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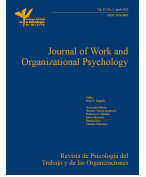
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Mobbing as a Predictor of Health Risk Behaviours and Seeking Specialist Support in Non-university Teachers

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ABSTRACT

The purpose of this study was to investigate whether experiencing mobbing can predict different health risk behaviours, such as smoking, alcohol intake, increased use of medication as a consequence of psychological disorders at work, and the need to seek specialist support in non-university teachers ($N = 9,350$). The results of the factorial analysis confirmed the one-dimensionality of the scale and its invariance by gender and educational stage. Results for the predictive model showed that the total score on a mobbing scale predicts the increase in both alcohol intake and tobacco use, a greater use of medication as a consequence of psychological or psychosomatic health disorders at work, and the need to seek support from a specialist to overcome some personal crises related to work. Likewise, the consumption of alcohol and tobacco were positively correlated, whereas the search for specialist support was more related to the increase in the use of medication.

El acoso psicológico como predictor de conductas de riesgo para la salud y la búsqueda de apoyo especializado en los docentes no universitarios

RESUMEN

El objetivo del estudio fue investigar si el acoso psicológico predecía conductas de riesgo no saludables en forma de aumento del consumo de tabaco y alcohol y aumento del consumo de medicamentos por trastornos psicológicos asociados al trabajo, así como la búsqueda de apoyo de profesionales en docentes no universitarios ($N = 9,350$). Un análisis factorial inicial confirmó la unidimensionalidad de la escala de *mobbing* y su invarianza por género y etapa educativa. Los resultados del modelo predictivo mostraron que la puntuación en acoso predice el aumento de consumo de alcohol y de tabaco y mayor uso de medicamentos debido a problemas de salud psicológicos o psicósomáticos derivados del trabajo, así como la necesidad de buscar apoyo de especialistas para superar crisis personales relacionadas con el trabajo. El aumento del consumo de alcohol y de tabaco correlacionan positivamente. La búsqueda de apoyo especializado está más relacionada con el aumento del uso de medicamentos.

Mobbing (bullying or harassment) at work (Leymann, 1996) has been defined as unethical and hostile behaviours systematically carried out by one or more individuals towards mainly one individual who is pushed into a helpless and defenceless position and held there by means of continued mobbing activities. The expressions bullying and harassment can be used synonymously with the concept of mobbing to refer to the same phenomenon (Einarsen et al., 2011). Sperry (2009) states that the terms bullying and mobbing are used more or less synonymously, although preferences vary geographically.

Mobbing in the workplace is considered an interpersonal workplace aggression performed by individuals to harm others with whom they work. This form of aggression is not necessarily

related to discriminatory behaviours based on gender, race, or social group. The worker is exposed to negative actions from superiors or co-workers and finds it difficult to defend him/herself against these actions due to a real or perceived power imbalance between the victim and the perpetrator (Nielsen et al., 2021). Mobbing is a severe psychosocial stressor that involves long-lasting exposure to repeated negative behaviours at work, such as offending or ostracizing individuals, humiliating their honour and dignity by knowingly disseminating false information, making insulting remarks, performing intimidating behaviours, or taking actions that negatively affect an individual's job (e.g., having his/her work sabotaged, having essential and relevant information withheld that affects his/her performance, etc.) (Conway et al., 2022). These actions

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must occur on a very frequent basis, at least once a week, and over a long period of time, lasting at least six months (Leymann, 1996).

Mobbing actions are characterized by an intentional use of power against another person that can result in harm to his/her physical, mental, or social development. Due to its high frequency and long duration, this maltreatment results in considerable psychological, psychosomatic, and social misery. It affects an individual's mental health and it has negative consequences for the organization. Exposure to mobbing in the workplace is a more devastating problem for employees than all the other types of work stress combined, leading to psychosomatic and psychiatric problems (Ulaş et al., 2018), hopelessness, depression (Figueiredo-Ferraz et al., 2015; Miller et al., 2020), cardiovascular diseases (Romero et al., 2020), sleep problems (Nielsen et al., 2020), insomnia (Nielsen et al., 2021), and suicide risk (Alfano et al., 2021; Conway et al., 2022; Miller et al., 2020) in workers who experience it. Some studies have concluded that exposure to work-related violence and mobbing is associated with the prescription and use of anti-depressive (Rudkjoebing et al., 2021), anxiolytic (Messiaen et al., 2021), and psychotropic medication (Lallukka et al., 2012), as well as psychotherapy follow-ups (Messiaen et al., 2021). Moreover, victims may try to cope with mobbing by increasing the frequency of unhealthy behaviors such as alcohol intake (Aykut et al., 2016; Campo & Klijn, 2018; Giorgi, 2010; Giousmpasoglou et al., 2018; González & Delgado, 2008; Ulaş et al., 2018) and smoking (Hansen et al., 2021; Jacobsen et al., 2018; Lloyd, 2020).

The average prevalence of mobbing worldwide is estimated at 14.6% (Alfano et al., 2021), ranging from 11.3% to 18.1% depending on the measurement method used (Conway et al., 2022). Educational settings displayed prevalence levels that exceeded average mobbing rates, with values between 14% and 22% (Hodgins & McNamara, 2019). In addition, some studies have shown that teachers are frequently victims of mobbing (Scheeler et al., 2022; Zapf et al., 2020).

Taking into consideration the gender distribution of the victims, some studies have concluded that the prevalence of mobbing is higher in women than in men (Salin, 2021b; Zachariadou et al., 2018), with one-third of the victims being men and two-thirds being women in the majority of the samples (Zapf et al., 2020). In addition, the school as an organization can be a risk factor. Some studies have concluded that teachers working in high schools suffer more hostile behaviours than their colleagues teaching in elementary schools (J.-K. Chen & Astor, 2009).

Even though researchers on mobbing use both quantitative and qualitative research methods, there seems to be a preference for quantitative research. The most widely used questionnaires to assess mobbing are the Leymann Inventory of Psychological Terror (LIPT-45; Leymann, 1990) and the Negative Acts Questionnaire-Revised (NAQ-R; Einarsen et al., 2009). Validity studies carried out in different countries make it possible to affirm that both questionnaires are psychometrically robust enough for use and they have concluded that both the LIPT (see, Silva et al., 2021) and the NAQ-R (see, Erwandi et al., 2021) are suitable tools for assessing mobbing in different labour contexts.

