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# Corporate Fitness Members' Perceptions of the Environment and Their Intrinsic Motivation<sup>1</sup>

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CORPORATE FITNESS MEMBERS' PERCEPTIONS OF THE ENVIRONMENT AND THEIR INTRINSIC MOTIVATION

KEYWORDS: Corporate wellness, Intrinsic motivation, Motivational climate, Exercise, Corporate fitness.

ABSTRACT: The purpose of this study was to examine the relationship of employees' perceptions of the motivational climate in their corporate fitness center to their intrinsic motivation toward exercise, and their perceptions of their employer's concern for their health behaviors. Members of corporate fitness centers (N = 143) in the Midsouthern region of the US were invited to complete a survey with the following measures: 1) the Perceived Motivational Climate in Exercise Questionnaire (i.e., task- and ego-involving scales), 2) Intrinsic Motivation Inventory (four subscales), and 3) Valued by Employer Scale. Regression analysis revealed that perceptions of a task-involving climate were positively related to employees' interest/enjoyment, perceived competence, effort/importance with regard to exercise, and their sense of feeling valued by their employer. The PMCEQ can be a valuable tool in the exercise psychology literature to measure employees' perceptions of their fitness center environment.

Increasing evidence has demonstrated the benefits of health promotion and fitness programs in corporate settings. Corporations offering health and fitness programs have reported decreased absenteeism, reduced health care costs for the employer, increased job satisfaction, increased productivity, and greater employee retention rates (Ames, 1992; Parks and Steelman, 2008; Wyatt, Winters and Dubbert, 2006). By investing in programs to better the status of employee wellness, employers hope to create a healthier and, therefore, more productive atmosphere for employees. Understanding employees' motivation for participating in and their experience in corporate health and fitness programs are important considerations for maximizing their exercise involvement. One such method is to examine the degree to which employees perceive the corporate fitness environment as positive and supportive (e.g., task-involving). The purpose of this study was to examine the relationship of corporate fitness members' perceptions of the environment in their fitness centers to their intrinsic motivation and sense of feeling valued by their employer.

Healthcare costs have become a major concern for corporations (Chenoweth, 2007; Goetzel and Ozminkowski, 2008). Overweight and obesity-related conditions are some of the most expensive healthcare problems to treat because of greater use and higher expenses associated with each hospital visit (Finkelstein, Fiebelkorn and Wang, 2005; Friedman and Fanning, 2004). For many, unhealthy lifestyle behaviors and choices influence the development of chronic health-related conditions. More employers are recognizing that their employees' poor lifestyle adversely af-

fects their business (Baicker, Cutler and Song, 2010). As a result, more corporations are offering corporate health and fitness programs. In 2008, the American Institute of Preventative Medicine reported 62% of all companies offered some type of wellness programming, regardless of company size (American Institute of Preventative Medicine, 2008). Corporate wellness programs vary in what is offered and may include health education, exercise facilities, and wellness screenings, all designed to encourage a healthy and active lifestyle among employees (Linnan, et al., 2008). However, success is dependent on achieving a high participation rate among employees (Goetzel and Ozminkowski, 2008).

A study on the long-term impact of corporate health and fitness program participation was observed at the Johnson and Johnson Corporation where employees were followed for five years prior to the availability of the Health and Wellness Program and four years following the implementation. Results indicated a substantial reduction in medical care expenditures over the 4-year program implementation including fewer outpatient, inpatient, and mental health clinic visits compared to baseline (Ozminkowski, et al., 2002). Likewise, in a meta-analysis of the effectiveness of corporate health and fitness programs, Parks and Steelman (2008) concluded that those who participated in the programs had reduced absenteeism and increased job satisfaction, regardless if those programs were fitness-only or comprehensive. Thus, corporate health and fitness programs can potentially benefit both employers and employees, but only if employees voluntarily take part in the opportunities.

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Nicholls' *Goal Perspective Theory* (1984) offers insight into participants' motivational perspectives in physical activity settings. According to Nicholls, individuals develop goal perspectives and can be task- or ego-involved at a particular moment in time. When individuals are task-involved their focus is on exerting high effort and improving their performance in the physical activity. In contrast, when individuals are ego-involved their focus is on how they compare to others in the setting. Specifically, they are concerned with outperforming and looking better (e.g., more skilled, more fit) than others in the setting. Nicholls (1992) maintained that understanding individuals' goal perspectives is critical, because they predict their thoughts, feelings, and behaviors in achievement settings such as sport and exercise.

One primary influence on individuals' goal perspectives is their perceptions of the environment in physical activity settings (i.e., motivational climate). Like goal perspectives, motivational climates can have a task- or ego-involving component. In a task-involving climate, leaders convey to participants that effort, improvement, and cooperation are valued, everyone plays an important role, and mistakes are part of learning. In an ego-involving climate, leaders encourage rivalry between participants, recognize individuals for their ability and performance, and send the message that mistakes are cause for concern (Nicholls, 1984).

To date, most of the research examining Nicholls' Goal Perspective Theory has been conducted in sport and physical education and has revealed many benefits to individuals when they perceive a task-involving motivational climate. Specifically, they are more likely to report greater enjoyment, greater perceived competence, more subjective vitality, higher intrinsic motivation, and a heightened effort during sessions (Balaguer, Castillo, Duda and Garcia-Merita; 2011; Jaakkola and Liokkonen, 2006; Morgan and Carpenter, 2002; Newton, Duda and Yin, 2000; Ntoumanis and Standage, 2009; Torregrosa, et al., 2011; Reinboth and Duda, 2006). In addition, they are more likely to report more positive attitudes toward exercise and are more likely to choose challenging tasks (Digelidis, Papaioannou, Lapardidis and Christodoulidis, 2003; Morgan and Carpenter, 2002). Limited research has examined Goal Perspective Theory in exercise settings (e.g., Kavussanu and Roberts 1996), even though the theory is relevant given the similarities between the types of activities performed in sport and physical education to those performed in exercise settings.

