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Moral Distress (MD) and burnout in mental health nurses: a multicenter survey

Fabiana Delfrate[1], Paolo Ferrara[2], Daniela Spotti[3], Stefano Terzoni[4], Giulia Lamiani[5], Eleonora Canciani[3], Loris Bonetti[6]

[1] ASST Rhodense, Hospital of Passirana, Italy
[2] ASST Santi Paolo e Carlo, Teaching Hospital San Paolo, Milan
[3] ASST Fatebefratelli Sacco, Teaching Hospital L. Sacco, Milan, Italy
[4] ASST Santi Paolo e Carlo, Ospedale Polo Universitario San Paolo, Milano, Italia
[5] Department of Biomedical Science, Humanitas University
[6] Oncology Institute of Southern Switzerland, Nursing development and research unit, Ente Ospedaliero Cantonale, Bellinzona, Switzerland

SUMMARY

Introduction: *Moral Distress (MD) is a common experience among nurses and if it is not recognised and treated, it may lead to serious consequences on nurses' health and quality of care. MD has been studied in several healthcare contexts. However, there are only few studies on MD in psychiatry and in Italy there are no data in this field.* **Objective:** *To assess the presence of MD among mental health nurses in Italy and verify whether there is a relationship between MD and burnout.* **Methods:** *We conducted a multicentre survey among nurses of Mental Health services of four hospitals in Milan. The MD Scale for Psychiatric Nurses$_{Italianrevised}$ (MDS-P$_{Itarev}$) and the Maslach Burnout Inventory (MBI) were used for data collection. Factor analysis and calculation of content validity index (CVI) and Cronbach's alpha were performed on the Italian version of the MDS-P$_{Ita}$. Three items of the old version of the scale were removed, because judged not relevant in the Italian context. The revised scale maintained excellent CVI (0.89) and Cronbach's alpha (0.93).* **Results:** *Of 285 questionnaires distributed, 228 (80%) were returned. The median of MD was 2 (scale range 0-6); MD is correlated with two burnout dimensions: emotional exhaustion (rho(ρ)=0.28, p<0,001) and depersonalization (ρ=0.20, p<0,001).* **Conclusions:** *This is the first study about MD among psychiatric nurses in Italy. We found a medium-low level of MD among nurses who participated in the survey. We also found a modest but significant correlation between MD and two dimensions of MBI. Further studies are needed to confirm these results.*

RIASSUNTO

*«**Moral Distress e burnout negli infermieri che lavorano in psichiatria: un'indagine multicentrica**». **Introduzione:** Il Moral Distress (MD) è un fenomeno diffuso tra gli infermieri. Se non riconosciuto e trattato, può portare a gravi ripercussioni sulla salute del professionista e sulla qualità delle cure erogate. Nel contesto psichiatrico il fenomeno risulta ancora poco esplorato. Da un'approfondita revisione della letteratura, nessun dato è emerso riguardo alla sua entità nella realtà italiana. **Scopo:** Indagare la diffusione di MD tra gli infermieri operanti nel contesto psichiatrico*

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in Italia e verificare l'eventuale relazione con il burnout. **Metodi:** *È stata condotta un'indagine multicentrica nei dipartimenti di Salute Mentale di quattro ospedali di Milano e provincia. Per rilevare i dati sono stati impiegati la Moral Distress Scale for Psychiatric Nurses* Italianrevised *(MDS-P$_{Itarev}$) ed il Maslach Burnout Inventory (MBI). In questo studio è stata condotta l'analisi fattoriale della versione italiana della MDS-P$_{Ita}$, oltre al calcolo dell'alfa di Cronbach e del Content validity index. Tre item della MDS-$_{PIta}$ sono stati rimossi, in quanto considerati poco rilevanti per il contesto italiano. La scala ha mantenuto un eccellente CVI (0,89) e Cronbach's alpha (0,93).* **Risultati:** *Sono stati restituiti compilati 228 questionari, sui 285 distribuiti (80%). La mediana del MD era 2. Il MD correla con due dimensioni del burnout: Esaurimento Emotivo (rho(ρ)=0,28, p<0,001) e depersonalizzazione (ρ= 0,20, p<0,001).* **Conclusioni:** *Questo è il primo studio in Italia sul MD negli infermieri che lavorano in psichiatria. I risultati evidenziano un livello medio-basso di MD tra gli infermieri ed una modesta, ma significativa, correlazione tra MD e due dimensioni del MBI. Future indagini potranno confermare il dato.*

INTRODUCTION

Moral Distress (MD) in nursing has been defined by Jameton in 1984 (15) as "a kind of psychological imbalance developed when the individual is prevented from performing the act he deems right or is forced to perform an act he deems wrong". Three areas are involved, called "Moral Distress", "Moral Uncertainty", and "Moral Dilemmas". MD can lead to compromises in the value of nurses as moral agents, because they feel unable to take actions according to their conscience and ethical principles, although they are able to identify ethically appropriate behaviours. Moral Uncertainty occurs when the nurse experiences difficulties in identifying such behaviours. Moral Dilemmas occur when two or more opposing behaviors are equally acceptable from an ethical point of view, and the nurse must choose one of them (15).

