Sustainable Development and Strategic Human Resources Management (SHRM) Implications of a Workplace Wellness Mentorship Program

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Abstract

Sustainable development is the implementation of practices that meet the needs of the present without compromising those of the future. Though sustainability is often viewed as an environmental topic, the concepts of sustainable development can be used for strategic planning in societal and economic institutions such as an organization. A common application of sustainable development in business practices can be accomplished through adding some type of value to the organizational structure. One component of the organization structure that can be sustainably developed is the labor force. When an organization goes beyond simply providing financial value to a job and attempts to fill their employees' desire for sociocultural justice, they address the needs surrounding belongingness in the workplace. This can foster positive effects on sustaining human capital due to higher rates of job satisfaction and therefore can increase employee retention. A proposed model for providing social exchange platforms for employees is through the use of accountability mentoring because of the rich social interaction formed in these partnerships. This study observes an employee wellness program that utilizes accountability mentoring. Workers with a desire to cultivate a regular exercise routine were paired with colleagues who already have an exercise regimen intending that the social interaction of the mentorship will strengthen the employees' job satisfaction and their feeling of belongingness in their organizations. Findings provide some insights into how an organization may use such a mentoring program to satisfy needs beyond financial ones and attempt to foster a genuinely affable environment for employees to interact, become inspired and fulfilled by the jobs they do.

1.   Theoretical Foundation

The application of sustainability stretches across numerous disciplines. Though it is most recognizable as a principle steeped in environmentalist tradition, the overarching idea of sustainable development allows for this broadened sense of applicability and can inform a potential model for the social and economic operations of institutions. Sustainable development is defined by the Brundtland Commission of the United Nations as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[1] One economist and philosopher on this topic, Robert Heilbroner, suggests that, in order to sustainably develop a system, we need to base assessments aggregately when estimating future demands for security and welfare, and thus be able to consider all aspects of this system as resources in need of development.[2] This approach couples with the versatility of sustainable development logic and creates a mutually reinforcing system of environmental, social, and economic pillars.

Moreover, to achieve sustainable development, many scholars distinguish that a triple bottom line must be fulfilled: economic efficiency, equity, and environmental sustainability. Coined as the three E's of sustainable development, this is seen as the imperative of developing a conservationist mentality in environmental, economic, and social sectors.[2, 3] As benefactors and constituents of the sustainable system, humanity must also find methods to preserve its own stake. Thus, sustainable development is encapsulated by the husbandry of natural, man-made, and human resources; it is environmental economics that also delves into the development of the societal economics.

In a study of sustainable development as a normative topic, Vucetich and Nelson argue that to make progress in the direction of sustainable development and conscious goal-setting, there would need to be a mechanism for adding value into systems controlling this progress.[4] Scholars have hypothesized that the value component of sustainable development is one of the most vital characteristics of applying sustainability universally. This practice of creating

and applying worth to resources in a system has an interesting effect that ultimately initiates cooperative and proactive behavior towards social justice, and economic stability.[5] In worldwide business and resource management, this sustainable approach has grown in importance due to its inherent vitality and strategic foundation.

The idea of imparting value, a concept basic to sustainability, directly aligns with strategy that is likely to be used by any firm interested in long-term success. The "sustainable development strategy" assumes that the whole of a system is equally important and influential as the sum of its parts.[2] Therefore, each part in the organization should be appraised and treated as if it is entirely dependent on the organization's overall success. The "adding value" practice of sustainable development strategy works in this simple framework: an initial investment provides capital towards each component (e.g. workers, formalities, business processes) that comprises their system. After the investment, there should be some form of return on investment (ROI) in the form of rejuvenation or proliferation of each component. If every component is treated equitably in this way, then the whole system should reflect a positive change towards quality and longevity. A study by Waring and Lewer suggests that firms can apply this value-added corporate social responsibility (CSR) to an organization's structure by making employees a marker of long term viability.[6]

Organizations can view the labor force as one of the resources in need of development. To add value, a business could promote or fund collaboration and innovative thinking which could stimulate a sustainable response. This response could be embodied in employees' sense of relevance in a company. Increased sense of belonging from the workforce of an organization can potentially yield higher productivity, robust recruitment power and allegiance to the firm.[7] All these enumerable benefits to an organization, catalyzed and maintained by a seemingly miniscule but sensible investment into human capital, add value while sustainably developing the labor resource.

Therefore, sustainable management in organizations is one part of sustainable development that could prove to be uniquely influential in the three E's of sustainable development: economic efficiency, equity, and environmental sustainability. The ability to fulfill organizational goals is often influenced by fluctuations of the external economy, specifically involving the availability and ability of acquisition of man-made and natural resources. Meanwhile, the social environment conceived inside an organization is subject to pressures of equity and unification from the external social environment.[8] These are the vital ingredients that reflect the stability of the firm's success, and, coincidentally, mirror overall socioeconomic norms. Hence, it seems obvious that the universal factors included in the triple bottom line of sustainable development are also paramount to organizational structure and function.[9] Furthermore, considering the enormous breadth of the global workforce and the belief that comprehensive sustainable development can be based on human potentials, businesses are implicated as major agents that can make this type of progress.[8] Diving into more specificity of this topic, we can consider two activities of business that have potential for sustainable development: primary and support activities.

Primary activities of an organization are defined as the operational processes such as manufacturing, distributing, and selling of goods and services. These activities involve the ability to manage time and the synthesis of tangible resources to meet a substantial level of quality in production and demand.[10] Integrating sustainability into this division reveals a competitive advantage. To add value to these operations, organizations can choose to direct unused capital to improve operational features such as mission related activity, product quality in terms of environmental and social responsibility, and updating facilities with efficient equipment. Since the addition of value to all aspects of production can positively affect it, increasing sustainable involvement in primary activities will almost always yield a positive result for stakeholders and consumers.[9, 11] Numerous studies have already been conducted on the topic of sustainable operations management. Though these studies have been the traditional contributors to the creation of sustainable management framework, they are almost solely restricted to demonstrating the economic vein of sustainable development in management rather than fully encompassing the social and economic workings of an organization.

