Stigmatization and dehumanization perceptions towards psychiatric patients among nurses: A path-analysis approach

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ABSTRACT

Background: People with mental illness are stigmatized and dehumanized, which contributes to disorders' maintenance. Dehumanization is associated with abuse/neglect and should thus be evaluated among healthcare workers. We compared nurses' stigmatizing/dehumanizing perceptions of people with psychiatric versus non-psychiatric disorders. We also investigated the impact of social contact's quality/frequency and identified the determinants of dehumanization.
Methods: French-speaking hospitals and nurses' associations were contacted to disseminate the survey among their employees or members. Three hundred thirty-six nurses reported their perceptions of one among three clinical populations (people with severe alcohol use disorder, schizophrenia, or cardiovascular disease). Nurses' perception of patients was evaluated through stigmatization, dehumanization, quality of contacts, structural discrimination, and evaluation of patients' life, pain, consent, and diagnostic overshadowing. Nurses' well-being was evaluated through their own perception of being dehumanized by superiors and their burnout, depression, anxiety, and stress levels.
Results: Nurses stigmatized and dehumanized people with a psychiatric disorder more than people without a psychiatric disorder. Nurses dehumanized patients more if they felt dehumanized by their hierarchical superiors and less if they had qualitative contacts with patients.
Conclusions: Stigmatization and dehumanization are widespread among nurses in psychiatry, which advocates for less stigmatizing practices in healthcare settings. We propose concrete perspectives to reduce stigma/dehumanization among nurses.

Tweetable abstract n°1

Nurses perceive people with a psychiatric disorder as more negative and less human than non-psychiatric patients.

Tweetable abstract n°2

Nurses' perception of being treated inhumanely by their superiors is linked to psychological suffering and dehumanization of their patients.

What is already known about the topic?

- Laypeople stigmatize and dehumanize people with mental illness

- Some studies reported that nurses dehumanize patients, but comparisons between the dehumanization toward psychiatric and non-psychiatric patients are lacking
- Employees can feel dehumanized by their superiors, which can lead employees to dehumanize clients/patients (trickle-down effect)

What this paper adds

- Nurses dehumanize and stigmatize psychiatric patients more than non-psychiatric patients
- Nurses' perception of being dehumanized is associated with their psychological distress and their tendency to dehumanize patients
- Good contact quality with patients is negatively linked with dehumanization and discrimination toward them

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Introduction

The etiological factors leading to the emergence of psychiatric disorders are multifold and include psychological (e.g., personality disorders, biased cognitive processing; Mushtaq et al., 2014), environmental (e.g., armed conflicts; World Health Organization, 2013), neurological (e.g., traumatic brain injury; van Reekum et al., 2000), neurophysiological (e.g., hypersecretion of corticotropin-releasing factor; Keller et al., 2006) and socioeconomic (e.g., poverty and inequality; Carod-Artal, 2017) variables. The majority of these causes are out of the individual's direct control and are thus hard to tackle in clinical settings. Conversely, other factors highly involved in the development and maintenance of these disorders present the advantage of being directly addressable during treatment. This is particularly true for interpersonal variables like stigmatization (i.e., the negative taint applied to some groups), which is proposed to contribute to the maintenance of psychiatric disorders and is heavily experienced by people with a psychiatric disorder (Henderson et al., 2014; Loch, 2012; Ross & Goldner, 2009; Schomerus et al., 2012). The stigmatization of these individuals is so widespread that it can lead people with a psychiatric disorder to self-stigmatize (Corrigan et al., 2009; Oexle et al., 2017). This stigmatization is an important societal problem as it contributes to the treatment gap, i. e., the high percentage of people suffering from psychiatric disorders that are left untreated, notably because they avoid searching for help as they are afraid to be stigmatized (Corrigan, 2004; Kohn et al., 2004). Treatment gap prevalence lies between 32% and 78% across mental illnesses, which means that approximately one-third to three-quarters of people with a psychiatric disorder do not receive any form of treatment in Western countries (Kohn et al., 2004; Lund et al., 2012). Importantly, the stigmatization of people with a psychiatric disorder is not solely held by the general population, as healthcare workers have also been found to hold similar stigmatizing perceptions of people with a psychiatric disorder (Ronzani et al., 2009; Ross & Goldner, 2009), thus further reinforcing mental illness stigma, even during treatment.

Furthermore, in addition to being stigmatized, people with a psychiatric disorder are also dehumanized by others, i.e., they are perceived as less than human (Martinez et al., 2011). Dehumanization has been widely studied in social psychology and has been consistently associated with some of the worst interpersonal treatments like negligence, aggression, support for torture, and even genocides (Hagan & Rymond-Richmond, 2008; Kelman, 1973; Kteily et al., 2015; Kteily & Bruneau, 2017; Locke, 2009; Osofsky et al., 2005). Dehumanization can, however, vary in its expression from mild to extreme forms (Buckels & Trapnell, 2013; Demoulin et al., 2004). Thus, it appears urgent, in view of the role of stigmatization and dehumanization in psychiatric populations, to evaluate their presence and extent in clinical settings. Consequently, this article aims to compare how nurses stigmatize and dehumanize multiple clinical populations (i.e., people with severe alcohol use disorder, schizophrenia, and cardiovascular problems). To provide a more extensive understanding of the phenomenon of dehumanization of patients, we also explore how stigmatization, nurses' perception of being dehumanized by their superiors, and the quality of contact with patients will be associated with nurses' dehumanization of patients. Finally, we investigate the relations between these variables and nurses' psychological well-being, as well as variables pertaining to patients' care.

