

Burnout and health technologies in the context of Primary Health Care nursing

Burnout e tecnologias em saúde no contexto da enfermagem na Atenção Primária à Saúde

Burnout y tecnologías en salud en el contexto de la enfermería en la Atención Primaria

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ABSTRACT

Objective: To analyze the relationship between burnout and health technologies in the context of primary health care nursing. **Methods:** This reflective study was based on the theoretical framework of Hinds, Chaves and Cypress. **Results:** We analyzed the immediate context (nursing primary health care and burnout); specific context (health technologies and primary health care nurses with burnout); general context (occupational stress in the nurses' primary health care work processes); and metacontext (use of technologies in the prevention of and coping with burnout in primary health care nursing). **Conclusion:** The use of health technologies enables nurses to improve knowledge, health and work-related stress, and to prevent mental illnesses.

Keywords: Burnout; Biomedical Technology; Primary Health Care; Nursing.

RESUMO

Objetivo: Analisar as relações do *Burnout* e das tecnologias em saúde no contexto dos enfermeiros da atenção primária à saúde. **Métodos:** Estudo reflexivo segundo referencial teórico de Hinds, Chaves e Cypress. **Resultados:** Analisou-se o contexto imediato (enfermagem da atenção primária à saúde e *Burnout*); o específico (tecnologias em saúde e enfermeiros com *Burnout* na atenção primária em saúde); no contexto geral (o estresse ocupacional no processo de trabalho dos enfermeiros da atenção primária à saúde); e o metacontexto (o uso de tecnologias na prevenção e enfrentamento do *Burnout* na Enfermagem da atenção primária à saúde). **Conclusão:** A utilização das tecnologias em saúde, pelo enfermeiro, possibilita a melhoria do conhecimento, da saúde, do estresse laboral e do adoecimento mental.

Palavras-chave: *Burnout*; Tecnologias em saúde; Atenção Primária à Saúde; Enfermagem.

RESUMEN

Objetivo: Analizar las relaciones del *Burnout* y de las tecnologías de la salud en el contexto de los enfermeros de la atención primaria de la salud. **Métodos:** Estudio reflexivo según el referencial teórico de Hinds, Chaves y Cypress. **Resultados:** Se analizó el contexto inmediato (enfermería de la atención primaria de la salud y *Burnout*); el contexto específico (tecnologías de la salud y enfermeros con *Burnout* en la atención primaria de la salud); el contexto general (estrés ocupacional en el proceso de trabajo de los enfermeros de la atención primaria de la salud); y, el metacontexto (uso de tecnologías en la prevención y enfrentamiento del *Burnout* en la Enfermería de la atención primaria de la salud). **Conclusión:** La utilización de las tecnologías de la salud, por el enfermero, posibilita la mejoría: del conocimiento, de la salud, del estrés laboral y de la enfermedad mental.

Palabras clave: *Burnout*; Tecnologías de la salud; Atención Primaria de la Salud; Enfermería.

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INTRODUCTION

Technology changes - and changes in the productive system - have made work organizations more complex, generating the logic of producing more with fewer resources, and modifying the world framework by intensifying job insecurity and outsourcing. This is reflected by the reduced number of workers on staff, the incorporation of more technologies, absenteeism, accidents and illnesses, interpersonal conflicts, and poor working conditions, which in turn influence a new profile of health conditions among workers that strongly impacts their mental health.^{1,2}

From this perspective, one of the psychosocial diseases that has more frequently affected workers is Burnout Syndrome. Considered a response to chronic stress, burnout causes dissatisfaction and loss of meaning in work, and has three procedural dimensions: emotional exhaustion and lack of energy; depersonalization, i.e. detachment, insensitivity toward others; and lack of professional achievement, decreased satisfaction with one's job and a feeling of a lack of competence to perform their jobs and to work with people.³⁻⁵

Hence, regular stress should not be confounded with burnout syndrome. When burnout affects people who have had no previous psychological disorders, work-related behavioral symptoms predominate over physical symptoms, such as: mental exhaustion, depression, decreased affection, fatigue, and negative attitude.⁶

Burnout has a high level of incidence among workers who provide care to people who require direct and constant assistance.⁷ Different studies reveal different levels of mental health impairment: one study addressing resident nurses identified high levels of exhaustion and depersonalization in the emergency room and intensive care unit;³ another one reports a tendency to develop the syndrome with moderate levels of exhaustion and depersonalization;⁸ another study identified burnout among nurses with children and who have a full load of work in their homes in addition to a full night shift in nursing;⁹ and studies also reported that nurses from the emergency room of a university hospital presented a high risk of being affected by burnout syndrome¹⁰ and that young healthcare workers acquired the syndrome while working in the Family Health Strategy (FHS).¹¹

