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Classism and dehumanization in chronic pain: A qualitative study of nurses' inferences about women of different socioeconomic status

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Abstract

Objectives: Class-based dehumanization in health is poorly investigated. Beliefs about social class are often shared across cultures, with people of lower socio-economic status (SES) being typically dehumanized. This study specifically examined how nurses' perceptions of pain patients' SES were associated with (more or less) dehumanizing inferences about their pain, and different treatment recommendations.

Design: Sequential mixed methods including similitude analysis (statistical analysis of qualitative data) and a thematic analysis. Fifty-female nurses watched short videos of two white women of different SES (low vs. middle) and similar levels of pain behaviours. Afterwards, nurses were asked to complete: (1) a Free Association Task (associating characteristics and a profession to the women); and (2) a Story Completion Task (writing a story describing women' lives, pain and recommending treatments). Data was analysed with Similitude and Thematic analysis.

Results: The women's SES was recognized, linked to distinct professions, and associated with distinct inferences. The middle-SES woman was depicted with both uniquely human (e.g. autonomous) and human nature (e.g. communicative) traits, positive future prospects, competence to self-manage pain. The low-SES woman was associated with human nature traits (hard-working) but denied uniquely human traits associated with competence; she was imagined as passive towards pain, with poor future prospects and referred to psychoeducation.

Conclusion: Findings reveal the role of class-based cultural belief-systems in pain care, showing how nurses' recognition of low-SES is associated with dehumanizing inferences and recommendations, which may contribute to reproducing pain care disparities. Theoretical implications of these findings for social and health psychology are drawn.

Keywords: Dehumanization; classism; socioeconomic status; chronic pain; pain assessment and treatment.

Introduction

Chronic pain, *i.e.* pain persisting beyond a conventional tissue healing time (3 months; Merskey & Bogduk, 1994), is currently a major public health problem. Chronic pain is one of the leading causes of disability worldwide (Vos et al., 2017) and one of the chronic conditions with the most adverse impact on the quality of life of individuals and their families (Sprangers et al., 2000). Moreover, chronic pain is more prevalent among people of low-socioeconomic status (SES) (Bonathan et al., 2013; Brevik et al., 2013; Meghani et al., 2012), who also receive less specialized treatments (Bonathan et al., 2013; Tait & Chibnall, 2014). Nevertheless, the psychosocial processes that may help account for this, such as class-based dehumanization, or “denial of humanness” (Haslam, 2006), in health-care contexts, are poorly investigated. The present article explores the relations between classism and dehumanization by health-professionals in the context of chronic pain. Specifically, it is a mixed-methods exploration of how nurses’ perceptions of pain patients’ SES is associated with the (more or less humanizing) inferences they make about them.

The neglect of the psychosocial processes involved in class-based dehumanization in health-care can be linked with two main aspects. First, the psychosocial literature has paid more attention to racism and sexism than to classism, *i.e.*, the use of culturally shared belief-systems about the social classes for making inferences about specific individuals (Lott, 2002). This has left class-based dehumanization *per se* – *i.e.*, independent of racism or sexism – under-studied. Nevertheless, recently some studies have shown how certain beliefs about class are shared across cultures (see Durante et al., 2013 for a comparison of several societies in different continents) and across time (Volpato et al., 2017), consistently presenting people of low SES under a dehumanizing light, for example by denying them competence (Durante et al., 2013; Loughnan et al., 2014) and self-control (Joffe & Staerklé, 2007). Second, the literature on health and pain-care inequities has also been more focused on the role of racism (Hicken et al., 2018; Maina et al., 2018) and sexism (Bernardes et al., 2008; Samulowitz et al., 2018), than on that of classism (but see Hoebel & Lampert, 2018; Schuz, 2017). Therefore, health psychology still needs a “stronger consideration of SES” (Schuz,

2017,p.5). SES has already been shown to be associated with health behaviors – e.g., physical activity (Vasiljevic et al., 2016) or early help-seeking for breast cancer (Marcu et al., 2016) – but its role in the dehumanization of low SES pain patients by health-professionals is still poorly understood (Haslam & Stratemeyer, 2016; Diniz et al., in press).

The current study aims to contribute to better understanding this role, specifically exploring the (potentially dehumanizing) class-based inferences nurses make regarding pain patients. These processes are particularly important in the relations between nurses and chronic pain patients, where dehumanization may have damaging life-long repercussions for patients, since nurses have frequent and close contact with them, often being mediators between them and other health professionals (Kress et al., 2015; Twycross et al., 2018). It is thus crucial to better understand how their recognition or perception of patients' SES – the processes that may trigger classism – is associated with the inferences they make about them and their pain, how consistent these inferences are with the dimensions that current models theorizing humanness and dehumanization identify, as well as how the recognition is related to treatment choices. These are the issues the present article tackles, by examining how nurses ($n=50$) who saw short standardized videos of two white women of *different* SES (about which they were not informed) and *similar* levels of pain-behaviors recognize the SES of the women by attributing them a profession and make inferences about them going beyond the information viewed.

In what follows, we start by presenting a brief overview of the antecedents and consequences of classism, namely the dimensions involved in class-based dehumanization, and how they are expressed in health-care and chronic pain contexts. Then we sequentially present and discuss two analyses of the tasks that nurses completed after watching the videos.

