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The Financial Puncture at Hospital: The Thorny Issue of Medical Staff Retention

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Abstract

It is pressing to question the residual meaning of work when it masks a traffic that cannot exist without it. Continuing the furrow excavated by the MOW, IRT (1987) research group, this research was initiated with the collaboration of 264 Cameroonians' caregivers in order to explore the direct effects and interaction between the meaning of work and the person-job fit perceived on engagement at work. Our results revealed that perceived coherence interacts with the meaning of work to create the psychological conditions that determine employees' engagement in their work.

Keywords

Meaning of Work, Person-Job Fit, Engagement at Work, Hospital Staff, Entropy

1. Introduction

As entropy is known to be an interpretation of disorder in the organization of a system's elements, and notably grows in the country's hospital services (Nyock Ilouga et al., 2018), generating an insignificant medical coverage rate (0.16%) with inadequate infrastructure in quantity, quality and uneven distribution across the national territory, and the Government of Cameroon claims to have initiated a policy of retention of medical staff based on the redistribution of "quote share"[1] (Health Ministry, 2016). The issue of the retention of medical personnel is particularly acute in the health services of African countries, which are not only confronted to persistent health burdens, such as infectious diseases, malnutrition

[1]A premium on the activity paid to medical staff according to their performance.

and infant and maternal mortality, but also to new challenges related to the increasing prevalence of chronic diseases, mental disorders, injuries and health problems related to climate change and environmental degradation (Akua Agyepong et al., 2017). In those countries where patients are taken care of only subject to financial security, and where possibilities of recovery are negligible, the retention of medical personnel, based on commitment to work, could contribute to improving the quality of care and reduce the confrontation with death that is taking on worrying proportions. Literature review offers some evidence of the benefits of commitment at work on overall performance, psychological health, absenteeism and turnover (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Despite this, we do not know much about the specific consequences of a permanent exposure to death on the links between meaningful work and commitment to work. However, it has been shown that understanding the psychological underpinnings of commitment helps to better describe the circumstances that favor psychological identification at work (May, Gilson, & Harter, 2004). Recent studies in the field of applied psychology have considerably invested the question of meaning, trying to identify the determinants (Hackman & Oldham, 1980), specify the contours (Frankl, 1980; Bernaud, 2015), develop models (May et al., 2004; Morin, 2008) and evaluate their consequences on health and well-being (Arnoux-Nicolas, Sovet, Lhotellier, & Bernaud, 2016). These concerns are multidisciplinary, crossing fertile reflections in sociology, philosophy, sciences of education, management or life sciences. The study of the issue of meaning is also currently influenced by the emergence of the sciences of complexity and the evolution of research methods aimed at transcending linear models, to better understand the relationship between the meaningful work and the meaning of life, which are subjective, evolutionary and context-related. In this perspective, studies of the MOW, IRT research group (1986) show that the study of the meaningful work opens a window on the understanding or even the explanation of workers' behavior. This gives an advantage in designing appropriate managerial policies. However, the lack of research that clarifies the singularity of the work foundations in an entropic context, marked by emptiness, pauperism, and which transforms workers into hired men exclusively committed to sell their services to the highest bidder, complicates the invention of such policies and even the adaptation of those that have proven effective in other contexts to promote work commitment. This study will therefore attempt to identify the nature and dynamics of links that are formed between the meaningful work and work commitment in an entropic context marked by the policy of "shares" (Morin, 2008). It will be necessary to determine the form of commitment preferred by the medical staff and examine the direct and induced effects of meaning on work commitment.

2. Theoretical Framework

2.1. Entropy in the Context of Study

In the hope of reaching a level of life expectancy comparable to that of people

living in other places, Cameroon must create conditions to seize the opportunities offered by digital technologies to optimize the functioning of the health system in order to improve access of population to health care. But how is it possible to promote access to health care for low-income people when the wage system of the nursing staff is based on prior payment of required fees for patients to obtain care. In Cameroon, 90% of health expenditure is borne by patients (Health Profile, 2016). It is well known that sick people without resources are not received in hospitals. Convinced that they will not be received, many poor people do not dare to go to the hospital and die at home. Barely 52% of Cameroonian population seeks health care services for the treatment of common diseases and injuries (Health Profile, 2016). The government's contribution to health financing is derisory (an average of 5% of the state budget is allocated to health). In 2012, 70.42% (474.5 billion FCFA) of health expenditure came from households and 14.54% from the state. Inequities in terms of health are greatest among the very poor, rural people, marginalized or socially excluded people, and those living in humanitarian situations and conflict zones. As soon as you enter the hospital, you are required to pay huge sums of money that you cannot refuse to pay if you want to be cared for in the hope of getting your ailments to heal. However, there is one exception to this rule. Many patients do not pay the bill for lack of means and find themselves abandoned and are sometimes forced to return home or resort to opportune Tradi-therapy. Others, a strong majority, even prefer not to move to the hospital. They suffer and die in silence and silence. However, the public opinion has in Cameroon that if the patient is deemed to be poor and found unable to pay the bill of care required by their condition, the caregiver will not take care of them because they do not gain anything to heal them. This attitude undeniably expresses a frustration with the poor working conditions related to overwork and the perceived imbalance between efforts and rewards. To compensate for the meager wages sent to the medical staff with a slingshot and which arrive to them in a random way, the government found nothing more than to grant them premiums whose base of computation consists of receipts of the hospital. Each department, or even each doctor, must pursue an objective of profitability proportional to the remuneration to which it aspires. If this observation can be generalized to all African countries, and I believe that this is so, then it is easy to understand that the youth of the African continent, so much praised by political leaders and the international media, is the result of a poor life expectancy (55 years on average) comparable to that generally observed in great apes. The health profile developed by the ONSP in 2016 recalls that in 1990, life expectancy at birth in Cameroon was estimated at 54 years. It increased to 51 years in 2000 and then to 57.3 years in 2015. Women had 2.7 years more than men. 25 years later, Cameroon has a lower life expectancy at birth than the average of each of the two sub regional groupings (59 years for CEMAC and 60 years for sub-Saharan Africa). Over the same period, the average life expectancy at birth in the world increased from 64