Wilkinson (36) defined MD as a condition in which the person takes a moral decision, but does not put in into action.

Based on literature, MD is therefore a feeling of psychological suffering, typical of healthcare professionals who are aware of the morally appropriate action for a certain situation, but cannot perform it. This can be due to institutional constraints, such as lack of time or support, the excessive use of physicians' power or institutional policies and legal restrictions or to personal constraints (6). Causes of MD might be organizational and psychological,

for example imbalanced power distribution, lack of communication in the multidisciplinary team, insufficient education of the professionals, nurses having to work with inappropriate security standards or under pressure to minimize costs, lack of assertiveness or autonomy, and pressure to follow others (10, 16, 24, 35, 36).

Some studies have shown that MD has a negative impact on nurses' psychosocial health, causing low self-esteem, withdrawal from care, feelings of guilt, and depression (16). Physical symptoms include loss of appetite, palpitations, diarrhea and headache (4, 6, 8). A possible reaction to MD is assuming an attitude of immobility and conformism. Nurses accept the situation, apparently denying their own ethical values, and avoid any discussion. They fulfil their care duties at their best with the available resources, withdraw from relationships with other colleagues in a highly individualistic perspective, and acknowledge personal sacrifice as a typical feature of their job (2).

In addition to undermining nurses' psychophysical health, MD also reduces nurses' working performance, with consequences on patient care (8). Some studies (24, 35, 36) have shown that MD is related to nurses' intention to leave their workplace or even their profession. Only a Brazilian study (2) reports a constructive reaction to MD: nurses used their creativity and dedication to compensate for lack of resources and they reported all morally unacceptable situations to guarantee the best possible care to their patients.

One of the concepts related to MD is ethical climate, defined as the organizational setting in which ethical problems are discussed and decided. Ethical climate is an intrinsic characteristic of the organization, and can greatly contribute to the work environment (26). The available literature reports that low levels of ethical climate are related to high levels of MD (26, 29).

MD has been studied in several settings such as intensive care, palliative care, oncology, pharmacy, and paediatrics (16). However, only few international studies focused on the experience of MD among mental health nurses (9, 12, 23, 25, 32). Yet, in mental health settings, the experience of MD may be particularly relevant as nurses may live moral conflicts related to the way in which psychiatric patients are cared for, in which therapies are administered or in the relationships with physicians and other healthcare professionals.

In 2010, Ohnishi (25) conducted a study on MD among Japanese mental health nurses and developed the Moral Distress Scale for Psychiatric Nurses (MDS-P).

To our knowledge, apart from the scale by Ohnishi (25) no other tools are available to assess MD among nurses working in psychiatric settings. Furthermore, no other scales validated in Italian are available (5). Finally, to our knowledge, in Italy there are no studies investigating MD among psychiatric nurses.

Burnout is also a widespread phenomenon among nurses, which arises when healthcare providers feel to have inadequate resources to fulfil their job demands (19, 20, 21, 30). Burnout is defined as the persistent reaction to chronic job stressors that is characterized by three principal components: emotional exhaustion, depersonalization also known as cynicism, and reduced personal accomplishment or professional ineffectiveness (19, 20). The causes of burnout may be an excessive work burden, inadequate salary, poor social support, lack of feedback, or conflict between personal values and working duties (19, 20). In mental health, the causes of burnout might be related to the characteristics of the relationship between healthcare professionals and patients, who can sometimes be aggressive and hostile.

Symptoms of burnout are generic and include restlessness, tiredness, apathy, and insomnia (18).

Somatic symptoms can arise as well, such as tachycardia, headache, muscular pain or nausea (30). Other symptoms are psychological, such as guilt, anger, sense of failure and impotence, isolation, indifference, cynicism and withdrawal (3, 18, 30, 33). Burnout entails decreased productivity, absenteeism, desire to resign and early turnover (19, 30). Some studies reported that persisting situations of MD seem to favour burnout (7, 11, 12, 25, 31), others found no relationship between the two phenomena (16). However, the relationship between MD and burnout has not been clearly identified in the field of mental health.

In order to bridge this gap, in this study we explored the diffusion of MD among mental health nurses in Italy and assessed whether there is a relationship between MD and burnout, in the three dimensions of the Maslach Burnout Inventory (MBI) according to the methods adopted by Ohnishi (25).

METHODS

Study design

We conducted a multicenter, cross-sectional study, with a survey design (13).