1. Classism antecedents: Recognizing social class

Classism, like sexism or racism, requires antecedents - categorizing the person in terms of class, sex, or race – before it has consequences. However, the recognition of class for categorizing

the person is more problematic than that of sex and race, and most research on classism has relied on experimental designs that explicitly manipulate SES in laboratory settings (*e.g.*, by offering vignettes information about profession, income, or educational level; Kraus & Keltner, 2009; Kraus et al., 2017). Consequently, much less is known about the unguided recognition or perception of SES, *i.e.* those happening when no information on SES is provided by the researcher. A few studies suggest that the recognition of SES easily happens from facial images (*e.g.*, Facebook photographs containing cultural symbols of social class; Becker et al., 2017) and from signals such as physical appearance, *e.g.* body-mass index (Bjornsdottir & Rule, 2017). However, to what extent unguided recognition/perception consistently leads to similar conclusions in a group (*e.g.* nurses) and how or whether dehumanizing inferences follow from it are issues that have been less studied. Indeed, today the literature identifies the need to better understand whether the recognition of class during more naturalistic situations (*e.g.*, in clinical encounters) is easily achieved (Kraus et al., 2017), and what consequences follow for the person after s/he is categorized in a certain class.

2. Classism consequences: What can be denied and offered in class-based (de)humanization

As with race and sex, the shared belief-systems associated with class consistently shed a positive light over some groups (middle/high classes) and a negative light over others (working classes; Volpato et al., 2017). The negative light frequently entails what the psychosocial literature identifies as dehumanization, *i.e.* the denial to certain groups and individuals of human traits and characteristics (Haslam, 2006; Waytz & Schroeder, 2014; Todres et al., 2009). The models in this literature – Dual Model of Dehumanization (Haslam, 2006), Mind Perception Theory (Gray et al., 2007) and Stereotype Content Model (SCM; Fiske et al., 2002) – identify two dimensions of humanness. They examine what trait inferences about Others (persons or groups) deny that humanness, and whether that denial is more or less extreme (*e.g.*, combines dimensions), and what consequences follow. Initially focused on extreme forms of dehumanization in contexts of inter-

group violence, this literature currently views dehumanization also as an everyday, subtle, and pervasive event (Bastian et al., 2014a; Haslam, 2014; Leyens et al., 2001).

The Dual Model sees humanness as involving *Uniquely Human* traits (rationality, secondary emotions, culture) and *Human Nature* traits (warmth, emotional depth). The denial of the first dimension leads to animalistic dehumanization, with people likened to animals (Haslam, 2006), or infrahumanization, *i.e.* denial of secondary emotions, (Leyens et al., 2001). The denial of HN traits corresponds to mechanistic dehumanization, likening people to machines (Haslam, 2006). Mind Perception theory, in turn, identifies the two dimensions of agency (the ability to plan and act) and experience (feelings, emotional responsiveness; Gray et al., 2007). Finally, the SCM assumes that people judge others in two main dimensions: competence (intelligence, efficacy) and warmth (friendliness, kindness) and social groups can be denied both (leading to extreme dehumanization and indifference), one, or neither (Durante et al., 2013).

Studies with these models show some consistency across cultures. For example, people/groups of low SES are systematically subjected to animalistic dehumanization in the UK, US and Australia (Loughnan et al., 2014), predominantly by denying them intelligence/competence (Lott & Saxon, 2002; Varnum, 2013), and self-control (see Durante et al., 2013 for comparisons of societies in different continents; Joffe & Staerklé, 2007; Volpato et al., 2017), and are targets of more indifference and blame (Waytz & Schroeder, 2014). People/groups of higher SES are described as competent (*e.g.*, intelligent), and healthy (Durante et al., 2017; Varnum, 2013). These patterns also seem to have historical stability (Volpato et al., 2017): people holding jobs that do not require specific skills (*i.e.* the *animal-laborans*; Arendt, 1958; Volpato et al., 2017) have historically been dehumanized through denial of competence (Volpato et al., 2017). In turn, people with specific professional skills have been seen as expressing their humanness through work (the *homo-faber*; Arendt, 1958), and ascribed creative thinking (Volpato et al., 2017).

In the health literature, specific models theorizing dehumanization in health-care were also developed (Haque & Waytz, 2012; Todres et al., 2009). Rather than examining how trait inferences

impose dehumanization onto the other, as psychosocial models do, these models highlight how health-care practices may be felt as dehumanizing by patients. For instance, a dimension such as *Loss of personal journey* illustrates how health-care practices can be experienced by patients as dehumanizing by disregarding their future, presenting it as an endless repetition of the present and thus denying them human essence, *i.e.* “to move into the unfamiliarity of the future” (Todres et al., 2009, p.72). Another dehumanizing dimension – *homogenization* – highlights how patients are often treated as “the disease/illness”, thus as similar to and interchangeable with others, rather than as an individual entity (Todres et al., 2009). The phenomenological approach of these models complements the social-psychological ones, usually tested with experimental methods, for a better understanding of what dimensions might be involved in class-based dehumanization by health professionals.

3. *Class and dehumanization in health and pain*

Health-care demands that professionals manage complex tasks (Haque & Waytz, 2012), which may enhance their use of shared belief-systems like those of classism (Ryn& Burke, 2000). However, as mentioned, few studies directly assess the relation between classism and dehumanization in health. Those that do so show how people of low SES (and social minorities) are presented by health professionals as incompetent in using medication, less compliant with recommended treatments (Hollingshead et al., 2016; Ryn& Burke, 2000), and as having worse health outcomes due to lack of self-control (Burguess et al., 2017).

Also, the use of shared belief-systems is more likely when people deal with complicated tasks involving ambiguous evidence, as often happens in chronic pain (Burguess et al., 2008; Tait& Chibnall, 2014). In this regard, some studies suggest that classism interferes in pain assessment and treatment (Hollingshead et al., 2016; Maly&Vallerand, 2018), with chronic pain more prevalent among low-SES people (Breivik et al., 2013; Bonathan et al., 2013), who often have their pain under-assessed when compared to patients of middle/high-SES (Hollingshead et al., 2016; Meghani

et al., 2012). However, the question of whether and how SES is associated with dehumanizing trait-inferences in pain care has not yet been directly examined, mostly due to two trends. First, studies of inequities in health-care have been more attentive to disadvantaged populations in general – *i.e.*, those disadvantaged by an association of race/ethnicity *and* class - thus not focusing specifically on classism *per se*. Second, the few studies analysing dehumanization in health-care with psychosocial models have been more focused on how the dehumanization of patients can protect the mental health of professionals (Trifiletti et al., 2014; Vaes& Muratore, 2013), disregarding the processes and consequences of class-based dehumanization to patients themselves. It is hence relevant to study how the recognition of patients' SES by pain care professionals –*e.g.* nurses– is linked with dehumanizing inferences, what dimensions of humanness these deny, and to what treatment recommendations they may be associated.

