



ORIGINALES

Burnout and engagement among university nursing students

Burnout y engagement en estudiantes universitarios de enfermería

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ABSTRACT:

University students are tasked with a protracted academic workload that occupies the greater part of their time. Their ability to cope with the stress this entails during their degree course will partly depend on their personal response to these academic demands.

Objective: to describe nursing students' level of burnout (exhaustion, cynicism and academic efficacy) and academic engagement through the variable engagement (absorption, dedication and vigour), and to analyse associations, relations and predictions between these variables.

Materials and method: cross-sectional descriptive study with 1009 subjects. Data collection instruments: student versions of the Maslach Burnout Inventory and the Utrecht Work Engagement Scale.

Results: the dimensions of burnout and engagement correlated with each other. The higher the score for academic efficacy, the lower the scores for exhaustion and cynicism and the higher the score in all dimensions of academic engagement. Vigour and dedication predicted higher scores for academic efficacy. Females' self-perceptions indicated lower scores for cynicism and higher scores for academic efficacy, absorption and dedication.

Conclusions: students evidenced more burnout when they obtained high scores for exhaustion and cynicism and low scores for academic efficacy. In addition, high scores for the three dimensions of engagement indicated high commitment to their studies. The relationship between these variables indicates a difference between males and females and a positive influence of engagement on students'

academic efficacy. Promoting engagement could help students to deal with academic tasks and enter the labour market with a greater probability of success.

Keywords: Engagement; Burnout; Nursing; Nursing Education

RESUMEN:

Los universitarios se encuentran sometidos a cargas académicas prolongadas que ocuparan la mayor parte de su tiempo. La capacidad para hacer frente a estas situaciones de estrés durante su formación, dependerá ente otras cosas, de la disposición personal para afrontar las demandas académicas.

Objetivo: Describir el nivel de *burnout* (agotamiento, cinismo y eficacia académica) y el compromiso académico a través de la variable *engagement* (absorción, dedicación y vigor), además de analizar las asociaciones, relaciones y predicciones entre estas variables en estudiantes de Enfermería.

Material y método. Estudio descriptivo transversal en 1009 sujetos. Instrumentos de recogida de datos: *Maslach Burnout Inventory* y *Utrecht Work Engagement* en versión estudiantes.

Resultados: Las dimensiones del *burnout* y *engagement* correlacionan entre sí. A mayor eficacia académica menos agotamiento y cinismo y mayor puntuación en todas las dimensiones del *engagement* académico. El vigor y la dedicación predicen puntuaciones más altas en eficacia académica. Las mujeres se perciben con puntuaciones más bajas en cinismo y más altas en eficacia académica, absorción y dedicación.

Conclusiones: Los alumnos muestran más burnout cuando manifiestan altas puntuaciones de agotamiento y cinismo y bajas en eficacia académica, además valores altos en las tres dimensiones del *engagement* indican alto compromiso con sus estudios. La relación entre estas variables pone de manifiesto la diferencia entre hombres y mujeres y la influencia positiva del *engagement* en la eficacia académica del estudiante. El fomento de *engagement* puede ser una oportunidad para superar las tareas académicas y para enfrentarse al mundo laboral con mayor probabilidad de éxito.

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Palabras clave: Engagement; Burnout; Enfermería; Educación en enfermería

INTRODUCTION

One consequence of work-related stress is burnout syndrome. Although there is no unanimously accepted^(1,2) definition for this condition, there appears to be agreement in understanding burnout as a psychological phenomenon that arises as a response to chronic and interpersonal work-based stressors⁽³⁾. It is a syndrome characterized by three basic dimensions: emotional exhaustion; depersonalization or cynicism; and a lack of personal fulfilment⁽⁴⁾. Exhaustion describes a progressive loss of energy as tasks are carried out. It is the primary manifestation of burnout and the most commonly declared dimension of it. Depersonalization manifests itself in the form of irritability, negative attitudes and insensitive responses to people. The third dimension of burnout, a lack of personal fulfilment, is characterized by negative responses towards oneself and towards activities undertaken. Individuals express a lack of productivity at work and shortcomings with regard to professional tasks⁽⁵⁾.