Further, to our knowledge no published studies have employed Goal Perspective Theory to examine these relationships in a corporate fitness setting, though its relevance, as highlighted previously, seems clear. Given that participation in corporate health and fitness programs has been shown to be low overall (Shepard, 1996), and those who do participate tend to be relatively healthy already (Linnan, et al., 2008), identifying methods to encourage employee participation in corporate health and fitness programs is needed (Healey and Marchese, 2005). When companies are successful at engaging employes to participate in these programs, the results are evident.

While many benefits are linked to perceptions of a task-in-volving climate, one such benefit that is particularly important for corporate fitness programs is fostering intrinsic motivation among their clients. According to Deci and Ryan (1985; 2002), individuals can engage in activities for intrinsic or extrinsic reasons. A focus on extrinsic motivation leaves individuals focused on outcomes, for which they have little control. In contrast, individuals are intrinsically motivated when they engage in activities

for the inherent pleasure the activity brings. Such approaches focused on intrinsic motivation may be effective in improving individuals' health and wellness (Ryan and Deci, 2000). Research in sport has found when individuals focus on their own individual performance as the criterion for their success, they are more likely to experience intrinsic motivation (Duda, Chi, Newton and Walling, 1995; Sit and Linder, 2007). Currently, no literature is available examining the association between members' perceptions of a task-involving climate and their levels of intrinsic motivation in a corporate fitness setting.

In addition, employees might feel more encouraged to be involved if they perceive that their employers place value on their participation (Taitel, et al., 2008) and cultivate a culture where health and wellness are important (Goetzel and Ozminkowski, 2008). In the business world, supportive management is likely to lead to positive responses by employees, including greater output effort (Yoon, Beatty and Suh, 2001). Research reveals that support from management is a predictor of employee wellness participation (Crump, et al., 1996), and supportive employers experience less job turnover, greater commitment, and enhanced job performance from employees (Singh, 2000; Thoits, 1995). However, little research has been conducted on corporate wellness and employer support. Given the benefits of supportive management in the work setting, employees may increase their performance and commitment to living a healthier lifestyle if they perceive this to be of value to their employer.

While perceptions of a task-involving climate have consistently been associated with enhanced levels of intrinsic motivation in a variety of physical activity settings, these relationships have not been examined in corporate fitness programs. Therefore, the purpose of this study was to examine the relationship of employees' perceptions of the motivational climate to components of their intrinsic motivation. A second purpose of this study was to examine the relationship of the motivational climate in the corporate wellness program to employee perceptions of the employer's concern for their health behaviors. Employees who perceived a task-involving climate were hypothesized to enjoy their participation, try hard, experience less tension and pressure, and perceive they were valued by their employer.

#### Method

# **Participants**

A total of 143 employees (64% male and 36% female) from a large corporation in the Midsouthern region of the United States completed a questionnaire. The employees held a variety of jobs within the corporation (e.g., management, secretarial, sales, warehouse). The corporation had multiple buildings around the city, and three of the buildings had a fitness center. Employees chose to be members of the corporate fitness program, and they could utilize any of the three fitness center locations around the city.

Mean age of the participants was  $37.99 \pm 9.13$  years. Sixty-eight percent of the participants were Caucasian, 26% were African American, 2% were of Asian descent, and 1% was Hispanic. All members of the corporate fitness center who had been members for one month or more were invited to participate in the study. Participants had been members of the corporate fitness center for  $20.81 \pm 19.14$  months and came to the fitness center  $3.57 \pm 2.52$  days out of five in the week that the facilities were open. Participation in the study was voluntary, and all participants read an informed consent before completing the questionnaire.



#### **Instruments**

Perceived Motivational Climate in Sport Questionnaire-2. The PMCSQ-2, developed by Newton, Duda and Yin (2000), was designed for athletes to assess their perceptions of the motivational climate on their given team. However, it has been used more broadly to examine the motivational climate in physical education and exercise classes. However, not all items in the PMCSQ-2 are relevant to exercise settings. For the purposes of this study, an adapted version of the instrument was developed specifically for use in a corporate fitness facility. This involved changing the stem of each item to read "In the wellness center" instead of "On this team" and changing some words in various items to be more appropriate to a corporate fitness setting (e.g., "staff" instead of "coach"). Additional items specific to exercise were generated that captured aspects of a task- or ego-involving climate.

A panel of six experts made up of sport and exercise psychology and health scholars were asked to review and rate the PMCSQ-2 items and the additional items as to their quality and relevance to an exercise setting (i.e., corporate fitness). Based on their feedback, twenty-three items of the thirty-three original items on the PMCSQ-2 were kept. Ten items were deleted, and eight of the new items were added making the instrument thirty-one questions in length. For convenience and clarity, the adapted measure is referred to as The Perceived Motivational Climate in Exercise Questionnaire (PMCEQ). The PMCEQ is presented in Table 1.The questionnaire used a 5-point response scale, with options ranging from 1= strongly disagree to 5 = strongly agree. While completing the PMCEQ, subjects were asked to think about what it is like to exercise in their employee corporate fitness setting. A small pilot study was conducted to test readability of the instrument.