Addressing the *lacunae* and goals identified above, the present study explores with a mixed-methods approach how nurses' unguided recognition of the SES of women in chronic pain is associated with how they imagine these women: *i.e.*, with how they make class-based inferences going beyond the information received about them and choose treatments for them. Chronic pain patients are predominantly female (Azevedo et al., 2012; Breivik, et al., 2013) and in Portugal, where the study was conducted, the majority of nurses are also female. We therefore chose to focus on understanding how female nurses make inferences about female patients, the more frequent interpersonal configuration in clinical encounters. The study specifically examined: (1) how the SES of women in pain was recognized/perceived by nurses through the attribution of a profession; (2) how it was associated with more or less dehumanizing inferences about traits and forms of dealing with pain; (3) what this revealed regarding the dimensions of dehumanization (*e.g.*, a clearer denial of human uniqueness or of human nature, or both) (4) how the treatments suggested for the women were associated with their SES.

Method

Participants

Fifty Portuguese female nurses from several private/public hospitals and services (*e.g.*, orthopedics, pain units), from Lisbon and Porto were invited to take part in a research about how nurses make sense about people with chronic pain. The nurses had a minimum of five years of professional experience and had on average been working for 17.4 years ($SD=8.9$); their ages ranged from 28-57 years ($M=40.6$; $SD=9.3$). Previously, an ethical approval was obtained from the Institutional Review Board of each hospital.

Procedures of data collection

The nurses were shown four short (12ss), no-sound videos from the *Ghent Pain Videos of Daily Activities* (G-PAVIDA; see DeRuddere et al., 2013) featuring two women, each doing two different pain-inducing movements (*i.e.*, they were shown two videos of each woman). The G-PAVIDA are videos prepared for research, with standardized settings, situations, and movements. Several of these videos, all featuring white European women, were pretested with a sample of Portuguese lay-people ($N=89$; 78.7% women; $M_{age}=33.8$), who were asked to assess the SES of the women with the *MacArthur Scale of Subjective Social Status* (Adler et al., 2000). Afterwards, two videos were chosen of two women whose positions in the *MacArthur Scale* significantly differed ($M=4.5$ vs. $M=6.2$, out of 10; $t(85)=9.26$, $p<.001$); one woman was perceived as being of low-SES (henceforth L-SES) and the other as being of middle-SES (henceforth M-SES). The M-SES woman was tall and skinny and wore glasses; the L-SES woman was shorter and had a higher, but within normal range, body-mass index (BMI). The chosen videos showed the two women performing two standardized pain-inducing movements: (1) sitting-down on a chair, then standing-up; and (2) taking a box off the ground, putting it on a table, replacing it on the ground. The women's pain behaviors in the chosen videos had been previously coded by two independent trained researchers

(see DeRudder et al., 2013 for details) and the two were considered similar regarding their levels of pain behaviors ($p=1$, Fisher's exact-test in both videos).

In the current study, the nurses hence watched (individually) four G-PAVIDA videos that presented two women of similar (pretested) pain-levels and different (pretested) SES - but they were only told that the videos were of "women in chronic pain". After watching the two videos of one of the women, the nurses were asked to: (1) freely associate five characteristics to the woman *and* attribute her a profession (*Free Association Task*); (2) write down a brief-story (with no word or time limits imposed) to describe "the woman's pain and how it affects her life", recommending also a treatment (*Story-Completion Task*). The same procedure was adopted after they had watched the two videos of the other woman. The order of presentation of the videos was counterbalanced, *i.e.* half of the nurses firstly watched the two videos of the L-SES woman, the other half firstly watched those of the M-SES woman.

Data was analyzed in two sequential steps: (1) Study 1 used *Similitude Analysis* (performed with IRaMuTeQ, a software for statistical analyses of textual *corpora*; Marchand & Ratinaud, 2012) for analyzing the *Free Association Task* data. The goal was to examine if the women were seen as of different SES through the attribution of distinct professions, and if the *attributed* SES was associated with more or less dehumanizing traits; (2) Study 2 used *Thematic Analysis* (Braun & Clarke, 2006) for exploring the *Story-Completion Task* data: whether/how inferences about each woman's life and pain, together with treatment recommendations, constructed more or less dehumanized views of them. We now report both studies sequentially.

Study 1. Similitude analysis: recognition of SES and attribution of (de)humanizing traits

Analytic procedure

Similitude Analysis (Marchand & Ratinaud, 2012; Monaco et al., 2017): produced a matrix analysis of categorical variables and lists of words, identifying the co-occurrence of evoked words and its interconnections with previously determined categorization variables: patients' (pretested)

SES and (attributed) professions (low, middle-SES, or without). *Similitude analysis* enables the identification of the interconnections between more-frequently-evoked words and variables producing a *similarity tree*. In similarity trees the size of the vertices is proportional to words' frequency, *i.e.* larger vertices correspond to higher frequencies, and the edges indicate the strength of the co-occurrences, with displayed numbers referring to frequencies of associations.

Before the analysis, all synonymous words were joined in one category (*e.g.*, “lacking knowledge”, “not informed” were grouped in the category “Poorly informed”). Words describing women's traits directly given in the videos (*e.g.*, in pain, tall) were removed, to keep the focus of the analysis exclusively on inferences that went beyond the information shown. Only words with frequency equal or above four were included. The professions attributed by nurses to each woman were categorized as low or middle-SES based on the *Portuguese Professions Classification-Index* (2011). The categorizations of words and professions were performed by two researchers and verified by a third one. Disagreements were discussed and resolved by consensus.

