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The case of a large US company

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Involuntary Wellness Programs: The Case of a Large US Company

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Abstract

Purpose — This study investigates the recent health care reform in the US, which allows insurance companies to proactively intervene in improving long-term health of employees by providing wellness programs as part of the benefits package for employees.

Design/methodology/approach — We present and analyze data on how employees of a large US Midwest “media and education” company (N = 154) perceive economic incentives towards wellbeing. Data are collected using survey methods and analyzed with a logistic regression.

Findings — This study suggests that fairness, accessibility, intention to switch to a healthier lifestyle, and desire to see more health-related initiatives affect the way employees seek to participate in the new *involuntary wellness programs*. In contrast, satisfaction, participation, and income do not affect how these new programs are perceived.

Research limitations/implications — These findings imply that HR managers should pay attention to employees who are not active in existing wellness programs, and ensure to provide support during the transition toward the new involuntary programs to avoid potential frustration, de-motivation, disengagement, and ultimately, decreasing performance.

Originality/value — The study is amongst the first to analyze *involuntary wellness programs* in the US and it provides a basis on which to expand further studies. This research contributes to support the idea that employee wellness is unlikely to be enforced by rule or policy.

Keywords: wellness programs, health insurance, employee health, economic incentives, healthy choices.

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Involuntary Wellness Programs: The Case of a Large US Company

Although wellbeing is a popular concern in Human Resource (HR) management, the vast amount of literature shows more of an interest in psychological wellbeing (Alfes *et al.*, 2012; Ashleigh *et al.*, 2012; Brunetto *et al.*, 2013; Kooji *et al.*, 2013) than proactive interventions for improving employee long-term physical health. This is usually accomplished by providing wellness programs (WPs) as part of the employee benefits package. This is especially important now, when two in three Americans are estimated to be overweight (WHO Global Database on Body Mass Index, 2010). WPs can be defined as opportunities that organizations offer to their employees to: help them develop healthier lifestyles (Benavides and David, 2010), cut costs (DeSimone and Harris, 1998), reduce absenteeism, increase job satisfaction (Park and Steelman, 2008), improve productivity and generate savings (Baicker, Cutler and Song, 2010), and increase retention (Yamamoto, 2011). The most common type of WPs include weight-loss programs, on-site exercise facilities, gym discounts, smoking cessation programs, courses on diets, web resources for a healthier lifestyle, personal health coaching, and wellness newsletters and health fairs (Mills *et al.*, 2007).

The introduction of WPs in the workplace appears to benefit both organizations and employees. For example, Mills *et al.* (2007:20) found that “a well-implemented multi-component health promotion program can not only improve the health status of employees but also improve their work performance”. The implementation of WPs indicate that the employer cares about their employees’ health and wellbeing, which can consequently increase motivation (Van de Broek *et al.*, 2010), reduce turnover and absenteeism (Soane *et al.*, 2012), and improve job performance

(Wright and Cropanzano, 2004). In addition, WPs can help individuals reduce their healthcare costs (Naydeck *et al.*, 2008). Employers are beginning to see that making employees aware of their current health conditions, and providing tools to help them attain a healthier state can yield significant reductions in sick leave and medical claims costs, and can ultimately improve performance.

Person *et al.* (2010) identified barriers to WP participation, including insufficient incentives, inconvenient locations, time limitations, little interest in the topics presented, scheduling, marketing, health beliefs and lack of interest in the program. These findings should facilitate organizations to plan suitable WPs for their employees. Berry, Mirabito, and Baun (2010:5) recommend six key factors for an effective workplace WP: (1) *multi-level leadership* from all levels of managers to create a culture of health; (2) *alignment* with an extension of an organization's identity and aspirations for being well; (3) *scope, relevance, and quality* to possess comprehensive and excellent WPs; (4) *accessibility* to low- or no-cost services, to make it fair to all employees; (5) *partnership* to proactively collaborate with internal and external partners to provide desirable WPs; and (6) *communication* to create a clear message, that is widely accessible to all. Berry *et al.* (2010) state that these six pillars would support WPs' success, regardless of the size of an organization. Most of the existing literature refers to WPs as being voluntary.

However, in addition to *voluntary* WPs, many employers (or medical insurance plans) are beginning to impose what we may call *involuntary* programs (Schmidt *et al.*, 2010). In line with this, the US Affordable Care Act (ACA) of 2010 has expanded health insurance plan wellness incentives to up to 30% of total coverage costs (Harrington, 2010). The ACA encourages health-

contingent wellness programs, basing participants' rewards or penalties on a given health target, e.g. weight loss, smoking-cessation, reducing cholesterol, etc. Thus, these involuntary programs, often called healthy or wellness "premiums", place surcharges on insurance premiums if employees do not follow what is required by the program. This means that employees could be charged more money on top of their normal premiums, deductibles or co-pays if they do not satisfy the health premium requirements.

We are not aware of any definition of involuntary WPs in the literature, but it is clear that they are different from voluntary WPs. We define involuntary WPs as initiatives that employers offer to their employees, aimed at increasing health and wellbeing, which feature rewards and/or penalties for meeting or not meeting given health-related targets. The emphasis on the word "involuntary" highlights the mandatory cost (or surcharge) that the employee has to pay when health-related targets are not met. Although this topic is vital to HR professionals and managers, especially those who are in charge of employee wellbeing, hardly any HR scholars have conducted an intensive study in this area to understand the impacts of such programs on both employers and employees. Despite these programs being relatively new, a report from the RAND Corporation shows that in 2012, 11% of employers offered incentive-based WPs framed as 'rewards and penalties,' while only 2% framed them as 'penalties' (Mattke *et al.*, 2012: 73). This is an approximation of the percentage of companies offering involuntary WPs.

With the arrival of the new form of involuntary WPs, there is an obvious gap in the literature on this issue. We investigated employees' perceptions, expectations and attitudes towards these programs, seeking answers to such questions as: what rationale would employees see behind involuntary WPs? Would they see them as a way to avoid surcharges, or would they be more

attracted by perceived health benefits? The objective of the study was to understand factors affecting employee evaluations of involuntary WPs, and what makes them lean more towards a ‘cynical’ cost-related perspective rather than a ‘true’ wellness perspective. The former tends to highlight the organization’s perspective, i.e. the need to go with cost-saving strategies, while the latter emphasizes the personal perspective of being healthy. We have derived this dichotomous alternative from a study conducted by Mihda and Sullivan (1999) on UK state-sponsored health organizations, although their emphasis was more on the employer/organization.

