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Present but Sick at Workplace influence Work Productivity of Academics in Public Universities

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ABSTRACT

Background: When people present but sick at workplace, this can be considered as presenteeism. Presenteeism is highly prevalent in organizations, including in higher academic institutions. Even the employees are physically present at work, nonetheless their concentration is absent. Objective: In the present study, the researchers investigated the relationship between presenteeism and productivity among academicians of public universities in Malaysia. Methodology: The respondents consisted of 194 of academicians from three selected public universities. The obtained data were gathered through the distribution of questionnaires to respondents. Results: Descriptive statistics showed that majority respondent were female (61.3%) academicians with aged range of 30 - 39 years (33.5%). More than half of them were permanent staff (64.9%) of the public universities. However, the highest percentage of the respondents in job tenure was three years (35.1%). Most of the academics (78%) have the intention to attend work while ill around two to five times per year (39%). However, the finding justify that the academics with good health have less tendency to do presenteeism. The correlation analysis of the study found that there was a significant positive relationship between work-related contributing factors and the frequency of presenteeism in public universities. The study found that job demand and job security has influence with the level of work productivity. However, academicians with high level of job demand were found to have high tendency and were more prone towards attending at work while ill which consequently influence the work-productivity. Conclusion: In conclusion, it is evident that work-related factors contribute to presenteeism including job demand, job security, replaceability and time pressure.

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INTRODUCTION

Presenteeism is highly prevalent in organizations. Presenteeism occurs when employees are physically present at work, nonetheless their concentration is absent (Gilbreath & Karimi, 2012). Accordingly, Hemp (2004) emphasized that employees who are at work, but their mental energy is not devoted to their work contributed more loss as they are unproductive enough.

Needless to say, Hansen & Andersen (2009), an employee is still present at work at the appointed time needs to be at home, due to health conditions, thus less productive at work. Therefore, it is crucial to address the presenteeism behaviour among employees, particularly academicians as the nature of complexity academic work.

Over the last ten years, the Malaysian higher education system has made significant gains in student enrollment, risen in global recognition on key

dimensions such as research publications, patents, and institutional quality (Ministry of Education Malaysia, 2015).

The internationalization of the higher education sector is a high priority for the government. Hence the Malaysia Education Blueprint (Higher Education) 2015-2025 was launched with the aim to produce holistic and balanced graduates with an entrepreneurial mind. The academicians are required to stay open to and adopt these new ways of working, to work collaboratively with all the stakeholders during the transformation journey. They need to transform their traditional role of teaching and research by adding an additional pivotal role in economic regional development (Khairunneezam, 2011).

From the best of the author's knowledge, the relationship between contributing factors of presenteeism and work productivity among academicians are understudied. Therefore, the main

objective of this paper is to examine the contributing factors of presenteeism that influence work productivity among academicians of public universities in Malaysia.

Background Of Study:

Since its occurence in 1892 sometimes presenteeism considered as good, however its belongs to obsessive when relates to employees's health and productivity (Johns, 2010). The presenteeim affects the health status as the employee is physically present, but is mentally absent. In other words, the employee is at the workplace, but their cognitive energy is not devoted to their work (Gilbreath & Karimi, 2012). The situation happens when the employee is not in good health condition, but still present at work in appointed time. Despite the health is worsening, present to work while ill gives the consequences on low productivity accordingly (Johns, 2010; Cooper, 1996).

Taifor, Abdullah & Hashim (2011) pointed out that, presenteeism had caused the productivity loss as the employees have limited ability in completing tasks due to poor health conditions they experienced on. Besides that, Cooper (1994) found in his study that the presenteeism carries a negative work environment, where the workers do not give full attention to their work. Meaning that, this was caused them less productive, make more mistakes and produce a low quality of service compared to usual.

Presenteeism highly occurs among employees in the public sector due to the sense of high responsibility towards their clients which is welfare or service sector and especially the education area (Caverley et al., 2007; Aronsson, Gustafsson & Dallner, 2000). Meanwhile Aronsson, et al., (2000) as cited in Nyberg, Westerlund, Magnusson Hanson & Theorel (2008) found that employees in healthcare or welfare service or in teaching occupations have a substantially increased in number for being at work while ill. Similar to study by Cocker et al., (2011), pointed out that occupations which require voluntary actions, teaching, and job that demands for his/her assistant responsibilities like client, colleagues are associated with presenteeism productivity. Therefore, this study was appropriate to be conducted among academicians of public universities in the East Coast Malaysia.