Intrinsic Motivation Inventory. The second questionnaire completed was the Intrinsic Motivation Inventory (IMI). This 18-item survey, developed for a sport setting by McAuley, Duncan, and Tammen (1989), assessed individuals' levels of intrinsic motivation. The inventory was originally designed by the Rochester Motivation Research Group (Plant and Ryan, 1985; Ryan, 1982; Ryan, Mims and Koestner, 1983) as a flexible assessment to evaluate intrinsic motivation and its core elements of Interest/Enjoyment, Perceived Competence, Effort/Importance, and Tension/Pressure. Internal consistencies were found to be adequate for the four scales of the questionnaire: Interest/Enjoyment,  $\alpha = 0.78$ ; Perceived Competence,  $\alpha = 0.80$ ; Effort/Importance,  $\alpha = 0.84$ ; and Tension/Pressure,  $\alpha = 0.68$ . The overall IMI alpha reliability coefficient was 0.85 (McAuley, Duncan and Tammen, 1989). The IMI is one of the most commonly used questionnaires in research on the subject of intrinsic motivation (Markland and Hardy, 1997).

The IMI used in the present study encompassed the dimensions of Interest/Enjoyment, Perceived Competence, Effort/Importance, and Tension/Pressure with four to six items concerning each. The wording of each question was changed to be appropriate for an employee based wellness center. For example, one item was altered from "Playing the basketball game was fun" to "Exercising is fun." Employees responded to the items with a 7-point scale ranging from 1 = strongly disagree to 7 = strongly agree, and were asked to keep in mind their attitude about exercising in the wellness center when completing this questionnaire.

Valued by Employer. A review of the literature did not reveal any previously developed measures that targeted members' perceptions of their employer's concern for their health and wellbeing. Therefore, a five-item "Valued by Employer" scale was developed by the authors for this study. The Valued by Employer scale used a 5-point scale ranging from 1 = strongly disagree to 5 = strongly agree. Items include, "My employer encourages me to engage in physical activity"; "I feel valued by my employer because the company provides me with an arena for physical activity"; "My employer values my health and well-being"; "My employer provides encouragement for employees to stay physically active"; and "My employer makes it difficult for me to be physically active." This measure was tested in a small pilot study and revealed a .60 alpha level of reliability for internal consistency.

#### Procedure

Members were given an opportunity to complete the questionnaire as they entered and exited the fitness facility. They were encouraged to answer questions honestly and assured that all answers would remain confidential. The members were aware that a brief summary of results would be provided for the wellness director. Approval for this study was obtained from the Internal Review Board at the investigator's university and by the corporate fitness centers.

#### **Data Analysis**

First, analyses of the psychometric properties of the PMCEQ and Valved by Employer questionnaire were conducted. Both questionnaires' factor structures were tested using confirmatory factor analysis (CFA), and their internal consistency were analyzed using Cronbach's alpha index (Cronbach, 1951). Next, descriptive statistics and bivariate correlations were computed. Finally, ordinary least squares multiple regression was analyzed to determine whether perceptions of the motivational climate were the primary influences on the intrinsic motivation scales and Valued by Employer scale. The analyses were conducted with the statistical packages SPSS 18.0 and MPlus 6.0.

#### Results

Psychometric Properties of the PMCEQ

The factorial validity of the PMCEQ was analyzed through three different models. The first model hypothesized that each variable would load as a single indicator on two factors (i.e., task and ego). The second model proposed the same model but with the removal of reverse coded items. The third model parceled the variables into three indicators (i.e. allowing weak to strong items to be parceled together), allowing each indicator to load on either the task or ego construct, respectively.

Inspection of the data indicated that less than .07 of the data were missing on any one variable. In addition, no out-of-range responses were observed and univariate distributions approximated normality. Therefore, maximum likelihood (ML) estimation was used to estimate the fit of the proposed model to the data. Conventional standards were specified in the measurement model analyses, including loading manifest items exclusively on target latent favors; fixing single item loadings to define the scale of each factor; and using multiple imputation (Rubin, 1987) to manage missing data in the CFA analyses. Since the amount of missing data was moderate, five imputed data sets are considered sufficient (Allison, 2003).

To evaluate the overall fit of the models, a covariance matrix was used as well as the following fit indices: comparative fit index (CFI; Hu and Bentler, 1998), Tucker-Lewis Index (TLI; Tucker & Lewis 1973), and root means square error of approxi-





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#### **Task Involving Climate**

- 1. At the wellness center the staff encourages us to try new exercises.
- 4. At the wellness center some members aren't made to feel welcome. (reversed) \*
- 5. At the wellness center members of all fitness levels are made to feel valued. \*
- 8. At the wellness center members feel good when they try their best.
- 10. At the wellness center all members feel welcome.\*
- 11. At the wellness center members help each other learn.
- 14. At the wellness center the staff encourages members to improve on skills they're not good at.
- 16. At the wellness center members feel successful when they improve.
- 18. At the wellness center members feel they must be the best in order to feel valued by the staff. (reversed) \*
- 19. At the wellness center trying hard is rewarded.
- 20. At the wellness center the staff encourages members to help each other.
- 24. At the wellness center the staff emphasizes always trying your best.
- 27. At the wellness center members are encouraged to work on their weaknesses.
- 29. At the wellness center the focus is to improve each session.
- 30. At the wellness center members really "work together" as a team.
- 31. At the wellness center members help each other to get better and excel.

# **Ego-Involving Climate**

- 2. At the wellness center members are hesitant/embarrassed to ask employees or other members for help. \*
- 3. At the wellness center the staff gives most of their attention to a few members (high status, most fit, etc) only.
- 6. At the wellness center the staff praises members only when they do better than other members.
- 7. At the wellness center members feel embarrassed if they don't know how to use the equipment. \*
- 9. At the wellness center members feel comfortable asking for help. (reversed) \*
- 12. At the wellness center members are encouraged to do better than other members.
- 13. At the wellness center the staff has their favorite members.
- 15. At the wellness center members feel comfortable asking others how to use the equipment. (reversed) \*
- 26. At the wellness center members are afraid to make mistakes.
- 17. At the wellness center only a few members (high status, most fit, etc...) receive praise.
- 21. At the wellness center the staff makes it clear who they think are the most fit employees.
- 22. At the wellness center members are excited when they do better than their fellow members.
- 23. At the wellness center if you want to use the facilities you must be one of the most fit members.
- 25. At the wellness center only a few members (high status, most fit, etc...) get noticed by the staff.
- 28. At the wellness center the staff favors some members over others.