This paper presents a study of a large US company, active in the education and media industries, which planned to introduce an involuntary WP to its employees. One reason why we selected employees from this large organization is that not many other organizations with a wide range of WPs already in place and plans to implement new involuntary WPs, were open to research at the time this study was conducted. Also, at the time of the study (Fall 2010) there were very few organizations that were already implementing involuntary WPs. We took this case as an opportunity to explore this new area in HR wellness programs.

To fill the gap in the literature, and embark on a new path (Alvesson and Sanberg, 2013) for the study of the impact of involuntary WPs on employees, we analyze employees’ attitudes toward involuntary WPs, and connect these to past experience of available health-related resources, and to overall satisfaction with the service (Mills *et al.*, 2007). We also focus on current perceived health conditions (Yancey *et al.*, 2004), and the understanding of health-related issues in the workplace and of involuntary WPs in general (Schmidt *et al.*, 2010; Yancey *et al.*, 2004). In addition, we check for the effects of demographics such as age, gender, salary, position and education (Smith and Smith, 1994). The theoretical framework below brings all these

elements together and provides a rationale for their selection.

This study makes three main contributions to the subject. First, it analyzes employees' perceptions of involuntary WPs, with a focus on their participation in existing voluntary programs. It also covers the switch from voluntary to involuntary WPs, an issue that is not addressed in the literature and that organizations may face imminently. Second, it addresses the point of participation in WPs, analyzing whether these programs can encourage people to abandon an unhealthy lifestyle and embrace a healthy one. Third, and finally, it suggests some implications for HR professionals, managers and policy-makers in the future adaptation to involuntary WPs. Due to the innovative nature of these programs and the lack of studies, this work takes the form of an exploratory research project on involuntary WPs.

Theoretical Framework and Hypotheses

The success of workplace health-related programs is usually tied to the number of participating employees (McCaul *et al.*, 1993; Perrin *et al.*, 2008). Since this is a crucial factor for determining the effectiveness of WPs, the question, "why do employees participate?" has been asked several times before (Parks and Steelman, 2008). Although existing research focuses on incentives and rewards (Cawley and Price, 2013; Perrin *et al.*, 2008), while we are interested in losses and costs, there is a clear indication that prospect theory (Kahneman, 2003) may support the analysis. Two aspects of this theory can be utilized to organize a framework for hypotheses testing.

Firstly, evaluation of the prospective consequences of certain actions may be very difficult to anticipate (Gigerenzer and Selten, 2001; Goldstein and Gigerenzer, 1996). Decisions dealing

with health-related outcomes may be even more impalpable than others, since their outcomes (e.g. weight loss, lower blood pressure, reducing cholesterol) remain very uncertain (Cawley and Price, 2013). Among the most relevant factors affecting an individual's impression of gaining health benefits through a given program are perception of current lifestyle, and strength of desire for a healthier future. Individuals with a solid, healthy lifestyle may be more likely to maintain this in the future, so the health benefits of WPs appear more tangible to them. This reduces the uncertainty of future outcomes, and points to the fact that individual expectations may have a significant impact on participation in involuntary WPs. Secondly, rewards or losses have a different impact on choice (Kahneman and Tversky, 1979; Kahneman, 2003). Research shows that decision-makers have a tendency to take more risks on negative outcomes (losses), as opposed to when there are positive outcomes (rewards) (Kahneman *et al.*, 1990). The new involuntary WPs inflict losses on the employee whose health status has not been maintained in good shape, and this can be equated to a prospective loss. The threat of loss may be an agent of behavioral change that is more effective than the prospective of a positive outcome. These effects are relative to one's existing conditions, meaning that the higher the awareness of one's current health status (Levinthal and Rerup, 2006; Fiol and O'Connor, 2004), the more likely it is that one de-biases the over-weighting of negative prospective outcomes over positive outcomes. For this reason, and consistent with bounded rationality and prospect theory, another set of variables that affect participation in involuntary WPs is the current evaluation of one's status.

Figure 1 provides an overview of the potential impacts of WPs on employees. Consistent with the above, the hypotheses are organized in two macro dimensions. We argue that employees justify their expectations concerning involuntary WPs based on either cost avoidance, or health-

related strategies. These are predicted through (a) their *current* personal conditions (labeled ‘status quo’ in Figure 1), such as income, or participation in existing WPs, and (b) their *expectations* of how their lifestyle is going to change as a result of these WPs, and what they truly expect from the organization in the implementation of these programs.

Insert Figure 1 about here

According to the above, the two theoretical mechanisms that we are borrowing from prospect theory to test employee participation in involuntary WPs are: the status quo bias (Kahneman *et al.*, 1990; Silver and Mitchell, 1990) and the reflection effect (Kahneman and Tversky, 1979).

Fairness in Health-Related Issues

Fairness has been seen as critical in health incentives (Schmidt, Asch and Halpern, 2012). Theories of fairness give weight to the importance of the mechanism of social comparison (O’Reilly *et al.*, 1988). Perceptions of fairness may be related to an individual’s level of pay, and how it compares with that of other employees with similar jobs or performance outcomes (Hartmann and Slapničar, 2012). The distribution of rewards and punishments among co-workers affect individual perceptions of fairness (Wade *et al.*, 2006). Moreover, there seems to be a relationship between the nature of rewards (monetary or non-monetary) and employees’ intrinsic motivation (Deci *et al.*, 1999). A mixture of these conditions may affect employee evaluation and perception of WPs, by providing non-monetary support to employees in a range of programs, discounts, or facilities to help them stay healthy. WPs may also lead to an increased perception of

fairness among employees, as everyone has the same opportunity to participate. This aspect may also be related to the process- or outcome-based reward that is sometimes attached to health programs (Halpern *et al.*, 2009; Schmidt *et al.*, 2012). The former are programs that provide incentives to employees for attempting to improve their health, and are independent of the outcomes of their efforts. The latter are more diffused, and distribute incentives depending on health outcomes (Schmidt *et al.*, 2012). The perception of fairness is usually higher with process-based incentives, since the starting health condition may differ significantly from employee to employee.