According to Aronsson & Gustafsson (2005), general health status is considered a prerequisite to presenteeism. They also suggest the act of presenteeism with the work and personal factor as the main antecedents contributing to presenteeism. Moreover, gender also had been correlated with absenteeism and presenteeism (Claes, 2011). A study by Laaksonen, Martikainen, Rahkonen & Lahelma (2008) revealed that women have higher absenteeism than men; where it is just the same when it comes to presenteeism. Unfortunately, contrast to Aronsson &

Gustafsson (2005) finding that gender had little no explanatory value for presenteeism. Nevertheless, downsizing also caused employees in an organization to present even sick, mostly among male.

Productivity is the core factor in revenue generation in an organization (Hemp, 2004). While previous studies have shown that the phenomenon of absenteeism has contributed to lose as it incurred a lot of cost. However, a study by Hemp (2004) showed that employees who are present contributed more lost as they are unproductive enough. Presenteeism is not always as apparent as absenteeism because it is harder to identify employee that not working at their full capacity compared to someone does not come to work. Measuring the impact on productivity itself is even more difficult and harder, thus it is not so concerned to both employers and employees.

It has been claimed that sickness presenteeism reduced the productivity among the employees and it is incurred a lot of cost compared to sickness absenteeism. According to Johansen, Aronsson & Marklund (2013), sickness presenteeism it is due to reduced work capacity. It also can cause a serious health problem and sickness absenteeism at a later stage (Gustafsson & Marklund (2011); Bergstrom, Bodin, Hagberg, Lindh, Aronsson & Josephson (2009) and Kivimaki, Head, Ferrie, Hemingway, Shipley, Vahtera & Marmot (2005).

Moreover, there was a very limited number of existing studies regarding on presenteeism and productivity. Most of the previous study were more than five years ago. Although on-the-job productivity loss attributed to presenteeism incurred a higher cost than absenteeism (Edington & Schultz, 2008), presenteeism has received little attention in the literature and is poorly understood (Gilbreath & Karimi, 2012). More studies need to explore and investigate this phenomenon. Therefore, the current study provides information about the contributing factors of presenteeism towards productivity in this phenomenon.

Human resources experts start to concern and explore what is presenteeism actually by looking more detailed in it. The Health and Productivity Management Toolkit, a special workplace resource created by the Health and Productivity Section of the American College of Occupational and Environmental Medicine (ACOEM) in promoting healthier and more productive workplace said that employees with presenteeism can be detected by a low degree of quality and quantity of work produced and low motivation among the employees.

Workforce performance has become a core component in ensuring the sustainability of an organization. Most employees would have constraints in completing their work when they have health problems. Illness-related presenteeism was a significant factor in worker productivity (Ferreira, Martinez, Sousa & Cunha, 2010).

Productivity of workers can be reduced by 33% or more due to presenteeism (Ferreira *et al.*, 2010). Still, according to Ferreira and colleague (2010) it can be estimated in the United States, the annual productivity losses approximately U.S \$ 260 million, attributed to absenteeism and presenteesim. As cited in Assuncao *et al.*, (2013), some factors that contribute to their health problem due to the time pressure, having a problem with the leader, the intended goals and the fear to lose the job. Thus, caused a reduction in their performance (Capelo, 2012).

Methods:

A cross-sectional study was employed in this research study. Data collection was carried out in the East Coast, Malaysia. Only three public universities showed willingness to participate in this research study. Prior to the data collection procedures, approval was obtained to conduct the research study from the participated public universities. In estimating a sufficient sample size, the process of stratification initially conducted and followed by random selection of subjects. Disproportionate stratified random sampling was used in estimating the sample size since the different universities did not have the same sampling fractions as each other.

A total of 330 questionnaires was distributed through email. Of the total, 204 questionnaires were successfully completed and returned. This is equivalent to 68% response rate. Using guidelines from the American Association for Public Opinion Research (APPOR, 2011), a response rate of 60% and above is considered acceptable. However, only 194 questionnaires were valid for data analysis purposes. A survey questionnaire was used and adapted from established questionnaires in previous studies (Aronsson *et al.*, (2011); Klandermans, Hesselink & Vuuren, (2010); Caverley *et al.*, (2007); Aronsson & Gustafsson, (2005)). Overall, the questionnaire has four sections with 38 items.