Table 1. Perceived Motivational Climate in Exercise Questionnaire.

Note. Items marked with an \* indicate new items added to the PMCEQ

mation (RMSEA; Steiger and Lind, 1980). It is generally accepted that a plausible model maximizes CFI and TLI values (values approaching 1.0 are interpreted as good model fit) and minimizes RMSEA values (values very close to 0 suggest good model fit) (Brown, 2006; Schumaker and Lomax, 2004).

The results of the two-factor model allowing all variables to load as single indicators showed unacceptable fit indices:  $\chi^2$  (433, N = 143) = 1084.98, p = .00; CFI = .67; TLI = .65; RMSEA = .10. Standardized regression weights fluctuated between .32 and .72 for task items and between .24 and .78 for ego items. The reverse coded items showed unsatisfactory loadings (i.e. -.57, -.57, -5.49, -.73). The correlations between the two factors was -.63.

The second model allowed each variable to load individually on either the task or ego factor, with the exception of the reverse coded items, which had been removed. The results of the two-order factor model with reversed items removed, while slightly better, were still unacceptable:  $\chi^2$  (323, N=143) = 816.73, p = .00; CFI = .69; TLI = .67; RMSEA = .10. In this model, standardized, significant regression weights ranged from .28 to .73 for the task factor and .03 to .76 for the ego factor.

The final model parceled the 27 acceptable variables (removing the reversed coded items) allowing the indicators to load on their respective factors. Strong and weak variables were paired across indicators to create three parceled indicators per factor (Little, Cunningham, Shahar and Widaman; 2002). The results of the parceled two-order factor model were the most tenable:  $\chi^2$  (8, N=143)=9.42, p=.31; CFI = .98; TLI = .99; RMSEA = .04. In this model, standardized regression weights were .82 (parcel 1), .90 (parcel 2), and .86 (parcel 3) for task, and .89 (parcel 1), .83 (parcel 2), and .80 (parcel 3) for ego. The correlation between the task and ego factors was -.63.

After removing the reverse coded items, the internal consistency analysis revealed Cronbach's alpha values of .89 for task and .86 for ego. Both scales revealed adequate reliability based on Nunally's (1978) criterion of 0.70.

Psychometric Properties of the Valued by Employer Scale

The factorial validity of the Valued by Employer Scale was analyzed through CFA, hypothesizing each variable would load as a single indicator on one factor (i.e., value).

The CFA for the Valued by Employer resulted in a desirable pattern of model fit estimates:  $\chi^2$  (5, N = 143) = 18.60; p = .00;





CFI = .95; TLI = .90; RMSEA = .14. Although RMSEA was greater than the suggested cutoff of .08 (Browne and Cudeck, 1993), CFI and TLI were in the range of acceptable model fit (i.e., .90-.95). When *N* is somewhat small, some researchers contend that an RMSEA may be of less concern when other fit indices suggest good fit (Brown, 2006). The standardized, significant regression weights ranged from .58 to .81. The internal consistency analysis revealed Cronbach's alpha values of .82 for the Valued by Employer scale.

#### Descriptive Statistics

Table 2 shows the means, standard deviations, skewness, kurtosis, and alpha levels of the variables. Cronbach alpha coefficients were calculated to examine internal consistencies for all

scales and sub-scales used in the questionnaire. All scales and sub-scales revealed adequate reliability with the exception of the Tension/Pressure scale of the IMI, which was found to have lower internal consistency and therefore was not included in the study analyses. Statistical analyses, which include these scales, should be interpreted with caution.

In this sample, the means and standard deviations revealed that employees perceived a higher task- than ego-involving climate in their fitness center. The means for the IMI sub-scales indicated relatively high intrinsic motivation of the sample. The mean of the Valued by Employers scale was higher than average as well, indicating that overall members perceived their employers valued their health and well being.

Variables	М	SD	Skewness	Kurtosis	α
Task Involving Climate	3.98	0.51	-0.12	-0.27	0.89
Ego Involving Climate	2.00	0.47	-0.39	-0.70	0.86
Intrinsic Motivation Inventory	5.42	0.78	-0.07	-0.60	0.90
Interest/Enjoyment	5.35	1.07	-0.67	0.77	0.82
Perceived Competence	5.42	0.93	-0.11	-0.62	0.84
Effort/Importance	5.63	0.98	-0.28	-0.47	0.82
Tension/Pressure	2.72	0.82	0.18	-0.40	0.46
Valued by Employer	3.83	0.07	-0.42	-0.02	0.82

Table 2. Descriptive Statistics, Cronbach's Alphas, and Bivariate Correlations Among All Variables.

Note: PMCSQ-2 and Valued by Employer Scale used 5-point response scale; IMI used 7-point response scale

#### Correlation Analyses

Pearson Moment Product correlation analyses were employed to examine the relationship between the perceived motivational climate scales (i.e., task and ego) to the four intrinsic motivation scales and the Valued by Employers scale (See Table 3). The results indicated that perceptions of a task-involving climate were positively and significantly associated with three of the IMI scales. Specifically, members who perceived a higher task-involving climate were more likely to report higher interest/enjoyment, perceived competence, and effort/importance than those who perceived a lower task-involving climate. In addition, employees who

perceived a higher task-involving climate indicated they felt more valued by their employer than those perceiving a lower task-involving climate. Employees' perceptions of an ego-involving climate were significantly and negatively correlated with interest/enjoyment, perceived competence, and effort/importance.

