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Abstract

The present study represents an innovative contribution combining an articulated description of phenomenological manifestations of bullying with an in-depth picture of individual processes operating within the regulative system. Phenomenological configurations of bullying were identified considering not only exposure to and types of bullying, but also two of its main correlates: health problems and deviant behaviour. Moreover, the study examined how these configurations differ in terms of discrete negative emotions experienced in relation to work, coping strategies, and moral disengagement. Results from a sample of 1,019 employee (53.6% women) support a 5-cluster solution: not bullied with no symptoms and no misbehaviour (39.9%); not bullied but with symptoms and some misbehaviour (23.9%); targets exposed to limited work-related negative acts, with no symptoms and some misbehaviour (22.3%); targets of work-related bullying with symptoms and misbehaviour (9.6%); and victims with high symptoms and high misbehaviour (4.4%). Moreover, the examination of clusters in relation to individual dimensions highlight the pivotal role of negative emotions and emotional regulation, independently from exposure to workplace bullying. Further, in more severe cases, moral disengagement and compensatory behaviour play an equally important role suggesting the weakening of individuals' behavioural regulation.

Keyword: Workplace bullying; Health; Counterproductive work behaviour; Emotions; Coping; Moral disengagement; Cluster

1. Introduction

Workplace bullying refers to being repeatedly and regularly targeted by negative behaviours, such as insults or physical abuse and harassment, over a long period of time (Branch, Ramsay, & Barker, 2013). **As described by Salin (2003), bullying is a multi-determined phenomenon and results from the interaction between enabling, motivating, and precipitating structures and processes.** Some authors highlighted the importance of examining bullying considering its different phenomenological manifestations to fully understand its complexity (Einarsen, Hoel, & Notelaers, 2009; Nielsen et al., 2009). Indeed, bullying can be described in terms of exposure to negative behaviours and/or in terms of the specific type of negative behaviour targets are exposed to. **Bullying represents one of the major occupational stressors for the victim (Hauge, Skogstad, & Einarsen, 2010), and it compromises employee's development as well as interferes with goals achievement.** Research has clearly demonstrated that it has several consequences for both the target and the organisation. Indeed, targets are at greater risk of health problems (Hoel, Rayner, & Cooper, 1999), but they are also more likely to engage in deviant behaviour toward the organisation and the employees/customers. For instance, Matthiesen and Einarsen (2007) identified 'provocative victims', who both suffered from and engaged in bullying, and Fida et al. (2018) highlighted an association between being a target of workplace aggression and misbehaving. Notwithstanding this, we are not aware of any previous study integrating all these components in the analysis of phenomenological manifestations of bullying. Hence, the first aim of this study is to explore, through a cluster approach, bullying considering not only exposure and typologies, but also health problems and deviant behaviour.

The second aim is to examine whether and how these bullying manifestations differ in terms of individual processes. To this end, we examined: a) anger, fear and sadness experienced in relation to work because they are the emotions most frequently reported by targets of bullying and are generally differently associated with behavioural outcomes; b) coping strategies because they may

attenuate or exacerbate the negative correlates of being a target of bullying; c) moral disengagement (MD) because of its extensively proven role in relation to individuals' engagement in misbehaving. Overall, the present study represents an innovative contribution combining a more complex and comprehensive description of phenomenological manifestations of bullying with a more in-depth picture of individual processes operating within the affective and behavioural regulative system.

2. Types of Workplace Bullying

Workplace bullying has been usually differentiated into work-related and personal-related bullying. The former refers to bullying affecting workload (e.g. removing responsibility) and work processes (e.g. professional status attack), while the latter refers to both indirect (e.g. exclusion and isolation) and direct negative behaviour (e.g. physical abuse) (Bartlett & Bartlett, 2011).

By referring to exposure and types of bullying, previous studies have overcome the basic distinction between victim versus no-victim employees (Leymann, 1996), and have instead identified bullying typologies (Nielsen et al., 2009; Notelaers et al., 2006). Indeed, six groups have been identified in the general working population. Two extreme opposite groups, one including those not exposed to bullying, and the other including the victims, and four intermediate groups varying both in terms of exposure and typologies of bullying: limited work-related negative behaviour, limited negative encounters, sometimes bullied, and work-related bullied. Notelaers and colleagues (2006) also showed the different association of bullying typologies and health-related problems. In particular, 'not bullied' and 'limited work-related negative behaviour' clusters showed better work adjustment profile, whereas 'limited negative encounters' and 'sometimes bullying' clusters reported higher strain indicators and lower wellbeing at work. Finally, the 'victims' cluster had the most problematic profile in terms of health-related consequences.

However, bullying victimisation can lead not only to health problems but also to engagement in deviant behaviour. For example, victims may direct their aggressive behaviour toward the organisation as a whole, blaming it of not protecting them, or against innocent targets (Mitchell & Ambrose, 2007). Although previous research has identified a cluster of "proactive victims"

(Matthiesen & Einarsen, 2007), no studies have attempt to further differentiate victims by considering also both health and behavioural problems.

Following these premises, we expected to identify **(H1)**:

- a) victims who also have health symptoms and engage in misconduct at work;*
- b) non-victims who neither have health symptoms nor engage in misconduct at work;*
- c) victims who might have only behavioural or health problems;*
- d) non-victims who might have health symptoms or engage in misconduct at work.*

3. Bullying, affective and behavioural regulative processes

To understand the individual functioning underpinning the different bullying phenomenological manifestations, we draw on the literature on stress and self-regulation (Fiske & Taylor, 1991; Lazarus & Folkman, 1984) as well as on the social cognitive model of aggression (Anderson & Bushman, 2002; Bandura, 1991). Given the relevance of examining both the ways individuals control and direct their own actions, and their affective experience when dealing with stressors, the following dimensions were examined: discrete emotions, coping strategies, and MD.