The descriptive and inferential statistics were employed in this study. The descriptive statistics included mean, frequency, standard deviations, variance and range. Bivariate analysis was also used to investigate the correlation between the variables in this study. Data obtained was analyzed by Statistical Package for Social Science (SPSS) version 22.0.

Results:

Demographics profile. The demographic profile of the respondents includes gender, age, marital status, employment status, highest educational background, job tenure and university. Data findings of the demographic profile and background are described in Table 1. The study findings showed that more than half of the respondents were female (61.3%, n=119) and 38.7% (n=75) were male. Sixty-five respondents (33.5%) were aged between 30 – 39

years old and nearly 30% (n= 57) were aged 23-29 years old. Meanwhile, 18% (n=35) of the respondents were in the range 40-49 years old. Less than 20% of the respondents aged 50-59 (12.9%) and 60-69 years old (6.2%). The majority of the respondents were married (70.6%, n = 137), while, 26% of the respondents were single (n=51) and only 3.1% (n=6) were claimed as under 'others' status.

In terms of employment, more than half of them were permanently employed (65%, n=126). While 30.9% (n= 60) of the respondents were on contract basis and the remaining of 4.1% (n=8) was employed as "other" status.

As for working experience, 68 (35.1%) respondents had been working for less than three years and 58 (29.9%) had worked from three to seven years. Meanwhile, 34 respondents (17.5%) had been working from eight to twelve years and another 17.5% (n= 34) worked for more than twelve years.

Based on the Table 1, there were 62.9% (n=122) respondents had master degree, PhD were 27.3% (n=53) and another 9.8% (n=19) were Bachelor's degree holder. It was reported that 36.5% (n=71) of the respondents represented University A, 35.1% (n=68) University C and the remaining 28.4% (n=55) were University B.

Table 2 tabulates the findings related to health of the respondents. It was found that the majority of the respondents have a good health status (44.8%). It was followed by fair health status (30.9%), very good (11.3%), poor (8.2%) and excellent (4.6%). The health conditions of the respondents also had been analyzed. The results showed that most of the respondents (30.4%) experienced an acute illness like fever and cough, flu and dizzy followed by arthritis or joint pain (22.7%).

Correlation Analysis. Frequency of presenteeism is shown in Table 3. Majority of the respondents (77.8%) had the intention to be present while ill.

It was also reported that most academicians of public universities in the East Coast Malaysia experienced presenteeism. Table 3 also shows that nearly 40% of academicians had episodes of presenteeism two to five times, while almost 30% had done so more than five times in a year.

Only 16% of academicians had no experience of presenteeism and 17% had experienced it once. In a nutshell, 84% reported the act of presenteeism among academicians of public universities in the East Coast Malaysia.

Table 4 illustrates the relationship between health status and frequency of presenteeism in academicians. There is negative relationship between health status and presenteeism (r=-0.15, p<0.05). Thus, people who are at good health condition may less present at work while sick.

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Table 1: Demographic and Employment (n=194).

Items	Frequency	Percentage
Gender		
Male	75	38.7
Female	119	61.3
Age		
23-29	57	29.4
30-39	65	33.5
40-49	35	18.0
50-59	25	12.9
60-69	12	6.2
Marital status		
Single	51	26.3
Married	137	70.6
Others	6	3.1
Employment status		
Permanent	126	65.0
Contract	60	30.9
Others	8	4.1
Job Tenure		
Less than 3 years	68	35.1
3-7 years	58	29.9
8 - 12 years	34	17.5
More than 12 years	34	17.5
Highest education		
Ph.D	53	27.3
Master Degree	122	62.9
Degree	19	9.8
University		
University A	71	36.5
University B	55	28.4
University C	68	35.1

Table 2: Health status and conditions.