Setting

We involved the Departments of Mental Health of 4 public hospitals in Milan, Northern Italy: Ospedale Sacco, ASST Rhodense, Ospedale San Paolo, Istituti clinici di Perfezionamento. Acute inpatient units, rehabilitation, and territorial services were involved, for a total of 7 inpatient units, 7 outpatient clinics and 9 rehabilitation centres. Two of the hospitals involved were university hospitals, while others hosted students of medicine and other healthcare students. Most hospitals were located in the city of Milan, while others were in the province. Hospitals were purposefully selected based on their interest to participate in the study.

Participants and sample

All nurses working in the abovementioned units and services for at least six months were enrolled in

the study. We asked the head nurses of all wards to provide a full list of the names, in order to enroll all nurses fulfilling the inclusion criterion.

Data collection methods

A printed copy of the questionnaire was handed out to each of the nurses, with a deadline of 15 days for completion. All questionnaires were identified by anonymous codes, and were collected individually in sealed envelopes by the head nurse. The deadline for questionnaire completion was extended by 15 days in those units in which less than 50% of the questionnaires were returned on time.

Data collection tools

The questionnaire was composed by the Moral Distress Scale for Psychiatric Nurses $_{Italianrevised}$ (MDS-P_{Itarev}) and the Maslach Burnout Inventory (MBI) (19, 20, 30).

To assess MD among mental health nurses, we used the MDS-P developed by Ohnishi (25), which was validated for use in Italy in 2015 by Canciani (5) and modified in this study (Moral Distress Scale for Psychiatric Nurses$_{Itarev}$). Based on our best knowledge this is the only tool developed to measure MD in mental health nurses in international literature, and the only one validated in Italian. For this reason, we decided to use it. The scale has both psychometric properties (5, 25).

During the first step of the validation process (5), the authors conducted focus groups with expert psychiatric nurses to test content and face validity of Ohnishi's translated scale. The scale showed good reliability; however, considering its original cultural background (Japan), the authors suggested to revise it to make its items more appropriate to the Italian setting. For this reason, we decided to calculate the Content Validity Index (CVI) on each item of the scale translated by Canciani et al. (5) (I-CVI) and on their total (S-CVI/Ave) (27, 28). We asked four expert nurses (with at least 5 years of experience as Psychiatric Nurse) to evaluate the relevance of each situation described in the items based on their daily experience. The experts gave each item a score from 1 (not relevant at all) to 4 (very relevant). Data

were treated anonymously, as prescribed by the Italian law on data protection. The Canciani et al. (5) version (MDS-P_{Ita}) contains 23 items on a 7-point Likert scale, with a response format ranging from 0 (=no Moral Distress) to 6 (=intense Moral Distress) (5). Demographic data such as gender, age, years of experience, work environment in mental health services (acute, chronic or rehabilitative) were also collected.

To assess burnout, the Italian validated version of the Maslach Burnout Inventory (MBI) was used in this study as it is considered the reference scale to measure burnout levels (19, 20, 33). We chose to adopt this tool because it has been used in nearly all other studies assessing the relationship between MD and burnout in mental health settings. This allowed the comparison of our results with the international literature. Maslach and Jackson developed the scale in 1981 for human service practitioners (19). The scale has 22 items divided into three dimensions of burnout: emotional exhaustion, depersonalization and personal accomplishment. Each item is measured on a 7-point Likert scale ranging from 0 (=never) to 6 (=every day).

Statistical Analysis

Data were analyzed with SPSS version 21.0 Inc. Chicago, IL, USA. To assess if variables were normally distributed Kolmogorov-Smirnov test was performed. As data were not normally distributed, all scales were described by median and interquartile range. Based on MBI dimensions (emotional exhaustion, depersonalization and personal accomplishment), we calculated the frequency of high, moderate and low burnout according to the cut-off scores indicated by Maslach (19, 20, 30). We calculated also how many nurses seem to suffer from burnout syndrome in our sample: based on literature, this occurs when emotional exhaustion is ≥27, depersonalization is ≥10 and personal accomplishment is ≤33(19, 20, 30). Kruskal-Wallis and Mann-Whitney's U tests were used for comparing the levels of MD among sociodemographic and working variables (e.g. working setting or gender).

We assessed the correlation between the medians of the Moral Distress Scale for Psychiatric Nurses$_{Itarev}$

and the score of each MBI dimensions for each questionnaire, with Spearman's rho *(ρ)* correlation coefficient. Exploratory factor analysis was conducted on the new scale (Moral Distress Scale for Psychiatric Nurses$_{\text{Itarev}}$). The factors were extracted through the method of principal components, and rotated with the Promax algorithm. Kaiser-Meyer-Olkin's (KMO) measure of sample adequacy and Bartlett's test of sphericity were conducted prior to extracting the factors. Factor loadings were retained if they satisfied Steven's criterion. Internal consistency was assessed by means of Cronbach's alpha coefficient. Statistical significance was defined as p-value<.05.

Ethical considerations

According to local regulations, no formal approval from the Ethical Committee was required. Authorization to submit the questionnaire was obtained from the management of the four major hospitals in Milan, Northern Italy. One of the hospitals only permitted the administration of the MDS-P$_{\text{itarev}}$.

