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The Effects of Health-Based Wellness Programs on Employee Productivity

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Introduction:

Americans spend nearly one-third of their time at work or thinking about work. A full-time worker will contribute forty or more hours of work a week, leaving little time for much else aside from sleeping and eating. While some employees may have free time, many cannot take advantage of free time which can lead to high levels of occupational stress. High levels of stress can have detrimental effects on the human body which will lead to poor physical health and unhealthy mentalities. Stress is an inevitable part of an employee's life, however a majority of employees do not know how to properly handle stress to keep it under control. Having a high level of occupational stress can lead to detrimental physical habits such as poor nutrition, smoking, a sedentary lifestyle and substance consumption⁶. Occupational stress can lead to debilitating physiological issues. According to Noblet and LaMontagne it can lead to issues such as depression, anxiety, emotional exhaustion, immune deficiency disorders and cardiovascular disease^{1,8}. Occupational stress and accompanying factors are multifactorial in origin. Negative effects of occupational stress occurs when external pressure and expectations weigh too heavy on an employee and they often feel as though they cannot handle the situation¹.

Employee's emotions and high levels of stress can lead to a poor quality of life. According to Clark and colleagues, many employees rated their occupational stress "as bad as it can be" and in correlation had poorer health while also documenting lower quality of life⁸. Employees with high stress levels perceived themselves as having a smaller chance of becoming physically active and little support for a healthy lifestyle from friends and family⁸. Employees with higher self-efficacy are more likely to engage in physical activities that trend to better stress management in the future¹³. While employees are measured by their health status and occupational stress level, the workplace environment is a contributing factor to occupational

stress. Employees feel as though they have less stress or can combat stress in a healthier manner if they have a supportive workplace environment. Relationships between supervisors and employees, as well as relationships between peers, are very important in creating a supportive environment⁷. A different factor in perceived workplace environment support is the implementation of health-based wellness programs. Health-based wellness programs are typically offered by the corporation to combat physical, mental, and emotional issues employees may be having. Employees who take advantage of these programs tend to exhibit lower levels of occupational stress and have a better relationship with the workplace environment. Although there are some reservations about implementing wellness programs, such as possible low attendance or lack of interest, it has been found that employees feel there is more of a commitment from the company to the workers when one is in place¹².

Health-based wellness programs are presented in three distinct categories: physical health, mental health, and emotional health. Physical health programs work to make employees healthier, promote health, and maintain health. These programs may also use incentives, such as insurance discounts, to persuade more participants to engage in said programs. Physical health programs include gym membership discounts, biometric health screenings (which test blood sugar, cholesterol, weight, etc.), and weight watchers, all of which aid in healthy nutrition habits. Mental health programs use tools to help combat or manage stress. Some programs lump mental and physical health together because increased physical activity can lower stress and the factors that come with it, such as depression and anxiety¹³. For emotional health, there are workshops the wellness programs will put on, such as grief counseling and healthy coping mechanisms. High levels of stress and being physically unhealthy can affect more than the wellbeing of an employee; it can also have negative effects on a company and the workplace environment.

Because some employees were unhealthy in certain aspects, effects down-trickled to the company. Unhealthy behaviors cause hostile attitudes among peers and supervisors which can make the workplace to feel unsupportive. An unsupportive or unhealthy workplace environment affects all aspects of the employee's work, leading to presenteeism, absenteeism, and poor productivity. Presenteeism occurs when an employee performs below par or less than optimal, it is a hidden problem because it is very hard to test for. Absenteeism occurs while the employee is absent due to illness or call outs from work, this is different than requesting time off for vacations or planned appointments. Productivity loss occurs because of presenteeism; however, these terms are not interchangeable.

Health has become increasingly important over time, since employees spend a majority of time at work, health and work should benefit one another. Health impacts several different parts of the workplace such as environment, productivity, presenteeism, absenteeism, healthcare costs, and employee relations. Full-time workers, 30-40 plus hours a week have little time for anything else aside from work and are at risk for unhealthy habits. Part-time workers may still benefit from wellness programs; however, there is more leisure time for self-care with less hours required. Do full time employees have increased productivity after engaging in at least one wellness program for at least six months?

