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Staff working with people who have intellectual disabilities within secure hospitals:
Expressed emotion and its relationship to burnout, stress and coping

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Staff working with people who have intellectual disabilities within secure hospitals: The relationship between coping, burnout, attitudes to psychiatric treatment, job satisfaction and expressed emotion.

Abstract

Background: Studies involving professional carers of people with mental health problems have investigated the relationship between burnout, job satisfaction, the coping strategies employed by carers, and expressed emotion (EE). We undertook a similar study involving carers of adults with intellectual disabilities detained within a secure hospital.

Materials & Methods: Twenty-seven nursing staff working within a secure hospital for adults with intellectual disabilities were recruiting and completed the five minute speech sample regarding a client they key-worked. EE was coded, and measures of coping strategies, burnout, attitudes to psychiatric treatment, and job satisfaction were administered. Additional demographic data were collected.

Results: Sixty-three percent of the sample were coded as “high” EE. Nurses coded as having “high” EE reported significantly higher levels of depersonalisation and lower levels of personal accomplishment. Nurses coded as having “high” EE used coping strategies more frequently; specifically they reported trying to reorganise their work and trying to seek support from work colleagues and friends more frequently.

Discussion: The results suggest that nursing staff reporting a relationship with a client they key-work as characterised by “high” EE are experiencing higher levels of burnout,

in terms of depersonalisation, and use coping strategies more frequently. The results are discussed in light of the findings of previous studies.

Conclusions: “High” EE is related to burnout amongst nursing staff and may relate to the coping strategies staff use. However the current study was not causal and the sample size was small. A much larger study is required to further investigate these findings.

KEY WORDS: Staff, Secure; Forensic; Learning Disabilities; Expressed Emotion; Burnout; Coping

Staff working with people who have intellectual disabilities within secure hospitals: The relationship between coping, burnout, attitudes to psychiatric treatment, job satisfaction and expressed emotion.

Barrowclough and Hooley (2003), in an excellent review of expressed emotion (EE) research, refers to EE as the degree to which a person expresses attitudes which reflect criticism, hostility or emotional over-involvement with respect to their relationship with another person. EE has been firmly linked to relapse and recovery in psychosis, and there are many studies which have demonstrated a link between EE and mental health problems suggesting that interpersonal relationships play an important role in continued recovery from psychiatric disorder. (Bebbington & Kuipers, 1994; Butzlaff & Hooley, 1998; Goldstein, Miklowitz, & Richards, 2002; Hooley, Orley, & Teasdale, 1986; Kavanagh, 1992; Miklowitz, Goldstein, Nuechterlein, Snyder, & Mintz, 1988; Priebe, Wildgrube, & Mulleroerlinghausen, 1989; Szmukler, Eisler, Russell, & Dare, 1985; Vaughn & Leff, 1976).

These findings have led to further studies examining factors that may contribute to or are related to EE. Some researchers have tried to tease apart how EE may be related to the psychological health of carers and relatives, in addition to the mental health of a patient and recovery longer-term. For example, some studies have demonstrated a relationship between EE and the coping strategies used by carers and relatives of people with mental illness (Hall & Docherty, 2000; Raune, Kuipers, & Bebbington, 2004), while others have paid attention to personality and demographic variables, in addition to coping strategies. For example, Van Humbeeck et al., (2002) reported that carers of people with psychosis, who reported high EE, were less likely to make use of coping strategies that involved

seeking social support, scored lower on a personality questionnaire that measured “openness”, and had lower levels of education. However, not all studies have found a relationship between EE and the psychological health of carers. Oliver & Kuipers (1996) and Van Humbeeck, Audenhove & Declercq, (2004) suggested an absence of a relationship between carer burnout, mental health symptoms, stress, job satisfaction and EE in carers of people with psychosis.

Several studies involving professional carers and parents of people with intellectual disabilities have examined carer characteristics in relation to EE, although others have attempted to explore how EE is related to client characteristics, such as level of challenging behaviour exhibited by adults with intellectual disabilities (Cottle, Kuipers, Murphy, & Oakes, 1995; Weigel, Langdon, Collins, & O'Brien, 2006), and children with intellectual disabilities (Beck, Daley, Hastings, & Stevenson, 2004; Hastings, Daley, Burns, & Beck, 2006; Lam, Giles, & Lavander, 2003), suggesting that there may be a relationship between high EE and levels of challenging behaviour, raising questions about how interpersonal relationships impact upon the development and maintenance of challenging behaviour.