3.1. Discrete emotions

Consistent with the discrete emotion approach (e.g. Lazarus & Cohen-Charash, 2003), rather than examining a broader negative emotion dimension, we considered those discrete negative emotions most frequently associated with bullying: anger, fear, and sadness (Aquino & Thau, 2009; Gerberich et al., 2004). Anger is the emotion individuals experience when they perceive an attack to or a violation of their own rights or shared rules. Fear is experienced when individuals perceive a situation is putting them and their own life goals potentially at risk. Sadness is activated when there is a perception of loss or failure of something valued, in relation to which individuals feel powerless. Anger and fear are activating negative emotions and are both associated with health problems (Consedine & Moskowitz, 2007; Rogers & Kelloway, 1997) as well as

deviant behaviours (Fida et al., 2018). Sadness is a deactivating emotion related only to health problems (Bauer & Spector, 2015; Consedine & Moskowitz, 2007).

Following these premises, we hypothesised that:

***H2**, while anger and fear will characterise configurations showing health related and/or behavioural problems, sadness will characterise only configurations showing health-related issues.*

3.2. Coping strategies

Literature usually distinguishes between approach-oriented strategies involving cognitive and behavioural efforts to solve the problem (e.g. problem solving, or seeking social support), and avoidance-oriented strategies (e.g. venting of emotions, mental disengagement or compensating behaviour) consisting of attempts to avoid the problem (Carver, 2007). The former attenuates the strain associated with workplace bullying, while the latter may seriously impair employee well-being on the long term (Dehue et al., 2012; Van den Brande et al., 2017), although might be temporally effective in reducing emotional effects of bullying (Rospenda, 2002).

Generally, victims use constructive strategies focused on the problem only in a few cases and at an early stage of the process (Hogh & Dofradottir, 2001). Further, such strategies may be abandoned if employees perceive a lack of control and impossibility to escape. The vast majority of victims tend to adopt avoidance to ignore what happened to them (Dehue et al., 2012; Hogh & Dofradottir, 2001). In some cases, coping strategies could even become aggressive, resulting in the perpetuation of the cycle of victimisation (Aquino & Thau, 2009).

Following these premises, we anticipated that:

***H3**, avoidance-oriented strategies will be more **strongly** associated with configurations presenting health-related issues, while approach-oriented strategies will be **more strongly** associated with configuration presenting low levels of both health-related and behavioural problems.*

3.3. Moral disengagement

MD is a social cognitive process associated with the deviant and aggressive behaviours (Bandura, 2016). According to the moral agency theory, individuals can through MD justify and legitimate their conduct when this is not in line with their own moral standards. Hence, MD permits individuals to rationalise the harm and wrong resulting from their actions and to decline their responsibility for the produced consequences. MD has been extensively studied in relation to workplace aggression (e.g. Moore, 2008) while no previous studies have suggested a link between MD and health-related problems.

Following these premises, we anticipated that:

***H4**, configurations characterised by misconduct will also have high level of MD. This should not be the case for victims with health-related problems.*

4. Method

4.1. Participants and procedure

The sample comprised 1,019 **Italian** working adults (53.6% women, mean age =40.1 years, SD =10.9). The average job seniority was 16.4 years (SD =10.9) and participants held their job position for an average of 10.6 years (SD =9.7). The majority (74.1%) were permanent employees, 13.2% temporary workers and 12.2% had other types of contingent contracts. Further, 83.3% had a full-time job position, working on average 34.9 hours week (SD =10.2). A large part of the sample (90.1%) received at least a high school education. Participants mainly had clerical (50.8%), teaching (12.4%) and blue collar (9.8%) jobs. They were mainly employed in the private sector (59.4%), in small or medium companies (0-15 employees: 23.2%; 16-50: 19.4%; 51-100: 11.5%; and 101-500 employees: 17.5%).

Participants were selected using a snowball sampling procedure. An anonymous paper-and-pencil questionnaire was distributed to participants by research assistants and was completed individually. Prior to the administration research assistants explained that responses would be kept anonymous and asked participants to provide informed consent. Participation was voluntary and no

rewards were provided. The study was approved by the Ethics Committee of the university to which the last co-author is affiliated.

4.2. Measures

Bullying was measured by the 11-item of the **Italian version** of the Negative Acts Questionnaire (NAQ, **Giorgi, 2010**; Einarsen & Raknes, 1997). Participants were asked to rate from 1 (*never*) to 5 (*once a week or more*) the frequency of their exposure to negative behaviours within the workplace during the previous six months. Items refer to two dimensions: personal- (NAQ-P, six items) and work-related bullying (NAQ-W, five items).

Counterproductive Workplace Behaviour (CWB) was measured by 18 items of the **Italian version** of the Counterproductive Work Behavior Checklist (**Barbaranelli, Fida, & Gualandri, 2013**). Participants were asked to rate from 1 (*never*) to 5 (*every day*) how often they engage in each of the misbehaviour in their current job.

