Original Article

Symbolism of Pain: An Alternative Approach to Pain Means between Patients and Healthy Individuals

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Abstract

Objective: The symbols of pain experience and their meanings have not been studied analytically yet. The purpose of this study was to investigate the symbolization of pain.
Methods: Two hundred and seventy-two individuals (201 healthy individuals and 71 patients with psychiatric symptoms) were enrolled in this study. All participants were asked to complete a questionnaire that included: questions for the recording of social representations of symbols based on free association methods.
Results: The preference of the association of pain with black color, red color and gray color is distinct and not appear to differ between patients and controls. The pain is related, for the group of patients, mainly to January and February, while the healthy ones seem to associate pain with almost all the months of winter and autumn. The patients often associate pain with an age of over 70 years old while healthy individuals associate pain with an age of both over 70 and 30-50 years old.
Conclusions: As expected, significant correlations among the symbolism of pain and the variables investigated in this study, such as color, age, weather condition, natural element, day of the week and month of the year, were found. Maybe the representation of pain as "a violent force" in "Ego" seems almost unaffected by the psychic condition of the individual.

Key Words: Pain, Symbolism, Representation, Psychiatric Patients, Color, Psychology

Introduction

Pain is a personal, subjective experience influenced by cultural learning, the meaning of the situation, attention and other psychological variables (Melzack & Katz, 2001). Cultures differ in typical linguistic reports and classifications of pain (Diller, 1980). Ancient writers recognized that emotional factors play a part in pain and this has recently been emphasized (Merskey & Spear, 1967).

Research data support that the aversive character of pain is linked also with anger (Burns et al 1998) and aggression (Krantz et al. 2006). The high percentages of depressing symptoms in individuals that experience pain and particularly among women, do not constitute an absolutely

explanatory approach for the differences between the two opposite aspects in pain, nevertheless they ratify the existence of these differences (Barsky et al, 2001).

The pain is one aspect of the representation of the physiological condition of the body (Craig, 2003) and different types of pain symbolize specific emotional issues (Pilowsky & Spence1976; Gaskin et al, 1992, Summers et al, 1991). Our bodies and body parts are loaded with cultural symbolism, public and private, positive and negative, political and economic, sexual, moral and often controversial (Auslander, 1995). The pain as a symbol has been described in the literature although (Cirlot, 1995), the symbols of pain experience and their meanings have not been studied analytically yet. The symbolism, in general terms, according to Laplanche and Pontalis (1988), it is the way of indirect "figurative" representation of ideas, mental conflicts and unprincipled wishes. It seems that inanimate mainly act jointly with unprincipled in the creation of symbolic forms (Jung, 1964). The concept of unconscious symbolism is basic and crucial in psychoanalytical theory and practice. The understanding of unconscious symbolism is the key not only to the understanding of dreams and symptoms, but to all unconscious communication. We come to know the unconscious by its symbolic expression (Segal, 1978).

The "*Symbols should be grounded, as has been argued before. But we insist that they should be grounded not only in subsymbolic activities, but also in the interaction between the agent and the world. The point is that concepts are not formed in isolation (from the world), in abstraction, or "objectively." They are formed in relation to the experience of agents, through their perceptual/motor apparatuses, in their world and linked to their goals and actions*" (Sun, 2000).

The aim of this study was to investigate the symbolization of pain in Greek patients suffering from psychiatric symptoms and compare these findings with similar data obtained control subjects. The representation of pain was indicated using the fields of color, day of the week, month, natural element and weather condition.

Material and methods

The total number of individuals tested was two hundred and seventy-two (272): a) 201 healthy individuals (107 males and 93 females) that were either undergraduates or postgraduate students of Greek Universities and b) 71 patients (47 males and 24 females) with psychiatric symptoms hospitalized at a private psychiatric clinic in Greece. The average age of these participants was 30.39 years (range: 18-45 years). All the participants who fulfilled the study's requirements and accepted to participate in it were informed of the procedure of the study.