Comparisons of stigmatization and dehumanization toward people with different types of disorders

It has been recently shown that people with a psychiatric disorder, such as people with severe alcohol use disorder, are aware that others dehumanize them. This perception of being dehumanized by others is associated with higher levels of negative emotions, weaker self-esteem, and disrupted coping strategies (Fontesse et al., 2020). However, previous research focused on people with severe alcohol use disorder's perception of being dehumanized by society in general, so that it

remains unknown whether dehumanization might also arise from the nursing staff. Dehumanization from nurses toward people without psychiatric disorder has already been reported (Trifiletti et al., 2014; Vaes & Muratore, 2013), but it has never been compared to dehumanization toward people with a psychiatric disorder. No comparison of dehumanization's intensity across psychiatric populations has been performed either. To fill this gap, we conducted multiple comparisons between different patients' populations. We propose that nurses will show more stigmatization toward people with a psychiatric disorder than those without (Hypothesis 1, see Table 1) because of the strong and prevalent stigma against psychiatric disorders (Held & Owens, 2013; Rüsch et al., 2005). We argue that nurses will also dehumanize people with a psychiatric disorder more than people without psychiatric disorder because some criteria central to judgments of humanity (e.g., self-control, maturity) are perceived as typically lacking in psychiatric populations (Hypothesis 2). We thus primarily propose to compare, for the first time, nurses' stigmatizing and dehumanizing perceptions toward people with or without a psychiatric disorder.

Moreover, because people with addictive disorders are often more stigmatized and judged more harshly than other psychiatric populations (Schomerus et al., 2011), a second comparison will also be conducted between two psychiatric populations: people with severe alcohol use disorder and people with schizophrenia. We hypothesize that people with addictive disorders will be more stigmatized (Hypothesis 3) and dehumanized (Hypothesis 4) than patients with schizophrenia. A third comparison will finally investigate the effect of regular contact with a psychiatric population on the dehumanization process by comparing perceptions of people with severe alcohol use disorder among nurses with or without regular contact with this population. Interpersonal contacts are one of the main levers identified to reduce stigmatization and dehumanization (Capozza et al., 2017; Kohrt et al., 2020). We thus hypothesize that nurses with regular contacts with patients with severe alcohol use disorder will express less stigmatization (Hypothesis 5) and dehumanization (Hypothesis 6) toward them than nurses without regular contacts will.

Determinants and outcomes of dehumanization

In order to offer a comprehensive view of the phenomenon, the determinants and outcomes of dehumanization will also be explored. Regarding the determinants, the motivation for self-protection (Trifiletti et al., 2014; Vaes & Muratore, 2013) has so far been one of the few factors proposed to underlie healthcare workers' dehumanization of their patients. We will therefore measure other factors potentially linked to dehumanization: (1) Stigmatization has been previously linked to dehumanization, and we thus hypothesize that a positive link will be

Table 1
List of hypotheses.

Hyp. 1	Nurses stigmatize psychiatric patients more than non-psychiatric patients
Hyp. 2	Nurses dehumanize psychiatric patients more than non-psychiatric patients
Hyp. 3	Nurses stigmatize patients with alcohol use disorder more than patients with schizophrenia
Hyp. 4	Nurses dehumanize patients with alcohol use disorder more than patients with schizophrenia
Hyp. 5	Nurses stigmatize patients with alcohol use disorder less if they have frequent contacts with them
Hyp. 6	Nurses dehumanize patients with alcohol use disorder less if they have frequent contacts with them
Hyp. 7	Stigmatization and dehumanization are positively associated
Hyp. 8	Contacts quality is negatively linked to the dehumanization of patients
Hyp. 9	Nurses' perceptions of being dehumanized by their superiors is positively linked to their own dehumanization of patients
Hyp. 10	Nurses' dehumanization of patients is negatively linked to their burnout levels
Hyp. 11	Nurses' dehumanization of patients is negatively linked to their depression, stress, and anxiety levels

found between patients' stigmatization and dehumanization (Hypothesis 7); (2) The quality of contact, as high-quality contact is a key lever to improve intergroup relations and potentially reduce dehumanization (Hypothesis 8; Capozza et al., 2017; Keith et al., 2015); (3) The "trickle-down effect," namely the proposal, developed in organizational psychology research, that managers' attitudes toward their employees can define employees' attitudes toward clients (Masterson, 2001; Mawritz et al., 2012; Wo et al., 2019). We propose that a similar process might occur in clinical settings: dehumanization might trickle-down from superiors (e.g., chief physician, medical directors) to nurses and then to patients. Accordingly, we hypothesize that nurses' perception of being dehumanized by their managers will be associated with increased dehumanization of their patients (Hypothesis 9).

Regarding the consequences, while dehumanizing patients might negatively impact the quality of care, little empirical evidence has been provided (Christoff, 2014; Haque & Waytz, 2012). Multiple factors related to patient care and nurses' well-being will be investigated: burnout, depression, anxiety, stress, and structural discrimination. Dehumanization has previously been associated with lower burnout levels in nurses; dehumanization was thus proposed to be protective against burnout (Vaes & Muratore, 2013). We argue that if dehumanization constitutes a protective strategy to guard nurses against burnout (Cameron et al., 2016; Vaes & Muratore, 2013), the protective effect of dehumanization might also extend to other indicators of psychological suffering, so that higher dehumanization should be associated with lower burnout (Hypothesis 10) but also lower depression, anxiety, and stress (Hypothesis 11). Structural discrimination (i.e., discrimination operated at the structural or institutional level without direct interpersonal harm) will be assessed through resources allocation toward multiple disorders. We expect dehumanization to be associated with higher structural discrimination, i.e., dehumanized patient populations will be allocated fewer resources.