Physical symptoms were assessed by asking participants to report the occurrence of 20 health complaints during the previous six months, from 1 (*never*) to 4 (*always*). These symptoms were derived from the Physical Symptoms Inventory (Spector & Jex, 1998) and the Multidimensional Organizational Health Questionnaire (Avallone & Paplomatas, 2005).

Coping Strategies were assessed by considering approach-oriented (problem-solving- three items-, social support -three items) and avoidance-oriented strategies (compensating behaviour - five items- and emotional dysregulation - three items). Participants rated their agreement from 1 (*completely disagree*) to 5 (*completely agree*). The measure comprises items selected from Occupational Stress Indicator (Evers, Frese, & Cooper, 2000), Coping Strategies Scale (Caverley, Cunningham, & MacGregor, 2004) and Ways of Coping Scales (Folkman et al., 1986). **Items were adapted into Italian by using a translation-back translation approach.**

Negative emotions were measured by 10 items included in the **Italian version** of the Job-Related Affective Wellbeing Scale (**Fida, Paciello, Barbaranelli, Tramontano & Fontaine, 2014**; Van Katwyk, Fox, Spector, & Kelloway, 2000). Items refer to three discrete emotions: fear (three items),

anger (four items), and sadness (three items). Participants were asked to report how often they experienced different affective states at work over the prior thirty days, from 1 (*almost never*) to 5 (*often or always*).

Moral disengagement was measured by the 24-item Work Moral Disengagement Scale (Fida et al., 2015), assessing different MD mechanisms within the workplace. Participants were asked to rate their agreement on a scale from 1 (*agree not at all*) to 5 (*completely agree*).

4.3. Analytic Strategy

Construct validity of the measures was evaluated through confirmatory factor analysis (CFA). Since CWB, physical symptoms and MD included a large number of indicators, parcels were used (Little, 2013). Missing data were handled with the full information maximum likelihood approach. Since we did not expect the tau equivalence assumption to hold for the items of all scales, reliability was assessed by the composite (ω) and the maximal (H) reliability coefficients (McNeish, 2018). Values of both coefficients generally follow the guidelines provided for Cronbach's alpha.

Consistently with Asendorpf et al. (2001), a two-phased cluster analysis was implemented with SLEIPNER v. 2.1 (Bergman, Magnusson, & El-Khoury, 2003) on the scale means of NAQ-W, NAQ-P, CWB and physical symptoms. Preliminarily, multivariate outliers and cases with more than two missing data points were excluded, while values of other missing data points were imputed. Then, a hierarchical cluster analysis was conducted using the Ward method, and values for the increased error sum of squares (ESS) were plotted for solutions positing from 2 to 8 profiles. The most eligible hierarchical cluster solutions were further evaluated with five fit indices: 1) point-biserial correlation (PBC), 2) Gamma index, 3) C-Index, 4) G (+) index and 5) W/B index. Higher values of PBC and Gamma index and lower values of C-index, G (+), and W/B are indicative of better cluster solutions. On the best fitting hierarchical cluster solution, subjects were relocated into clusters by applying a non-hierarchical procedure (i.e., *k-means* algorithm). An explained ESS of the final solution approaching 2/3 of the total (i.e. about 66%) and homogeneity cluster coefficients lower than 1 indicate a good final non-hierarchical classification.

Cluster internal validity was evaluated in term of 'level' differentiation through two one-way MANOVAs. Cluster membership was used as the independent variable. As dependent variables we used the originally clustered variables in one MANOVA, and the selected criteria (i.e., coping strategies, CWB and work MD) in the other one. Partial eta squared was considered as a measure of effect size of the different to evaluate both multivariate and univariate effects.

5. Results

Items and parcels descriptive statistics are presented in Table S1 of Supplementary Material. Since some items were not normally distributed CFA was analysed with the mean- and variance-adjusted weighted least square estimators. Model fit was satisfying: $\chi^2_{[df=1,208]} = 2754,79$, $p < .001$, RMSEA = .035 [90% CI .034 - .037], CFI = .936, TLI = .926, SRMR = .046 (see Table S2 of Supplementary Material for the factor loadings and Table S3 for the Latent correlations). Overall, results demonstrate good construct validity and measurement quality of our study variables.

Table 1 shows descriptive statistics, reliability coefficient and zero-order correlations for all variables. Because non-normally distributed variables may lead to improper cluster solutions (see Bergman et al., 2003), we applied a reciprocal linear transformation. Both ω and H coefficients indicated a good reliability of all measures. Correlations among the four variables considered for clustering were significant and positive, they also showed weak and moderate associations with the other criteria which in turn were weakly associated to one another with some exceptions.

Thirteen participants were identified as multivariate outliers. Thus, our final sample consisted of 1,006 employees. The scree-plot of the increase in ESS (Figure S1 of Supplementary Materials), suggested three and five clusters as the more suitable solutions. Fit indices (Table S4 of Supplementary Materials) supported the 5-cluster solution. After relocating employees, homogeneity coefficients were lower than 1.00 for all the clusters (ranging between .08 and .57) and the explained ESS was 65.1%. Overall, these results provided evidence of the good quality of the final 5-cluster solution (Figure 1). A large multivariate effect of cluster membership was detected: $F(16; 3,040) = 361.02$, $p < .001$; Wilk's $\Lambda = .039$, partial $\eta^2 = .557$. Work-related bullying

and CWB were respectively the most and the least (although the magnitude of the effect size still suggests large differences) discriminating variables among the clusters (see principal effects below Figure 1). No significant associations were found among clusters and demographics.