Studies within the area of intellectual disabilities that have attempted to explore the relationship between carer characteristics and EE have found several relationships. For example, Hastings et al., (2006) in an impressive study involving children with intellectual disabilities, measured parental factors, such as maternal anxiety, depression, and parental distress. They reported a positive association between EE (critical

comments) and parental distress, and a significant bi-directional relationship between parental distress and child externalising behaviour, such as temper tantrums.

Additionally, they found a bi-directional relationship between parental depression and parental distress. Datta, Russell, & Gopalakrishna (2002) reported that EE was related to levels of burden amongst primary caregivers (mothers, fathers and grandparents) of children with intellectual disabilities, while Dossetor, Nicol, Stretch, Rajkhowa (1994), reported that EE amongst parental carers of adolescents with intellectual disabilities was related to poorer carer mental health and carer social support. Lam, Giles, & Lavender(2003) found that carers reporting high levels of EE were more likely to report higher levels of stress and burden, and lower perceived social support. However, they did not find any differences between carers categorised as having high or low EE in terms of general health, or coping strategies.

Other studies within the area of intellectual disabilities have focused on the relationship between carer causal attributions and EE, given the theoretical relationship between attribution theory and EE (Barrowclough & Hooley, 2003; Hooley, 1985, 1987). Causal attributions refer to a person's cognitions regarding the cause of an observed event, and these have been categorised within theoretical types within the context attribution theory (Heider, 1958; Weiner, 1980, 1985, 1986). Cottle et al., (1995) found that staff reporting high EE also reported causal attributions that were more internal, personal, and less controllable by the staff than staff reporting low EE, but these differences did not reach statistical significance. Weigel et al., (2006) found that staff reporting high EE made

significantly more internal and controllable by the client causal attributions suggesting that there may be a relationship between how carers think about clients and EE.

Leaving EE aside, there is also a large body of literature within the intellectual disabilities field which has focused on investigating the well-being of staff who work with people who have intellectual disabilities. Although it is beyond the scope of this paper to review all of this literature, some aspects of this line of research are particularly relevant. Particularly, there is evidence to suggest that staff stress may affect both carers and people with intellectual disabilities (Rose, Jones, & Fletcher, 1998a, 1998b), and factors such as levels of challenging behaviour (Bromley & Emerson, 1995; Hatton, Brown, Caine, & Emerson, 1995; Jenkins, Rose, & Lovell, 1997), social support and organisational support, (Alexander & Hegarty, 2000; Ford & Honnor, 2000; Hatton & Emerson, 1993); Stenfert Kroese & Fleming, 1992), along with a variety of organisational and work related factors have been shown to be related to levels of staff stress (Bersani & Heifetz, 1987; Hatton & Emerson, 1993; Power & Sharpe, 1998; Rose & Schelewa-Davies, 1997).

Taking this literature together, the current study examined the relationship between carer characteristics, such as the use of coping strategies, burnout, general health, attitudes toward treatment, job satisfaction and EE. Additional comparisons were made between EE and demographic variables, such as age, length of time working, number of days off sick and frequency of violence. Carers were nursing staff working with a medium-secure hospital for adults with intellectual disabilities detained under the Mental Health Act,

1983. Participants were recruited and completed questionnaires pertaining to the variables under investigation along with the five minute speech sample (FMSS; Magana et al., 1986) which asks participants to talk about their relationship with a client using their own words. All of the participants were a keyworker for at least one person with an intellectual disability. Following the coding of the FMSS, participants were split into two independent groups, according to whether or not they were found to have high or low EE, and comparisons were made between groups.

Materials & Method

Participants

Twenty-seven nursing staff working within a medium-secure hospital for people with intellectual disabilities detained under the Mental Health Act, 1983 were recruited.

Design and Procedure

A between subjects design was used to investigate differences between participants rated as having either high or low EE. A favorable ethical opinion of the study was given by the Institute of Psychiatry Research Ethics Committee. Informed written consent was obtained from all participants. Initially, the participants completed the taped five minute speech sample (FMSS) about a client of their choice for whom they acted as a keyworker. Once this was completed, they were asked to complete a series of questionnaires regarding levels of burnout, coping strategies, attitudes toward treatment, general health, and job satisfaction. The FMSS was then coded by two raters and interrater reliability was compared.