Characteristic	Frequency	Percentage	
General Health			
Poor	16	8.2	
Fair	60	30.9	
Good	87	44.8	
Very good	22	11.3	
Excellent	9	4.6	
Health Conditions			
Common illness	59	30.4	
Arthritis or joint pain	44	22.7	
Asthma	21	10.8	
Back or neck disorder	37	19.1	
Breathing disorder	12	6.2	
Depression and anxiety	25	12.9	
Diabetes	21	10.8	
Migraines	34	17.5	
Stomach or bowel disorder	26	13.4	
High blood pressure	22	11.3	
Allergies	13	6.7	
Heart – problem	7	3.6	
Others	13	6.7	

Table 3: Frequency of presenteeism (N=194).

Presenteeism	Frequency	Percentage
Intention to Presenteeism		
Yes	151	77.8
No Experienced of Presenteeism (A year)	43	22.2
Never	31	16.0
Once	33	17.0
Two to five	76	39.2
More than five	54	27.8

A multiple regression was conducted to examine if the contributing work-related factors predicted the level of work productivity among academics in public universities, particularly in East Coast, Malaysia. The contributing factors of preseteeism

were examined. As shown in Table 5, the respondent agreed that job demand (M=3.86, SD=0.73), replaceability (M=3.63, SD=1.00) and time pressure (M=3.59, SD=0.92) were contributing factors of presenteeism.

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Table 4: Pearson correlation analysis.

Variables Correlation						
	Pearson's correlation	-0.15				
Health status and presenteeism frequency	Sig	0.03				
	N	194				

Table 5: Pearson correlation analysis (N=194).

No. Variable	Mean	SD	1	2	3	4	5	6
1 Job Demand	3.86	0.73						
2 Job Security	3.28	1.08	.21*					
3 Replaceability	3.63	1.00	.22*	.03				
4 Time Pressure	3.59	0.62	.64*	.29*	.13			
5 Presenteeism	2.79	1.02	.31*	.08	.05	.22*		
6 Productivity	3.21	0.92	.20*	.20*	03	.09	.12	

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

While the respondents assumed job security (M=3.28, SD=1.08) was not certain as a contributing factor of presenteeism. The correlations of the variables are shown in Table 5. As can be seen, all

correlations, except for the one between time pressure and replaceability, were statistically significant.

Table 6: Analysis of Variance (N=194).

	ANOVA ^a							
	Model	Sum of Squares	df	Mean Square	F	Sig.		
	Regression	13.11	4	3.27	4.21	0.003 ^b		
1	Residual	147.03	189	0.78				
	Total	160.14	193					
	a. Dependent Variable: Work Productivity							
b. Predictors: (Constant), Replaceability, Job Security, Job Demand, Time Pressure								

It is indicated that there were significant positive relationship between job demand ($r=0.20,\ p<0.01$) and job security ($r=0.20,\ p<0.01$), with the level of work productivity. Nevertheless, there was no

significant relationship between replaceability and presenteeism among academicians; and time pressure, with the level of work productivity (r = -0.031, p>0.01, r = -0.085, p>0.01; respectively).

Table 7: Model Summary (N=194).

Model Summary ^b							
Model R R Square Adjusted R Square Std. Error of the Estimate Durbin-Wats							
1	.286ª	.082	.062	.88201	1.610		
	a. Predictors: (Constant), Replaceability, Job Security, Job Demand, Time Pressure						
b. Dependent Variable: Work Productivity							

Using the enter method it was found that the contributing fators of job demand, job security, time pressure and replaceability explain a significant amount of the variance in the level of work

productivity (F(4, 189) = 4.21, p < 0.05, R^2 = 0.082, R^2 Adjusted = 0.062). The prediction model was only accounted for approximately 6.2% of the variance of work productivity.

Table 8: Coefficients (N=194).

Coefficients ^a								
Model		Unstandardiz	zed Coefficients	Standardized Coefficients		C:a		
		В	Std. Error	Beta	ι	Sig.		
	(Constant)	2.099	.400		5.25	.000		
	Job Demand	.324	.115	.259	2.82	.005		
1	Time Pressure	126	.093	125	-1.35	.180		
	Job Security	.158	.061	.188	2.58	.011		
	Replaceability	069	.065	076	-1.07	.286		
	a. Dependent Variable: Work Productivity							

The data findings shows that the factors of job demand (Beta 0.259, t(193) = 2.82, p = 0.005) and job security (Beta = 0.188, t(193) = 2.58, p = 0.011) did significantly predict the level of work

productivity among academics of public university in East Coast, however replaceability (Beta = -0.076, t(193) = -1.07, p>0.05) and time pressure (Beta = -0.125, t(193), = -1.35, p>0.05) did not significantly

predict the work productivity among them. Overall, the job demand is the most contributing work-related factor of presenteeism that influence the level of work productivity.