However, threats, aggression, and mobbing activities in the workplace are influenced by cultural and socioeconomic factors that produce differences in these actions, or in the way similar behaviours are developed, because cultural values have been shown to be a strong determinant of many organizational behaviours (Leng & Yazdanifard, 2014; Salin, 2021a; Salin et al., 2019). Due to these differences, it is possible that the most widely used questionnaires to assess mobbing, i.e., the LIPT-45 and NAQ-R, do not include some of the relevant and most frequent mobbing actions carried out by perpetrators in Mediterranean countries (e.g., Spain, France, Greece, Italy, or Portugal). Thus, in these countries, it would be more appropriate to assess mobbing actions with questionnaires that were developed with cultural contexts different from the Anglo-Saxon labour culture in mind to predict

health risk behaviours and disorders of health related to mobbing. The Mobbing-UNIPISCO scale (Gil-Monte et al., 2006) aims to fill this gap by considering these cultural differences.

Overview of the Mobbing-UNIPISCO Scale

The Mobbing-UNIPISCO scale is based on the concept of mobbing developed by Leymann (1996). The scale contains 20 items designed to identify five categories of mobbing actions:

1. Effects on the victim's possibilities of communicating adequately (not having the possibility to communicate or meet with the boss, continuously interrupting the victim, indifference and verbal aggressions, yelling at or scolding the victim in the presence of others, being humiliated when asking questions or trying to participate in a conversation, receiving threats of being fired, receiving offensive telephone calls or written messages).

2. Effects on the victim's possibilities of maintaining social contacts (physical isolation, avoidance, rejection, social exclusion).

3. Effects on the victim's possibilities of maintaining his or her personal reputation (small errors unfairly exaggerated, attacks on opinions, rumours, ridicule, being humiliated in front of others, tasks sabotaged or intentionally distorted, victim's job performance belittled regardless of what she/he does).

4. Effects on the victim's occupational situation (no tasks, lack of information necessary for work, uninteresting tasks, humiliating tasks, or tasks inferior to skills).

5. Effects on the victim's health (physical threats and sexual harassment).

The 20 items are evaluated on a frequency scale. Previous studies have concluded that this scale has good psychometric properties, and all the items loaded in one factor labelled Mobbing in a sample of employees working with disabled people (Gil-Monte et al., 2006). In addition, the scale has shown good internal consistency values, measured with Cronbach's alpha (Figueiredo-Ferraz et al., 2015), and test-retest reliability ($r = .82$) (Figueiredo-Ferraz et al., 2015).

Moreover, the scale includes an additional item where the participants indicate the duration of the actions ("How long have you been experiencing these actions?"). This item is evaluated on a scale with seven options: (0) "I have been experiencing these actions for less than 6 months" to (6) "more than 10 years" (see Appendix). To identify a suspicious case of mobbing, two criteria used in the literature are combined (Leymann, 1996): at least one out of the list of 20 mobbing items evaluated on the frequency scale has to receive a rating equal to or higher than 3 (a few times a week); and the duration of the item has to get a rating equal to or higher than 1 (between 6 months and 1 year). Any positive cases should be confirmed in a psychological interview.

The Present Study

The purpose of this study was to investigate whether experiencing mobbing can predict different health risk behaviours, such as smoking, alcohol intake, increased use of medication as a consequence of psychological disorders at work, and the need to seek specialist support in non-university teachers. As a preliminary step, the one-dimensionality and invariance of the scale was analysed according to sex and the educational level at which they work.

Method

Participants

The sample included 9,350 non-university teachers from different levels of public education in the province of Valencia (Spain) (men,

2,704; women, 6,608; missing, 38). The data were collected in a non-random way from a population of about 35,000 subjects, with some small size variations between academic years depending on the personnel needs of the schools. The margin of error for this sample size is less than 1.25% (confidence level = 99%).

Mean age was 45.69 years ($SD = 9.13$, age range = 20–70 years). Regarding the type of contract, 98.70% of the sample ($n = 9,226$) were tenured teachers working as civil servants, and 0.60% ($n = 52$) were temporary teachers. The mean years of seniority in the profession of all the participants was 17.69 years ($SD = 9.79$, seniority range = 0.80–50 years). The sample distribution was: (a) 15.30% kindergarten teachers, (b) 35.50% primary school teachers, (c) 34.80% secondary school teachers, and (d) 14.40% trade-school teachers – i.e., children, 50.80% (a and b) and teenagers, 49.20% (c and d).

Instrument

Mobbing was evaluated by the Mobbing-UNIPISCO scale (Figueiredo-Ferraz et al., 2015). This scale contains 20 items adapted from the results of some interviews carried out with mobbing victims. Items deal with: (1) effects on the victim's opportunities to communicate adequately (5 items; e.g., "Your chances to communicate, talk, or meet with your boss are restricted"), (2) effects on the victim's opportunities to maintain social contacts (2 items; e.g., "Being moved to isolate you from your colleagues"), (3) effects on the victim's possibilities of maintaining his or her personal reputation (7 items; e.g., "Being ridiculed or humiliated in front of others"), (4) effects on the victim's occupational situation (4 items; e.g., "Being left without any work to do, even if you initiate it"), and (5) effects on the victim's health (2 items; e.g., "Being the victim of sexual harassment") (see Appendix). The items are evaluated on a scale with five options: (0) *never* to (4) *every day*. All items load on one factor labelled Mobbing.

Alcohol and tobacco use were evaluated using one item each that alluded to the frequency with which these products had been used in recent weeks as a consequence of troubles at work: "As a consequence of troubles at work, has your daily alcohol use increased?"; "As a consequence of troubles at work, has your daily tobacco use increased?". Medication use was evaluated using one item that alluded to the frequency with which medication had been used in recent weeks as a consequence of health disorders at work: "As a consequence of psychological or psychosomatic health disorders at work, have you had to take any medication to manage them?". In the same way, professional support was evaluated with the item "Have you needed support from a specialist to overcome a personal crisis related to your work?". Participants answered the items on all the subscales on a 5-point frequency scale ranging from *never* (0) to *very frequently: every day* (4).