Results

Regarding the first research goal, the *Similitude Analysis* (Figure 1) revealed how: (1) the M-SES woman was mostly associated with middle-SES professions ($n=28$); and (2) the L-SES woman was associated both with low-SES professions ($n=26$), or with no profession (housewife; $n=14$). Most professions attributed to the M-SES woman (*e.g.*, teacher, librarian) required higher-order reasoning and inter-personal skills, presenting her as a *homo-faber* (Arendt, 1958: Volpato et al., 2017), *i.e.* as people “who fulfill their full humanity through their work” (Volpato et al., 2017, p.195). Conversely, the professions associated with the L-SES woman (*e.g.*, factory worker, farm laborer), involving mechanically repetitive tasks corresponded to those of the *animal-laborans* (Arendt, 1958). The representation of the L-SES woman as lacking specialized professional skills was reinforced by her strong association with the lack of a profession, implicitly circumscribing her to domestic chores, and suggesting an absence from the public space.

----- Figure 1 around here -----

Regarding the second research goal, the analysis of the (de)humanizing trait inferences related to each woman, there is also a clear pattern of differences (Figure 1). The words associated with the M-SES woman reflected full humanness, presenting her with heterogeneous and mainly positive characteristics. These involved both Uniquely Human and Human Nature traits: human uniqueness was reflected by intentionality and capacity of higher-order reasoning (*e.g.* informed, focused, autonomous), corresponding to autonomy and competence. The Human Nature traits offered her interpersonal skills, and ability to feel and modulate emotional states (*e.g.*, sociable, friendly, cheerful). Although some negative traits were also used (*e.g.*, anxious), they did not seem to jeopardize her overall humanness, in coherence with the notion that positive and negative traits may co-occur without denial of humanness (Bastian et al., 2014a).

Conversely, the words associated with the L-SES woman were less varied, offering an overall more simplistic image than the one characterizing the M-SES woman emerging. The traits were also mainly negative, depicting her with a restricted emotional range (*e.g.* withdrawn, sad, depressed), and implicitly suggesting difficulties in establishing interpersonal relationships. She was also imagined as lacking in intentionality and capacity of higher-order reasoning (*e.g.* resigned; poorly informed), *i.e.*, as lacking in positive Uniquely Human traits (Haslam, 2006; Leyens, 2001). Remarkably, the few positive traits she was attributed - from the Human Nature dimension - mainly relied on physical attributes (*e.g.* fighter, hardworking, physical resilience), and did not require emotional depth, illustrating what the Dual Model calls coarseness, and hence subtly dehumanizing her (see Haslam, 2006).

In conclusion, this unguided situation, in which the nurses had not received any information about the SES of the two women, they consistently attributed them professions that were consistent with the women (pretested) SES, a consistency suggesting that nurses in general would probably also categorize the women in a similar way. The categorization then led nurses in the direction of imagining the L-SES woman in a more negative and less humanized way than the M-SES woman,

who was depicted as fully human in both dimensions identified in the psychosocial models (Fiske et al., 2002; Gray et al., 2007; Haslam, 2006). In other words, nurses' unguided attribution of SES was associated with inferences that reflected classism, *i.e.*, the use of culturally shared belief-systems about the social classes for making inferences about specific individuals (Lott, 2002).

Study 2. Thematic analysis: SES and (de)humanizing inferences about the women's pain

Analytic procedure

The short-stories offered by the nurses in the *Story-Completion Task* were analysed according to the steps of Thematic Analysis (Braun&Clarke, 2006). First, multiple, theory-guided readings of the short texts produced were done. Second, a bottom-up approach inspecting differences and similitudes in the forms used for describing the women (e.g., life descriptions, type of pain, type of work, competence to manage pain, relation with others) was used to create initial meaning categories. The same was done for the treatment recommendations. Third, taking into account the theoretical framework of dehumanization and classism the initial categories were gathered into themes, and three main themes emerged: two for the life and pain descriptions, and one for treatment recommendation. These themes were further discussed among the co-authors, seeking a finer, more specific understanding of similarities and differences in the meaning categories and vocabulary used, leading to the identification of two sub-themes for each theme. The fourth step sought to understand how each sub-theme was associated with SES. For this, each extract in each sub-theme was linked with the profession that the nurses had attributed to the woman (see Table 1). This showed that some extracts came from stories there was no correspondence between the SES *attributed* by the nurses and the SES *pretested*. These extracts – which were not numerous, as shown in Table 1- were then excluded from the thematic analysis.

----- Table 1 around here -----

Results

The first theme (1) *Pain and the future*, gathered extracts about how pain affected the women's present life and prospects for the future. Its first sub-theme - (1.1) *More than Pain: Agency and hope for the future* - gathered extracts about living with a pain that is under control and allows plans for the future. The second subtheme - (1.2) *Mostly pain: No agency, no future* – gathered descriptions of an everyday full of pain impairments, with no positive future prospects. The second theme (2) *Dealing with pain*, regarded how women managed their pain, and included two sub-themes (2.1) *Competence and learning*, and (2.2) *Blame the victim*. Finally, the third theme (3) *Treatment recommendations*, had the sub-themes: (3.1) *Mixed treatments*; and (3.2) *Psychoeducation*. Table 1 shows the themes identified, their sub-themes, the frequency of extracts for each and their association with *pretested* and *attributed* SES.

Table 1 also reveals that some sub-themes are only associated with the M-SES woman (1.1., 2.1), whereas others are only associated with the L-SES woman (1.2, 2.2, 3.2). Only the sub-theme 3.1 applies similarly to both. The most illustrative extracts for each sub-theme are displayed in Tables 2 (extracts associated with the M-SES woman), 3 (extracts associated with the L-SES woman), and 4 (Treatment recommendations).