Alternatively, support activities of an organization are composed of any processes that are supporting the fulfillment of primary activity goals such as procurement, human resources, technological innovation and infrastructure. This study will be focusing on human resources since organizational structure and function are paralyzed without human capital. Operations of an organization are controlled by the aggregation of its employees' capabilities and therefore a labor force embodied of people is indispensable.[8] A pooled community with diverse intelligence, experience, and talent requires just as much caretaking as any other sector so as to maintain high performance and complete goals. This notion of managing the workforce in order to effectually facilitate the organizational process and strategic objectives is the essential ideology that makes up human resources management (HRM).[12]

Human Resources Management is a fundamentally sustainable concept when applied sensibly. Human Resources has become an integral part of business and was developed in the early 20th century when researchers found that the maintenance of their employees could decrease turnover and inspire workers to fulfill their own potentials conveniently through the organization's own vision.[13] Recently, many strides have been made in furthering the development of HR models through the use of organizational psychology.[14] These HR models can consist of the adoption of many organizational "strategies" such as extensive training and development, regular performance

appraisals, performance-contingent rewards, employee benefits, fair treatment, and so on. However, in regards to economic declines, downsizing and outsourcing the human resource has become a common way to ease loss in monetary capital.[15] This tactic can limit an organization's ability to grow because it minimizes the amount of input and output of manpower and intelligent contribution from the company. Moreover, studies have shown that to lose or lay off employees tends to cost significantly more than what it is worth to keep them employed.[16] As a result, methods to retain employees and innovate employment attitudes and fulfillment despite limited funding has become of interest to organizations.[17]

Complexity in economically efficient HRM arises when the measurable goals of worker efficiency and performance intersect with more approximate goals such as sociocultural justice in the workplace.[18] In some more transactional facets, a worker is viewed as a tool that may need sharpening occasionally and can be placated with ancillary monetary benefits. This interpretation of the purpose of HRM is stony, at best, but provides a platform in which successful, more "personable" models can be formulated. When an HR model compensates employees fairly but also treats them like livestock in need of more feed, this can eventually stifle creativity. Humans as a resource can pose seemingly different challenges to sustainable development due to sociocultural complexity. Therefore, effective management of an HRM department emphasizes the importance of considering employees, and subsequently the community culture they generate, as complex yet long-term assets to the firm. This idea in HRM is connected with positive organizational outcomes such as organizational citizenship and organizational commitment and is labeled as strategic human resources management (SHRM).[14] Unfortunately, most SHRM literature uses measures for data collection that are short-sighted and heavily, if not completely, influenced by primary activity goals such as efficiency and project completion.[19] Since human beings are an integral and enduring part of an organization, the human workforce should be sustainably valuated as an important resource, but not devoid of social and cultural consideration. This conglomeration of assessments in SHRM relates to Heilbroner's suggestion of aggregating aspects of a system in order to address it sustainably.

Combining sustainability and SHRM could equip leaders with a more effective tool and an understanding about how SHRM can to strategically aid the organization and also increase the longevity of the program. The Scully-Russ review states that an auspicious organization is one that works co-constructively with SHRM and sustainable development to create a highly appeased work environment.[20] Since sustainability is, in part, an assessment of humanity's principles, sustainable SHRM should aid employees in grappling with the challenges of community and social networking posited inside their organization. One study gives a visible connection between sustainable SHRM and workplace psychology that re-envisions Maslow's Hierarchy of Needs.[21] In an organization, workers' first two tiers of needs, essentials and safety, are commonly fulfilled by payroll and benefits; however, the next two, belonging and self-esteem, pose a dilemma for management whose goals are not directly shaped by the sociocultural justice of its employees. Applied to an organization's functions, belongingness and self-esteem is influenced by how able an employee feels to seek supplemental fulfillment at work. Supplemental fulfillment can be found in educational benefits and interpersonal relationships achieved at work; this network at a job can also become huge contributors to job satisfaction. Job satisfaction plays a large role in the staying power of an employee and only makes fiscal sense to work towards taking in mind the costs of laying off, outsourcing, and retraining.[22] Therefore, if an organization wants to sustain its workforce through job satisfaction, advocating for collaborative and social channels could potentially provide a significant ROI on employee retention goals.

Sustainable SHRM could capitalize from the workplace social capital - or the value of social networks and their inclinations of reciprocity. In fact, high-exchange relationships, which are mobilized by high levels of mutual trust and confidence are positively correlated to an employees' work attitudes.[14] To be able to catalyze socialization and need fulfillment in its employees, an organization will be already having to place value into financial and/or intrinsic facets. Ko and Hur describe this impetus as the ratification of a "diverse assortment of HRM benefits, including tangible and intangible policies." There is a notable relationship between tangible benefits (e.g. bonus checks, providing affordable insurance) and employee satisfaction. However, studies show that another significant portion of job satisfaction is achieved through complementary, intangible avenues at work.[21] In order to maintain and strengthen the social capital structure of a labor force there needs to be a marriage of tangible and intangible sustainable SHRM policy such as what Ko and Hur suggest.[14] Thus, the crux of the issue is not necessarily whether or not to put money into an institution to get better returns on employee satisfaction, it is also analyzing how employees already attempt to fulfill the need of belongingness, and then concurrently innovating these centers for socialization.