In relation to this context, the advent of technological advancements also took place in the health field, introducing computers, diagnostic devices, and modernizing procedures, which can all be factors that contribute to burnout. Technology, however, cannot be merely reduced to a simplistic conception associated with machines and devices. The relationship between nursing and technology needs to be examined, especially those of a relational nature, based on communication and on warm reception for patients that occurs in the moment and bonds are established and recipients of care are empowered.^{12,13}

In primary health care (PHC), nurses working in the FHS are in direct contact with the reality of needy communities, having few resources to meet the needs of these communities

and facing the pressure and demands of the work itself. Nurses are also responsible for providing primary care and establishing surveillance actions, which require skills and a balanced psychological profile to deal with different patients, coordinate staff and public policies to improve the quality of life of the population.¹¹

Therefore, it is important to discuss what has been done to improve the working conditions and quality of life of nurses working in the FHS, as well as professional qualification policies and institutional practices aiming to provide care for the mental health of workers. Given the previous discussion, the following guiding question was posed: what is the relationship between burnout and technologies in the context of PHC nurses? From this perspective, this study's objective was to analyze the relationships of burnout and health technologies in the context of PHC nurses.

Therefore, we expect to contribute to a greater understanding of the relationship between the Burnout Syndrome and its relationship with technologies implemented in the PHC work process in order to develop practices that promote occupational health and prevent mental disorders among nurses.

METHODS

This analytical reflection was based on Hinds, Chaves and Cypress¹⁴ and addresses burnout and health technologies implemented in PHC nursing. Using the theoretical framework, the meaning of the contexts was considered and discussed using pertinent bibliographical sources.

From this perspective, an explanation of the context takes place at four levels: the immediate, specific, general and metacontext, the analysis of which is gradual and inter-correlated. The context is conceptualized as having four interactive layers that are distinguished from each other based on the extension the meaning is shared (individual or universal), time (present or future) and by how quickly changes take place or are perceived at each level. Therefore, research concerning these contexts is initiated with the micro characteristics that involve the process in which it happens until it reaches a macro view in regard to political, theoretical and philosophical aspects.¹⁴

Bibliographical sources included dissertations, monographs, theses and papers published in a 10-year period and available online in the Scientific Electronic Library Internet (SciELO) and Latin American and Caribbean Literature in Health Sciences (Lilacs) databases. The manuscripts addressing the topics under study (inclusion criterion) were retrieved from September to December 2015: 30 papers, two manuals and three books. The following descriptors were used: Burnout, primary health care, and nursing.

In the immediate context in which the phenomenon occurs, the disease becomes apparent, affecting nurses working with PHC, currently represented by the FHS. The activities of these nurses include the prevention of diseases and promotion of health, which are performed through educational and care delivery actions in homes or in the community.

In this specific context, health technologies contribute to stress in the nursing practice and are potentially related to the development of burnout.

In the general context, the nurses' work process stands out as one in which occupational stress may accrue from poor working conditions, a lack of resources to deal with work demands, work overload, internal and external pressure imposed by managers, and low salaries, among others.

These are related to a metacontext that demands preventive measures to avoid nursing workers being affected by this mental disorder, as these professionals directly assist families and communities in the first contact for patients, when they enter the healthcare system.

RESULTS

The results were categorized according to the conceptual perspective of each context, namely: PHC nursing and burnout (immediate), health technologies and PHC nurses with burnout (specific), occupational stress in the work process of PHC nurses (general), and the use of technologies to prevent and cope with burnout among PHC nurses (metacontext).

Primary Health Care Nursing and Burnout (immediate)

In a highly competitive job market, nursing presents hierarchical and conflictive characteristics, seeking its scientific identity in the delivery of care. Due to the difficulties arising from the labor process itself, such as emotional exhaustion resulting from contact with sick patients and vulnerable families, nurses also face situations of risk, low salaries, lack of acknowledgment, and stress in the workplace amid different conceptions and cultures.¹⁵

Nurses see caring as a philosophy and the essence of their practice. Such care involves expending energy and resources linked to a continuous exposure to emotional and interpersonal stressors, which render workers vulnerable to the development of this syndrome. Burnout around the world arises from different aspects of labor, generating frustration, detachment, and indifference toward patient needs and suffering.¹⁶

Therefore, workers facing burnout do not empathize with other peoples' problems or difficulties, suppressing interpersonal relationships as if the object of their care was a thing, establishing relationships deprived of human warmth or affectivity. These workers also experience intense irritability at work or in their personal and familial environments.¹⁷

The PHC in the Brazilian Unified Health System (SUS) represents a set of individual and collective actions within a context in which the FHS care model is undergoing changes intended to promote the health of families and communities, and reduce the distance between workers and the population.^{11,16}

The nurses working in the FHS also face a reality of needy communities with complex demands that are difficult to meet. Their work routine also includes a dangerous and unhealthy

environment, which contributes to the pressure and demands of the work itself.¹¹

According to the Primary Health Care National Policy,¹⁸ nurses working in the FHS are supposed to provide integral care to people and families at their homes or within the community; nursing consultations to children, pregnant women, elderly and adult patients; request complementary exams; and prescribe medication according to the profession's legal provisions and protocols established by the Ministry of Health. These workers are also supposed to plan, coordinate and assess the actions performed by the staff; provide continuous education; and manage inputs that allow the service to function.