Table 2 illustrates how the M-SES woman was mainly presented as beyond and apart from her pain, although her pain was acknowledged (see sub-theme 1.1.). There was an emphasis on Uniquely Human abilities (Bastian et al., 2014b): capacity to plan and act, bringing pain under control (*She is actively involved in her own treatment*), revealing self-control, determination and competence (*She is quite autonomous and self-confident*). Shown as keeping her life moving forward, she was also offered a future, a humanizing aspect in health contexts (Todres et al., 2009). Additionally, she was imagined with a life involving positive emotions and pleasurable moments (*she loves to travel and does not want to lose that possibility*), with supportive social ties, both public (*work colleagues are continuously trying to help her*) and private (*she can rely on her husband's support*), revealing meaningful interpersonal relations and implicitly suggesting warmth,

corresponding to Human Nature traits (Li et al., 2014). In a few instances, her pain was presented as interfering with her autonomy and agency and sometimes her professional life. Nevertheless, even this aspect signaled that her professional role was central in her life, and she was still imagined as autonomous and active regarding pain, maintaining agency.

----- Table 2 around here -----

The other sub-theme exclusively related to the M-SES woman – *2.1. Competence and learning* (Table 2) – again accentuated agency and competence, now in a way directly related with the way she managed her pain, describing how her ability to learn and correctly manage recommended treatments lead to a decrease in pain and its interference in her life, again offering a humanized view. The descriptions emphasized Uniquely Human aspects: imagining her as competent, capable of self-control, of incorporating knowledge and using adaptive coping strategies, attributes often attributed to individuals of higher SES (Joffe & Staerkle, 2007). In sum, Table 2 offers an overall positive and humanized depiction of the M-SES woman. She combines Uniquely Human and Human Nature traits: agentic in daily life, competent to deal with pain, with good prospects for the future, involved in public life and with social ties, a portrait in line with general descriptions of M-SES people (Joffe & Staerkle, 2007; Varnum, 2013).

Regarding now the L-SES woman (Table 3), the picture that emerges is rather different. She is strongly associated with subtheme *1.2. Mostly pain: No agency, no future*. In the extracts from this subtheme she was described exclusively in the present tense and as strongly limited by pain, which offers her a future that only resembles the present: *i.e.* no real future (Todres et al., 2009; *She loved to do weekend evening walks with her husband but can no longer do them*). She is also portrayed without as non-agentic, imagined as passive towards her pain (*given the burden of the pain, she does not feel like doing anything*), and with limited competence to overcome the difficulties it poses her everyday activities, *i.e.* as using less adaptive coping strategies, reflecting

what the literature characterizes as the denial of Uniquely Human characteristics (Bastian et al., 2014b).

----- Table 3 around here -----

Furthermore, she was mostly imagined in domestic and family contexts, far away from public activities, and depicted as a burdened caregiver, with relatives depending on her (*her pain increased since her husband became sick and dependent on her*). She is also seen as performing non-specific tasks (shopping, house chores) that do not require creativity or cognition, thus equated to *animal-laborans* (Arendt, 1958; Volpato et al., 2017) and fitting a typical description of L-SES people (Kraus & Keltner, 2009).

This depiction is reinforced in sub-theme 2.3. *Blame the victim* also strongly associated with the L-SES woman, and which gathers extracts blaming her for mismanaging her pain, and being to blame for it, by ignoring correct body movements, having incorrect postures and/or unhealthy behaviors (Table 3). In the context of these inferences, she is denied competence, and her pain comes out as an individual failure (Joffe & Staerklé, 2007).

Overall, of these first four sub-themes identified, two are very clearly associated to the M-SES woman, and two to the L-SES woman, reflecting distinct recognitions of humanness, depending on SES. The M-SES woman was praised for her determination, self-control and competence, core dimensions of humanness (Bastian et al., 2014b; Joffe & Staerklé, 2007; Li et al., 2014), and imagined as inserted in a social network that included public (co-workers) and private (husband) supportive relations, helping her overcome pain limitations, keeping a future with positive prospects. On the contrary, the L-SES woman was presented as imbedded in pain, lacking self-control to overcome its impairments, being condemned to a future similar to the present, i.e., to what some health models identify as *Loss of personal journey* (Todres et al., 2009), and a more negative and dehumanized view of her emerged. Moreover, she was systematically framed in a

domestic context, where, instead of relying on social support, she was imagined as needing to provide care to others. She was displayed as responsible for her pain and limitations, failing to adopt correct health behaviors.

Regarding the last theme - *3. Treatment recommendations* - its first sub-theme was the only one similarly associated to both women: offering similar pharmacological and non-pharmacological treatments (e.g. physiotherapy, massages; Table 4).

----- Table 4 around here -----

Although the L-SES woman was presented with a life more impacted by pain – as shown above – treatment recommendations were similar. This finding may reflect a specific and problematic bias: pain was seen as having different impacts, but pharmacological/non-pharmacological treatments are similar. The similarities in treatment recommendations were, however, mitigated by the fact that only the L-SES woman is referred to psychoeducation, for postural correction and medicine management (Table 4, sub-theme 3.2.).

These recommendations imagined her as having a limited knowledge about health behaviors, pain management, and medication: i.e. as lacking competence, a trait of Human Uniqueness (Haslam, 2006; Li et al., 2014). The denial of competence is related in the literature with condescension, leading to treating others as hopeless and unintelligent – here revealed by the vocabulary constantly suggesting teaching, educating, training. Hence, psychoeducation is prescribed as a way to “rehabilitate” the L-SES woman’s deficits, providing her with knowledge, autonomy, and self-control, depicting her in a paternalistic way (Fiske et al., 2002), increasing boundaries in self-other relation, reproducing the historical system of beliefs supporting classism (Lott, 2012; Volpato et al., 2017).