A firm can fill these employees' needs for belongingness and self-esteem by designing opportunities for their employees to interact in a positive way with their colleagues. Studying Social Exchange Theory (SET) is important in light of its new influence on community culture in the workplace.[14] The basic assumption of organizational SET is that positive and beneficial actions directed at employees by the organization or its representatives contribute to the establishment of high quality exchange relationships that create obligations for employees to reciprocate in positive

and beneficial ways. In short, when employees are exposed to an enjoyable and socially encouraging environment, they will be more likely to respond and adjust positively in their work attitudes. This is exhibitive of a high value, high exchange of social capital. Coined by Ko and Hur as "interactional justice," the actions that an organization should exhibit to get these positive returns from their workforce are in the fair treatment by leaders and upper-level management.[14] By simply treating employees with respect and facilitating interactions between peers, employees have an increased sense of community and culture. Consequently, employees that have their belongingness and self-esteem needs fulfilled at their work are more likely to repay the benefit back with productivity, increased satisfaction, contribution to culture, and retention.

If the development of social capital in an organization, including the acknowledgement of the importance of employee-employee relationships, is a goal in developing a sustainable SHRM practice, a well-established strategy for worker performance advancement can potentially be utilized: mentorships.[23] A mentorship places the goals of SHRM directly in the hands the of employee-employee interactions in a workplace.[24] The mentor-protégée relationship is ingrained in formal and informal management tradition.[25] It takes a subordinate employee in need in some sort of guidance and connects them to a veteran employee, be it in experience or rank. This relates to sustainable development's goal of transmitting value because mentorship opportunities pose a uniquely strategic advantage in human resource management, while they typically have little or no cost. Additionally, mentorship programs are value laden and recognizable to employees as efforts of an organization trying to help meet their sociocultural needs, which can potentially incite Social Exchange Theory practice. Therefore, return on investment can be high.

The exchange formed between mentor and mentee can foster a strong relationship that opens a channel of communication and promotes education, confidence in surviving the workplace, and even a reciprocal benefit to the mentor of renewal in their job tasks.[26] In addition, this social exchange of knowledge and advice can be occupationally administered and managed as the social capital resource. Workplace mentorship programs have high potential for a mutual gain for both the employer and employee. The organization is also able to control the scope of the mentorships objectives while collecting credit for implementing such a constitutionally value generative program for employees; conversely, it arranges a footing for employees to connect to others in their workplace to fulfill the need for social interaction.[27] Mentorships could potentially be flagship initiatives for organizations that desire to attain their goals while simultaneously cultivating job-related satisfaction in their workers.

Therefore, this research has investigated how, if at all, mentorships can be used by organizations as a sustainable business practice to help improve feelings of employee belongingness and self-esteem while additionally fulfilling organizational goals. One goal that organizations can address with these 'social mentorships' is employee health management. Increasing numbers of health care and productivity costs as well as absenteeism attributed to health related concerns have come under scrutiny by organizations as a major factor in fiscal expenses, estimated to cost $260 billion each year.[28] Furthermore, reports show that the majority of health issues that the general population is suffering currently are chronic and preventable disease.[29] Since these productivity losses can hurt the organization, it can be argued that it is important to decide on appropriate strategies that will propose a strategy that alleviates some of the costs affiliated with health issues. From a sustainable development standpoint, this imperative can also be a path for which social mentorships can be devised. This notion is supported by the incidence of wellness mentoring belongingness by creating an interpersonal social exchange between workers.

This study tests the efficacy of utilizing mentorships for an experimental workplace wellness program in which workers who aspire to maintain an exercise routine are paired with mentors who already incorporate exercise into their regimen. It is hypothesized that the accountability woven into mentor-mentee relationships will provide participants a basis and support for starting and maintaining their new found exercise goals. Most importantly, this opens the possibility for is a new channel of communication and cooperation to be formed between mentor and mentees, evolving a dynamic out-of-workplace relationship and potentially fulfilling social needs of satisfaction and belongingness. This study addresses the following two research questions:

1. Do workplace mentoring experiences, focusing on a health-related issue, affect the way employees feel about their job and their organization, thereby improving their feelings of belongingness?
2. Are mentoring programs a potential approach to sustainable strategic human resources management?

2. Methods

The 12-week study was designed to collect data and descriptive information about the nature and extent of social benefits gained from participating in an experimental workplace wellness program that used accountability mentoring.

2.1. Participants

Participants were recruited from two not-for-profit institutions, a small liberal arts college and a hospital. The total sample size consisted of 33 individual employees, divided into subgroups of 22 Aspiring Exercisers (AE) and 11 Mentors. Of the 22 AEs, half (n = 11) were placed into a control group who received no mentoring during their exercise regimens. No participants quit the study. However, due to external factors (e.g. busy schedules, personal life events) some were unable to complete baseline data, weekly reports; therefore, the response rate in the surveys was good, but not perfect.

2.2. Protocol

AEs and Mentors were recruited by email two months in advance to the study. AEs were divided into experimental and control groups at random. AEs were encouraged to set weekly goals, work towards these goals, report on their progress, and, if they had a mentor, meet with them regularly for consult or exercise together.

2.3. Measures

Online surveys and in-person focus groups were used to collect data. The study began by collecting baseline data from the AEs that included inquiries about their general health, exercise habits, and work attitudes.

Table 1. Baseline survey questions.

In a typical week, how many times do you exercise?	
What is your preferred type of physical activity?	
What motivates you to exercise regularly?	
On a scale from 0 to 10, with 0 being the lowest and 10 being the highest, please rate the following (on the right) for yourself, based on your current health.	[Typical Energy Level] [Quality Of Sleep On A Typical Night] [Ability To Balance Home And Work Life] [Ability To Manage Stress In Your Home and Work Life] [Ability To Manage Your Moods]
On a scale from 0 to 10, with 0 being the least true and 10 being the most true, please rate the following (on the right) statements.	[In general, I am glad to be a member of this organization.][30] [I feel that this organization cares about me.][31] [This organization inspires the very best in me in the way of job performance.][32]
On a scale from 0 to 10, where 0 is the worst job performance anyone could have at your job, and 10 is the performance of a top worker, how would you rate your performance/productivity over the past week?[33]	
On a scale from 0 to 10, where 0 is no satisfaction or sense of achievement and 10 is your top feeling of satisfaction and achievement, how would you rate your sense of satisfaction with what you achieved at work during the past week?	
On a scale of 0 to 10, where 0 is no motivation and energy and 10 is your peak level of motivation and energy, how would you rate the level of motivation and energy you had to do your job during the past week?	