Literature had to be found that supported the level of physical, mental, and emotional health in working populations. There is a large correlation between the negative and positive health employees had, their willingness to participate in wellness programs and their levels of presenteeism, absenteeism, and productivity loss^{12, 13}. Through self-measurement, employees answered questionnaires about their health habits and how willing they would be to participate in a wellness program⁸. The main determinant of overall health of an employee tended to be the

level of occupational stress the employee was under^{1, 5, 7, 8, 12, 13}. Gillian and colleagues found in their study a correlation that employees that made healthy food choices tended to exercise regularly, which lead to better stress coping mechanisms. Employees who felt as though they were healthy and also took initiatives to stay healthy, by participating in a wellness program were less likely to engage in presenteeism^{9, 12, 13}. Health promotion programs were needed in different populations as well. The workforce is mainly dominated by middle aged employees, however the older workers is equally important. Younger workers were more likely to be injured while on the job, older workers are more likely for fatalities³. Through research it seems as though higher levels of wellness program participation lead to a decrease in illness or less illness to begin with^{6, 7, 8, 12, 13}.

According to Russell, addressing wellbeing in the workplace can lead to higher levels of job satisfaction and performance¹⁶. The point of wellness programs and health promotion is to create healthier employees that will be more productive at work. While researching the topic of mental health and stress prior to this study, it was theorized that mental health rather than physical health would lead to presenteeism⁹. Physical and mental health have a huge impact on presenteeism and absenteeism. Of all productivity loss, presenteeism accounts for 77% and absenteeism accounts for 23%¹⁰. Interestingly enough, it has been found that physically poor health or illness will result in absenteeism while mental health will result in presenteeism¹⁰. To further this idea, many employees who felt they had job security would take the day off when ill, rather than stay and work while distracted. According to Gary Johns, employees who had less job security would have higher presenteeism and productivity loss. Many things could attribute to this productivity loss, such as a company downsizing or impermanent job status, which would lead to occupational stress¹⁸. The main area of interest for this research study is if wellness

program participation helped with employee productivity loss. One study measured the impact of a health promotion program on health risk and work productivity. Mills and colleagues studied 266 employees in a 12 month before and after intervention study which measured participation in a wellness program as well as health and productivity. At the end of the study the results showed a reduction of < six days of absenteeism and 6% increase in work performance for employees that participated in the wellness programs. Although these numbers seem small, they are more significant on a larger scale. This study gives evidence that “a well implemented multicomponent workplace health promotion program can produce sizeable positive changes in health risk status, absenteeism, and work performance in engaged individuals.”¹⁴

In order to understand if the wellness programs are helping combat employee productivity loss, presenteeism, and absenteeism, the validity of the programs and tools used to measure these items are very important. Many studies used The World Health Organization Health and Work Performance Questionnaire (HPQ) to measure employees’ risk assessment and estimating the impact of health problems on productivity in the workplace¹⁶. To test for validity, this questionnaire has been compared to other populations and other workers around the world. This tool is easy and applicable to us, even when translated into other languages, such as Persian¹⁵. Although the HPQ is a widely used questionnaire, it is not the only valid one in use, The Well-Being Assessment seeks to measure all over well-being while linking it to employee productivity. Using both of these tests in studies, the outcomes validate the other (HPQ). One study sought to create cut off score of well-being to predict an employee’s level of productivity. The study concluded that employees with lower scores of well-being tended to have higher risk for loss of productivity¹⁷. While validity of the tool measuring the employees’ health a productivity levels is necessary, it is also necessary that the employers implement wellness

programs that will deliver results. Although there are many definitions of health, occupational stress was the most prevalent to have a correlation to employee productivity. Stress is chosen because it ties emotional and mental health while having an impact on physical health¹¹. To increase the participation of wellness programs, employers need to know which illnesses the employees have. To determine the need of wellness programs based off employee illness rate many places of employment will gather the information through The Well-Being Assessment^{2, 17}. Implementing wellness programs that do not have a strong tie to the needs of the employees will turn to lack of participation and skewed results⁴.