Procedure

This study respected the fundamental principles of the Declaration of Helsinki (World Medical Association, 2013), taking into special consideration the confidentiality and non-discrimination of participants. All the public non-university schools in the province of Valencia were asked to participate. Teachers were informed of the purpose of the study. This study was carried out following the instructions of the *Instituto Valenciano de Seguridad y Salud en el Trabajo* (INVASSAT) (Government of the Valencian Region). Before starting the assessment, the ethical department of this institution was consulted and concluded that, because participation was voluntary and the teachers just had to answer an anonymous questionnaire, the research did not need to be checked by a bioethics committee. Data were collected by

paper and pencil at the workplace between October 2015 and May 2020 by employees working in the INVASSAT. The INVASSAT employees went to all the schools and informed the director, union representative, and teachers at each school about the procedure. Then, each teacher filled out the questionnaire individually in the presence of an INVASSAT employee in order to address any doubts, and the completed questionnaires were given to the INVASSAT employee.

Data Analysis

As a preliminary step, a confirmatory factor analysis (CFA) was performed to test the one-dimensionality of the Mobbing-UNIPISCO scale, in line with previous literature (Gil-Monte et al., 2006) (Study 1). For this purpose, the WLSMV estimator (weighted least squares adjusted for mean and variance) was used due to the ordinal nature of the response scale (scale with five options: (0) *never* to (4) *every day*) and the non-normal nature of the data (Lloret et al., 2017). The fit indices that served as reference were the comparative fit index (CFI), the standardized root mean square residual (SRMR), and the root mean square error of approximation (RMSEA). Values above .90 for CFI and below .08 for RMSEA and SRMR can be considered indicators of good fit (Brown, 2015; Hu & Bentler, 1999; Raykov & Marcoulides, 2016). Reliability was assessed with the composite reliability (CR) index (Raykov, 2011) and Cronbach' alpha. Next, the average variance extracted (AVE) was calculated to estimate the proportion of variance explained by each factor. Values equal to or greater than .70 for the CR and alpha and equal to or greater than .50 for the AVE are considered good (Raykov, 1997). The corrected item-total polychoric correlations were calculated as indicators of the corrected homogeneity indices for items with ordinal response scales (Raykov & Marcoulides, 2011).

Likewise, the measurement invariance across gender and educational stage was evaluated by calculating three nested invariance models: configural, metric, and scalar. To study invariance by educational stage, two groups were formed: teachers working with children up to 12 years of age (infant and primary), representing 50.8% of the sample, and teachers working with adolescents (secondary and trade school), representing 49.2% of the total sample. To assess the degree of invariance among the models, we followed the indications of Meade et al. (2008), who recommend the use of an approximative fit index such as CFI or RMSEA because the χ^2 is greatly affected by sample sizes as large as the one in this study (Shi et al., 2018). Thus, evidence of measurement invariance was supported by the following changes in the between-model fit indices: reject if CFI change is lower than -.010, RMSEA change is greater than .010, and SRMR change is greater than .015 (Chen, 2007; Cheung & Rensvold, 2002).

Finally, to study the predictive model a structural equation model (SEM) was specified for the Mobbing-UNIPISCO scale as a predictor of four health behaviours: tobacco use, alcohol intake, medication use, and professional support (Study 2). CFA analyses, corrected item-total polyserial correlations, measurement invariance, and the predictive model, were performed with Mplus 8.8 (Muthén & Muthén, 2017), whereas IBM SPSS 28 was used for the description of sociodemographic variables and item statistics of the Mobbing-UNIPISCO scale.

Results

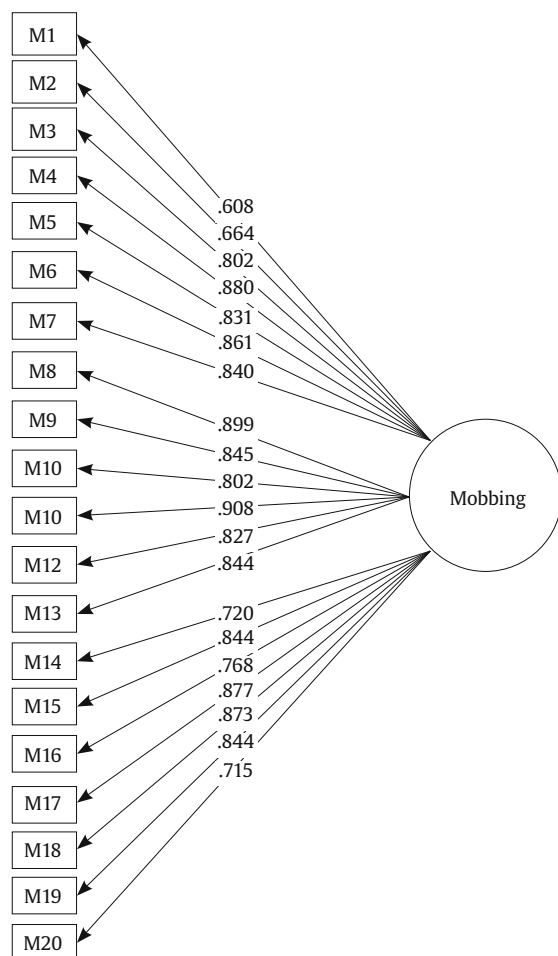
Study 1. Dimensionality and Invariance of the Mobbing-UNIPISCO Scale

Table 1 shows descriptive statistics for the items and corrected item-scale correlations. All the items presented very good

Table 1. Statistics and Corrected Item-Total Polyserial Correlations for the Items of the Mobbing-UNIPSICO Scale ($N = 9,350$)

	Mean	SD	Skewness	Kurtosis	Item-total corrected polyserial correlations	Standard errors for the item-total corrected polyserial correlations
Item 1	.63	.86	1.49	2.14	.434	.007
Item 2	.28	.68	30.20	10.12	.439	.008
Item 3	.45	.82	2.14	4.66	.608	.005
Item 4	.37	.77	2.52	6.70	.673	.004
Item 5	.19	.60	3.85	16.51	.569	.007
Item 6	.32	.76	2.93	9.02	.638	.005
Item 7	.25	.64	3.21	11.65	.589	.006
Item 8	.18	.57	3.91	17.46	.620	.006
Item 9	.23	.60	3.33	12.74	.579	.006
Item 10	.30	.69	2.86	9.12	.571	.006
Item 11	.30	.70	2.90	9.22	.684	.005
Item 12	.07	.36	6.60	50.95	.470	.009
Item 13	.07	.40	6.91	53.65	.488	.011
Item 14	.04	.26	8.61	87.22	.360	.014
Item 15	.12	.48	5.01	28.64	.535	.008
Item 16	.05	.32	7.62	68.51	.410	.012
Item 17	.04	.29	9.56	103.09	.444	.013
Item 18	.12	.49	5.14	30.21	.549	.008
Item 19	.23	.65	3.60	14.31	.580	.007
Item 20	.02	.19	13.71	220.74	.309	.016

homogeneity indices, except for item 20, whose value is much lower than that of the other items (.309). This item had the highest kurtosis ($Ku = 220.74$) and the second most extreme skewness value ($Sk = 13.71$). In addition, Item 17 ($Ku = 103.09$, $Sk = 9.56$) and Item 14 ($Ku = 87.22$, $Sk = 8.61$) showed high values for kurtosis and skewness.