During each of the following 12 weeks, the AEs reported on their experiences and progress in reaching their exercise goals, how they felt physically and mentally, and their feelings about their organization.

Table 2. Weekly report survey questions.

Did you set a specific exercise goal for the past week?	
If you responded yes to the previous question, please describe the goal(s) you set.	
Do you feel that you reached your goal(s)?	
Describe each exercise session throughout the week.	
Now we'd like to ask about your enjoyment of the exercise you completed over the past week. For each of the following statements (on the right), please select the category that best describes your feelings about exercising during the last 7 days (1=disagree a lot; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=agree a lot).	[I enjoyed it] [I felt bored] [It gave me energy] [It was very pleasant] [My body felt good] [I got something out of it] [It frustrated me] [It gave me a strong feeling of success]
On a scale from 0 to 10, where 0 is the worst job performance anyone could have at your job, and 10 is the performance of a top worker, how would you rate your performance/productivity over the past week?[33]	
On a scale from 0 to 10, where 0 is no satisfaction or sense of achievement and 10 is your top feeling of satisfaction and achievement, how would you rate your sense of satisfaction with what you achieved at work during the past week?	
On a scale of 0 to 10, where 0 is no motivation and energy and 10 is your peak level of motivation and energy, how would you rate the level of motivation and energy you had to do your job during the past week?	
Finally, please share with us any additional information that might help contextualize your experiences this week. For instance, were you sick? Did you go out of town? Were you struggling with an injury? Did you get more sleep than usual?	

At the end of the study, final data were collected from the AEs that included information about general health, exercise habits, feelings towards their organization, and reflective statements about the study.

Table 3. Final survey questions.

Are you still setting specific fitness goals, weekly or otherwise? If so, please describe your fitness goal(s) for the next 4-6 weeks.	
What kind(s) of exercise are you currently doing?	
In a typical week right now, how many times are you exercising?	
At this time, do you consider yourself to be a regular exerciser?	
On a scale from 0 to 10, with 0 being the lowest and 10 being the highest, please rate the following (on the right) for yourself, based on how you've felt over the last few weeks.	[Typical Energy Level] [Quality Of Sleep On A Typical Night] [Ability To Balance Home And Work Life] [Ability To Manage Stress In Your Home and Work Life] [Ability To Manage Your Moods]
On a scale from 0 to 10, with 0 being the least true and 10 being the most true, please rate the following (on the right) statements.	[In general, I am glad to be a member of this organization.][30] [I feel that this organization cares about me.][31] [This organization inspires the very best in me in the way of job performance.][32]
On a scale from 0 to 10, where 0 is the worst job performance anyone could have at your job, and 10 is the performance of a top worker, how would you rate your performance/productivity over the past week?[33]	
On a scale from 0 to 10, where 0 is no satisfaction or sense of achievement and 10 is your top feeling of satisfaction and achievement, how would you rate your sense of satisfaction with what you achieved at work during the past week?	
On a scale of 0 to 10, where 0 is no motivation and energy and 10 is your peak level of motivation and energy, how would you rate the level of motivation and energy you had to do your job during the past week?	
Briefly, how would you describe your current overall health?	

Finally, please use the space below to share any feedback that you think would be useful for us to know as we plan similar research in the future. Thank you!
What did you like about working with UNC Asheville on this collaborative research project? Please be as specific as you can. (Question specifically for Hospital staff participants)

Six weeks through the study, the Mentors were removed from the AE experimental group. Focus groups were held for each of the three participant groups (AEs with mentors, AEs without mentors, and Mentors). Each group was asked questions pertaining to their experiences in the study leading up to the focus group meeting (Table 4).

Table 4. Focus group questions for AEs with mentors, AEs without mentors, and Mentors.

AEs with mentors:

Discuss your experiences with your mentor during your work to reach your physical activity goal. Do you believe your mentor helped you? Why or why not?
Are you satisfied with your progress towards your goal? Why or why not?
How, if at all, did the process of accountability through the weekly reporting affect your progress towards your goal?
Have your experiences with your mentor affected the way you feel about your job and your organization?

AEs without mentors:

Are you satisfied with your progress towards your goal? Why or why not?
How, if at all, did the process of accountability through the weekly reporting affect your progress towards your goal?
Have your experiences in this study affected the way you feel about your job and your organization?

Mentors:

Discuss your experiences with your aspiring exerciser.
Do you believe you were able to help your aspiring exerciser reach his/her goal? Why or why not?
Have your experiences with your aspiring exerciser affected the way you feel about your job and your organization?

At the end of the study, AEs were asked about any improvements in their general health and level of exercise. In addition, they were again asked to complete a Likert scale to identify their feelings about job performance/productivity and job satisfaction/achievement, as well as feelings about their environment/community culture.

Once all data were collected at the conclusion of the 12 weeks, a one-way ANOVA test to test significance of variance between average weekly responses. A qualitative trend analysis was employed to track significance in responses throughout the course of the study.