Cluster 1 (39.9%) included employees who have almost never experienced negative acts, had no symptoms and did not misbehave. Cluster 2 (23.9%) included employees who have rarely experienced negative acts, sometimes misbehaved and frequently experienced physical symptoms. Cluster 3 (22.3%) included employees who have sometimes experienced work-related negative acts, sometimes misbehaved and rarely experienced physical symptoms. Cluster 4 (9.6%) included employees who have frequently experienced work-related negative acts, misbehaved and experienced physical symptoms. Cluster 5 (4.4%) included employees who have frequently experienced both work-related and personal-related negative acts, frequently misbehaved and frequently experienced physical symptoms.

The final cluster solution yielded a medium-high multivariate effect in terms of external validity: $F(32, 3,649) = 12.59, p < .001$; Wilk's $\Lambda = .680$, partial $\eta^2 = .092$ (Figure 2). Regarding compensating behaviour coping strategy, Clusters 2 and 4 showed higher scores than Cluster 1, while Cluster 5 showed the most compromised profile. Cluster 5 showed also lower scores than all other groups (which, in turn, did not differ from one another) in problem solving coping strategy. No differences were detected for social support coping strategy. In terms of emotional dysregulation coping strategy, Cluster 4 and 5 had higher scores than Cluster 3 which, in turn, showed significantly higher scores than Cluster 1. The same pattern of differences was found for fear, anger and sadness. Finally, with regards to work MD, Cluster 5 scored higher than others, and Cluster 4 scored significantly higher than Cluster 1.

6. Discussion

Our results provide general support to our **hypothesis (H1)** on bullying configurations although they suggest a more nuanced scenario. Consistent with the literature (Einarsen et al., 2009; Nielsen et al., 2009), we expected to identify two extreme clusters: a healthy well-behaving not-bullied

group and its negative opposite. While the former is indeed confirmed (Cluster 1), the latter is actually further differentiated into two clusters. In particular, there is the expected ‘negative opposite’ (Cluster 5), characterised by the highest levels of both types of bullying, as well as health symptoms and CWB. In addition, there is a cluster with equally high levels of work-related bullying only, but lower, although still worrisome scores, in all the other variables (Cluster 4). We were then expecting clusters of both bullied and not-bullied employees alternatively characterised by health or behavioural problems. These hypotheses were only partially confirmed, since we identified employees with a limited exposure to work-related bullying and who engaged in some misbehaviour (Cluster 3), and not-bullied employees who engaged in some misbehaviour but with the same high levels of health-related symptoms as the ‘negative opposite’ (Cluster 2). Hence, our data did not suggest a group of poor-health victims not engaging in any misconduct, nor a group of healthy not-bullied employees who misbehaved.

Overall, our results showed the need of considering not only exposure to and types of bullying but also their correlates. In particular, findings highlighted that victimisation is associated not only with health problems but also with a greater likelihood of not behaving in line with the norms (Fida et al., 2015; 2018; Matthiesen & Einarsen, 2007). Clearly, the greater the intensity of bullying and the more the exposure to different types of bullying, the higher is the likelihood of engaging in misbehaviour. Furthermore, the results showed that health-related symptoms are not always associated with experiences of bullying. Indeed, while the limited work-related bullying cluster (Cluster 3) did not report health problems, the not-bullied with some misbehaviour (Cluster 2) did.

In terms of individual processes, **the results generally supported our hypotheses (H2, H3 and H4)**. The extreme clusters have an opposite type of functioning. Cluster 1 presented the most adaptive functioning with low negative emotions, avoidance-approach coping strategies and MD. In contrast, Cluster 5, in line with literature (Dehue et al., 2012; Fida et al., 2018; Van den Brande et al., 2017), showed the highest level of negative emotions, was characterised by difficulties in managing problems and emotions, had the highest frequency of compensative behaviours, and the

highest level of MD. The other extreme negative cluster (Cluster 4), having a slightly less compromised profile than Cluster 5, also showed a slightly better functioning, particularly in terms of compensative coping and with levels of MD similar to intermediate clusters. In addition, it was also characterised by the same level of problem-solving coping than the non-bullied clusters. Hence, although it still presented a problematic emotional functioning, Cluster 4 seemed to rely to some extent on a better (or at least less compromised) behavioural regulation. Thus, the results suggest that, in more problematic manifestations, intense negative emotions could lead not only to health problems, as suggested by the literature on bullying and emotional dysregulation (Dehue et al., 2012; Van den Brande et al., 2017), but also to CWB, as suggested by studies that have integrated victim and perpetrator perspectives (Matthiesen & Einarsen, 2007). In addition, the results showed that in these problematic manifestations MD mechanisms could be more accessible facilitating the justification of CWB as an acceptable way to cope with negative emotions and to solve possible perceived unfairness (Fida et al., 2015).

The two intermediate clusters did not differ in terms of MD, consistent with their identical level of engagement in CWB, nor did they differ in terms of negative emotions. Cluster 3, with limited exposure to workplace bullying, tended to use dysfunctional coping strategies less frequently and were less emotionally dysregulated than Cluster 2, whose members were not bullied. Hence, emotional regulation has been confirmed as a key factor for health-related problems regardless of workplace bullying (Jex et al., 2013).

We acknowledge a number of limitations. For instance, we used a cross-sectional sample, thus limiting our understanding of the development of and the interaction between affective and behavioural processes. **Moreover, the research has been conducted in only one specific cultural context, hence** the role of contextual and **cultural** factors (e.g. leadership, support) together with personal related ones should be explored.