**Figure 1.** Path Diagram of the Confirmatory Factor Analysis with Standardized Coefficients ($N = 9,350$).

All coefficients were statistically significant ($p < .001$).

All factor loadings were statistically significant ($p < .001$), ranging between .608 (Item 1) and .908 (Item 11) (Figure 1). Table 1 shows the descriptive data of the Mobbing-UNIPSICO scale items and the item-total corrected polyserial correlations. All of them were statistically significant, ranging between .309 (item 20) and .684 (item 11), and with standard errors ranging between .004 (item 4) and .016 (item 20). The composite reliability index ($CR = .975$), Cronbach's alpha ($\alpha = .93$) and the average variance extracted ($AVE = .709$) showed very good values. The results confirmed the hypothesized model.

The one-dimensional CFA showed good fit to the data, $\chi^2_{(170)} = 5,443.66$, $p < .001$, CFI = .962, SRMR = .052, RMSEA = .058, RMSEA 90% CI [.056, .059] (Table 2). Table 2 shows the results for the measurement invariance models. The fit indices of the estimated models confirm that scalar invariance was fulfilled by both gender and educational stage. Therefore, the comparison of the latent means of the subgroups was carried out. In the case of gender, the latent mean of the male group was set to 0, and the result of the comparison of the means showed that there were no differences between males and females on the mobbing scale scores ($b = -0.014$, $z = -0.535$, $p = .593$). For the educational stage, the reference group was teachers who taught children. The results of the comparisons of the means of the two groups showed that teachers who taught adolescents scored higher on the mobbing scale ($b = 0.049$, $z = 1.957$, $p = .050$).

Study 2. Predictive Model

To evaluate the predictive model, a SEM model was performed using the Mobbing variable as predictor and four dependent variables: alcohol intake, tobacco use, medication use, and professional support (see Figure 2). The model showed a very good fit, $\chi^2_{(246)} = 5,318.64$, $p < .001$, CFI = .966, RMSEA = .047, RMSEA 90% CI [.046, .048]. All the coefficients of the model were statistically significant and in the expected direction (see Figure 2), so that the higher the score on the mobbing scale, the greater the search for specialist support ($\beta = .337$) and the greater the alcohol intake ($\beta = .109$), tobacco use ($\beta = .142$), and medication use ($\beta = .300$). In addition, the score on the Mobbing scale turned out to be the best predictor

Table 2. Measurement Invariance by Gender and by Educational Stage Models, and Goodness-of-fit Indices

Models in Each Group		χ^2	df	$\Delta\chi^2$	Δdf	CFI	RMSEA	SRMR	ΔCFI	$\Delta RMSEA$	$\Delta SRMR$
Gender	Men ($n = 2,704$)	1,803.60***	170			.965	.060				
	Women ($n = 6,608$)	3,473.41***	170			.965	.054				
Educational Stage	Kids ($n = 4,749$)	2,365.46***	170			.969	.052				
	Teenagers ($n = 4,601$)	2,821.17***	170			.963	.058				
Models for Gender											
Configural		5,208.13***	340	-	-	.965	.055	.052	-	-	-
Metric		4,939.87***	359	135.197	19	.967	.052	.052	-.002	.003	.000
Scalar		3,701.13***	418	148.607	59	.977	.041	.053	-.010	.011	-.001
Models for Educational Stage											
Configural		5,184.26***	340	-	-	.966	.055	.053	-	-	-
Metric		5,030.00***	359	251.931	19	.967	.053	.054	-.001	.002	-.001
Scalar		3,782.69***	418	133.480	59	.976	.041	.055	-.009	.012	-.001

Note. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-squared residual; ΔCFI = CFI change; $\Delta RMSEA$ = RMSEA change; $\Delta SRMR$ = SRMR change.

*** $p < .001$.

of the need for specialist support and the increase in alcohol intake. Moreover, the relationships between the variables related to health were all found to be statistically significant, especially the relationship between medication use and specialist support ($\Phi = .378$). However, two of them were very close to 0 (between alcohol intake and medication use, $\Phi = .050$; and between alcohol intake

and specialist support, $\Phi = .028$), but they are probably statistically significant due to the large sample size.