The interest that the term *burnout* is currently attracting⁽⁶⁾ has laid the ground for the extension of this syndrome to pre-occupational samples such as university students, with research into academic *burnout*^(7,8) indicating that students also exhibit fatigue in relation to the tasks that they carry out.

One relevant development in research on burnout has been the study of an opposing construct called *engagement*^(3,9). Engagement coincides with the positive psychology movement, which attempts to capitalize on favourable aspects of human life to build positive qualities and avoid individuals' dominant concern with negative aspects⁽¹⁰⁾.

Engagement is defined⁽⁹⁾ as a positive state of mind characterized by energy, involvement and efficacy. More specifically, engagement is understood as a positive motivational construct related to work that is characterized by the attributes of

strength, dedication and absorption⁽¹¹⁾. It is a cognitive-affective state rather than a specific and temporary state. It persists in time and is not focused on a specific behaviour or object^(9,12). *Vigour* refers to high levels of energy in relation to tasks undertaken, as well as to a strong desire to try and persist when obstacles in the road emerge. The characteristic of dedication responds to high levels of meaning in terms of work, as well as to enthusiasm, inspiration, pride and the challenge found in tasks performed. The factor of absorption involves high levels of concentration and happiness while an activity is being performed. The individual is immersed in what he or she is doing and experiences the feeling of time passing very quickly.

While burnout and engagement are talked about as opposing constructs, some research^(3,9,13) clarifies that the vigour and dedication of engagement are opposing dimensions to the exhaustion and cynicism of burnout, these latter dimensions being considered the "core of burnout"⁽¹⁴⁾.

Recent studies on these constructs display a growing interest in burnout⁽¹⁵⁾ and engagement in the academic field and in samples of university students⁽¹⁶⁻¹⁹⁾. Following confirmatory analysis of the validity and internal consistency of the instruments that assess these variables⁽¹²⁾, whether engagement adds explanatory value to the prediction of indicators of well-being^(9,20) has also been studied. In addition, both constructs have been related to other variables—for example, emotional intelligence^(21,22) and satisfaction⁽²³⁾. Along this same line, the influence of these constructs together with efficacy and academic performance⁽²⁴⁻²⁵⁾ has recently been analysed, expanding perspectives on burnout and understanding it as a crisis of efficacy, or efficacy as an impetus for engagement^(14,26,27).

In the public universities of Castile and Leon (Spain), the educational context of this research, university students, and particularly those in nursing, must overcome the academic challenges set in the curricula that occupy most of their time. Students are involved in theoretical tasks organized under a strict schedule and must also participate in clinical practice, where productive behaviours and activities—all of which are forms of knowledge—are required of them and subject to evaluation. Public higher education institutions must pay attention to the emotional state of students in situations of learning⁽²⁷⁾, since the ability to deal with stressful situations during their education will depend on their personal disposition in dealing with academic demands⁽²⁸⁾.

The objectives of this study are to describe the level of burnout and engagement in nursing students at public universities in the Castile and Leon region of Spain; to analyse the relationship, association and prediction arising from the dimensions of emotional exhaustion, cynicism and academic efficacy of burnout and levels of absorption, dedication and vigour from engagement; and to analyse differences in means, comparing groups of men and women. We present these objectives in order to understand more about these variables and their relationship, with the goal of identifying possible intervention needs that may ensure teaching quality and provide university students with resources for their academic and professional futures and skills for success in a public university institution.

MATERIAL AND METHOD

Research design

This is a piece of quantitative research that does not involve an intervention. It is a cross-sectional descriptive study. We analyse differences between groups of men and women as well as the correlations and predictions that are established between the different study variables, burnout and engagement.

Subjects and scope of study

The study population was degree-level nursing students enrolled in the 2009/2010 academic year. The students belonged to Castile and Leon's four public universities: the University of Burgos, the University of Leon, the University of Salamanca and the University of Valladolid.

