

# Body and Health, Mind and Wellness I: Effects of a Psycho-Educative Intervention for Healthy Human Development in Students of Nursing

T Romo González<sup>1,\*</sup>, CB Enríquez Hernández<sup>2</sup>, NA Riego Azuara<sup>2</sup>, OD Sánchez-Gracida<sup>2</sup>, G López-Mora<sup>2</sup>, C Gantiva<sup>3</sup>, C Larralde<sup>4</sup>

<sup>1</sup>Grupo de Biología y Salud Integral, Instituto de Investigaciones Biológicas, Universidad Veracruzana, Xalapa, Veracruz, México

<sup>2</sup>Facultad de Enfermería, Universidad Veracruzana, Veracruz, Veracruz, México

<sup>3</sup>Grupo de investigación Avances en Psicología Clínica y de la Salud, Facultad de Psicología, Universidad de San Buenaventura, Bogotá, Colombia

<sup>4</sup>Departamento de Inmunología, Instituto de Investigaciones Biomédicas, Universidad Nacional Autónoma de México, México D.F

\*Corresponding author: [tromogonzalez@uv.mx](mailto:tromogonzalez@uv.mx)

Received May 08, 2013; Revised May 18, 2013; Accepted May 20, 2013

**Abstract** In recent times, research performed with students of Universidad Veracruzana (UV), Veracruz region, has revealed a diversity of physical and psychological problems that affect their academic performance and well-being. In this study a “*Psycho-Educative Intervention (PEI): Self-knowledge and Care of the Soul*” was applied to 45 student volunteers, 27 in the Experimental Group, and 18 in the Controls Group. The PEI consists of 15 sessions (daily from Monday to Friday). To determine the effectiveness of PEI, a comparison was made between the scores obtained by the students Before and After PEI in five questionnaires. Results demonstrated that the PEI significantly bettered the scores of the Experimental Group with respect to Controls, in both Women and Men, although it was more effective in rising the initially lower scores of Men than it was in rising the initially higher scores of Women.

**Keywords:** *health, wellness, college students, psychoeducative intervention*

## 1. Introduction

According to the World Health Organization [1], the health of youths (15 to 24 years) is a key element for social, economic and political progress of all nations. Nonetheless, rarely in Mexico do these indications stimulate national concern towards the young, their needs and their rights are as a priority of public policy, excepting if their behavior implies problems for the society at large. One of the factors possibly contributing to this oversight is that, in contrast to children and adults, youths suffer from fewer diseases which constitute a threat to their lives or to the lives of others, excepting those of suicidal impulses, drunk-driving and intoxication by alcohol and drug abuse.

Considerable economic and social difficulties arise in Mexico when a young person is not able to reach adulthood in good health, with an adequate education and without risky practices or situations (e.g., criminality, drug addiction, victim or victimizer of irresponsible parenthood, unemployment, unprotected sexual practices, unplanned or unintended pregnancies, political dissension...), the resulting costs of which are usually much higher than those of programs to promote healthful behavior [2,3].

This being the case in Mexico, it would seem worthwhile for the immediate future of the nation to invest in promoting the development of its youth by incorporating them in plans and programs that aspire to

their health and well-being, as well as to consider the risks associated with behaviors or specific situations that imply damage to themselves and others [4]. It is not surprising that such is the state of education in Mexico and in other underdeveloped countries since, in recent years, research conducted with college students of developed countries has revealed high rates of unhealthy behaviors of the young which impact their overall health and quality of life such as use and abuse of licit and illicit drugs [5] and failing to engage in health promoting behaviors [6,7]. Similarly, the students of Universidad Veracruzana (UV), Veracruz region, have revealed a diversity of problems that affect both their academic performance and well-being, making them vulnerable to a series of health risk factors (i.e, unprotected sexual practices, alcohol consumption, smoking, drug abuse, violence, etc.) [8,9,10], but more and diverse research is necessary to really be acquainted with and cope with the purpose of bettering the health and well-being of its students and their academic performance. It is then evident that the universities are confronted by the challenge of not only forming technically competent professionals but also with that of establishing an environment propitiatory of a healthful behavior of their students, exemplary for all society.

The UV complies with the foregoing when it reaffirms the principles for the integral education (as professionals and as persons) of its alumni and promotes learning towards a healthy lifestyle that will further the personal and social development of the human resources thus

formed. "Integral Education" (IE) intends to strengthen the students' responsibility, ethics, criticism, participation, creativeness, social solidarity and capacity to recognize and interact fruitfully with their environment, and thus construct their own personal cultural identities. IE promotes human development through a process that assumes a multidimensional vision of the individual and tends to develop their emotional, intellectual, social, material and ethical intelligences in order to approach fullness in their lives and to learn how to gain knowledge, to act, to undertake and to coexist [11]. In the learning of a profession IE implies not only the acquisition of a specific body of knowledge and techniques of the profession proper but also the adoption of values, attitudes and behaviors that contribute to the students' participation in the transformation and improvement of the social environmental conditions and their own personal wellness. Thus, it is advisable to teach the students how to find the purpose, joy and meaning in their lives, that will provide them with better ways of feeling and valuing daily life and present times, besides facilitating positive sentiments and thoughts [12,13].

Several universities have developed preventive education programs on their students' Health and Wellness (H&W) issues [7]. However, the majority of interventions address single behaviors, neglecting the abundant studies that document the prevalence of multiple and various risk behaviors among youngsters [3,7,14]. Addressing students' H&W by individual issues in separate programs would require of a greater number of programs and may prove less attractive and less effective than multiple-behavior programs [3,15]. Considering the above, Positive Youth Development (PYD) recognizes the strengths of youths and values the contributions they can make towards their own H&W and maximizes their individual strengths through meaningful societal roles and community-based activities [16]. PYD may serve as an important protective factor for individuals [17,18,19], as is shown by those who possess increased developmental assets are less likely to indulge in violent and aggressive behaviors [20], tobacco use [21], risky sexual behaviors [22,23] and alcohol and drug use [24]. We elaborated the Psycho-Educative Intervention (PEI) "*Self-knowledge and Care of the Soul*" with the purpose of integrating professional learning and promoting healthful lifestyles in the students of UV by the acquisition of the "Skills for Life": self-knowledge, empathy, assertiveness, social relations, decision making, solving of problems and conflicts, creativeness, criticism and management of emotions, feelings, and stress [25,26,27]. This was accomplished through a workshop in which the students practiced changes in their approach to physical, mental and social health which, if left unattended, might affect the academic situation of the students and cause them to fall behind in their formation and even to desert from the university, and might also deteriorate their H&W [28,29,30]. As mentioned before, we started with the idea that H&W are inborn attitudes of human being, which, however, may be educated through a process of change involving improvement in the individual's ways of thinking, feeling and acting [31]. Additionally, PEI included the strengthening on the Purpose in Life and the re-evaluation of Suffering in the students because, according to Seligman [32], H&W includes achieving

three realms: the 'Pleasant Life', in which life is an experience of positive emotions, focusing primarily on sensory and emotional pleasures, which are ephemeral and dependent on external circumstances; the 'Engaged Life', which is a result of using personal strengths to obtain benefits in major areas of life; and the 'Meaningful Life', which is to use the personal strengths, virtues and features at the service of some purpose that transcends individual concerns [32,33].

To evaluate the changes in H&W and behaviors of the students exposed to PEI, we used five questionnaires, which measure H&W in an integral manner (Physical, Mental, Emotional and Spiritual Variables), as well as those Variables that affect the students in their Purpose in Life, Meaning in Suffering and their Risk and Protection Behaviors relating to drug abuse.

