) | 0.7 (76) | 0.6 (69) | 0.6 (51) | 0.5 (70) | 0.5 (58) | 0.6 (66) | 0.6 (43) |
| Avoidance-oriented coping | | | | | | | |
| M | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 |
| SD (<i>n</i>) | 0.7 (76) | 0.7 (69) | 0.6 (51) | 0.6 (70) | 0.7 (58) | 0.6 (66) | 0.7 (43) |
| Confident/relaxed | | | | | | | |
| M | 1.6 | 1.9 | 1.8 | 1.8 | 1.7 | 1.7 | 1.8 |
| SD (<i>n</i>) | 0.6 (76) | 0.8 (66) | 0.7 (46) | 0.7 (70) | 0.7 (54) | 0.7 (66) | 0.7 (41) |
| Cheerful/excited | | | | | | | |
| M | 0.9 | 1.1 | 1.0 | 0.9 | 1.0 | 1.1 | 1.1 |
| SD (<i>n</i>) | 0.7 (76) | 0.9 (66) | 0.9 (46) | 0.8 (70) | 0.7 (54) | 0.7 (66) | 0.8 (41) |
| Fear-anxiety | | | | | | | |
| M | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 |
| SD (<i>n</i>) | 0.3 (76) | 0.5 (66) | 0.5 (46) | 0.4 (70) | 0.4 (54) | 0.5 (66) | 0.4 (41) |
| Depression/anger | | | | | | | |
| M | 0.5 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 |
| SD (<i>n</i>) | 0.3 (76) | 0.3 (66) | 0.3 (46) | 0.3 (70) | 0.3 (54) | 0.3 (66) | 0.3 (41) |

as well ($F_{2,44} = 16.21, P < 0.00$). Scores on the post-test score were significantly higher than on the pre-test ($P < 0.01$), and scores on the follow-up were significantly higher than on the pre-test ($P < 0.00$). In addition, the mean difference between follow-up and post-test was marginally significant ($P < 0.08$). Finally, the main effect of general mood was also significant ($F_{2,44} = 6.14, P < 0.01$). Post-hoc revealed significantly higher scores on the post-test than on

the pre-test ($P < 0.05$), and significantly higher scores on the follow-up than on the pre-test ($P < 0.05$).

In sum, these results indicate that the training program established a stronger increase of all five sub-scales of EI in the experimental group than in the control groups. Participants had larger gains on the intrapersonal scale than on the interpersonal and stress management scales and larger gains on

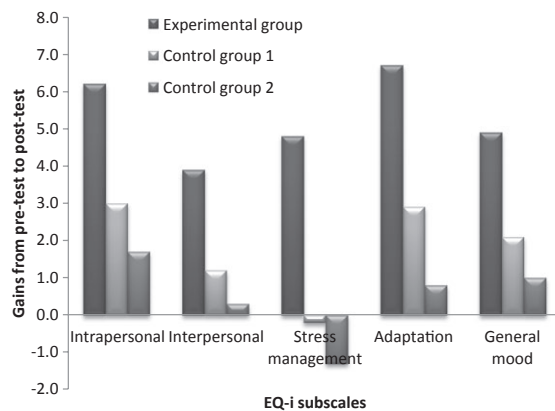


Figure 1 Mean difference scores on sub-scales of Emotional Quotient-inventory.

adaptation than on stress management. Follow-up effects in the experimental group indicated that EI-training effects were still present after four months.

The effect of the training on coping styles of staff

To investigate the impact of the training on coping styles, a 3 (condition: experimental group vs. control 1 vs. control group 2) \times 4 (organisation) \times 3 (coping style: task-oriented vs. emotion oriented vs. avoidance-oriented) MANOVA was performed on the mean difference scores of support staff on the three sub-scales of the CISS. Mean difference scores presented in Fig. 2.

Only the interaction between condition and coping style reached a significant level ($F_{4,312} = 3.53, P < 0.01$). Neither the main effect of organisation ($F < 1$) nor the main effect of condition ($F_{2,156} = 1.40, P = 0.25$) were significant. The main effect of coping style was significant ($F_{2,312} = 18.34, P < 0.0001$), but because of the significant interaction with condition, we analysed each of the conditions separately by means of one-way ANOVA.

