Workplace Bullying Scale:
The Study of Validity and Reliability

Nizamettin Doğar, PhD.
Turkish Military Attache, Tirana, Albania

Abstract

The aim of this research is to adapt the Workplace Bullying Scale (Tınaz, Gök & Karatuna, 2013) to Albanian language and to examine its psychometric properties. The research was conducted on 386 person from different sectors of Albania. Results of exploratory and confirmatory factor analysis demonstrated that Albanian scale yielded 2 factors different from original form because of cultural differences. Internal consistency coefficients are,890 -,801 and split-half test reliability coefficients, 864 -,808. Comfirmatory Factor Analysis results change from,40 to,73. Corrected item-total correlations ranged,339 to,672 and according to t-test results differences between each item's means of upper 27% and lower 27% points were significant. Thus Workplace Bullying Scale can be use as a valid and reliable instrument in social sciences in Albania.

Keywords: workplace bullying; validity; reliability; translation; confirmatory factor analysis

Inroduction

According to Leyman ''a work environment problem has been discovered, the existence and extent of which was not known previously. This phenomena has been called "mobbing," "ganging up on someone" or "psychic terror" (Leyman, 1990). Mobbing is defined as negative unwanted behaviours implemented from worker or groups to another worker. And it is commonly seen in workplace and has a dangerous effect on personal and organizational perspective (Tınaz, Gök & Karatuna, 2013).

The word mobbing has gained a wide range of use in the developed countries because of competition in everwhere including workplace. This competition cause bullying effects on workers and results psyco violence in order to get rid of workers. This phenemenon is wide range use and results in unhealthy working conditions (Tan, 2005).

Another word for mobbing is "workplace bullying" and it has gained a wide range of usage in recent years. The statement "workplace bullying" is used for attitudal, behavioural and emotioanal assaults made by superiors, subordinates or equal positioned persons to workers in order to harm (Yaman, 2009).

It occurs as schisms, where the victim is subjected to a systematic stigmatizing through, inter alia, injustices (encroachment of a person's rights), which after a few

years can mean that the person in question is unable to find employment in his/her specific trade. Those responsible for this tragic destiny can either be workmates or management (Leyman, 1990).

Even if there are lots of explanations and different phrases for mobbing, there is a consensus between researches about in which circumstances negative behaviours can be called as mobbing (Mathiesen & Einarsen, 2004). According to researches, in order to define an activity as mobbing, three pillars are needed:

1. Expose to negative treatment systematically (ie. once a week)
2. Expose to negative treatment in a long term (approximately six months)
3. Power inequality between exposing and exposed side to negative treatment (Vartia, 2001). If a behaviour is made only once or repeated from time to time, it can not be considered as bullying (Leymann, 1996; Salin, 2003; Vartia, 2003).

Workplace bullying has negative effects on workers. Researches has indicated that workers exposed to bullying effect on the workplace have diffucilties on concentration, lack of sleep (Einarsen, Mathiesen & Skokstad, 1998), post traumatic disorder (Leymann & Gustafsson,1996; Mathiesen & Einarsen, 2004), depression (Quine, 2001) and physical problems (Groeblinghoff & Becker,1996; Zapf, Knorz & Kulla, 1996). But the negative effects of bullying are not limited to workers. Workplace bullying have negative effects for the productivity and perfomance of the organization. In terms of the organizational effect, it is found that bullying effects the job satisfaction (Einarsen & Raknes,1997) and results with the organizational commitment.

There are different scales in order to measure mobbing. A recent Workplace Bullying Scale is published in 2009 and then revised in 2013. Current form of scale has four dimensions including “job oriented behaviours”, “behaviours damaging reputation”, “excluding behaviours” and “spoken, written and visual attacks”. Scale has 30 negative behaviour questions (Tınaz, Gök & Karatuna, 2010).