Discussions:

The purpose of this study is to investigate the relationship between the presenteeism and workproductivity. Demographic variables fall into the first category. The results showed that older employees were found to be more likely to attend work while sick with average age 30-39 were likely to attend work while ill. According to Hansen & Andersen (2008), presenteeism and age are positively correlated. The study findings showed that female (61.3%) respondents are more than half compared to men and have higher intention for presenteeism (77.8%). This is resulted in women put more effort into family life and childcare. However, Nyberg and colleagues (2008) found that in hospital setting, men seem to be more prone to presenteeism as compared to married women (71. This supports the findings that the employees with dependent children are more likely to experience presenteeism (Aronsson et al., 2000).

Presenteeism is prevalent in jobs where attendance has a great influence on other people and on their primary needs (Aronsson et al. 2000). The present study indicated that 39% of the presenteeism occurs 2 to 5 times a year and higher health reason for presenteeism is acute illness like fever and cough (34%). The paves way for presenteeism is nature of academics itself which requires working closely with the students and the tasks mostly cannot be postponed or delegated. Moreover, Caverley et al. (2007) suggested that the decision to be at work despite being sick is related to replacement and responsibilities. Thus, in consistent with academics setting, the replacement is impossible and the sense of responsibility must be present to ensure the daily activities run smoothly.

The present study findings revealed that the act of presenteeism (84%) occurs among academicians. Among them, 31% were on contract basis. Job demand was also discovered as the most contributing work-related factor of presenteeism among academicians. Similar to a study conducted by John (2011), employees may come to work while ill so as to maintain their work performance. High job demand occurs when they are employed on fixed-term contracts and expected to achieve a permanent status later on (Caverley *et al.*, 2007).

The present study revealed that job demand and job security influence the level of work productivity among academicians in the public universities. Presenteeism is crucial since it does not just affect one person but the rest of the organization, in which it increases cost, yet reduced the work productivity as well as the quality of work (Cooper,1994). The quality of work of academic setting may include

difficulty in concentrating, forgetfulness, indecisiveness, fatigue, headaches, irritability, and trouble getting along with co-workers (May ,2015). In contrast, Collin & Cartwright (2012) found that time pressure and insufficient work resources had impacts on presenteeism and productivity. When there are scarcity in resources, it generates extra costs and give real negative impact on workforce morale as other people have to pick up more and more work. That is the reason why lost productivity from presenteeism is at least three times higher than from absenteeism. In addition to that, the employees themselves exaggerating their illness and becoming worse when the illness is pandemic. The challenge for the federal government or policy maker is a major culture and thinking shift. In order to reduce the presenteeism occurrence, the preventive measures should be taken.

Excellent management of presenteeism can lead to productivity improvement, increase in employee motivation, loyalty and enhancement of employer branding. In addition, when employer focus on presenteeism as an important part of healthcare benefits, their employees' health can be transformed from a cost burdened to competitive advantage.

Conclusions:

The results of the study provide awareness among academicians regarding phenomenon of presenteeism as it gave an impact toward their work productivity. It is becoming a very challenging for an organization to maintain healthy and productive employees. The findings show a majority of the respondents had the intention to be present at work while ill. The study found that there was a significant positive relationship between work-related factors and the frequency of presenteeism in public universities. It is evident that work-related factors contribute to presenteeism including job demand, job security, replaceability and time pressure. It is recommended that future researchers should investigate the contributions of organizational commitment toward presenteeism and work productivity.

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REFERENCES

Aronsson, G., K. Gustafsson, 2005. Sickness presenteeism: Prevalence, attendance-pressure factors, and an outline of a model for research. Journal of Occupational and Environment Medicine, 47: 958-966.

Aronsson, G., K. Gustafsson, M. Dallner, 2000. Sick but yet at work. An empirical study of sickness presenteeism. Journal of Epidemiology and Community Health, 54: 502-509.