Measures

Five Minute Speech Sample (FMSS; (Magana et al., 1986). All of the participants completed the FMSS according to the method described by Magana et al., (1986). The participants were only asked to talk about a client they key-worked. Interviews were transcribed and coded by one naïve rater and one experienced rater. Initially, the naïve rater coded the transcripts and the experienced rater coded a random sample (20%) of these transcripts. Both raters then met to discuss any differences, and both raters re-coded all of the FMSSs independently. The initial statement, critical comments, positive remarks, quality of the relationship, and emotional over-involvement were coded and the kappa coefficient was calculated for categorical data, while intraclass correlations were used to determine rater agreement for the frequency data. Complete agreement for overall EE rating was reached between raters ($k=1.00$), while interrater reliability for the initial statement ($k=0.92$), and quality of the relationship ($k=0.74$) revealed good levels of agreement. Intraclass correlation coefficients for critical comments ($r_i=0.99$) and positive remarks ($r_i=0.93$) were high. There was no emotional over-involvement detected in any of the interviews.

Maslach Burnout Inventory (Maslach & Jackson, 1996). The MBI is constructed of three scales, a) emotional exhaustion, b) depersonalisation, and c) personal accomplishment. Higher scores on the emotional exhaustion and depersonalisation scales represent the higher levels of emotional exhaustion and depersonalisation, indicative of more burnout, while higher scores on the personal accomplishment scale represent lower levels of

personal accomplishment as the scale is scored in the opposite direction. The MBI has good reliability (Maslach & Jackson, 1996), and adequate test-retest reliability (Jackson, Schwab, & Schuler, 1986). Hastings, Horne & Mitchell (2004) have reported that this questionnaire is a reliable and valid instrument for use with staff working in intellectual disabilities settings.

Attitudes To Treatment Questionnaire (Caine, Smail, Wijesinghe, & Winter, 1982). This 24-item questionnaire measures staff attitudes toward psychiatric treatment and differentiates between those who view treatment as primarily psychological or organic. Items are scored on a five-point scale from “strongly-agree” to “strongly-disagree”. The test-retest reliability of the ATQ has been reported to range from 0.76 to 0.79 (Caine et al., 1982).

The Cooper-Coping Skills Questionnaire (Cooper, Sloan, & Williams, 1988). This 28-item questionnaire forms part of the Occupational Stress Indicator and asks how often specific coping strategies are employed. Responses are rated on a six-point scale ranging from “never used by me” to “very extensively used by me”. The questionnaire contains six-scales: a) Social Support, b) Task Strategies, c) Logic, d) Home and Work Relationships, e) Awareness and Management of Time, and f) Involvement.

The General Health Questionnaire-28 (Goldberg & Williams, 1988). The GHQ-28 is a well-validated 28-item instrument for assessing the level of basic psychiatric symptoms. A total score of five or higher is considered indicative of “psychiatric caseness”. The

GHQ-28 was developed from factor analytic studies of the original GHQ-60. The split-half reliability of the GHQ has been reported to be 0.95, with test-retest reliability ranging from 0.85 to 0.90.

The Minnesota Job Satisfaction Scale (Weiss, 1967). The development of the MJSS was based on the work of Herzberg's Theory of Work Motivation. The 20-items on this questionnaire are rated on a five-point scale from "very-dissatisfied" to "very satisfied". Scores are calculated for both an intrinsic and extrinsic satisfaction scale along with an overall score of job satisfaction.

Statistical Analysis

Given the sample size, the non-parametric Mann Whitney U test was employed to examine the statistical significance of any difference between those reporting high or low EE. Mean scores on the CCSQ and MJSS were interpreted by calculating the mean standard score for the current sample and comparing this to the data published by Butterworth et al., (1999); a mean falling within one standard deviation of the mean for ward nurses published by Butterworth et al., (1999) were considered to fall within the "average" range. Mean scores on the remaining questionnaires were compared to the instrument standardisation sample.