Notwithstanding these limitations, our findings highlighted the pivotal role of negative emotions and emotional regulation in relation to the problematic bullying phenomenological

configurations (Consedine & Moskowitz, 2007; Fida et al., 2018; Van den Brande et al., 2017). In addition, the study showed for the first time in the bullying literature the importance of compensatory coping behaviour for understanding individual functioning in case of high exposure to workplace bullying, and health and behavioural problems. In these cases, the recourse of these strategies together with MD and lack of problem-solving coping strategies suggests a lack of self-control in refrain damaging behaviours acted as an externalization of individual distress and a possible state of helplessness (Hogh & Dofradottir, 2001).

Hence, intervention programmes should generally aim to develop emotional regulation strategies, relevant for health, bullying and CWB. **Despite the literature recognising the relevance of emotions when dealing with workplace aggression this is rarely incorporated into guidelines (e.g. OSHA, 2015) in which there is no specific focus on emotions. In addition, when bullying and its problematic correlates are high, it is essential to also promote behavioural regulation strategies to reduce the activation of justification mechanisms as MD as well as compensating behaviour.**

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Table 1

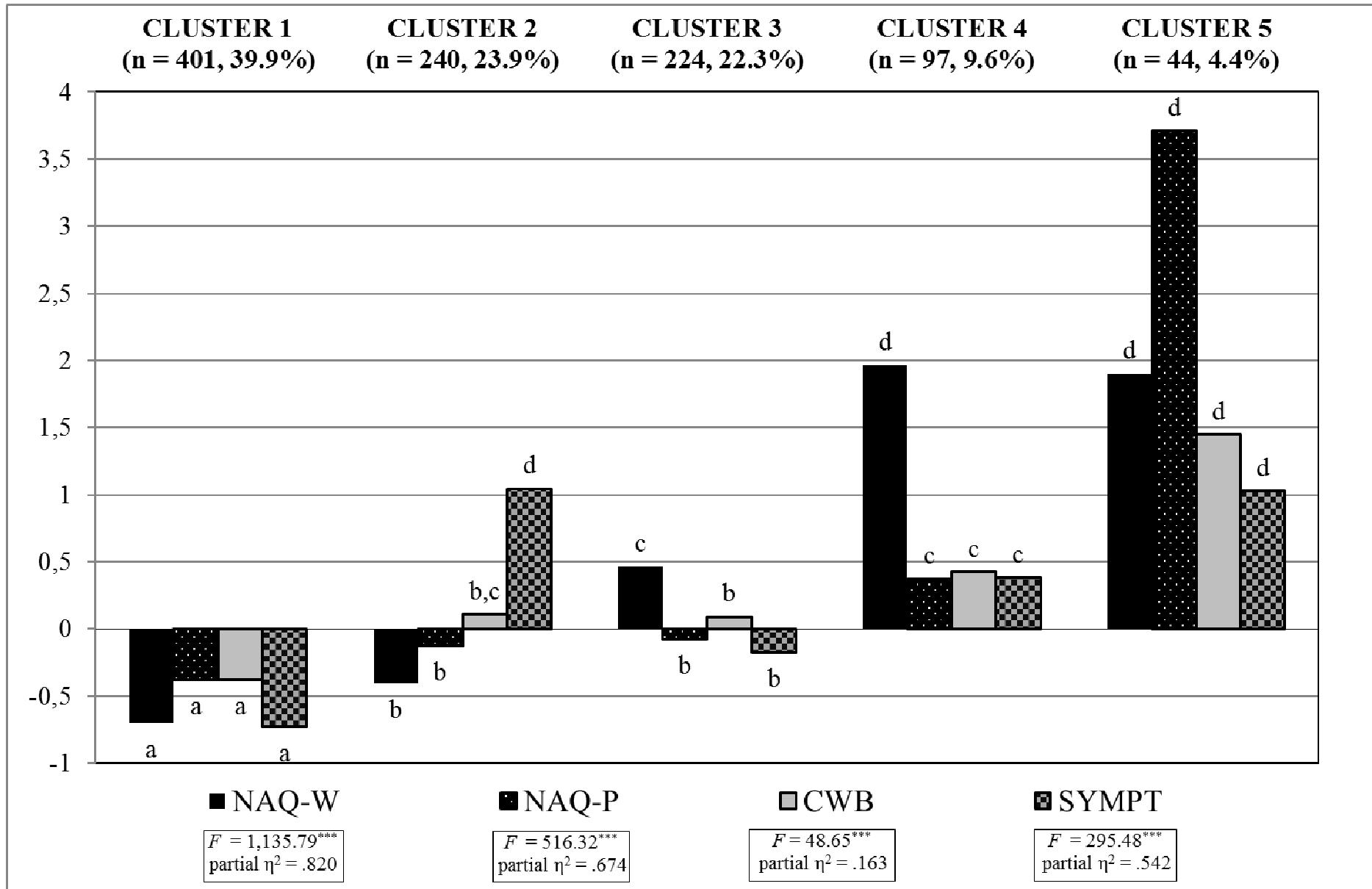
Descriptive Statistics, Reliability Coefficients and Zero-Order Correlations among the Study Variables.