In the case of involuntary WPs, employees tend to make comparisons on the basis of the health status of colleagues. Individuals with existing poor health conditions (either physical or psychological) may perceive an involuntary WP as unfair. Hence, they may judge it from a strictly economic perspective, evaluating it as something that contributes to raising costs. Thus, we hypothesize:

H1a: Unfair assessment of WPs by employees positively affects the likelihood that involuntary WP participation is justified by the employees to avoid personal surcharges.

Pearson and Lieber (2012) suggest that involuntary WPs may be unethical. The idea of making employees contribute proportionally on their (potential) costs for living an unhealthy lifestyle is not *per se* unethical, because it is based on a responsibility principle. However, it can be unethical, depending on, for example, lack of target clarity, or partial information disclosure on processes. Following a similar line of argument, some scholars suggest that involuntary WPs are more likely to be discriminatory (Horwitz, Kelly and DiNardo, 2013). Unethical and discriminatory practices are linked to employee perception of unfair treatment, thus supporting

H1a.

The idea of fairness may also refer to unjust treatment that stems from a particular rule, norm, or behavior that has been established (Colquitt and Rodell, 2011). The relation between fairness and norm/behavior becomes clearer when it concerns the broader concept of procedural justice (Colquitt *et al.*, 2001). This may not refer exclusively to social comparison, but it appears to be related to any given specific policy that the organization implements. Personal evaluation (i.e. the level of satisfaction) of the existing WPs will affect the assessment of the new involuntary programs. In the literature on health and wellness programs, there has been much debate on whether they affect job satisfaction (Parks and Steelman, 2008). Due to this uncertainty, our study does not refer to the fully-fledged concept of job satisfaction, i.e. the positive attitude an employee holds towards his or her job (Locke, 1976). Instead, narrowing job satisfaction down to consider only the area relating to organizational health programs may bear some results. It is worth noting that most studies consider job satisfaction as an outcome of WPs (Kirkcaldy, Cooper, Shephard and Brown, 1994; Norvell and Belles, 1993). This study takes the analysis one step forward, in analyzing whether satisfaction with an existing WP which changes from voluntary to involuntary is more likely to affect the motives for either continuing to engage with WPs, or not. In other words, we are interested in a particular aspect of satisfaction as a determinant of employee potential engagement with involuntary WPs.

We posit that dissatisfaction is more likely to be connected with extrinsic motivation, given that this is linked to obtaining tangible rewards, as opposed to the enjoyment and positivity related to intrinsic motivation (Ryan and Deci, 2000). Hence, a dissatisfied employee may decide, from an extrinsic motivational perspective, that they would participate, to avoid

surcharges. This is much more tangible than the uncertainty that surrounds health benefits (Cawley and Price, 2013).

H1b: The less satisfied an employee is with the existing WPs, the more likely that they will take part in a WP to avoid personal surcharges.

Anchoring on Past Experience

The rational choice model of decision-making advocates that individuals should minimize costs and maximize utility (Gilboa, 2010). When people face the choice of paying a 30% health premium surcharge or pursuing a healthy lifestyle, they should pick up the second option, according to this theory. However, what *should* be done is often different from what they *actually* do (Simon, 1959).

Individuals usually fall short of following strict rational rules, according to the bounds of their rationality (Gigerenzer and Selten, 2001; Simon, 1979). For example, biases, prejudices (Bazerman, 1994), heuristics (Gigerenzer and Brighton, 2009) and emotions (Härtel et al., 2005) may all affect their decisions. It has recently been found that individuals are particularly good at making decisions with little information when time constraints are particularly tight. These processes have been identified as *fast and frugal* heuristics (Todd, 2001; Todd and Gigerenzer, 2003). In short, clues from the environment, what is stored in the brain and social interactions are, in many cases, enough for individuals to make good rational decisions. Some scholars suggest that this is a new type of rationality, the so-called *ecological rationality* (Todd, 2001). If individuals can make sound decisions with little information, using fast and frugal heuristics, they can probably make up their mind independently of what they know, or what the

organization tells them regarding WPs. The concept of ‘quasi hyperbolic discounting’ (Frederick, Loewenstein and O’Donoghue, 2002) has been used to explain why employees prefer immediate rewards, rather than future ones. This mechanism is in place when employees make decisions about WP participation (Cawley and Price, 2013; Schmidt *et al.*, 2010), and it may be related to financial incentives (Jeffery, 2012; Higgins *et al.*, 2012). We claim that the information employees process to make decisions on WPs may be irrelevant, due to the fact that it deals with non-immediate and future health gains, or cost-related threats. This is consistent with the mechanism of quasi hyperbolic discounting, and has the potential to help increase our understanding of the way it works. Therefore, we propose to test the following hypothesis:

H2a: Information on current WP resources is not related to a decision to participate in an involuntary program to avoid surcharges, or to gain health benefits.

If information on the current program does not significantly affect choice, participation might. While retrieving information on the program is a passive activity, being physically active in one or more of the current WPs is likely to provide more confidence for one to stay healthy (Parks and Steelman, 2008). This would probably not be related to the monetary side-effects of the new WPs, but is more likely to be related to health benefits.

H2b: Participation in current WP resources is positively related to the decision to participate in the involuntary programs because of their health benefits (and not to avoid costs).

Where money is concerned, it seems that individuals make their choices based on a reference point or ‘anchor’ (Bazerman, 1994). Although 30% is a relative amount that varies depending on one’s insurance cost, we assume that it does not change as far as gross salary is concerned. In this

case, the same 30% is perceived as ‘more’ for employees with a lower salary, while it is ‘less’ to those with a higher salary:

H3: The higher the income the less likely that employees participate in the new WPs only to avoid surcharges (they may do because of health benefits).