## 2. Methodology

### 2.1. Experimental Design and Selection of Participants

The present study is longitudinal, Before and After the PEI in an Experimental Group (intervened) and in a Controls Group (not intervened). The Experimental Group were recruited from students registered in a professional career of the Universidad Veracruzana, of either sex, and of 19-30 years of age, which volunteered to participate in PEI, and had completed the PEI or complied with an attendance of 80%. The Controls included volunteers that fulfilled the same criteria as the Experimental Group, except that they were enrolled in regular classes rather than in the PEI. Sample sizes were limited to a maximum of 30 students per group, because the effectiveness of group interventions decreases with increasing the number of participants above thirty [34]. Random sampling of participants was not performed because the inscription of the students to PEI was "online", open for all the students in the UV, Veracruz region and by law, its access to PEI may not be refused by the institution once the student is accepted by UV. It is important to note that all of the UV students who participated in this study had similar idiosyncrasies (culture, social level, income) and that none of the students had a disenfranchised profile since Public Education in Mexico is, by law, offered gratuitously to all Mexican citizens.

In this way, 30 participants were registered in the Experimental Group, 27 finished the PEI, 20 of which were women and 7 were men. All of the 18 participants in the Control Group completed the regular educative experience, 13 being women and 5 men. The ethical and research committee of the Faculty of Nursing of the UV, Veracruz region, approved this project. All of the students were invited to take part in the study after the research assistants had read and explained to them a short description of the study and its possible effects, and then asked the students to sign a form of Informed Consent if they volunteered to participate.

### 2.2. Instruments of Measurement: Questionnaires

1) The Health and Wellness Questionnaire (Wellness Inventory) by Travis and Ryan [35], consists of 296 questions divided into 12 Sections. The Sections are: Self-

Responsibility and Love (S1), Breathing (S2), Sensing (S3), Eating (S4), Moving (S5), Feeling (S6), Thinking (S7), Playing and Working (S8), Communicating (S9), Intimacy (S10), Finding Meaning (S11) and Transcending (S12). The questions are graded from 1 to 4 and the values are added, then divided by the number of questions to obtain the average score of the questionnaire of each individual. The psychometric properties of this questionnaire were evaluated by Palombi [36], the internal consistency proved to be very high (0.93 out of 1), in accordance with Cronbach's calculation of the alpha correlation coefficient.

2) The Purpose-In-Life (PIL) Questionnaire by Crumbaugh and Moholick [37] evaluates the individuals' attitude towards life, particularly the magnitude of the "existential vacuum" [38]. The PIL contains 20 questions, which are graded from 1 to 7; then the values are added and divided by the number of questions to obtain an average of PIL for each individual. The reliability of this instrument was analyzed with the method of the "two halves" of Crumbaugh and Moholick [37], thereby obtaining Pearson's correlation coefficient ( $r=0.81$ ,  $n=225$ ,  $P<0.05$ ). To interpret the scores in the PIL, it should be noted that score intervals from 92 to 112 represent a situation of indefiniteness regarding Goals and Purpose In Life; whereas scores greater than 113 suggest their presence, while scores lower than 91, indicate their absence or an "existential vacuum".

3) The Meaning In Suffering Test (Questionnaire) (MIST) by Starck [39] measures the capacity of individuals to find Meaning In Suffering resulting from those unavoidable painful experiences that will have to be faced at some stage of their lives. It is a self-applied questionnaire, divided into parts: Part I contains 20 questions consisting of affirmations about pain; it uses a grading range from 1 to 7, in which 1 indicates that the individual has "never" felt or does not believe in the affirmations presented; number 2 indicates they "rarely" do, and so on until reaching number 7, which indicates he "constantly" feels it or believes in the affirmation; Part II contains 17 additional questions to which the individual must also respond, although in this study only the questions in part I were used. The reliability of this instrument is high ( $r=0.81$ ) (with a Cronbach Alpha of 49). Once the answers to the questionnaire have been completed, the sum of all the reagents is divided by the total number of questions in part I (20) to obtain an average.

4) The Drug Use Screening Inventory (DUSI) Questionnaire (Risk and Protection Factors) by Tarter [40], modified by Díaz-Negrete et al., [41], contains 135 questions characterized as having binomial answers: "yes" (1) or "no" (0). The Protection scores are the sum of the "no" answers and the Risk scores are the sum of the "yes" answers. The greater the Protective Factors are, the risk of becoming involved in drug consumption diminishes. The reliability of this instrument was evaluated by using the Cronbach alpha correlation coefficient, which gave a high result ( $r=0.97$ ) and an explained variance of 83%. This questionnaire measures the severity of the consumption tendency in domains: 1) Substance abuse, 2) Psychiatric disorder, 3) Behavior problems, (4) Health status, 5) School adjustment, 6) Family adjustment (SF), 7) Work adjustment, 8) Peer relations, 9) Social competency, 10)

leisure/recreation. This questionnaire has been used with adults and adolescents to measure the extent of the change occurring in the tendency to consume drugs once an educative intervention or treatment has been applied in those individuals that needed to increment preventive aspects in their persons. It is, therefore, a highly useful questionnaire, both for measuring preventive aspects in the young and for indicating to the need of intervention or treatment of persons who are addicted or in great risk of becoming addicted.

5) The Perception of Stress Questionnaire (PSQ) by Levenstein et al., [42] is self-administered and consists of 30 questions that are graded on a Likert-type scale of 4 degrees. The questionnaire is applied twice: the first (Past) in reference to the patient's situation during the last year or two years, and the other (Recent) in reference to the patient's situation during the last month. In both cases an index is obtained from the average of all the questions, which can oscillate from 0 (very low level of stress perceived) to 1 (very high level of stress perceived). This questionnaire has proved to have concurrent validity and high internal consistency. The reliability level is 0.80, with a cutoff value of 45; the sensitivity (true positives) is 86% and the specificity (true negatives) is 78%.

### 2.3. Procedure

The five questionnaires were applied to the participants during the first day of classes. The PEI "*Self-knowledge and Care of the Soul*" was taught in the intersemestral period of winter, 2011, every day of the week, from Monday to Friday, between 10 a.m. to 2 p.m., in a garden of the Mocambo campus installations, Veracruz region, of UV. The PEI is really a form of treatment of the students' possible negative attitudes and behaviors which difficult their attaining Health and Wellness (H&W).

The PEI consists of a total of 15 sessions, given one per day from Monday to Friday, for three weeks. PEI includes different methodologies which offer the participants an opportunity to engage in their personal introspection and knowledge [43]. For that purpose we adopted a comprehensive and multidimensional perspective of the individual, which differs from traditional workshops at other institutions. Our's includes strengthening the individuals' H&W protective factors through the individuals' reconnection with their bodies, emotions, thoughts, communities and environments. Thus improving the individuals' understanding the meaning of their lives and the worthiness of positive values, behaviors and beliefs, as well as inducing a sense of respect for themselves, the others and for their environments.

These methodologies consisted of exercises of Deep Ecology (i.e., "*The Work that Reconnects*", "*Despair Work*", "*The Shift: Seeing with New Eyes*") [44], breathing and meditation techniques, body exercises of "Chi-Kung" [45] and some bioenergetic exercises (i.e., "Cellular Breathing", "*Umbilical Centre in the Navel Radiation Pattern*") [46,47], narrative therapy (i.e., "*Externalizing Conversations*", "*Definitional Ceremony and Outsider-Witness*") [48] and exercises of visualization and meditation, with elements of the Spiritual Self Schema Therapy (3S) [49] (For more details on the nature, sequence and duration of PEI's activities see Supplementary Material).

The PEI program was designed and implemented by our group leader (first author), whom had had extensive experience and training in the specific activities cited and, therefore, the replication of PEI would require that the replicant group leader develops competency on each of the PEI's activities by assisting to the training courses offered by the UV, including close contact and training with our leader.

PEI's Response Variables are: Importance of Health and of Physical, Mental and Spiritual Well-Being; Perception of Stress; Prevention of Drug Consumption; Detection of Addictions; Reflections and Sensitization concerning the Purpose in Life; Meaning in Self Suffering and That of Others. All Response Variables were numerically scored in each individual participant, Before and After PEI was completed.

The day before the completion of PEI (on the fourteenth session), the five questionnaires were again applied to the same participants in order to measure the effects PEI had had upon them. The After PEI evaluation was also carried out with numerically expressed scores and statistically comparable averages in the responses of each of the participants to each one of the Response Variables included, in order to calculate the statistical significance of the response differences within each individual and between individuals in each one of the Groups tested.