	M	SD	SK	K	ω	H	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. NAQ-P	1.61	.66	1.41	1.88	.85	.85	-											
2. NAQ-W	1.22	.45	3.16	11.33	.92	.94	.54**	-										
3. CWB	1.31	.36	2.70	11.28	.90	.90	.34**	.39**	-									
4. SYMPT	1.83	.47	.66	.48	.89	.89	.24**	.22**	.17**	-								
5. Fear	1.92	.77	.72	.11	.76	.76	.30**	.21**	.13**	.39**	-							
6. Anger	2.22	.85	.69	.24	.91	.92	.37**	.22**	.20**	.35**	.52**	-						
7. Sadness	1.91	.83	.87	.39	.80	.80	.38**	.23**	.19**	.43**	.56**	.65**	-					
8. PS Coping	3.75	.76	-.57	.49	.80	.80	-.06*	-.14**	-.10**	-.03	-.07*	-.05	-.10**	-				
9. SS Coping	3.40	.78	-.27	.20	.78	.80	-.02	-.09**	-.08*	.03	.01	-.07*	-.07*	.31**	-			
10. CB Coping	1.76	.66	.90	.65	.79	.83	.20**	.23**	.21**	.23**	.24**	.19**	.23**	-.13**	-.10**	-		
11. ED Coping	2.04	.74	.85	.76	.70	.76	.20**	.16**	.11**	.37**	.40**	.25**	.29**	-.05	.13**	.41**	-	
12. WMD	1.59	.48	1.16	1.69	.90	.90	.25**	.31**	.39**	.17**	.15**	.18**	.21**	-.17**	-.01	.22**	.12**	-

Note. M=mean; SD=standard deviation; SK=skewness; K=kurtosis; ω =composite reliability; H =maximal reliability; NAQ-P =personal bullying; NAQ-W=work-related bullying; CWB=counterproductive work behaviours; SYMPT=physical symptoms; PS, SS, CB, ED= compensation behaviour, problem solving, social support and emotional dysregulation coping strategies; WMD=work moral disengagement. * $p < .05$; ** $p < .01$

Figure 1. Final 5-cluster Solution.