Written informed consent was obtained from all participants prior to administering the questionnaires. The consent could be withdrawn at any moment, without providing any explanation. The questionnaires and the informed consent forms were collected in two separate envelopes to guarantee anonymity. Data collection was conducted according to the Declaration of Helsinki and the Italian law on data protection.

RESULTS

Description of participants

Of the 285 questionnaires that were administered to nurses, 228 (80%) MDS-P$_{\text{Itarev}}$ were returned. 161 out of 285 (56.5%) also returned the MBI scale. Most participants were males, aged 41 to 50. At the time of the enrolment, most of them had more than ten years of working experience, no specific education in mental health care, and were working in inpatient units.

Demographic data of the 228 responders are reported in table 1.

Table 1 - Characteristics of the participants (total number=228)

Gender*	N=220	%
M	117	53.2
F	103	46.8
Age*	N=218	
20-30	9	4.1
31-40	41	18.8
41-50	112	51.4
51-60	52	23.9
>60	4	1.8
Work experience*	N=220	
Novice (<4 years)	41	18.6
Middle (4- 10 years)	71	32.3
Expert (>10 years)	108	49.1
Specific education in mental health care*	N=218	
Yes	79	36.2
No	139	63.8
Work environment*	N=224	
Inpatient unit	100	4.6
Outpatient clinic	60	26.8
Rehabilitation center	64	28.6

* Missing data

Estimates of Moral Distress Scale for Psychiatric Nurses$_{\text{Italian}}$ (Mds-P$_{\text{Ita}}$) Item Content Validity

Through the Content Validity Index (CVI) experts identified 20 items as relevant (I-CVI ≥0.75). Three items from the Canciani et al. (5) translated version of the scale (MDS-P$_{\text{Ita}}$) scored I-CVI <0.75, thus showing modest importance in the Italian context.

The items of the Mds-P$_{\text{ita}}$(5) considered as not relevant in the Italian setting were: *"Follow a family's request regarding treatment even though I do not approve of it, yet hospital administration fears legal consequences"; "Follow the physician's indications, giving priority to the family's requests rather than the patient's"; "Follow the physician's orders to carry out unnecessary treatment or tests"*. Ohnishi described these situations in the dimension "Acquiescence to violation of the patient's rights" in the original version of the scale (25). However, according to the experts

these items have little relevance in Italy, compared to the Japanese context.

In the 23-item scale, the S-CVI/Ave was 0.80. However, removing the three items considered unimportant, the S-CVI/Ave improved to 0.89.

Lastly, S-CVI/UA (universal agreement) was 0.87. After modifying the scale, we evaluated its reliability calculating Cronbach's Alpha coefficient for the 20 items, which was 0.93. The Moral Distress Scale for Psychiatric Nurses$_{\text{Italianrevised}}$ (MDS-P$_{\text{Itarev}}$) that emerged from this process contained a total of 20 items.

The final confirmed items were twenty and are reported in table 2, both in Italian and in English. Each of the items can be scored with a 7-point Likert scale, ranging from 0 (=no Moral Distress) to 6 (=intense Moral Distress).

Factor Analysis Moral Distress Scale for Psychiatric Nurses$_{\text{Italianrevised}}$ (MDS-P$_{\text{Itarev}}$)

The sample satisfied the criteria for exploratory factor analysis (KMO=0.90, Bartlett's p-value<.0001). Exploratory factor analysis revealed two factors; in the second one, most factor loadings did not satisfy Steven's cutoff (which was 0.34 in this study). The first factor had all loadings above the cutoff; the scale therefore appeared to be monodimensional. Table 3 shows the factor loadings after rotation. As can be seen in the table, many items have very high loadings, which supports their importance in the structure of the scale.

As regards internal consistency, Cronbach's alpha was .92 for the MDS-P$_{\text{Itarev}}$; after removing every single item from the analysis, the minimum value of the coefficient was .91. For the MBI, emotional exhaustion had alpha=.78, 0.63 for Depersonalization and 0.47 for the personal accomplishment.

Survey results

All nurses reported at least one of the MD experiences included in the scale.

Table 4 shows the median values of MDS-P$_{\text{Itarev}}$ for each item. As seen in the table, the highest MD median scores were found in the items *"Work with a nurse staff I consider numerically inappropriate"*

(Me=4[2;5]) (item 4) and *"Work in a condition of lack of resources or instruments that could guarantee a quality healthcare" (*Me=4[1;5]) (item 16). Items 13 and 14 (*"Working with a nurse staff I believe to have not enough knowledge or expertise to work in psychiatry"* and *"Work with a nurse staff I believe unable to handle its emotions")* both have a median score of 3. The lowers median scores were found in items 1, 2, 3, and 10.