Data collection instruments

-Maslach Burnout Inventory-Students Survey (MBI-SS), adapted to measure the level of burnout in university students⁽¹²⁾ and validated for the Spanish population⁽²⁸⁾. This scale contains 15 items that assess the dimensions of exhaustion ($\alpha = .876$), cynicism ($\alpha = 0.826$) and academic efficacy ($\alpha = 0.663$); all these aspects are linked to feelings, beliefs and behaviours related to the experience as a "student" at the university level. The response range of the various items is from 0 to 6 on a Likert-type scale. In the scale, 0 indicates total disagreement and 6 total agreement. The student was most burned out when he or she exhibited high scores in exhaustion and cynicism and low scores in his or her belief in academic efficacy.

-Utrecht Work engagement Student (UWES-S) Survey, adapted to measure the level of engagement in university students⁽¹²⁾ and validated for the Spanish population⁽²⁹⁻³⁰⁾. We used this 17-item scale to measure the three dimensions of this construct in students: vigour ($\alpha = 0.792$), dedication ($\alpha = 0.791$) and absorption ($\alpha = 0.802$). Survey respondents' answers are quantified according to a Likert-type scale, in which 0 indicates total disagreement and 6 total agreement with the statement contained in the item. High scores in these dimensions reflect high levels of academic engagement.

The socio-demographic characteristics were: sex, age, and university where studies were being undertaken.

Procedure

Written permission was requested from the participating universities to administer the surveys. After a favourable response was received, arrangements were made with the four public universities as to the most appropriate day and time to visit the corresponding university and proceed with data collection. In the classroom environment, and prior to administering the surveys, the principal investigator provided information orally and in writing, through the information and informed consent forms (which did not need to be signed so as to preserve anonymity), on the objectives of the study, and they also answered relevant questions asked by students. After assuring all participating individuals of their anonymity and the voluntary nature of participation in the study, the surveys were handed out so that they could be completed individually. It took students approximately 20 minutes to fill in the surveys.

Data analysis

The data analysis techniques used were descriptive statistics (central trend and dispersion trend), linear correlation analysis (Pearson correlation coefficient), t-test analysis with Student's t test and multiple linear regression analysis, to develop predictions on a variable based on others. In order to establish the psychometric indicators of the measurement instruments, the Cronbach's alpha reliability coefficient (α) was analysed.

The aforementioned statistical analyses and database were produced using SPSS 21.0 (Statistical Package for the Social Sciences).

Ethical Considerations

The study protocol and instruments were approved by the Executive Commission of the Ethics Committee of the University of Leon.

The proposed research respected the fundamental principles of the Helsinki Declaration, as well as the ethical principles of the nursing profession established in relation to research by the Spanish Nursing Code of Ethics.

The surveys were accompanied by an information sheet and verbal and written consent.

RESULTS

A total of 1,009 nursing students enrolled in the four public universities of Castile and Leon participated on a voluntary and anonymous basis. The mean age was 21.53 years. The characteristics of the subjects and the distribution of participants by universities are shown in Table 1⁽²⁰⁾. The predominant sex was female, with 859 women (85.1%) and 127 men (12.7%). Students who responded incorrectly to or did not complete the variable sex were considered under the category of unknown. There were 23 participants of unknown sex in the sample (2.3%).

Table 1: socio-demographic characteristics of nursing students at public universities in Castile and Leon (Spain).

Public universities	Men	Women	Unknown	Total N = 1009
University of Leon	52	376	7	435 (43.1%)
University of Salamanca	20	100	5	125 (12.4%)
University of Valladolid	43	269	9	321 (31.8%)
University of Burgos	12	114	2	128 (12.7%)
Total	127(12.6%)	859(85.1%)	23(2.3%)	1009

Means, standard deviations, Pearson correlations and reliability coefficients of measurement instruments are shown in Table 2. As can be seen, Cronbach's alpha exceeds or approaches the preferable criterion of 0.70⁽³¹⁾ in the dimensions analysed.

Table 2: Descriptive statistics and reliability coefficients of the measurement instruments for burnout and engagement among nursing students at public universities in Castile and Leon.