Expectations to Change Habits

Five indicators may be used to define a scale of healthiness for the individual. These are: (1) diet, which has a serious effect on health status and life expectancy (Conti *et al.*, 2004); (2) little, or moderate alcohol intake, which might be associated with positive effects on the body (Shaper, 1988); (3) practising sports or exercise, which benefits both the mind and body (Smith and Smith, 1994); (4) refraining from smoking or drug abuse which usually cause health problems (Sturm, 2002); (5) maintaining a reasonable body weight, as an indicator of a healthy lifestyle, which also connects together the previous four elements (Conti *et al.*, 2004). An individual who has serious issues with all five indicators leans toward an unhealthy lifestyle, while someone leading a healthy lifestyle is likely to score well on the five indicators. However, previous studies show that health issues are often related to environmental (Conti *et al.*, 2004) or cultural factors, which may affect dietary habits (Yancey *et al.*, 2004). We may expect that those who perceive themselves as healthy, or who are already clearly healthy, will have a positive disposition to the involuntary WPs (Roman and Blum, 1988), because there is little to change in their lifestyle. Self-efficacy, as well as individual attitude, plays a role in determining one’s ability to change health-related habits (McCaul, O’Neill and Glasgow, 1988; McCaul *et al.*, 1993). For the current study, this implies that employees with a positive attitude towards a healthy lifestyle will be happy to accept involuntary WP participation on the basis of its future

health-related benefits (Rimal, 2006). Similarly, those who would like to see more initiatives implemented in the program are also more likely to get involved because of the positive health-related benefits. Both hypotheses lean towards the assumption that employees who perceive a strong positive valence in long-term health benefits are likely to be more 'in command' of their life, showing a high internal locus of control (Steptoe and Wardle, 2001). Thus, we come to the hypotheses that:

H4: Employees who expect to switch to a healthier lifestyle tend to engage in the involuntary WPs because of their health benefits (not to avoid surcharges).

H5: Employees who expect more initiatives to be included in WPs are more likely to join because of potential health benefits (not to avoid surcharges).

Methods

Sample and Procedures

Prior to the main study, a pilot study was conducted, with short qualitative and exploratory interviews to shape the content and format of the main survey. Four-hundred full-time employees of a large US media and education company were invited to take part in the survey. Two-thirds of the employees worked on-site and could access a fitness center, group fitness classes and an annual health fair that included health screening, biometric testing, skin screenings, flu shots and health information booths. One-third of these full-time employees worked remotely outside the company site, but had access to weekly wellness tips posted on the company's intranet. These employees also had the option of using a membership discount for certain fitness centers

throughout the nation. All of the employees worked in an office setting, spending the majority of their time sitting at desks, using computers.

The survey was distributed to the employees' work e-mail addresses. Within the e-mail, there was a link that directed them to a secure online survey website. The survey link remained active for one week, and the response rate was 38% ($N = 154$), of which 92 were female (59%); most participants were in their 30s (35%), the second-largest category being employees in their 20s (30%). The majority of respondents (56%) held a bachelor's degree at the time of the survey, while 21% had a high-school or other diploma. A large majority of participants (60%) indicated their salary was in the \$30k-\$60k range, although 19% stated that they earned less than \$30k. Seventy-one (47%) indicated that they were professional or highly specialized workers within the organization, and 14 (9%) classified themselves as executives or top managers. The others classified themselves as operations, salespersons, or marketing specialists.

Measures

The survey was designed (a) to capture features of WPs within the organization, and (b) to explore what would happen to employees' habits if they were 'forced' to pay for maintaining an unhealthy status. As already stated, the paper investigates that *if* participants utilize WPs, this will ultimately allow them to cut their insurance costs, depending on how healthy they are. In addition, we investigate whether medical insurance premium surcharges will influence employees' utilization of the wellness resources provided by the organization. All variables can be classified into two categories, depending on whether they belong to actual/current or to future/expected 'state of affairs', perceptions, attitudes and habits.

Dependent variable. We have identified the dependent variable (DV) in employees' willingness to participate in health premium (involuntary) programs to avoid surcharges, or receive health benefits. We code the variable *avoid surcharges* as a dummy, with 1 for those who expressed preference for WPs in order to avoid surcharges, and 0, which indicates those who see WPs as potentially good for their health. This is a measure of the strongest justification of WP participation for employees.

Independent variables. The survey provides a measure for the desirability of a number of features of WPs. We asked participants to rate on a 5-point Likert scale whether they would like to see six items (e.g. Health Risk Assessments, Wellness Incentive Plans) implemented or not. The summated scale shows good reliability with Cronbach's alpha .78 (Nunnally, 1978), and it represents the *Wellness Programs Desirability Indicator* (WPDI). A confirmatory factor analysis (CFA) also shows that the one-factor model works well for the scale: $\chi^2 = 11.934$, $df = 9$, $p\text{-value} = 0.217$; Adjusted Goodness-of-Fit Index (AGFI) = 0.94; Root Mean Square Error of Approximation (RMSEA) = 0.046; Bentler's Comparative Fit Index (CFI) = 0.98; and Standardized Root Mean Square Residual (SRMR) = 0.038 (Kline, 2005).

Participants were also asked to state whether their lifestyle was likely to become healthier when the option of the 30% surcharge would become available for insurance companies. This is the five-item measure for *Likelihood to Switch to a Healthier Lifestyle* (LSHL) and is rated on a 5-point Likert scale ($\alpha = .78$). The measure is calculated as the difference between employees' assessment of their future, as opposed to current lifestyle, and weighted on the current lifestyle. This gives a measure, LSHL, that varies between -2 and 2. This is a perspective on future trends, but is anchored on the perception of current health status.

A question asking employees about their *participation in current programs* included a list of eight alternative options, and participants were asked to tick all that applied. These were existing programs already in place, for example, ‘Weekly Wellness Tips’ (posted on the HR intranet tab), ‘Fitness Center and Group Fitness Classes,’ or ‘Health Informational Booths’ (at the Health Fair). The measure is obtained using a sum of each initiative, so that more active participants had a higher score than those who did not participate at all. Some employees also indicated one or more reasons why they were not involved in the current WPs, such as “Don’t have time,” “Don’t feel the need to improve current health,” or “Stress”, up to a total of eight alternatives. We weighted these ‘motives’ as negatives, so that non-participants could choose down to -8, indicating that they were strongly outside of the existing programs, whereas highly involved participants could reach a total of +8 in this measure.

Satisfaction with the existing benefits package offered by the organization was measured by the item “Are you satisfied with your current benefits package?” Unlike the other measures, we used a 7-point Likert scale from “extremely dissatisfied” to “extremely satisfied” as an attempt to capture variability more accurately. Another item was used to measure perceived *fairness* of involuntary WPs. The question prompted was “Do you think it is fair for insurance/employment companies to implement premium surcharges for not completing Program Requirements, such as the Health Insurance of America’s?”, and responses were coded on a 5-point Likert scale from “completely unfair” to “absolutely fair”. Psychometric theorists (DeVellis, 2013) claim that multiple-item measures are preferred to single-item, because they map the multi-faceted nature of constructs and hence are more reliable. However, some argue that this pertains when the object of the construct and the construct are not ‘easily and uniformly imaginable’ (Bergkvist and

Rossiter 2007). We believe the two variables, *satisfaction* and *fairness* can be effectively measured by single items because they are tied to specific WPs, so they are ‘easily and uniformly imaginable’.