The findings of the literature reviews conducted prior to this research study help shape the way for further research, however there are limitations. A common limitation found is lack of time spent in the wellness programs and lack of responses. To help fill the gap longer studies need to be conducted along with high employee response rate. Another limitation of these studies is accurately measuring presenteeism. Presenteeism is difficult to measure because there is no nominal value attached to it and relies mainly on employee self-reporting.

The study being conducted seeks to answer if consistent participation in a wellness program has a positive effect on employee productivity, presenteeism, and absenteeism. Through using The Health and Work Performance Questionnaire, full-time employees were measured with nominal values, in comparison to full time employees that do not engage in wellness programs, to determine if these programs offer a significant finding.

Methods:

Participants

Participants of the study were student workers or employees at The Georgia College Wellness Center also have been at Georgia College for at least one full semester. Those who participate in the wellness programs must have participated for at least one full semester or have never participated during their employment or enrollment if they are a student employee. There is no discretion in sex, age or gender for the participants. Overtime was allowed in the hours worked per week, Participants could not have once participated for one semester but no longer do to be included. Participants had to take advantage of the Georgia College Health and Recreation programs, anything outside of Georgia College were not counted. All eligible participants had no incentive to participate in this study. All protected populations were allowed to participate in the study (vision impairment, hearing impairment, etc.). An electronic informed consent was presented to each employee before they were to begin their online questionnaires.

Procedures

All employees were notified prior to the study via email. All employees were given an opportunity to participate, given they met the previously mentioned criteria. All employees were emailed a link to the questionnaires. In the event of questions, the principle investigator and the participant would communicate one-on-one via email or phone call. Multiple participants filled out their individual questionnaires at a time, however the data was anonymous. Once the participant filled out their questionnaires, they were sent back to the principle investigator and stored on a password encrypted computer.

Tools

The tools used in this study were The World Health Organization Health and Work Performance questionnaire and The Employee Questionnaire. The Health and Work Performance questionnaire was used to assess the quality of work done by the employees or students. The Employee Questionnaire was used for employees to indicate which wellness programs they engaged in at Georgia College.

Results:

Wellness Program selection

Using SPSS (Version 24), a Pearson correlation was calculated examining the relationship between the number of wellness programs an associate was involved in and level of presenteeism. A weak correlation, that was not significant, was found ($r(25) = .203, p > .05$). The number of wellness programs does not relate to level of presenteeism.

Rating work performance

Using SPSS (Version 24), a Kruskal-Wallis test was conducted comparing the outcome of level of presenteeism among workers with the varying levels of self-comparison performance ratings. No significant difference was found ($H(3) = 6.115, p > .05$), indicating that the groups did not differ significantly from each other. Self-comparison performance ratings did not seem to influence the level of presenteeism.

Discussions:

In this study, the effects of wellness programs on levels of presenteeism were examined. The main findings of this study were that 1) there is no significance between the amount of wellness programs and the level of presenteeism an employee exhibits, 2) there is no significance between an employee's self-comparison rating and their level of presenteeism. As directed by The World Health Organization: Health and Performance Questionnaire relative presenteeism

was rated by dividing an employee's level of productivity by other associated levels of productivity. The scale in 0.25-2, 2 being as productive as possible and 0.25 being not productive at all (10).

In previous studies it was mentioned that employees with high levels of physical and mental wellness tended to have less stress at work and worked with higher levels of productivity compared to those that did not participate in wellness programs¹⁴. The study population presented in this comparison did not show the same results. There was little correlation between involvement in wellness programs and presenteeism score. Even though The Wellness and Recreation of both physical and mental/emotional programs, and the employees took advantage of at least one program, program usage did not have a significant effect.

All employees that responded to the questionnaire indicated that they participated in the wellness programs the center offered, because of this the effects of wellness programs on presenteeism were biased and could not be compared. However, in similarly structured studies employees felt that if a company or corporation implemented wellness programs there was a higher incentive to engage in wellness and lower levels of presenteeism^{6, 7, 8, 12, 13}.

