Applicability of the adapted Moral Distress Scale in the context of nursing in hemato-oncology services

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ABSTRACT

Objective: To verify the applicability of the adapted Moral Distress Scale in the nursing setting of the hemato-oncology sector of a university hospital.

Method: Cross-sectional study conducted with 46 nursing workers of a university hospital in the southern region of Brazil with data collected between December 2014 and March 2015 by means of the adapted Moral Distress Scale. Factor analysis, Cronbach’s alpha, and descriptive statistics were used to analyze the data.

Results: Factor analysis resulted in a group of 26 questions validated based on three factors: Lack of Competence in the Team, Denial of the Nursing Role as the Patient’s Advocate, and Disrespect for the Patient’s Autonomy. Cronbach’s alpha of the instrument was 0.98.

Conclusion: This study showed that the adapted Moral Distress Scale is an appropriate instrument for the identification of moral distress in nursing workers in the hemato-oncology area.

Keywords: Occupational health. Nursing. Ethics. Oncology service, hospital.

RESUMO

Objetivo: Verificar a aplicabilidade da Moral Distress Scale adaptada no cenário da enfermagem em hemato-oncologia de um hospital universitário.

Método: Estudo transversal realizado com 46 trabalhadores de enfermagem de um hospital universitário do sul do Brasil, com coleta de dados no período de dezembro/2014 a março/2015 por meio da Moral Distress Scale adaptada. Para análise dos dados foram utilizados análise fatorial, alfa de Cronbach e estatística descritiva.

Resultados: A análise fatorial resultou no agrupamento de 26 questões validadas em três fatores: Falta de competência da equipe, Negação do papel da enfermagem como advogada do paciente e Desrespeito à autonomia do paciente. O alfa de Cronbach do instrumento foi de 0,98.

Conclusão: Constatou-se que a Moral Distress Scale adaptada apresenta-se como uma ferramenta adequada para identificação do sofrimento moral nos trabalhadores de enfermagem de hemato-oncologia.


RESUMEN

Objetivo: Verificar la aplicabilidad de la Moral Distress Scale adaptada en el entorno de enfermería en hemato-oncología de un hospital universitario.

Método: Estudio transversal con 46 trabajadores de enfermería de un hospital universitario en el sur de Brasil, con la recogida de datos a partir de diciembre/2014 a marzo/2015 mediante la Moral Distress Scale adaptada. Para el análisis de datos se utilizó el análisis factorial, alfa de Cronbach y la estadística descriptiva.

Resultados: El análisis de factores resultó en el grupo de 26 preguntas validadas en tres factores: Falta de competencia del equipo de trabajo, Negación del papel de la enfermería como abogada del paciente y Falta de respeto a la autonomía del paciente. Alfa de Cronbach del instrumento fue de 0,98.

Conclusión: Se encontró que la Moral Distress Scale adaptada se presenta como una herramienta adecuada para identificar la angustia moral en los trabajadores de enfermería de hemato-oncología.

INTRODUCTION

In their work routine nursing workers experience a number of conflicting situations and ethical and moral dilemmas that may lead to moral distress (MD), a situation in which workers recognize the appropriate ethical action to be executed but feel prevented from doing it due to embarrassments caused by the multidisciplinary team, leaders, administrative personnel, or political decisions outside their agreement, interfering in their professional behavior(1).

Regarding the work of nursing workers in hemato-oncology it is possible to infer that it often occurs close to the disease and complicated diagnoses, pain, and death, combined with the distress and anxiety by patients and their family members(2). In these situations, oncology nursing workers develop coping mechanisms initially based on denial and resignation regarding the type of care, then they seek support from the health team for their plurality and multiplicity of visions by different professionals with emotional involvement with patients and their family members, seeking personal and professional improvement for an ethical and highly skilled work(3).

Thus the nursing work in hemato-oncology is also characterized by the proximity and link established with patients, especially by long-term treatments and prolonged length of stay in the hospital or outpatient treatments. In this aspect nursing workers often tend to support patients not only in the technical but also in the emotional aspect, acting as their advocate, defending their care-related rights in the institution or before people representing the power, which may lead to moral distress in cases where they are unable to implement the moral deliberation process according to their values and beliefs(4-5).

The aspects related to care as well as decision-making processes that are not always shared among all members of the health team, work overload, insufficient human and material resources, and the feeling of disability/incompetence to provide a quality service in view of some situations represent sources of moral dilemmas and MD in this context(6).