	1	2	3	4	5	6
1. Exhaustion	1					
2. Cynicism	0.494*	1				
3. Academic efficacy	-0.071**	-0.236*	1			
4. Absorption	-0.062	-0.165*	0.457*	1		
5. Dedication	-0.150*	-0.486*	0.434*	0.544*	1	
6. Vigour	-0.246*	-0.251*	0.530*	0.720*	0.532*	1
Mean	2.6491	1.2183	4.1199	3.2453	4.3943	3.0739
Standard deviation	1.29590	1.10736	0.76800	0.98957	0.95033	0.98416
Cronbach's alpha	0.876	0.826	0.663	0.802	0.791	0.792

* Correlation is significant at the 0.01 (bilateral) level.

** Correlation is significant at the 0.05 (bilateral) level.

As Table 2 shows, the results explain how the dimensions of burnout correlate with one another. In addition, the association between exhaustion and cynicism is stronger than that found for academic efficacy. Academic efficacy presents a moderate positive correlation with the variables of engagement; the results demonstrate that the greater the academic efficacy displayed by the students, the lower the scores obtained for exhaustion and cynicism and the higher engagement (absorption, dedication and vigour) is. The three dimensions of engagement positively and significantly correlated with one another.

To find out if the variables behaved differently depending on the sex of individuals, the t test was used for independent samples (see Table 3). Statistically significant differences were found in the comparison of means between women and men for scores in cynicism, academic efficacy, absorption and dedication. Women scored significantly higher in these variables than did men, except in the case of cynicism, where they scored lower.

Table 3: Descriptive statistics and t test according to the sex of nursing students at public universities in Castile and Leon.

	Sex	Mean	Standard deviation	t	p
Cynicism	Female	1.1554	1.06164	4.421	0.000
	Male	1.6142	1.26724		
Academic efficacy	Female	4.1477	0.76564	2.712	0.007
	Male	3.9499	0.77174		
Absorption	Female	3.2724	0.982136	2.088	0.037
	Male	3.0749	1.04499		
Dedication	Female	4.4241	0.93924	2.637	0.009
	Male	4.1841	1.04111		

Following on from the evidence of correlations between academic efficacy and the rest of the variables studied, multiple linear regression analysis shows that Model 2 explains 31.1% of the variance of academic efficacy, as shown in Table 4. For this analysis, the stepwise model was followed (criterion: Prob. of F entering ≤ 0.050 , Prob. of F exiting ≥ 0.100). The variables vigour (beta = 0.417, $t = -13.335$ and $p < 0.001$) and dedication (beta = 0.212, $t = 6.776$ and $p < 0.001$) are those which explain most variability. An increase in the scores for vigour and dedication (engagement) perceived by students predicts higher scores in academic efficacy.

Table 4: Linear regression for the dependent variable academic efficacy, nursing students at public universities in Castile and Leon.

Predictor variables	Model 1 Beta	Model 2 Beta
Vigour	0.530	0.417*
Dedication		0.212*
R	0.530	0.559
R ²	0.280	0.313
R ² corrected	0.280	0.311

* $p=0.000$

DISCUSSION

The results obtained show that all the dimensions of engagement strongly and positively correlate with one another in the case of nursing students in Castile and Leon. Dedication is the variable of engagement in which the highest values were obtained. This finding has been confirmed by other studies^(16,23), where relationships between this variable and satisfaction, time management or welfare⁽²⁰⁾ were also found among students. In the case of burnout, the association is positive and moderate for exhaustion and cynicism, and negative and weaker in the case of academic efficacy and the other two factors of the construct. These data strengthen the consistent nature of the two core dimensions of burnout and the tendency to analyse it as a crisis of self-efficacy⁽¹⁸⁾, such that the greater the academic efficacy shown by nursing students at the public universities of Castile and Leon, the lower the levels of exhaustion and cynicism. As was expected, others results obtained along this line that have found associations that are very close to those found in the present study^(9,14,17,19,21,26,27) have been confirmed.

In addition, research that seeks to identify differences based on the sex of the subjects shows that there is no unanimity, and thus some studies⁽²¹⁾ have not found statistically significant differences in any of the three dimensions of burnout, though they did find significantly higher values for dedication for women. However, in other research⁽¹⁷⁾, no differences in means according to the sex for these variables studied were found. In the study population presented, as in the study carried out by other authors⁽¹⁾ significant differences were found according to sex for cynicism, efficacy, absorption and dedication. Women adopt fewer distant and negative attitudes; they are less cynical; and they appraise greater efficacy in themselves. They also presented higher levels of absorption, enthusiasm, inspiration, pride and challenge (dedication) than did men.