Information on the current WPs was also measured on a 5-point Likert scale, ranging from 1, “not informed,” to 5, “fully informed,” on the question “Do you feel informed about the Wellness Programs offered by your company?” This variable is matched with the *access* to the programs (dummy coded). Both variables taken together provide a more accurate picture of whether employees felt information was available, and initiatives were close enough to where they work.

Control variables. Research on WPs has shown that there is a strong dependence on demographic characteristics (Alexy, 1991) such as age, gender, or education. “Women are more likely to drop out of fitness programs than men and they are less likely to exercise regularly” (Pohjonen and Ranta, 2001: 466). This justifies the choice of the following control variables: *Age* (years); *education* (1 = Secondary school; 2 = High school; 3 = University diploma, B.A. or B.S.; 4 = Master’s degree; 5 = PhD or JD); *gender* (0 = male; 1 = female); and *salary* (1 = Less Than \$30K; 2 = \$30,000-\$60,000; 3 = \$60,000-\$75,000; 4 = \$75,000-\$100,000; 5 = \$100K+).

Common Method Variance

Data for this study is self-reported and were collected from a single source. Statistical tests using a correlational marker technique (Lindell and Whitney, 2001) show that common method minimally affects the variance of measurements.

Results

Table 1 presents descriptive statistics for all variables. It shows that the organization did a good job of providing information on WPs to the employees (*mean* 3.72, *s.d.* 1.03), and that 64% of people had good access to these services. However, when it comes to participation, it seems that few initiatives were taken, on average (*mean* 1.88), although there is a significant range of variation (*s.d.* 1.87). It is worth mentioning that employees' level of satisfaction with existing WPs was, on average, particularly high (*mean* 4.94, *s.d.* 1.12). What employees would like to see implemented is a significant number of programs (around 3.78, on average) although few employees would like to change their lifestyle (*mean* 0.1, *s.d.* 0.26). The last variable (n. 11 in Table 1) shows that 46% of employees indicate that they would join an involuntary WP to avoid surcharges.

 Insert Table 1 about here

Pearson's coefficients show small correlations, indicating that there is significant independence among variables. The coefficients show negative correlations between education and gender ($r = -0.22, p < 0.01$), and salary and gender ($r = -0.31, p < 0.001$), and positive relations between salary and education ($r = 0.35, p < 0.001$). Also, gender is negatively correlated with access to the WP initiatives ($r = -0.17, p < 0.05$), indicating that it is slightly more difficult for women to get access to the resources available via the existing WP. Gender is also positively and significantly related to WPDI ($r = 0.29, p < 0.001$) and LSHL ($r = 0.17, p < 0.05$). This indicates that women expressed greater desire for more programs, and it is more likely for them to seek a change in their lifestyle towards healthier habits. The correlation matrix

also shows that the more information that is available to employees, the more satisfied they are ($r = 0.28, p < 0.001$), and the lower income they have ($r = -0.18, p < 0.05$). Interestingly, more informed individuals are also those who participate more in the program ($r = 0.28, p < 0.001$).

Logistic Regression

Table 2 shows log-odds ratios (the coefficients of the regression) for the control and independent variables, and provides goodness-of-fit indices (i.e. Likelihood Ratio Chi-Square, Nagelkerke's pseudo R-square) for each of the models. Model 1 presents control variables. It serves as a baseline to assess the robustness and explanatory power of the other models. The incremental technique of adding sets of variables reveals that Model 2 through Model 5 show consistent results in terms of positive or negative sign of variables. Since coefficients (log-odds) can be interpreted as partial regression coefficients of a multiple OLS regression (Cohen *et al.*, 2003: 493), it is legitimate to expect slight adjustments, as variables are added up to Model 4. Model 4 and Model 5 have the same number of variables and, although diagnostic, may be challenging in logistic regressions (Cohen *et al.*, 2003: 512f). We provide the following explanation for which model to choose. In Model 4, no outliers were excluded from the analysis, while three outliers were detected—using extreme values of residuals—and deleted in Model 5. The goodness-of-fit measures provided at the bottom of Table 2 show that Model 5 has a better fit than Model 4: Nagelkerke's pseudo R-square is higher (0.45 vs 0.56; Nagelkerke, 1991), Likelihood ratio Chi-square is also better for Model 5 (60.08, and 78.86, $p < 0.001$), and the Akaike Information Criterion (AIC) reduces significantly (167.54 vs 144.32) from Model 4 to Model 5. Notably, Table 2 reports the value of C , the area under the receiver operating

characteristic (ROC) curve (Hosmer and Lemeshow, 1991). This value ranges from 0 to 1. It represents the ability of a given model to discriminate between those who participate in WPs to avoid charges, as opposed to those who participate because of perceived health benefits. Model 5's C value is 0.88 and Model 4 shows a similar but lower value, 0.84. According to Hosmer and Lemeshow (1991: 162), values between 0.8 and 0.9 are considered to show excellent discrimination. Model 5 is closer to the upper end of this criterion and also shows significantly better fit than the other models (Model 4 in particular). All the above considered, we conduct our test of hypotheses below, based on Model 5.

 Insert Table 2 about here

Hypotheses Testing

H1a states that assessment of WPs as unfair positively affects the likelihood that involuntary WP participation is due to cost avoidance. The variable fairness is brought in the second model and carries similar results to Model 5 ($\beta = -1.243, p < 0.001$): the higher the perception of WP fairness, the less likely it is that individuals participate because of costs involved. H1a is supported.

H1b investigates the level of satisfaction an employee has with existing WPs, and we argue that low satisfaction is related to a decision based on a cost avoidance strategy. Results from the logistic regression do not support this hypothesis ($\beta = -0.218$), as they fall short of statistical significance. H1b is therefore rejected.

H2a stated that information on current WP resources is not related to a decision to participate

in the involuntary program to avoid surcharges, or to gain health benefits. Information on WPs is measured by two variables: one is the accessibility to the programs (variable *access* in Table 2), while the other is the actual communication on WPs (variable *information* in Table 2). The latter is not statistically significant ($\beta = 0.172$). However, the other variable, testing the accessibility of the programs, is significant and positively related to the decision made to avoid costs ($\beta = 1.687$, $p < 0.01$). In short, generic information seems to have no impact on the decision, while accessibility to initiatives seems to be relevant. There is not enough evidence to accept H2a.