Furthermore, the relative value given to patients will be explored through multiple dilemmas investigating nurses' perceptions of patients and focusing on the relative value given to patients' life, pain, and consent. A last dilemma will assess diagnostic overshadowing, namely the bias of misattributing physical symptoms to mental illness (Jones et al., 2008; Thornicroft et al., 2007).

Finally, as we expect stigmatization of patients, nurses' perception of being dehumanized by their superiors, and quality of contact with patients to be associated with patients' dehumanization, the potential role of dehumanization as a mediator of the links between determinants and outcomes will also be investigated.

Overall, we propose to test an integrated model of dehumanization in healthcare through the simultaneous evaluation of its determinants (stigmatization, trickle-down effect, quality of contacts) and outcomes for nurses' well-being and patient care (see Fig. 1 for a visual description of the theoretical model).

Methods

Participants

French-speaking hospitals, clinical centers, and nurses' associations

from Belgium, France, and Canada were contacted to disseminate the survey toward their members. Participants were recruited between April 1st and July 1st 2018. Sixty-eight hospitals and clinical centers were contacted, and fifteen agreed to transfer the survey to their nurses' employees. Thirty-six nurses' associations were contacted, and ten accepted to transfer the survey to their members. A total of 336 (78% female) nurses were recruited. This convenience sample was obtained by disseminating our survey as largely as possible. To participate in the study, participants had to work as a nurse and to speak French. Participants' mean age was 40.7 (S.D. = 12.6; see Table 2 for additional information).

Procedure

All participants received a full written description of the survey, including the duration, goals, and ethical statements. All participants provided their informed consent before starting the survey. The survey comprised two parts. The first part aimed at selecting participants based on the frequency of their contact with our targeted clinical populations: people with severe alcohol use disorder, people with schizophrenia, and people with cardiovascular disease. Once their contact frequency with these people was established, participants were directed to the version of the survey assessing their perception of the clinical population with whom they had the most frequent contact. If participants did not have contact with any of these clinical populations at least once a week, they were then directed toward a version of the survey targeting people with severe alcohol use disorder. This procedure was used to compare how the contact's frequency impacted nurses' perception of people with alcohol use disorder. Four versions of the survey were thus created (version 1 for nurses presenting frequent contact with people with severe alcohol use disorder, version 2 for nurses presenting frequent contact with people with schizophrenia, version 3 for nurses presenting frequent contact with people with cardiovascular disease, version 4 for nurses presenting no/low contact with the three categories of patients, who were thus asked to perform the study with people with severe alcohol use disorder as a reference).

This procedure resulted in 108 participants answering the survey

Table 2
Descriptive statistics of subsamples. Group 1 = nurses working with patients with severe alcohol use disorder; Group 2 = nurses working with patients with schizophrenia; Group 3 = nurses working with patients with cardiac problems; Group 4 = nurses with no/low contact with patients with severe alcohol use disorder. The frequency of contacts was measured with a 10-item Likert scale ranging from "Never" to "All day long"; a score of 8 for example corresponded to "Every day or almost every day."

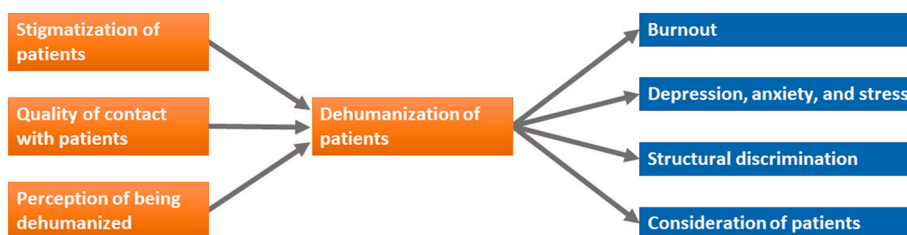|	Group 1	Group 2	Group 3	Group 4
Mean (S.D.) age	39.04	42.45	39.84	43.57
	(12.55)	(11.58)	(13.22)	(11.84)
Percentage of women	70.2%	63.2%	84.1%	90.7%
Mean (S.D.) number of	15.32	16.05	15.10	17.81
years working as a nurse	(11.88)	(10.85)	(12.11)	(11.97)
Mean (S.D.) frequency of	7.99	9.05	8.38	3.90
contacts	(1.63)	(1.28)	(1.33)	(1.66)

Fig. 1. The theoretical model of dehumanization in healthcare.

regarding people with severe alcohol use disorder, 42 regarding people with schizophrenia, 118 regarding people with cardiovascular disease, and 68 participants who had insufficient contact with any of these populations and who answered the fourth version of the questionnaire, also focused on people with severe alcohol use disorder. The anonymity of the respondents was reinforced throughout the survey to reduce social desirability.