Results

Participant Demographics

The mean age of the sample (N=27) was M=32.67 years (SD=9.21), 55% were female, and 55% were married. The mean length of time working within intellectual disability services for the sample was M=4.95 years (SD=4.11), and the mean length of time working within their current employment was M=2.58 years (SD=1.86). Participants were on average a keyworker for M=1.94 (SD=0.88) people with an intellectual disability. The mean Wechsler Adult Intellectual Scale Full Scale IQ and the mean British Picture Vocabulary Scale score for those people with an intellectual disability being keyworked by participants was M=60.92 (SD=8.57) and M=65.42 (SD=24.50) respectively.

Five Minute Speech Sample

Sixty three percent (N=17) of the twenty seven participants were classed as having high EE, on the basis of one or more critical remarks, a negative initial statement or an overall negative relationship. Thirty seven percent of the sample made a positive initial statement, nineteen percent, a negative initial statement, and forty-four percent, a neutral initial statement. From the interviews, forty-one percent of the participants were coded as having an overall positive relationship with their client, while thirty-seven were coded as having a negative relationship with their client. Fifteen percent were found to have a neutral relationship, while seven percent of the interviews presented insufficient data to allow for the coding of the quality of the relationship. Further descriptive data regarding the frequency of critical comments, positive remarks and quality of the relationship comments can be found in the Table 1.

INSERT TABLE ONE HERE

Questionnaire Data

The descriptive data for the CCSQ and the MJSS were compared to the data relating to ward nurses published by Butterworth et al.,(1999) to facilitate interpretation (Table 2). In terms of coping skills and job satisfaction, the scores of the current sample fell in the ‘average’ range in comparison to ward nurses. Comparing the MBI scores of the current sample to the standardisation sample for this questionnaire revealed that the current sample reported low to moderate levels of emotional exhaustion, low levels of depersonalisation, and high levels of personal accomplishment, suggesting little burnout. The results of the ATQ suggest that the current sample tended to endorse “organic” or biological treatment attitudes toward mental health problems rather than psychological treatment attitudes. The sample as a whole also fell just below ‘caseness’ on the GHQ-28 (Table 2).

INSERT TABLE TWO HERE

High EE vs Low EE

Comparing those staff who were rated as having high EE, to those who were rated as having low EE, revealed significant differences between the two groups on some

measures (Table 3). High EE staff were found to score significantly higher than low EE staff overall on the CCSQ ($z=-2.21$, $p=0.02$) suggesting that they used coping strategies more frequently. Examining the individual sections of the CCSQ revealed that high EE staff scored significantly higher on the Task Strategies ($z=-2.60$, $p=0.01$) and Home and Work Relationships ($z=-2.49$, $p=0.01$) sections, suggesting that high EE staff were employing coping strategies that involved attempts to reorganise work tasks as a coping strategy, and made use of support from relationships based at home and work more frequently. There were no other significant differences between the two groups in terms of coping strategies (Table 3).

Examining the MBI revealed that high EE staff were experiencing significantly higher levels of depersonalisation ($z=-2.25$, $p=0.02$), suggesting that high EE staff were reporting higher levels of burnout (Table 3). Although both high EE and low EE staff had levels of personal accomplishment that fell within the 'high' range, high EE staff were experiencing significantly lower levels of personal accomplishment ($z=-3.00$, $p=0.002$; Table 3). There were no significant differences between high and low EE staff on the MJSS, ATQ, and GHQ-28.

Comparing demographics, there was also no significant difference between the two groups in terms of age, years working, client IQ and client BPVS score. Although high EE staff reported being the keyworker for more clients, and having been attacked more frequently, these differences were not significant (Table 3).

INSERT TABLE THREE HERE

Discussion

The results of the current study revealed that staff rated as having a high EE relationship with a client, had higher levels of burnout, as indicated by scores on the depersonalisation scale of the MBI. High EE staff were experiencing lower levels of personal accomplishment than low EE staff, although both groups fell within the range indicative of higher levels. High EE staff were also using more coping strategies, specifically, coping strategies that involved trying to reorganise work related activities, and seeking support through interpersonal relationships at home and at work. Other studies have also found a relationship between the coping strategies employed by staff groups and EE, although not within the area of intellectual disabilities. Raune et al., (2004) found that carer high EE was associated with avoidant coping styles, and burden, suggesting that high EE carers may perceive higher levels of stress. On the other hand, Van Humbreek et al., (2002) found a relationship between the EE of staff working with adult psychiatric inpatient settings and coping strategy use, reporting that staff high EE used seeking social support as a coping strategy less frequently. They attribute this finding to the fact that their sample had few staff who reported high EE, socially desirable responding, and a lack of burnout within their sample.