With regard to the relationship between burnout and engagement, the results support other empirical research^(9,12,14,17,26). For example, the conclusions of research focused on tourism students⁽¹³⁾ suggest that the unfavourable nature of burnout (high levels of

exhaustion and cynicism and low efficacy) decreases students' commitment to their academic activity (decreased academic absorption, vigour and dedication). By contrast, the results⁽²⁴⁾ from a sample of first-year medical students indicate that these students are academically focused and committed (high levels of engagement), while in relation to the opposing construct of burnout, the students presented a low degree of exhaustion or emotional tiredness. In the sample studied, we observed that the factor of academic efficacy correlates significantly and positively with engagement and negatively with burnout. That is, students with high personal expectations and positive self-assessment also exhibited fewer feelings of fatigue or exhaustion, a lower adoption of negative attitudes or cynicism, and a greater motivation, characterized by vigour, dedication and absorption, in relation to tasks. Regression analysis shows the influence of the variables of vigour and dedication on academic efficacy, and so the future nursing professionals studied who had high values in vigour and dedication scored highly in academic efficacy.

Limitations

The results obtained do not allow conclusions to be drawn about the causality between the variables studied, and so it would be necessary to develop longitudinal or experimental studies that delve into this issue.

The subjects studied are not representative of the university population as a whole, since they only come from the nursing branch of the health sciences.

There is also a bias in terms of sex, since the set of subjects is not homogeneous for this variable. As a result, the results and conclusions about gender differences must be taken cautiously.

Finally, this study used a self-reporting measure for data collection, in which the results could have been exaggerated.

CONCLUSIONS

Nursing students in Castile and Leon are more burned out when they exhibit high scores in exhaustion and cynicism and low scores in self-efficacy. Furthermore, the results relating to the three dimensions of engagement indicate that they are highly correlated with one another, as a result of which high scores in these scales indicate high levels of academic engagement.

The female university students who participated in the study were revealed to be less cynical and to evaluate their academic efficacy more highly. In addition, they presented higher levels of absorption and dedication than did men.

Students with high academic efficacy had fewer feelings of emotional exhaustion, lower scores in cynicism, and a greater engagement with or commitment to studies, which was characterized by vigour, dedication and absorption.

The relationship between these two constructs highlights the positive influence of engagement on students' academic efficacy. To approach the question from the positivity perspective, it could be said that the results indicate that students who have vigour and are dedicated to their tasks feel greater levels of efficacy with regard to their studies and have lower levels of burnout. As has been described, the fostering of

engagement (vigour and dedication) can offer an opportunity for students to handle academic tasks and to properly complete studies (academic efficacy), as well as to face the world of work with a greater probability of success.

In our view, it is necessary for more studies to be carried out in relation to this theme. The next logical step, owing to the incipient phase in which engagement sits at present, would be to study in greater depth the relations with others variables of a personal nature (emotional intelligence, health, affective state, sense of coherence, coping mechanisms and so on) and those linked to the university institution (contextual, organizational and academic variable), and the sample could be extended to other domains. It would also be interesting for universities to establish strategic plans to promote health in university environments and enhance academic engagement (motivation for studying). These skills are especially pertinent for nursing students, since a commitment on their part to their studies could entail better academic outcomes and possibly result in better personal well-being and in quality care in the population.