Materials

Stigmatization of patients

Nurses' stigmatization of patients was assessed using the 23-item scale of Personal and Perceived Public Stigma (PPPS; Holman, 2015). Participants answered using a 4-point Likert scale. This scale contains four sub-dimensions: perceived public stigma (e.g., "People like them should feel embarrassed about their situation"), perceived treatment stigma (e.g., "Getting treatment would make them an outsider in the community"), personal stereotypical/prejudicial stigma (e.g., "Being around them would make me feel uncomfortable"), and personal discriminatory stigma (e.g., "I would be willing to socialize with them," reverse coded). Following our hypotheses, a general score of stigmatization was computed by averaging participants' answers on all items (in this sample, Cronbach's α = 0.90).

Dehumanization of patients

Nurses' dehumanization of patients was assessed using a 22-item scale measuring the main components of dehumanization (e.g., lack of emotions, lack of empathy, immorality) as well as the central metaphors according to Haslam's (2006) model of dehumanization (e.g., object, automata, animal). This 7-point Likert scale was adapted from previous work on people with severe alcohol use disorder's perception of dehumanization (Fontesse et al., 2020) and the scale of organizational dehumanization (Caesens et al., 2017; Caesens et al., 2019). A general header was used: "In my work as a nurse, I consider people with severe alcohol use disorder / schizophrenia / cardiac problems as...". This header was followed by items such as "… lacking emotions," "…lacking empathy and sensibility," "…amoral people, likely to commit immoral acts," "…objects," "…automaton," and "… animals" (the full scale is provided in Supplementary Material 1). Following our hypotheses, a mean score was computed based on participants' answers on all items (in this sample, Cronbach's α = 0.95).

Nurses' perception of dehumanization

Nurses' perception of dehumanization (i.e., their perception of being dehumanized by their superiors) was investigated using a 22-item scale directly adapted from the scale of dehumanization of clinical populations. Participants answered using a 7-point Likert scale of agreement. Items were preceded by a general-header "As a nurse, my superiors treat me as...". This header was followed by items such as "… lacking emotions," "…lacking empathy and sensibility," "…an amoral person, likely to commit immoral acts," "…an object," "…an automaton," and "…an animal" (the full scale is provided in Supplementary Material 2). In accordance with our hypotheses, a general perception of dehumanization score was computed based on participants' answers on all items (in this sample, Cronbach's α = 0.97).

Quality of contact with patients

Nurses evaluated the quality of contact with their patients using a 12-item scale. This scale was created based on Allport's Intergroup Contact Theory (Allport, 1954) with Pettigrew's added conditions (Pettigrew, 1998). Participants answered using a 7-point Likert scale of agreement. This scale measured the main criteria of contact quality: equality of status (e.g., "In my work, I consider patients as equals in status"), cooperation (e.g., "Patients are co-actors of their care"), institutional support for the contact (e.g., "The institution in which I work encourages us to learn to know our patients"), development of personal friendship (e.g., "In addition to the care given, I try to develop a personal relationship with patients"), and potential for stereotype reduction (e.g., "Contact with the patients helped me to question my preconceptions"). The "institutional support for the contact" dimension was left out because we also recruited nurses who were not working in a hospital/ institution. In accordance with our hypotheses, a general score of contact quality was computed by averaging participants' responses on all other items (in this sample, Cronbach's α = 0.87).

Burnout

The 22-item Maslach Burnout Inventory (Maslach & Jackson, 1986) was used to assess nurses' burnout levels. Participants answered using a 6-point Likert assessing the frequency of burnout symptoms. Three sub-dimensions form the scale: emotional exhaustion (e.g., "I feel emotionally drained from my work"), depersonalization (e.g., "I feel I treat some recipients as if they were impersonal objects"), and personal accomplishment (e.g., "I deal very effectively with the problems of my recipients"; Green et al., 1991). In accordance with our hypotheses, a general score of burnout was computed by averaging participants' answers on all items (in this sample, Cronbach's α = 0.87).

Depression, anxiety, and stress

The 21-item Depression, Anxiety, and Stress Scale (DASS, Antony et al., 1998) was used in the survey. Participants answered using a 4-point Likert assessing how much symptoms of depression, anxiety, and stress applied to them. This scale includes three sub-dimensions: depression (e.g., "I could not seem to experience any positive feeling at all"), anxiety (e.g., "I felt I was close to panic"), and stress (e.g., "I was intolerant of anything that kept me from getting on with what I was doing"). In accordance with our hypotheses, a general score was computed based on participants' answers on all items (in this sample, Cronbach's α = 0.93).

Consideration of patients: evaluation of patients' life, consent, and pain

Multiple moral dilemmas were created to assess nurses' evaluation of their patients' life, consent, and pain (see the complete dilemmas in Supplementary Material 3). In the life evaluation dilemma, nurses were presented with a situation where an incident generates deadly fumes in a room containing three persons (without specifying the type of patients). The participant is asked if they would be willing to divert these fumes to a room where there is one person with a severe alcohol use disorder/ with schizophrenia/with cardiovascular problems (depending on the clinical population of the survey), thus saving three persons but killing one from the target population.

In the consent evaluation dilemma, nurses are presented with a situation where ignoring consent from a person from the target population might allow significant progress in research. They can choose to make an experiment look like a mandatory medical exam, thus registering the person to the study without their consent.

In the pain evaluation dilemma, nurses have to choose between two drugs of similar efficacy: one has a high cost for the healthcare system (5000€) but does not provoke any pain, whereas the other has a low cost (100€) but provokes considerable intestinal pain. Participants are asked if they find it appropriate to prescribe the low-cost but painful drug to a person from the target population.