## 2.4. Data Analysis

To estimate the effects of the PEI, a comparison was made between the scores obtained on the five questionnaires by the Experimental Group and Controls, Before and After the PEI sessions. The statistical significance of the comparison between the Experimental Group and Controls was done by ONE-WAY ANOVA, which includes a measure of error as the residual variance after the factors' variances due to Groups and Time After PEI are subtracted from the total variance; whereas the Before and After comparison of the Experimental Group was done with the t-test for paired samples and independent data [50]. Also, before applying the statistical tests, we verified that the Response Variables fulfilled the assumption of normality and homogeneity of variances.

## 3. Detailed Results and Discussions

### 3.1. Evaluating Differences in the Personal Data of Participants

The average age of participants in the Control Group (n=18) was 25 years, 13 were women and 18 studied Nursing, while in the Experimental Group (n=27), the average age was 21 years, 20 were women, and 20 were studying Nursing. Thus, it was statistically concluded that there were no significant differences in the sexual composition of the two groups ( $P = 0.89$ ), although there were statistically significant but developmentally small differences in average ages ( $P=0.03$ ) and professional inclinations (18/18=100% participants in the Control group studied Nursing, while in the Experimental group 20/27=74% studied Nursing,  $P=0.02$ ). Thus, it was concluded that the statistically significant but small differences in age and professional inclinations among the

groups were not likely to induce significant large differences in the groups' response to the PEI, the more so because the responses to PEI were measured in the same individual, Before and After PEI.

### 3.2. Comparative Analysis Between Cases and Controls in Response to PEI

Upon comparing the participants' scores of the Variables Before and After in both groups, it was found that the Control group was not changed by the time elapsed between Before and After PEI was applied to the Experimental group, whereas the Experimental group did change significantly (Figure 1), as shown by ANOVA. Only in the case of the MIST (Questionnaire) was there no significant difference between the groups. These results allow to safely discard the Null Hypothesis that the differences between the groups occurred by chance ( $P<0.001$ ), and strengthen the Alternative Hypothesis that the PEI did indeed produced the changes described and analyzed below.

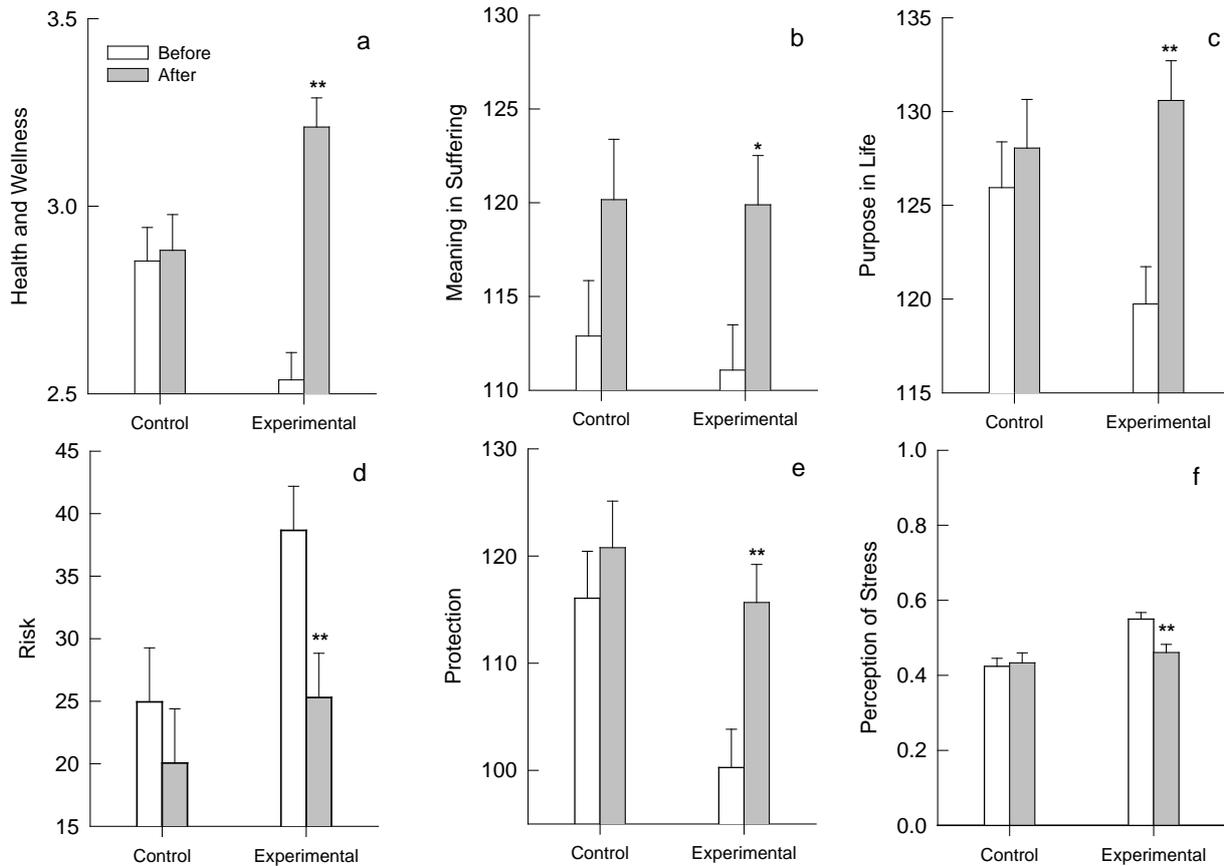
### 3.3. Analysis of the PEI per Questionnaire in the Experimental Group

Once the Alternative Hypothesis was proved, the effects of the PEI in the Experimental group were evaluated comparing the scores in the five Questionnaires Before and After the PEI. All the Questionnaires showed differences in the scores of response After de PEI (Figure 1).

The Questionnaire of Health and Wellness differed significantly in their average indexes Before and After the PEI ( $t=-8.444$ ,  $P<0.001$ , Figure 1a), indicating that this intervention did produce the beneficial effects expected. Likewise, there was an improvement in the MIST and the PIL After the PEI ( $t=-3.487$ ,  $P = 0.02$  and  $t= -4.631$ ,  $P = <0.001$ , respectively, Figure 1b, 1c). There was also a significant improvement in the DUSI, which showed a high average index in the Risk Factors Before the PEI, which diminished significantly After PEI ( $t= 4.982$ ,  $P<0.001$ , Fig. 1d), while the Protection Factors increased significantly ( $t= -6.053$ ,  $P<0.001$ , Figure 1e). Finally, the results from the PSQ also indicated a significant change ( $t= 4.492$ ,  $P<0.001$ ; Figure 1f) in the scores obtained Before and After, the conclusion being that the Experimental group perceived themselves as having less Stress After the PEI was applied.

Also, when the results from the 12 different Sections of The Health and Wellness Questionnaire were compared individually, significant differences ( $P<0.001$ ) were found among them in their averages Before and After applying the PEI (Table 1). Although all the Sections showed statistically significant differences Before and After the PEI, not all of them were equally affected by it. For example, Sections with a change index  $>0.8$  (Breathing, Sensing, Eating and Moving, in that order), in which the average response values Before were below 2.5, After they were close to or higher than 3.0. However, other Sections of the same Questionnaire showed an average change index between  $<0.8$  and  $>0.5$  (Self-Responsibility and Love, Feeling, Thinking, Intimacy and Transcending, in that order), which had higher values Before PEI and their change After was not as conspicuous as in the other

Sections. Finally, Sections S8, S9 and S11 (Playing and Working, Communicating and Finding Meaning, respectively) showed a change index of <0.05, their average values Before the PEI being the higher (Table 1).



