The objective of this study was to investigate wellbeing in a random sample of nutritionists, using body image, and social and personal variables as causal factors, in an exploratory, cross-sectional study. Statistical treatments included descriptive analyses, t-tests, ANOVAs, and linear regressions. The 242 participants perceived themselves frequently in a wellbeing state at work (M=3.8); 25.6% of participants presented a mildly distorted body image, 14.5% a moderately distorted body image, and 7.5% a severely distorted body image. Social and personal variables, such as having children and the level of personal income, were associated with wellbeing. Body image had a significant negative impact of 3.2% on wellbeing.

Keywords: well-being, body image, profession, nutritionists.
Body image can be defined as a multidimensional construct that broadly describes self-representations of the body and physical appearance in relation to us and others (Banfield & McCabe, 2002; Cash & Prusinsky, 2002; Damasceno et al., 2000; Gleaves, Williamson, Eberenz, Sebastian, & Barker, 2001).

Currently, body image is also described as the ability to make a mental representation of the body, which is characteristic of each individual. This image involves aspects related to structure (size, dimensions) and appearance (shape, aspect), the way the body is represented and surrounded by immediate sensations and experiences, and many other psychological and physical self-image components (Bardone-Cone, Harney, & Sayen, 2011; Nazrat, Mackey, Armstrong, Jaramillo, & Palmer, 2011; Novaes, 2006). However, the definitions of construct are not exclusive but complementary. This study uses the definition given by Braggion, Matsudo, & Matsudo (2000), because of the proximity of the object (nutrition).

From the viewpoint of nutrition, ideal body shape depends on biotype, height, weight, level of physical activity, and emotional status. Nevertheless, nutrition students and professionals are also subject to fashion dictates and tend to suffer more than other professionals from disturbances linked to body image disorders (Bosi et al., 2006; Fiates & Salles, 2001; Fredenberg, Berglund, & Dieken, 1996), which tend to affect their performance at work.

By virtue of their work, nutritionists expect for themselves and their patients a perfect body. How then do they cope? How can they carry on their professional practice and keep the required distance to maintain their professional identity? (Akutsu, 2008; Akutsu & Paz, 2011). How can they remain in the labor force in such changing times? (Andrade & Lima, 2003; Conselho Federal de Nutricionistas - CFN, 2005a).

Evidently, nutritionists are not the only ones affected by these changing times. According to Sennett (2006), labor flexibility, many more responsibilities, new work arrangements, and increased risk of unemployment have eroded personal identity and made it more difficult for individuals to have a coherent and significant life, which evidently affects wellbeing at work (Paz, Gozendo, Dessen, & Mourão, 2009; Akutsu & Paz, 2011).

Concern with wellbeing and health has led to a fruitful production of studies on this topic. The different areas that address the concept of wellbeing also reveal different interests regarding the subject (Gozendo & Paz, 2007; Paz et al., 2009). In this article, wellbeing will be approached from the perspective of work psychology (Passareli & Silva, 2007), since the object of the study is the nutritionist’s wellbeing at work.

Paz et al. (2009) see wellbeing as a personal dimension, contextualize it in the workplace,
Body Image and Wellbeing at Work of Nutritionists

and define it as meeting the needs and wishes of individuals in their work roles, without disregarding the opposite: the malaise caused by not meeting needs and desires on a daily basis.

In a society that values slim bodies, it is obvious that a professional who takes care of nutrition is subject to socio-cultural rules that perpetuate the stereotype of the association between thinness and positive attributes, especially among women (Friedman & Brownell, 1995; Ogden & Evans, 1996; Paul & Brownell, 2001). These rules permeate not only the private life of these individuals, but also their professional behavior.

In this sense, the strategies for coping with body image distortions associated with wellbeing at work may follow the propositions of Akutsu and Paz (2011) related to changes in the content of work, in vocational training, and in body conception.

The aim of this research was to investigate the wellbeing of nutritionists, using body image, and social and personal variables as causal factors. This study was conducted because the relationship that individuals have with their bodies and wellbeing at work is essential for good performance. Also, investigation of body image disorders contributes to self-knowledge and strengthens a profession that works with health and nutrition.

