Analysis of the Professional Stress of Doctors and Nurses Resulting from their Interactions in the Health Institutions of the City of Lubumbashi (in DRC)

¹MUTALO KONA Cathy, ²KALENGA LUNGUNGA Adolphe,
³KASWALA NYAMBI Christophe, ⁴MUNDONGO TSHAMBA
Henry, ⁵MALONGA KAJ Françoise

¹Department of Teaching and Nursing Administration, Higher institute of Nursing School of Lubumbashi, P.O. BOX 4748, Lubumbashi, DRC.

²Department of Teaching and Nursing Administration, Higher institute of Nursing School of Lubumbashi, P.O. BOX 4748, Lubumbashi, DRC.

³Department of Health Institutions' Management, Higher institute of Nursing School of Lubumbashi, P.O. BOX 4748, Lubumbashi, DRC.

⁴Department of Maternal and infant Health, School of Public Health, University of Lubumbashi, P.O. BOX 1825, Lubumbashi, DRC.

⁵Department of Maternal and infant Health, School of Public Health, University of Lubumbashi, P.O. BOX 1825, Lubumbashi, DRC.

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***Corresponding Author**

MUTALO KONA Cathy

E-mail: mutalo2@yahoo.fr

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ABSTRACT

This article analyzes the professional stress bound to the problematic interactions of the doctors and the nurses investigated in the health institutions of the City of Lubumbashi, in DRC, with their colleagues, their hierarchy, their patients and the guides of the latter. The objective is to evoke, for information purposes, the relational sources that go into the understanding of the multifactorial of the stress lived by investigated caregivers. To reach there, a laminated proportional sample of 562 subjects (n=562), which 432 nurses and 130 doctors, allowed to collect of data by questionnaire. These were encoded in Microsoft Excel and analyzed via Epi Info software version 7.2 of 2016 and SPSS 19.0 of 2012. The chi-square test contributed to test our hypothesis, by considering the Odds ratio meanwhile of confidence interval (CI) of 95 % and the value of p to direct the interpretation. The results show of numerous caregivers put under stress within the framework of the interactions with the patients (56.76 % of the nurses and 18.86 % of the doctors, is a total of 75.62 % of the nursing ones, with OR 1.56; in the borders of [0.9563], [2.5596]; with value of p=0.04 (p<0.05); the test being significant). This real-life experience of stress is fed by other sources always in the interactive frame: the interactions with the guides of patients are 68.32 % of nursing put under stress, the interactions with the colleagues cause 60.85 % of nursing put under stress and the interactions with the hierarchy are 55.51 % of nursing put under stress. These results concur to note that the relational framework of doctors and nurses surveyed is crossed by problematic interactions, very often conflicting both between professionals and even with the hierarchical leaders as between the nursing and, especially, the patients and their guides or relatives.

INTRODUCTION

The profession of the caregivers is a relational job in which they interact mainly with the patients. For Manoukian and Massebeuf, a relation, it is a meeting between two people at least, that is two characters, two particular psychology and two stories [1]. This relation is determined by the psychological factors, the social factors and the physical factors. It is based on the exchange and communication "with her body, her word and her affectivity" [1]. Thus the relation depends on the personality of every individual and on the context in which the relation is born (environment, circumstance, typifies of disease etc.).

The caregiver-care relationship is not a salon relationship, it is intended to provide help and support to the caretaker until his return to autonomy. This relation allows to identify the demands of the disrupted person and to analyze the interactions [2]. The relation of help or relation of support is perceived as a "technique of interviews using the empathy, the reformulation, the verbal and not verbal interventions, and to help a person express its problems. [...] This relation can become established during interviews or during any act of care; it is based on dialogue and listening" [3].

It establishes a helping relationship that is not to be perceived in an indirect process where an expert provides assistance to a client who receives it. Rather, this relation is to be conceived in terms of exchanges, which requires the presence of a mutual openness where each one accepts to influence and to be influenced, to give, and to receive. This relationship is therefore "based on strong reciprocity" or "reciprocal enrichment" [1].