Scale is designed according to five factor Likert scale (Never=1, Rarely=2, Once or twice in a month=3, Once in a week=4, Nearly every day=5). In order to define every item’s factorial value, explanatory factor analysis is used and Principal Component Method is used for this analysis. According to analysis KMO coefficient=0.922, $\chi 2(435) = 6244{,}756$ and p(sigma) = 0.000 is found. According to KMO coefficent values, reasonably high correlation is found between variables. And since result of Barlett test is $p<0{,}05$ then it is statistically meaningful. According to factor analysis, factorial values of 30 items are range from 0,478 to 0,811. After implementing varimax factor rotation analysis, factors having variance participation percentage bigger than 1 tend to explain %62,5 of total variance. In terms of Scale’s reliability analysis, Cronbach Alfa is 0,927.

Methodology

Sample

Everitt (1975) recommended that ratio (sample size/number of variables being analyzed) should be at least 10. For this reason, and in order to have a heterogen result in the sample defining process, it is aimed to reach a sample group more than ten times of item number. So this research conducted on a sample group including 319 persons for strucrural validity and reliaility analysis and 67 persons for lingustic analysis. Ages range from 18 to 56 and average age is 28. The group consist of 180 male and 206 female. Linguistic Equivalence tests were administrated 40 persons from the sample group.

Application

In order to adapt Workplace Bullying Scale, firstly communication established with Pınar Tınaz via e-mail and permission for adapting scale to Albanian is secured. Because of cultural differencies, scale adapting process should be planned carefully and meticiously. Translation part is the first phase of this processs and any mistake in this process can result with bigger ones in the following process.

In the first phase, scale translated to Albanian by 6 person, three are working in Albanian University as a teacher in Foreign Languages Center in Turkish, and the other three are working as a certificated translator. After translation, it is observed that there are mismatches between translations. So, with the help of a professor educated in Turkey, best translation for every question chosen. Having only one translation for every question, scale translated to Turkish again. Both forms reassessed again in order to make coherence analysis and correct mismatches. After translating the scale to original, some mismatches found in 5 questions. These questions rephrased again, grammatical and structural compatibility is gained. As a result a test version of scale obtained.

In the second phase, draft scale applied on 20 person and asked them to define the questions that are not clear and can not be understood. Having told that all the questions are clear next step is applied.

Before validity and reliability tests, in order to asses coherence between Albanian and original scale, draft scale applied to 40 person graduated from Turkish universities and have a good level in both language. After applying the Linguistic Equivalence test it is observed both forms are equal. Then validity and relability tests process began. Because of the diffuculties of applying same test two times, scale applied 319 person for one time but in two forms. Single questions for one form and double questions in second form.

For this research as for validity analysis, structural validity analysis is applied. For the structural validity, Descriptive Factor Analysis (DFA) and Confirmatory Factor Analysis (CFA) are used. According to literature, DFA tries to reach limited logical descriptable structures from plenty of variables (Büyüköztürk, 2004). And CFA is made for understanding the compatibility between theoritical factors and original factors. In other words CFA is made for to compare compatability between original form and adapted form.

For the Linguistic Equivalence analysis, Pearson multiple moment correlation is applied. In order to compare % 27 down-top group's item sum "t" test, to calculate Cronbach Alpha (α) interior coefficient of consistence and element sum correlation reliability analysis are made. Reliability analysis is made according to interior consistence and split-half technique,

For validity and reliability tests for Workplace Bullying Scale SPSS 20.0 and AMOS 22 programs are used.

Findings

Linguistic Equivalence

Linguistic Equivalence analysis made according to the inputs gained from 40 person knowing both language in good level. Pearson multiple moment correlation is applied and found that correlation between original scale and Albanian version are high enough. Correlation for job oriented behaviours is,958, for excluding behaviours is,711. Results are shown in Table 1.

