Loneliness and Bullying in the Workplace

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Abstract This study assesses the relationship between workplace loneliness and bullying. French versions of the Revised UCLA Loneliness Scale (DeGrâce, Joshi, & Pelletier, 1933) and the Negative Acts Questionnaire – Revised (Einarsen, Hoel, &Notelaers, 2009)were administered to a sample of 153 French-Canadian workers. Results show that the feeling of isolation was positively related to work-related bullying. Moreover, the feeling of relational connectedness was strongly and negatively related to work-related bullying, person-related bullying, and physically intimidating bullying. Conversely, the feeling of collective connectedness was not related to any forms of bullying. This study is innovative in that it accounts for feelings of workplace loneliness in relation to the three-factor structure of the Negative Acts Questionnaire – Revised.

Keywords: loneliness at work, professional isolation, workplace bullying

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1. Introduction

This study focuses on factors associated with negative and unwanted acts at work. Such acts have been labeled as bullying, mobbing, mistreatment, harassment, or abusive behavior (Hogh, Hoel, & Carnerro, 2011). Bullying is defined as interpersonal behavior intended to harm another employee in the workplace (Bowling& Beehr, 2006), or systematic persecution by a colleague, subordinate, or superior that may cause severe social, psychological, or psychosomatic problems for the victim (Einarsen, 1999). Einarsen, Hoel, &Notelaers (2009) distinguish three types of bullying: work-related, personrelated, and physically intimidating.

Bullying may be considered as persistent exposure to interpersonal aggression and mistreatment by colleagues, superiors, or subordinates (Einarsen et al., 2009). Although isolated instances of bullying or rudeness at work usually have minor consequences (Cortina, Kabat-Farr, Leskinen, Huerta, &Magley, 2011), repeated instances over time can cause problems for the victim. Extreme bullying can include physical assault, but it is more commonly implying obscene gestures such as dirty looks, threats, and yelling, for example (Bowling &Beehr, 2006).

According to Garcia and Hue (2002), large-scale studies have shown that 1% to 12% of workers reported being bullying victims, depending on their country of residence and the way bullying is measured. Einarsen and Skogstad (1996) reported that 8.6% of Norwegian workers described themselves as bullying victims, with 3.5% in Sweden (Leyman, 1996) and from 7% to 9% in the province of Quebec, Canada (Brun& Plante, 2004). Laws

have been established in Belgium, France, Great Britain, Ireland, Quebec, and Sweden to protect workers against bullying at work (Lippel, 2005). Despite these measures, however, workplace bullying continues to be a recurring problem for many workers.

What are the consequences of bullying? Poilpot-Rocaboy, Notelaers, and Hauge (2011) showed that exposure to bullying was negatively related to job satisfaction and organizational commitment and positively related to turnover intention. Furthermore, Hoobler, Rospenda, Lemmon, and Rosa (2010) showed that workplace bullying was positively related to job stress and negatively to mental and physical health. Exposure to bullying was also positively related to anxiety, depression, turnover intention, and absenteeism, and negatively to job satisfaction (Hauge, Skogstad, &Einarsen, 2010). Hogh, Hansen, Mikkelsen, and Persson (2012) found a positive association between bullying andstress. Bowling and Beehr (2006), in their meta-analysis, showed that workplace bullying predicted negative outcomes such as anxiety, depression, burnout, frustration, negative emotions at work, and turnover intention. Overall, bullying appears to be associated with negative outcomes for both the victims and the organizations where they work.

What causes bullying at work? Studies have analyzed three categories of antecedents: job characteristics, perpetrators, and victims. The study reported herein regards job characteristics. According to Warr's (1987) vitamin model, there are nine job characteristics: opportunity for control, opportunity for skill use, externally generated goals, variety, environmental clarity, availability of money, physical security, opportunity for interpersonal contact, and valued social position. The study focuses on opportunity for interpersonal contact, a job characteristic that can have an impact on bullying but that was not taken into account by studies about job characteristics and bullying at work. Interpersonal contact can be considered, according to Notelaers, De Witte, and Einarsen (2010), as a component of bullying.