years in 1990 to 71.4 years in 2015. The decline in poverty, improvement of housing, improvement of hospital care and best response to epidemics and disasters can contribute to improving life expectancy at birth in Africa. In fact, Africa is a young continent because all those who fall ill are dying for lack of money and care. All health analysts know that for a large majority of people, it is difficult or very rare to get ill before the age of 25, at least when one has not inherited a congenital or genetic chronic disease. In any case, that's what the statistics prove. People under 25 years (excluding early childhood) account for less than 2% of hospitalizations in Cameroon. This figure alone shows that people who are affected by serious life-threatening illnesses are very young (babies and infants) or over 35 years. The age pyramid shows a broad base and a narrowed peak. This triangle shape is characteristic of young populations with a high fertility rate and high mortality. In fact, the 0 - 24 age group represents 62.5% of the whole population. Health policies should focus primarily on this target to reap the benefits of the demographic dividend.

One of the hospitals that welcome us for this research has experienced an appalling scene that reveals the erratic functioning of the entire system and raises with a new acuity the issue of the meaningful work. Sartre (1996) said that everything we do creates the person we want to be. But these acts also create the image of the person as we think it should be. Then, what meaning should be given to those acts that lead to death? It turned out that: a pregnant woman, taken to hospital in a visibly comatose state caused by painful contractions, had her abdomen cut off by her family members to extract twins which were still alive in her womb, but breathless. The violent and repeated movements of oxygen-deficient babies into their mother's womb eventually caught the attention of the victim's sister, who was waiting for her turn to register for a place in the hospital's cold room to deposit her sister's corpse. She decided to intervene. With razor blades, she opened the womb of her sister and two babies came out under the cheers of the amazed audience. Obviously neither the mother nor the babies will survive the consequences of this barbarous surgery. But how is it possible that a woman, who should normally end up with respiratory assistance in a hospital ward waiting to be accompanied for delivery, found herself at the door of the mortuary with two living babies in her womb? This sordid and seemingly ordinary story challenges all of us and raises many questions that need to be answered in order to prevent hospitals from becoming permanent places of death in our country. How many patients have been sent to the hospital's mortuary before having even given up the ghost? Who's next? According to Biccard et al. (2018), undergoing surgery in Africa is twice as risky as in the rest of the world. In Africa, patients are younger and have less severe procedures. The authors explain that in theory, mortality should be lower than elsewhere and yet it is the opposite. Among impugned factors is the motivation of the nursing staff employed in public hospitals. This is the conclusion that a research group came up with in a survey of hospitals in 25 African countries (Akua Agyepong et al.,

2017). The above-mentioned incident on its own, which is probably not the only one of its kind, illustrates the entropy that characterizes hospital services in our country. Difficulties in making the reduction of infant and child mortality faster could be linked to limited access of households to health services. Indeed, poverty has only slightly decreased between 1990 and 2015. The whole country is expecting the establishment of Universal Health Coverage (UHC), hoping for the community care of patients, which could contribute to improving access to services and health care. In a well-organized health system, healthy and able-bodied people, as well as poor people, can pay the bill for their nursing care when they are sick, through their contributions to a health insurance fund. In Cameroon sick people pay this bill, and the result of this policy is simply catastrophic. 80% of patients with serious diseases die in the hospital for lack of money and care. The first obstacle that stands in the way of the establishment of UHC lies in the broken trust between the ruling class and the people. Due to multiple misappropriations of public funds, Cameroonians no longer feel comfortable when it comes to entrusting the State with any management of public affairs. Although there has been real progress on many health indicators, life expectancy and most population health indicators remain below expectations, given the country's potential to improve the quality of the care for the sick with its own resources.

2.2. Work Commitment

The 20th Century ended, as it began, with an abundant literature on organizational commitment. Unfortunately, it did not allow for a definitive and sure segmentation of the theoretical domain of commitment to distinguish it from other related psychological factors such as motivation, involvement, or behavioral intention (O'Reilly III & Chatmann, 1986). As early as 1977, the growing confusion made Staw (1977) conclude that the added value of the concept of organizational commitment as a distinct construct would come from an effort of theoretical definition and operationalization that clearly differentiates commitment and its components from other related constructions. Unfortunately, as Morrow (1993) has pointed out, the proliferation of concepts related to commitment makes the task difficult. Be that as it may, the authors seem to have found consensus around the notion of psychological attachment to define commitment. Researches that study determinants (Morin, 2008), consequences (Tumel & Morin, 2008) and process (Galanter, 1980; Salancik, 1977; Staw & Ross, 1978) and targets (Morrow, 1993) of psychological attachment define commitment as a force that stabilizes behavior, even when confronted with difficulties or opposing stimuli. Starting from the first definition introduced by Porter et al. (1974), many research studies have highlighted the benefits and potentially deleterious effects of work commitment, thereby stimulating the managerial interest of this concept. In addition, multifocal analyzes (Morin, Morizot, Madore, & Boudrias, 2008) have identified several employee profiles according to their level of commitment to different targets. Among the commitment tar-