**Figure 1.** Comparison of average scores and their standard errors Before and After PEI in the Experimental and Control groups in the Variables: Health and Wellness (a), MIST (b), PIL (c), Risk Factors (d), Protective Factors (e), PSQ (f). \*Statistically significant differences between Before and After PEI in the Experimental group, \*\*Statistically significant differences between the Experimental and Control groups (P<0.05)

**Table 1.** ICh ranking corresponding to the 12 Sections of Health and Wellness Questionnaire and 10 Domains of the Risk and Protection Factors Questionnaire

Questionnaire Sections	ICh in H&W	Questionnaire Sections	ICh in DUSI	
			Risk Factors	Protection Factors
Breathing	1.04	Peer relations	-0.46	0.18
Moving	0.99	Family adjustment	-0.43	0.29
Sensing	0.92	Substance abuse	-0.39	0.06
Eating	0.86	Health status	-0.37	0.34
Thinking	0.70	Behaviors problems	-0.37	0.21
Intimacy	0.62	Psychiatric disorders	-0.31	0.14
Feeling	0.59	School adjustment	-0.30	0.10
Transcending	0.59	Leisure/Recreation	-0.30	0.23
Self-Responsibility and love	0.56	Social competency	-0.29	0.03
Playing and Working	0.50	Work adjustment	-0.27	0.03
Communicating	0.46			
Finding Meaning	0.26			

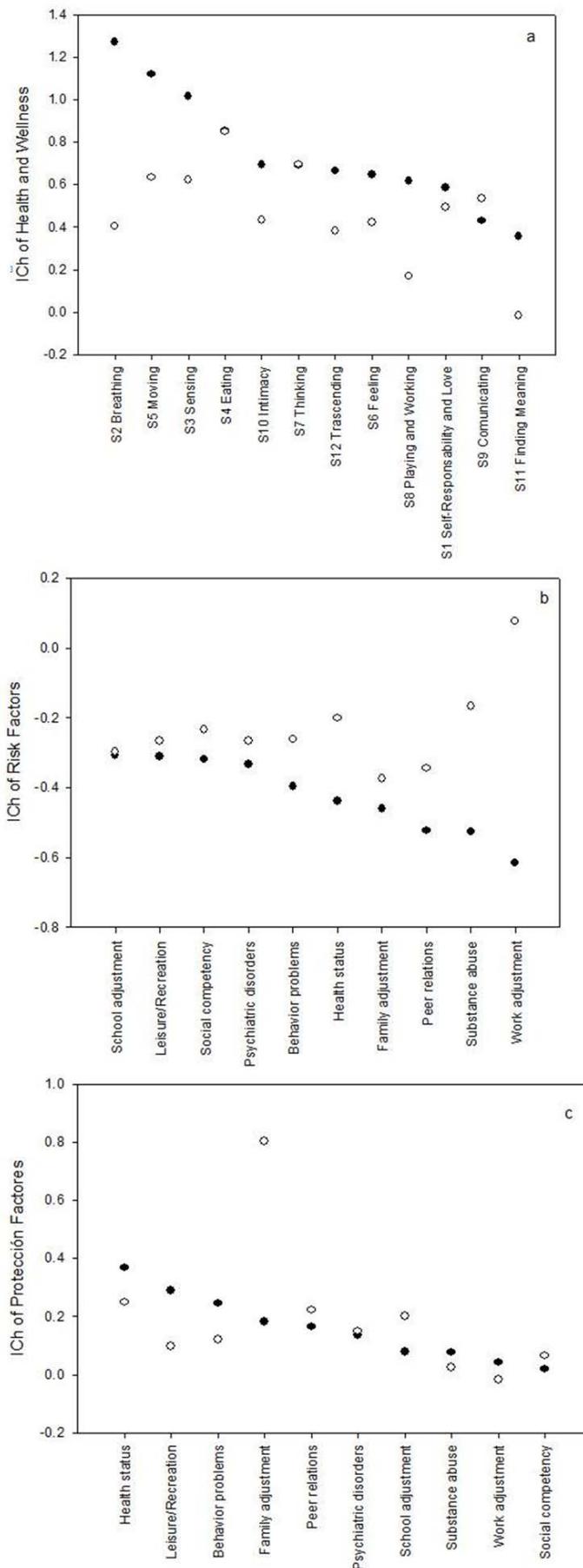
Besides identifying the Sections with the most changes produced by the PEI in each participant, these results also indicate those in which the participants require the most support, since they were low already Before the intervention was applied. Also, it is to be noted that the variation's ranges denote that not all the areas of Wellness are equally important for the participants (Table 1). In fact, it becomes evident that the Sections concerning Physical Variables (Breathing, Moving, Sensing and Eating) are the ones that increased the most After the PEI, followed by the Cognitive, Emotional and Social ones, in that order;

the least sensitive to the intervention being those associated with Being, Spirituality, and Purpose in Life, just as stated by Travis and Ryan [35].

Furthermore, when comparing the changes induced by the PEI between men and women, it also becomes evident that the order of importance of the Sections, and the magnitude of their changes, are greatly and significantly different between sexes (Figure 2a). Women showed larger relative changes [ $rc = (score\ After - score\ Before)/(score\ Before)$ ] than men did in most of the Sections, especially those of Playing/Working and

Breathing, in which women achieved *rc*'s up to or more than three times those of men (3.66 and 3.14, respectively).

In the Communication Section, however, men scored a little higher than women did (0.8) (Table 2).



**Figure 2.** Order and Magnitude of the ICh corresponding to the three questionnaires separated in Sections in Men (○) and Women (●): Health and Wellness (a), Risk Factors (b) and Protection Factors (c)

**Table 2. Ratios of the Index of change (ICh) of PEI (ICh=(scoreAfter-score Before)/(score Before)) obtained by women (W) and men (M) in each of the Sections of the Questionnaire on Health and Wellness, ordered from high to low. Notice that Women change more with PEI than Men do in all but the last three Variables**

Sections of the Health and Wellness Questionnaire	W/M Ratios and their scores in each section
S8 Playing and Working	3.66
S2 Breathing	3.14
S5 Moving	1.76
S12 Transcending	1.74
S3 Sensing	1.63
S10 Intimacy	1.60
S6 Feeling	1.53
S1 Self-Responsibility and Love	1.19
S4 Eating	1.01
S11 Finding Meaning	1.00
S7 Thinking	0.99
S9 Communicating	0.80

Similarly, when the results from the DUSI were evaluated separately in its 10 Domains, the majority showed significant differences ( $P < 0.001$ ) After the application of the PEI, only the Domains of Substance Abuse, Work Adjustment and Social Competency in both Risk and Protection Factors were not affected by the PEI, and the Domain of Family Adjustment within the Risk Variable, did not show significant differences, since they were already high in the participants Before the PEI. Although the variation indexes were generally similar, within a range of -0.2 to -0.5, the Domains Peer Relations, Family Adjustment, Substance Abuse, Health Status and Behavior Problems, were the ones that diminished the most (Table 1).

In the case of Protection Factors, the differences between the Domains Before and After the PEI were more notable, especially in the Health Status, Family Adjustment, Leisure/Recreation and Behavior Problems, which had indexes higher than 0.2 (Table 1). These results indicate that the PEI had a significant impact on the Risk and Protection Factors associated with Behavior, Attitude Towards Life and lead to the adoption of a Healthful Lifestyle.

On the other hand, when the indexes of change produced by the PEI are compared between men and women, it is evident that the order in the importance of the Domains is significantly different between sexes (Figure 2b and Figure c). For example, in the case of the Risk Factor Domains, women scored better in Work Adjustment and in the Domains of Family Adjustment and Peer Relations than men did. It is likewise worth noting that the riskiest domains in men (Work Adjustment and Substance Abuse) were the ones that diminished the most in women. This is interesting, for it suggests that men have greater risks of abusing drugs perhaps because they care less about their work or vice versa (Figure 2b). Another point to emphasize is that the Domains in which the Risk diminished most in men were those of Peer Relations and Family Adjustment, thus strengthening the notion that men tend to yield more to group pressure than women do [51], and suggests that the PEI reinforced Relations with Family and Friends through its dissuasive effect on drug consumption.

As regards the Protection Factors, the scores between men and women were more homogeneous than in the case of Risk Factors, although it is noteworthy that in the

Domain of Family Adjustment men stands out with a value four times greater in men than that of women (Figure 2c), meaning that men respond sensitively and positively to family pressure.