We calculated the median and quartiles of the three dimensions of the MBI and classified the participants by means of the MBI cutoff. 55.9% of the respondents had high levels of Emotional Exhaustion, while 63.4% had high levels of Professional Accomplishment. In our sample just seven nurses seem to suffer from burnout syndrome (table 5).

Correlations between MD and emotional exhaustion (ρ=0.28 with *p*<0.0001) and between Moral Distress and depersonalization *(*ρ=0.20 with p<0.0001) were modest but significant. We found no correlation between MD and the personal accomplishment dimension.

No statistically significant differences were found between males and females, in terms of MD and burnout scores. As regards specific education, the only significant difference was found in the "professional accomplishment" domain, in which nurses with specific education on mental health care had higher burnout levels (Me=28[26;30] vs Me=30[26.75;37], p=.045).

Table 6 reports a comparison between the levels of MD in the three dimensions of MBI in different clinical settings, as well as a comparison between nurses based on age (young, middle-aged, older) and working experience (novice, intermediate, and expert).

Age was divided into three categories (20-30 years, 31-50 years, 51 years or more) and MBI scores were analyzed accordingly.

As shown in table 6, MD was significantly higher in nurses operating in inpatient settings (p=.006). As regards MBI, the emotional exhaustion dimension was significantly high among older nurses (p=.026). In the depersonalization dimension, the only significant difference was related to the clinical setting (p=.008), still with higher levels among nurses working in Inpatients Units. The difference in professional accomplishment dimension was

Table 2 - Final version of the MDS-P$_{Itarev}$

English Items of the MDS-PItarev	Italian Items of the MDS-PItarev
1. Assist a doctor who performs a test or treatment without informed consent.	• Assistere un medico che effettua test o trattamenti senza consenso informato.
2. Ignore situations of suspected patient abuse by caregivers.	• Ignorare situazioni di sospetti abusi sul paziente da parte degli operatori sanitari.
3. Avoid taking any action when I learn that a nurse colleague has made a medication error and does not report it.	• Evitare di agire dopo aver appreso che un collega infermiere ha fatto un errore di terapia senza riportarlo.
4. Work with a nurse staff I consider numerically inappropriate.	• Lavorare con uno staff infermieristico che considero inadeguato dal punto di vista numerico.
5. Carry out orders or institutional policies to stop treatment of the patient due to costs.	• Attuare ordini o politiche istituzionali per interrompere le cure sebbene il paziente ne abbia ancora bisogno, a causa dei costi.
6. Observe without taking action when healthcare personnel ridicules patients.	• Osservare senza agire quando il personale sanitario ridicolizza i pazienti.
7. Follow the doctor's order not to tell the patient the truth when he/she asks for it.	• Seguire gli ordini del medico di non dire la verità al paziente quando lui/lei la richiedono.
8. Observe without taking action when a patient continues to be hospitalized even though his/her condition is stable and he/she is able to live daily life without required hospitalization.	• Osservare senza agire quando un paziente continua a rimanere ricoverato anche se la sua condizione è stabile ed è pronto per essere dimesso.
9. Treat patients inadequately (i.e. restrain patients who wander, or diaper incontinent patients) because of understaffing.	• Trattare i pazienti in maniera non adeguata (ad esempio contenere i pazienti che girovagano o posizionare presidio assorbente ai pazienti che sono incontinenti) a causa della carenza di personale.
10. Secretly mix medication into a patient's food or drink when he/she refuses it.	• Mescolare segretamente medicinali con il cibo o le bevande del paziente quando lui/lei rifiutano.
11. Have no time to talk with patients who do not cause trouble.	• Non avere tempo di parlare con i pazienti che non creano problemi.
12. Work at a facility where nurses are treated like machines causing them to quit.	• Lavorare in una struttura in cui gli infermieri sono trattati come macchine e sono portati a dimettersi.
13. *Work with a nurse staff I believe to have not enough knowledge or expertise to work in psychiatry.	• *Lavorare con uno staff infermieristico che considero non possedere le conoscenze e le competenze per lavorare in psichiatria.
14. Work with a nurse staff I believe unable to handle its emotions.	• Lavorare con uno staff infermieristico che considero inadeguato nel gestire le proprie emozioni.
15. Carry out tasks not pertinent to the role of a nurse.	• Svolgere attività che esulano dal ruolo infermieristico.
16. Work in a condition of lack of resources or instruments that could guarantee a quality healthcare.	• Lavorare in mancanza di risorse e/o strumenti che garantiscano un'assistenza di qualità.
17. Not feel acknowledged by other healthcare personnel (e.g. physicians, education personnel).	• Sentirsi poco riconosciuti da parte di altri professionisti sanitari (ad esempio medici, educatori).
18. Not be believed by the physician when I express an opinion on a patient's conditions.	• Non essere creduti dal medico quando esprimo la mia opinione riguardo alle condizioni di un assistito.
19. Follow rules or standards I consider against my ethical values.	• Seguire regolamenti e norme che ritengo essere in contrasto con la mia etica.
20. See that drug therapy is preferred over relational therapy.	• Vedere preferita la terapia farmacologica a quella relazionale.