3. Results

3.1. Baseline Survey

Twenty of the 22 Aspiring Exercisers (AEs) responded to the baseline questions. One section asked the participant to rate the truth of certain statements as they applied to themselves: "In general, I am glad to be a member of this organization", "I feel that this organization cares about me", and "This organization inspires the very best in me in the way of job performance." These questions were rated on a 10-point scale, zero being the least true and ten being the most true. In the graph (Figure 1) below average responses with standard deviation are displayed graphically.

Figure 1. Bar graph for baseline survey indicators rating averages and standard errors.

   Another section asked the participant to rate their perceived levels of job performance/productivity, achievement and satisfaction, and motivation and energy. These questions were rated on a 10-point scale, zero being the lowest level of productivity, satisfaction, and motivation and ten being the highest. In the graph (Figure 2) below average responses with standard deviation are displayed graphically.
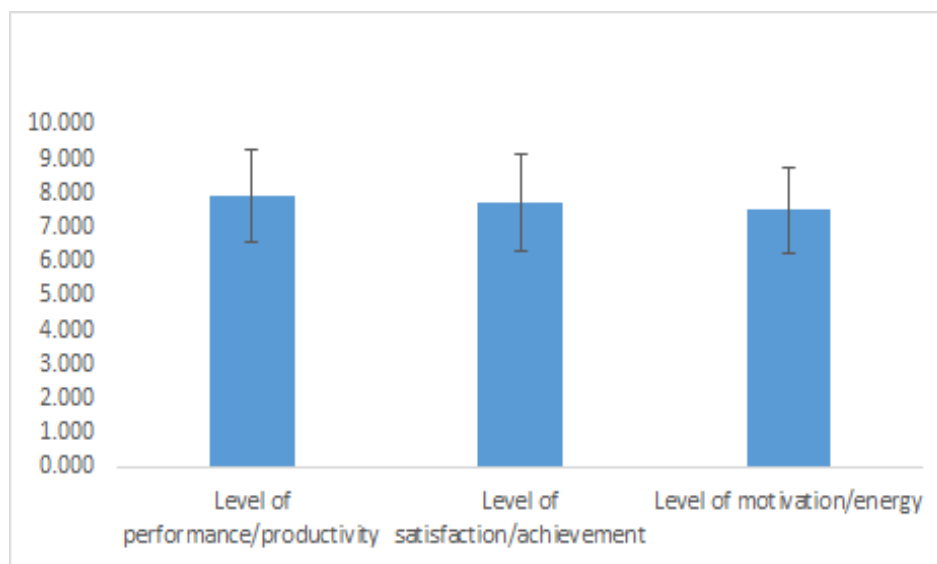

Figure 2. Bar graph for baseline survey indicators rating averages and standard errors.

3.2. Weekly Reports

For the weekly reports, there was a total pool of 245 responses per question that were used for data analysis. The number of responses was generated from each participant over the course of the 12 week study. Even though there were 22 participants who were asked to complete 12 weeks of questions, some participants skipped weeks; therefore, the total entries was 245 instead of 264. The questions asked participants to reflect on their physical activity and work productivity throughout the week.
   One section of questions was concerned with perceived performance and productivity, satisfaction and achievement, and motivation and energy. The answers to these questions were ranked on a 10-point scale, zero being the lowest feeling of performance/productivity, satisfaction/achievement, and motivation/energy, ten being the highest. In the graph (Figure 3) below average responses with standard deviation are displayed graphically.
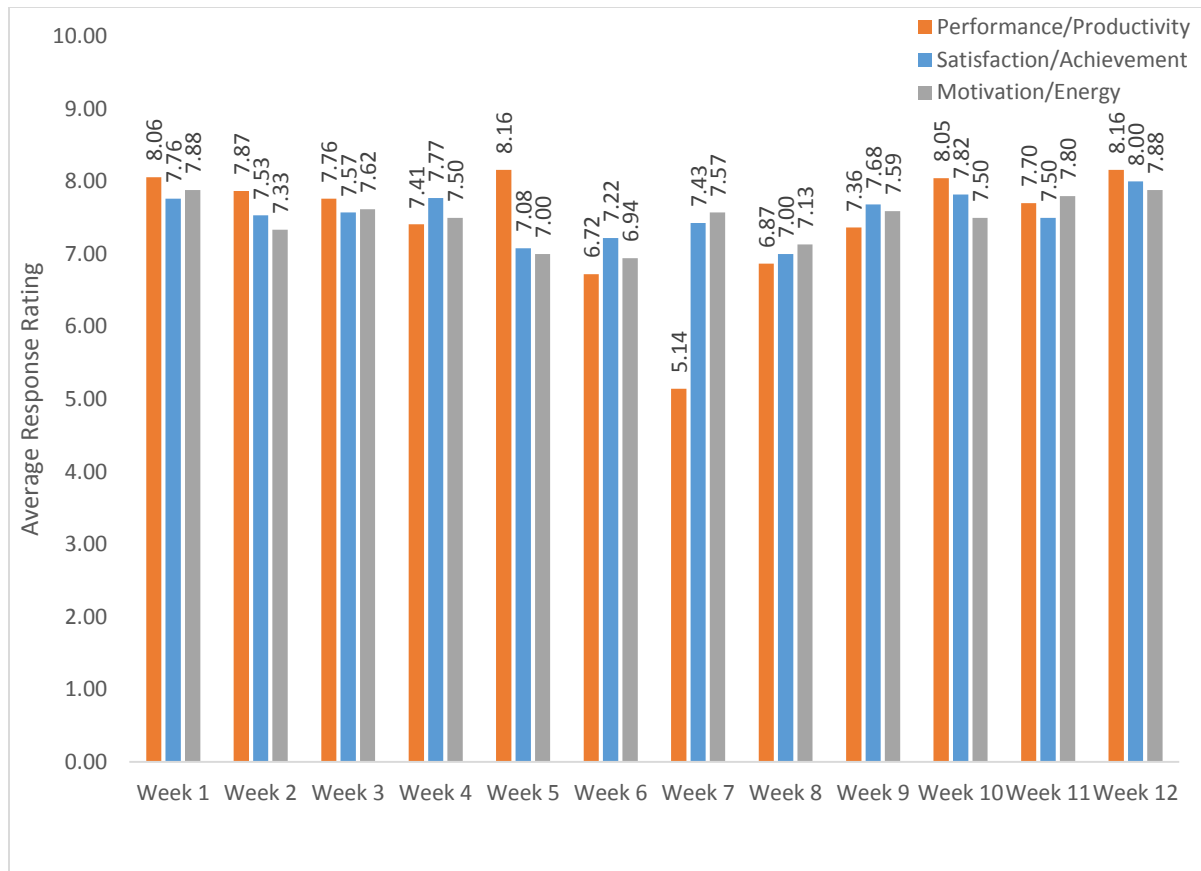
Figure 3. Bar graph for weekly reported indicators response rating averages.