Social circumstances may also make individuals more or less able to cope with bullying and defend themselves from it (Einarsen, 2000). According to Ireland and Power (2004), loneliness may be a cause for being bullied, and could make an individual vulnerable to bullying. The aim of the study is to verify the relationship between loneliness and bullying in the workplace. Loneliness at work can be defined as an unpleasant experience that occurs when a person's social network at work is significantly deficient, either quantitatively or qualitatively (Dussault, Deaudelin, Royer, & Loiselle, 1999). In other words, there is a discrepancy between one's desired and achieved social contact (Peplau & Perlman, 1982) at work. According to Hawkley and Cacioppo (2010), loneliness is tantamount to feeling unsafe, and lonely people see the world as a more threatening place. Lonely people expect more negative social interactions and remember more negative social information than non-lonely people (Hawkley & Cacioppo, 2010). Hogh et al. (2012) found that social isolation was positively related to direct harassment at work and workrelated harassment. Zapf, Knorz and Kulla (1996) also found positive correlations between social isolation and manifestations of bullying such as verbal aggression, and rumours in two samples. Sahin (2012) found that loneliness was related to being a cybervictimin high school students. Moreover, compared to bullies, victims reported having fewer friends. Hodges and Perry (1999) showed that the number of friends at time 1 was negatively related to victimization at time 2, suggesting that loneliness predicts bullying at school. Sahin (2012) and Hodges and Perry (1999) confirmed that having few friends was a risk factor for bullying at school, but that having classroom friendships appeared to help protect children against bullying. Similar results were obtained by Ireland and Qualter (2008) in prisoners: the presence of a social network appeared to protect prisoners against bullying as long as non-victims reported less social loneliness than victims did. Results showed that social loneliness and emotional loneliness were positively related to victimization. Hartshore (1993) and Hawkley, Browne, and Cacioppo (2005) distinguish three types of feelings when measuring loneliness: isolation, relational connectedness, and collective connectedness. Isolation is a negative feeling of social dissatisfaction. Relational connectedness consists of feelings of familiarity, closeness and support that correspond to the idea of relational social self. Collective connectedness is a feeling of group identification and cohesion corresponding to the idea of a collective social. It involves a feeling of being part of a group. Contrary to isolation, relational and collective connectednesses are positive feelings.

In light of the results of previous studies (e.g., Hogh et al. 2012; Ireland &Qualter, 2008; Sahin, 2012) on other populations(students and prisoners), and considering that past studies have not accounted for the three-factor structure for both loneliness and bullying, we expected the feeling of isolation at work to be positively related to the Work-related bullying (excessive monitoring of your work), Person-related bullying (having allegations made against you), and Physically intimidating bullying (being shouted at or being the target of spontaneous anger). Moreover, because the factor Relational connectedness involves a feeling of familiarity, we expected it to be negatively related to Work-related bullying, Personrelated bullying, and Physically intimidating bullying. We also expected Collective connectedness at work to be negatively related to Work-related bullying, Personrelated bullying, and Physically intimidating bullying, because Collective connectedness involves a feeling of being part of a group at work. Figure 1 illustrates these hypothesized relationships.

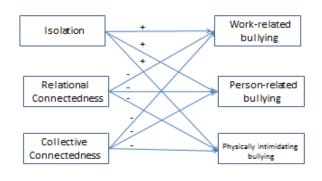


Figure 1. Hypothetical model

2. Method

Data were collected from a sample of 153 (87 females, 66 males) adults employed across several organizations. They were also attending evening undergraduate classes in organizational behavior management at a Canadian regional university. They were 38.3 years old on average (SD = 11.3) and had 7.6 years of experience on average in their current job (SD= 7.5) and 10.2 years' experience in the current organization. They worked in teams or departments containing 14.2 members on average (SD= 20.3).