Previous studies that have examined the relationship between EE and burnout have generally failed to find any relationship. Oliver & Kuipers (1996), in a small pilot study

of ten community mental health workers, reported that emotional exhaustion, depersonalisation, and personal accomplishment were not related to EE, but they did also note that their sample had high levels of job satisfaction and good levels of personal accomplishment, although depersonalisation and emotional exhaustion were elevated. However, their sample size was very small. Van Humbreek et al., (2004) also failed to find a relationship between burnout and EE, although it should be noted that only 9 of their participants were coded as high EE, while 43 were coded as low EE. They also noted that none of their participants reported high levels of burnout. Within the current study, the entire sample of staff was suffering from some slightly elevated emotional exhaustion suggesting some burnout. It may be that because our sample had some levels of burnout, albeit not particularly marked, a relationship between EE and burnout was detected.

Considering the other variables under investigation, we did not find a relationship between job satisfaction, the GHQ-28, the ATQ and EE. The lack of a relationship between job satisfaction and EE is consistent with that reported by other studies (Oliver & Kuipers, 1996; Van Humbeeck et al., 2004)), although there are some methodological problems with these studies (e.g. sample size). The lack of a significant difference between “high” and “low” EE carers on the GHQ-28 has not been previously reported with this carer population, but has been reported in carers of children with intellectual disabilities (Lam et al., 2003). However, within the present study, “high” EE carers had higher GHQ-28 mean scores than “low” EE carers, but this difference did not reach statistical significance, although both groups fell just below “psychiatric caseness”. It is

possible that with a larger sample size, this difference would have become statistically significant. Considering the ATQ, the entire sample endorsed treatment attitudes that were “organic” or medical in nature, as opposed to a “psychological”. These attitudes are similar to the treatment attitudes endorsed by nurses working in traditional psychiatric hospitals, as opposed to nurses working in therapeutic communities (Caine et al., 1982), and there were no differences between “high” and “low” EE carers on this measure.

There was also no significant difference between “high” and “low” EE carers for the demographic variables under investigation, although “high” EE carers had been working for longer, keyworked more clients and had experienced a higher number of physical attacks. Again, these differences most likely did not reach statistical significance because of a lack of power in the current study. However, we did not have any data on symptoms of mental health problems and levels of challenging behaviour of the clients of whom staff spoke about in the FMSS. There is existing evidence to suggest a relationship between challenging behaviour exhibited by adults with intellectual disabilities and EE (Cottle et al., 1995; Weigel et al., 2006), but there are no studies known to the researchers examining the relationship between EE and symptoms of mental illness amongst adults with intellectual disabilities. Given that the majority of previous research has examined the relationship between EE and recovery from mental illness, it would be valuable to disentangle the relationship between EE and challenging behaviour and EE and symptoms of mental illness amongst adults who have intellectual disabilities.

In the present study, we used the five minute speech sample, as it is a well validated and reliable way of measuring the quality of a relationship between two people. Thus the present results suggest that staff that have a relationship with a person with an intellectual disability that is characterised by high EE may be experiencing higher levels of stress and burnout and lower levels of personal accomplishment. However, since the present study did not address the causality of this, it remains possible that higher levels of stress and burnout, and maybe inadequate coping strategies, coupled with having to deal with difficult or challenging behaviour, could lead to a high EE relationship, and/or the relationship may be bi-directional. The fact that high EE staff reported experiencing more physical aggression, than low EE staff, may indicate a further cause of increased stress for the staff, and would justify further study.

Conclusion

Staff working in these settings had relatively low burnout and high personal accomplishment, but those with more negative relationships with clients (high EE relationships) reported high depersonalisation and being attacked more often. These findings have some implications for practice in that they suggest that interpersonal relationships between carers and people with intellectual disabilities characterised by high EE may impact upon burnout and coping strategy use within staff groups. Although we cannot infer causality between these variables, it does suggest that organisations need to be aware of these relationships and ensure appropriate support mechanism are in place for staff groups.