gets identified in the scientific literature (organization, work, colleagues, supervisor, work team etc.) the work itself seemed more relevant to be attached to the meaningful work given the degradation of the professional environment in an entropic context. Kelman's (1958) founding research on attitude change revealed that: transaction, identification, and convergence would be the preferred psychological mechanisms for developing commitment, each leading to a specific form of psychological commitment. Therefore, the transaction would lead to an instrumental commitment that develops according to the extrinsic rewards associated with the work, the identification would translate a normative commitment based on the sense of moral obligation and the desire for reciprocity, the convergence would lead to an affective and emotional commitment. According to the work of O'Reilly III and Chatman (1986) and Allen, Meyer and Smith (1993), the three forms of commitment constitute three dimensions of one and the same construct. Whatever the privileged mechanism and the form of commitment it causes, the acceptance and integration of the characteristics of the commitment target constitute preparatory stages for psychological commitment, the degree and manifestations of which depend on the reasons underpinning the commitment process. To fight against medical deserts, turnover, merchandising of care, and to improve the quality of care for patients, work commitment of the health care staff must exceed the calculated ratios to hope to promote probity, altruism, cooperation, spontaneous and selfless commitment and well-being. Studies carried out on well-treatment in hospitals (Vahey, Aiken, Sloan, Clarke, & Vargas, 2004; Duquesnoy, 2016) have shown that support for professionals improves life quality at work which, in turn, leads to better quality of care for patients. In this dynamic, the transformative leadership, based on a management of proximity, seems to play a key role in favor of the development of commitment and satisfaction at work through the feeling of organizational justice (Gillet, Fouquereau, Bonnaud-Antignac, Moukonkolo, & Colombat, 2013). To influence the medical staff's life quality at work, management has levers centered on the caregiver and those related to the work environment that should be combined to obtain the desired transformations (Pronost et al., 2012). In this perspective, our study attempts to evaluate the effects of the policy of allocation of a "share" to the caregivers, calculated proportionately to the revenues they record through prior payment of care costs (decree n° 2016/6447/PM of 13dec2016). This practice of Cameroon government, based on an exchange of material advantages, seems counterproductive because, according to Kelman's model (1958), such a managerial policy leads to conceal values of empathy, altruism or generativity, on which meaningful work is built, to focus on material advantages. This incitement to profit seems to be a contradictory injunction, since medical staffs are thus encouraged to violate their commitments contained in the Hippocratic Oath to provide care to those who can pay their benefits and prioritize the quality of their service according to the power purchase of the patient. Admittedly, work is not a moral value as stated by Comte-Sponville (2014). But he

continues by stating that money is only minimal to keep one's job and, in doing so, is not enough to repair a life at risk. In such a context, we hypothesize that the form of work commitment preferred by medical staff would be built on a transactional basis depending on the benefits they receive for their efforts. Indeed, and this is what we want to demonstrate, caregivers of public hospitals in Cameroon could develop a commitment calculated to fit a remuneration policy based on performance.

Hypothesis (H_1): Overall, a low level of commitment to work is expected, given the context's dysfunction. However, we believe that the level of commitment calculated would be higher than the level of normative and affective commitment, in line with what might result from the practice of a pay-for-performance policy ("share" policy).

2.3. The Meaning of Work and Commitment

The experience of meaning is presented in psychology literature as an important psychological state for building commitment to work (Hackman & Oldham, 1980). But work in Cameroon, as we have said, offers workers opportunities to engage in illegal trafficking that is organized around the prescribed work and that gives it all its interest (Nyock Ilouga et al., 2018). In such a context, the issue of the commitment of workers to the prescribed work is a major concern for managers who must find solutions to counter the alienation and detachment vis-à-vis the work that develops there because of the loss of the meaning of work (Thomas & Velthouse, 1990). Individuals arrive at their workplaces not only to perform the tasks assigned to them, but also, and most importantly, to participate in expensive traffic that often takes over the prescribed work. There is a split of personality in them (Seeman, 1972) caused by the pursuit of contradictory objectives which would be solved only by restoring the meaning of work (May, Gilson, & Harter, 2004). The meaning-based approach would lead to both the remobilization of workers and their self-fulfillment. Indeed, the recent literature on empowerment (Spreitzer, Kizilos, & Nason, 1997; Boudrias & Savoie, 2006) and employee engagement (Britt, Alder, & Bartone, 2001) show that engagement in a work that has meaning can help workers to better understand the benefits of their work and to reconcile personal and organizational goals. The central assumption of this approach is that employees who experience meaning in their work find resources for their self-fulfillment and motivation at work (Spreitzer et al., 1997). 1997). On the other hand, a meaningless work would lead to alienation and disengagement (Aktouf, 1992). In this regard, three theoretical approaches helped to establish the functions of meaning in the lives of workers: 1) centered on the contribution of work to the construction of the meaning of life, the research works of Frankl (1969) then those of Hackman & Oldham (1976) have revealed that the meaning found in work drives the individual to accomplish his destiny; 2) at the same time, Rosso et al. (2010), Steger et al. (2012) and Proulx et al. (2013) have shown that the meaning fixes the attention

of the workers and directs their attitudes and actions towards the accomplishment of the objectives that they pursue in the work; 3) finally, the approach based on the understanding of the work developed by Rosso et al. (2010) and Steger et al. (2012). Then Gomez-Gonzalez et al. (2013) showed that the understanding of the work gives it meaning and ensures the integration of personality through the construction of social identity and the protection of personal dignity. Nevertheless, the experience of meaning is as subjective as the feeling of nonsense that can be described as a state of emptiness in existence characterized by boredom, apathy and vacuity, which tends to be generalized to all areas of life (Ruffin, 1984; Frankl, 1969; Yalom, 1980). It is often determined by the absence of purpose (Frankl, 1969), the feeling of dependence and inauthenticity (Bugental, 1969) and the feeling of powerlessness (May, Gilson, & Harter, 2004).