Caverley, 2007. Salmeterol and Fluticasone and Survival in Chronic Obstructive Pulmonary Disease. The New England Journal of Medicine, 356: 775-789.

Claes, R., 2011. Employee correlates of sickness presence: A study across four European countries. Work and Stress, 25(3): 224-242.

Cooper, C., 1996. Hot under the collar. Times Higher Education (Supplement), 21.

Cooper, C.L., 1994. The costs of healthy work organizations. In C. L. Cooper & S. Williams (Eds.). Creating healthy work organizations (pp: 1-5). Chichester, England: Wiley.

Cocker, F., A. Martin, J. Scott, A. Venn, P. Otahal, K. Sanderson, 2011. Factors associated with presenteeism among employed Australian adults reporting lifetime major depression with 12-month symptoms. Journal of Affective Disorders, 135(1-3): 231-240.

Gilbreath, B., L. Karimi, 2012. Supervisor behavior and employee presenteeism. International Journal of Leadership Studies, 7(1): 114-131.

Hansen, C.D., J.H. Andersen, 2009. Sick at work- what personal circumstances, attitudes and work-related factors are associated with sickness presenteeism? Social Science & Medicine, 67: 956-964.

Hemp, P., 2004. Presenteeism: At work – but out of it. Harvard Business Review, 49 – 58.

Hirsch, B., D.S.J. Lechmann, C. Schnabel, 2015. Coming to work while sick: An economic theory of presenteeism with an application to German data

Johns, G., 2010. Presenteeism in the workplace: A review and research agenda. Journal of Organizational Behavior, 31: 519-542.

Khairunneezam Mohd Noor, 2011. Work Life Balance and intention to leave among Academics in Malaysian Higher Education Institutions. International Journal of Businees and Social Science, 2(11): 241-248.

Klandermans, B., J. Klein Hesselink, T. Van Vuuren, 2010. Employment status and job insecurity: On the subjective appraisal of an objective status. Economic and Industrial Democracy, 31(4): 557-557.

Laaksonen, M., P. Martikainen, O. Rahkonen, E. Lahelma, 2008. Explanations for gender differences in sickness absence: Evidence from middle-aged municipal employees from Finland. Occupational Environmental Medicine, 65: 325-330.

Lerner, D., Amick, B. C. III, Malspeis, S., & Rogers, W. H. (2000). A national survey of health related work limitations among employed persons in the United States. Journal of Disability and Rehabiliation Research, 23, 225–232.

May, K. 2015. Presenteeism worse than absenteeism? Thousands of public servants have

mental health issues, expert says. Retrieved from http://news.nationalpost.com/news/canada/canadian-politics/presenteeism-worse-than-absenteeism-thousands-of-public-servants-have-mental-health-issues-expert-says

Ministry of Education Malaysia, 2015. Executive Summary: Malaysia Education Blueprint 2015 – 2025(Higher Education). Putrajaya: Ministry of Education Malaysia.

Nyberg, A., H. Westerlund, L.L. Magnusson Hanson, T. Theorell, 2008. Managerial leadership is associated with reported sickness. absence and sickness presenteeism among Swedish men and women. Scandinavian Journal of Public Health, 36, 803–811

O'Donnell, J.E., 2009. Presenteeism: A comparative Analysis. Master Theses. University of Massachusetts, Amherst, 317.

Quazi, H., 2013. Presenteeism: The invisible cost to organizations. New York: Palgrave MacMillan.

Taifor, N.A., H.S. Abdullah, R. Hashim, 2011. Incidence and antecedents of presenteeism: The case of a federal government ministry in Malaysia. Humanities, Science and Engineering (CHUSER), IEEE Colloqium, 654 -659.

The American Association for Public Opinion Research, 2011. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. (7th ed.).

Tajik, J. and S. Nazifi., 2011. A Study of Correlation of Serum Leptin with Trace Elements in Water Buffalo (Bubalus bubalis). Australian Journal of Basic and Applied Sciences, 31: 231-234.

Tomovska, J., S. Presilski, N, Gjorgievski, N, Tomovska, M.S. Qureshi and N.P. Bozinovska, 2013.Development of a spectrophotometric method for monitoring angiotensin-converting enzyme in dairy products. Pak Vet J, 33(1): 14-18.