Discussion

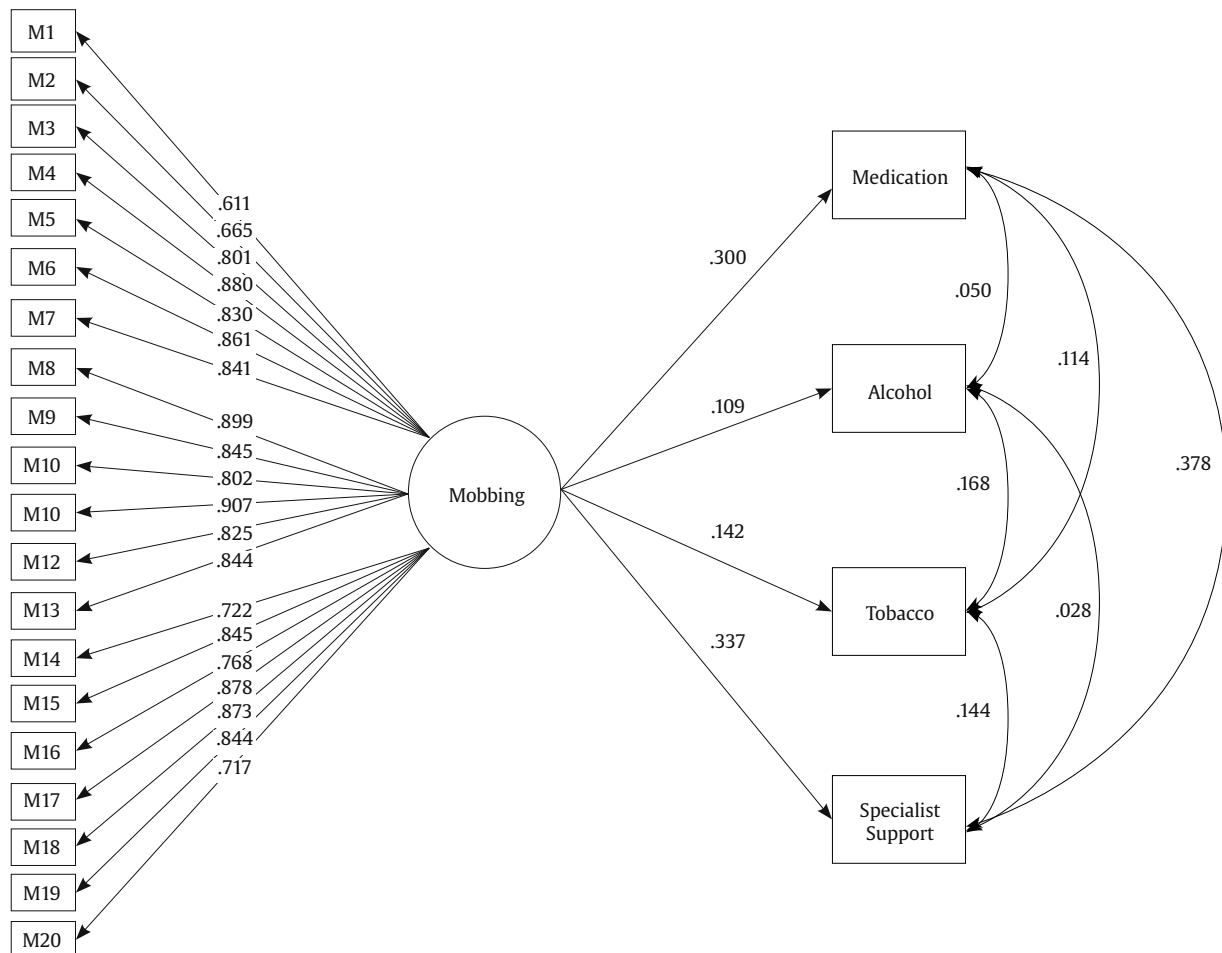


Figure 2. Path Diagram of the Validity Model with Standardized Coefficients ($N = 9,350$). All coefficients were statistically significant ($p < .001$).

The aim of this study was to explore whether experiencing mobbing can predict different health risk behaviours, such as smoking, alcohol intake, increased use of medication as a consequence of psychological disorders at work, and the need to seek specialist support in a sample of Spanish non-university teachers. The results of the previous factor analysis confirm the one-dimensionality of the scale, which also offers good reliability indicators. Likewise, the lower homogeneity, and the high both kurtosis and skewness values for item 20 may be due to the content of the item, which refers to sexual harassment, with more than 98% of the sample indicating that it has never happened to them. According to Çelik and Peker (2010), the least common mobbing behaviours in teachers working in high schools involved experiencing sexual harassment (verbal, visual, physical, etc.). Despite this, the relationship of this item with the total score of the scale is not negligible and it is necessary to evaluate the possibility of the existence of sexual harassment at work in order to evaluate mobbing in all its dimensions.

The characteristics of the teaching profession could explain the high kurtosis and skewness values obtained for Item 17 and Item 14. Item 17 evaluates the effects of being moved to some room to isolate him/her from colleagues on the victim's possibilities of maintaining social contacts. However, in the workplace, the teaching activities impede these actions because teachers spend most of their time inside the classroom, carrying out activities with students individually and communicating with parents or guardians (McShane, 2022; OECD, 2020). Item 14 evaluates the effects of receiving offensive telephone calls or written messages on the victim's opportunities to communicate. These actions may not be used frequently because they provide evidence of aggressive behaviours (e.g., the telephone call can be heard by a witness who can identify the perpetrator, and the written messages can be physical evidence in a judicial process). In Spain, aggressions toward teachers with the status of civil servants working in a public school are considered an "attack on authority" (article 550 and article 553 of the Spanish Penal Code), and they could be punished by a prison sentence of up to three years. In this study, 98.70% of the sample were tenured teachers working as civil servants. By contrast, the most frequent mobbing actions were related to the victim's possibilities of maintaining his or her personal reputation (Item 3 and Item 4), the victim's possibilities of maintaining social contacts (Items 6), and the victim's occupational situation, assigning absurd or senseless tasks (Item 1). These types of mobbing actions are common in educational institutions (Tosten et al., 2018).

Likewise, the Mobbing-UNIPSCO Scale has shown invariance by gender and educational stage. The results obtained when comparing the groups indicate that there are no differences between men and women in terms of perceived mobbing, but there are differences depending on the educational stage of the teacher. In this case, the results indicate that teachers who work with adolescents perceive more mobbing at work. This result is similar to the results obtained in previous studies that have concluded that teachers working in high schools experience more hostile behaviours than their colleagues in elementary schools (J.-K. Chen & Astor, 2009). Non-appreciation and criticism of performance and spreading rumours are the most common behaviours reported by teachers working in high schools (Çelik & Peker, 2010).

The predictive validity of the Mobbing-UNIPSCO Scale has been verified with the validity model because the total score on the mobbing questionnaire predicts the increase in both alcohol and tobacco consumption, a greater use of medication, and the need to seek support from a specialist to overcome some personal crisis related to work. On the whole, these results support the predictive validity of the Mobbing-UNIPSCO Scale, given that specialist support (Messiaen et al., 2021; Rudkjoebing et al., 2021), alcohol intake (Aykut et al., 2016; Campo & Klijn, 2018; Giorgi, 2010;

Giousmpasoglou et al., 2018; Ulaş et al., 2018), tobacco use (Hansen et al., 2021; Jacobsen et al., 2018; Lloyd, 2020), and medication use (Lallukka et al., 2012; Messiaen et al., 2021; Rudkjoebing et al., 2021) have been identified as relevant consequences of mobbing activities. Moreover, the model shows that the consumption of alcohol and tobacco are positively correlated, whereas the search for specialist support is more related to the increase in the use of medication.

Finally, taking the size of the sample into consideration, our results can be generalized to other Spanish samples of non-university teachers in other places and support the external validity of the scale.