A one-way ANOVA (α=0.05) was conducted on the average ratings of these indicators for week 1, 6, and 12 in order to see whether there was statistically significant disparity among weekly average ratings (Table 1).

Table 5. ANOVA output for performance/productivity (α=0.05).

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	24.6877	2	12.3439	3.2288	0.0470	3.1588
Within Groups	217.9123	57	3.8230			
Total	242.6	59				

Table 6. ANOVA output for satisfaction/achievement (α=0.05).

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	13.9742	2	6.9871	1.5036	0.2310	3.1588
Within Groups	264.8758	57	4.6469			
Total	278.85	59				

Table 7. ANOVA output for motivation/energy (α=0.05).

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	11.4077	2	5.7039	1.3517	0.2670	3.1588
Within Groups	240.5256	57	4.2197			
Total	251.93	59				

If the results of the ANOVA were significant, this would indicate the possibility of significant change in perceived work effort ratings. Most of the p-values for each indicator were well above the alpha level, the marker for which there is probability that there was change in the data over time. Also, each of the calculated F-statistics, measures for correlation within and between groups of data, were less than the critical F-statistics. We can determine that between and within groups (weeks) of responses there was no significant variation indicated in the data. Therefore, the statistical analysis of weekly survey data suggests that participants reported no change in their attitudes at work over the course of the study.

3.3. Focus Groups

Qualitative data were also collected from all participants during one of two focus group opportunities. Aspiring Exercisers with mentors were asked to describe their experiences with their Mentor in reaching their fitness goal, feelings of satisfaction with progress towards their goal, whether or not the weekly reporting affected their progress towards their goal, and whether their experiences with their Mentor affected their feelings about their job and/or organization.

AEs with mentors stated their experiences with their Mentor fell into three different categories: low communication, medium communication, and high communication. Communication levels between Mentor and AE were usually related to feelings of progress towards goal and overall success. Issues that affected the level of communication between mentor and mentee were as follows: inclement weather, scheduling conflicts, misaligned attitudes towards exercise, uncertainty of roles, and artificiality of mentorship pairings. Mentors reported similar findings regarding their experiences with their mentee.

The same number of participants in the AE with mentor and AE without mentor groups stated they were not satisfied with their progress towards their goal. Mentors expressed more insecurity than their AEs about their ability to help their AE to their goal. Some participants of either AE group reported satisfaction towards their goals whether or not they actually reached their goal every week of the study. AEs that did not reach their goals reported one or more of the following as reasons for dissatisfaction with progress towards goals: inclement weather, scheduling conflicts, injury or illness, and personal life interferences. Some participants stated they found success when they were more active than before, experienced less pain or illness, or considered exercise an important aspect of living in general.

Many of the AEs, both with and without mentors, had positive reactions to the weekly surveys. These participants stated that the weekly reflections helped keep them accountable and motivated, set goals, and be reminded of their exercise routines. Some also reported that simply completing the surveys was not necessarily enough for the accountability and motivation aspect. AEs with mentors mentioned the importance of having multiple mechanisms for accountability such as: the surveys, the Mentor, and simply participating in the study. AEs with mentors also provided plenty of suggestions on how the surveys could become more of a helpful tool than simply a form to complete. Common suggestions for improving the survey included: improving the reactivity of interface, adding a section for planning, and allowing for more flexible deadlines.

Reported feelings towards job and organization were irregular between all participant groups. Almost all participants prefaced their responses to these questions with statements about how they already liked being at their job and organization for some reason or another. The Mentor group expressed that participation in the study did not generate any effect on their feelings about their organization. Among the AE groups, most of those with mentors reported little to no effect on their feelings towards their job and organization, while a only a little under half of the AEs without mentors said there was no effect on their feelings towards their job and organization. Those who had stated their feelings about their job and organization had changed were either new employees, felt disconnected from their department or lethargic at work, enjoyed being in the study, or reflected that the study was a reinforcement of the pre-existing notion that the organization cares about their employees. Those who said their feelings about their job and organization had not changed gave short responses with no explanation, a statement about how they already had positive feelings towards the organization, or a reflection about how the study was a reinforcement of the pre-existing notion that the organization cares about their employees. Participants suggested that some things in the nature of the study may have stood in the way of changing their feelings about job and organization, such as overarching experimental conditions, self-emphasized importance of exercise goals, and misunderstanding about the questions the researchers were attempting to answer.

3.4. Final Data

For the final data survey there was 20 responses out of 22 participants that comprised closing data. Some questions were left unanswered by participants; therefore, some questions had as little as 15 responses. The questions were repeated from the baseline survey and there was one reflective question appended to the end.