### 3.4. Analysis of the PEI per Subject of Study

As is shown in the section of Results from the Global Analysis of PEI per Questionnaire, there also were significant variations Before and After the PEI per Subject of Study. In all Questionnaires, there are significant differences of varying magnitude among the individual Experimental and Controls, Before and After the PEI.

In the Health and Wellness Questionnaire, it was found that, of the total sample studied, 96% of the students participating in the PEI increased their scores in the 12 Sections contained in this Questionnaire, and only one individual decreased (Table 3). Almost the same effects were observed in the 12 Sections when analyzed separately, since the percentages of the students intervened that changed were between 96 and 81%. Likewise, the analysis of the variation index Before and After PEI allowed the identification of those participants which used the intervention to the best advantage with quotients (After/Before) of change higher than 1 (5, 22, 6, 12, 21 and 7), and of those needing continued attention and an individual intervention (particularly 13, who showed no change at all (Table 3).

With the MIST and PIL, 70% of the participants increased their scores approaching the level of Finding Meaning in Suffering, while 85% increased their perception of Goals and Purpose in Life After the PEI. Similar to that observed in the Health and Wellness Questionnaire, in the one on the Purpose In Life those participants that made the best use of the intervention could be identified: for example, those with scores of change above 15 (22, 7, 12, 5, 9, 3), as well as those needing continued attention and individual intervention, because of their negative index (25, 1, 27, 21, 11) (Table 3).

Likewise, in the MIST there are those participants that used the PEI to the best advantage with scores above 15 (22, 5, 26, 12, 17, and 7) and those requiring continued attention and individual intervention due to their negative index, indicating that they regard suffering as a burden and not as an opportunity for growth (6, 11, 19, 2, 4, 20, 23 and 3) (Table 3).

As regards the PIL, 67% of the participants were placed in an interval classified as one of "indefinition," in accordance with their scores from 92 to 110 Before the PEI, which indicates that the subjects were in a stage of searching for Meaning in Life and for Goals. After PEI, nevertheless, the majority (except for one participant) were able to perceive Goals and Meaning in their lives.

Concerning the DUSI, the Risk Factors diminished by 85% and the Protective Factors increased by 93% in the participants After conclusion of the PEI (Table 2). Here it is worth mentioning what happened to ten cases (2, 7, 8, 9, 14, 17, 18, 19, 20 and 22) which diminished their risk factors by 50% or more; in particular, subjects 2 and 20 which diminished their risk from 32 to 3 and from 40 to 6, respectively. However, 4 of the participants (15%) (4, 13, 25, 26) increased their Risk Factors and thus were unable to increase their Protection Factors (Table 3).

Finally, in regard to the PSQ, 85% of the participants diminished their scores in Stress Perception after PEI (Table 3). Of these, 8 participants passed from moderate to low Stress Perception and 4 from high to moderate or low. In addition, it distinguished the participants which

used the PEI to their greatest advantage with scores of 15 or more (22, 3, 21, 5, 20, 9 and 16) from those requiring continued attention and individual intervention because their Stress Perception increased After PEI (13, 11, 26, 23) (Table 3).

**Table 3. ICh ranking of individual Cases in the five Questionnaires**

Participants	Questionnaires											
	H&W		MIST		PIL		DUSI				PSQ	
	ICh	Rank	ICh	Rank	ICh	Rank	Risk		Protection		ICh	Rank
1	0.21	24	4	18	-3	24	-7	19	7	19	-0.05	18
2	0.24	23	-2	23	16	9	-31	4	31	5	-0.05	19
3	0.20	25	-22	27	21	6	-18	10	18	11	-0.20	2
4	0.44	17	-2	24	7	17	15	27	5	20	-0.12	12
5	1.38	1	27	2	24	4	-5	20	5	21	-0.19	4
6	1.31	3	-1	20	19	7	-28	5	28	6	-0.14	10
7	1.09	6	16	7	35	2	-41	1	41	1	-0.04	20
8	0.89	8	8	14	18	8	-20	8	20	8	-0.08	14
9	0.88	9	11	9	23	5	-34	2	34	3	-0.15	6
10	0.81	12	14	8	11	10	-8	16	8	16	-0.05	17
11	0.37	20	-1	21	-11	27	-3	21	3	23	0.05	25
12	1.13	4	20	4	33	3	-15	13	19	10	-0.06	16
13	-0.22	27	11	10	0	22	2	24	-2	27	0.04	24
14	0.84	11	1	19	11	11	-16	12	16	13	0.00	23
15	0.73	14	8	15	4	19	-19	9	20	9	-0.14	8
16	0.92	7	10	12	7	18	-8	17	8	17	-0.15	7
17	0.62	16	20	5	11	12	-18	11	18	12	-0.14	11
18	0.39	19	10	13	8	14	-25	6	25	7	-0.14	9
19	0.31	21	-1	22	8	15	-11	15	11	15	-0.10	13
20	0.87	10	-2	25	10	13	-34	3	34	4	-0.15	5
21	1.13	5	6	16	-4	26	-15	14	15	14	-0.20	3
22	1.37	2	50	1	36	1	-24	7	38	2	-0.26	1
23	0.75	13	-4	26	2	21	-8	18	8	18	0.16	27
24	0.40	18	18	6	8	16	0	23	1	25	-0.07	15
25	0.19	26	11	11	-1	23	10	26	4	22	-0.02	21
26	0.67	15	22	3	3	20	2	25	-1	26	0.07	26
27	0.27	22	6	17	-3	25	-2	22	2	24	-0.01	22

### 4. General Discussions and Perspectives

The above described PEI had the purpose of integrating professional learning and fomenting Health and Wellness in the participants, through the development of *Healthy Lifestyles* and some of the so-called *Abilities for Living* (self-knowledge, empathy, assertive communication, interpersonal relations, making decisions, solving problems and conflicts, creative thinking, critical thinking, handling emotions, feelings, tension, stress and others) [27]. The numerical results obtained and statistically evaluated, corroborate that, indeed the PEI significantly improved the students' behaviors leading to Health and Wellness: a most important issue since, by affecting Wellness with positive emotions and relations, engagement, purpose in life, and accomplishment may very strongly prevent social, mental and physical disease [12]. Similar results have been noted in other college interventions, in which the principal goal had being the positive development of youngsters [17-24, 52].

In addition, the study found that the higher responses After PEI occurred in those individuals that were more highly developed Before PEI in their Psycho-Emotional

Components (Physical, Mental, Emotional, Spiritual) and in their *Abilities for Living*. The results also show that not only are the level of development in each Psycho-Emotional Components among the Response Variables of considerable magnitude and statistically significant, but also that there is evidence of a hierarchy or order of importance for each of them in the Health and Wellness Questionnaire: the order of the Sections is headed by the Physical Variables, followed by the Mental and Emotional ones, and finally by those relating to Being and Meaning of Existence. Although PEI improved attitudes in both women and men it was found that women had better general scores Before the PEI than men did, albeit they ranked the importance of the Response Variables very similarly to those of men. Thus, it would seem that human beings give higher priority to the basic Physical and Biological Necessities, than they do to the Mental and Spiritual ones, when in search for Health and Wellness [35], which is much in accordance to Maslow's hierarchy of needs [53] and, therefore, quite meritable of credence.