We also hypothesize (H2b) that participation in current WP initiatives is positively related to the decision to participate in the involuntary program, because of health benefits (and not to avoid costs). The variable *participation* is not significant ($\beta = 0.017$). It is worth noting that the three variables *information*, *access* and *participation* are those that contribute least to the overall fit of the models (e.g. delta Likelihood-ratio: 6.4; delta Nagelkerke R-square: 0.04). AIC actually increases moving from Model 2 to Model 3 (166.4 vs 167.3), meaning that there is more information that is lost when the variables are included. H2b is rejected.

H3 states that the higher their income, the less likely employees are to participate in the new WPs only to avoid surcharges (they may because of health benefits). H3 is clearly unsupported by the models.

In H4, we argue that employees who wish to switch to a healthier lifestyle consider engaging in the involuntary WPs because of their health benefits (not to avoid surcharges). This attitude towards change is captured by the variable *likelihood to switch to a healthier lifestyle* (LSHL). The coefficient value has a negative effect on the decision to participate because of cost avoidance ($\beta = -2.904$, $p < 0.05$), and it has one of the strongest effects on the dependent

variable. This implies that the more determined one is to change one's lifestyle, the more likely he/she is to participate because of the perceived health benefits of the involuntary WPs. Hence, H4 is supported.

H5 deals with employees who, expecting more initiatives to be included in the new involuntary WPs, are more likely to join because of potential health benefits (not to avoid surcharges). The independent variable that measures this effect is the *WPs desirability indicator* described above. The coefficient in Model 5 shows a clear negative effect of the desirability of more initiatives in the WPs on the decision to participate to avoid surcharges. In other words, there is a positive relation between the desire to have more WP initiatives and the decision to participate because of perceived health benefits ($\beta = -1.812, p < 0.001$). Therefore, H5 is accepted.

Further Findings

Another interesting result from the model is that gender is significant and positively related to participation based on cost avoidance ($\beta = 2.145, p < 0.001$). This means that there is a gender effect in the models, such that female employees are more likely to join WPs to avoid surcharges. The same positive effect is implied for employees with a higher level of education ($\beta = 0.707, p < 0.05$). The gender effect is the second highest among the regression coefficients.

Discussion

Findings suggest that fairness (H1a), accessibility (H2a), intention to switch to a healthier lifestyle (H4) and desire to see more initiatives implemented (H5) potentially affect the way employees participate in the new involuntary WPs. In contrast, satisfaction (H1b), participation

in existing WPs (H2b), and income (H3) do not affect how employees perceive and justify these new WPs. We discuss the implications of the findings as follows.

Fairness

Previous studies show that there is a relation between participation in WPs and job satisfaction (Parks and Steelman, 2008). In this study we show **the effects of fairness on involuntary WPs**. The perception of the working environment may also affect employees' self-projection, i.e. their sense of identity and psychological wellbeing. Therefore, they take part in WPs because they perceive such programs can improve their health. They evaluate the situation from a more positive angle, because the environment in which they work is seen to be fair. It has long been known from the literature that positive affectivity and perceptions of fairness are related (George, 1991). There is an interesting twist in how we can interpret this element. On the one hand, WPs will reduce health-related costs for the organization, for example in sick leave payments. On the other hand, employees believe that they are doing something good for themselves. Fairness thus contributes to creating a win-win solution for employer and employees alike.

The link between perceptions of fairness and economic vs. health gains may be related to personality, ethical profiles, or other personal characteristics of the individual. We have not covered this aspect in this study. However our results on gender differences and perceptions seem to suggest that there is a dimension related to personal characteristics that can only be implicitly accounted for here.

Access, Information, and Participation in Existing WPs

First, the accessibility of existing WPs does not mean actual participation. Instead, it gives

information on whether participants believe accessibility is easy and available to everyone. The more one believes the service to be accessible, the more likely one will think of it as a cost-saving initiative.

Second, the results show that accessibility has a more significant effect than information.. They show an emphasis on the quality of information, rather than the quantity, as having more of an impact on individual decision-making relating to WPs. This is possibly because of the way we measured these variables. The variable 'information' is based on an assessment that used a 5-point Likert scale, while accessibility is tested as an overall measure of all WP initiatives. The findings show that employees who can access wellness-related initiatives are better informed than those who cannot. Hence, some level of information is likely to be involved in the preference towards cost avoidance. However, the accessibility of an initiative does not solely improve employees' wellness. This is a clear indication to employers that they should both provide employees with sufficient information, and engage them more directly in WP objectives. These two combined together should contribute to improving accessibility, that can proactively lead to real participation in WPs.

This study indicates that participation does not affect either surcharge avoidance or health benefits. Instead, initiatives that are accessible to employees affect those who are concerned with costs. This may be due to two elements. First, initiatives may be accessible and may grant some leverage on the premium, on the assumption that 'showing commitment' is enough. Second, accessibility should be read together with information, which does not match any of the motives to participate. Hence, accessing unknown quality is likely to resonate with uncertainty, hence risks, and risk avoidance in the form of costs or surcharges (e.g. Kahneman, 2003). These two

interpretations are not mutually exclusive, but they are currently based on speculation. Further research may help to understand this aspect better.

The Impact of Change and Expectations

First, findings from this study highlight the likelihood of employees switching to a healthier lifestyle. This is in line with Roman and Blum's (1988) findings that people who adjust their lifestyle and become healthier expect to gain health benefits from WPs, and consequently are more likely to participate in them. The results reflect participants' intentions, not actual behaviors (Ajzen and Fishbein, 2005). However, the intention to change, and hopefully improve one's lifestyle, is a sound basis on which to get the most out of the existing WPs (McCaul *et al.*, 1993). The more change employees see in their lifestyle, the more likely they are to perceive WPs as a mechanism to help them accomplish their goal. The implementation of WPs usually follows an organization's assessment of how healthy employees can contribute more effectively to the organization, in terms of increased loyalty, competence and productivity (Falkenberg, 1987; Parks and Steelman, 2008). In ideal conditions, the organization should highlight what is best for its employees and encourage change, when and where possible. The current study shows that employees with a high tendency to change are likely to see costs (i.e. increased surcharges) as one of the inevitable aspects of implementing involuntary WPs.