Method

Participants

This descriptive, exploratory, cross-sectional study consisted of a sample of nutritionists that met the following inclusion criteria: females having a permanent registration in the Regional Council of Nutrition – 3; and/or working in the State of São Paulo.

Male nutritionists were excluded from this research project because several studies suggest that this is a predominantly female profession with about 97% of women (Akutsu, 2008; CFN, 2005a) and because women are more exposed to distortions of body image (Bosi et al., 2006; Andrade & Lima, 2003).

Procedures

In 2010, the Union of the Nutritionists of São Paulo allowed access to their databank with data on 2,588 nutritionists registered for life. Of these, 249 answered the questionnaires. Five males and two unemployed females were excluded from the sample because they did not meet the inclusion criteria.

Together with the questionnaires sent by e-mail, each participant also received a letter explaining the purpose of the study and a free and informed consent form. This form was signed electronically and returned with the questionnaires (Gunther & Gouveia, 1995).

The study was approved by the Research Ethics Committee (CEP) of the Federal University of São Paulo/Hospital São Paulo, UNIFESP. In accordance with CEP Resolution 466/2012 (Ministério da Saúde, 2012), participants were assured of the confidentiality of the study.

Instruments

A structured questionnaire with variables such as age, marital status, number of children, monthly income, education level, religion, field of work, and regular physical activities, was developed to determine if these socio-demographic factors affect nutritionists’ body image and wellbeing.

These variables were identified in previous studies by Akutsu and Paz (2011), Bosi et al. (2006) and Bosi, Luiz, Uchimura, and Oliveira (2008) as intervening body image and personal wellbeing of nutritionists.

Wellbeing was quantified by means of the Individual Wellbeing Scale at the Workplace, constructed and validated by Paz et al. (2009).

The original instrument containing 15 items, a single reliability factor of .91 (Cronbach’s alpha), and a 5-point scale was adapted to the
profession of dietician by Akutsu and Paz (2011) and statistically validated with 14 items and a single reliability factor of .88.

The instrument used in this study was statistically validated and consisted of 14 items, a single reliability factor of .85 (Cronbach’s alpha), and a 5-point scale, which varied from 1 (never) to 5 (always).

Body image was researched using the Body Shape Questionnaire (BSQ), which consists of 34 questions in the form of a Likert scale with the following answers: 1=never; 2=rarely; 3=sometimes; 4=frequently; 5=very frequently; 6=always. This instrument was developed by Cooper, Cooper and Fairburn (1989) and translated into Portuguese by Cordás and Castilho (1994). It investigates people’s concerns with body shape (Conti, 2008; Cordás & Castilho, 1994).

The original instrument presents a single reliability factor of .97 (Cronbach’s alpha). The translated version was statistically validated by Di Pietro and Silveira (2009) and contains 34 items and a single reliability factor of .97 (Cronbach’s alpha).

The instrument used in this study was statistically validated and unmodified. Statistical validation showed that the reliability of the instrument was .96 (Cronbach’s alpha). Total score is calculated by adding the 34 answers. Thus, the total score varies from 34 to 204 points, and the classification varies from <80 for no distortion; 80-110 for mild distortion; 111-140 for moderate distortion; and >140 for severe distortion.

The statistical analysis was done by the software Statistical Package for Social Science – SPSS, version 17.0 and JMP 7.0 and included descriptive analyses (frequency, mean, median, mode and standard deviation) for the wellbeing and body image data for sample characterization. T-test, analysis of variance (ANOVA), and linear regression were used to determine the demographic variables that affected nutritionists’ wellbeing and body image. The confidence interval (CI) was 95% and the significance was \( p < .05 \) (Costa, 2003). Statistical decision errors were minimized and identification and treatment of outliers were carried out.