Therefore, in view of these aspects, the development of this study is justified by the need to identify MD in the context of nursing work in the hemato-oncology area, which presents singularities in the form of its work organization and in the implemented type of care. The Moral Distress Scale (MDS) is one of the most commonly used instruments both in the national and international literature to assess MD. It was translated to Brazilian Portuguese from the original instrument and subsequently adapted to the Brazilian context(7). In 1995 the instrument presented in its first application in North American context(8) and subsequently validated and adapted to the Brazilian context(9). In 1995 the instrument was applied to 111 nurses working in intensive care units and subsequently in 214 nurses working in different units in North American hospitals(9). The development of this instrument was based on three fundamental assumptions: the applicability of the personal values of nursing workers in their work environments; the identification of the presence of ethical issues in their professional daily activities; and the condition presented by the nursing workers to assess the extent of MD in the professional daily routine(10).

In its first application in 1995 the instrument presented 32 questions using a seven-point Likert scale ranging from 1 (for never occurring) to 7 (for very intense distress), but without measuring the frequency and intensity of MD. This instrument presents questions covering the prolongation of life, examinations, unnecessary treatments, professional actions deemed incompetent by the medical team, and situations of omission in relation to patients(10).

As this version of the instrument does not present questions related to pain management, nursing care management...
ment, and lack of qualification of the nursing professionals, a review of the MDS was proposed in 2001. This review presented 38 questions in two scales: one for intensity of MD and the other for its frequency of occurrence, both ranging from 0 (for never occurring or no frequency) to 6 (for very intense or very frequent distress)(9).

This instrument was replicated in studies in the national scenario(6) and in a number of different realities(8,10). In Brazil the MDS was firstly translated from the original format with the validation of 21 of the 38 questions when it was observed that several situations of MD in this reality were not sufficiently approached. Therefore a version of the MDS adapted to the Brazilian context was developed for nursing workers consisting of 39 questions, that is, 21 of the questions validated from the original instrument and 18 questions produced by diverse qualitative studies in the Brazilian reality that pointed out situations of moral distress experienced by nursing workers(6).

The study participants consisted of nursing workers from the hemato-oncology sector. In total, this service has 52 nursing workers (26 nurses, 20 nursing technicians, and 6 nursing aides) distributed in the oncology units, bone marrow transplantation unit, and chemotherapy and radiotherapy clinics. Working in the sector for a minimum period of 30 days represented the criterion for inclusion. The exclusion criterion was being away from work due to vacation or medical leave during the period of data collection.

In this sense a convenience non-probabilistic sample was used according to the criterion for selection of participants based on their availability to participate in the study at the time of data collection. However, the criterion for selection of the sample size(12) estimating a minimum sample to enable certain statistical exams was adopted in order to reduce the occurrence of possible biases related to the sample size. Based on the population of 52 nursing workers, the application of the formula generated a minimum of 45 participants.

Data were collected between December 2014 and March 2015, by people who were previously trained. The workers that agreed to participate in the study received an envelope containing the instrument and two copies of a free and informed consent form (one for the researcher and the other for the participant); then a date was set for returning the forms. Up to three attempts were made to collect the instruments. All the nursing workers of the hemato-oncology service were invited to participate in the study; 46 of them accepted.

The software Microsoft Excel’ was used to enter the data into the analysis process of the study. Then the software PASW Statistics’ (Predictive Analytics Software, by SPSS Inc., Chicago, USA) version 18.0 for Windows was used for data analysis.

A new factor analysis of the instrument was initially conducted as the studies that previously used the scale presented different factors. The internal consistency of the scale and the factors were then verified through Cronbach’s alpha. Descriptive statistics supported the summary of information through the distribution of frequency, measures of positions, and measures of dispersion. Pearson’s correlation was used to verify the association between the factors.

This study complied with all ethical precepts for research involving human beings in accordance with Resolution 466/12 of the National Health Council. The free and informed consent form was introduced at the time of the invitation to participate in the research; those who agreed to participate signed it and kept one copy of the document. The research project was submitted to evaluation by the local research ethics committee, and approved as per Certificate of Presentation for Ethics Appreciation (CAAE) number 24330213.8.0000.5346 and Statement 928.879(13).

**RESULTS**

The study participants consisted of 46 nursing workers from the hemato-oncology service; most of them were female (44 – 95.7%), married (35-76.1%), and had one child (19-41.3%). Nurses represented the predominant professional category (23-50%), followed by nursing technicians (18-39.1%) and nursing aides (5-10.9%). Regarding their qualification, most participants had specialization degrees (30-65.2%). The mean age of the participants was 38.6 years.