An accumulation of activities, work overload, and tasks with different levels of complexity within this context imposes physical and psychological demands that go beyond what workers are able to bear. We highlight other aspects that also contribute to the development of burnout, namely: pressure to achieve goals; fragmentation of tasks; administrative, environmental or interpersonal relationship issues; competitiveness; low level of autonomy; unsafe working conditions; overload; high demand; lack of teamwork; and repetitive tasks.^{16,17}

Additionally, the work performed in the FHS couples the families' poor social conditions with a lack of cooperation within the health network and high standards established by both the managers and the workers themselves.¹⁹ A study conducted with nurses working in the FHS in the interior of São Paulo identified that most workers experienced burnout either in its initial or advanced stage.¹⁵

A study involving 30 FHS nurses reports the syndrome was already established in some cases with high and moderate levels and was in a developing process with high, moderate, and low levels in other cases. The symptoms that most frequently affected FHS professionals are fatigue and generalized anxiety, with the potential to destroy familial, social and organizational interaction, interfering in the care provided to patients. Hence, workers for whom a burnout condition is already established, are no longer in an emotional or physiological condition to perform their functions and should take a period of sick leave.^{16,19-21}

Health technology and primary health care nurses with the burnout syndrome (specific)

Healthcare organizations that are beginning to productively restructure themselves are supported by Taylor's principles following the capitalistic logic, the priority of which is economic concerns. In this sense, PHC nurses were not spared and also experience a work environment deprived of the affection that should permeate relationships in the delivery of care.²²

At this historical time, technology has been wrongly used in a simplistic way involving devices, machines, technical procedures, or anything that stands between human thought and the final product. Technology, however, can reveal how people respond to the nature of their work and relate with each other.^{23,24}

Health technologies are classified into three categories, namely: hard technology that includes equipment, machines

and instruments used in the work process; hard-soft technology that includes knowledge of health disciplines such, as clinical knowledge, epidemiology, semiology and others; and soft technology, which are relational processes concerning encounters, production of care, bonds and the warmth of reception of patients.²⁵

A mechanistic understanding of health technology in PHC, whether it is hard, soft or hard-soft technology, may harm the work process of FHS nurses, leading to alienation of workers and an exhaustion of resources in their productive process.²⁶ It is believed that an exclusive relationship with machines and equipment mechanizes the care process as if the patient were merely an extension of this hard technology, contributing to estrangement and the dehumanization of care.¹²

These factors can aggravate the symptoms of an FHS professional who is developing burnout caused by chronic occupational stress, resulting in the delivery of poor quality care with the potential to cause patients to experience a sense of abandonment and insignificance as a consequence of workers failure to acknowledge the importance of soft technologies, such as warmly receiving patients, the establishment of bonds, self-care, and health education. A dehumanized, depersonalized, and objectified conception of technology should not be part of the work processes of PHC nurses.¹²

The inclusion of new technologies, whether they are equipment, relationships or managerial tools, also changes personal interests, and ways of thinking and living. At least, there is an expansion of knowledge, skills, intuition, emotions, sensations, reasoning and sensitivity as instruments to strengthen nursing. This is what modern society demands: a critical-reflective professional with the ability to learn how to learn and work as a group.^{24,26}

To avoid health technology being the cause of an additional source of occupational stress, one should take into account its safety, efficacy, ethics, social impact and cost-benefit relationship, thereby using it in a humanized way. A good example would be the use of emancipatory technology, which involves comprehension and application of knowledge that enables workers to reflect and work from a critical perspective, taking into account the wellbeing of the community, making it possible for workers to experience freedom, autonomy, integrality, ethics, quality of life, and self-realization in the working place.^{12,26}

In this way, nursing technology, as a set of systematized scientific or empirical knowledge, values quality of life considering ethical issues and the reflective processes of the care process. The types of technologies used by nurses include interpersonal care and learning exchanges between professional staff and patients, which happens directly with interpersonal connection and learning exchanges (soft); the use of structured knowledge that does not need high technology, such as massage, immersion baths, integrative therapies (soft-hard); as well as the use of high technology to reach diagnoses and establish treatments, such as infusion pumps, mechanical ventilators and other more technologically complicated devices (hard).²⁷

Occupational stress in the work process of primary health care nurses (general)