Figure 2. Individual dimensions across clusters



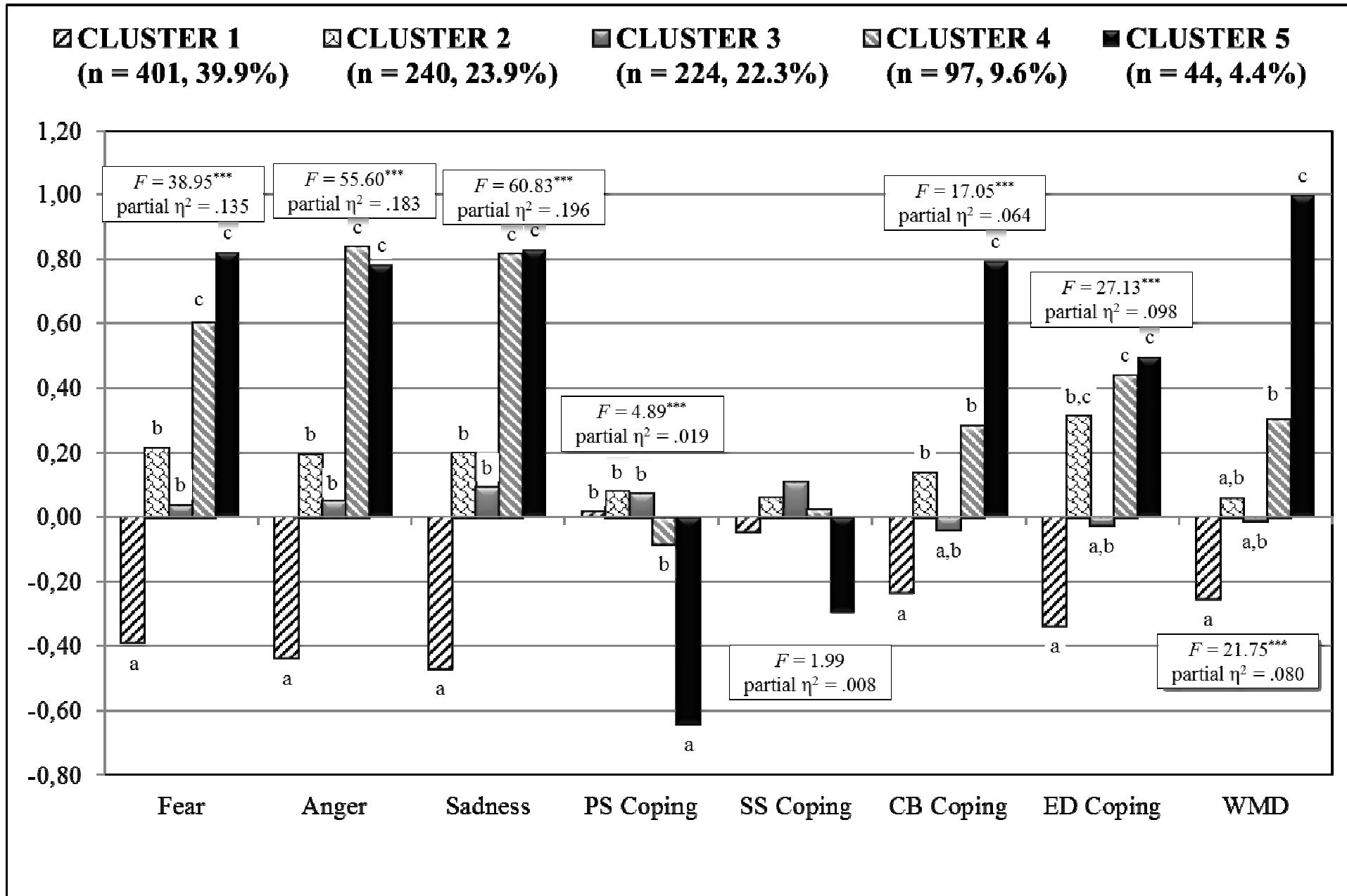


Table S1*Descriptive Statistics of Items and Parcels of the Study Measures.*

		Mean	SD	Skewness	Kurtosis
NAQ-P					
	item_1	1.18	.59	3.82	16.19
	item_2	1.10	.47	5.16	28.23
	item_3	1.22	.65	3.50	13.28
	item_4	1.12	.50	5.11	29.06
	item_5	1.22	.64	3.47	13.20
	item_6	1.46	.86	2.11	4.41
NAQ-W					
	item_7	1.56	.96	1.87	3.12
	item_8	1.58	.89	1.60	2.30
	item_9	1.63	.90	1.44	1.80
	item_10	1.34	.73	2.42	6.17
	item_11	1.90	1.08	1.12	.69
CWB					
	parcel_12	1.56	.56	1.29	1.84
	parcel_13	1.18	.37	3.77	18.89
	parcel_14	1.37	.48	1.78	4.26
	parcel_15	1.27	.42	2.58	8.25
	parcel_16	1.24	.42	3.00	13.90
	parcel_17	1.24	.40	3.23	15.09
SYMPT					
	parcel_18	1.83	.58	.59	-.01
	parcel_19	1.85	.60	.56	-.29
	parcel_20	1.75	.49	1.04	1.40
	parcel_21	2.14	.63	.15	-.56
	parcel_22	1.58	.54	1.00	.92
CB Coping					
	item_23	1.86	1.01	1.09	.58
	item_24	1.91	1.00	.93	.18
	item_25	1.44	.79	2.05	4.25
	item_26	2.15	1.27	.82	-.50
	item_27	1.44	.86	2.18	4.47
PS Coping					
	item_28	3.86	.83	-.66	.71
	item_29	3.65	.94	-.61	.33
	item_30	3.75	1.02	-.83	.44
SS Coping					
	item_31	3.16	1.05	-.24	-.27
	item_32	3.41	.98	-.34	.01
	item_33	3.62	.93	-.60	.36
ED Coping					
	item_34	2.93	1.14	.01	-.75
	item_35	1.60	.97	1.60	1.78

	item_36	1.59	.89	1.63	2.42
Fear	item_37	2.39	1.13	.39	-.69
	item_38	1.69	.93	1.32	1.19
	item_39	1.68	.91	1.25	1.01
Anger	item_40	2.65	1.07	.13	-.45
	item_41	2.55	1.07	.23	-.52
	item_42	1.81	1.03	1.15	.54
	item_43	1.85	1.06	1.15	.54
Sadness	item_44	1.86	.99	.99	.32
	item_45	2.10	1.06	.69	-.19
	item_46	1.79	1.01	1.14	.58
WMD	parcel_47	1.60	.59	1.21	1.56
	parcel_48	1.63	.59	1.05	1.20
	parcel_49	1.61	.60	1.16	1.53
	parcel_50	1.50	.52	1.53	3.17
	parcel_51	1.48	.56	1.29	1.27
	parcel_52	1.73	.65	.95	.60

Note. NAQ-P =personal bullying; NAQ-W=work-related bullying; CWB=counterproductive work behaviors; SYMPT=physical symptoms; CB-ED= compensation behavior, problem solving, social support and emotional dysregulation coping strategies; WMD=work moral disengagement.

Table S2

Standardized Factor Loadings from the Overall CFA Model.

Latent dimension	λ		
NAQ-P			PS Coping
item_1	.723	item_28	.789
item_2	.939	item_29	.763
item_3	.865	item_30	.708
item_4	.809	SS Coping	
item_5	.806	item_31	.554
item_6	.756	item_32	.814
NAQ-W		item_33	.764
item_7	.749	ED Coping	
item_8	.736	item_34	.451
item_9	.648	item_35	.730
item_10	.798	item_36	.795
item_11	.682	Fear	
CWB		item_37	.761
parcel_12	.717	item_38	.643
parcel_13	.764	item_39	.734
parcel_14	.768	Anger	
parcel_15	.769	item_40	.891
parcel_16	.789	item_41	.904
parcel_17	.838	item_42	.769
SYMPT		item_43	.804
parcel_18	.789	Sadness	
parcel_19	.813	item_44	.761
parcel_20	.813	item_45	.729
parcel_21	.709	item_46	.776
parcel_22	.770	WMD	
CB Coping		parcel_47	.808
item_23	.645	parcel_48	.792
item_24	.839	parcel_49	.744
item_25	.490	parcel_50	.790
item_26	.566	parcel_51	.747
item_27	.704	parcel_52	.730

Note. NAQ-P =personal bullying; NAQ-W=work-related bullying; CWB=counterproductive work behaviors; SYMPT=physical symptoms; CB-ED= compensation behavior, problem solving, social support and emotional dysregulation coping strategies; WMD=work moral disengagement.