Loneliness was measured with the Échelle de Solitude de l'Université Laval (DeGrâce, Joshi, & Pelletier, 1993), a French version of the Revised UCLA Loneliness Scale (Russell, Peplau, &Cutrona, 1980). There was concordance between the French and original English versions concerning reliability (α = .89) and construct validity (DeGrâce et al., 1993). Following Cubitt and Burt (2002) and Dussault and Thibodeau (1997), "At work" was written before each item to indicate the work environment. This scale contains 20 items, 10 worded positively and 10 negatively. All items were scored on a four-point scale ranging from 1 (Never) to 4 (Often).A three-factor structure was determined as the best factor structure for the Revised UCLA Loneliness Scale (Austin, 1983; Dussault, Fernet, Austin, & Leroux, 2009; Hartshore, 1993; Hawkley, et al., 2005). In the present study, the three-factor solution provided the best factorial solution. The first factor, composed of 10 negatively worded items(e.g., "I lack companionship") and labeled Isolation, addresses feelings of rejection and aloneness (a = .74). The second factor, composed of five positively worded items and labeled Relational connectedness (e.g., "There are people I feel close to") addresses the feeling of familiarity ($\alpha = .94$). The third factor, composed of five

positively worded items (e.g., "I feel part of a group of friends") addresses the feeling of group identification, and is labeled Collective connectedness($\alpha = .58$, $\alpha = .72$ without item 4). In Dussault et al.'s (2009) study, item 4 contributed the least to the factor Collective connectedness and produced the largest residual error. Item 4 also appeared to be problematic in other studies (e.g., Hartshore, 1993). Item 4 was therefore excluded from the analysis.

Perceived bullying at work was assessed with a French version of the Negative Acts Questionnaire-Revised (NAQ-R) (Einarsen et al., 2009). The NAQ is one of the most widely used instruments for assessing bullying at work (Notelaers, Einarsen, DeWitte, & Vermunt, 2006). The NAQ-Rcontains 22 items rated on a five-point scale from 1 (Never) to 5 (Daily). A three-factor structure was determined as he best factor structure for the NAQ-R: Work-related bullying (7 items; e.g., "Having your opinion ignored"), Person-related bullying (12 items; e.g., "Hints or signals from others that you should quit your job"), and Physically intimidating bullying (3 items; e.g., "Intimidating behaviors such as finger-pointing, invasion of personal space, shoving, blocking your way") (Einarsen et al., 2009). However, no study to date has used the threefactor structure. In the present study, internal consistency was good for Work-related bullying ($\alpha = .82$), Personrelated bullying ($\alpha = .93$), and Physically intimidating bullying ($\alpha = .71$). The overall scale showed good reliability (.95), as in past studies (.88-.90, Notelaers et al., 2010, Einarsen et al., 2009, Baillien& DeWitte, 2009, Baillien, Notelaers, De Witte, & Matthiesen, 2010). The three-factor solution provided the best factorial solution.

The hypothetical model wastested using structural equation modeling with EQS 6.2 (Bentler, 2006). Four indices of adequacy were used to estimate the correspondence between the matrices of theoretical and empirical estimates: the Satorra-Bentler chi-squared statistic (S-B χ 2), the comparative fit index (CFI), the nonnormed fit index (NNFI) proposed by Tucker and Lewis (1973), and Steiger's (1990) root mean square error of approximation (RMSEA) for non-normal conditions. The Satorra–Bentler chi-square (S-B χ 2) is used to verify if the null hypothesis that the variance/covariance matrix formed by the model restrictions does not correspond to the original or empirical matrix. A non-significant S-By2 therefore indicates that the proposed model adequately represents the sample data. However, the S-B₂2 is highly sensitive to sample size, tending to increase significantly with increasing sample size (Marsh, Balla, & McDonald, 1988). Therefore, it is strongly recommended to use other indices, such as the S-B χ 2/df, the CFI, the NNFI, and the RMSEA (Bentler, 1990). AnS-B₂/df value close to 2 indicates a good fit to the observed data, whereas a value close to 5 indicates an adequate fit. Models presenting CFI and NNFI above .90 are generally considered adequate (Schumacker & Lomax, 1996), whereas models presenting values above .95 are considered to provide a good fit (Hu & Bentler, 1999). According to Marsh, Ellis, Parada, Richards, and Heubeck (2005), a RMSEA below .08 is acceptable and .05 is considered significant. Due to the small sample, the mean score for each scale was used in the analysis. For loneliness, correlations between scales were assessed. For workplace bullying, correlations between the error terms of each scale were also assessed

to account for relationships between scales. Given the non-normality of the data, robust maximum likelihood estimation was used.