All participants were asked to complete a questionnaire that included: questions on the recording of social representations of symbols based on free association methods. All participants were asked to complete these "battery" of self-report instruments and to provide their demographic data (age, gender, family status, employment and educational background).

Data Analysis

For the description of the sample's social, demographic and psychological characteristics, distribution frequencies, means and standard deviations were calculated. The criteria for testing normality was: $\geq \pm 2{,}00$ for the Skewness and $\geq \pm 5{,}00$ for the Kyrtosis. The parametric independent student T test was adopted to compare the scores of both the patients' and the healthy individuals' group's on the quantitative variables, since their distribution was symmetric. The Pearson x^2 (chi-square) tests were performed for the comparison of categorical variables. Statistic Analysis was performed using a Statistical Software Package for Social Science (SPSS 22.0, 2013).

Results

Demographics

Fullness index mean standard deviations and distribution frequencies of demographic characteristics of the sample are being presented in Table 1. The participants, of this study, were 164 (27.6%) men and 431(72.4%) women of mean age 34 (SD=12), ranged 18-75. Complete data were also available for the two groups (patients-healthy individuals). Significant differences between the two groups were observed in age (t =-36.303, p=.000), family status (L.R.= 58.553, p =.000), dwelling (x^2_P=32.971, p =.000), educational background (L.R.= 157.874, p =.001) and employment (L.R.= 115.563, p =.000).

Table 1. Demographic characteristics and differences between patient group and healthy individuals group.

Variables	Healthy individuals	Patients	Total	Differences P value
AGE	53.61 ± 9.99	22.15 ± 4.248	30.39±15.21	t =-36.303 p=.000
GENDER				
Men	107	47	154	x^2_P=3.443
Women	93	24	117	p=.064
FAMILY STATUS				
Single	190	43	233	
Marital	10	12	22	L.R.= 58.553
Divorced	0	10	10	P=.000
Widowed	0	6	6	
Dwelling				
Village - Town	53	0	53	x^2_P=32.971
City <150.000 Residents	50	11	61	P=.000
City>150.000 Residents	96	60	156	
Educational level				
Primary education	0	23	23	
Junior High School	2	17	19	L.R.= 157.874
High School	33	20	53	P=.000
Student	113	2	115	
University Graduate	40	6	46	
Post Graduate degree	12	3	15	
EMPLOYMENT				
Unemployed	27	12	39	
Housekeeping	0	13	13	
Self-Employed	18	7	25	L.R.= 115.563
Private Sectors	22	6	28	P=.000
Public Sector	4	0	4	
Retired	31	33	64	
Student	97	0	97	

AGE is expressed as Mean ± Standard deviation, x^2_P = Pearson's chi-square, t= T Test, L.R. = Likelihood ratio.

Table 2. Symbolisms of Pain and differences between patient group and healthy individuals group.

Variables	Healthy individuals	Patients	Total	Differences P value
PAIN & NATURE				
Mountain	134	40	174	
Sea	55	30	85	x^2_P=8.145
Mountain & Sea	2	0	2	P=.017
None	8	0	8	
PAIN & WEATHER PHENOMENON				
Rain	18	9	27	
Hail	62	13	75	L.R.= 34.182
Snow	14	9	23	P=.000
Storm	73	10	83	
Heat Wave	25	29	54	
PAIN AND MONTH				
January	24	15	39	
February	27	13	40	L.R.=27.111
March	8	6	14	P=.004
April	4	6	10	
May	8	1	9	
June	0	2	2	
July	3	2	5	
August	8	4	12	
September	30	5	35	
October	19	4	23	
November	30	4	34	
December	30	7	37	

x^2_P = Pearson's chi-square, L.R. = Likelihood ratio.