Discussion

The goal of this study was to investigate the relation between classism and dehumanization in health-care relationships by examining how nurses recognized the (different) SES of two women with (similar) pain-behaviors and whether and how this recognition was associated with different (de)humanizing inferences about them and treatment suggestions. The mixed-methods approach proved a relevant way for understanding how nurses imagined women of different SES through the lenses of the shared belief-systems of classism. As such, it extends our understanding of how class-based dehumanization, independent of racism or sexism, may be involved in the dehumanization of pain patients by health professionals.

Regarding the first research goal, the *Free Association* task demonstrated how after just a very short non-verbal exposure, nurses inferred the women's SES in a consistent way, attributing them a profession consonant with their pretested SES. The second research goal, relying on similitude analysis, displayed how SES was linked with distinct (de)humanizing inferences. Further, the *Story Completion Task*, depicted how the pain experiences and competence to manage pain were differently imagined according to women's SES – third goal; and recommended to distinct treatments – fourth goal. In a synthetic rendering of the findings, the M-SES woman was imagined as fully human, agentic to manage pain, inserted in a supportive social network, and with a future. The L-SES woman was devalued through dehumanizing inferences about personal characteristics denying her agency and competence to manage pain, framed in domestic contexts where others are often a burden, and without a future beyond pain. She was also recommended to psychoeducation. These descriptions are coherent with what the literature has suggested regarding the shared belief systems of classism, which devalue low-SES people (Durante et al., 2013; Joffe & Staerklé, 2007; Kraus et al., 2017; Loughnan et al. 2014; Lott, 2012).

This work provides theoretical, methodological and applied contributions to the current state of the art of health and social psychology. First, by examining class-based dehumanization at the interpersonal level in health relations, goes a step further than the current literature, which has

neglected SES effects on health and dehumanization (Diniz et al., in press; Haslam & Stratemeyer, 2016). The innovative joint analysis of SES's recognition and of how it is associated with different inferences – i.e., different imaginations – about people in pain, contribute to a better understanding of the complex paths that the belief-systems of classism may follow in health relations for the dehumanization of those with lower-SES. Second, the mixed-methods approach provided a deeper understanding about class-based dehumanization, expanding its debate to health contexts, as has been much needed (Murray & Chamberlain, 1998). It showed how dehumanization seems to happen not just through the dimensions identified in the psychosocial models – most notoriously in this case, denial of competence and agency – but also through the dimensions identified in the literature based on the experience of those under health-care (Todres et al., 2009), in this case, notoriously, the denial of a future that does not simply repeat the present.

Third, for enabling these findings, the innovative methodological approach adopted – combining a methodology for studying the recognition of SES that extended the literature beyond experimental manipulation (Kraus et al., 2017), and the invitation to nurses write short stories about the women – was instrumental. It helped enriching previous analyses of dehumanization in health-care, joining psychosocial models (Haslam, 2006) and phenomenological models of dehumanization in health (Todres et al., 2009).

Fourth, by showing how the recognition of SES is associated with negative inferences about the competence of L-SES people, these findings provide contributions to health psychology. For example, such inferences may well be important determinants of health-care professionals' willingness to fully adopt Patient-Centered Care practices, which require being responsive to individuals' specific values, needs and preferences, promoting his/her active involvement in health-care discussions/decisions (Berwick, 2009; IOM, 2001; Mead & Bower, 2000). If L-SES patients are imagined as lacking competence and agency, less willingness to involve them is to be expected, and an impoverished communication with them, accentuating their deficits in knowledge and competence, can be hypothesized. As such, findings point to the implications of class-based

dehumanization in the quality of the nurse-patient relationship: if L-SES people are devalued in their competence to adhere to health-recommendations, ability to communicate, or to manage pain, this may undermine health communication processes, such as shared decision-making, increasing paternalistic approaches (Fiske et al., 2002; Ryn&Burke, 2000).

Some limitations of this study should nevertheless be considered. First, although the pretests of the videos indicated that the women were similar regarding pain-behaviors and were viewed as different in SES by the nurses group, many characteristics, such as BMI or others, may have influenced nurses' inferences. Therefore, a replication of these findings is warranted. Second, taking into account the procedure, direct comparisons between the two women in the videos may have emerged when the second video was watched. However, the videos were presented with counterbalanced order, allowing the comparisons to be in both directions. Third, the study design does not allow the establishment of causal relations between women's SES and (de)humanizing inferences, which should be tested in future research. Finally, this study only explores white female nurses' inferences of white female patients of different SES. The results might have been different if male nurses were asked to make inferences about male patients, and/or white nurses were asked to make inferences about black patients, or vice-versa, and thus generalizations need to be made cautiously. Indeed, it is known that class-belief systems intersect with sex-beliefs and race-beliefs to influence health (Schulz&Mullings, 2006; Hogan et al., 2017), but future research is needed to better reveal how these intersections may result in dehumanizing inferences about pain patients, and their consequences to pain assessment and treatment, as such intersectional analyses were beyond the scope of this paper. Future research may also consider exploring the belief-system concerning high-SES people and its consequences to health-care.

Nevertheless, the results obtained are striking in revealing the force with which class-based imaginations *per se*, independent of race, devalue the competence of those seen as L-SES, bringing upon them a vocabulary of blame and lack of typical human traits. Similar deficits are not apparent in the vocabulary associated with M-SES people, imagined as competent and surrounded by

competent others. These findings, by reflecting a clear reproduction of the belief-system of classism in how others of different SES are imagined and referred to treatments, suggest, overall, the importance of future research considering two points. One, that what happens at the interpersonal level – e.g. dehumanization in nurse-patient relations – cannot be fully understood if disconnected from the cultural level, i.e., the culturally shared belief-systems and the burden that they impose on some patients, but not others (Hicken et al., 2018). It needs to be better investigated whether and how this burden is associated with the fact that individuals with lower SES are more likely to develop chronic pain, and to have more disabling pain (Bonathan et al., 2013). This suggests that one form a "stronger consideration of SES" (Schuz, 2017,p.5) in health psychology should take is that of more analyses of the shared, cultural assumptions of health professionals regarding SES. Two, that the psychosocial processes of dehumanization may mediate the effects of SES on pain assessment and treatment, helping account for social inequalities in pain care by negatively affecting L-SES people, and ultimately undermining the goal of equity in health.