3. Results

The mean score for the Isolation at work scale is 1.96 (SD= 0.5), with 2.05 (SD= 1.1) for Relational connectedness at work and 1.92 (SD=0.5) for Collective connectedness at work. The mean score for Work-related bullying is 2.14 (SD= 0.9), 1.85 for Person-related bullying (SD= 0.9), and 1.6 for Physically intimidating bullying (SD= 1.6).As shown in Figure 2, the hypotheses were partially confirmed. The model provides a good data fit (S-B χ 2= 6.27, 5*dl*; CFI= .99; NNFI= .99; RMSEA= .04).Non-significant loadings in the model were excluded.

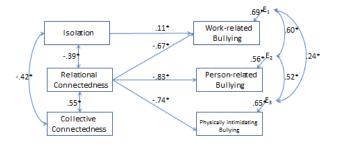


Figure 2. Final model with significant coefficients for the relationships between loneliness factors and perceived workplace bullying. *p $< .05(S.-B. \chi 2 = 6.27, 5dl; CFI = .99; NNFI = .99; RMSEA = .04)$

4. Discussion

As expected, Isolation at work is negatively related to Relational connectedness (r= -.39, p < .05) and Collective connectedness (r= -.42, p < .05), and Relational connectedness is positively related to Collective connectedness (r= .55, p < .05). Therefore, error term linked to Work-related bullying is related to error terms linked to Person-related bullying (r = .60, p < .05), and to is Physically intimidating bullying (r = .24, p < .05). Error term linked to Person-related bullying is related to error term linked to Physically intimidating bullying (r = .52, p < .05). These correlations show the importance of taking into account the three-factor structure of the UCLA loneliness scale and of the Negative Acts Questionnaire-Revised. Isolation is positively related to Work-related bullying (β = .11), but less strongly than expected. Relational connectedness at work, or the feeling of familiarity with coworkers, is negatively and strongly related to perceived Work-related bullying (β = -.67), perceived Person-related bullying ($\beta = -.83$), and perceived Physically intimidating bullying ($\beta = -.74$). connectedness Collective shows no significant relationship with any type of bullying.

When individuals feel in tune with others at work and feel that they can count on them, they do not perceive that they are bullied at work, as shown by the negative correlations between Personal connectedness and Workrelated, Personal-related, and Physically intimidating bullying. These results are in line with those obtained in previous studies in schools (Sahin, 2012; Hodges & Perry, 1999). As Ireland and Qualter (2008) demonstrated in their study on bullying in prison, positive relationships can make people feel protected. Accordingly, individuals who perceive positive relationships at work would feel less harassed thanks to this feeling of protection. Our results show that Isolation is not related to Person-related bullying nor to Physically intimidating bullying. Moreover, Collective connectedness shows no significant relationship with any type of bullying. Contrary to expectation, a feeling of being part of a group of friends at work does not appear to provide a feeling of protection against bullying.

The purpose of this study was to enhance the understanding of the relationship between loneliness and bullying at the workplace. The results partially confirm our hypotheses, showing that Isolation at work is positively related to Work-related bullying. Moreover, Relational connectedness, or the feeling of being connected with others, is negatively related to Work-related bullying, and Physically intimidating bullying. These results suggest that workplace friendships can help protect against bullying. These results are in line with Sahin (2012), Hodges and Perry (1999), and Ireland and Qualter (2008),who found that friendships help protect both students and prisoners from bullying.

Our findings shed light on the relationship between workplace loneliness and perceived bullying. The use of one-time data collection to obtain cross-sectional data does not allow drawing conclusions about the causality of the observed relationships. As a matter of fact, a timelagged study should be performed in the future to assess the causality of the relationship between loneliness at work and bullying. Moreover, the sample characteristics constitute a limitation: all participants were workers who were also attending an evening class in organizational behavior. There is no information regarding the respondents' job and their affiliated organizations and it raises the issue of generalization. Moreover, self-report questionnaires risk producing social desirability bias in the results. Future studies could assess the relationships that were not significant in the present study and examine other employee samples such as police officers or construction workers. This would address the question of whether the sample characteristics or the workplace characteristics could explain the non-significant relationships obtained in the present study.