Khan's (1990) research works on summer camps and architectural firms have enabled him to specify the roles of three psychological determinants in workers' engagement and disengagement. The author shows that commitment to work occurs when the worker has the opportunity to know that the work done is important for him and beneficial for others, to be concerned about his safety and well-being, to have the physical, cognitive, and emotional resources to get involved in the work, to be autonomous and to have responsibilities, to identify with one's work and workplace, to enjoy doing one's job, to participate in improving the efficiency of processes and working conditions, to have good relations with others and to feel that one's work is useful and contributes to the accomplishment of an important project. It contains all the determinants of the psychological states that condition commitment to work (May, Gilson, & Harter, 2004). But do these psychological conditions reflect how work environments foster the commitment of the human mind to work? However, we know with Ganster and Schaubroeck (1991) that overwork causes withdrawal or even disengagement at work. Pratt and Ashforth (2003) assume that meaning can be obtained from the articulation between expectation, the intrinsic qualities of work and the configuration of the environment in which it takes place. It should be noted that research based on the pattern of the intrinsic aspects of work of Hackman and Oldham (1976) failed to establish, with sufficient certainty, the postulated link between the characteristics of work and the experience of meaning. On the other hand, the link between the coherence with the individual and the work environment and the experience of meaning has been clearly demonstrated. May et al. (2004) have proven that the match between the individual and his role at work fosters the emergence of the meaning of work and stimulates the commitment of the person performing it. This approach, based on consistency, has the advantage of integrating several extrinsic aspects that can affect the commitment to work, such as salary, material and physical conditions and organizational rules. In these same regards, we believe that the meaning found by the caregivers of Cameroon hospitals in the work they do in an environment that is lacking, is rooted in the life they live apart from work thanks to the income from

work.

Hypothesis (H_2): More concerned with maximizing their "share", the social utility of work could gain importance in the eyes of medical staff seeking to maximize their earnings.

2.4. Meaning Coherence and Commitment

Studies on P - E fit (Chatman, 1989; Rounds et al., 1987; Nyock Ilouga, 2018) consider the level of adjustment (consistency) between the characteristics of an individual (personality trait or abilities) and those of his environment (tasks, roles, etc.) to predict the quality of his subsequent behaviors and attitudes in his workplace. Research works in the perspective of work adjustment theory argue that the meaning of work could be obtained through the coherence between the representation of the ideal work and the characteristics of the current work (Arronsson, Bejerot, & Härenstam, 1999). However, the empirical work done in this area has not been able to demonstrate that it is valid to consider that the person - environment coherence corresponds to the meaning that one finds at work (Nyock Ilouga et al., 2018). In this study, coherence refers to the psychic state that results from the correspondence between two conceptual entities. Examples of such entities are: the perception and importance given to certain characteristics of work (Chatman, 1989), the demands of work and the aptitudes of employees (French et al., 1982), the values of employees and those of hierarchical superior (Kemelgor, 1982; Posner et al., 1985; Meglino, Ravlin, & Adkins, 1989, 1991), the perceived and reference rewards (Adams, 1965; Goodman, 1977; Oldham et al., 1986). However, coherence studies have adopted several analysis procedures where consistency is essentially considered as a synthesis of two or more entities (factors, series of measures). Coherency indices from this design include algebraic differences, absolute differences, squares of differences, or products of the underlying variables (Porter & Lawler, 1968; Caplan, Cobb, French, Harrison, & Pinneau, 1980; French et al., 1982), but also the sums of the various modalities of variables (Rounds et al., 1987; Chatman, 1989). In this study, we have chosen to use the indices of coherency obtained on the basis of the measures of importance and presence of six characteristics of the work products highlighted by the work of Morin & Cherré (2001): the usefulness of work, pleasure, autonomy, work ethic, interpersonal relationship and recognition. This technique makes it possible to reduce the methodological imperfections associated with the use of such indices, particularly the risk of multicollinearity (Cronbach, 1987; Wall & Payne, 1973; Edwards, Caplan, & Harrisson, 1998).

Hypothesis (H_3): We hold that the experience of meaning through social utility and work understanding can play an intermediary role between the coherence importance - presence of work characteristics and commitment.

3. Methodology

In Cameroon, a General Census of Health Personnel (GSHP) was conducted in

2011 followed by the development of a Human Resources Development Plan. There were 38,207 staff members of which 25,183 were public (66%) and 13,024 (34%) were private. This staff consisted of 1842 physicians, 18,954 paramedics and 17,411 administrative and support staff, more than a third of whom were in the central services. In 2011, the ratio of health personnel (doctor, midwife, nurse, pharmacist) to population was 1.07 staff per 1000 population (WHO standard: 2.3 staff per 1000 inhabitants). Specifically, the public sub-sector recorded 1 nurse for 3157 inhabitants and 1 doctor for 11,335 inhabitants, as well as unequal geographical distribution of staff and a strong centralization of their management. The Centre, Littoral and West regions, through the major cities of Yaounde, Douala and Bafoussam, are over 55% staffed, as compared to only 10% for the East, Adamawa and South regions.

3.1. Samples

This study concerned all the medical staff active in the care units of hospitals in the Littoral region of Cameroon. A total of 660 employees working in the care units of various public hospitals in the city of Douala were contacted to participate in the survey. 264 employees agreed to answer the questionnaire, which corresponds to a response rate of 40%. Of these respondents, 67.4% are women and 32.6% are men. Table 1 shows that the age of the respondents ranges from 21 to 62 years and is, on average, 44.4 years (standard deviation equal to 9.08 years). To understand this lower rate of response, it is important to retain that, because of the high percentage of deaths at hospital (80% of patients with serious diseases die in the hospital), Cameroonian medical staff are under political leaders surveillance. Therefore, they are warying of outside observers and fear to give their opinion about their job. They risk losing their job.

3.2. Procedure

Two meetings were organized with each care unit. These meetings were scheduled according to the agenda of the sectorial meetings. The purpose of these meetings was to provide information on the objectives of the research and to

Table 1. Sample presentation.