Diagnostic overshadowing

The last dilemma (also presented in Supplementary Material 3) assessed nurses' diagnostic overshadowing of the target population. In this dilemma, a person from the target population complains about nausea, headache, and stomach cramps. Participants are asked if they prefer to give this person a drug that can treat the physical symptoms, but that could have secondary effects, or if they want to give a placebo, which would be enough to calm the person if the symptoms are "*in his/her head*." Participants will thus provide the drug if they think that the person's complaints are physical and provide the placebo if they think

that the complaints are psychosomatic, potentially misattributing physical symptoms to psychosomatic origins.

Structural discrimination

Structural discrimination was assessed through a resource allocation task (based on Beck et al., 2003). In this task, participants were asked to rank various diseases based on how they should be prioritized for research funding allocations. The participants were told that this funding would go to research as a way to avoid participants benefitting personally from these funds by favoring their clinical population. The diseases presented were depression, diabetes, rheumatism, severe alcohol use disorder, Alzheimer's disease, schizophrenia, myocardial infarction, and human immunodeficiency virus (HIV). Participants were asked to rank these disorders from 1 to 9 (1 indicating the disorder that should receive the most funding). A new variable was then created with the value given by nurses to their target population. A higher score denotes higher structural discrimination (i.e., lower funding priority).

Statistical analyses

Nurses' stigmatization and dehumanization toward their target population were compared using linear regressions on SPSS 25 with three contrast variables as independent variables. Our study included four groups of nurses (group 1: nurses working with people presenting severe alcohol use disorder, group 2: nurses working with people presenting schizophrenia, group 3: nurses working with people presenting cardiovascular problems, group 4: nurses asked to evaluate their perception of people with severe alcohol use disorder but with no/low contact with them).

In order to investigate the three comparisons of interest, three contrast variables were created. The first contrast variable compared nurses' perception of people with a psychiatric disorder (i.e., people with severe alcohol use disorder as perceived by nurses working with them, people with schizophrenia, and people with severe alcohol use disorder as perceived by nurses not working with them; all coded 1) to people with a cardiovascular disorder (coded −3). The second contrast compared nurses answering the survey focused on people presenting severe alcohol use disorder (both groups, coded 1) and people presenting schizophrenia (coded −2). The third contrast compared the perception of people with severe alcohol use disorder from nurses with high contact with them (coded −1) to those with no/low contact with them (coded 1; see Table 3 for a summary of the contrast codes). Nurses' stigmatization and dehumanization toward their target population were compared using linear regressions, computed using SPSS 25, with the three contrast variables as independent variables.

In addition to these three comparisons, the associations of stigmatization and dehumanization with other variables across the dehumanized groups were investigated through path-analysis models allowing for missing values using STATA 16 (see Table 4 for the report of missing data for each variable of interest). We report the standardized coefficients reported from these models.

Ethical approval and informed consent

All procedures contributing to this work comply with the ethical standards of the Helsinki Declaration of 1975, as revised in 2008. All procedures were approved by the bioethical committee of the University (Cliniques Universitaires Saint-Luc, UCLouvain, Belgium; approval number B403201732246). All participants provided informed consent.

Results

Comparisons of nurses' perceptions of clinical populations

Comparison 1: dehumanization and stigmatization of people with or without a psychiatric disorder

Table 3

Summary of the contrast codes attributed to each group of nurses according to their target population.

	People with a severe alcohol use disorder	People with schizophrenia	People with cardiovascular disease	People with severe alcohol use disorder with no/low contact
Contrast variable 1 people with or without psychiatric disorder	1	1	−3	1
Contrast variable 2 people with severe alcohol use disorder vs people with schizophrenia	1	−2	0	1
Contrast variable 3 people with severe alcohol use disorder with high vs. no/low contact	−1	0	0	1

Table 4

Report of missing data for each variable of interest.

Variable	Number (percentage) of missing values
Stigmatization of patients	9 (2.7%)
Dehumanization of patients	0 (0%)
Nurses' perception of dehumanization	90 (26.8%)
Burnout	0 (0%)
Quality of contacts with patients	50 (14.9%)
Depression, anxiety, and stress	72 (21.4%)
Target patients' life value	84 (25%)
Target patients' pain value	71 (21.1%)
Target patients' consent value	69 (20.5%)
Diagnostic overshadowing	68 (20.2%)
Structural discrimination	60 (17.8%)

Results revealed a statistically significant effect of the contrast variable 1 on the general stigmatization ($\beta = 0.75$, p = .000, 95% CI [0.36; 0.43]) and dehumanization ($\beta = 0.24$, p = .000, 95% CI [0.05; 0.13]) scores. Nurses stigmatized and dehumanized people with a psychiatric disorder more than people with cardiovascular disease.

Comparison 2: dehumanization and stigmatization of people with severe alcohol use disorder vs. people with schizophrenia

The second contrast showed that nurses stigmatized people with severe alcohol use disorder more than people with schizophrenia ($\beta = 0.16$, p < .000, 95% CI [0.09; 0.23]). No statistically significant effect of the second contrast regarding dehumanization was found (p = .958, 95% CI [−0.08; 0.08]).

Comparison 3: dehumanization and stigmatization of people with severe alcohol use disorder from nurses with high vs. no/low contact with this population

Only a trend effect emerged from the contrast variable 3 on stigmatization (people with severe alcohol use disorder with high vs. no/low contact; $\beta = 0.06$, p = .064, 95% CI [−0.01; 0.18]), such that nurses without frequent contact with people presenting severe alcohol use disorder tended to stigmatize them more than nurses working with them.