#### Regression Analyses

The two scales of the PMCEQ were entered (the revised coded items from the PMCEQ were removed due to the CFA analysis) as independent variables into the regression equation simultaneously. A regression was computed for each of the reliable

Independent Variable	<b>Perceived Motivational Climate</b>			
	Task-Involving Climate	<b>Ego-Involving Climate</b>		
Interest/Enjoyment	0.38**	-0.26**		
Perceived Competence	0.31**	-0.36**		
Effort/Importance	0.32**	-0.32**		
Valued by Employer	0.43**	-0.25**		

Table 3. Correlations between Task/Ego Climate to IMI and Valued by Employer Scales.

<sup>\*\*</sup> Indicates significance at p < 0.01



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(Tension/Pressure was excluded because of its' low reliability) scales of the IMI and Valued by Employer scale. Preliminary examination of the results indicated there was no extreme multicollinearity in the data (all variance inflation factors were less than 2). The regression results indicated that the set of independent variables explained 14.4% of the variance in Interest/Enjoyment: F(2,133) = 12.31, p < .000; 11.9% of the variance in Effort/Importance: F(2,133) = 10.15, p < .000; 13.4% of the variance in

Perceived Competence: F(2,135) = 11.61, p < .001; and 17.0% of the variance in Valued by Employer: F(2,132) = 14.70, p < .000 (See Table 4). In summary, the regression results indicate that how members perceive the motivational climate in their corporate wellness center, to some degree, explains their levels of intrinsic motivation (Interest/Enjoyment, Effort/Importance, and Perceived Competence) and sense of value by their employer.

Climate Scales	Interest/Enj	Perc. Comp.	Effort/Impor	Value by Employer
Task-involving	.65	.31	.38	.57
	(.32)	(.18)	(.20)	(.42)
Ego-involving Climate	.24	.51	.44	.04
	(.11)	(.26)	(.21)	(.03)

Table 4. Regression Coefficients for All IMI Scales and Valued by Employer Scale.

Note: Standardized coefficients are given in parentheses.

# Discussion

The purpose of this study was to examine the relationship of employees' perceptions of the motivational climate to components of intrinsic motivation, as well as their perceptions of their employer's concern for their health behaviors in a corporate fitness environment. As hypothesized, the results revealed that members' perceptions of a task-involving motivational climate were positively associated with intrinsic motivation and perceived value by employers in the corporate fitness arena. Specifically, perceptions of a task-involving climate were positively related to employees' interest/enjoyment, perceived competence, effort/importance, and sense of feeling valued by their employer.

These results are consistent with the findings of Newton, et al., (2000) who reported significant positive correlations between a task-involving climate and enjoyment/interest and effort/importance with athletes. It appears that a task-involving climate may assist employees in having an overall more positive experience with exercise where their intrinsic pleasure and high effort should help them maximize the health benefits that come with being physically active. It follows, as well, that if employees have pleasurable workout experiences—for example, before their workday begins or during their lunch break—they may return to their work responsibilities with renewed energy and vigor. In fact, it seems that the wellness center environment has the potential to positively influence the way members perceive the value of their time and efforts in the wellness center.

Also of interest was the finding that perceptions of an ego-involving climate were negatively related to interest/enjoyment, perceived competence, and effort/importance. These results are also in line with those of Newton, et al., (2000) who found that perceptions of an ego-involving climate were significantly and negatively correlated with effort/improvement and interest/enjoyment, and positively associated with tension/pressure. These results suggest that if an ego-involving climate was deliberately or unknowingly present in a corporate fitness facility, members

might formulate a negative perception of the fitness center and possibly miss out on many positive health benefits.

Results revealed that a significant proportion of members' sense of feeling valued by their employer was explained by their perceptions of the motivational climate. This finding is noteworthy given that a corporate wellness center is removed from specific workday activities and interactions that likely influence employees' perceptions of the degree that they feel valued by their company. Feeling valued by one's employer could be influenced by many factors including, but not limited to, pay (e.g., salary and benefits), work hours and schedule, treatment by supervisors/fellow employees, job responsibilities, etc. As a result, employers may be surprised to know that the wellness facility at their corporation contributes to their employees' sense of feeling valued. Yet, the results from this study suggest that employers who intentionally target a task-involving climate within their wellness facilities may impact the more global concept of feeling valued within a company. As employees feel more valued, the company will likely reap benefits over time in terms of their employees feeling more engaged in their specific jobs, more loyal to their employers, and more productive with regard to the quality and quantity of work they complete (Thoits, 1995). Overall, the results reveal that it is not enough for a company to simply provide a wellness center for their employees; rather, the environment that is established within the center is critical if employees are to experience intrinsic motivation to be physically active and feel valued by their employer. Future inquiry will be critical in terms of exploring the specific benefits to companies of establishing a positive and supportive environment in their wellness facilities.

While the motivational climate at the corporate wellness centers evaluated in this research study revealed moderately positive means, there is room for improvement. Specifically, the means for the task-involving climate and intrinsic motivation scales could be higher. Researchers have successfully manipulated the motivational climate in experimental designs (Edmunds, Ntoumanis and Duda, 2008; Solmon, 1996). In fact, health professionals can in-





tentionally create a task-involving climate to enhance components of intrinsic motivation in any corporate fitness center. Developing a task-involving climate would appear to increase the chances that members would enjoy their activities, try hard, and make physical activity a regular part of their schedules (Ryan and Deci, 2000).