Limitations and Future Directions

In interpreting our findings, several limitations should be noted. First, some significant results could be influenced by the large sample size (e.g., relationship between mobbing and alcohol intake and between mobbing and tobacco use). Second, it should also be noted that answers to the questionnaire were subjective and, therefore, may be biased. Third, another limitation of the study is that the score on the Mobbing variable was calculated as a mean of all the scores on the scale, and it included all the individuals in the sample, both those who met the mobbing criteria and those who did not. Fourth, the study only focuses on teachers, which restricts the generalizability of the results. Therefore, we suggest that other organizational contexts be studied in future research.

Conclusion and Implications

On the whole, the results of our study indicate that the Mobbing-UNIPSCO Scale possesses adequate psychometric properties for the study of mobbing in Spanish teachers. This study is relevant because it provides evidence supporting the predictive validity of an alternative mobbing measure, taking into consideration some of the relevant and most frequent mobbing actions carried out by the perpetrators in a cultural context different from the Anglo-Saxon labour culture. In Mediterranean countries it would be more appropriate to assess mobbing actions with questionnaires developed by taking into consideration cultural contexts different from the Anglo-Saxon context. The Mobbing-UNIPSCO scale is designed to fill this gap.

Conflict of Interest

The authors of this article declare no conflict of interest.

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Author Contributions

All authors contributed to the study conception and design. Material preparation and analysis were performed by all authors. Data collection was performed by Pedro R. Gil-Monte. The first draft of the manuscript was written by all authors, who also commented on previous versions of the manuscript. All authors read and approved the final manuscript. Link to access data directly: <https://zenodo.org/records/10260199>. Gil-Monte, P. R. (2023). Database Mobbing-UNIPSCO Scale in Spanish Teachers [Data set].