Sex	Men	Women
	32.6%	67.4%
Mean age (standard deviation)	44.4 (9.04)	
Occupation	**Percentage (%)**	
Doctors	13.01	
Nurses	40.02	
Caregivers	11.11	
Laboratory engineers and technicians	16.11	
Hospital majors	19.75	

provide guarantees on the confidentiality of the data collected and on the independence of the researchers vis-à-vis the management of the hospital and the authorities of the guardianship. It was also an opportunity to answer questions and dispel fears. Each time, the research questionnaires were distributed to the volunteers in closed envelopes with a stamped envelope addressed to the researchers. Several reminders were sometimes necessary to obtain the collaboration of some respondents. The completed questionnaires were hand-delivered to the researchers.

3.3. Measuring Instruments

The survey was conducted using a self-administered questionnaire. This questionnaire has four parts. The first part deals with the commitment to work. The second part evaluates the meaning of work (Arnoux-Nicolas et al., 2016). The third part evaluates the presence of some characteristics of work and the importance given to them (MOW, IRT, 1987; Morin & Cherré, 2001). The last part deals with the participant's information. For each of these scales, the respondents had to agree, estimate the frequency or indicate the degree of importance by positioning themselves on a 4-point Likert scale (1 = strongly disagree, 4 = quite agree).

3.3.1. Commitment to Work

A revised version of the measurement scale validated by Madore et al. (2007) was used to evaluate the three dimensions of work engagement (Calculated, Normative and Affective). The statements were reformulated by the authors of this study to target the work itself. In order to verify the three-dimensional configuration of the engagement (Allen, Meyer, & Smith, 1993), we carried out an exploratory factorial analysis following the extraction method known as the principal axis with oblique rotation. Our results confirm the three-dimensional structure but retain only 13 of the 18 starting items (3 items for the calculated engagement, 6 items for the normative commitment and 4 items for the emotional commitment). We excluded from the analysis all items with a saturation level below .45 and those with a saturation level exceeding .45 with more than one factor. The percentage of the variance explained by the three dimensions (69%) and the convergence index ($\alpha = .91$) however, proved to be modest. Other indices (Kaiser - Meyer - Olkin = .91 χ^2 and Bartlett = 212.9; $p < .001$) encouraged us to keep the 13 statements to evaluate the three dimensions of commitment. The informants had to indicate their level of approval/disapproval of the eighteen statements on a Likert-like scale at five no-answer points. Ex. I have no choice but to do this job; I am proud to do this job, I will not leave this job because I have obligations towards the sick. The factorial structure in three sub-measures of this instrument was confirmed by a series of confirmatory factor analyzes. The three-dimensional model revealed excellent internal consistency ($\alpha = .94$) and fits very well with the empirical data collected from a sample of 264 Cameroonian workers (CFI = .96, TLI = .94, RMSEA = .061).

3.3.2. The Meaning of Work

We used the inventory of meaning proposed by Arnoux-Nicolas et al. (2016). The statements composing it make it possible to describe the usefulness of work, the meaning of work in general, the place it occupies in a person's life as well as the factors that contribute in giving it meaning. The informants respond by expressing their degree of agreement with each statement by positioning themselves on a Likert-type scale with no response (from 1 not at all to 5 strongly agree). Ex. I understand the usefulness of my work or it happens regularly that I do not understand the purposes of my work. The Arnoux-Nicolas et al. Study reports evidence of a good adjustment of the four-dimensional factor structure (importance of work, work comprehension, direction and purpose) with data from the survey of a sample of French workers (CFI = .94, RMSEA = .06, SRMR = .04) and a Cronbach reliability index of .86. This scale has been adapted to the Cameroonian context (Nyock Ilouga et al., 2018). The results suggest a two-dimensional factor structure (social utility and work understanding) with satisfactory adjustment indices (CFI = .95; RMSEA = .06; SRMR = .05) and excellent internal consistency (α = .96 for the social utility factor α = .94 for the understanding of work factor).

3.3.3. Importance and Presence of Work Characteristics

We used a revised version of the importance measurement tool and the presence of certain work characteristics proposed by the Crievat research group (Fournier & al., 2016) resulting from the work of MOW, IRT (1987). This tool has 50 items divided into 6 valued work characteristics (the usefulness of the work, the pleasure, the autonomy, the ethics at work, the interpersonal relation and the recognition). The internal consistence of this measure is evaluated at .89 for the presence measurement and .91 for the significance measurement.

3.4. Data Analysis Strategy

The purpose of this research is to examine the relationships between commitment and the meaning of work. The aim is to determine the dominant form of the commitment to work of the medical staff of hospitals in Cameroon and to specify the effects (direct and indirect) of the meaning of work on the commitment to work. Our first concern has been to ensure that our measurement tools are reliable and stand out from those commonly used in similar research. For this purpose, we adopted the approach recommended by Edmondson (1996). The results of the factorial analysis of the inventory of the meaning of work elaborated by Arnoux-Nicolas et al. (2016), carried out according to the so-called principal axis extraction method with oblique rotation, show a two-dimensional structure including 15 of the 17 initial variables. This structure presents better statistical indices than the four-factor solution advocated by the authors (Arnoux-Nicolas et al., 2016): the Kaiser-Meyer-Olkin index = .94; the determinant of the correlation matrix Δ = .066; the internal consistency index α = .95 and the Bartlett sphericity test $\chi^2_{126} = 4212.819$, $p < .001$. Both dimensions account for