**Results**

The nutritionists who participated in this study were between 21 and 62 years of age (\( \bar{M} = 29.9 \) years, \( SD = 8.1 \)). Of these, 22.5% (\( n = 54 \)) had bachelor’s degrees; 56.2% (\( n = 136 \)) had specialization degrees; 16.5% (\( n = 40 \)) had master’s degrees; and 5.0% (\( n = 12 \)) had doctoral degrees. The mean income was 1,200.00 USD per month and the median salary was 965.00 USD per month. Note that salaries varied from 170.00 USD to 5,670.00 USD per month.

Of all the nutritionists who participated in the study, 55.8% (\( n = 135 \)) had a partner; 19.8% (\( n = 48 \)) had children; and 58.7% (\( n = 142 \)) practiced some type of physical activity.

The answers regarding field of work were grouped into the major fields of nutrition, according to the Federal Council of Nutritionists (CFN, 2005a). The clinical area presented the greatest number of nutritionists (\( n = 63, 26.1\% \)), followed by nutritionists who work in more than one area (\( n = 60, 24.8\% \)), nutritionists who work in production (\( n = 48, 19.6\% \)), social nutrition (\( n = 28, 11.6\% \)), and, finally, those who work in academia (\( n = 18, 7.4\% \)). The other fields reported by the nutritionists (sports nutrition, food marketing, daycare facilities, sanitary surveillance, administration/commerce, sales, consulting, food analysis) were grouped into the category “other fields” (\( n = 25, 10.3\% \)).

More than half (\( n = 125, 51.6\% \)) the participants were Catholic; 16.5% (\( n = 40 \)) practiced spiritism; and the remainder (\( n = 29 \)) practiced other religions, such as Methodism, Judaism, Messianic, Evangelical, while others; 9.0% (\( n = 22 \)) reported not having a religion but believing in God. Nine percent (\( n = 22 \)) did not answer this question.

According to the mean score of the body image questionnaire, nutritionists from the State
of São Paulo have a mildly distorted body image ($M=85.3$, Table 1). Of the nutritionists who answered the instrument, 52.5% ($n=127$) did not have any distortion of body image, 25.6% ($n=62$) had mild distortion, 14.5% ($n=35$) had moderate distortion, and 7.4% ($n=18$) had severe distortion.

None of the studied demographic variables affected body image (Table 2). However, as nutritionists’ income increases, distorted body image decreases wellbeing ($p=.2701$, $f=2.298$). Also, nutritionists frequently experience wellbeing at work, since their mean score on the relevant instrument exceeded the midpoint of the scale ($M=3.8$, Table 1). Regarding wellbeing, the variance of the demographic variables marital status, education level and religion was not significant (Table 2).

There is a significant relationship between age group and wellbeing ($p=.000$, $f=7.718$): as age group increases, wellbeing also increases. Thus, nutritionists over the age of 40 (41-50 and more than 51) experience a significantly greater wellbeing than those aged 21 to 40 (21-30 and 31-40; Table 2).

Nutritionists’ income was also significantly associated with wellbeing ($p=.0001$, $f=18.146$). Hence, wellbeing increased with income (Table 2).

Nutritionists who had children and those who practiced physical activities regularly experienced more wellbeing than those that did not present these characteristics (Table 2).

Nutritionists in academia and those who work in more than one area did not have a distorted body image (the means were 74.2 and 79.8, respectively). These nutritionists ($p=.013$, $f=4.91$) perceived wellbeing significantly differently from those who work in all the other areas (Table 2).

The results showed that body image has a significant negative impact on wellbeing and is responsible for 3.2% ($r^2=.032$, and $p<.005$) of nutritionists’ wellbeing. Therefore, as distortion of body image decreases, wellbeing increases.