Determinants of the target population's dehumanization

As people with cardiovascular disease were significantly less

dehumanized than people with a psychiatric disorder, the following path analyses were conducted on people with a psychiatric disorder only (i.e., patients with severe alcohol use disorder or schizophrenia, see Fig. 2). Nurses' stigmatization of patients, perception of being dehumanized by their superiors, and quality of contact with patients were placed as independent variables connected to dehumanization; itself connected to all outcome variables (burnout, general depression-anxiety-stress score, four moral dilemmas). Direct and indirect effects (explained by the dehumanization of their clinical population) were investigated. Results revealed statistically significant standardized regression coefficients for all independent variables on dehumanization: stigmatization ($\gamma = 0.20$, p = .003, 95% CI [0.07; 0.32]), perception of being dehumanized by superiors ($\gamma = 0.23$, p = .000, 95% CI [0.11; 0.34]), and quality of contact with patients ($\gamma = -0.42$, p = .000, 95% CI [−0.54; −0.29]). Nurses dehumanized people with a psychiatric disorder more if they stigmatized them and if they felt dehumanized by their superiors (see Fig. 2 for a graphical representation of the path analysis model's results). Nurses tended to dehumanize people with a psychiatric disorder less if their contact with them was of good quality.

Nurses psychological well-being and patient care

The perception of being dehumanized by superiors was the only variable directly predictive of nurses' burnout ($\gamma = 0.54$, p = .000, 95% CI [0.40; 0.69]). Dehumanization by superiors was also significantly and positively associated with nurses' depression, anxiety, and stress levels ($\gamma = 0.41$, p = .000, 95% CI [0.27; 0.56]). A trend toward stigmatization's effect on depression, anxiety, and stress was observed ($\gamma = 0.15$, p = .081, 95% CI [−0.02; 0.32]). Regarding patient care, no effect was found on nurses' evaluation of patients' lives (all p > .05). However, there was a direct association between stigmatization and evaluation of patients' pain ($\gamma = -0.22$, p = .018, 95% CI [−0.40; −0.04]), suggesting that nurses who stigmatized patients more gave less value to their pain when making a medical decision related to their treatment. A direct effect was found between the dehumanization of patients and the evaluation of their consent ($\gamma = -0.18$, p = .048, 95% CI [−0.35; −0.00]). Nurses who dehumanized their patients more gave less value to their consent. No statistically significant effect was found regarding diagnostic overshadowing; only a trend emerged between stigmatization and diagnostic overshadowing ($\gamma = -0.18$, p = .051, 95% CI [−0.36; 0.00]).

Finally, regarding structural discrimination, stigmatization and quality of contact were significantly associated with resource allocation ($\gamma = 0.26$, p = .002, 95% CI [0.10; 0.42] and $\gamma = -0.31$, p = .000, 95% CI [−0.47; −0.15] respectively). Stigmatizing a psychiatric population was related to a tendency for nurses to show less support to research funding aimed at improving the understanding of their disorders, i.e., more structural discrimination. Conversely, good contact quality was linked to decreased structural discrimination.

Discussion

Our study had three main goals as it aimed to: (1) compare nurses' stigmatization and dehumanization toward multiple clinical populations (i.e., people with severe alcohol use disorder, schizophrenia, and cardiovascular problems); (2) explore how stigmatization, nurses' perception of being dehumanized by their superiors, and the quality of contact with patients are associated with nurses' dehumanization of patients; (3) investigate how these variables relate to nurse' psychological well-being and to patient care. A model of dehumanization toward psychiatric patients was thus developed and tested based on a priori hypotheses built on previous research in the field.

Comparisons of nurses' perception of clinical populations

Comparison 1: people with vs. without a psychiatric disorder
As expected, nurses' perception varied across clinical populations. Following our Hypotheses 1 and 2, psychiatric populations (people with severe alcohol use disorder or schizophrenia) were more stigmatized and dehumanized by nurses than non-psychiatric ones (people with cardiovascular disease). Our results extend previous findings in the field of mental illness stigma showing that people with mental illness are more stigmatized and dehumanized by the general population (Martinez et al., 2011; Peris et al., 2008). We show that this bias also applies to nurses, even though they are directly involved in patient care. This central result implies that stigmatization and dehumanization toward people with mental disorders might persist even during treatment, within clinical settings.