The sexual dimorphism found in benefitting from PEI is possibly because Women may be innately more conscious of their state of health than Men are, and therefore seek options to improve it [54]; besides, they show a greater Awareness of the Risks implicit in harmful forms of

behavior, such as drug consumption [55]. Could this be the reason why, in the evolution of mammals, females were selected as the principal caretakers and educators of the offspring, incorruptible managers of the family economy, invincible in preparing food and zealous in caring for the family's health? Is masculine strength destined only for hunting, procurement of food, and territorial exploration and defense? [56,57,58]. If this be also true in humans, how is it that the greater part of philosophy, literature, art, science and inventions valuable for the survival of the human species has been produced mostly by men? Is it that men are not only stronger but also more intelligent and creative than women are? Or is the absence of women in areas and circumstances associated with intelligence and creativity due to a millenary male discrimination toward women, which currently tends to disappear? As to sexual dimorphism in relation to the greater benefit obtained from the PEI in favor of women, one might ask whether this occurs only among the professionals dedicated to health care, like nurses and physicians, or is extensive to other professions that are focused more on exact or social sciences and their applications, or other cultures, but whose response to *PEI Self-knowledge and Care of the Soul* has not yet been studied. The first hypothesis that Women are innately better caretakers of health than Men is also the most congruent with the results obtained in the Domains of the Factors of Risk and Protection Questionnaire, in which Women give priority to behavior, state of health and affection over social competence, in which Men distinguish them. Now, if Men are able to develop very positively regarding the Health and Wellness Questionnaire in response to a PEI, will Women be able to do the same in response to a Social Competence Questionnaire upon being submitted to the corresponding PEI? And, in more classical biological terms, can the innate be transformed through nurture? Is it Darwin or Lamarck? Or better yet, Darwin and Lamarck? and, Genetics or/and Epigenetics?

As to the perdurability of the changes induced in the students included in the PEI, it would be of interest to evaluate their Health and Wellness, as well as their Scholastic and/or Labor Performance, longitudinally in time, in order to estimate their effects over a longer period than just a few weeks. This is because there is room for speculation as to whether an individual's vital experience in a plural and contradictory society like the one currently existing in Mexico might not be more potent and persistent than a propedeutic course at the start of one's professional studies. It is likely that the long-term enjoyment of the benefits from PEI requires, as do many other disciplines, of the student's repeated training, perseverance and perfection of the abilities learned during PEI.

Considering the favorable results obtained and the proved effectiveness of PEI, as well as the ever-growing need for social and personal security of the student population of UV [9,10,59], it is recommended that the *PEI "Self-knowledge and Care of the Soul"* be established as an Obligatory Assignment within the Basic Formation Area for new students to career Studies in Nursing, at least, until its effectiveness is evaluated in a wider repertory of professional disciplines in UV, other universities and in other social sectors. If such success of PEI may be generalized to all students of UV demands of further

studies to sum more participants at the maximal rate of thirty students per PEI: a significant numerical limitation of PEI. This limitation may be partially surmounted by the instructor developing a virtual PEI, with which the student may interact in answering and evaluating himself in the five Questionnaires, Before and After PEI, and wherein the instructor directs the students in executing the activities of the fifteen sessions included in PEI, as well as the virtual PEI should contain the computer links to communicate *ad lib* with the other participants and with the instructor. Since PEI was evaluated in its 'active' multisession group-intervention version, with exercises and therapist guidance, it would be interesting to evaluate if the effects of PEI can be also obtained by delivering to the participants 'passive materials', such as single leaflets, e-mails or information websites, which would be a less expensive, more easily applied and accessible, than the 'active' PEI, as it had being proved in other Psycho-educational Interventions [60,61]. In more practical terms, it would be of interest to explore the possibility of positive and negative correlations among the Variables studied in search for the existence of a Psycho-Emotional Network and the identification of the most effective combination of actions to be taken in order to improve on an individual's profile and/or to prevent negative and dangerous behaviors.

## Acknowledgments

Authors thank the administrative staff of the Facultad de Enfermería, Region Veracruz, Universidad Veracruzana, who assisted during intervention. Also, we are grateful to Warren Haid who assisted in the translation, edition and proof-reading of the manuscript. This project was funded by PROMEP resources 9436 (UV-CA-275).

## References

- [1] World Health Organization (WHO). *Young people: health risks and solutions*. Fact sheet N°345. <http://www.who.int/mediacentre/factsheets/fs345/en/index.html>, 2011.
- [2] Chesson, H.W., Blandford, J.M., Gift, T.L., et al. "The estimated direct medical cost of sexually transmitted diseases among American youth 2000". *Perspect Sex Reprod Health*. 36(1), 11-9, 2004.
- [3] VanKim, N.A., Laska, M.N., Ehlinger, E., Lust, K., Story, M. "Understanding young adult physical activity, alcohol and tobacco use in community colleges and 4-year post-secondary institutions: a cross-sectional analysis of epidemiological surveillance data". *BMC Public Health*. 10, 208, 2010.
- [4] Weinstein, J. (1992). *Riesgo Psicosocial en Jóvenes*. PREALC. Santiago de Chile.
- [5] Johnston, L.D., O'Malley, P.M., Bachman, J.G., Schulenberg, J.E. *Monitoring the Future National Survey Results On Drug Use, 1975-2007. Volume II: College Students and Adults Ages 19-45*. Bethesda, MD: National Institute on Drug Abuse, 2008.
- [6] Dusselier, L., Dunn, B., Yongyi, W., Shelley, M. II, Whalen, D. "Personal, health, academic, and environmental predictors of stress for residence hall students". *J Am Coll Health*. 54, 15-24, 2005.
- [7] The American College Health Association (ACHA). "American College Health Association-National College Health Assessment Spring 2008 Reference Group Data Report (Abridged)". *J Am Coll Health*. 57, 477-488, 2009.
- [8] Barradas-Alarcón, M.E., Iradanery-Mertínez, L.M., Balderrama-Trápaga, J.A., Gamboa-Olivares, D.C. "Consumo de Alcohol en Estudiantes de Nivel Superior". *Impulso Tecnológico*. 29-44, 2009.