In this perspective of caregiver-care relationship, professional interactions of doctors and nurses surveyed generate problems that cause various stress. These problems result from multiple interactions with the colleagues, in dealing with line managers, as well as in their contacts with the patients and those who accompany them. Carers evolve in a relational cluster, which can save them from the advent of the professional stress. In what proportions, do the doctors and the nurses of the health institutions of the City of Lubumbashi live the professional stress connected to the relational problems and which are the situations, which engender their diverse stress in this interactive setting? Such is the question, which directs this led study. It allows formulating a hypothesis in these terms: The relational beam of investigated caregivers would be widely on the base of their numerous stressful situations.

REVIEW OF THE LITERATURE

The interactionist approach considers that the stress is a global phenomenon which results from the gap between the situation and the individual and which so requires to take into account of a set of interactive data (stressors, characteristics of the individual and consequences). According to Banyasz, the

interactionist approach centers on "the gap between the situation and the individual who would be at the origin of the stress. This gap results from an imbalance between the demands of the environment on the one hand and on the other hand the characteristics (age, sex, etc.) of the individual" [4].

The interactionist approach focuses on the structural characteristics of the complex interactions of the subject with its working environment and "according to this approach, personal and social variables modulate the impact of the stress on an individual" [5]. The interactionist approach allows approaching the professional stress according to the characteristics of the worker, the functions of work and the interactions.

In the interactionist theory of stress focused on the structural characteristics of the interaction of the person with its working environment, we list two particular models: that of "Person-Environment Fit" of French and that of "Demand-Control" from Karasek and Theorell. This research leans on the latest model. Developed at the beginning of 1980s, the model "Demand-Control" is of North American origin. It is, according to Légeron, the resultant of two factors which harmonize between them:

- on one hand the demand exercised on the individual (that is the psychological load, associated with the constraints connected to the execution of the task in terms of quantity and complexity of the work and the time constraint);
- on the other hand, its decision-making latitude (that is to say, the margin of maneuver that covers both the control one has over one's work, the greater or less autonomy available in the organization of tasks and participation in decisions, as well as the use of its skills and the ability to use its qualifications and the capacity to develop new skills" [6].

Karasek and Theorell draw particular attention to two characteristics of work: demand and control, because to answer the more or less strong demands which are imposed on them, workers always have a certain degree of control [7]. The characteristics of the work are then more associated in a direct and linear way with the appearance of the stress but harmonize between them, because it is the crossing between the demands and the control of the situation that will determine the level of stress.

Four cases are thus possible: High demands with reduced control possibilities will cause high stress. Among the professions most concerned, Karasek mentions telephone operators, caregivers, servers and more generally all tasks whose operations are punctuated by multiple requests, not determinable over time, and whose rhythm presents a random nature, brief and simultaneous. On the other hand, the combination of high pressure with wide freedom of action will make the worker dynamic and motivated, this category usually includes more prestigious professions such as engineers, doctors, and directors. Conversely, low pressure combined with greater freedom of action will result in weaker work, and weak demands and controls will tend to make the worker passive [7].

METHODOLOGY

Study area

In Democratic Republic of the Congo, the City of Lubumbashi pretty much count 300 institutions of health: hospitals, medical health centers, polyclinics... if we trust the statement made during our investigation from July 2015 till July 2016. These health structures are distributed in eleven Zones of Health. Our study concerned 251 sanitary establishments distributed in nine Zones of health on eleven that counts the city of Lubumbashi.

Population and sample size

Two groups constitute the population of this study: they are doctors and nurses. In the City of Lubumbashi, the number of doctors amounts to more or less 934 and that of the nurses to 2382. This makes a total of 3316 subjects according to the statistics collected during our survey in the nine health zones

surveyed. All in all, this study built its sample around 562 subjects (n=562), or 16.9 %. It was stratified in this way: 130 physicians that is a 13.9 % and 432 nurses, or 18.1 %. The valuable differences in this diversification of the laminated proportional sample are based on the size of each of stratum.

Methods

This study joins in the hillside of the quantitative approach. The collection of its data was done via a questionnaire directly addressed to the nurses (n=432) and to the doctors (n=130). To encode and process the data, a matrix was conceived in the Microsoft Excel format and in the Epi info software version 7.2 of 2016 and SPSS 19.0 of 2012. In the bivariate and multivariate analysis of data, the test of chi-square was put in contribution and the odds ratio (OR) facilitated the interpretation of independent variables with regard to the dependent variable (the professional stress) by considering the confidence interval (CI) of 95 % and the value of p.