*Items from the 13th to the 20th have been introduced in the Italian version of MDS-P$_{ita}$ during validation process, by Canciani et al. (5); each item can be scored with a 7-point Likert scale ranging from 0 (=no Moral Distress) to 6 (=intense Moral Distress)

Table 3 - Factor loadings of the items of the scale

Item	Loading*
• Assist a doctor who performs a test or treatment without informed consent.	0.46875
• Ignore situations of suspected patient abuse by caregivers.	0.56287
• Avoid taking any action when I learn that a nurse colleague has made a medication error and does not report it.	0.71068
• Work with a nurse staff I consider numerically inappropriate.	0.53671
• Carry out orders or institutional policies to stop treatment of the patient due to costs.	0.65120
• Observe without taking action when healthcare personnel ridicules patients.	0.62088
• Follow the doctor's order not to tell the patient the truth when he/she asks for it.	0.52985
• Observe without taking action when a patient continues to be hospitalized even though his/her condition is stable and he/she is able to live daily life without required hospitalization.	0.53458
• Treat patients inadequately (i.e. restrain patients who wander, or diaper incontinent patients) because of understaffing.	0.74180
• Secretly mix medication into a patient's food or drink when he/she refuses it.	0.48578
• Have no time to talk with patients who do not cause trouble.	0.59303
• Work at a facility where nurses are treated like machines causing them to quit.	0.71193
• Work with a nurse staff I believe to have not enough knowledge or expertise to work in psychiatry.	0.66677
• Work with a nurse staff I believe unable to handle its emotions.	0.66834
• Carry out tasks not pertinent to the role of a nurse.	0.41849
• Work in a condition of lack of resources or instruments that could guarantee a quality healthcare.	0.62344
• Not feel acknowledged by other healthcare personnel (e.g. physicians, education personnel).	0.52572
• Not be believed by the physician when I express an opinion on a patient's conditions.	0.66071
• Follow rules or standards I consider against my ethical values.	0.69077
• See that drug therapy is preferred over relational therapy.	0.59133

*The loadings indicate that all items contribute adequately to the description of Moral Distress.

Table 4 - Scores of Moral Distress according to MDS-P$_{Itarev}$.

Item	Median	Q1	Q3
• Assist a doctor who performs a test or treatment without informed consent.	0,0	0,0	2,0
• Ignore situations of suspected patient abuse by caregivers.	0,0	0,0	3,0
• Avoid taking any action when I learn that a nurse colleague has made a medication error and does not report it.	0,0	0,0	4,0
• Work with a nurse staff I consider numerically inappropriate.	4,0	2,0	5,0
• Carry out orders or institutional policies to stop treatment of the patient due to costs.	0,0	0,0	3,8
• Observe without taking action when healthcare personnel ridicules patients.	2,0	0,0	4,8
• Follow the doctor's order not to tell the patient the truth when he/she asks for it.	3,0	0,0	5,0
• Observe without taking action when a patient continues to be hospitalized even though his/her condition is stable and he/she is able to live daily life without required hospitalization.	2,0	0,0	4,0
• Treat patients inadequately (i.e. restrain patients who wander, or diaper incontinent patients) because of understaffing.	1,0	0,0	4,0
• Secretly mix medication into a patient's food or drink when he/she refuses it.	0,0	0,0	2,0
• Have no time to talk with patients who do not cause trouble.	2,0	0,0	4,0
• Work at a facility where nurses are treated like machines causing them to quit.	3,0	0,0	5,0
• Work with a nurse staff I believe to have not enough knowledge or expertise to work in psychiatry.	3,0	0,0	5,0
• Work with a nurse staff I believe unable to handle its emotions.	3,0	1,0	5,0
• Carry out tasks not pertinent to the role of a nurse.	3,0	0,0	5,0
• Work in a condition of lack of resources or instruments that could guarantee a quality healthcare.	4,0	1,0	5,0
• Not feel acknowledged by other healthcare personnel (e.g. physicians, education personnel).	3,0	1,0	5,0
• Not be believed by the physician when I express an opinion on a patient's conditions.	3,0	0,0	5,0
• Follow rules or standards I consider against my ethical values.	3,0	0,0	4,0
• See that drug therapy is preferred over relational therapy.	2,0	0,0	4,0
Total	2	0	4

75% of the responses lay above the 1st quartile, 50% above the median, and 25% above the 3rd quartile.