Second, employees who put priority on costs allow us to categorize them as high risk-avoidance individuals. In other words, the threat of paying higher premiums is likely to cause some concern for women employees, for example. This suggests that when it comes to benefits and health programs, women tend to see potential risks (in the form of higher costs) more easily

than men. We may interpret findings so that diversity in the workforce reflects the multi-faceted nature of involuntary WPs. In particular, concern over costs may unveil potential for dissatisfaction and frustration, and undermine motivation and performance, consistent with what is in the literature on healthcare costs (Manning *et al.*, 1996). This suggests that HR managers should plan more carefully how to implement health and wellbeing programs. Not taking care of diversity in the workforce may cause discrimination and unethical treatment of employees. From this perspective, our study provides an empirical support to those calling for careful planning of organizational WPs (De Vries, 2010; Horwitz, *et al.*, 2013). We found that gender is a significant element in differentiating perceptions and attitudes towards WPs, and future studies may extend this, by focusing on ethnicity, cross-culture and/or age differences.

Third, employees who think about the future and see themselves as active and agents for change tend to regard the involuntary WPs from a positive viewpoint (i.e. they look at the health benefits). This supports the literature on long-term orientation of employees who focus on health (Rimal, 2006), and it also may be explained by psycho-cognitive mechanisms related to internal locus of control (Steptoe and Wardle, 2001) and self-efficacy (McCaul *et al.*, 1993). These results also help highlight that employees who are already positive about the existing WPs may encourage the workforce to switch to the involuntary WPs. Because they have a positive attitude towards WP change, other, more reluctant employees may follow their example. This seems a relevant element for organizations that attempt at the effective implementation of WPs. It is clear that participation is the key in any WPs (see above). Having a positive participation within the workforce may depend on their role and number. For example, if those showing positive attitudes toward the new WPs are all coming from management positions, this may create or

increase a divide between regular employees and management. The outcome will be a culture of ‘us’ and ‘them’ in the organization. The second point deals with numbers. In our study, findings show a statistically significant result, indicating that those who feel positive about changing their lifestyle are likely to do so because of improved health benefits of the new WP. However, these employees may be limited in number. If this is the case, then there is a risk of an ‘elite’ bunch of health-oriented individuals, as opposed to the vast majority of employees, who are either indifferent or more reluctant.

In summary, the introduction of involuntary WPs should be done very carefully, in an attempt to reduce perceived discrimination, limit the ‘snob’ effect, and try to produce a ‘bandwagon’ effect instead (*own work studying intra-organizational bandwagon, 2013*).

Limitations and Future Research

One of the most significant limitations of this study relates to the survey and the measures. Negotiations with the HR department of the company led to too many constraints on what we could, or could not ask. This resulted in a short questionnaire with a few multi-item scales. Although we believe the findings of the study are sound in presenting issues related to a relatively new phenomenon, and can help to shape up relevant theory in this research area, they may have been more accurate with a better survey design.

Secondly, the study was conducted in one large organization, with clear implications for the generalizability of results. Given the newness of involuntary WPs, this study should be considered exploratory in nature. For this reason, and consistently with some of the literature on WPs, we believe that information gathered from the study is relevant, and opens multiple new pathways to more research in the future.

This study suggests that cognitive dissonance could be an interesting topic for future research. For example, what if employees fail to justify why they participate in such programs? What if employees are not successful in avoiding surcharges? What if health benefits become unavailable? How do they justify the programs then? Should they start perceiving WPs to be unfair, hence give up and pay more? In addition, and as suggested above, it may be a good idea to match results with personality measures, ethics and social responsibility, motivation, job satisfaction, and other organizational and individual characteristics.

Another potential limitation of the study is reverse causality. For example, we cannot exclude that people who join a WP out of a desire for the health benefits may expect the company to create more wellness initiatives. Although the study analyzes the opposite relationship, we are not able to assess whether a reverse effect may be likely. A different method for data collection and a path analysis could be employed in a future study.

Future research should also extend the current study to other organizations and industries. Three promising directions might be: (1) focusing on how culture and ethnic background affects the perception of voluntary and involuntary WPs; (2) analyzing whether perceptions of fairness affect employees' willingness to partake in mandatory WPs; (3) focusing on policy questions such as: Can you 'force' an individual to be healthy? What is the cost of forcing somebody to do something? Is this a derivative of Taylorism?

Conclusions

In conclusion, we suggest that a dichotomy between an organizational strategy oriented towards cost savings, and another oriented towards personal health of employees can be reconciled if a 'wellness culture' is implemented. We believe this research supports the need to

implement WPs, participation in which can potentially reduce absenteeism, improve productivity and boost job satisfaction. However, the risk of *involuntary* programs is that employees may perceive them as an imposition, which can, in turn, be detrimental to them and to the organization.

This study suggests that fairness, accessibility, intention to switch to a healthier lifestyle and desire to see more initiatives implemented affect the way employees participate in the new involuntary wellness programs. In contrast, satisfaction, participation and income do not affect how such WPs are perceived. These findings suggest that HR managers should also pay attention to employees who are not active in existing WPs, and provide support during the transition towards the new involuntary programs, to avoid potential frustration, demotivation, disengagement and, ultimately, decreasing performance.

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Figure 1. Theoretical framework and hypotheses