RESULTS AND DISCUSSION

Table 1: Nature of stressful interactions

Variables of study	Profession						
	Nurses	Doctors	X ²	OR (CI 95%)	OR	p	D
Interactions with colleagues and stress							
No	171 (30.43)	49 (8.72)	0.0811	[0.7233], [1.6218]	1.08	0.38	NS
Yes	261 (46.44)	81 (14.41)					
Interactions with hierarchy and stress							
No	191 (33.99)	59 (10.50)	0.0182	[0.6431], [1.4143]	0.95	0.44	NS
Yes	241 (42.88)	71 (12.63)					
Interactions with patients and stress							
No	113 (20.11)	24 (4.27)	2.8066	[0.9563], [2.5596]	1.56	0.04	S
Yes	319 (56.76)	106 (18.86)					
Interactions with guides and stress							
No	134 (23.84)	44 (7.83)	0.2501	[0.5795], [1.3331]	0.87	0.30	NS
Yes	298 (53.02)	86 (15.30)					

The data of this table indicate that 46.44 % of the nurses and 14.41 % of the doctors have already lived on stressful situations because of the interactions with colleagues; the test is not significant with OR 1.08; the lower and superior borders of [0.7233, 1.6218], with the value of p=0.38 (p>0.05). With regard to the interactional frame with the hierarchy, 42.88 % of the nurses and 12.63 of the doctors develop the stress and the test is not significant with OR 0.95; the borders of [0.6431], [1.4143], the value of p 0.44 (p>0.05). As

regards the interactions with the patients, 56.76 % of the nurses and 18.86 % of the doctors are put under stress with OR 1.56; being borders of [0.9563], [2.5596], with value of p=0.04 (p<0.05) and the test is significant. In their relationships with the guides, 53.02 % of the nurses and 15.30 % of the doctors put under stress with OR 0.87 and the borders of [0.5795], [1.3331]; with value of p=0.30 (p> 0.05); and there is no association.

Table 2 : Types of stressful interactions with the colleagues

Types of interactions with the colleagues	NURSES	DOCTORS	Total	%
Subject of mockery for incompetence	130	37	167	25.4
Avoidance in the team	49	16	65	9.9
Requests to put more acts	69	22	91	13.9
Loving advances	15	6	21	3.2
In case of absence or of delay during the discount and the resumption	147	22	169	25.7
Change of prescription	53	38	91	13.9
Conflict between doctor and nurse	38	15	53	8.1
TOTAL	501	156	657	

From this table, it emerges that the replacement at the post (during discount and resumption) and mockery of colleagues against a classmate who does not perform well are major causes of stress because they stand out with 51.1%. These sources are treated equally by "When colleagues want me to always do acts of care" or solicitations to do more acts representing 13.9%; "When my colleague changes my medical prescription" or just when changing medical prescription representing 13.9% and when colleagues avoid a member in the team representing 9.9% and many others. The low rate is that of respondents who undergo the love advances of their colleagues (3.2%). The conflict between doctor and nurse is reported at 8.1%. As Barbara LeTourneau notes, conflict does not characterize all physician-nurse interactions, but it does affect certain moments of rapport between them

[8].

As we can see, the delay of one colleague to relieve the other is a source of stress. After work, the nursing staff only think of returning home after their services. However, it often happens that the person who has to replace him at the station comes with a big delay. A situation that creates tension, which sometimes leads to a quarrel between colleagues and consequently can generate stress.

And the change in the medical prescription puts into question the decisional latitude available to the caregiver in the exercise of his work. Because this gives autonomy in the organization of its tasks, participation in decisions and the use of its skills. In other words, this dimension concerns the possibilities of intervention, decision and control that the professional can have on professional constraints [7].