REFERENCES

1. Martínez IM, Salanova MS. Niveles de burnout y engagement en estudiantes universitarios: relación con el desempeño y desarrollo profesional. *Rev Educ.* 2003 [cited 2015 July. 21];(330):361-84. Available from: <http://www.wont.uji.es/publicaciones/articulos/item/niveles-de-burnout-y-engagement-en-estudiantes-universitarios-relacion-con-el-desempeno-y-desarrollo-profesional>
2. Salanova MS, Martínez IM, Bresó E, Llorens GS, Grau GR. Psychological well-being among university students: facilitators and obstacles of academic performance. *An Psicol.* [Internet]. 2005 [cited 2015 July. 21];21(1):170-80. Available from: http://www.um.es/analesps/v21/v21_1/16-21_1.pdf
3. Maslach C, Schaufeli WB, Leiter, MP. Job burnout. *Annu Rev Ppsychol.* 2001;(52):397-422. Available from: <http://www.wilmarschaufeli.nl/publications/Schaufeli/154.pdf>
4. Maslach C, Jackson SE. Maslach Burnout Inventor. Manual. Palo Alto, Universidad de California: Consulting Psychologist Press; 1981. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/job.4030020205/pdf>
5. Ramos F. El síndrome del burnout. Madrid: UNED-FUE; 1999.
6. Grisales H, Muñoz Y, Osorio D, Robles E. Síndrome de Burnout en el personal de enfermería de un hospital de referencia Ibagué, Colombia, 2014. *Enferm. glob.* [Internet]. 2016 Ene [cited 2016 Sep 23]; 15(41): 244-257. Available from: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1695-61412016001100113&lng=es.
7. Tomaschewski-Barlem JG, Lunardi VL, Lunardi GL, Barlem ELD, Silveira RS, Vidal DAS. Burnout syndrome among undergraduate nursing students at a public university. *Rev. Latino-Am. Enfermagem* [Internet]. 2014 [cited 2015 Oct 19];22(6):934-941. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692014000600934&lng=es
8. Guido LA, Goulart CT, Marques da R, Lopes LFD, Ferreira EM. Stress and Burnout among multidisciplinary residents. *Rev. Latino-Am. Enfermagem* [Internet]. 2012 Dec [cited 2015 Oct 21];20(6):1064-1071. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-1692012000600008&lng=en.
9. Salanova M, Schaufeli WB, Llorens S, Peiró JM, Grau RM. Desde el burnout al engagement: ¿una nueva perspectiva? *Rev Psicol Trabajo Organ* [Internet]. 2000

- [cited 2015 July. 21];(16):117-134. Available from: <http://www.wont.uji.es/publicaciones/articulos/item/desde-el-burnout-al-engagement-una-nueva-perspectiva>
10. Seligman MEP, Csikszentmihalyi M. Positive psychology: An introduction. *Am Psychol.* 2000 [cited 2015 July. 21];(55):5-14. Available from: <http://www.ppc.sas.upenn.edu/ppintroarticle.pdf>
11. Salanova M, Schaufeli WB. *El engagement en el trabajo.* Madrid: Alianza Editorial S.A; 2009.
12. Schaufeli WB, Salanova M, González-Romá V, Bakker AB. The measurement of burnout and engagement: A confirmatory factor analytic approach. *J Happiness Stud.* 2002 [cited 2015 July. 21];3(1):71-92. Available from: <http://www.wilmarschaufeli.nl/publications/Schaufeli/178.pdf>
13. Uludağ O, Yaratán H. The effect of burnout on engagement: An empirical study on tourism students. *J Hosp Leis Sport To.* 2010 [cited 2015 July. 21];9(1):13–23. Available from: <http://www.sciencedirect.com/science/article/pii/S1877042812011937>
14. Salanova M, Bresó E, Schaufeli WB. Towards a spiral model of the efficacy beliefs in the study of burnout and engagement. *Anxiety Stress [Internet].* 2005 [cited 2015 July. 21];11(2-3):215-31. Available from: <http://www.wilmarschaufeli.nl/publications/Schaufeli/243.pdf>
15. Çam Z, Deniz KZ, Kurnaz A. School Burnout: Testing a Structural Equation Model Based on Perceived Social Support, Perfectionism and Stress Variables. *Egitim ve bilim-education and science,* 2014 [cited 2016 Jun. 20];173(39): 310-325. Available from: https://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=N1AxEyDR97CcwD478o9&page=1&doc=3
16. Zhu Y, Liu CC, Guo BM, Zhao L, Lou FL. The impact of emotional intelligence on work engagement of registered nurses: the mediating role of organisational justice. *2015;24(15-16): 2115-2124. DOI: 10.1111/jocn.12807*
17. Jing-Ying L, Yan-Hui L, Ji-Peng Y. Impact of learning adaptability and time management disposition on study engagement among chinese baccalaureate nursing students. *J Prof Nurs.* 2014;30(6):502-10. Available from: <http://www.sciencedirect.com/science/article/pii/S875572231400074X>
18. Manzano G. Burnout y engagement en un colectivo pre-profesional estudiantes universitarios. *Bol Psicol.* 2002;74(1):79-102. Available from: <http://www.uv.es/seoane/boletin/previos/N74-4.pdf>
19. Schaufeli WB, Salanova M. Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety Stress Coping.* 2007;20(2):177-96. Available from: <http://www.wilmarschaufeli.nl/publications/Schaufeli/267.pdf>
20. Zhang Y, Gan Y, Cham H. (2007). Perfectionism, academic burnout and engagement among Chinese college students: A structural equation modeling analysis. *Pers Individ Differ.* 2007;43(6):1529–1540. Available from: <http://www.sciencedirect.com/science/article/pii/S0191886907001602>
21. Liébana-Presa C, Fernández-Martínez ME, Ruiz A, Muñoz-Villanueva MC, Vázquez-Casares AM, Rodríguez-Borrego MA. Psychological distress in health sciences college students and its relationship with academic engagement. *Rev Esc Enferm USP [Internet].* 2014 [cited 2015 July 21];48(4):715-722. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342014000400715&lng=en
22. Extremera N, Durán A, Rey L. Emotional intelligence and its relationship with the levels of burnout, engagement and stress in university students. *Rev Educ.*