Difference scores of task-oriented coping revealed a main effect of condition ($F_{2,165} = 6.19, P < 0.01$). Post-hoc comparisons showed that scores of the experimental group were significantly larger than those of control group 2 ($P < 0.01$), and similar to that of control group 1. No significant difference occurred between the two control groups. Neither

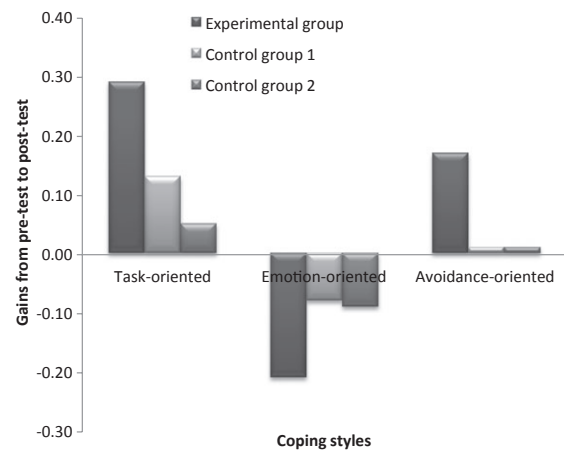


Figure 2 Mean difference scores on sub-scales of Coping Inventory for Stressful Situations.

the main effect of emotion-oriented coping ($F_{2,165} = 1.32, P = 0.27$) nor the one of avoidance-oriented coping ($F_{2,165} = 1.53, P = 0.22$) reached significance.

To investigate the stability of the effects in the experimental group, a repeated measure analysis was conducted on the mean scores of the experimental group. The main effect of task-oriented was significant ($F_{2,50} = 16.94, P < 0.001$). Post-hoc tests revealed higher post-test scores than pre-test ($P < 0.001$) and follow-up scores ($P < 0.001$). The main effect of emotion-oriented coping was also significant ($F_{2,50} = 16.94, P < 0.001$). Now post-test scores were significantly lower than pre-test scores ($P < 0.01$) and follow-up scores were also significantly lower than pre-test scores ($P < 0.01$). Finally, the main effect of avoidance-oriented coping was also significant ($F_{2,50} = 5.94, P < 0.01$). Follow-up scores were significantly lower than post-test scores.

In sum, these results indicate that the training program improved the task-oriented coping styles of staff in the training group more so than that of the members in control group 2. The training did not have differential effects on emotion-oriented and avoidance-oriented coping styles. With regard to follow-up, positive effects of the training on task- and emotion-oriented coping were still present after four months. For avoidance-oriented coping, a positive effect was only revealed at follow-up.

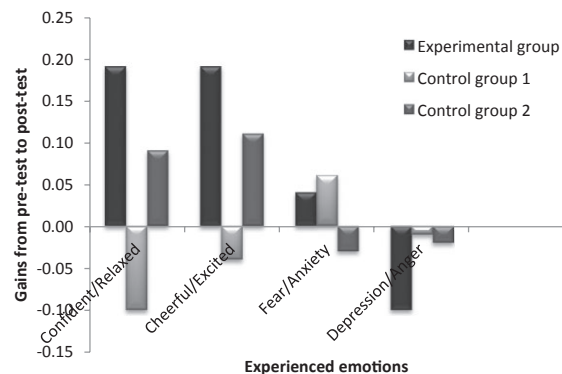


Figure 3 Mean difference scores subscales Emotional Reactions to Challenging Behaviour Scale.

The effect of the training on experienced emotions of staff

Finally, to investigate the influence of the training on staff emotions, a 3 (condition: experimental group vs. control 1 vs. control group 2) \times 4 (organisation) \times 4 (emotional reactions: confident/relaxed vs. cheerful/excited vs. fear/anxiety vs. depression/anger) analysis of variance was performed on the mean difference scores of the support staff on the four sub-scales of the ERCBS. Mean difference are presented in Fig. 3.