### Table 1

**Measures of central tendency and dispersion of body image and wellbeing of nutritionists from the State of São Paulo**

<table>
<thead>
<tr>
<th>Model variables</th>
<th>Mean</th>
<th>SD</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body image</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without distortion</td>
<td>60.5</td>
<td>11.6</td>
<td>60.5</td>
<td>37.0</td>
<td>79.0</td>
</tr>
<tr>
<td>Mild distortion</td>
<td>92.7</td>
<td>7.6</td>
<td>90.5</td>
<td>80.0</td>
<td>108.0</td>
</tr>
<tr>
<td>Moderate distortion</td>
<td>122.7</td>
<td>7.2</td>
<td>123.0</td>
<td>111.0</td>
<td>137.0</td>
</tr>
<tr>
<td>Severe distortion</td>
<td>159.5</td>
<td>13.2</td>
<td>159.0</td>
<td>141.0</td>
<td>194.0</td>
</tr>
<tr>
<td>Total</td>
<td>85.3</td>
<td>32.8</td>
<td>78.0</td>
<td>37.0</td>
<td>194.0</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>3.8</td>
<td>0.6</td>
<td>3.8</td>
<td>2.2</td>
<td>5.0</td>
</tr>
</tbody>
</table>

### Table 2

**Significance level of the variance of body image, wellbeing of nutritionists and demographic variables from the State of São Paulo**

<table>
<thead>
<tr>
<th>Model Variables</th>
<th>Age group</th>
<th>Education level</th>
<th>Personal income</th>
<th>Marital status</th>
<th>Children</th>
<th>Physical activity</th>
<th>Working areas</th>
<th>Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F$</td>
<td>Sig</td>
<td>$F$</td>
<td>Sig</td>
<td>$F$</td>
<td>Sig</td>
<td>$F$</td>
<td>$F$</td>
</tr>
<tr>
<td>BSQ</td>
<td>2.13</td>
<td>.340</td>
<td>2.03</td>
<td>.323</td>
<td>2.29</td>
<td>.270</td>
<td>2.73</td>
<td>.051</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>7.71</td>
<td><strong>.001</strong></td>
<td>4.77</td>
<td><strong>.003</strong></td>
<td>18.14</td>
<td>.008</td>
<td>4.19</td>
<td>.114</td>
</tr>
</tbody>
</table>

**.000** indicates statistical significance at the 0.05 level.
Discussion

The prevalence of the age group, education level, marital status, children, and working area variables of nutritionists of the State of São Paulo is similar to that found in studies done by the Federal Council of Nutritionists (CFN, 2005a) and by Akutsu (2008), confirming that most nutritionists are young, married, hold a graduate degree, have children, and are Catholic.

The average income of nutritionists is 915.00 USD per month, lower than that found in this study (CFN, 2005a, 2005b). The Conselho Regional de Nutricionistas (CRN-3) found that 416 nutritionists from the State of São Paulo had a mean salary of 876.00 USD per month. This amount is also below that of the present study. The difference is possibly due to the inflation observed during the 2005-2009 period, years in which the two studies were done (CFN, 2005a).

When the fields of work are compared, academia has the highest mean salary (1,232.00 USD per month), both in regional and national studies (1,067.00 USD per month; CFN, 2005a). In the present study, nutritionists who work in this area have a mean salary of 2,950.00 USD per month.

Another important factor was pointed out by Crespo and Reis (2009), who showed that education level had a significant impact on income. Therefore, not only does every extra year of education increase income, but this increase can be very significant if a diploma is involved, that is, if the person completes any of the phases (elementary, high school, college, etc.) of formal education. For higher education, the estimated diploma effect was 23%, which encourages professionals to seek further education as a means of keeping up to date and competitive.

The unemployment rate found by this study was 0.8%. The rate found by Akutsu (2008) was 3.5%. Among women, this rate is 22.2% and among those who have 12 or more years of education, it is 3.9% (Banco Mundial & Instituto de Pesquisa Econômica Aplicada - IPEA, 2002). These results show that, although nutritionists’ salaries are not high (they are roughly around 4.3 minimum wages), unemployment was lower among nutritionists than among women with 12 or more years of education, indicating that survival conditions worsened and certainly impacted the health of these professionals.