References

- Austin, B. A. (1983). Factorial structure of the UCLA Loneliness Scale. *Psychological Reports*, 53, 883-889.
- [2] Baillien, E., & De Witte, H. (2009). Why is organizational change related to workplace bullying? Role conflict and job insecurity as mediators. *Economic and Industrial Democracy*, 30 (3), 348-371.
- [3] Baillien, E., Notelaers, G., De Witte, H., & Matthiesen, S. B. (2010). The relationship between the work unit's conflict management styles and bullying at work: Moderation by conflict frequency. *Economic and Industrial Democracy*, 32 (3), 401-419.
- [4] Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107 (2), 238-246. /
- [5] Bentler, P. M. (2006). *EQS structural equations program manual*. Encino, CA: Multivariate Software, Inc.
- [6] Bowling, N.A., & Beehr, T.A. (2006). Workplace harassment from the victim's perspective: A theoretical model and metaanalysis. *Journal of Applied Psychology*, 91 (5), 998-1012.

- [7] Brun, J.-P., & Plante, É. (2004). Le harcèlement psychologique au travail au Québec. Unpublished paper, Chaire de recherche en gestion de la santé et de la sécurité au travail, Université Laval. Québec. Retrieved at: http://www.cgsst.com/stock/fra/doc127-155.pdf
- [8] Cortina, L. M., Kabat-Farr, D.,Leskinen, E.A., Huerta, M.,& Magley, V.J. (2011). Selective incivility as modern discrimination in organizations: Evidence and impact. *Journal of Management*, published online, September http://jom.sagepub.com/content/early/2011/08/25/0149206311418 835.
- [9] Cubitt, S., & Burt, C. (2002).Leadership style, loneliness and occupational stress in New Zealand primary school principals. *New Zealand Journal of Educational Studies*, 37 (2), 159-169.
- [10] DeGrâce, G. R., Joshi, P., & Pelletier, R. (1993). L'échelle de solitude de l'Université Laval (ÉSUL): Validation canadiennefrançaise du UCLA loneliness scale. *Revue Canadienne des Sciences du Comportement, 25* (1), 12-27.
- [11] Dussault, M., Deaudelin, C., Royer, N., &Loiselle, J. (1999). Professional isolation and stress in teachers. *Psychological Reports*, 84, 943-946.
- [12] Dussault, M., Fernet, C., Austin, S., & Leroux, M. (2009). Revisiting the Factorial Validity of the Revised UCLA Loneliness Scale: A Test of Competing Models in a Sample of Teachers. *Psychological Reports*, 105, 849-856.
- [13] Dussault, M., & Thibodeau, S. (1997).Professional isolation and performance at work of schools principals. *Journal of School Leadership*, 7, 521-536.
- [14] Einarsen, S. (1999). The nature and causes of bullying at work. International Journal of Manpower, 20 (1/2), 16-27.
- [15] Einarsen, S. (2000). Harassment and bullying at work: A review of the Scandinavian approach. *Aggression and Violent Behavior*, 5 (4), 379-401.
- [16] 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 & Stress, 23 (1), 24-44.
- [17] Einarsen, S., & Skogstad, A. (1996).Bullying at work: Epidemiological findings in public and private organizations. *European Journal of Work and Organizational Psychology*, 5, 185-201.
- [18] Garcia, A., & Hue, C. (2002). Violences au travail, harcèlement moral et sexuel. Caractéristiques et conséquences sur les travailleurs féminins et masculins. Unpublished paper, Louvain: Éd. de l'Université catholique.
- [19] Hartshore, T.S. (1993). Psychometric properties and confirmatory analysis of the UCLA Loneliness Scale. *Journal of Personality Assessment*, 61, 182-195.
- [20] Hauge, L.J., Skogstad, A., & Einarsen, S. (2010). The relative impact of workplace bullying as a social stressor at work. *Scandinavian Journal of Psychology*, 51, 426-433.
- [21] Hawkley, L. C., Browne, M. W., & Cacioppo, J. T. (2005). How can I connect with thee? Let me count the ways. *Psychological Science*, 16, 798-804.
- [22] Hawkley, L.C., & Cacioppo, J.T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine*, 40, 218-227.
- [23] Hodges, E.V.E., & Perry, D.G. (1999).Personal and interpersonal antecedents and consequences of victimization by peers. *Journal* of Personality and Social Psychology, 76 (4), 677-685.
- [24] Hogh, A., Hansen, A.M., Mikkelsen, E.G., & Persson, R. (2012). Exposure to negative acts at work, psychological stress reactions and physiological stress response. *Journal of Psychosomatic Research*, 73, 47-52.
- [25] Hogh, A., Hoel, H., & Carnerro, I. G. (2011). Bullying and employee turnover among healthcare workers: a three-wave prospective study. *Journal of Nursing Management*, 19, 742-751.
- [26] Hoobler, J.M., Rospenda, K.M., Lemmon, G., & Rosa, J.A. (2010). A within-subject longitudinal study of the effects of positive job experiences and generalized workplace harassment on well-being. *Journal of Occupational Health Psychology*, 15 (4), 434-451.
- [27] 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.
- [28] Ireland, J.L., & Power, C.L. (2004). Attachment, emotional loneliness, and bullying behaviour: A study of adult and young offenders. *Aggressive Behavior*, 30,298-312.