Comparison 2: people with severe alcohol use disorder vs. people with schizophrenia
As expected, nurses stigmatized people with severe alcohol use disorder more than people with schizophrenia (Hypothesis 3). This is congruent with previous findings showing that the general population stigmatizes more people with addictive disorders such as severe alcohol use disorder than other psychiatric populations, because people with severe alcohol use disorder are held more responsible for their condition
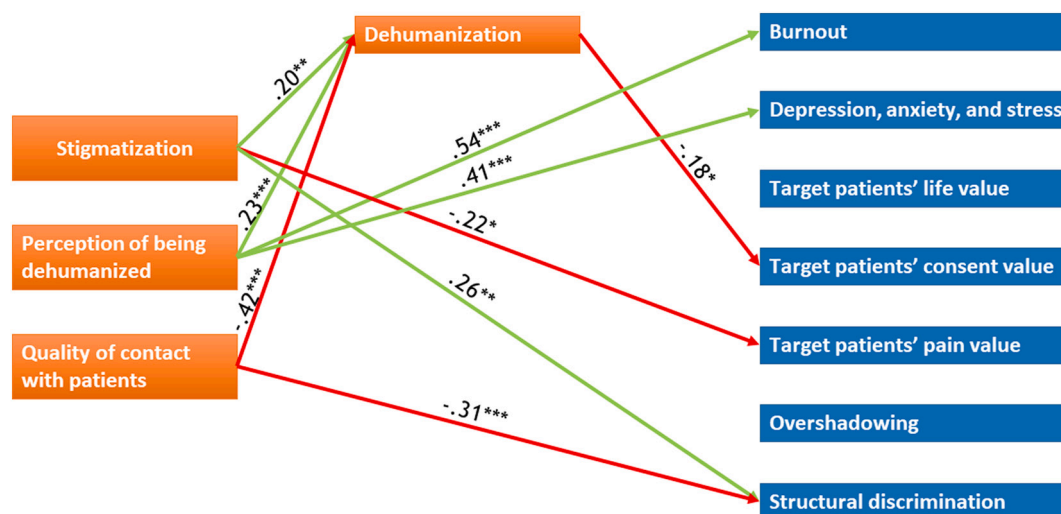

Fig. 2. Path analysis model tested in nurses providing their perceptions of psychiatric patients (patients with severe alcohol use disorder or schizophrenia). Non-statistically-significant paths are not depicted for the sake of clarity; *p < .05; ** p < .01; *** p < .001.

and are less easily perceived as mentally ill (Schomerus et al., 2011). Nurses' perceptions follow the same trend, which is concerning as stigma has detrimental effects on mental health and well-being. Indeed, a study among people undergoing treatment for substance abuse reported that perceived stigma was associated with lower self-esteem, poorer sleep, and higher depression and anxiety (Birtel et al., 2017). Considering its detrimental effects, tackling stigma among nursing staff should thus constitute a priority to improve mental health services. However, doing so might require significant societal and health system adaptations, as the stigma against people with addictive disorders is deeply rooted in our society and can even be expressed in well-intentioned interventions toward this population (Corrigan et al., 2017). No significant difference was found regarding dehumanization toward patients with severe alcohol use disorder and those with schizophrenia; no evidence was thus found in support of Hypothesis 4.

Comparison 3: nurses with high vs. no/low contact with people presenting severe alcohol use disorder

Despite a trend toward reduced stigmatization among nurses presenting frequent interactions with people with severe alcohol use disorder, no statistically significant difference was found between nurses with or without frequent contact with these people. This suggests that an increased contact frequency did not strongly modify this population's stigmatization or dehumanization, contrary to what was proposed in Hypotheses 5 and 6. This does not support contact theory, which proposes that contact with a group could lead to improved perception of this group, notably through stigma reduction (Capozza et al., 2014). Past research presented similar results (see Kolodziej & Johnson, 1996).

Determinants of nurses' dehumanization of patients

The previously reported link between stigmatization and dehumanization was supported by our data (Cameron et al., 2016), as stigmatization was related to increased dehumanization, thus confirming Hypothesis 7. Interventions dedicated to improving nurses' perception of people with a psychiatric disorder should thus simultaneously address stigmatization and dehumanization for maximum synergetic effects.

Hypothesis 8 was also supported, as the quality of contact with patients was associated with less dehumanization from nurses toward them. Thus, our results provide further support for the role of high-quality contacts in the reduction of dehumanization (Capozza et al., 2017).

Importantly, as predicted by Hypothesis 9, our results extended the trickle-down effect (Masterson, 2001; Mawritz et al., 2012) to clinical settings: nurses who feel dehumanized by their superiors tend to present increased dehumanization toward patients. We thus offer the first data suggesting that dehumanization could trickle down the hospital's hierarchical ladder.

Nurses psychological well-being

Interestingly, and unexpectedly, our study does not support the protective role of dehumanization (Hypotheses 10 and 11). Indeed, the previously reported negative link between nurses' dehumanization of patients and burnout levels was not replicated (Cameron et al., 2016; Vaes & Muratore, 2013). These earlier results suggested that healthcare workers used dehumanization as a defensive coping strategy to protect themselves against the emotional burden provoked by contact with their patients (Vaes & Muratore, 2013). In nurses with high levels of direct contact with patients, dehumanization was associated with lower burnout levels (Vaes & Muratore, 2013). Another study supporting this proposal found that anticipated exhaustion mediated the influence of stigma on dehumanization so that participants dehumanized more stigmatized targets only if they anticipated high levels of emotional exhaustion (Cameron et al., 2016). However, nurses' perception of being dehumanized by their superiors was not investigated in these studies. In our study, feeling dehumanized by their superiors was strongly associated with nurses' reports of psychological suffering. Indeed, nurses who felt dehumanized by their superiors reported more burnout, depression, anxiety, and stress. This emphasizes the importance of improving how nurses are considered by their superiors and by their organization, notably in view of the above-mentioned trickle-down effect, thus potentially affecting patients' care. This variable, which is related to patients' dehumanization, might play a major role in nurses' burnout, thus eclipsing the effect of dehumanization on burnout.