Table S3*Latent Correlations from the Overall CFA Model.*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. NAQ-P	-											
2. NAQ-W	.78**	-										
3. CWB	.40**	.37**	-									
4. SYMPT	.32**	.32**	.17**	-								
5. CB Coping	.38**	.30**	.21**	.29**	-							
6. PS Coping	.20**	-.09*	-.11**	-.03	-.21**	-						
7. SS Coping	-.02	-.02	-.09*	.03	-.14**	.44**	-					
8. ED Coping	.35**	.33**	.19**	.49**	.70**	-.15**	.14**	-				
9. Fear	.35**	.45**	.16**	.49**	.38**	-.11**	.00	.63**	-			
10. Anger	.32**	.45**	.20**	.38**	.23**	-.07*	-.08*	.33**	.70**	-		
11. Sadness	.41**	.56**	.24**	.53**	.37**	-.15**	.11**	.49**	.83**	.81**	-	
12. WMD	.38**	.30**	.18**	.19**	.228**	-.20**	-.02	.18**	.20**	.19**	.26**	-

Note. NAQ-P =personal bullying; NAQ-W=work-related bullying; CWB=counterproductive work behaviors; SYMPT=physical symptoms; CB-ED= compensation behavior, problem solving, social support and emotional dysregulation coping strategies; WMD=work moral disengagement. * $p < .05$; ** $p < .01$

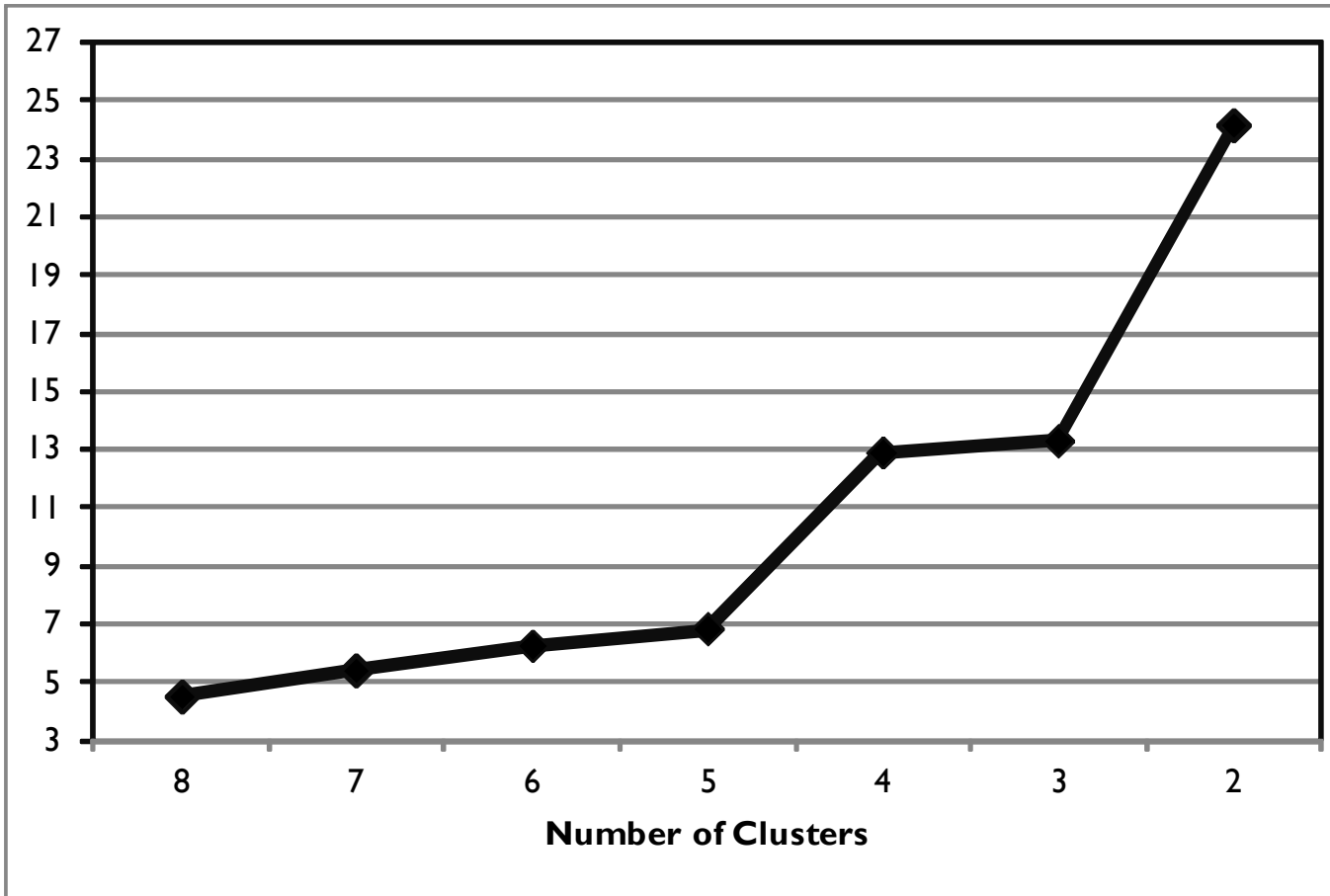


Figure S1. Scree-plot of the Increase in Error Sum of Squares (EES).

Table S4**Fit Indices for the 3- and 5-cluster Hierarchical Solutions.**

Solution	PBC	C	GAMMA	W/B	G+
3 Clusters	.549	.051	.529	.326	.111
5 Clusters	.317	.044	.673	.233	.065

Note. PBC = Point-biserial correlation coefficient; C = the C index; GAMMA = Gamma index; WB = the W/B index; G(+) = the G(+) index. Best fitting indices are in bold.