One section of questions asked the participant to rate the truth of certain statements as they applied to themselves: "In general, I am glad to be a member of this organization", "I feel that this organization cares about me", and "This organization inspires the very best in me in the way of job performance." These questions were rated on a 10-point scale, zero being the least true and ten being the most true. In the graph (Figure 4) below average responses with standard deviation are displayed graphically against average responses for the baseline survey. In Table 8, the results from a t-Test comparing the average difference between baseline and final response data are displayed.
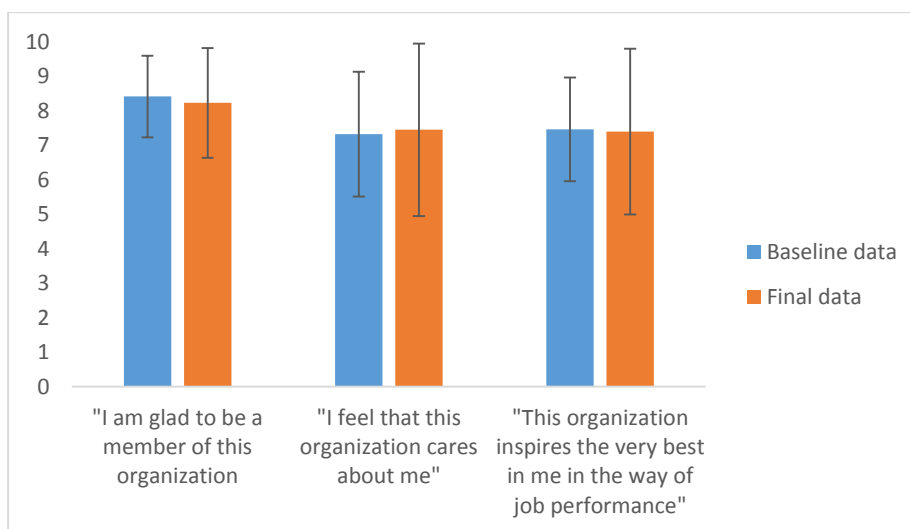

Figure 4. Compared bar graphs for baseline survey and final data indicators rating averages and standard error.

Table 8. Paired t-Test comparing baseline and final data indicators rating average differences (α=0.05).

t-Test: Paired Two Sample for Means

	Variable 1	*Variable 2*
Mean	7.6667	7.6852
Variance	0.2918	0.2171
Observations	3	3
df	2	
t Stat	-0.1665	
P(T<=t) two-tail	0.8831	
t Critical two-tail	4.3027	

Another section of questions asked the participant to rate their perceived levels of job performance/productivity, achievement and satisfaction, and motivation and energy. These questions were rated on a 10-point scale, zero being the lowest level of productivity, satisfaction, and motivation and ten being the highest. In the graph (Figure 5) below average responses with standard deviation are displayed graphically. In Table 9, the results from a t-Test comparing the average difference between baseline and final response data are displayed.
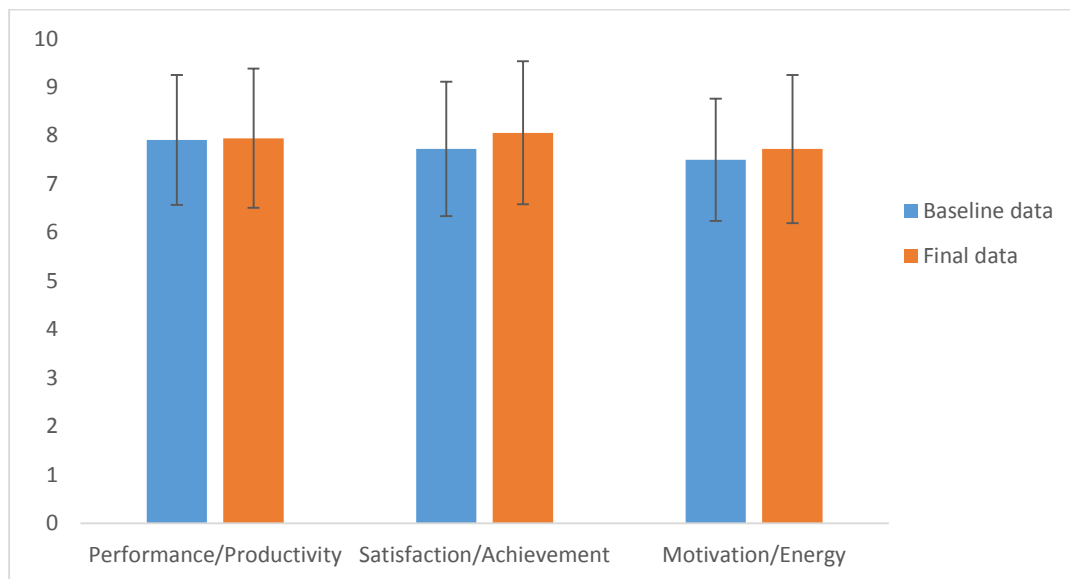

Figure 5. Compared bar graphs for baseline survey and final data indicators rating averages and standard error.

Table 9. Paired t-Test comparing baseline and final data indicators rating average differences (α=0.05).

t-Test: Paired Two Sample for Means

	Variable 1	Variable 2
Mean	7.8772	7.9074
Variance	0.1173	0.0288
Observations	3	3
df	2	
t Stat	-0.2035	
P(T<=t) two-tail	0.8576	
t Critical two-tail	4.3027	

4. Analysis

While the quantitative data in this study did not produce statistically significant findings, focus group data yielded the most pivotal insights for analysis. In the focus group, Mentors and AEs with mentors described similar experiences: participating in the study was appreciated and provided some support, but maintaining regular communication in the mentorship was difficult. Communication was defined by the amount of in-person meetings Mentors and AEs with mentors had with each other, the type of medium used to stay in contact, and the frequency of contact, be it in person or virtual. Mentors and AEs with mentors reported three different levels of communication: low, medium, and high.