Stigmatization, dehumanization, and patient care

Moreover, while dehumanization might fulfill a protective role for the nursing staff, it is crucial to consider the many potentially deleterious effects of this perception on patient care. Indeed, as previously stated, dehumanization has been associated with numerous interpersonal maltreatments (Haslam, 2006; Haslam & Stratemeyer, 2016). In our study, stigmatization and dehumanization were directly related to harsher responses to moral dilemmas involving patient care. While no factor was significantly associated with the evaluation of patients' life, nurses who stigmatized their patients presented a reduced consideration for their pain (i.e., were more willing to provide pain-inducing drugs) when making clinical decisions. Nurses who dehumanized their patients had less consideration for their consent (i.e., were more willing to disguise a research project as a mandatory health exam to forgo obtaining consent from patients). Stigmatization and dehumanization thus seem to be differentially related to decreased care quality. This finding is congruent with the numerous studies emphasizing the joint but distinct roles of stigmatization (i.e., the negative taint) and dehumanization (i.e., the reduced attribution of humanity) in shaping poor caregiver-patient interactions (Alleyne et al., 2014; Bruneau et al., 2018; Delbosc et al., 2019).

Model of dehumanization of psychiatric patients by nurses

The model of dehumanization of psychiatric patients by nurses developed in this paper considers both nurses' dehumanization of patients and nurses' own perception of being dehumanized by superiors. This provides a deeper understanding of the phenomenon and emphasizes the need to consider both the dehumanization "received" and the dehumanization "given". This model provides further support to relations already established in the literature, such as the links between stigmatization and dehumanization (Cameron et al., 2016) or quality of contacts and dehumanization (Capozza et al., 2017). Additionally, stigmatization and dehumanization of patients should be considered together when investigating outcomes pertaining to patients' care. In the same line, the results from the model advocates for taking into consideration nurses' perception of being dehumanized by others when exploring their well-being.

Clinical recommendations for the reduction of stigmatization and dehumanization

Our results reveal that nurses' stigmatization and dehumanization of patients are related to decreased consideration of patients and increased suffering of nurses. Interventions to reduce stigmatization and dehumanization in clinical settings are thus direly needed. Haque and Waytz (2012) proposed multiple interventions to reduce dehumanization in medicine, such as improving the individuation of patients and nursing staff, promoting similarity between patients and staff, and favoring staff moral engagement by decreasing the psychological distance between staff and patients. The presence of dehumanization in medicine should not be perceived as immutable, as there are many ways to reduce nurses' emotional exhaustion. Improved managerial practices and work conditions could potentially reduce the use of dehumanization toward patients (Christoff, 2014).

Furthermore, the association found between nurses' perception of

being dehumanized by their superiors and their own dehumanization of patients suggests that one way to improve patient care might be to improve how nurses are considered by their superiors. This has to be urgently worked upon, as victims of dehumanization experience numerous aversive consequences such as negative emotions, psychosomatic strains, and reduced self-esteem (Bastian & Haslam, 2011; Caesens et al., 2019; Nguyen & Stinglhamber, 2018; Zhang et al., 2017). In a recent study among people with severe alcohol use disorder, the perception of being dehumanized by others was similarly associated with negative emotions, weaker self-esteem, and dysfunctional coping strategies (Fontesse et al., 2020). Victims of dehumanization thus experience many aversive effects, some of which are directly involved in the maintenance of their disorder. Reducing dehumanizing work practices and increasing humanizing supervision of healthcare workers could favor humanized patient care.

Another way to reduce dehumanization is to promote intergroup contact (Capozza et al., 2014). While the comparison between nurses with or without frequent contact with people with severe alcohol use disorder did not reach enough statistical significance to fully support the intergroup contact theory, the associations found between contact quality and decreased dehumanization, as well as increased resource allocation, offer some support to the intergroup contact theory. In accordance with past research (Jorm & Oh, 2009; Keith et al., 2015), our work shows that quality is more important than frequency when it comes to contact. Hospitals should thus follow Allport's (1954) and Pettigrew's (1998) characteristics of optimal intergroup contact. Indeed, the intergroup contact theory encourages the development of personal bonds between patients and staff and advocates for the respect of equal status between them (Allport, 1954; Pettigrew, 1998). These characteristics contribute to efficient intergroup contact for the reduction of stereotypes against a group (Pettigrew, 1998), which is why creating opportunities for high-quality contact with people with mental illness in order to tackle their discrimination is essential (Campellone, 2014).

Limitations

The cross-sectional nature of this study does not allow for causal interpretations. The measures used are self-reported and could thus be subject to social desirability. The instructions, however, reinforced the anonymity of participants multiple times throughout the survey to reduce social desirability. Our group of nurses working with patients with schizophrenia (42 nurses) was smaller than other groups, which might limit the representability of this subsample. Hospitals and associations' response rates were relatively low (22% and 27%, respectively); some hospitals declined participation because their staff had too much work; others did not provide an answer. Managing to get more hospitals to participate in psychological studies might improve the generalization of the results.

Conclusion

A model of dehumanization of psychiatric patients by nurses has been developed based on the literature and tested empirically. Nurses display more stigmatization and dehumanization toward people with a psychiatric disorder than toward people without a psychiatric disorder. These perceptions are associated with poorer patient care and increased structural discrimination. This study also emphasizes that nurses feel dehumanized by their superiors, which is associated with increased dehumanization toward patients. Altogether, these results advocate for more human and less stigmatizing practices in the field of health care to improve how employees and recipients of healthcare are treated. Based on this concerning report, we proposed several perspectives to reduce stigma and dehumanization among nurses, notably by humanizing nurses' supervision, increasing individuation, and improving the quality of contact between patients and nursing staff.

Supplementary data to this article can be found online at https://doi. org/10.1016/j.apnu.2020.12.005.

Conflicts of interest

None.

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