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Table One: Five Minute Speech Sample descriptive data for the entire sample.

FMSS	N= (%)	Mean (SD)
High EE	17 (63)	-
Low EE	10 (37)	-
Initial Statement		
Positive	10 (37)	-
Negative	5 (19)	-
Neutral	12 (44)	-
Quality of the Relationship		
Positive	11 (41)	-
Negative	10 (37)	-
Neutral	4 (15)	-
Insufficient Data to Code	2 (7)	-
Critical Comments	-	1.63 (1.57)
Positive Remarks	-	1.41 (1.12)
Quality of the Relationship Comments	-	1.85 (0.95)

Table Two: Descriptive data for the entire sample of staff (M (SD)).

Questionnaires	Mean (SD)	Interpretation
Cooper Coping Skills Questionnaire	111.59 (15.67)	“Average”
Social Support	16.00 (3.04)	“Average”
Task Strategies	27.00 (5.04)	“Average”
Logic	12.56 (2.33)	“Average”
Home and Work Relationships	18.00 (3.26)	“Average”
Awareness and Management of Time	14.67 (2.30)	“Average”
Involvement	23.37 (4.74)	“Average”
Maslach Burnout Inventory		
Emotional Exhaustion	16.63 (10.17)	“Low-Moderate”
Depersonalisation	5.37 (4.39)	“Low”
Personal Accomplishment	11.52 (5.12)	“High”
Attitudes to Treatment	54.22 (7.41)	“Organic”
Minnesota Job Satisfaction Scale Total Score	69.44 (9.35)	“Average”
Intrinsic	40.83 (6.55)	“Average”
Extrinsic	19.89 (3.33)	“Average”
General Health Questionnaire	3.63 (3.71)	“Below Cut-off”

Table Three: Mean scores on the questionnaires measuring coping, burnout, attitudes to treatment, job satisfaction and psychological health along with demographics, general intellectual functioning, receptive vocabulary, critical comments and positive remarks (M (SD)) X High or Low EE (N=27).

Questionnaires	High EE	Low EE
Cooper Coping Skills Questionnaire	117.18* (11.57)	102.10 (17.66)
Social Support	16.41 (3.08)	15.30 (2.98)
Task Strategies	29.06** (3.82)	23.50 (5.08)
Logic	13.18 (2.13)	11.50 (2.37)
Home and Work Relationships	19.24** (2.63)	15.90 (3.25)
Awareness and Management of Time	15.18 (2.19)	13.80 (2.35)
Involvement	24.12 (4.23)	22.10 (5.51)
Maslach Burnout Inventory		
Emotional Exhaustion	17.41 (9.15)	15.30 (12.13)
Depersonalisation	6.71* (4.57)	3.10 (3.07)
Personal Accomplishment ¹	13.29** (5.18)	8.50 (3.44)
Attitudes to Treatment	53.71 (7.07)	55.10 (8.27)
Minnesota Job Satisfaction Scale Total Score	69.47 (8.64)	69.40 (10.95)
Intrinsic	40.18 (6.35)	41.40 (7.15)
Extrinsic	19.88 (3.24)	19.90 (3.67)
General Health Questionnaire	4.29 (3.55)	2.50 (3.89)
Demographics		
Age	34.00 (9.45)	30.40 (8.81)
Years Working in Intellectual Disability Services	5.53 (3.98)	3.86 (4.36)
Years Working in Current Post	2.99 (1.99)	1.79 (1.34)
Number of Clients Key-Worked	2.03 (0.91)	1.78 (0.83)
Number of Physical Attacks Experienced	33.41 (52.00)	11.22 (8.39)
Client Characteristics		
IQ	61.13 (8.72)	60.56 (8.82)
BPVS Score	64.27 (24.97)	67.33 (25.06)
FMSS Data		
Critical Comments	2.59 (1.18)	0 (0)
Positive Remarks	0.82 (0.88)	2.40*** (0.70)
Length of Interview (secs)	261.71 (100.55)	267.20 (88.57)

*p<0.05 (Two Tailed)

**p<0.01 (Two Tailed)

***p<0.001 (Two Tailed)

¹The scoring is reversed. Higher scores are indicative of less Personal Accomplishment.

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