In Brazil, the likelihood of education improving income is indisputable. In a report on inequality, the World Bank and IPEA (2002) showed that, as recent graduates enter the labor force, inequality decreases because education is better distributed (Akutsu, 2008; Banco Mundial & IPEA, 2002; Crespo & Reis, 2009). Thus, this search for success, independence, authority, power of influence, and change in the status quo affects sociopolitical issues, probably by decreasing social inequality.

In summary, the notion of wellbeing/quality of life belongs to a polysemous semantic field: on the one hand, it is related to way of life, life conditions, and lifestyles (Castellanos, 1997). On the other, it includes the ideas of sustainable development and human ecology. And, finally, it relates to the field of democracy, development, and human and social rights.

As regards health, concepts come together in a collective construct of the resulting social standards of comfort and tolerance that a particular society establishes as parameters, especially in the workplace.

The results of the present study show that there is a mildly distorted body image in the studied population and in the population studied by Stipp and Oliveira (2003), which consisted of 239 undergraduate nutrition and psychology students from Piracicaba. They noticed that these students had a certain tendency to distort body image. Stipp and Oliveira (2003) also observed that there was a strong tendency of the students to overestimate their body size, which, according to the authors, characterizes anorexia nervosa when excessive.

In a sample of 220 students, Costa and Vasconcelos (2010) observed a high prevalence of
rejection of physical fitness among university students. Thus, these results indicate that nutritional education is needed at universities to clarify and prevent abnormal eating attitudes among students.

These results are worrisome because this study found that a significant number (n=115) of nutritionists presented some degree of body image distortion. This can influence how these nutritionists take care of their own health and, especially, how they treat their patients. It may also have a negative impact on their eating behavior and on their conduct towards their patients.

It is common for young professionals to have a distorted body image, probably because younger people (adolescents and young adults) are more influenced by the media (Barros, 2005; Serra & Santos, 2003).

The number of women who are unhappy with their bodies and the search for the perfect body has been increasing, as reported by Bosi et al. (2008). The results obtained by these authors with 193 nutrition students and 191 physical education students from Rio de Janeiro in 2006 and 2008, respectively, are similar to those of this study, that is, these students have a mildly distorted body image (Bosi et al., 2006; Bosi et al., 2008).

Findings of the present study regarding concern with appearance and regular practice of physical activity are similar to the abovementioned study of 2006, where more than half of the sample practiced some sort of physical activity. This confirms the possibility that one is subject to some degree of pressure to acquire an ideal look, as pointed out by Serra and Santos (2003).

As for wellbeing, similar results were found by Akutsu and Paz (2011), where nutritionists report that they frequently experience wellbeing. These results confirm that nutritionists experience wellbeing at work and that their body image has little effect on it.

The only study that researched the wellbeing of nutritionists is the already mentioned study done by Akutsu and Paz (2011). In this study, the authors assessed the impact of general values and work values on wellbeing and found that these personal variables had an impact of 7.6% ($r^2=.076$) and 11.5% ($r^2=.115$), respectively, on the wellbeing of nutritionists (Akutsu & Paz, 2011). These results corroborate the findings of the present study and reinforce the idea that personal variables have a low predictive power on professionals’ wellbeing. Once again, the low power of the personal variables to predict wellbeing is confirmed. The studies done by Gozendo and Paz (2007) and Paz et al. (2009) confirm this weak relationship.

Although the abovementioned studies cover personal wellbeing in organizations, which would not allow comparisons with the personal wellbeing of nutritionists variable, it is interesting to note that other variables should be considered, especially organizational variables, such as perceived fairness within the organization, functioning styles, and organizational support, among others, when analyzing wellbeing, and consequently, the workers’ health.

The results of how body image impacts nutritionists’ wellbeing cannot be compared with other studies that limit wellbeing to organizations, since this study did not contemplate the organizational dimension. However, some studies have been done and report the impact of many variables on wellbeing in organizations. Organizational variables have also proved to be better predictors of personal wellbeing as reported by Gozendo and Paz (2007) and Paz et al. (2009).

These results evidence the low predictive power of personal variables on wellbeing, whether inside or outside organizations. Given the above, it is important to emphasize that organizations are responsible for providing environments that promote the wellbeing of their employees.