Factor	Application	X	Ss	r
Job oriented behaviours	Turkish form	1,5321	,51633	,958**
	Albanian form	1,5089	,51386	
Excluding behaviours	Turkish form	1,1500	,31035	,711**
	Albanian form	1,1156	,24250	

Table 1. Linguistic Equivalence Results

Structure Validity

Descriptive Factor Analysis (DFA)

In order to analyze structural validity of Workplace Bullying Scale DFA is applied. First, correlations between all items analyzed. And it is found there are reasonable correlations between all items. Second, sampling adequacy and Barlett Sphericity tests are done. According to literature, for an appropriate factor analyze, KMO tests results must be higher than.60 and Barlett test must be reasonable (Büyüköztürk, 2004).

For this research KMO sampling adequacy coefficient is,905 that is to say compatibility of variables for factor analysis is reasonably high. And Barlett Sphericity test χ2 value is 2940,291 (p<.001) that is to say current variables is again compatible for factor analysis and research's inputs are highly valid for different statistical analysis.

Original Workplace Bullying Scale consists of 4 factors. In the DPA analyses, after seeing scree-plot graphic and factorial loads, scale restrained with 2 factors and varimax rotation is applied. 8 items eliminated from the scale since they have reliability coefficient less than,40. As a result two-factor and 22 item-scale that is explaining % 45,329 of total variance obtained. Results are shown in Table 2.

KMO Scale	0,905	
Barlett Scale	2940,291	0,000

Table 2. Kaiser-Meyer-Olkin (KMO) & Bartlett Test Results

According to factor analysis results, Albanian form consist of two factors: Job oriented behaviours and excluding behaviours. First factor consist of 14 items and factor loads differ from,442 to,741. Second factor consists of 8 item and factor loads differ from,451 to,765. Results are shown in Table 3.

Item	Job oriented behaviours
H3	,741
H4	,707
H12	,704
H8	,692
H6	,678
H5	,659
H11	,657
H13	,644
H2	,604
H7	,597
H10	,594
H9	,593
H1	,462
H25	,442

Item	Excluding behaviours
H16	,765
H20	,701
H14	,697
H29	,655
H22	,619
H30	,575
H19	,573
H23	,451

Table 3. Bullying Scale Factorial Loads

In order to understand correlation between two factors, Pearson multiple moment correlation applied. It is found that coefficient is,058 between two factors meaning that there is medium range correlation between two factors. Results are shown in Table 4.

		Job oriented behaviours	Excluding behaviours
FACTOR 1	**Pearson Correlation**	1	,585**
	Sig. (2-tailed)		,000
	N	319	319
FACTOR 2	**Pearson Correlation**	,585**	1
	Sig. (2-tailed)	,000	
	N	319	319

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4. Correlelation Between Factors

Confirmatory Factor Analyze

In order to confirm the factors in the original form Confirmatory Factor Analyze (CFA) is applied. Integration index are analyzed and it is found that Chi-square value is (x2= 658,509. N= 319, sd= 208, p= 0,00) and reasonable. Integration index values are RMSEA=,083, NFI=,782, CFI=,838, IFI=,840, RFI=,735. This shows that model well fit. Factor loads shown are Diagram 1.