- [29] Ireland, J. L., & Qualter, P. (2008).Bullying and social and emotional loneliness in a sample of adult male prisoners. *International Journal of Law and Psychiatry*, 31, 19-29.
- [30] Leymann, H. (1996). The content and development of mobbing at work. European Journal of Work and Organizational Psychology, 5 (2), 165-184.
- [31] Lippel, K. (2005). Le harcèlement psychologique au travail: Portrait des recours juridiques au Québec et des décisions rendues par la Commission des lésions professionnelles. *Pistes*, 7 (3), 1-21.
- [32] Marsh, H. W., Balla, J. R., & McDonald, R.P. (1988).Goodnessof-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin*, 103 (3), 391-410.
- [33] Marsh, H.W., Ellis, L. A., Parada, R.H., Richards, G., &Heubeck, B.G. (2005). A Short version of the self-description questionnaire II: Operationalizing criteria for short-form evaluation with new applications of confirmatory factor analyses. *Psychological Assessment*, 17 (1), 81-102.
- [34] Notelaers, G., De Witte, H., &Einarsen, S. (2010). A job characteristics approach to explain workplace bullying. *European Journal of Work and Organizational Psychology*, 19 (4), 487-504.
- [35] Notelaers, G., Einarsen, S., DeWitte, H., & Vermunt, J. K. (2006).Measuring exposure to bullying at work: The validity and advantages of the latent class cluster approach. *Work & Stress*, 20 (4), 289-302.
- [36] Peplau, L. A., & Perlman, D. (1982). Perspective on loneliness. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of*

current theory, research and therapy (pp. 1-18). New York: John Wiley and Sons.

- [37] Poilpot-Rocaboy, G., Notelaers, G., & Hauge, L.J. (2011).Exposition au harcèlement psychologique au travail: Impact sur la satisfaction au travail, l'implication organisationnelle et l'intention de départ. ePsychologie du travail et des organisations, 17, 250-273.
- [38] Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The Revised UCLA Loneliness Scale: concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39, 472-480.
- [39] Sahin, M. (2012). The relationship between the cyberbullying/ cybervictimization and loneliness among adolescents. *Children* and Youth Services Review, 34, 834-837.
- [40] Schumacker, R.E., &Lomax, R.G. (1996). A beginner's guide to structural equation modeling. Mahwah, NJ: Lawrence Erlbaum.
- [41] Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25, 173-180.
- [42] Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1-10.
- [43] War, P. (1987). Work, unemployment, and mental health. Oxford, UK: Clarendon Press.
- [44] Zapf, D., Knorz, C., &Kulla, M. (1996).On the relationship between mobbing factors, and job content, social work environment, and health outcomes. *European Journal of Work and Organizational Psychology*, 5 (2), 215-237.