Table 5 - Scores and cutoff of burnout dimensions

Domain	Median	Q1	Q3	Low N (%)	Moderate N (%)	High N (%)
MBI Emotional exhaustion	18	14	26	54 (33.5)	17 (10.6)	90 (55.9)
MBI Depersonalization	3	1	7	111 (68.9)	38 (23.6)	12 (7.5)
MBI Professional accomplishment	28	26	33	30 (18.6)	29 (18)	102 (63.4)
Nurses with burnout syndrome*	Yes N (%)	No N (%)				
	7 (4.4)	154 (95.6)				

* Based on literature (19, 20, 30), burnout syndrome occurs when Emotional exhaustion is ≥27, Depersonalization is ≥10 and Professional accomplishment is ≤33

Table 6. Comparison of the MDS-P$_{Itarev}$ and MBI dimensions among groups

	Inpatients Units	Outpatients Units	Rehabilitation Centers	p value
MDS-P$_{Itarev}$	3[1;4]^	1[0;4]	1.5[0;4]	.006
MBI EE§	18[14;27]	20[15;26]	18[14;26.75]	.161
MBI D°	6[1;9]	4[1;6]	1[0;6]	.008
MBI PAᶜ	28[24.5;30]	31[26.25;39]	29.5[27;37.75]	.001
	Young	Mid-age	Aged	
MDS-P$_{Itarev}$	2[0.75;4]	2[0;4]	2[0;4]	.210
MBI EE	18.5[12.5;26.75]	17[14;26]	23[17.5;30.5]	.026
MBI D	6[1;8]	3[1;8]	4[0;6]	.104
MBI PA	27[24;30]	29[26;35]	29[27;37]	.031
	Novice	Intermediate	Expert	
MDS-P$_{Itarev}$	3[0.5;4]	2[0;4]	2[0;4]	.168
MBI EE	19[14;28]	17.5[15;27]	20[14;26]	.147
MBI D	3[2;7]	3.5[1;8]	4[0;7]	.223
MBI PA	30[27;35]	27.5[24;30.25]	29[26;36]	.026

^ Median, first and third quartile; §MBI EE= MBI Emotional exhaustion, °MBI D= MBI Depersonalization, ᶜMBI PA=MBI Professional accomplishment

significant in all subcategories, with lower levels of personal accomplishment among the nurses working in Inpatients Units (p=.001), the younger ones (p=.031), and those with an intermediate level of experience (p=.026).

DISCUSSIONS

Final validation of the Italian version of the MDS-P

The present study allowed completing the validation process started by Canciani et al. (5). The

MDS-P$_{Itarev}$ scale has good psychometric properties: Cronbach's alpha of .93 supports the internal consistency of the tool, while factor analysis revealed that the Italian version is a mono-dimensional scale, with all items showing high loadings.

Survey

Based on our knowledge, this is the first study to assess the presence of MD among mental health nurses in Italy. MD is present, although modest, in our sample (Median=2). The results of the survey reflect the presence of MD among nurses in Mental

Health services, as reported by other authors in the international literature (9, 12, 23, 25, 32).

Nurses working in Inpatients Units had higher MD levels (Median=3) than those working in Outpatiens units (Median=1) and Rehabilitation centers (Median=1.5) This can be explained by the characteristics of the setting, that are often closed places in which restraint procedures are used more frequently than in other settings.

The nurses involved in the study report that the most stressful situations are *"Working in a condition of lack of resources or instruments which could guarantee a quality healthcare"* and *"Working with a nurse staff I consider numerically inappropriate"*. This suggests that the main problems are related to a lack of material and human resources and lack of acknowledgement of nurses' competence by other staff members. Ohnishi (25) reports that the main stress sources among Japanese nurses are items linked to lack of personnel, in particular: *"Working with a nurse staff I consider numerically inappropriate"*, *"Observing without taking action when patients stay in hospital even though their conditions are stable and they are ready to be discharged"*, *"Working in a situation where the number of staff is so low that care is inadequate (e.g., restraining patients who wander around or using absorbent material for incontinent patients)"*. The results of the current survey are similar to the Japanese study (25). Shortage of human and material resources is one of the main causes of MD among nurses in Italian and Japanese psychiatric environments. Hamaideh conducted a similar study in Jordan (12). The study reports that the item with the highest score is *"Avoiding taking any action when I learn that a nurse colleague has made a medication error and does not report it"*. This does not seem to be an important cause of MD in Italy. Right after this item there are other problems linked to shortage of human resources.

Another cause of MD in our study is poor acknowledgement of nurses' professional expertise, which also emerged in a qualitative study conducted by Dalmolin in South America (7). Nurses who participated in this survey admitted to having problems at actively participating to decisions, due to the overpowering attitude of some members of the multidisciplinary team. *"Not feeling acknowledged by other healthcare personnel"* is one of the items with narrow

interquartile range (1 to 5). It is possible that mental health nurses' competences are rarely acknowledged by other healthcare professionals due to cultural reasons. However, it is also possible that the role and specific competences of mental health nurses are not clear enough. For this reason, a specific attention could be paid in curricular programs in order to enhance mental health nurses' role and identity and provide them with specific skills to manage their emotions in relationships with patients and other healthcare providers.