Some employers might speculate that extrinsic rewards would be necessary to foster employees' motivation to take advantage of corporate wellness programs. However, a literature review of incentive-based corporate fitness programs found no studies that supported incentive-based wellness programs creating more participation than those not offering financial incentives (Finkelstein and Kosa, 2003). Other research has found that the use of external rewards may temporarily boost attendance, but long-term adherence is lacking (Robison, et al., 1992; Garner and Wooley, 1991), and that long-term health risks do not consistently improve over time (Poole, Kumpfer and Pett, 2001). In a study focused on exercise promotion, the findings revealed that when individuals chose to participate in corporate fitness programming based on tangible incentives, the dropout rate at the six month mark was 50% (Robison, et al., 1992). In a similar vein, results of the current study suggest that by creating a task-involving motivational climate, corporate fitness programs can set the stage to enhance members' levels of intrinsic motivation, therefore potentially increasing levels of effort, participation, and interest. Creating a positive and supportive environment is something that can be implemented, regardless of finances and executive support, if health professionals have appropriate and necessary knowledge and training.

Not only can a task-involving corporate fitness center benefit the employees of the corporation, but the fitness center staff can benefit as well, possibly resulting in enhanced job satisfaction. Research in education has revealed that teachers who created an ego-involving climate are less likely to enjoy teaching than those who created a task-involving climate (Solmon, 1996). Similarly, wellness program staff might actually find more fulfillment and enjoyment from their job if they create a highly task-involving climate. Research in the business world has found that job satisfaction influences staff's behavioral performance around customers (Yoon, Beatty & Suh, 2001). In the case of corporate wellness, staff members' enthusiasm and support of the employee participants can be influenced by a task-involving working climate.

An important part of this research project required that the

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PMCSQ-2 be adapted for use in a wellness setting (i.e., PMCEQ). Overall the PMCSQ-2 was successfully adapted, but continued research employing the PMCEQ will be necessary to verify the validity and reliability of the measure, and its suitability for exercise settings. Also, the tension pressure scale of the IMI revealed a poor Cronbach alpha reliability coefficient, and was excluded from further analyses in this study. It should be noted that this scale has been problematic in previous research (e.g., Amorose and Horn, 2000; Koka and Hein, 2003; Steinberg, Singer and Murphey, 2003).

This study points the way to several areas of future research. Members' perceptions of the motivational climate at their corporate wellness sites were considered in this study, but no objective measure of the actual characteristics of the climate was obtained. It is impossible to know, therefore, the extent that the wellness staff engaged in behaviors that created a more task- or ego-involving climate. By examining specific behaviors that emphasize a task- or ego-involving climate, information could be obtained that helps wellness professionals become better equipped to foster a task-involving climate. In the educational domain, Ames and Archer (1992) have conducted workshops with teachers to give them strategies for optimizing a task-involving environment. The workshops focused on interventions directed toward giving teachers new options and changing the teachers' instructional practices so that they reflect a task-involving climate. This intervention resulted in heightening children's perceptions of a task-involving climate in their classrooms. A similar approach could be used to increase perceptions of a task-involving climate in the wellness domain.

In summary, results suggest that Nicholls' *Goal Perspective Theory* is relevant to corporate fitness settings, and there are numerous avenues for further examining the motivational implications of creating a task-involving climate. Better understanding of how to foster employees' motivation to engage in physical activity and healthy behaviors could make a difference on a personal level for employees and employers, as well as a larger level in terms of improving the overall health conditions for companies. If more individuals had access to a wellness facility that fostered a task-involving motivational climate, they might be more intrinsically motivated to participate in the activities on a regular basis. Strong research tools are needed in the exercise psychology field. This study contributes a new measure (i.e., the PMCEQ) that may be beneficial in assisting researchers in examining the motivational climate in exercise settings such as corporate wellness centers.

 $LAS \ PERCEPCIONES \ DEL \ AMBIENTE \ POR \ PARTE \ DE \ LOS \ MIEMBROS \ DE \ CENTROS \ DE \ FITNESS \ CORPORATIVOS, \ Y \ SU \ MOTIVACIÓN \ INTRÍNSECA$ 

PALABRAS CLAVE: Wellness corporativo, Motivación intrínseca, Clima motivacional, Ejercicio, Fitness corporativo.

RESUMEN: El objetivo de este estudio fue analizar la relación entre las percepciones de los empleados sobre el clima motivacional de su Centro de Fitness Corporativo, con su motivación intrínseca hacia la práctica física, así como sus percepciones acerca de la preocupación de los empleadores sobre sus comportamientos saludables. Participaron en el estudio 143 miembros de Centros Corporativos de Fitness del medio sur de los estados Unidos de América, a los que se les administraron los siguientes cuestionarios: 1) el *Perceived Motivational Climate in Exercise Questionnaire* (con escalas de orientación a metas de ego y tarea); 2) *Intrinsic Motivation Inventory* (con cuatro subscalas), y 3) la *Valued by Employer Scale*. Los análisis de regresión revelaron que las percepciones del clima motivacional de ego/tarea estaban positivamente relacionadas con el interés/diversión de los empleados, con su competencia percibida, con el esfuerzo/importancia atribuidas al ejercicio, y con su percepción de ser valorados por sus empleadores. Por lo tanto, el *PMCEQ* se muestra como una herramienta relevante en los estudios de psicología del ejercicio para medir las percepciones de los empleados acerca del ambiente existente en su Centro de Fitness.







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AS PERCEPÇÕES DO AMBIENTE POR PARTE DOS MEMBROS DE CENTROS DE FITNESS CORPORATIVOS E A SUA MOTIVAÇÃO INTRÍN-SECA

PALAVRAS-CHAVE: Bem-estar corporativo, Motivação intrínseca, Clima Motivacional, Exercício, Fitness corporativo.