Variables	Healthy individuals	Patients	Total	Differences P value
PAIN & COLOR				
White	4	2	6	
Black	104	33	137	L.R.= 13.849
Gray	21	3	24	P=.310
Brown	4	2	6	
Red	27	16	43	
Green	6	1	7	
Blue	3	2	5	
Yellow	11	3	14	
Light Blue	2	3	5	
Purple	9	2	11	
Orange	0	1	1	
Bordeaux	1	0	1	
Pink	1	0	1	
PAIN & DAY				
Monday	88	25	113	
Tuesday	30	14	44	L.R.=18.910
Wednesday	20	7	27	P=.004
Thursday	9	3	12	
Friday	6	7	13	
Saturday	4	8	12	
Sunday	34	5	39	
PAIN & AGE				
0-1	2	4	6	
1-12	8	3	11	
12-20	25	9	34	L.R.=21.966
20-30	33	3	36	P=.003
30-50	45	7	52	
50-60	12	7	19	
60-70	10	4	14	
>70	59	33	92	

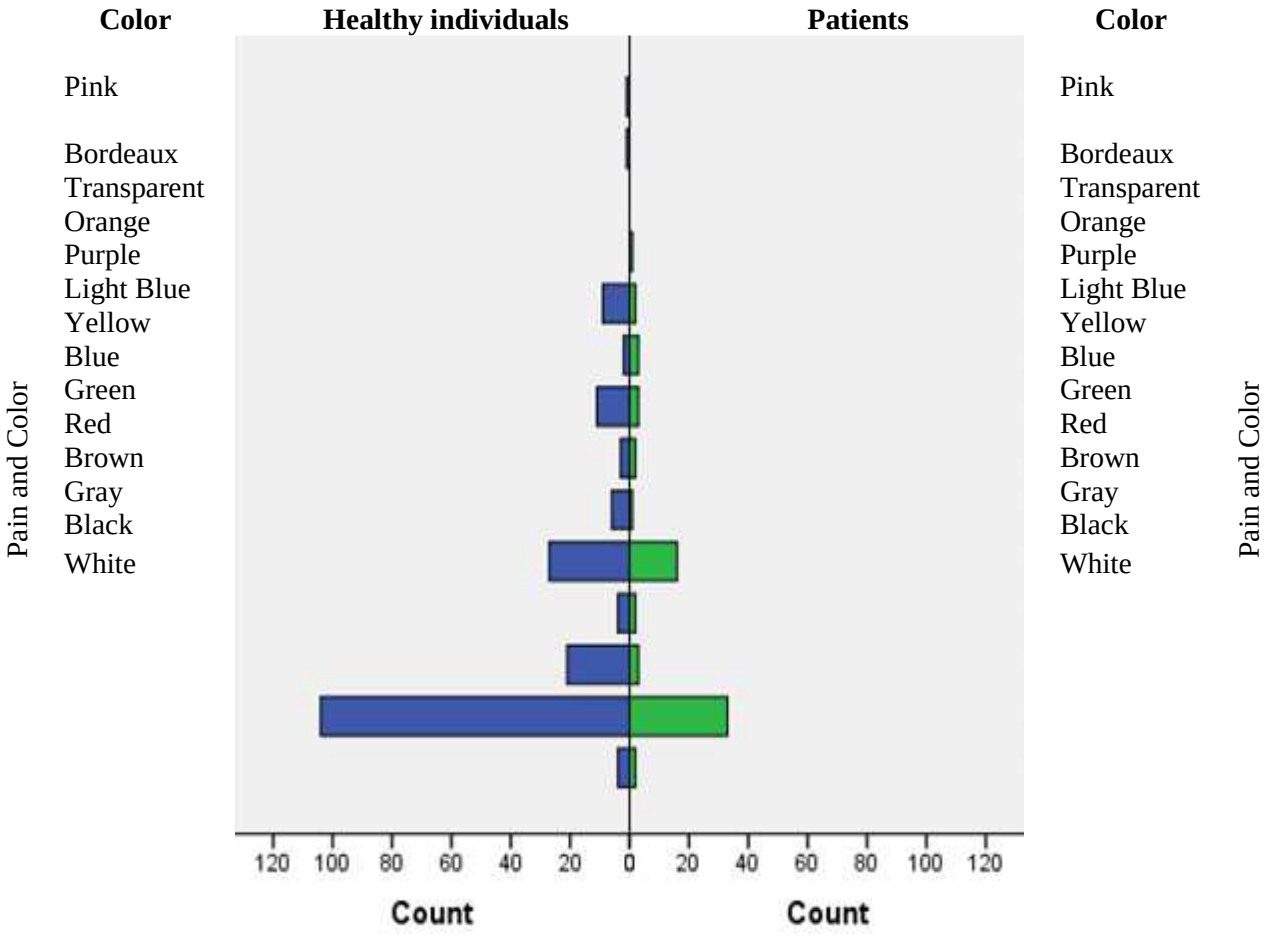

Figure 1: The relationship of pain with the color

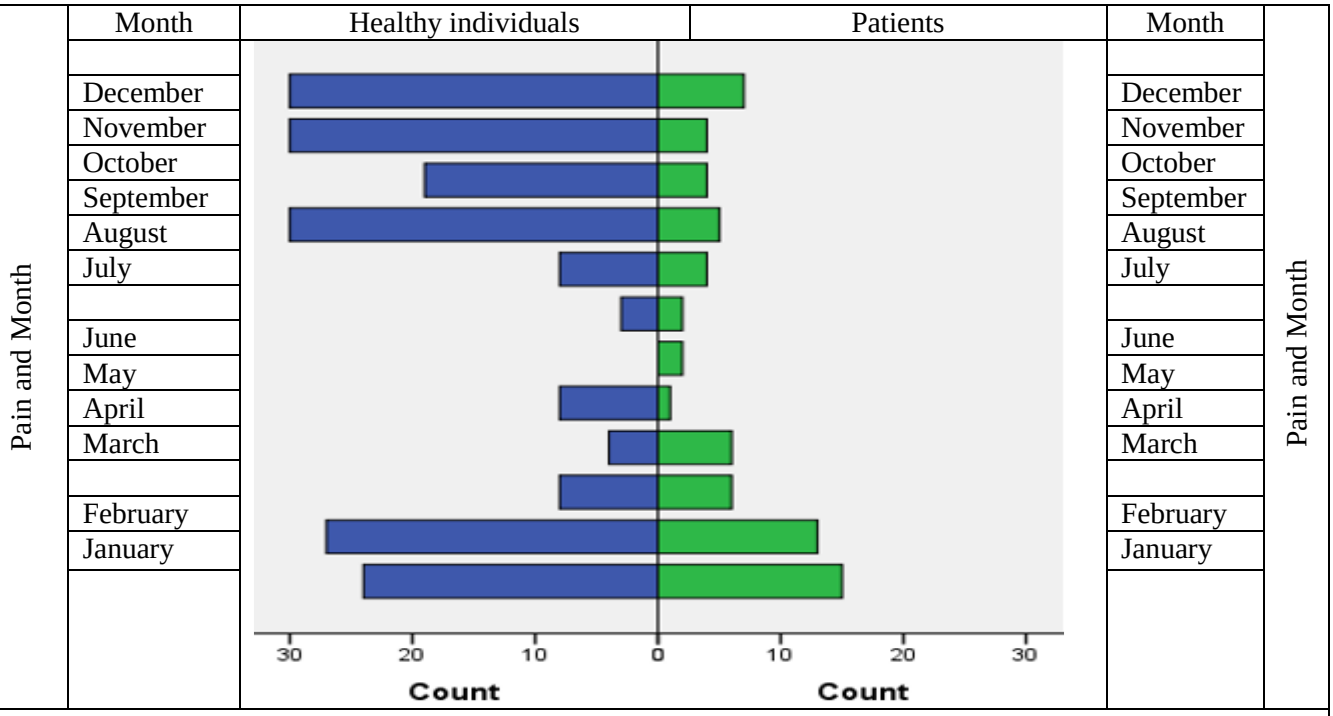

Figure 2: The relationship of pain with the month.