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Table 1.

Themes, sub-themes and frequency of extracts according to pretested and attributed SES

Themes	Sub-themes	M-SES (pretested & attributed) <i>n</i>	L-SES (pretested & attributed) <i>n</i>	No correspondence pretested/ attributed SES <i>n</i>	Total <i>n</i>
1. Pain and the future	1.1. <i>More than pain: Agency and hope for the future</i>	16	0	3	19
	1.2. <i>Mostly pain: No agency, no future</i>	0	41	3	44
2. Dealing with the pain	2.1. <i>Competence</i>	17	0	5	22
	2.2. <i>Blame the victim</i>	0	8	0	8
3. Treatment recommendations	3.1. <i>Mixed treatment</i>	24	34	14	72
	3.2. <i>Psychoeducation</i>	0	18	1	19
	Total	41	101	26	168

Table 2.

Illustrative extracts about the M-SES woman for Themes 1 and 2

M-SES woman	
Theme 1	Theme 2
Sub-theme 1.1. <i>More than pain: Agency and hope for the future</i>	Sub-theme 2.1. <i>Competence and learning</i>
<p><i>The work colleagues are continuously trying to help her, but she is quite autonomous and self-confident in her capacity to do her tasks by herself (P6).</i></p> <p><i>She suffers daily with low back pain. Her secret is to be organized and break her activities over the week in order to keep some energy for family and friends (P22).</i></p> <p><i>The pain impairs her life because she is not able to do everything she likes, but she accepts it and moves forward with her life (P28)</i></p> <p><i>She is actively involved in her own treatment. (P42).</i></p> <p><i>She has been careful, looking for strategies to reduce pain because she loves to travel and does not want to lose that possibility (P44).</i></p> <p><i>Her pain impairs some work activities and, sometimes, she needs to do some breaks to rest and relax. However, at home, she can rely on her husband's support to perform the house chores (P47).</i></p>	<p><i>The lady is acquainted with pain triggers and protective mechanisms. She is aware of these principles and uses them (P8).</i></p> <p><i>In her daily life she puts effort on decreasing pain being aware of correct body movements (P12).</i></p> <p><i>She has the pain under control because she adapted her daily routines in order to decrease pain disability. She has general well-being (P17).</i></p> <p><i>The pain is present in all performed activities and reminds her about the correct body movements to control it (P18).</i></p> <p><i>She is able to perform the requested movements, as well as to manage her pain through correct medication and correct body movements (P23).</i></p> <p><i>She uses the medicines in SOS and she does water aerobics and yoga. She knows how to manage the crisis periods with rest moments, the use of medicines and other approaches, such as acupuncture (P25).</i></p> <p><i>She knows what she should and should not do to avoid pain. (P28).</i></p> <p><i>She looked for a doctor and then correctly adhered to the proposed therapeutic plan. In addition, she enrolled in water aerobics. She presents correct body movements as a way to decrease pain in daily activities (P30).</i></p>

Table 3.

Illustrative extracts about the L-SES woman for Themes 1 and 2.

Theme 1	Theme 2
<p data-bbox="169 439 817 472"><i>Sub-theme 1.2. Mostly pain: No agency, no future</i></p> <p data-bbox="164 591 817 748"><i>Pain limits not only her working activities, but also her playing with grandchildren or holding them; or relations with husband and family, because when they invite her to go out she becomes tired and with more pain whenever she walks (P6).</i></p> <p data-bbox="164 831 817 925"><i>Her pain increased since her husband become sick and dependent on her. She takes a lot of pills to cope with pain (P10).</i></p> <p data-bbox="164 1008 817 1102"><i>Given the burden of the pain, she does not feel like doing anything. She is not able to go shopping by herself anymore (P13).</i></p> <p data-bbox="164 1184 817 1279"><i>She loved to do weekend evening walks with her husband but can no longer do them, now she avoids them because of the pain (P22).</i></p> <p data-bbox="164 1361 817 1485"><i>Pain has been preventing her professional activities, such as picking-up heavy baskets and replacing them back on the ground. When she arrives home she needs to rest and is not able to perform her house chores because of the pain (P49).</i></p> <p data-bbox="164 1568 817 1662"><i>Pain affects her movements, even the simple ones, such as climbing stairs, walking, and taking care of her mother (P24).</i></p> <p data-bbox="164 1744 817 1800"><i>The pain undermines her house chores and work tasks, as well as the relations with others (P28).</i></p> <p data-bbox="164 1883 817 1977"><i>Her pain prevents her from performing everyday activities, even the quite easy activities, such as putting shoes on (P40).</i></p>	<p data-bbox="927 439 1351 472"><i>Sub-theme 2.2. Blame the victim</i></p> <p data-bbox="847 591 1431 719"><i>[She is in] pain because of bad postures when picking up the boxes of vegetables that she grows in her garden. She has been performing these movements wrongly for years (P3).</i></p> <p data-bbox="847 801 1431 857"><i>She does not take her medicines because she believes that they are bad for her health (P6).</i></p> <p data-bbox="847 940 1431 996"><i>Pain has increased because of sedentary behaviors and obesity. (P24).</i></p> <p data-bbox="847 1079 1431 1173"><i>She is continuously seeing doctors and always with pain. She stopped taking her medicines because she remains in pain (P28).</i></p> <p data-bbox="847 1256 1431 1312"><i>She uses wrong body postures and behaviors which increased her pain (P46).</i></p>