71.486% of the explained variance. This two-factor solution seems parsimonious since the percentage of residual values greater than .05 has stabilized at 22% in the reconstituted matrix (Byrne, 2009). The first dimension (39.12% of the variance explained) is composed of 7 items whose links to the underlying variables vary between .807 and .895. The composition of this dimension evokes the social utility of work. The second dimension (32.366% of the variance explained) is composed of eight statements that refer to the misunderstanding of work and its purpose. Saturations in this dimension range from .735 to .848. The average Cronbach α for all items is .95. Regarding the work commitment scale, the factor analysis revealed a three-dimensional structure, the first of which accounts for 28.7% of the variance explained. The statistical indices of the factor structure are detailed in the instrument part of this research. All in all, these results confirm the convergent and discriminant validity of the scales of commitment and meaning of work used in this research. In so doing, they show that the common variance bias is not a handicap in our data, according to Harmon's size effect (single factor) test (Podsakoff et al., 2003). Two types of analysis were adopted in this research. To begin with, we compared the results obtained in the evaluation of the three dimensions of commitment. To achieve this, the variances were analyzed. Then, we used the method of analysis in causal track with the help of the module SEPATH of the software statistical under Windows version 6 to test our hypotheses (Noël, 2015). This analytical technique enabled us to examine the mediating role of the experience of the meaning of work in the relationship between perceived coherence and commitment to work. Perceived coherence is the result of the difference between the importance attached to six characteristics of work (ethics, relationships, recognition, autonomy, utility and pleasure) and their actual presence in the workplace.

4. Findings

The Factor Structure of the Spirit of Hard Work Inventory

The first stage of this research is based on data collected during the evaluation of the three dimensions of commitment to work. As illustrated in **Figure 1** below, affective commitment appears to dominate the two other dimensions of the commitment to work (calculated and normative) that reach comparable levels. The average score of affective commitment (avg = 3.07, E-T = .37) is barely above the theoretical average of the of the 5-point Likert scale.

Overall, the levels of the manifestation of employees' commitment to work are low. The average scores are equivalent or even below the theoretical average of the 4-point scale: (avg = 2.55, SD = .67) for the calculated commitment and (avg = 2.30, SD = .63) for normative commitment.

Planned comparisons confirm the superiority of emotional commitment with almost no risk of error (p = .000011 compared to the calculated commitment and p = .000009 compared to the normative commitment). Emotional commitment that comes at the top of the dimensions of commitment to work, regardless of

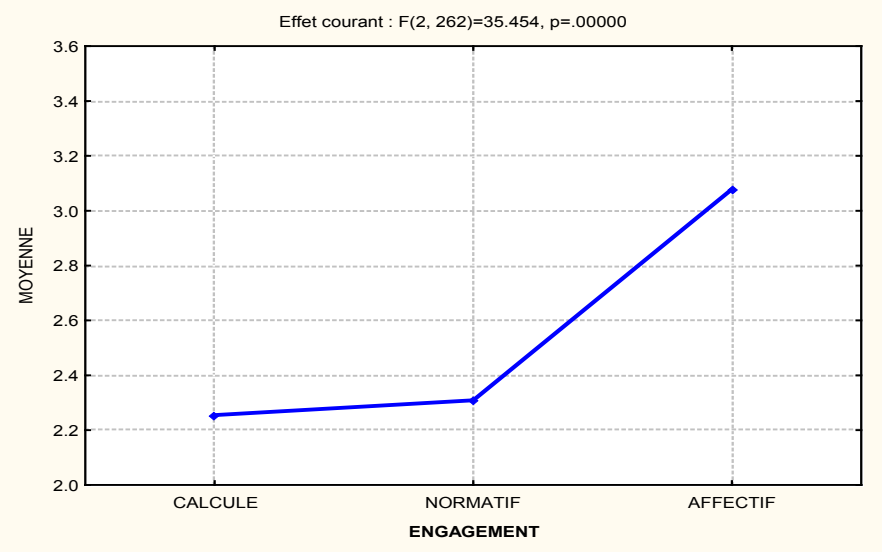

Figure 1. Comparison of the average levels of commitment between the three dimensions (Calculated, Normative and Affective).

the age of the participants, seems even more marked among men (avg = 3.6, SD = 1.02) compared to women (avg = 2)., 9, ET = 1.17).

This difference is statistically meaningful ($F_{262} = 4.87$; $p < .05$).

The profit motive does not appear to distract medical staff from emotional commitment to their work (**Figure 1**). These results partially confirm our H_1 working hypothesis, which postulated a low level of overall engagement with a prevalence of engagement calculated over the other two forms of commitment. The feelings of belonging and pride that characterize the emotional commitment of medical staff towards their work remain predominant over profit making possibility. One of the major difficulties in interpreting these results is that the medical staff we met do not operate exclusively in public hospitals where the "quota-shares" policy is practiced.

At the same time, these personnel work in private clinics, where they spend most of their time to attend patients who pay dearly for the treatment. The choice of the target is, therefore, not without impact on these results. Given the multiplicity of engagement targets in the workplace, it is not uncommon for interaction between different targets to render illegible the results for an isolated target. Nevertheless, it was pleasing to note that the practice of medicine retains its appeal in an environment that has all the characteristics to produce opposite effects.

Regarding the study of the relationship between the dimensions of the meaning of work and commitment to work, the preliminary correlation analyzes show that none of the control variables (age, sex level of education, function) are significantly related to the commitment. **Table 2** below shows that the social utility dimension of the meaning of work obtains negative and significant correlations with the normative and affective dimensions of the commitment to work. Whereas the emotional ($r = -.47$; $p < .01$) and normative ($r = -.52$; $p < .01$) commitment to

Table 2. Correlations between the meaning of work and commitment to work. Notes: ST1 = incomprehension of the work and its purpose; ST2 = social utility of work; Mean Total = Mean ST1 and ST2; EA = emotional commitment; EN = normative commitment; EC; calculated commitment. * = $p < .05$; ** = $p < .01$.