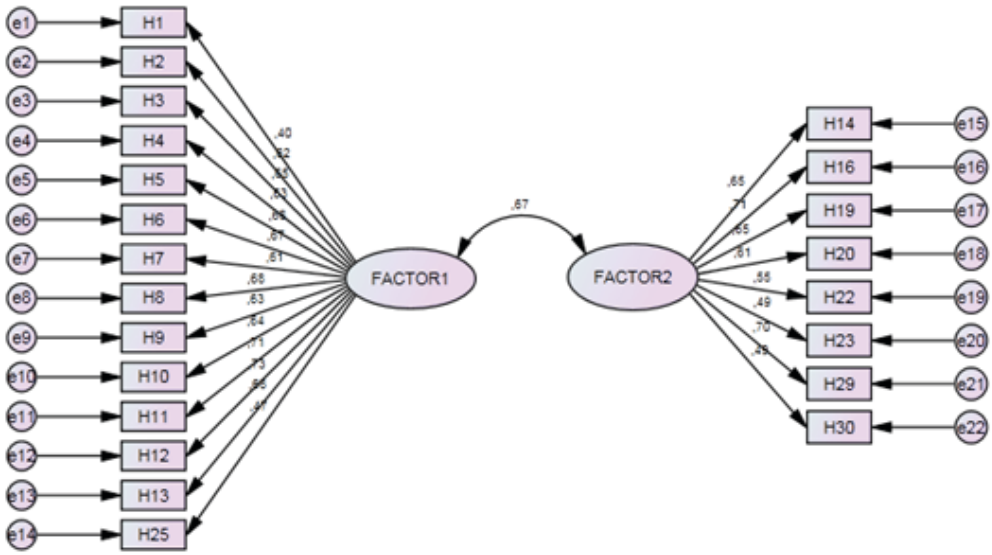

Diagram 1.

Reliability

In order to define scale's reliability, Cronbach Alfa interior coherence coefficent is calculated. Additionally split-half reliability inspected. Workplace Bullying Scale's interior coherence coefficent is found,901 as showing high degree reliability. For Job Oriented Behaviours,890; for Excluding Behaviours,801. According to split-half reliability analysis correlation between forms,726 and Spearman-Brown result is,841. Results are shown in Table 5.

Factors	Number of Item	Cronbach Alpha Value
Factor 1 (Job oriented behaviours)	14	,890
Factor 2 (Excluding behaviours)	8	,801
General Scale	22	,901

Table 5. Reliability Results

Discussion

The aim of this research is to adapt the Workplace Bullying Scale to Albanian language and to examine its validity and reliability analysis. Linguistic equivalence analysis is very important in the adapting scale process. In this process correlation between both Turkish and Albanian form points are calculated and high degree of coherence between two form are observed. This result is important because it shows that translating process is successful. As a result of DFA/CFA a two factor structure is found that is describing the % 45,329 of total variance. Having factorial value less than,40 eight items evaluated from the scale and a scale having 22 items obtained. New scale, having high coefficient degree of interior coherence coefficent and material sum correlation values shows that Workplace Bullying Scale's Albanian form is a valid and reliable scale.

Culture is an important factor for assessing the behaviour. During the analysis differencies based on cultural perceptions are observed. For example in Albanian scale it is observed that factors named as "behaviours damaging reputation" and "spoken, written and visual attacks" in original form are vanished for the sake of other two factors. Items belonging these two factors eliminated because of low factorial values while other items joined to other two factors. For example question (it is talked with me with a rude manner by shouting and crying) is assessed not a "spoken, written and visual attacks" behaviour but "behaviours damaging reputation" in Albanian scale. And question (there are opinions I have mental problems) percepted as not a "behaviours damaging reputation" manner but "excluding behaviours". Another question (it is talked with me in humiliating manner in front of others) question have no meaning

(eliminated from scale) in Albanian scale. So we can say cultural perceptions and values depict the behaviours. That is not to mean good or bad. That is mean every culture has its own codes and assess the bahaviours with these codes.

Conclusions and suggestions

High correlation between Turkish and Albanian forms shows that scale items have compatible with the original form. In DFA for the scale adapting researches, % 30 and above is accepted. For this scale % 45 shows that structural validity gained. Interior coefficient values show scale has high reliability. For the CFA, even if values are not very high, all of them are enough. Total sum correlations results show that scale has an enough descripance for the items.

According to analysis it can be say Workplace Bullying Scale Albanian form is a new and valid scale. For further researches, additional physological bahaviours and attitudes can be add to scale. Additionally, inputs fort this research collected from three different sector in Albania. A research having a more homegenous sample can effect the results. Lastly researches using this scale will obtain additional input for the improvement of scale.

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