RESUMO: O objectivo deste estudo foi analisar a relação entre as percepções dos funcionários relativamente ao clima motivacional do seu Centro de Fitness Corporativo, com a sua motivação intrínseca relativa à prática física, assim como as suas percepções acerca da preocupação dos empregadores sobre os seus comportamentos saudáveis. Participaram neste estudo 143 membros dos Centros Corporativos de Fitness do sul dos Estados Unidos da América, aos quais foram administrados os seguintes questionários: 1) o Perceived Motivational Climate in Exercise Questionnaire (com escalas de orientação motivacional para o ego e tarefa); 2) Intrinsic Motivational Inventory (com quatro sub-escalas); e 3) a Value by Employer Scale. As análises de regressão revelaram que as percepções do clima motivacional de ego/tarefa estavam positivamente relacionadas com o interesse/diversão dos funcionários, com a sua competência percebida, com o esforço/importância atribuídas ao exercício, e com a sua percepção da avaliação dos seus empregadores. Como tal, o PMCEQ revela ser uma ferramenta relevante nos estudos de Psicologia do Exercício para medir as percepções dos funcionários acerca do ambiente existente no seu Centro de Fitness.

#### References

Allison, P. D. (2003). Missing data techniques for structural equation modeling. Journal of Abnormal Psychology, 112, 545-557.

American Institute of Preventative Medicine. (2008). The health and economic implications of worksite wellness programs, 2008. Available at: http://www.qigonginstitute.org/html/papers/Wellness\_WhitePaper.pdf. Accessed November 27, 2008.

Ames, C. (1992). Classrooms: Goals, structure and student motivation. Journal of Educational Psychology, 84, 261-271.

Ames, C. and Archer, J. (1988). Achievement Goals in the Classroom: Students' Learning Strategies and Motivation Processes. *Journal of Educational Psychology*, 80(3), 260-267.

Amorose, A. J. and Horn, T. S. (2000). Intrinsic motivation: Relationships with collegiate athletes' gender, scholarship status, and perceptions of their coaches' behavior. *Journal of Sport and Exercise Psychology*, 22, 63-84.

Baicker, K., Cutler, D. and Song, Z. (2010). Workplace wellness programs can generate savings. Health Affairs, 29(2), 1-8.

Balaguer, I., Castillo, I., Duda, J. L. and García-Merita, M. (2011). Asociaciones entre la percepción del clima motivacional creado por el entrenador, orientaciones disposicionales de meta, regulaciones motivacionales y vitalidad subjetiva en jóvenes jugadoras de tenis (Associations between the perception of the motivational climate created by the coaches, dispositional goal orientations, self-regulation, and subjective vitality of youth tennis players). Revista de Psicología del Deporte, 20(1), 133-148.

Brown, T. A. (2006). Confirmatory Factor Analysis for Applied Research. Nueva York: The Guilford Press

Browne, M. W. and Cudeck, R. (1989). Single sample cross-validation indices for covariance structures. *Multivariate Behavioral Research*, 24, 445-455.

Chenoweth, D. H. (2007). Worksite health promotion (2nd ed). Champaign: Human Kinetics.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 296-334.

Crump, C. E., Earp, J. L, Kozman, C.M. and Hert-Picciotto, I. (1996). Effect of organizational-level variables on a different employee participation in 10 federal worksite health promotion programs. *Health Education Behavior*, 23, 204-223.

Deci, E. L. and Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior (2nd ed). Nueva York: Plenum Press.

Deci, E. L. and Rvan, R. M. (2002). Handbook of self-determination research. Rochester, NY: University of Rochester Press.

Digelidis, N., Papaioannou, A., Lapardidis, K. and Christodoulidis, T. (2003). A one-year intervention in 7th grade physical education classes aiming to change motivational climate and attitudes towards exercise. *Psychology of Sport and Exercise*, 4, 195-210.

Duda, J. L., Chi, L., Newton, M. L., Walling, M. D. and Catley, D. (1995). Task and ego orientation and intrinsic motivation in sport. *International Journal of Sport Psychology*, 26, 40-63.

Edmunds, J., Ntoumanis, N. and Duda, J. L. (2008). Testing a self-determination action theory-bsed teaching style intervention in the exercise domain. European Journal of Social Psychology, 38, 375-388.

Finkelstein, E., Fiebelkorn, C. and Wang, G. (2005). The costs of obesity among full-time employees. *American Journal of Health Promotion*, 20, 45-51.

Finkelstein, E. A. and Kosa, K. M. (2003). Use of incentives to motivate healthy behaviors among employees. *Gender Issues*, 21(3), 50-59.

Friedman, N. and Fanning, E. (2004). Overweight and obesity: An overview of prevalence, clinical impact and economic impact. *Disease Management*, 7(S1), S1-6.

Garner, D. M. and Wooley, S. C. (1991). Confronting the failure of behavioral and dietary treatments for obesity. Clinical Psychology Review, 11, 729-780.

Goetzel, R. Z. and Ozminkowski, R. J. (2008). The health and cost benefits of work site health-promotion programs. *Annual Review of Public Health*, 29, 303-323.

Healey, B. J. and Marchese, M. (2005). The use of marketing tools to increase participation in worksite wellness programs. *Proceedings of the Academy of Health Care Management, Allied Academies International Conference, Las Vegas*, 2, 1-6.

Hu, L. and Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to under parameterized model misspecification. *Psychological Methods*, 3, 424-453.

Jaakkola, T. and Liokkonen, J. (2006). Changes in students' self-determined motivational and goal orientations as a result of motivational climate intervention within high school physical education classes. *International Journal of Sport and Exercise Psychology*, 4, 302-324.

Kavussanu, M. and Roberts, G. C. (1996). Motivation in physical activity contexts: The relationship of perceived motivational climate to intrinsic motivation and self-efficacy. *Journal of Sport and Exercise Psychology, 18*, 264-280.

Koka, A. and Hein, V. (2003). Perceptions of teacher's feedback and learning environment as predictors of intrinsic motivation in physical education. *Psychology of Sport and Exercise*, *4*, 333-346.