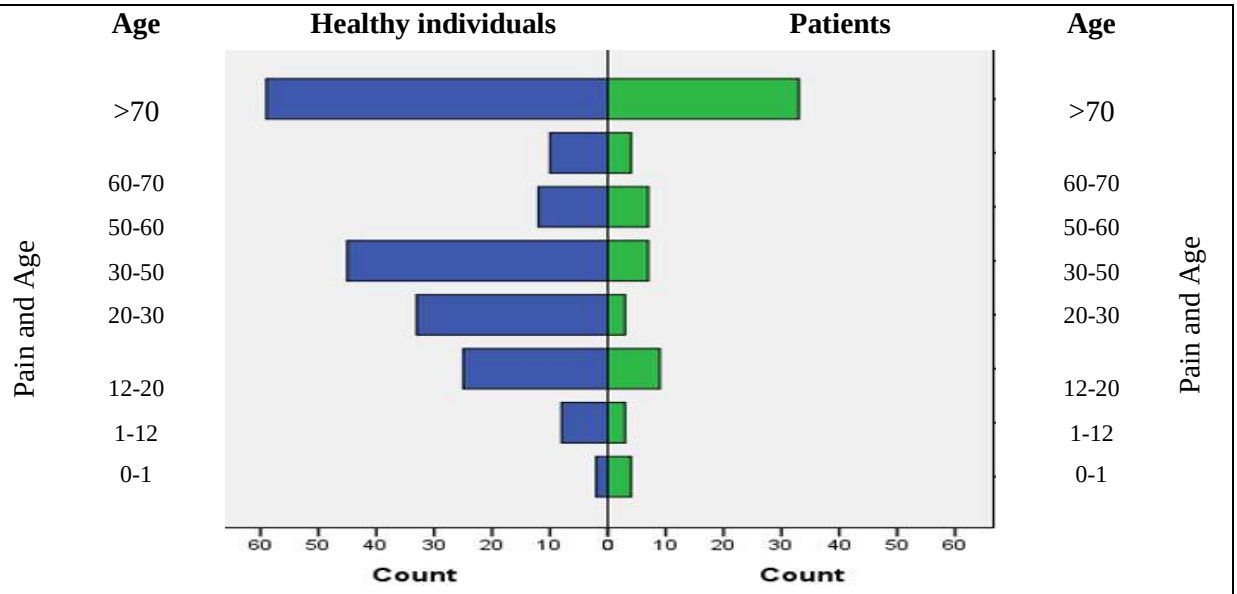

Figure 3: The relationship of pain with the age.

Frequencies and Differences of Pain Symbolisms

Fullness index distribution frequencies of pain symbolisms of the sample are being presented in Table 2. Pain and color association did not differ significantly between the two groups (L.R.=13.849, p =.310), but significant differences between the two groups were observed in pain and nature (x^2_P=8.145, p =.017), pain and weather phenomenon (L.R.=34.182, p =.000), pain and month (L.R.=27.111, p =.004), pain and day (L.R.=18.910, p =.004) and pain and age (L.R.=21.966, p =.003).

The preference of the association of pain with black color, red color and gray color is distinct and does not appear to differ between patients and controls (Figure 1). The pain is related for the group of patients mainly to January and February while the healthy group is shown to associate pain with almost all the months of winter and autumn (Figure 2). The patients often associate pain with an age of over 70 years old while healthy individuals associate pain with an age of both over 70 and 30-50 years old (Figure 3).

Discussion

The present study attempted to show the language of pain in terms of symbolism and the correlation between pain symbols, along with the differences between psychiatric patients and healthy individuals.