Zenodo. <https://doi.org/10.5281/zenodo.10260199>

References

- Alfano, V., Ramaci, T., Landolfi, A., Lo Presti, A., & Barattucci, M. (2021). Gender patterns in mobbing victims: Differences in negative act perceptions, MMPI personality profile, perceived quality of life, and suicide risk. *International Journal of Environmental Research and Public Health*, 18(4), Article 2192. <https://doi.org/10.3390/ijerph18042192>
- Aykut, G., Efe, E. M., Bayraktar, S., Şentürk, S., Başgömez, İ., Özkumit, Ö., Kabak, E., Yavaşcaoglu, B., & Bilgin, H. (2016). Mobbing exposure of anaesthesiology residents in Turkey. *Turkish Journal of Anaesthesiology and Reanimation*, 44(4), 177-189. <https://doi.org/10.5152/TJAR.2016.79446>
- Brown, T. A. (2015). *Confirmatory factor analysis for applied research*. Guilford Press.
- Campo, V. R., & Klijn, T. P. (2018). Verbal abuse and mobbing in pre-hospital care services in Chile [Verbal abuse and mobbing in pre-hospital care services in Chile]. *Revista Latino-Americana de Enfermagem*, 25, Article e2956. <https://doi.org/10.1590/1518-8345.2073.2956>
- Çelik, S., & Peker, S. (2010). Mobbing perceptions of high school teachers. *Procedia Social and Behavioral Sciences*, 9, 1617-1623. <https://doi.org/10.1016/j.sbspro.2010.12.375>
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, 14(3), 464-504. <https://doi.org/10.1080/10705510701301834>
- Chen, J.-K., & Astor, R. A. (2009). Students' reports of violence against teachers in Taiwanese schools. *Journal of School Violence*, 8(1), 2-17. <https://doi.org/10.1080/1538820802067680>
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(2), 233-255. https://doi.org/10.1207/S15328007SEM0902_5
- Conway, P. M., Erlangsen, A., Grynderup, M. B., Clausen, T., Rugulies, R., Björner, J. B., Burr, H., Francioli, L., Garde, A. H., Hansen, A. M., Hanson, L. M., Kirchheiner-Rasmussen, J., Kristensen, T. S., Mikkelsen, E. G., Stenager, E., Thorsen, S. V., Villadsen, E., & Høgh, A. (2022). Workplace bullying and risk of suicide and suicide attempts: A register-based prospective cohort study of 98,330 participants in Denmark. *Scandinavian Journal of Work, Environment & Health*, 48(6), 425-434. <https://doi.org/10.5271/sjweh.4034>
- Einarsen S., Hoel H., & Notelaers G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work and Stress* 23(1), 24-44. <https://doi.org/10.1080/02678370902815673>
- Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. (2011). The concept of bullying and harassment at work: The European tradition. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and harassment in the workplace: Developments in theory, research, and practice* (2nd ed., pp. 3-40). Taylor & Francis.
- Erwandi, D., Kadir, A., & Lestari, F. (2021). Identification of workplace bullying: Reliability and validity of Indonesian version of the Negative Acts Questionnaire-Revised (NAQ-R). *International Journal of Environmental Research and Public Health*, 18(8), Article 3985. <https://doi.org/10.3390/ijerph18083985>
- Figueiredo-Ferraz, H., Gil-Monte, P. R., & Olivares, V. (2015). Influence of mobbing (workplace bullying) on depressive symptoms: A longitudinal study among employees working with people with intellectual disabilities. *Journal of Intellectual Disability Research*, 59(1), 39-47. <https://doi.org/10.1111/jir.12084>
- Gil-Monte P. R., Carretero N., & Luciano J. V. (2006). Prevalencia del mobbing en trabajadores de centros de asistencia a personas con discapacidad [Prevalence of mobbing in a sample of employees working with disabled people]. *Revista de Psicología del Trabajo y de las Organizaciones*, 22(3), 275-291.
- Giorgi, G. (2010). Workplace bullying partially mediates the climate-health relationship. *Journal of Managerial Psychology*, 25(7), 727-740. <https://doi.org/10.1108/02683941011075274>
- Giousmpasoglou, C., Brown, L., & Cooper, J. (2018). Alcohol and other drug use in Michelin-starred kitchen brigades. *International Journal of Hospitality Management*, 70(5), 59-65. <https://doi.org/10.1016/j.ijhm.2017.11.003>
- González, D., & Delgado, S. (2008). Acoso laboral y trastornos de la personalidad: un estudio con el MCMI-II [Mobbing and personality disorders: A pilot study with the MCMI-II]. *Clínica y Salud*, 19(2), 191-204.
- Hansen, A. M., Grynderup, M. B., Clausen, T., Bonde, J., Garde, A., Kaerlev, L., Kolstad, H., & Høgh, A. (2021). Labour market affiliation among non-bullied colleagues at work units with reported bullying. *International Archives of Occupational and Environmental Health*, 94(4), 547-556. <https://doi.org/10.1007/s00420-020-01604-8>
- Hodgins, M., & McNamara, P. M. (2019). An enlightened environment? Workplace bullying and incivility in Irish higher education. *SAGE Open*, 9(4). <https://doi.org/10.1177/2158244019894278>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Jacobsen, D. P., Nielsen, M. B., Einarsen, S., & Gjerstad, J. (2018). Negative social acts and pain: evidence of a workplace bullying and 5-HTT genotype interaction. *Scandinavian Journal of Work, Environment & Health*, 44(3), 283-290. <https://doi.org/10.5271/sjweh.3704>
- Lallukka, T., Haukka, J., Partonen, T., Rauhkonen, O., & Lahelma, E. (2012). Workplace bullying and subsequent psychotropic medication: A cohort study with register linkages. *BMJ Open*, 2(6), Article e001660. <https://doi.org/10.1136/bmjopen-2012-001660>
- Leng, C. Z., & Yazdanifard, R. (2014). The relationship between cultural diversity and workplace bullying in multinational enterprises. *Global Journal of Management and Business Research*, 14(A6), 13-18. <https://journalofbusiness.org/index.php/GJMBR/article/view/1316>
- Leymann, H. (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology*, 5(2), 165-184. <https://doi.org/10.1080/13594329608414853>
- Leymann, H. (1990). *Handbok för användning av LIPT-formuläret för kartläggning av risker för psykiskt våld i arbetsmiljön* (The LIPT questionnaire-a manual). Violent.
- Lloret, S., Ferreres, A., Hernández, A., & Tomás, I. (2017). The exploratory factor analysis of items: Guided analysis based on empirical data and software. *Anales de Psicología*, 33(2), 417-432. <https://doi.org/10.6018/analesps.33.2.270211>
- Lloyd, A. (2020). Harm at work: Bullying and special liberty in the retail sector. *Critical Criminology* 28(4), 669-683. <https://doi.org/10.1007/s10612-019-09445-9>
- McShane, M. Q. (2022). *How do teachers spend their time? Reporting findings from a national survey of educators in district, charter, and private schools*. EdChoice. <https://files.eric.ed.gov/fulltext/ED621761.pdf>
- Meade, A. W., Johnson, E. C., & Braddy, P. W. (2008). Power and sensitivity of alternative fit indices in tests of measurement invariance. *Journal of Applied Psychology*, 93(3), 568-592. <https://doi.org/10.1037/0021-9010.93.3.568>
- Messiaen, M., Duba, A., Boulangeat, C., Boucekine, M., Bourbon, A., Viprey, M., Auquier, P., Lançon, C., Boyer, L., & Fond, G. (2021). Repeated bullying at the workplace in medical students and young doctors: The MESSIAEN national study. *European Archives of Psychiatry and Clinical Neuroscience*, 271(6), 1123-1131. <https://doi.org/10.1007/s00406-020-01144-9>
- Miller, P., Brook, L., Stomski, N. J., Ditchburn, G., & Morrison, P. (2020). Depression, suicide risk, and workplace bullying: A comparative study of fly-in, fly-out and residential resource workers in Australia. *Australian Health Review*, 44(2), 248-253. <https://doi.org/10.1071/AH18155>
- Muthén, L. K. & Muthén, B. O. (2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.
- Nielsen, M. B., Harris, A., Pallesen, S., & Einarsen, S. V. (2020) Workplace bullying and sleep - a systematic review and meta-analysis of the research literature. *Sleep Medicine Reviews*, 51, Article 101289. <https://doi.org/10.1016/j.smrv.2020.101289>
- Nielsen, M. B., Pallesen, S., Einarsen, S. V., Harris, A., Rajalingam, D., & Gjerstad, J. (2021). Associations between exposure to workplace bullying and insomnia: A cross-lagged prospective study of causal directions. *International Archives of Occupational and Environmental Health*, 94(5), 1003-1011. <https://doi.org/10.1007/s00420-020-01618-2>
- OECD. (2020). *Education at a glance 2020: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/69096873-en>
- Raykov, T. (1997). Estimation of composite reliability for congeneric measures. *Applied Psychological Measurement*, 21(2), 173-184. <https://doi.org/10.1177/014662169702120>
- Raykov, T. (2011). Scale validity evaluation with congeneric measures in hierarchical designs. *British Journal of Mathematical and Statistical Psychology*, 64(3), 427-438. <https://doi.org/10.1348/000711009X484286>
- Raykov, T., & Marcoulides, G. A. (2011). *Introduction to psychometric theory*. Routledge. <https://doi.org/10.4324/9780203841624>
- Raykov, T., & Marcoulides, G. A. (2016). A direct latent variable modeling based method for point and interval estimation of coefficient alpha. *Educational and Psychological Measurement*, 75(1), 146-156. <https://doi.org/10.1177/0013164414526039>
- Romero, K., Hegewald, J., Schulz, A., Garthus-Niegel, S., Nübling, M., Wild, P. S., Arnold, N., Latza, U., Jankowiak, S., Liebers, F., Rosnagel, K., Riechmann-Wolf, M., Letzel, S., Beutel, M., Pfeiffer, N., Lackner, K., Münzel, T., & Seidler, A. (2020). Cardiovascular health outcomes of mobbing at work: Results of the population-based, five-year follow-up of the Gutenberg health study. *Journal of Occupational Medicine and Toxicology*, 15, Article 15. <https://doi.org/10.1186/s12995-020-00266-z>
- Rudkjoebing, L. A., Hansen, A. M., Rugulies, R., Kolstad, H., & Bonde, J. P. (2021). Exposure to workplace violence and threats and risk of depression: A prospective study. *Scandinavian Journal of Work, Environment & Health*, 47(8), 582-590. <https://doi.org/10.5271/sjweh.3976>
- Salin, D. (2021a). Workplace bullying and culture: Diverse conceptualizations and interpretations. In P. D'Cruz, E. Noronha, C. Caponecchia, J. Escartín, D. Salin, & M. R. Tuckey (Eds.), *Handbooks of workplace bullying, emotional abuse and harassment: Vol 3*.