Two interaction effects reached significant levels: Organisation by emotional reactions ($F_{9,441} = 7.68$, $P < 0.001$) and condition by emotional reactions ($F_{6,441} = 4.05$, $P < 0.001$). None of the main effects were significant. The significant interactions warranted further analyses. One-way ANOVAs were conducted on each of the emotional-reactions difference scores with organisation as between factor. The effect of organisation only reached significance on the fear/anxiety scale ($F_{3,155} = 22.00$, $P < 0.001$). Scores on fear/anxiety of Organisations 1 and 2 were significantly larger than those of Organisations 3 and 4 (all $P < 0.01$). The fear/anxiety scores of Organisation 1 was similar to that of Organisation 2, and the one of Organisation 3 was similar to that of Organisation 4.

The more important interaction, the one between condition and emotional reactions was also further analysed by means of one-way ANOVAs on each of the emotional-reactions difference scores. The effect of condition only reached significance on the

confidence/relaxed scale ($F_{2,156} = 4.71$, $P < 0.01$).

Post-hoc tests revealed that the scores of the experimental group were significantly larger than those of the control group 1 ($P < 0.01$), but similar to that of control group 2. The difference between control group 1 and 2 was not significant.

To investigate difference between mean scores on pre-test, post-test, and follow-up, repeated measure analysis was conducted on the mean scores of all sub-scales. The main effect of confident/relaxed was significant ($F_{2,45} = 9.61$, $P < 0.001$). The post-hoc tests revealed that scores on the post-test were significantly higher than on the pre-test ($P < 0.01$) and follow-up scores ($P < 0.01$). The main effect of cheerful/excited was also significant ($F_{2,45} = 6.20$, $P < 0.01$). Scores on the post-test were significantly higher than on the pre-test ($P < 0.01$), the scores on follow-up were marginally significantly lower than on the pre-test ($P = 0.06$). The main effect of fear/anxiety was not significant, but the main effect of depression/anger was ($F_{2,45} = 6.55$, $P < 0.01$). Post-hoc tests revealed that the follow-up score was significantly lower than on the pre-test ($P < 0.05$).

In sum, these results indicate that the training only increased the confidence/relaxed reactions of the training group more so than that of control group 1. None of the other emotional reactions were affected by the training. Moreover, with respect to fear/anxiety two organisations had larger mean difference scores between pre-test and post-test than the other ones. In the experimental group, positive emotions were still present after four months. For depression/anger, a positive effect was found only at follow-up.

Discussion

The present study aimed at determining the effectiveness of a staff training focusing on EI of staff and staff-client interactions. Three variables play a crucial role in the relationship between staff and client behaviour: EI, coping styles, and experienced emotions. Unlike the control groups, the experimental group showed increased levels of EI.

Trained staff members showed increased scores on intrapersonal capacities, such as self-regard, self-reliance, and emotional self-awareness; a finding in line with work by Aber *et al.* (1999) and Nelis *et al.*

(2009). Another aspect of EI that increased after training was adaptation. Adaptation is the extent to which one can validate one's feelings and thinking with external reality, the extent to which one can adapt and adjust one's feelings and thinking to new situations and can effectively solve problems of intrapersonal or interpersonal nature. The fact that the training mainly focused on self-awareness may explain that highest changes were found within the intrapersonal scale.

With respect to coping styles, the training led to positive effects on task-oriented coping. This indicates that staff were more able to handle stressful situations adequately by focusing more on how to solve the problem (see for similar findings, Gerits *et al.* 2004). Particularly, levels of adaptation and intrapersonal EQ appeared to be related to active coping. These sub-scales also showed the largest increase within the experimental group in this study. However, it should be noted that the findings did not reveal a difference between coping styles of staff who participated in the training and their colleagues participating in control group 1. The reason for this may be that staff members within these groups worked daily with one another and perhaps discussed things that had happened during the training sessions. If true, this indicates that the effects of the training not only affected staff participating in the training, but also their team colleagues. However, changes in other factors within staff teams, such as job satisfaction, work load, or other organisational factors could also have played a role too (Blumenthal *et al.* 1998; Hatton *et al.* 1999). No differential effects emerged between the three conditions with respect to emotion-oriented and avoidance-oriented coping.