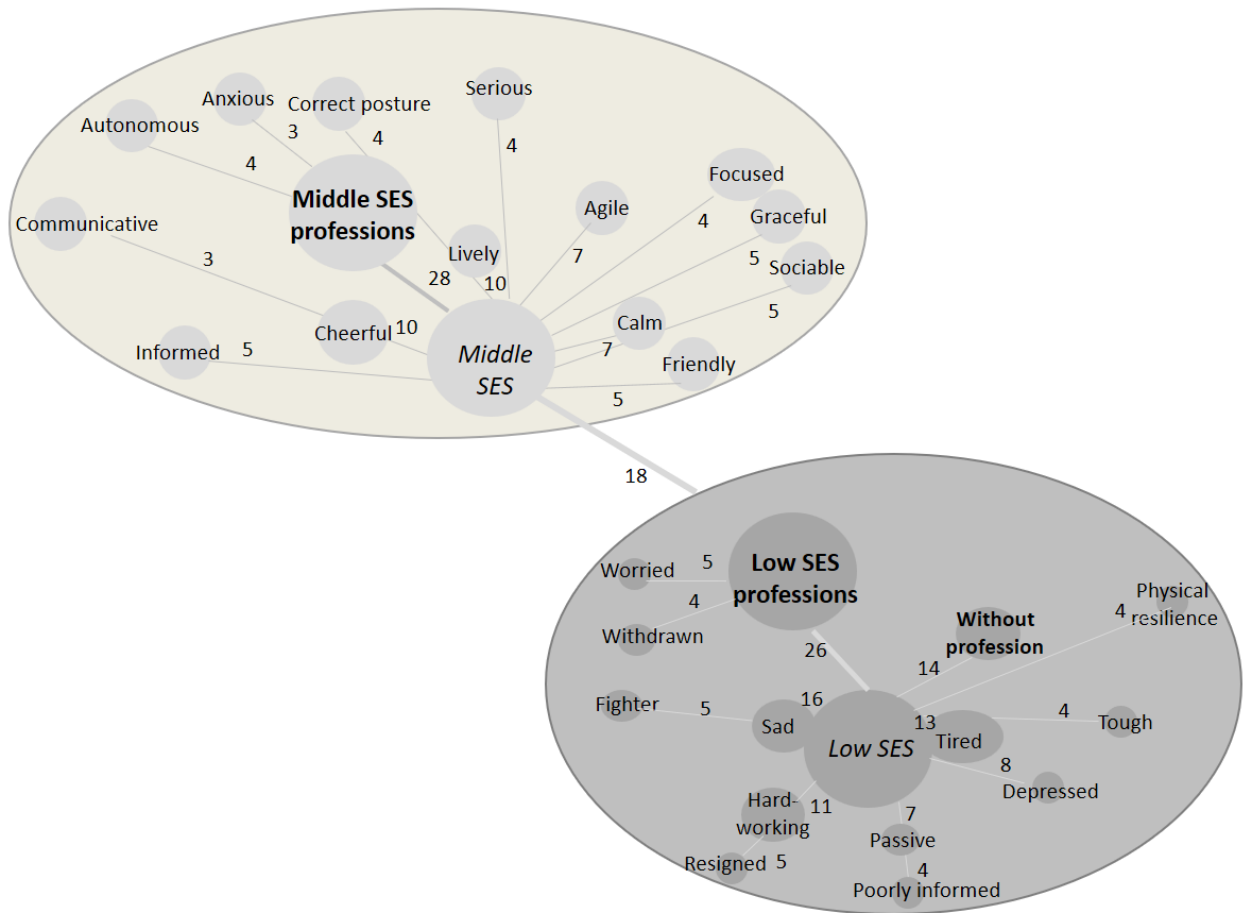
Table 4.

Illustrative extracts for Theme 3: Treatment recommendations.

Sub-theme 3.1. <i>Mixed treatment</i> ¹	Sub-theme 3.2. <i>Psychoeducation</i> ²
<p><i>Massages and relaxation techniques combined with analgesia in acute phases may improve her well-being, decreasing pain effects (P12, M-SES).</i></p> <p><i>Keep her regular medical follow-up to adjust medical treatment; use non-pharmacological therapies, e.g. water aerobics, physiotherapy (P44, M-SES).</i></p> <p><i>Physiotherapy; nursery consultation on healthcare center to be counseled about nutrition, physical activities, correct body movements. Analgesia if necessary (P24, L-SES).</i></p> <p><i>Maintain the doctor follow-ups to adjust medical treatment when necessary. Perform physical activities, such as water aerobics (P44, L-SES).</i></p>	<p><i>Find a therapist that teaches her how to do correct body movements and manage medicines for chronic pain (P3, L-SES).</i></p> <p><i>Teach her how to use a lumbar support belt to decrease her pain (P4, L-SES).</i></p> <p><i>Explain to her that a constant therapeutic plan is required, even if without pain. (P6, L-SES).</i></p> <p><i>Postural education!!! She needs to learn to schedule her activities to periods of the day in which she has less muscle rigidity (P7, L-SES).</i></p> <p><i>Teach her about pain and its etiology, as well as strategies to avoid and manage the pain. Teach her about correct movements in daily activities. Teach her about the therapeutic effects and regular therapeutic (P21, L-SES).</i></p> <p><i>Inform her about illness. Inform her about physical exercises to increase muscular strength. Teach her about medicine management (P25, L-SES).</i></p> <p><i>Teach her about correct medicine management in SOS. Teach her about correct body movements, body ergonomics and to correctly use the pain-killers. Teach her about non-pharmacological treatments to decrease pain: massages; heat therapy; muscle stretching and relaxation (P29, L-SES).</i></p>

¹ The sub-theme *Mixed treatment* was associated with both women; ² The sub-theme *Psychoeducation* was associated only with the L-SES woman.

Figure 1. Graphical depiction of words associated with the Low and Middle-SES women



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