- Dignity and inclusion at work* (pp. 513-538). Springer. https://doi.org/10.1007/978-981-13-0218-3_18
- Salin, D. (2021b). Workplace bullying and gender: An overview of empirical findings. In P. D'Cruz, E. Noronha, C. Caponecchia, J. Escartín, D. Salin, & M. R. Tuckey (Eds.), *Handbooks of workplace bullying, emotional abuse and harassment: Vol 3. Dignity and inclusion at work* (pp. 331-361). Springer. https://doi.org/10.1007/978-981-13-0218-3_12
- Salin, D., Cowan, R., Adewumi, O., Apospori, E., Bochantin, J., D'Cruz, P., Djurkovic, N., Durniat, K., Escartín, J., Guo, J., Işik, I., Koeszegi, S. T., McCormack, D., Monserrat, S. I., & Zedlacher, E. (2019). Workplace bullying across the globe: A cross-cultural comparison. *Personnel Review*, 48(1), 204-219. <https://doi.org/10.1108/PR-03-2017-0092>
- Scheeler, M. C., Markelz, A., Taylor, J. C., Deshpande, D. S., & Wolfe, P. (2022). Teacher workplace bullying: How pervasive is the problem? *Teacher Education and Special Education*, 45(2), 123-140. <https://doi.org/10.1177/08884064211015698>
- Shi, D., DiStefano, C., McDaniel, H. L., & Jiang, Z. (2018). Examining chi-square test statistics under conditions of large model size and ordinal data. *Structural Equation Modeling: A Multidisciplinary Journal*, 25(6), 924-945. <https://doi.org/10.1080/10705511.2018.1449653>
- Silva, R., Simões, M., Monteiro, A. P., & Dias, A. (2021). Leymann Inventory of Psychological Terror Scale: Development and validation for Portuguese accounting professionals. *Economies*, 9(3), Article 94. <https://doi.org/10.3390/economies9030094>
- Sperry, L. (2009). Mobbing and bullying: The influence of individual, work group, and organizational dynamics on abusive workplace behavior. *Consulting Psychology Journal: Practice and Research*, 61(3), 190-201. <https://doi.org/10.1037/a0016938>
- Tosten, R., Avci, Y. E., & Okcu, V. (2018). The relation between the exposure to mobbing and burnout levels of secondary school teachers. *International Journal of Learning and Teaching*, 10(4), 355-366. <https://doi.org/10.18844/ijlt.v10i4.3459>
- Ulaş, H., Afşaroğlu, H., & Binbay, İ. T. (2018). Workplace mobbing as a psychosocial stress and its relationship to general psychopathology and psychotic experiences among working women in a university hospital. *Turkish Journal of Psychiatry*, 29(2), 102-108. <https://doi.org/10.5080/u20523>
- World Medical Association. (2013). Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA: Journal of the American Medical Association*, 310(20), 2191-2194. <https://doi.org/10.1001/jama.2013.281053>
- Zachariadou, T., Zannetos, S., Chira, S. E., Gregoriou, S., & Pavlakis, A. (2018). Prevalence and forms of workplace bullying among health-care professionals in Cyprus: Greek version of "Leymann Inventory of Psychological Terror" instrument. *Safety and Health at Work*, 9(3), 339-346. <https://doi.org/10.1016/j.shaw.2017.11.003>
- Zapf, D., Escartín, J., Scheppa-Lahyani, M., Einarsen, S. V., Hoel, H., & Vartia, M. (2020). Empirical findings on the prevalence and risk groups of bullying in the workplace. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research, and practice* (3rd ed., pp. 105-162). CRC Press.

Appendix

Mobbing-UNIPISCO Scale

During the last 6 months, how often have you been subjected to the following negative acts in the workplace?

0 <i>Never</i>	1 <i>Occasionally</i>	2 <i>A few times a month</i>	3 <i>A few times a week</i>	4 <i>Everyday</i>
1. Being assigned absurd or senseless tasks				0 1 2 3 4
2. Being ordered to do work below your professional abilities or level of competency				0 1 2 3 4
3. Having small or unimportant errors unfairly exaggerated or dramatized				0 1 2 3 4
4. Having your opinions or your job performance belittled, regardless of what you do				0 1 2 3 4
5. Having your chances to communicate, talk, or meet with your boss restricted.				0 1 2 3 4
6. Being ignored, excluded, ostracized or made to feel invisible				0 1 2 3 4
7. Being continuously interrupted and not allowed to express yourself, and being humiliated when asking questions or trying to participate in a conversation				0 1 2 3 4
8. Being ridiculed or humiliated in front of others				0 1 2 3 4
9. Being shouted at or spoken to loudly to intimidate you				0 1 2 3 4
10. Having essential and relevant information withheld that affects your performance				0 1 2 3 4
11. Having what you say or do at work intentionally distorted or ignored				0 1 2 3 4
12. Being left without any work to do, even if you initiate it				0 1 2 3 4
13. Receiving threats or hints about being fired, having your contract cancelled, being transferred, etc.				0 1 2 3 4
14. Receiving offensive telephone calls/written messages				0 1 2 3 4
15. Having your work sabotaged				0 1 2 3 4
16. Being the victim of intimidating behaviours, such as invading your personal space, shoving, blocking your way				0 1 2 3 4
17. Being moved to another room to isolate you from your colleagues				0 1 2 3 4
18. Having insulting remarks repeatedly made about you or your private life				0 1 2 3 4
19. Having gossip and rumours spread about you behind your back				0 1 2 3 4
20. Being the victim of sexual harassment				0 1 2 3 4
21. Please, write down other negative acts to which you have been subjected that are not presented in the list above				
21a)				0 1 2 3 4
21b)				0 1 2 3 4
21c)				0 1 2 3 4

22. How long are you suffering these actions? Please, below circle the option that best fits your experience:

0	1	2	3	4	5	6
Less than 6 months ago that I suffer these actions	Between 6 months & 1 year	Between 1 & 2 years	Between 2 & 3 years	Between 3 & 5 years	Between 5 & 10 years	More than 10 years

Note. (1) Effects on the victim's possibilities to communicate adequately: items 5, 7, 9, 13, and 14. (2) Effects on the victim's possibilities to maintain social contacts: items 6 and 17. (3) Effects on the victim's possibilities of maintaining his or her personal reputation: items 3, 4, 8, 11, 15, 18, and 19. (4) Effects on the victim's occupational situation: items 1, 2, 10, and 12. (5) Effects on the victim's health: items 16 and 20.