Table 3: Types of stressful interactions with the hierarchy

Types of stressful interactions with the hierarchy	Nurses	Doctors	Total	%
Subject of mockeries for incompetence	102	21	123	18.6
When the hierarchy does not wish me for	46	12	58	8.8
Requests in more acts than the other colleagues	53	16	69	10.5
Move forward lovers of the hierarchy	18	4	22	3.3
In case of delay	153	30	183	27.7
Absence of decision-making autonomy	36	19	55	8.3
Frequent Reproaches (in writing or in front of the sick	101	24	125	18.9
Excessive Power or incomprehension	15	10	25	3.8
TOTAL	524	136	660	

In the interactive frame, caregivers live or no other sources of stress emanating from contacts with the hierarchy. From this table, it gets free that several reasons place the staff looking in a situation of stress. The most frequent remain the remarks formulated by the superiors on the delay (27.7 %), the frequent reproaches (in writing or in front of the patients) (18.9 %) and the diverse mockeries further to the incompetence of a nursing (18.6 %). Also, certain nursing put under stress for the fact of being on employee that the others (10.5 %). Either that their colleagues are late, or unavailable or they are forced to supply them without their additional work is afterward paid. For them, it is the exploitation. And when the hierarchy does not want caregivers, these

put under stress in 8.8 %. Weakly, we register 3.8 % for the excessive power of the hierarchy or for some misunderstandings and 3.3 % for the loving advances introduced by the same hierarchy.

It is thus advisable to hold that the delay to the service, the written reproaches or in the presence of the patients and the fact of being surprised by a superior while the nursing puts a bad act in the provision of his services constitute the major sources of stress of nursing investigated. In these situations, the nursing feel frustrating and dread that their superiors eventually lose their confidence in them.

By considering, as an indication, the absence of involvement in the decisions concerning the care structure and the low autonomy of caregivers in the

actions to be taken (i.e. lack of decision-making autonomy), a link is established with the data used in the "Demand-Control" model of Karasek and Theorell (also mentioned in the list of interactionist models of work stress) with regard to "decision latitude" (that is

the margin of laborer which recovers as well the control which we have on its work) and "the greater or less autonomy that one has in the organization of the tasks and the participation in the decisions" [6].

Table 4: Types of stressful interactions with the patients

Types of interactions with the patients	Nurses	Doctors	Total	%
Refusal of care or grip of products	204	63	267	19.0
Insolvency of the patients	222	68	290	20.6
Violent, threatening or complicated Sick	206	48	254	18.0
When the sick require an exit	149	43	192	13.6
Requirement of transfer	49	24	73	5.2
Long stay to the hospital	149	50	199	14.1
Sick with problems communicational	102	31	133	9.4
Total	1081	327	1408	

Relationships between patients and caregivers are still not good. They are peppered with tensions, with conflicts or with simple differences of views. They fluctuate between collaboration and tension. And the results show that 20.6% of caregivers are stressed for the insolvency of patients when they, for example, do not pay their bills or when they do not know how to buy drugs, and yet useful for their recovery. At 19%, caregivers also stress when patients deliberately choose to refuse care or grip of pharmaceutical products which are prescribed to them. They refuse either to take care or to follow the treatment normally. They seem to have enough and do not expect anything from medicine. For the respondents, this

situation destabilizes them because the respondents feel powerless to respond to the suffering of the patients. Caregivers are forced to stop caring for them. Other caregivers stress at 18% for acts of violence, threats or complication displayed by patients. 14.1% of the responses refer to the fact that patients have been in the hospital for a long time without their health situation improving. It is the same when the patients insist on an exit, sometimes their state does not allow it. And to do this, 13.6% of caregivers manage to stress. These different situations make the respondents under pressure either by the menacing remarks of the patients or by their health situation.

Table 5: Types of stressful interactions with the guides of patients

Nature of interactions	Nurses	Doctors	Total	%
Refusal to take out during the administration of the care	196	52	248	22.9
Insolvency for medicine or charge	180	55	235	21.7
Violent or threatening of the guides of patients	195	41	236	21.8
Require a release of their relation	106	34	140	12.9
Require the transfer of their relation	77	39	116	10.7
Guides of patients with communicational problems	82	25	107	9.9
Total	836	246	1082	