	EA	EN	ECi
ST1	.28	.22	−.32*
ST2	−.47**	−.52**	.51**
Sens Total	00	−.16	−.12

work decreases when the social utility increases, the calculated commitment (r = .51; $p < .01$) increases with the social utility of work. This result confirms hypothesis H_2. On the other hand, the correlations obtained between misunderstanding of work and commitment to work are weak and insignificant, except for the calculated commitment, which seems to decrease with the increase in the incomprehension of work.

The negative and significant correlation between the incomprehension of work (ST2) and calculated commitment (CC) suggests that malfunctioning of the working environments do not support the pursuit of profitability objectives. There is also a zero correlation between the meaning of work, considered as average of its two underlying dimensions, and emotional commitment.

In general, the correlations calculated between the indices of coherence and the dimensions of the commitment to work are not significant except for the negative correlation observed between the indices of coherence resulting from the relationship dimension and the emotional commitment. (r-28*). This link between the coherence index of the relationship dimension and the affective commitment is not direct since it is the square of the algebraic difference that correlates significantly with the emotional commitment. On the other hand, when the indices of coherence and the dimensions of the meaning of work, we realize that we see that the model converges normally (**Figure 2**).

To evaluate the mediating role of the experience of meaning in the relationship between perceived coherence and commitment to work, we followed the structural equation method suggested by Nöel (2015). The three conditions set by Baron and Kenny (1986) were validated through the analysis of three different regression models. The first model (M_1) tested the direct effects of the meaning of work and those of perceived coherence on work engagement. The second model was used to test the interaction effects between the meaning of work and the perceived coherence on work commitment (M_2). Finally, the third model (M_3, saturated model) made it possible to simultaneously consider both the direct effects and the interaction effects.

The causal pathway analysis technique verified the adequacy between these different models and the data collected as part of this research. Since the direct effects and interaction effects models are embedded in the regression equation of the saturated model, the most appropriate model could arise from the difference $\Delta\chi^2$ (Kline, 1998). The results of this adequacy appear in **Table 3**. The saturated

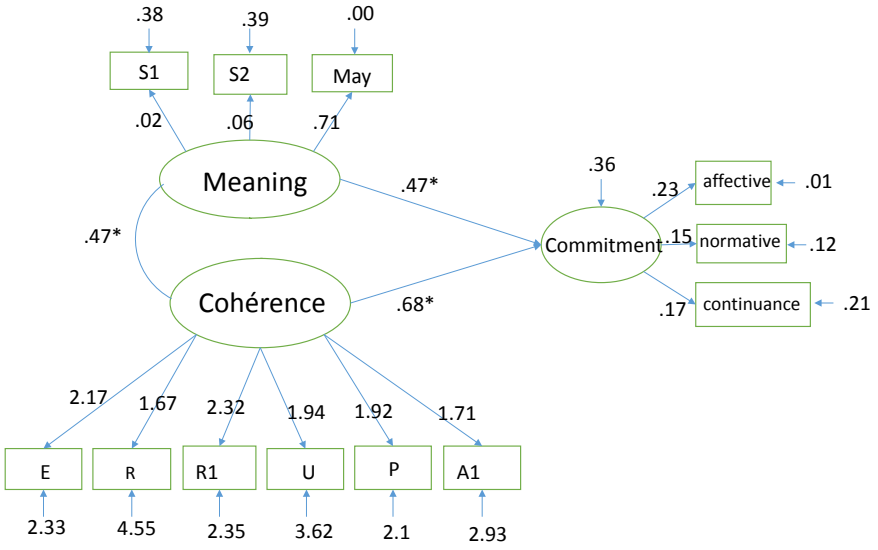

Figure 2. Analysis model of the combined effects of meaning and coherence on engagement NB: S1 (incomprehension of Work), S2 (Usefulness of Work), May (Mean Value of May's Scale of Meaning (2004), E (ethic), R (relationship), R1 (Recognition), U (Usefulness), P (Pleasure), A1 (Autonomy).

Table 3. Adjustment indices of analysis models. NB: M_1 Direct effects model; M_2 interaction effects model; M_3 Saturated model.

Measures	M_1: *Direct effects model*	M_2: *interaction effects model*	M_3: *Saturated model*
	Adequacy model Indices		
$\chi^2_{(ddl)}$	305.71^{*}_{67}	273.62^{*}_{66}	71.16^{*}_{52}
CFI	.86	.87	.96
GFI	.74	.79	.90
RMSEA	.113	.081	.054
SRMR	.09	.09	.06

model (M_3) has better data adequacy indices compared to the model of the direct effects M_1 ($\Delta\chi^2_{ddl} = 234.55_{15}$), but also with respect to the model of the interaction effects M_2 ($\Delta\chi^2_{ddl} = 202.46_{14}$). This suggests that, viewed separately, the direct effects and interaction effects models do not explain the covariance contained in the empirical data as much as a saturated model that considers mediation.

To identify the indices of coherence that would be entirely mediated by the meaning of work, we estimated the standardized regression coefficients generated by the analysis in causal pathway. The analysis technique suggested by Noël (2015) allows not only to examine the conditions set by Baron and Kenny (1986) to validate the hypothesis of a mediation, but also and above all, to consider the approach introduced by Sharma et al. (1981). The typology proposed by these authors makes it possible to go beyond the distinction based on the dichotomous or continuous nature of the mediating variable (Arnold, 1982; Baron & Kenny, 1986). It is based on two criteria: 1) the existence or not of a relationship be-

tween the mediator variable and the dependent variable; 2) whether there is an interaction between the primary independent variable and the mediator variable. In this approach, a mediator variable must have no direct link to the dependent variable. It interacts only with the independent variable (Ambler, 1998; Baron & Kenny, 1986; Sauer & Dick, 1993). In the context of this study, we first verified that indices of coherence have significant relations with the meaning of work dimensions.