Another aspect emerging from the study is the importance that nurses give to the professional competence of their colleagues. Items 13 and 14 (*"Working with a nurse staff I believe to have not enough knowledge or expertise to work in psychiatry"* and *"Work with a nurse staff I believe unable to handle its emotions"*) both have a median score of 3.

Nurses working in Inpatients Units also showed high levels of burnout in the depersonalization and satisfaction domains, which can be explained by considering that outpatients and rehabilitation patients are clinically more stable than inpatients. Emotional exhaustion and Professional Accomplishment were the dimensions most frequently experienced by nurses. The data obtained in this study are comparable to the existing literature (17).

The main difference between Mental Health and other treatment departments is the restriction of patients' freedom during the hospital stay, for example in case of mandatory psychiatric treatment or the use of restraint methods (11). According to a study by Deady & McCarthy (9), restraint does not generate any ethical conflicts in the nurse, if correctly prescribed and applied. Instead, coercive techniques used to compensate for a medical treatment, which was late or not sufficient, are causes of MD. The "Vision for Psychiatric/Mental Health Nursing", written by the Health Service Executive (14), reports that administration and physicians are the main factors that prevent nurses from defending patients' rights. Furthermore, the budget and resources available to Mental Health departments are often limited, whereas the quality and quantity of nursing work duties required is increasing (1, 21).

Furthermore, in inpatients more than other settings, nurses try to prevent acts of self-harm and

suicide attempts, deal with aggressive and violent behaviour, even risking their own safety (1, 21). Occasionally, nurses have to face teenage patients. Sometimes, hospitals lack the necessary facilities and nurses feel they are putting these patients' safety at risk (23). This could increase stressful situation and lead to a major sense of MD.

In our study, older nurses showed significantly higher burnout levels in the domain of emotional exhaustion (Median=23, p=.026) compared to younger nurses.

This can be explained by the fact that mental health is a highly complex environment and requires important emotional resources. In the long run, this can lead to emotional exhaustion, as stated by other authors (22, 34) if not properly addressed with psychoeducational and organizational interventions.

As regards work experience, novices have higher career expectations, which often remain unmet.

We registered a significant, yet modest positive correlation between MD and two MBI dimensions, namely Emotional Exhaustion (ρ=0.28, *p<0,001*) and depersonalization (ρ=0.20, *p<0,001*). This result confirms the correlation between the two phenomena that had been previously identified in other surveys (7, 11, 12, 25, 31).

Differently from the study by Ohnishi (25), Dalmolin (7) and Fumis (11) in our survey we did not find any correlation with the "Professional accomplishment" domain. This finding can be explained by considering that in Italy, differently from other Countries, all psychiatric hospitals have been closed in the 80s. After that, the need for care and socialization has been increasingly considered as important for psychiatric patients; also, pharmacological therapies have dramatically improved the physical and psychological condition of many of them, thus leading to radical changes in the role of nurses and consequently to higher professional satisfaction.

Moreover, differently from the work by Dalmolin (7) that identified a relationship between MD and burnout due to the fact that often nurses are forced to administer therapies they deem useless, in our study the most critical aspects were the lack of material and human resources. Such phenomena come from two different constructs, since MD has more an ethical value and burnout is related to emotional aspects.

In our study, MD and burnout seem to be related, especially as regards depersonalization and emotional exhaustion. A relation between these two domains was also found by Ohinishi (25), Dalmolin (7) and Fumis (11), confirming that our results are comparable to the literature.

Differently from the findings by Fumis (11) in our study the correlation between MD and burnout remains weak, and does not confirm that high levels of MD can predict severe burnout. Only seven nurses seem to suffer from burnout syndrome in our sample.

Limitations

This study has some limitations. Firstly, we did not consider organizational variables such as nurse-patient relationship, turnover, and overall working experience. It might be useful to study the correlation between such variables and MD/MBI levels.

Another limitation is that we did not consider the persons who were not present during data collection (20%). However, the high response rate supports the reliability of our findings and therefore we can suppose that no participation or selection bias exists.

Nowadays, new organizational criteria for acute psychiatric inpatients include open wards and reduction of physical restraint episodes. It could be interesting to verify if nurses working in such new organizational settings present less MD. Furthermore, we should consider repeating the survey in other regions, since differences between local psychiatric services may influence the factors causing MD. Finally, this is a cross-sectional study; therefore, the potential cause-effect relationship between MD and burnout has yet to be confirmed.

Conclusion

This study confirmed the correlation between MD and two dimensions of MBI, as reported in other studies (7, 11, 12, 25, 31) even though it was modest in this survey. The present survey provided a first dataset regarding MD and MBI among Italian nurses in Mental Health services, paving the way for future studies. Our intent was also to make the scale more appropriate to Italian reality, in order to obtain

a more reliable and valid instrument, as suggested by Canciani et al. in their study (5). Our results show that the Italian version is valid and reliable.

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