For data analysis, 39 questions that make up the instrument were initially submitted to exploratory factor analysis. The factors were defined by the level of association of the variables found in the analysis of factor load and their subjectivity. The main components were analyzed by applying the Varimax orthogonal rotation aiming at maximizing the high correlations and minimizing the low correlations, identifying an adequacy of the variables to the identified components. Five factors emerged at first, however these were not found to be consistent with the proposed reference; then the gradual exclusion process of each one of the questions presenting low factor load in their blocks (lower than 0.40) and those presenting no conceptual consistency with the formed constructs was conducted. At the end of the analysis 13 questions were excluded and 26 were validated, distributed into three factors (Table 1).

The reliability of the instrument, measured through the Cronbach’s Alpha, obtained a value of 0.98, and the factor coefficient values ranged between 0.86 and 0.98. Thus the
26 validated questions were distributed into three factors, named: Lack of competence in the work team, Denial of the nursing role as the patient’s advocate, and Disrespect for the patient’s autonomy.

“Lack of competence in the work team” is characterized as the insecurity felt by nursing workers when they work together with professionals of the multidisciplinary team of the healthcare area or other support services presenting no technical skill or competence to work\textsuperscript{(14)}. “Denial of the nursing role as the patient’s advocate”, although it is not a specific role of nursing it is part of the care developed to patients, showing their autonomy as a professional\textsuperscript{(15)}. “Disrespect for the patient’s autonomy” points out the violation of the ethical principle of autonomy that establishes as a precept the individual freedom granted to every individual to determine their actions according to their choices, values, and convictions\textsuperscript{(16)}.

Table 1 presents the result of the exploratory factor analysis (in blocks) and the formed constructs, observing their unidimensionality.

The analysis of Table 1 enabled the identification that the items of each construct, when analyzed together, con-
verged into a single factor, suggesting that they are all unidimensional. It was also observed that the 26 validated questions of the instrument are able, together, to explain 82.07% of the explored moral distress, and the first isolated factor, named lack of competence in the work team, accounts for the explanation of 70.42%.

In relation to the measure of sampling adequacy, the Kaiser-Meyer-Olkin test (KMO) was calculated with the val-

<table>
<thead>
<tr>
<th>Question</th>
<th>Block</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q38 - Avoiding taking action when observing abandonment of a terminal patient by the health team.</td>
<td>0.872</td>
<td>0.472</td>
<td>0.757</td>
<td>0.274</td>
</tr>
<tr>
<td>Q16 - Observing without taking action when the nursing team disrespects the privacy of the patient.</td>
<td>0.757</td>
<td>0.511</td>
<td>0.704</td>
<td>0.029</td>
</tr>
<tr>
<td>Q39 - Avoiding taking action when observing abandonment of a terminal patient by the family.</td>
<td>0.747</td>
<td>0.500</td>
<td>0.701</td>
<td>0.078</td>
</tr>
<tr>
<td>Q34 - Avoiding taking action in situations of death of patients associated with professional negligence.</td>
<td>0.785</td>
<td>0.534</td>
<td>0.699</td>
<td>0.108</td>
</tr>
<tr>
<td>Q12 - Executing medical prescriptions to conduct unnecessary exams and treatments in terminally ill patients.</td>
<td>0.829</td>
<td>0.194</td>
<td>0.695</td>
<td>0.555</td>
</tr>
<tr>
<td>Q18 - Assisting a physician who, in your opinion, is acting in an incompetent way in relation to the patient.</td>
<td>0.813</td>
<td>0.537</td>
<td>0.673</td>
<td>0.269</td>
</tr>
<tr>
<td>Q11 - Assisting physicians performing procedures in patients after unsatisfactory cardiorespiratory recovery.</td>
<td>0.610</td>
<td>0.286</td>
<td>0.653</td>
<td>0.320</td>
</tr>
<tr>
<td>Q13 - Working with the nursing team at a level considered “unsafe”.</td>
<td>0.752</td>
<td>0.540</td>
<td>0.614</td>
<td>0.288</td>
</tr>
<tr>
<td>Q17 - Obeying the medical order not to tell the truth to a patient, even when the patient asks for it.</td>
<td>0.771</td>
<td>0.389</td>
<td>0.595</td>
<td>0.515</td>
</tr>
</tbody>
</table>