- 2007;(342):239-256. Available from:
http://www.revistaeducacion.mec.es/re342/re342_12.pdf
23. Upadyayaa K, Salmela-Aroa K. Cross-lagged associations between study and work engagement dimensions during young adulthood. *J Posit Psychol.* 2014;10(4):346-358. Available from:
<https://dialnet.unirioja.es/servlet/articulo?codigo=5055199>
24. Polanco A, Ortiz L, Pérez C, Parra P, Fasce E, Matus O, et. al. Relationship between previous academics background and initial expectations with academic well-being of first year of medical students. *FEM: Revista de la Fundación Educación Médica.* 2014;17(4):205-211. Available from:
http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S2014-98322014000400006
25. García Rodríguez José Juan, Labajos Manzanares M^a Teresa, Fernández Luque Francisca. Los estudiantes de Grado en Enfermería y su compromiso con los estudios. *Enferm. glob.* [Internet]. 2015 Abr [citado 2016 Sep 23] ; 14(38): 169-177. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1695-61412015002200009&lng=es.
26. Bresó E, Llorens S, Salanova M. Creencias de eficacia académica y engagement en estudiantes universitarios. *Jornades de Foment de la Investigació.* Castellón: Universitat Jaume I; 2005. Available from:
http://repositori.uji.es/xmlui/bitstream/handle/10234/79330/forum_2003_12.pdf?sequence=1
27. Caballero CC, Abelló R, Palacio J. Relación del burnout y el rendimiento académico con la satisfacción con los estudios en estudiantes universitarios. *Av Psciol Clin Latinot.* 2007;25(2):98-111. Available from:
<http://www.redalyc.org/articulo.oa?id=79925207>
28. Preciado ML, Vázquez JM. Stress profile and burnout syndrome in mexican dental students of a public university. *Rev Chil Neuro-psiquiat* [revista en la Internet]. 2010 [cited 2015 July. 21];48(1):11-19. Available from:
<http://redalyc.uaemex.mx/src/inicio/ArtPdfRed.jsp?iCve=73013006003>
29. Schaufeli, WB. Bakker, AB. UWES – utrecht work engagement scale: test manual, Department of Psychology, Utrecht University, Utrecht. 2003. Available from:
http://www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test_manual_UWES_Espanol.pdf
30. Schaufeli WB, Martinez IM, Marques-Pinto A, et al. Burnout and engagement in university students: A cross-national study. *J Cross Cult Psychol* 2002; 33(5): 464-481
31. Nunnally JC, Bernstein IH. *Psychometric theory.* Nueva York: McGraw-Hill; 1994.

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