The effects of the training on staff emotions yielded an increase of the confidence/relaxed emotional reactions of the training group more so than that of control group 1. Trained staff experienced more positive emotions when working with their client. As said, certain coping styles, such as wishful thinking proved to mediate the relationship between stressful situations and emotional exhaustion (Devereux *et al.* 2009). When adapting this reasoning to this study, trained staff might experience more positive emotions after the training, because they showed an increased use of task-

oriented coping. Within this process the effect of the training may have been indirect. It should, however, be noted that there was no difference between the training group and control group 2. In addition, the groups did not differ in terms of experienced negative emotions, which suggests that the training only affected positive emotions, but this effect did not transfer to untrained staff members working with trained staff members.

To determine the stability of the training effects, the experimental group completed a follow-up measure four months after completion of the post-test measure. Although not all support staff completed this measure and the control groups were not included, the analyses on the data provide relevant information. With respect to EI, coping styles, and experienced emotions effects found at the post-test were still present after four months. This indicates that the effects of the training are quite stable. Of course, to draw conclusions on the long-term effects of the training, data should be gathered for experimental and control groups, for instance, a year after the training ended.

The organisations did not differ in their gains of EI and coping styles, but they did with respect to experienced emotions. These differences may be explained by differences in characteristics of the organisations. For instance, Gray-Stanley & Muramatsu (2011) found a relationship between work overload of staff, levels of work social support, and levels of distress within staff. In addition, Blumenthal *et al.* (1998) found a modest relationship between role clarity and emotional exhaustion. They concluded that perceptions of staff with respect to organisations having unrealistic expectations and organisations not listening to views of their staff members are most important in predicting emotional exhaustion. Hastings (2002) proposed that organisational factors appear to be more strongly associated with staff stress, and thus staff behaviour, than client characteristics. Note that these organisational influences could also have been found with respect to other staff variables, but they were not. In a previous study of Zijlmans *et al.* (2013), only weak relationships were found between EI and emotions, suggesting that a training focused on EI does not heavily affect experienced emotions of staff. Although research

has focused on organisational factors related to emotions and burnout, future research should clarify the relationship between organisational factors and training effectiveness.

Although this study has some notable strengths such as including a relatively large sample size and using three groups to determine generalisation of the training effects within teams, there are some limitations that should also be discussed. First, only questionnaires were used in this study, which could have led to socially desirable answering (Wanless & Jahoda 2002; Lambrechts *et al.* 2009) and more importantly, questionnaires do not provide information on actual staff behaviour. However, in another study (L.J.M. Zijlmans, unpublished data) video recordings of staff-client interactions were judged to determine quality of interaction. Preliminary findings showed a positive training effect on staff-client interaction. Second, only staff reports were taken into account in this study. We did not focus on client behaviour and client perspective. In their review, Van Oorsouw *et al.* (2013) showed that client behaviour and perspective is rarely taken into account when evaluating staff training, despite the fact that people with ID are indeed able to express their meaning and feeling about staff members (Roeleveld *et al.* 2011). Future research assessing the effects of staff training should take client perspective into account.

In the training program studied in this research, personal self-reflection and awareness are the most important ingredients. Based on experiences of the trainers and support staff, these methods seem to form the most effective elements of the intervention. Staff members become aware of their own EI and reflect on it. More importantly, they see how it affects their behaviour and their interactions with clients. Another intervention in which awareness plays an important role and which has shown to be rather effective in improving staff behaviour is mindfulness training (Singh *et al.* 2006, 2009). However, to our knowledge and as concluded by Van Oorsouw *et al.* (2013), the training studied in this research is the first and only one focusing on self-reflection of staff, related to EI and staff-client interactions. More research is warranted to identify the effectiveness of self-reflection in training programs for support staff.

Summarised, this study revealed that staff training aiming at EI and staff-client interaction is indeed effective in improving EI and the use of task-oriented coping. In addition trained staff experienced fewer negative emotions after the training. With regard to future research a focus should be put on maintaining these effects and considering the role of the training within other settings for individuals with ID and CB, for instance outpatient care. On a final note, commitment of the organisation in which a training is imbedded, is very important for successful and effective implementation (Totsika *et al.* 2008), because it increases the maintenance of long-term training effects, of which the relationship between clients and staff benefits directly.

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