### Disrespect for the patient’s autonomy

<table>
<thead>
<tr>
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<th>F2</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q02 - Respecting the will of the family in relation to the maintenance of life of the patient, although this is not the best for them.</td>
<td>0.635</td>
<td>0.305</td>
<td>0.088</td>
<td>0.731</td>
</tr>
<tr>
<td>Q21 - Complying with the physician’s order not to discuss with the patient about their resuscitation in case of cardiac arrest.</td>
<td>0.848</td>
<td>0.405</td>
<td>0.400</td>
<td>0.724</td>
</tr>
<tr>
<td>Q22 - Complying with the physician’s order not to discuss with the family about the resuscitation of the patient in case of cardiac arrest when the patient is deprived of discernment.</td>
<td>0.762</td>
<td>0.245</td>
<td>0.449</td>
<td>0.707</td>
</tr>
<tr>
<td>Q36 - Working with professionals who do not clarify the patient about their health and disease condition.</td>
<td>0.782</td>
<td>0.524</td>
<td>0.450</td>
<td>0.553</td>
</tr>
</tbody>
</table>

Initial Eigenvalues

| Initial Eigenvalues | 18.31 | 1.69 | 1.33 |

% variance explained 82.07

Cronbach’s Alpha (instrument: 0.98)

| Cronbach’s Alpha (instrument: 0.98) | 0.98 | 0.97 | 0.86 |

Kaiser-Meyer-Olkin Test (KMO): 0.884

Bartlet test: chi-square = 1751.752 (325)

Source: Research data, 2015.
ue of 0.884, showing the positive adequacy of the sample in relation to the analysis. Bartlett’s sphericity test: chi-square (325) = 1751.752 with p below 0.001 indicated that the correlations between the items are sufficient to perform the factor analysis.

Finally, Table 2 presents the correlation values for each factor.

**Table 2** – Description of the correlation values among the MD factors validated from the application of the MDS adapted to the Brazilian context in a sample of nursing workers of the hemato-oncology sector of a University Hospital/RS, Brazil – 2015

<table>
<thead>
<tr>
<th>Factor</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of competence in the work team (F1)</td>
<td>.838**</td>
<td>.773**</td>
<td></td>
</tr>
<tr>
<td>Denial of the nursing role as the patient’s advocate (F2)</td>
<td>.838**</td>
<td>.729**</td>
<td></td>
</tr>
<tr>
<td>Disrespect for the patient’s autonomy (F3)</td>
<td>.773**</td>
<td>.729**</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data, 2015.
** Pearson’s correlation (p<0.001)

The Pearson’s correlation values evidenced the relationship between lack of competence in the work team and denial of the nursing role as the patient’s advocate (r = 0.838, p < 0.001) as the most significant. The study highlights that all the tested correlations presented positive and statistically significant associations to the level of 1%, demonstrating that the assessment factors of MD are highly correlated.

**DISCUSSION**

As observed in the results, the application of the MDS adapted to the Brazilian context in a sample of nursing workers of the hemato-oncology sector presented three factors, with 26 validated questions that assessed the MD. A comparison of this result with previous studies, also in the Brazilian context, evidenced that in this sample it was possible to include a higher number of questions, but with a smaller number of factors (14-15).

In the studies that used the same instrument it was possible to observe that both were conducted with nursing workers from all categories, one with a sample of 247 workers, validating 23 questions, with Cronbach’s alpha of 0.95 (15), and another one with 334 workers, with 20 questions validated and Cronbach’s alpha of 0.93 (14). Regarding the factors, in the first one five factors were identified: lack of competence in the work team, disrespect for the patient’s autonomy, insufficient work conditions, denial of the nursing role as the patient’s advocate in the terminality, and denial of the nursing role as the patient’s advocate (15).

In the second one four factors were defined, three of which were common to the previously mentioned study, namely: lack of competence in the work team, disrespect for the patient’s autonomy, and insufficient work conditions, including a fourth factor named therapeutic obstinacy (14).

The results found in these different studies point out that in the application of the adapted MDS in the sample of nursing workers of the hemato-oncology sector an aspect that differs from the other applications in the Brazilian context refers to the absence of the factor “insufficient work conditions”, in which the questions that would mark this factor were not validated in this sample. These findings are close to those evidenced in the studies with the use of the original instrument and the translated and validated instrument, in which the items related to material/human resources and work organization are not characterized as a source of moral distress (4,6,9). MD in nursing in oncology units has been related to moral dilemmas and conflicts in situations of terminality and performance of futile care, and the nurses are often the professionals responsible for obtaining informed consent from patients to perform unnecessary procedures (4,7-18).