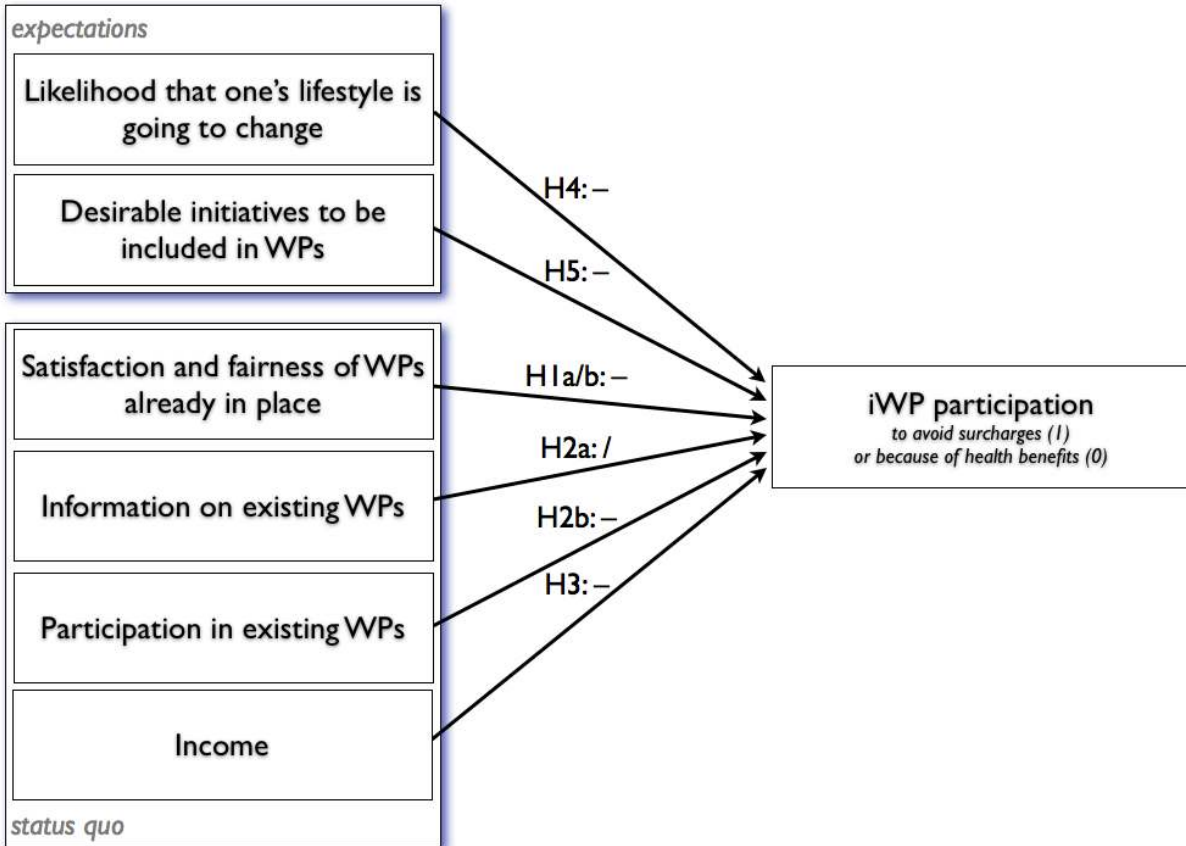


Table 1. Descriptive Statistics

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1 Age	36.27	10.33	-										
2 Gender	0.59	0.49	0.01										
3 Education	2.85	1.01	0.03	-0.22**									
4 Salary	2.16	0.90	0.26**	-0.31***	0.35***								
5 Satisfaction	4.94	1.12	-0.01	0.06	-0.14†	-0.07							
6 Fairness	3.02	1.27	0.16*	0.02	0.17*	0.19*	0.20*						
7 Information	3.72	1.03	-0.02	0.05	0.04	-0.18*	0.28***	0.07					
8 Access	0.64	0.48	-0.09	-0.17*	0.00	-0.14†	0.02	0.06	-0.01				
9 Participation	1.88	1.87	-0.04	0.09	0.07	-0.15†	0.02	0.04	0.28***	-0.02			
10 WPDI	3.78	0.58	0.09	0.29***	0.04	0.03	0.02	0.01	0.13	-0.10	0.33***		
11 LSHL	0.10	0.26	0.02	0.17*	-0.08	-0.06	0.08	0.36***	0.12	-0.01	0.20**	0.18*	
12 Avoid charges	0.46	0.50	-0.07	0.04	0.09	-0.04	-0.14†	-0.31***	-0.06	0.17*	-0.06	-0.26**	-0.34***

Notes. Significance codes: ****: $p < .001$; ***: $p < .01$; **: $p < .05$; †: $p < .1$; WPDI: Wellness Programs Desirability Index; LSHL: Likelihood to Switch to a Healthier Lifestyle; Participation: it refers to number or current WP initiatives taken; Avoid charges: it refers to those that indicated to select future involuntary WPs in an attempt to avoid potential surcharges if found unhealthy.

Table 2. Results of Logistic Regression Analyses for Participation to Avoid Surcharges

	Model 1	Model 2	Model 3	Model 4	Model 5
(Intercept)	-0.573 (0.886)	0.890 (1.382)	0.002 (1.575)	3.906 [†] (2.214)	5.445* (2.526)
Age	-0.021 (0.018)	0.003 (0.020)	0.000 (0.020)	0.003 (0.020)	0.007 (0.023)
Gender	0.415 (0.387)	0.523 (0.445)	1.115* (0.496)	1.439** (0.515)	2.145*** (0.610)
Education	0.449* (0.199)	0.844*** (0.243)	0.791** (0.248)	0.397 [†] (0.236)	0.707* (0.276)
Salary	-0.135 (0.223)	0.085 (0.263)	0.135 (0.278)	0.337 (0.293)	0.435 (0.335)
Satisfaction		-0.119 (0.186)	-0.132 (0.203)	-0.145 (0.211)	-0.218 (0.238)
Fairness		-1.132*** (0.224)	-1.118*** (0.219)	-0.852*** (0.218)	-1.243*** (0.276)
Information			0.050 (0.215)	0.165 (0.221)	0.172 [†] (0.245)
Access			1.314** (0.464)	1.180* (0.464)	1.687** (0.535)
Participation			-0.217 [†] (0.119)	-0.017 (0.128)	0.017 (0.144)
WPDI				-1.213** (0.434)	-1.812*** (0.517)
LSHL				-2.821** (1.045)	-2.904* (1.166)
Nagelkerke R-sq.	0.067	0.364	0.404	0.447	0.563
Likelihood-ratio	7.315	45.479	51.868	60.080	78.864
<i>p-value</i>	0.120	0.000	0.000	0.000	0.000
AIC	199.285	166.418	167.314	167.536	144.317
C	0.63	0.81	0.82	0.85	0.88
N	142	143	144	147	144

Notes. Significance codes: '***' $p < .001$; '**' $p < .01$; '*' $p < .05$; '[†]' $p < .1$; *WPDI*: Wellness Programs Desirability Index; *LSHL*: Likelihood to Switch to a Healthier Lifestyle; *Participation*: it refers to number or current WP initiatives taken; AIC: Akaike Information Criteria; C: area under the receiver operating characteristic (ROC) curve.