More analytically, concerning the symbolism of pain, 64.7% of the participants represent pain as mountain (57.1% patients and 67.3% healthy individuals) and 31.6% as sea (42.9% patients and 27.7% healthy individuals), 31.7% represent pain as storm (14.3% patients and 38.0% healthy individuals), and 28.6% as hail (18.6% patients and 32.3% healthy individuals), 54.0% represent pain as Monday (44.6% patients and 57.5% healthy individuals) and 34.9% associate pain to an age of over 70 years old (47.1% patients and 30.4% healthy individuals).

It is obvious that both healthy participants and patients in the sample (6 to 10) consider mountain as a pain symbol, a result that does not match with Cirlot's study for symbols (1995), where mountain is associated to positive symbolic interpretations. According to Jung however, who's study interprets this result, the symbols, even when they seem accessible in everyday life, may have additional versions in their conventional and evident meaning. Therefore it is quite understandable why the majority of both healthy and patients in the sample choose to symbolize pain with the mountain. Very often Greek people use the following adage ''my hardships are a mountain", especially in Cretan mantinades like "'my pain is a snowy mountain, but I happily await the spring to melt the ice", expression ''my hardships are a mountain and even if they were covered by snow

they couldn't hide the pain they hold inside'' (www.mantinades.gr).

Another pain symbol that emerges from the results of the current study concerns the storm and the hail. The storm in Cirlot's study (1995) takes on a sacred essence because it is sent by the heaven, just like the pain, according to christianism, may come in order to mature people and ''storms must precede to clear the sky'', as well ''God' s providence uses the illness and the grief as medicines in order to bring human close to Him and to raise his virtue'' (Gerontas Efrem, 2008).

Both patients and healthy participants in the sample use Monday to symbolize pain. This result is reinforced by Rystrom & Benson 's study (1989), according to which, Monday as the first working-day of the week, is an extremely difficult day, despite the fact that Stone et al.'s results (1985) did not show higher levels of dysphoric mood than those of Thuesday. Healthy participants in the sample, except from Monday, they also chose to symbolize pain with Sunday in addition to Monday, a result that does not agree with the results of Stone et al.'s study (1985), according to which the positive mood was higher and negative mood was lower on the weekend. Perhaps in today's reality Sunday habits have changed and people work or are in a bad mood because of the realization that Sunday is the last day for rest or because they note that they did not have a weekend they expected.

As far as months are concerned, January and February stuck out. The majority of the sample symbolized pain with the two last months of winter, a result that is reinforced and interpreted by Schlager et al.'s (1995) study, according to which pain may be a common presenting symptom in seasonal affective disorder, and the results of Oren et al's study (2002) according to which low nocturnal bilirubin levels may be associated with winter seasonal depression.

Both patients and healthy participants in the sample use older age and specifically the age of 70 years old and more to symbolize pain. This result is not in accordance with the symbol of pain literature (Cirlot, 1995), but supported by the study of Rosow (1974) according to which older people are not a viable symbol of historical continuity and respected tradition and are more disadvantaged than younger.

Finally, concerning the color symbolism, the preference in associating pain with black color, red color and gray color is distinct and does not appear to differ between patients and healthy. This result is in accordance with the symbol of pain literature (Cirlot, 1995) and supported by the study of Boyatzis and Varghese (1994) which revealed that dark colors (e.g., black, gray) are associated with negative emotions but and the findings of Kaya & Epps (2004) which revealed that black color with funerals. In addition,, our results to the red color enhanced by the findings of Kaya & Epps (2004) which the color red was associated with evil, Satan and blood and a certain negative emotion, moreover people exposed people exposed to red color reported higher levels of anxiety (Mahnke, 1996).

Conclusions

Expectedly, correlations among the symbolism of pain and the variables investigated in this study were found. Maybe the representation of pain as "a violent force" in "Ego" seems almost unaffected by the psychiatric condition of the individual. Although, symbols are here and more often accompanies pain psychic representation. In fact, serious concerns have arisen relevant to pain management. Pain symbolism should also be assessed in people suffering from pain, since it can relief them through an analytic procedure.

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