- [9] Fernández, B., Barradas, M.E., González, M., Enríquez, C., Mota, I., Riego, N. "Conductas sexuales en estudiantes de psicología". *Revista de Investigación en Ciencias de la Salud*. 5(1), 2010.
- [10] Riego-García, N., Enríquez, C. *Dinámica de la violencia durante el noviazgo*. Primera edición. Editorial Académica Española. Madrid, España, 2011.
- [11] Ruiz-Lugo, L. "Formación Integral: Desarrollo Intelectual, Emocional, Social y Ético de los Estudiantes". *Revista Universidad de Sonora*. 19, 11-13, 2007.
- [12] Seligman, M.E.P. "Positive health". *Applied Psychology: An International Review*. 57, 3-18, 2008.
- [13] Peterson, C., Park, N., Seligman, M.E.P. "Orientations to happiness and life satisfaction: the full life versus the empty life". *Journal of Happiness Studies*. 6:25-41, 2005.
- [14] Prochaska, J.J., Spring, B., Nigg, C.R. "Multiple behavior change research: an introduction and overview". *Prev Med*. 46, 181-188, 2008.
- [15] Benson, P.L., Scales, P.C., Hamilton, S.F., Sesma, A. Jr, Hong, K.L., Roehlkepartain, E.C. "Positive youth development so far: Core hypotheses and their implications for policy and practice". *Search Institute Insights & Evidence*. 3(1), 1-13, 2006.
- [16] Roehlkepartain, E.C., Hong, K.L., Scales, P.C. "Boosting student achievement by building developmental assets: new research strengthens the case". *Minnesota School Boards Association Journal*. 58, 16-18, 2005.
- [17] Pancer, S.M., Hunsberger, B., Pratt, M.W., Alistat, S. "Cognitive complexity of expectations and adjustment to university in the first year". *J Adolesc Res*. 15, 38-57, 2000.
- [18] Wintre, M.G., Yaffe, Y. "First-year students' adjustment to university life as a function of relationships with parents". *J Adolesc Res*, 15, 9-37, 2000.
- [19] Benson, P.L., Scales, P.C., Hawkins, J.D., Oesterle, S., Hill, K.G. "Executive Summary: Successful Young Adult Development". 1-23, 2004.
- [20] Aspy, C.B., Oman, R.F., Vesley, S.K., McLeroy, K., Rodine, S., Marshall, L. "Adolescent violence: The protective effects of youth assets". *J Couns Dev*, 82, 269-277, 2004.
- [21] Atkins, L., Oman, R.F., Vesley, S., Aspy, C.B., McLeroy, K. "Adolescent tobacco use: The protective effects of developmental assets". *Am J Health Promot*. 16, 198-205, 2002.
- [22] Oman, R.F., Vesley, S.K., Aspy, C.B., McLeroy, K., Luby, C. "The association between multiple youth assets and sexual behavior". *Am J Health Promot*. 19(1), 12-18, 2004.
- [23] Vesly, S.K., Wyatt, V.H., Oman, R.F., Aspy, C.B., Kegler, M.C., Rodine, S., Marshall, L., McLeroy, K.R. "The potential protective effects of youth assets from adolescent sexual risk behaviors". *J Adolesc Health*. 34, 356-365, 2004.
- [24] Oman, R.F., Vesely, S., Aspy, C.B., McLeroy, K.R., Rodine, S., Marshall, L. "The protective effect of youth assets on adolescent alcohol and drug use". *Am J Public Health*. 94, 1425-1430, 2004.
- [25] Moral, M.V., Ovejero, A. "Modificación de las actitudes, hábitos y frecuencia de consume de alcohol y otras sustancias psicoactivas en adolescentes españoles a partir de un programa educativo-preventivo". *Revista Colombiana de Psicología*. 14, 100-118, 2005.
- [26] Banderas-Rodríguez, C.R., Martínez, A.J., Romo-González, T. "Prevención Integral de Consumo de Alcohol y Drogas en Estudiantes Universitarios: Una Propuesta de Intervención Grupal". *Acta Colombiana de Psicología*. 13(2), 19-33, 2010.
- [27] Montoya-Castilla, I., Muñoz-Iranzo, I. "Habilidades para la Vida". COMPARTIM: *Revista de Formació del Professorat*. 4, 1-5, 2009.
- [28] Arthur, J. "The re-emergence of character education in British education policy". *British Journal of Educational Studies*. 53(3), 239-254, 2005.
- [29] Cohen, J. "Social, emotional, ethical, and academic education: creating a climate for learning, participation in democracy, and well-being". *Harvard Educational Review*. 76, 201-237, 2006.
- [30] Collaborative for Academic, Social and Emotional Learning (CASEL). "Standards and policies: SEL policy". Available from <http://www.casel.org/standards/policy.php> (accessed 1 March 2009), 2009.
- [31] Argués-Rey, R., Bolsas-Valero, A.P., Hernández-Paniello, S., Salvador-Monge, M.P. "Programa Aulas Felices" Psicología Positiva Aplicada a la Educación. Equipo SATI <http://catedu.es/psicologiapositiva>, 2010.
- [32] Seligman, M.E.P. *Authentic happiness: using the new positive psychology to realize your potential for lasting fulfillment*. New York, Free Press, 2002.
- [33] Linley, P. A., Joseph, S., Harrington, S., & Wood, A. M. "Positive psychology: Past, present, and (possible) future". *The Journal of Positive Psychology*, 1, 3-16, 2006.
- [34] Ayala Velazquez, H. *Manual de autoayuda para personas con problemas en su forma de beber*. México: Editorial Porrúa, 1998.
- [35] Travis, J., Ryan, S. *Libro Completo de Salud y Bienestar*. (1ª ed.). España: Gaia ediciones, 1999.
- [36] Palombi, B. "Psychometric Properties of Wellness Instrument". *Journal of Counseling Development*. 71(2), 221-225, 1992.
- [37] Crumbaugh, J., Maholick, L. *Manual de Instrucciones del Test de Sentido de Vida*. Viktor Frankl Institute of Logotherapy, 1981.
- [38] Frankl V. *Ante el Vacío Existencial*. (6ª. Ed.). España: Editorial Herder. Sexta Edición, 1990.
- [39] Starck, P. *Meaning in Suffering Test*. Viktor Frankl Institute of Logotherapy, 1985.
- [40] Tarter, R., Hegedus, A. "The Drug Use Screening Inventory: Its application in the evaluation and treatment of alcohol and drug abuse". *Alcohol Health and Research World*. 15, 65-75, 1991.
- [41] Díaz-Negrete, D., González-Sánchez, J., García-Aurrecochea, V. "Adaptación del Drug-Use Screening Inventory para su aplicación en adolescentes mexicanos". *Adicciones*. 18(2), 197-210, 2006.
- [42] Levenstein, S., Prantera, C., Varvo, V., Scribano, M., Berto, E., Luzzi, C., Andreoli, A. "Development of the Perceived Stress Questionnaire: a new tool for psychosomatic research". *Journal of Psychosomatic Results*. 37, 19-32, 1993.
- [43] Romo-González, T., Banderas-Rodríguez CA. *Taller Integral Preventivo del Consumo de Drogas. Autoconocimiento y cuidado del alma. Manual para su aplicación*. Editorial Académica Española, 2011.
- [44] Macy, J., Brown, Y. *Coming Back to Life*. USA: New Society Publishers, 1998.
- [45] Chia M, Li J. *La Estructura Interna del Tai Chi*. (3ª ed.). España: Editorial Sirio, S.A., 2001.
- [46] Lowen, A. *Bioenergética*. España: Editorial Diana, 1975.
- [47] Hartley, L. *Wisdom of the Body Moving: An Introduction to Body-Mind Centering*. North Atlantic Books, 1995.
- [48] White, M., Epston, D. *Medios narrativos para fines terapéuticos*. (1ª ed.) España: Editorial Paidós Ibérica, S.A., 1993.
- [49] Avants, K., Margolin, A. "Development of Spiritual Self Squema (3-S) Therapy for the Treatment of Addictive and HIV Risk Behavior: A Convergence of Cognitive and Buddhist Psychology". *Journal of Psychotherapy Integration*. 14(3), 253-289, 2004.
- [50] Zar, J.H. *Biostatistical Analysis*. New Jersey. Prentice Hall, 1999.
- [51] Londoño, C., Valencia, S.C. "Asertividad, Resistencia a la Presión de Grupo y Consumo de Alcohol en Universitarios". *Acta Colombiana de Psicología*. 11(1), 155-162, 2008.
- [52] Murphy, M.J., Mermelstein, L.C., Edwards, K.M., Gidycz, C.A. "The benefits of dispositional mindfulness in physical health: a longitudinal study of female college students". *J Am Coll Health*. 60(5), 341-8, 2012.
- [53] Maslow, A. "A preface to motivation theory". *Psychosomatic Med*. 5, 85-92, 1943.
- [54] García-Lanzuela, Y., Matute-Bravo, S., Tifner, S., Gallizo-Llorens, M.E., Gil-Lacruz, M. "Sedentarismo y Percepción de la Salud: Diferencias de Género en una Muestra Aragonesa". *Rev. int. med. cienc. act. fís. Deporte*. 7(28), 344-358, 2007.
- [55] Kumate, R.J. *Percepción de riesgo y consumo de drogas en los jóvenes mexicanos*. Patronato Nacional de Centro Integración Juvenil A.C. México, 2003.
- [56] Darwin, C. *The Origin of Species & The Descent of Man*. United Kingdom: Random House, Inc, 1952.
- [57] Ardrey, R. *The Territorial Imperative: A Personal Inquiry into the Animal Origins of Property and Nations*. USA: Kodansha America, 1966.
- [58] Zuk, M. *Sexual Selections. What We Can and Can't Learn about Sex from Animals*. USA: University of California Press, 2003.
- [59] Herrera, M. *Comportamiento de la violencia contra la mujer durante el noviazgo en estudiantes universitarios*. Tesis (Licenciatura). Veracruz, Veracruz, Universidad Veracruzana, Facultad de Enfermería, 2009.
- [60] Donker ,T., Griffiths, K.M., Cuijpers, P., Christensen, H. "Psychoeducation for depression, anxiety and psychological distress: a meta-analysis". *BMC Med*. 7:79, 2009.
- [61] Moore, M.J., Werch, C.E., Bian, H. "Pilot of a computer-based brief multiple-health behavior intervention for college students". *J Am Coll Health*. 60(1), 74-80, 2012.

## Appendix

### PEI Program

#### Session 1.

General Objective: Explain the workshop dynamic, framing and evaluation form. Perform a group integration activity and apply the questionnaires.