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- Linnan, L., Bowling, M., Childess, J., Lnsay, G., Blakey, C., Pronk, S., et al. (2008). Results of the 2004 national worksite health promotion survey. American Journal of Public Health, 98(8), 1503-1509.
- Little, T. D., Cunningham, W. A., Shahar, G. and Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. Structural Equation Modeling, 9(2), 151-173.
- Markland, D. and Hardy, L. (1997). On the factorial and construct validity of the intrinsic motivation inventory: Conceptual and operational concerns. *Research Quarterly for Exercise and Sport*, 68, 20-32.
- McAuley, E., Duncan, T. and Tammen, V. (1989). Psychometric properties of the intrinsic motivation inventory in a competitive sport setting: A confirmatory factor analysis. *Research Quarterly for Exercise and Sport*, 60(48-58).
- Morgan, K. and Carpenter, P. (2002). Effects of manipulating the motivational climate in physical education lessons. *European Physical Education Review*, 8, 207-229.
- Newton, M., Duda, J. L. and Yin, Z. (2000). Examination of the psychometric Properties of the Perceived Motivational Climate in Sport Questionnaire-2 in a Sample of Female Athletes. *Journal of Sports Sciences*, 18, 275-290.
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice and performance. *Psychological Review*, 91, 328-346.
- Nicholls, J. G. (1992). The general and specific in the development and expression of achievement motivation. In G. C. Roberts (Ed.), *Motivation in sport and exercise* (pp. 31-56). Champaign, IL: Human Kinetics.
- Ntoumanis, N. and Standage, M. (2009). Motivation in physical education classes: A self-determination perspective. *Theory and Research in Education*, 7. 194-202.
- Nunally, J. C. (1978). Psychometric Theory. Nueva York: McGraw Hill.
- Ozminkowski, R. J., Ling, D., Goetzel, R. Z., Bruno, J. A., Rutter, K. R., Isaac, F., et al. (2002). Long-term impact of Johnson & Johnson's health and wellness program on health care utilization and expenditures. *Journal of Occupational and Environmental Medicine*, 44(1), 21-29.
- Parks, K. M. and Steelman, L. A. (2008). Organizational wellness programs: A meta-analysis. *Journal of Occupational Health Psychology*, 13(1), 58-68.
- Plant, R. and Ryan, R. M. (1985). Self-consciousness, self-awareness, ego-involvement, and intrinsic motivation: An investigation of internally controlling styles. *Journal of Personality* 53, 435-449.
- Poole, K., Kumpfer, K. and Pett, M. (2001). The impact of an incentive-based worksite health promotion program on modifiable health risk factors. American Journal of Health Promotion, 16(1), 21-26.
- Reinboth, M., & Duda, J. L. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. Psychology of Sport and Exercise, 7, 269-286.
- Robison, J. I., Rogers, M. A., Carlson, J. J., Mavis, B. E., Stachnik, T., Stoffelmayr, B., et al. (1992). Effects of a 6-month incentive-based exercise program on adherence and work capacity. *Medicine & Science in Sports & Exercise*, 24(1), 85-93.
- Rubin, D. B. (1987). Multiple imputation for nonresponse in surveys. Nueva York: Wiley
- Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology*, 43, 450-461.
- Ryan, R. M. and Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55(1), 68-78.
- Ryan, R. M., Mims, V. and Koestner, R. (1983). Relation of reward contingency an intrapersonal context to intrinsic motivation: A review and test using cognitive evaluation theory. *Journal of Personality and Social Psychology*, 45, 736-750.
- Schumaker, R.E. and Lomax, R.G. (2004). A beginner's guide to structural equation modeling. Mahwah, NJ: Lawrence Erlbaum Associates.
- Shepard, R. J. (1996). Worksite fitness and exercise programs: A review of methodology and health impact. *American Journal of Health Promotion*, 10(6), 436-452.
- Singh, J. (2000). Performance, productivity and quality of frontline employees in service organizations. Journal of Marketing, 64, 15-34.
- Sit, C. H. P. and Lindner, K. J. (2007). Achievement goal profiles, perceived ability and participation motivation for sport and physical activity. *International Journal of Sport Psychology*, 38(3), 283-303.
- Solmon, M. A. (1996). Impact of motivational climate in students' behaviors and perceptions in a physical education setting. *Journal of Educational Psychology*, 88, 731-738.
- Steiger, J. H. and Lind, J. C. (1980). Statistically based tests for the number of common factors. Paper presented at the annual meeting of the Psychometric Society, Iowa City, IA, May.
- Steinberg, G. M., Singer, R.N. and Murphey, M. (2000). The benefits to sport achievement when a multiple goal orientation is emphasized. *Journal of Sport Behavior*, 23(4), 407-422.
- Taitel, M. S., Haufle, V., Heck, D., Loeppke, R. and Fetterolf, D. (2008). Incentives and other factors associated with employee participation in health risk assessments. *Journal of Occupational and Environmental Medicine*, 50(8), 863-872.
- Thoits, P. (1995). Stress, coping and social support processes: Where are we? What next? Journal of Health and Social Behavior, 36, 53-79.
- Torregrosa, M., Viladrich, C., Ramis, Y., Azócar, F., Latinjak, A. T. and Cruz, J. (2011). Efectos en la percepción del clima motivacional generado por los entrenadores y compañeros sobre la diversión y el compromiso. Diferencias en function del género (Effects on the perception of the motivational climate created by coaches and teammates on enjoyment and commitment, gender differences). Revista de Psicología del Departe, 20(1), 243-255.
- Tucker, L. R. and Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1-10.
- Wyatt, S. B., Winters, K. P. and Dubbert, P. M. (2006). Overweight and obesity: Prevalence, consequences and causes of a growing public health problem. *The American Journal of the Medical Sciences*, 331(4), 166-174.
- Yoon, M. H., Beatty, S. E. and Suh, J. (2001). The effect of work climate on critical employee and customer outcomes: An employee-level analysis. *International Journal of Service Industry Management*, 12(5), 500-521.

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