In the same optics as the patients, relationships between their guides and the nursing are not necessarily harmonious. They also fluctuate between collaboration and tension, even between agreement and violence. These problematic interactions with the guides of patients are also on the base of the stress of the caregivers in their professional exercise. Of numerous cases met by the doctors and the nurses represent guides' refusal to go out of the room when caregivers administer the care to their member of family or to somebody else. And the caregivers find this situation stressful in 22.9 %. They find themselves so forced to look under pressure or without respect for the medical or nursing confidentiality. Others nursing indicate, in 21.7 %, the insolvency of the guides to settle invoices of care of their member or to support the cost of an intervention (surgical, gynecological). 21.8 % of the nursing point the violence or the threats victims of which they are on behalf of the guides and who produce them of the stress. Certain guides can

require a release or to transfer their close friend in another establishment and it talks of the stress in the nursing respectively in the 12.9 % order and 10.7 %. As for the patients, certain guides have communicational problems, likely to hold of less courteous words and it makes that the nursing develops the stress in 9.9 %.

CONCLUSION

In the Congolese context, generally, and of the City of Lubumbashi, in particular, the hospitals, the health centers, the polyclinics, as organizations, work with various social players who enter interaction with the doctors and the nurses. These interactions show themselves sometimes problematic and generate of the professional stress for these two categories of nursing investigated.

This study concerned four groups of

interactions: the interactions with the colleagues, the interactions with the hierarchy, the interactions with the patients and the interactions with the guides of patients. It is an interactive framework that is both vertical and horizontal. The test related to these interactions is significant in the context of those with patients. And 56.76% of nurses and 18.86% of stressed doctors were registered, representing a total of 75.62% of caregivers, with OR 1.56; the bounds being [0.9563], [2.5596], with value of $p = 0.04$ ($p < 0.05$). In terms of proportions of physicians and nurses exposed to stress, it is these interactions with patients that cause more stress to caregivers. They are followed by interactions with the guides of patients (68.32%), interactions with colleagues (60.85%) and interactions with the hierarchy (55.51%). As we note, it is in the interactions with the patients, on the one hand, and in the interactions with their companions, on the other hand, that the doctors and nurses surveyed stress most of the time. With these results, it should be noted that the relational framework of physicians and nurses surveyed is traversed by problematic interactions, often conflicting between professionals and even with the hierarchical leaders that between the caregivers and, especially, the patients and their companions. It is these problematic interactions that generate the professional stress of the caregivers surveyed.

Competing interests

The interest of this study is to show that the institutions of health of the City of Lubumbashi work with doctors and nurses highly put under stress by diverse sources among which the relational problems. So, these circles of care become structures at risks when we observe the quality of care administered by almost all of nursing put under stress in their diverse interactions.

Authors' contributions

This article contributes to study the professional stress of the doctors and nurses of the health institutions of the City of Lubumbashi with statistics in support, as regards their interactions. It also indicates that it is the interactions with patients and their companions that stress the caregivers most closely. Therefore, it is important for these health structures, to work to ease the relationship between different actors interacting with doctors and nurses, particularly.

Authors' Biography

MUTELO KONA Cathy is Master's degree in Epidemiology and Prevention of the diseases and Bachelor of Science Nurses of the School of Public

health of the University of Lubumbashi. At present, she is Leader of Works to the Higher Institute of Medical Techniques of Lubumbashi and prepare its doctoral thesis in Public health in Epidemiology and Maternal and infantile Health.

KALENGA LUNGUNGA Adolphe is a Teaching Assistant at the Department of Teaching and Nursing Administration of the Higher Institute of Nursing School of Lubumbashi. He is a candidate for the Master's degree for the next academic year in Public Health.

KASWALA NYAMBI Christophe is a PhD in Public Health of the University of Lubumbashi. Currently, he is a Head of Works at the Department of Health Institutions' Management at the Higher Institute of Nursing School of Lubumbashi.

MUNDONGO TSHAMBA Henry is PhD in Public Health of the University of Lubumbashi. Currently, he is a Director General of Higher Institute of Nursing School of Kolwezi and a member of Department of Maternal and infant Health at the School of Public Health of the University of Lubumbashi.

MALONGA KAJ Françoise is PhD in Public Health of the University of Lubumbashi. Currently, he is a Director General of Higher Institute of Nursing School of Lubumbashi and a supervisor of Department of Maternal and infant Health at the School of Public Health of the University of Lubumbashi.

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