The assessment of MD among 182 pediatric nurses of the hemato-oncology sector in Italy using the pediatric version of the MDS showed that the factor related to a higher level of moral distress was related to the professional competence of physicians and nurses, with Cronbach’s alpha of 0.95. Of this population, 13.7% reported to have already changed to other unit or institution due to moral distress (4,6,9).

This issue may be explained by the own nature of the work in the hemato-oncology area, in which the proximity of the nursing workers with the patients and the sensitivity before situations of conflicts or dilemmas involving diagnoses, treatments, and care seem to be more intense in this work environment, demanding higher levels of coping actions (4,7-18). However, this may also be related to the fact that it consists in a different institution from those previously studied, as each one also presents their particularities (4,7-18).

In this sense, nursing workers of some areas such as oncology, palliative care, neonatal, pediatric, and adult intensive care units, and emergency services seem to be more susceptible to the development of MD due to the situations faced in their work routine. These situations include the management of care to patients, difficulty in decision-making processes in issues involving terminality, fu-
tile treatments and those with no benefits, conflicts related to the difficulty to perform patient advocacy, overcrowding in the units, disrespect for patients’ autonomy, interpersonal relationships, and difficulty related to working with colleagues deemed incompetent to work in these sectors presenting higher levels of complexity[14].

In this perspective it is possible to affirm that MD may be evidenced in different forms depending on the unit or institution to which the nursing workers are linked, and may also be associated with the type of employment relationship, work load, staff sizing, professional qualification of the workers, and presence of team meetings with possibilities of spaces for ethical discussion[15].

In the face of these situations nurses may be considered as a moral agent, advocating for excellence care for patients and their families, particularly when there is interference in the performance of procedures that may compromise the health and safety of patients. However, as a result of this, when they need to act before situations deemed unethical, nursing workers may experience moral distress, also compromising their moral integrity[19].

Because of this, nursing workers present difficulty or resistance to advocate for patients, defending their interests, and not only developing care services, as they need to move in a pre-conceived power structure that also involves feelings of impotence, frustration, guilt, and fear of losing their job. However, this scenario should be changed, contributing to strengthen nursing workers as a team[23].

In this sense the importance of assessing MD in the different spaces of work of nursing is emphasized as its manifestations may go beyond the clinical environments, presenting consequences for health care in a broad and direct way to the workers, as it arises when the individuals have clear moral and social judgments but present difficulty in finding a way to express their concerns[20].

Finally, this study points out that the MDS, both in its original version and the translated and adapted version, represents an appropriate tool to assess MD in different contexts and among nursing workers of the hemato-oncology sector of this and other studies[4,6,9,15,17-18].

■ FINAL CONSIDERATIONS

This study verified the applicability of the adapted MDS in a population of nursing workers of the hemato-oncology sector. Three factors were identified: Lack of competence in the work team, Disrespect for the patient’s autonomy, and Denial of the nursing role as the patient’s advocate, which together explained 82.07% of the instrument and represented the factor responsible for 70.42% of this explanation.

Considering this aspect, the study points out the concerns of nursing workers of the hemato-oncology area in relation to the competence of the professionals working in this service. Therefore it is necessary to conduct qualifications in services and create spaces for discussions on situations of conflicts and dilemmas that demand decision making by the team so that they may be strengthened, both ethically and technically, improving the care for patients that may be weakened due to the treatment, needing care and a human, ethical service from the team.

The study also emphasizes the difference identified in relation to the factors validated in this study in comparison to others that used the same scale, as in this population the factor “insufficient work conditions” was not validated, that is, is was not characterized as being associated with MD in this population, a fact that is possibly related to the characteristics of the job and institution, as well as to the type of service of the sector.

It is also noteworthy that the adapted MDS was found to be valid and reliable to assess MD of nursing workers of the hemato-oncology area. Limitations of the study include the limited size of the sample and the sampling technique used, which do not allow generalizations to other contexts.

Finally, the study considers that this scale may support new studies involving all health care workers of the hemato-oncology area for a better understanding of MD in this scenario. It is also important to apply the instrument with nursing workers of distinct units in order to test its applicability with other populations observing their factors and psychometric data. These consist in suggestions for further studies so that the discussion on the theme is expanded, as well as for a higher level of recognition in environments of nursing performance, including students, so that nursing students are able to recognize it in their health care work routine.

■ REFERENCES


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