In this study, the demographic variables marital status and having children did not affect body image significantly. However, having children affected wellbeing. It is possible that these results reflect the proposition made by Ellison...
(2005), who affirms that the experience of having a child activates women’s minds and improves their perception, their motivation for tasks, including those at work. Ellison also explains that, from the neurological point of view, having a child represents a revolution in the brain (Hoffmann & Leone, 2004). Furthermore, work stability is probably reached before the first child arrives, and this is one of the factors pointed out by nutritionists who experience wellbeing.

Nutritionists who practice physical activities reported experiencing more wellbeing and had a less distorted body image. This can be attributed to the relationship between healthy practices and physical activity, which bestows better health and a better disposition to carry out daily life activities, or more capability of using the body to fulfill wishes (Fermino, Pezzini, & Reis, 2010). On the other hand, it shows that nutritionists need to be committed to physical activity in order to perceive themselves in well-being at their work, once this practice integrates nutritional recommendations to their patients (Sichieri, Coitinho, Monteiro, & Coutinho, 2000).

The distribution of nutritionists in the various fields of work was similar to that found by CFN in 2005 (2005a, 2005b), who found that clinical nutritionists are the majority, but differs from the data found by Akutsu (2008) for the southeastern region of the country, who found that most nutritionists work in more than one area. This result indicates that, today, there are more nutritionists working in health areas in the State of São Paulo, the state with the largest industrial park in Brazil, which can influence, for example, public, social and health policies, since nutritionists have been seeking inclusion (Ministério da Educação - MEC, 2009).

Although professionals have been seeking alternatives to face the battles for new openings in the labor market (two jobs, two areas), the most traditional occupation areas reveal the strength of the market and are in line with privileged areas in graduate courses (MEC, 2009).

Employment uncertainty evidenced by individuals who have more than one job or activity (30.6%) should also be emphasized. It is possible that people seek more than one job because of the low salaries (CFN, 2005a, 2005b). These data confirm the reasons reported by the nutritionists of the CFN study (CFN, 2005a, 2005b) for migrating from one working area to another (low salaries, no work perspective, qualification in some other area, competition in the area, market slowdown, personal preference and opportunity) and also reinforce findings that indicate employment uncertainty for women (Banco Mundial & IPEA, 2002; Hoffmann & Leone, 2004; Fundação Instituto Brasileiro de Geografia e Estatística - IBGE, 2009).

The percentages of different religions found by this study is similar to that found by the CFN study, but this variable presented no relation with body image and wellbeing at work (Akutsu & Paz, 2011). Given the above, it is important to emphasize that organizations are responsible for providing environments that promote the well-being of their employees.

**Conclusion**

The present study presented limitations regarding data collection, which was done by e-mail. Some nutritionists who received the e-mail may have felt overwhelmed by the number of attachments, since answering them all would demand much time, so they chose not to participate. Another important factor which limited the number of respondents was the inability to follow the instructions given in the presentation letter. Many answers were lost because the attachments were returned blank.

According to the data collected by the present study, demographic variables did not affect body image, as reported by Stipp and Oliveira (2001), Costa and Vasconcelos (2010) and Bosi et al. (2006, 2008). However, not all demographic and environmental variables that could affect body image were investigated, such as the television
programs that they watch, the magazines that they read, places that they go, among others.

The nutritionists who participated in this study presented a mild distortion of body image and this affected their wellbeing. This is worrisome and should be investigated further with a qualitative modeling that contemplates the reasons for the distortions, how they affect wellbeing, and what consequences they have on a health professional’s health.

Happiness and excellence have been pointed out as two scientific concerns of the 21st century, and, in this sense, the study tried to research the wellbeing of nutritionists using body image and demographic characteristics as causal factors. The results revealed that nutritionists from the State of São Paulo are young, married without children, Catholic, practice physical activity, have a graduate degree and work in the clinical area. They have a mildly distorted body image and frequently experience wellbeing at work. Their body image has an influence of 3.2% on their wellbeing.

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