Topic	Objetive	Activity	Time	Supplies
Students and facilitators presentation	Build group trust	The game of names. It is started when the facilitator says his name and then he throw the ball, the student who catches the ball says his name and that of the person who threw him the ball. The game finished when the last student says his name and the names of all the participants	20 min.	Fabric ball
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth. The group sat in a circle. Each of the participants pays attention and focus on how the he feels physically, emotionally and mentally	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	The group standing in a circle. Chi Kung is to balance the three basic attributes of human life: the body, the breathing and the mind. Through the rhythmic coordination of body and breathing, balance and posture, inhalation and exhalation. In order to find the perfect balance between movement and stillness	30 min.	Activities guide
Questionnaires	Measuring the overall health status, the meaning of suffering, the purpose in life and the risk and protective factors (before and after the workshop)	Complete wellness questionnaire, the meaning of suffering test, the purpose in life test and, DUSI inventory	90 min.	Provide the photocopied questionnaires and a pencil

#### Session 2.

General Objective: To promote awareness on drug consumption prevention and the importance of health care

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Information about alcohol and other drugs and their effects on health	To provide information on addictions, and their health damage	Listen the tape: Addictions, Dr. Deepak Chopra.	60 min.	Deepak Chopra tape, tape recorder

#### Session 3.

General Objective: To promote through body exercises, the health care on the individuals.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Deep Ecology Exercise	Foster and recreate the connection with the body, breathing and with nature	Exercise: The Warm-ups: Opening to Breath, Body, Sound and Silence – Joanna Macy	60 min.	Activities guide

**Session 4.**

General Objective: To promote in the individuals with body exercises the experience of physical, emotional and mental wellness.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Deep Ecology Exercise	To generate a sensory experience, through the perception of the environment without seeing (touch, taste, smell and hearing)	Exercise: The Mirror Walk – Joanna Macy	80 min.	Activities guide
Reading of the book "Care of the Soul"	Motivate and encourage group discussion and reflection processes	Comments and discussion about the book: "Care of the Soul," Thomas Moore.	20 min.	Book

**Session 5.**

General Objective: To promote with physical exercises, the individual's introspection.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Hike	Focus attention and concentration on perception through the senses	Performing a silent walk in nature.	35 min.	None
Body mind centering exercise	To promote a state of deep relaxation, in order to explore the cellular breathing	Exercises: Cellular Breathing and Navel radiation pattern – Linda Hartley	80 min.	Activities guide
Reading of the book "Care of the Soul"	Motivate and encourage group discussion and reflection processes	Comments and discussion about the book: "Care of the Soul," Thomas Moore.	20 min.	Book

**Session 6.**

General Objective: To promote the individual's connection with pain, to change their attitude to the meaning of suffering.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Planting a seed	Foster care towards living beings and sense of responsibility towards nature	Planting a vegetable seed and take it home for their care	25 min.	cups, seeds and potting soil
Deep Ecology Exercise	Fostering empathy for another's pain	Exercise: The milling – Joanna Macy	90 min.	Activities guide

**Session 7.**

General Objective: To promote the individuals connection with pain, and a change of attitude to the meaning of suffering.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Deep Ecology Exercise	Build an experience of emotional and collective pain.	Exercise: The truth mandala – Joanna Macy	115 min.	Activities guide

**Session 8.**

General Objective: To provide in the participant, the elements for emotions managing and cognitive processes which generate intrusive thoughts.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Reading of the book "Care of the Soul"	Motivate and encourage group discussion and reflection processes	Comments and discussion about the book: "Care of the Soul," Thomas Moore.	20 min.	Book
Spiritual Self Schema (3S) Therapy	Explain the model of the 3-S therapy and introduce the concepts.	Session 1. Introduction to 3S – Kelly Avants and Arthur Margolin	60 min.	Activities guide

**Session 9.**

General Objective: To provide tools to the participants for stress and crisis situations management.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Spiritual Self Schema (3S) Therapy	Training the mind in its three components: right effort, right concentration and right awareness of the present moment. Identify and recognize the addict self	Session 2. Becoming aware – Kelly Avants and Arthur Margolin	40 min.	Activities guide
Narrative therapy introduction	Facilitate process of introspection and problem solving	Exercise: Externalizing conversations – David Epston and Michel White	100 min.	Activities guide

**Session 10.**

General Objective: Identify and learn to stop intrusive thoughts, using tools that promote wellness.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Spiritual Self Schema (3S) Therapy	Learning to manage the addict self intrusion: "identify", "stop" and "Refocus"	Session 3. Addict self intrusions – Kelly Avants and Arthur Margolin	40 min.	Activities guide

**Session 11.**

General Objective: To provide and encourage the change and generate cognitive behavioral skills relating to healthy lifestyles.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Spiritual Self Schema (3S) Therapy	To define the moral basis of the spiritual schema and learn to differentiate between conscious action vs automatic reaction	Session 4. Preventing harm – Kelly Avants and Arthur Margolin	30 min.	Activities guide
Deep Ecology Exercise	Promote with introspection self-knowledge	Exercise: Who are you? – Joanna Macy	70 min.	Activities guide

**Session 12.**

General Objective: Rehearse behavioral skills to adopt a healthy lifestyle.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Spiritual Self Schema (3S) Therapy	Activate the spiritual self schema in all matters of daily life and practice how to replace damaging cognitive scripts with new scripts	Session 5. Everyday ethics – Kelly Avants and Arthur Margolin	30 min.	Activities guide
Narrative therapy	Identify through an interview, alternative and positive stories	Exercise: Reflecting-team work as definitional ceremony – David Epston and Michel White	90 min.	Activities guide

**Session 13.**

General Objective: To promote, through an experience that we are beings integrated to nature, a change of perception of the world and propitiate the care for our planet.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Spiritual Self Schema (3S) Therapy	Replace the compulsive thoughts with compassion thoughts, and love and promote the wellness of others.	Session 6. Filling the mind – Kelly Avants and Arthur Margolin	30 min.	Activities guide
Deep Ecology Exercise	Change the destructive vision of man towards nature and its resources. Promote integration of the individuals with nature to experience its health benefits.	Exercise: The council of all beings – Joanna Macy	90 min.	Activities guide

**Session 14.**

General Objective: To promote in the students the strengthening of the protective factors and the reduction risk factors to unsafe behaviors such as drug abuse.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Spiritual Self Schema (3S) Therapy	Replace the addict self with the spiritual self schema	Session 7. Renouncing the addict self – Kelly Avants and Arthur Margolin	25 min.	Activities guide
Risk factors and protective factors	Provide updated information on the factors that lead to drug use and how to prevent them	Discussion of risk factors and protective factors.	20 min.	Activities guide
Deep Ecology Exercise	Experience how systems are interdependent	Exercise: The systems game – Joanna Macy	30 min.	Activities guide
Questionnaires	Measuring the overall health status, the meaning of suffering, the purpose in life and the risk and protective factors (before and after the workshop)	Complete wellness questionnaire, the meaning of suffering test, the purpose in life test and, DUSI inventory	90 min.	Provide the photocopied questionnaires and a pencil

**Session 15.**

General Objective: To protect the participants of the risky behaviors through the creation of a long term action plan to enable them to continue on the spiritual path.

Topic	Objetive	Activity	Time	Supplies
Introduction to ritually	To promote integration, sense of belonging and commitment to change	Listen and sing a mantra at the beginning of each session	20 min.	CD player
Self observation skills	Identify and name the feelings, emotions, and physical symptoms and recognize the intrusive thoughts	Microscopic truth	40 min.	Activities guide
Acquire body skills, slow movements and breathing, relative to Chi Kung	Body awareness, focus on breathing process, at each stage of the exercise, to promote physical and mental wellbeing	Chi Kung	30 min.	Activities guide
Spiritual Self Schema (3S) Therapy	Identify the three-dimensional support system: the spiritual guide, the spiritual teachings and a community of individuals who are on a similar spiritual path	Session 8. Maintaining the Path – Kelly Avants and Arthur Margolin	20 min.	Activities guide
Deep Ecology Exercise	Generate strategies in small groups, to actively participate in the community with altruistic activities.	Exercise: Planning actions – Joanna Macy	50 min.	Activities guide
Workshop Results	Awareness of the Workshop effects	The results graphs are provided with the results before and after the intervention	30 min.	