Employees that self-compared their rating of productivity had little significance when it came to their level of presenteeism, meaning one employee was not significantly more productive than another, even if their ratings were different. In contrast, previous studies examined effects of higher levels of perceived productivity while comparing to peers, creating higher self-efficacy^{9, 12, 13}.

Limitations for this study should be noted. This current study was projected to be 150 participants while realistically only 20% responded. A higher response rate may have yielded different, more precise results, changing the significance. Another limitation of this study is the

place of employment. Workers of a place of wellness may be less affected by the outcomes of wellness, due to the familiar nature. For a better study in the future, a larger range of employees, more employee responses, different levels of health, and multiple campuses would likely direct a study with favorable, deeper results.

In conclusion this study did not prove that wellness has a profound effect on presenteeism or that self-perceived productivity has an effect on presenteeism. Further research should be done to conclude that engagement in workplace wellness programs would combat levels of presenteeism in employees.

References:

1. Baxter S, Campbell S, Palmer A, et al. Development of the Workplace Health Savings Calculator: a practical tool to measure economic impact from reduced absenteeism and staff turnover in workplace health promotion. *BMC Research Notes*. September 19, 2015;8(1):1-12.
2. Cancelliere C, Cassidy J, Ammendolia C, Côté P. Are workplace health promotion programs effective at improving presenteeism in workers? A systematic review and best evidence synthesis of the literature. *BMC Public Health*. May 26, 2011;11:395.
3. Clark MM, Warren BA, Hagen PT, et al. Stress Level, Health Behaviors, and Quality of Life in Employees Joining a Wellness Center. *American Journal of Health Promotion*. 2011;26(1):21-25. doi:10.4278/ajhp.090821-quant-272.
4. Crawford J, Graveling R, Cowie H, Dixon K. The health safety and health promotion needs of older workers. *Occupational Medicine*. May 2010;60(3):184-192.
5. errill R, Aldana S, Pope J, Anderson D, Coberley C, Whitmer a. Presenteeism According to Healthy Behaviors, Physical Health, and Work Environment. *Population Health Management* . October 2012;15(5):293-301.
6. Gillan W, Naquin M, Zannis M, Bowers A, Brewer J, Russell S. Correlations among Stress, Physical Activity and Nutrition: School Employee Health Behavior. *ICHPER-SD Journal Of Research*. March 1, 2013;8(1):55-60.
7. Jarman L, Martin A, Sanderson K, et al. Workplace Health Promotion and Mental Health: Three-Year Findings from Partnering Healthy@Work. *Plos One*. August 11, 2016;11(8):e0156791.
8. Jarman L, Martin A, Venn A, Otahal P, Sanderson K. Does workplace health promotion contribute to job stress reduction? Three-year findings from Partnering Healthy@Work. *BMC Public Health*. December 24, 2015;15:1293.
9. Johns G. Attendance dynamics at work: The antecedents and correlates of presenteeism, absenteeism, and productivity loss. *Journal Of Occupational Health Psychology*. October 2011;16(4):483-500.
10. Kessler RC, Barber C, Beck A, et al. The World Health Organization Health and Work Performance Questionnaire (HPQ). *J Occup Environ Med* 2003;45:156-74.
11. Lu C, Hannon P, Harris J, et al. Perceived Workplace Health Support Is Associated With Employee Productivity. *American Journal Of Health Promotion*. January 2015;29(3):139-146.