The data in **Table 4** show that all the indices of coherence correlate significantly with the meaning of the work, except for the coherence indices resulting from the autonomy dimension. The second condition is met when the relationship between the mediator and the dependent variable is significant in the indirect effects model (Mayer & Davis, 1999). **Table 4** shows that the regression coefficient calculated between the meaning of work and the commitment is significant ($\beta = .36$, $p < .05$). Finally, to determine what form of mediation might be present in our data, we compared the coefficients of the direct effects model with those of the saturated model.

Table 4 shows that, apart from the recognition of which the indices of coherence had no direct relationship with the meaning of the work and the relation with colleagues whose indices of coherence did not reveal a significant link with the commitment. The effects of all the other indices of coherence between importance and presence of the characteristics of the work are completely mediated by the experience of the meaning of work. These results partially confirm hypothesis H_3. Our observations corroborate the findings of May's (2004) study,

Table 4. Standardized Regression Coefficients of the Causal Pathway model: (* = $p < .05$).

Measures	M_1: *Direct effects model*	M_2: *interaction effects model*	M_3: *Saturated model*
	Effects on meaning of work		
Ethics	−.32*		
Relationship	−.34*		
Recognition	−.20		
Autonomy	−.24*		
Utility	−.27*		
Pleasure	−.33*		
	Effects on commitment		
Ethics	.28*		.11
Relationship	.21		.07
Recognition	.49*		.14
Autonomy	.28*		.02
Utility	.26*		.12
Pleasure	.36*		.21
Meaning of work		.36*	−.17

which found that the meaning of work is a relevant determinant of commitment at the workplace, especially in a work context characterized by a lack of resources.

5. Discussion

In search of the residual meaning of work prescribed in an entropic context, we wanted to show that the commitment to work by Cameroonian medical staff is the effective translation of the "quota-shares" policy established by the local government to ensure high retention of employees. Convinced, on the one hand, that financial gain has never been more than an obligation to show at least the minimum will necessary to keep one's job and, on the other hand, that the minimum is not enough to save a life at risk. We wanted to examine the role that experience of meaning can play on commitment to work. In doing so, we have clarified the effect of the interaction between the meaning of work and the perceived coherence between the worker and his or her working environment regarding commitment to work. Our results show that, contrary to the theoretical prediction (H_1), affective commitment is the dominant form of attachment that characterizes the dedication of the medical staff to their work in Cameroon. In accordance with Hypothesis (H_2), the entropy of the context is particularly beneficial to the calculated commitment and encourages medical personnel to look for the maximum gain that work can provide. This idea is supported by a negative correlation between work incomprehension and calculated commitment ($r = -.32$). This result is conformed with Kelman's (1958) approach that predicts the loss of meaning when material benefits outweigh the altruistic, empathic and generative values that make the meaning of the work for medical staff.

The relationship between the meaning of work and the coherence between the person and the working environment is consistent with observations from previous research (May 2004). These results support the idea that the perceived adequacy between the worker and his job is not to be confused with the meaning of the work but must be considered as a decisive step in the path of discovering meaning (Brief & North, 1990). Notwithstanding the persuasive arguments of the authors of the phenomenological approach (Morin & Cherré, 2001) to demonstrate that coherence between a person and the working environment reflects the same reality as the meaning of work, our results do not support this perspective advocated by existentialist psychologists (Yalom, 1980). Perceived coherence interacts with the meaning of work to create the psychological conditions that determine commitment to work (H_3). Our results show that the causal pathway analysis technique retains more explanatory power than conventional confirmatory methods (Noël, 2015). This method has revealed the strength of the bonds that unite coherence, meaning and commitment. These links could not be observed in direct effects analysis. In future research, it would be appropriate to extend investigations to other professions to better clarify the respective roles played by the two dimensions of the meaning of work in mediating the effects of

perceived coherence. This research has the advantage of a solid theoretical rooting that confirms the hypotheses and allows comparisons with previous research. However, the data collection did not guarantee the random selection of participants. In such a context of widespread mistrust, participants needed reassurance to agree to answer the questionnaire. Not having got the opportunity to meet a large number of doctors to provide guarantees on the neutrality of researchers and the anonymity of respondents, very few have succeeded in completing the questionnaire. This gap urged to be cautious in generalizing the observations.

6. Conclusion

The outcome of this research is paradoxically very reassuring since it reveals how emotional commitment remains dominant among medical staffs who are engaged in a permanent quest for meaning in a context that lacks it. Coherence between the importance attached to certain characteristics of work and the presence of the same attributes in the workplace plays an important role in constructing the meaning (Renn & Vandenberg, 1995). The management thus retains a room for maneuver to counteract the emptiness and the collapse of the value given to the work. The major development challenge in Africa is that of its organization. Governments of Black African countries seem to have thus abandoned the workers to think of their work and to nature, the responsibility to organize the cooperation between the workers. This deficiency has favored the loss of interest for formal work and the development of the informal activity which has led the populations into extreme poverty and to underdevelopment. The great historical affair of the continent as Mbémbé (2017) emphasizes, has always been the incapacity of the ruling classes to provide more job opportunities. Cameroon, like all countries in sub-Saharan Africa, is facing the challenges as well as opportunities of the largest cohort of young people in history, with a prediction that the population of young people under 25 would double by 2050 (Akua Agyepong et al., 2017). The future of health is bright, but only if no one is left behind. It is reasonable to assume with Sarr (2016) and Cissé (2017) that better health could also serve as a catalyst for successful continuation of other economic development programs.

Ethical Considerations

This study was evaluated and approved by the Ethical Commission in Research with human beings of the Yaounde 1 University.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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