Most AEs with mentors stated that the low communication relationship affected their progress towards their goals, citing lack of motivation, education, and accountability. There were also a few AEs with mentors who stated they wanted a companion but still felt self-motivated and held accountable enough by the weekly surveys. Alternatively, Mentors described low communication relationships as stressful due to the artificiality of the mentor-mentee pairing, their uncertainty about how to fulfill the mentor role, and the social anxieties created from these two situations. There was also an issue of misaligning personal schedules which limited the ability to communicate. AEs in these mentorships displayed lower feelings of satisfaction in their progress towards exercise goals.

There were some mentor-mentee relationships that had high communication. These relationships were motivating and inspiring for both mentor and mentee but required similar schedules and attitudes about exercise. In these mentorships, AEs were able to plan out meetings with their mentors and have an open dialogue about exercise and even their path to better health. Mentors described these relationships as uplifting, successful, and an extension of the role they take in their job and organization. AEs in these mentorships also expressed great satisfaction with their progress towards their goal. Unfortunately, there were very few pairings that became high exchange relationships.

Mentor-mentee relationships that had medium levels of communication fostered mostly happy experiences; these AEs with mentors displayed some satisfaction with progress towards their exercise goals. These mentor-mentee relationships consisted of either strong virtual contact or consistent in-person meetings. There was also a mixed bag of responses regarding mentors opinions on their role in the mentorship. Some mentors believed they had succeeded in their role, others felt as though they were not communicative enough. Most impediments to fully achieving goals were based on scheduling conflicts, inclement weather, personal life interferences, and injury or illness.

Curiously, AEs without mentors showed an equal level of satisfaction in their progress towards their goals as AEs with mentors did. These participants cited the role of the weekly survey and being involved in the study as strong motivators to begin their exercise regimen. However, some did say that having a companion or resource of physical activity knowledge would have been appreciated.

All AEs, with a mentor and without a mentor, expressed similar opinions about the efficacy of the weekly surveys in keeping them accountable. The surveys served as a form of reminder, accountability and motivation because they were a constant in the study, necessitated planning, and allowed exercisers to log and reflect on their experiences. Despite generally positive reviews, AEs also described aspects in which the weekly survey was not sufficient as the only form of accountability and motivation. Exercisers cited two main issues with the reporting system: the strict reporting deadlines and the survey's inherent inability to react when they failed to meet weekly goals. Therefore, even though the surveys fulfilled the reporting function, the need for the "personal touch" of a mentor was still apparent.

Exercisers reported higher levels of belongingness and appreciation about their job and organization in the baseline survey. These data were also evident in focus group responses about participant's feelings towards their organization. Many AEs and Mentors reported that participation in the study did not affect their feelings towards their job and organization since they already felt strong positive feelings towards their organizations. However, most participants in the study noted that the study had reinforced pre-existing notions about the supportiveness of their workplace. These observations were supported by participants' recognition of other health-related initiatives active at their organization such as health food and exercise facility offerings, and employee group-exercise programs. Final data also showed little to no change in employee feelings towards their organization.

Therefore from these responses, it is apparent that the wellness program mentorship may not have had an effect on participants' feelings about their job and organization, but the structure of the study and mentorship did have an effect on their feelings of success in the program.

5.   Discussion

In response to the first research question, the study did not provide evidence that workplace wellness mentoring experiences substantially changed the way employees feel about their job and/or organization thereby improving their feelings of belongingness. However, the data also revealed that experiences in the mentorship did have an effect on participants. Responses in the baseline surveys revealed that there was already a sense of connection with their organizations. In the focus groups, this notion was reinforced when almost half of the participants stated that their participation in the study did not increase their feelings of "belongingness" and cause them to feel different about their job and/or organization. But, evidence that there was an effect on their feelings about their organization was found when nearly all of the participants also said that the study had fortified their preexisting beliefs of their organization as a supportive, encouraging, and considerate. Therefore, even though the mentorship in this wellness initiative did not improve feelings of belongingness, it did reinforce positive feelings about the supportive culture at their organization.

In response to the second research question, this study did not provide clear evidence that the wellness mentorship was a viable form of sustainable SHRM. But participants' responses during the focus group provide insights for improving an organization's mentorship structure. In this study, the social exchange did not consistently develop in every mentor-mentee pairing; there was little evidence of social from participating in the study. Participant responses suggest that this could have been the result of the formal structure of the mentorship (i.e. placing mentor with mentee at random). This structure overlooked complexities in social pairings, making mentor-mentee relationships feel artificial and awkward. In addition, the random process of pairing did not consider the logistical implications of placing AEs with mentors from different departments at their organization. Therefore, even though the mentorship structure in this study was not completely successful as a model for sustainable SHRM, the results do raise the question of whether a more informal model may be more effective. This could be one in which the organization provides a support structure for the mentoring, but allows the pairings to happen more organically. Further research into the different structures and complexities for improving mentoring programs in the workplace might be addressed with research questions such as the following:

1. Is there a preferred framework for social exchange (i.e. mentorship versus group activity)?
2. What qualities in a mentor do people seek out? What qualities in a person motivate them to seek out a mentor?
3. What kind of social exchange, personal or professional, is likely to develop in a workplace mentorship?

6.   Recommendations

This study prompts some important questions and considerations about how effective mentoring and social exchange can be fostered in the workplace in order to support a model for sustainable SHRM. It appears that the rigidity of experimental and program conditions can restrict genuine social exchange by pressuring people to fill roles and therefore limit the creation, exchange, and strengthening of social capital in the workplace. Neither research question was fully supported but the insights from participants were extremely useful in highlighting opportunities for future research. Most importantly, the findings suggest that organizations may wish to build successful mentorship structures

by providing the support for mentors and mentees to pair up organically and create groups rather than pairings of like-minded individuals to interact and build value in their own ways.

7. Acknowledgements

8. References

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