12. Mills P. The development of a new corporate specific health risk measurement instrument, and its use in investigating the relationship between health and well-being and employee productivity. *Environmental Health: A Global Access Science Source*. January 28, 2005;4(1):1.
13. Mills P, Kessler R, Cooper J, Sullivan S. Impact of a Health Promotion Program on Employee Health Risks and Work Productivity. *American Journal Of Health Promotion*.
14. Noblet A, LaMontagne A. The role of workplace health promotion in addressing job stress. *Health Promotion International*. December 2006;21(4):346-353.
15. Odegaard F, Roos P. Measuring worksite health promotion programs: an application of structural equation modeling with ordinal data. *The European Journal Of Health Economics: HEPAC: Health Economics In Prevention And Care*. August 2013;14(4):639-653.
16. O P, L G, A Tehrani Y, SM T, M G, E V. Reliability and Validity of Persian Version of World Health Organization Health and Work Performance Questionnaire in Iranian Health Care Workers. *The International Journal Of Occupational And Environmental Medicine*, Vol 3, Iss 1, Pp 33-8 (2011) . 2011;(1):33.
17. Russell M. Understanding Employee Wellness Among Non-Supervisory, Front-Line Employees in Three Maryland Industries: A Focus Group Study. *Journal Of Family & Consumer Sciences*. January 2017;109(1):34-42.
18. Scuffham P, Vecchio N, Whiteford H. Exploring the validity of HPQ-based presenteeism measures to estimate productivity losses in the health and education sectors. *Medical Decision Making*. January 2014;34(1):127-137.
19. Shi Y, Sears L, Coberley C, Pope J. Classification of Individual Well-Being Scores for the Determination of Adverse Health and Productivity Outcomes in Employee Populations. *Population Health Management*. April 2013;16(2):90-98.

Correlations

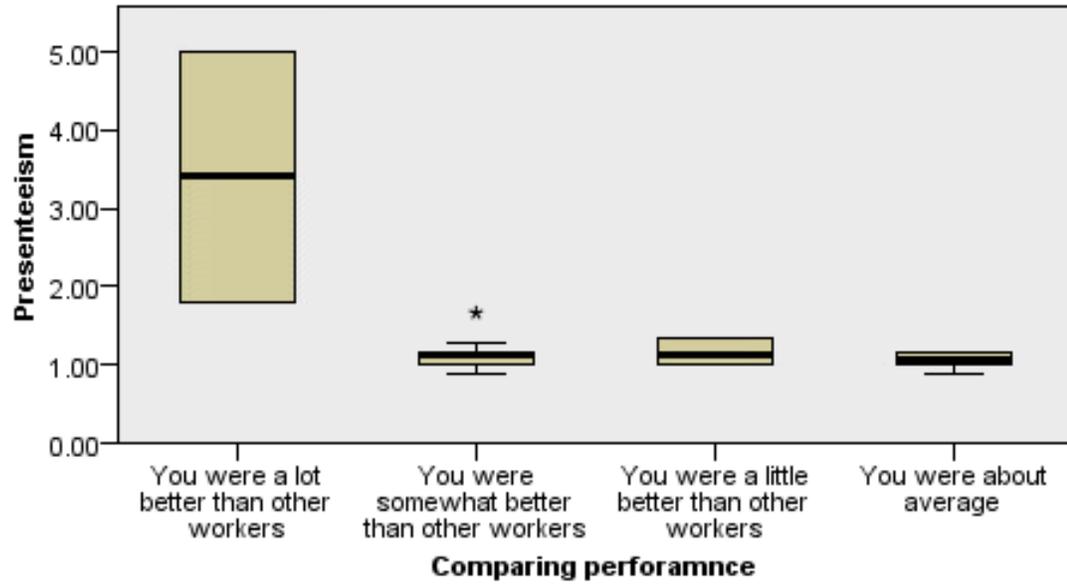
		Wellness program selection	Presenteeism	Employment
Wellness program selection	Pearson Correlation	1	.203	-.005
	Sig. (2-tailed)		.310	.979
	N	32	27	32
Presenteeism	Pearson Correlation	.203	1	-.185
	Sig. (2-tailed)	.310		.357
	N	27	27	27
Employment	Pearson Correlation	-.005	-.185	1
	Sig. (2-tailed)	.979	.357	
	N	32	27	32

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Presenteeism is the same across categories of Comparing performamnce.	Independent-Samples Kruskal-Wallis Test	.106	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Independent-Samples Kruskal-Wallis Test



Total N	27
Test Statistic	6.115
Degrees of Freedom	3
Asymptotic Sig. (2-sided test)	.106