Nursing is one of the most stressful professions in the public sector, due both to a lack of social acknowledgment and occupational factors such as an excess of tasks, a reduced number of workers on the staff, difficulties of relationship within the staff, low salaries, a shift of work, or even a double shift, coupled with a full workload at home, more than one job, and long and exhausting workloads.²²

Nurses fill different positions within the PHC but all experience factors that favor stress. Clinical nurses deal with inadequate resources, consultations with patients, interpersonal relationships, emotional load that results from hospitably receiving patients, establishment of bonds, and care provided to families. Head nurses deal with excessive bureaucracy, power, decision-making, and demands from managers. Nursing preceptors/professors also perform activities with students, deal with university normative issues, and class workload. Hence, the nursing profession requires physical and mental health, and social protection to perform their activities properly, in order to prevent occupational accidents and diseases.²²

Social protection, however, is rare because nursing workers, even if motivated, feel overwhelmed by all the tasks they need to perform.²⁸ A comparative study conducted in Rio de Janeiro, Brazil, considered the variety of activities performed within the PHC and hospital spheres, and identified a remarkable prevalence of burnout in the tertiary sector; that is, 80% of the nurses working in hospital settings showed signs of the syndrome, in contrast with the 10% of those working in FHS units who did so.²⁹

It is known that FHS nurses, on a daily basis, deal with patients who present multiple complaints and do not understand the guidelines of the service concerning health promotion and prevention of diseases, but also blame nurses for the service deficiencies and the need for it to provide a larger coverage of consultations and exams. Additionally, nurses are pressured by their management to achieve goals and concomitantly perform tasks other than those related to the delivery of care, such as coordinating community groups, taking part in continuous education programs, and providing health education to the community, without the support necessary to successfully perform these actions.²¹

In this sense, the work performed in the PHC becomes unhealthy and arduous, with the potential to lead to mental illnesses and disorders, due to the stress generated by the different levels of control that workers exert over these tasks. Exposure to these factors may lead to burnout syndrome and other physical and psychological signs and symptoms that may harm workers' quality of life.¹⁷

Stress accruing from the job may decrease the quality of care due to poor service, malpractice, negligence or recklessness, negatively affecting the health of patients and the reputation of the institution. Considering the health of workers, burnout and occupational stress represents the release of the glucocorticoid

hormone that modulates the body defenses and may manifest as a low immunity level, infections, allergies, hypertension, respiratory or gastrointestinal disorders, weight loss, depression, anxiety, insomnia or sexual dysfunction.¹⁶

The use of technologies to prevent and cope with burnout among primary health care nurses (meta-context)

Nurses should be aware and critically reflect on the role they play in society as professionals. Hence, is it important that they be convinced of the need to protect themselves from burnout by being autonomous, taking control over their work environment, establishing cordial relationships with other workers, demanding support from their management and encouraging innovative practices, in order to feel fulfilled and satisfied.^{20,30}

Adopting active coping strategies by implementing interventions or preventive measures, such as continuous education, making better use of health technologies, taking a break during the workday, using conflict resolution methods, improving the work environmental conditions, becoming more productive, and avoiding exhaustion, are forms to reduce or prevent this syndrome.¹⁷

Participatory aspects should also be taken into account, enabling workers to discuss their salaries, worked hours, workloads and humanization policies with psychological support to deal with stress, alcoholism, and drug addiction.¹⁶

Continued reflection on public policies based on social protection, prevention, treatment and rehabilitation are essential. In this sense, a concern regarding working conditions, quality of life, and satisfaction at work reformulate discussions concerning the physical and mental health of workers by using mental health and occupational health policies, which even though they do not often work together, are parallel in regard to new care occupational practices.^{4,21}

The best strategy to prevent burnout at an individual level is the internal organization of the work process implemented by the worker him/herself, i.e., being rational to achieve objectives, establish goals and priorities, adopt flexible problem-solving capacity, and effectively manage one's time between administrative and clinical tasks. It is also important to eat an appropriate diet, take vacations, avoid sedentariness, have leisure and recreation, and seek social support both within and outside work, along with professional therapeutic support.^{17,20}

Among the health policies that can help workers to cope with this syndrome, we highlight the National Policy of Integrative and Complementary Practices, which include Chinese Traditional Medicine (CTM), Acupuncture, Homeopathy, Phytotherapy, Anthroposophical Medicine, and Thermalism-Crenotherapy. These health technologies are effective and safe because they are based on active listening, the development of therapeutic bonds, and on the integration of the human being with the environment and society.³¹

Among the Integrative and Complementary Health Practices (CIHP), auriculotherapy has gained recognition due to its positive

effects on physical, psychological and mental disorders. As one of the CTM practices, it uses specific auricular points to treat disorders employing needles, seeds, or magnets to stimulate energetic points.^{32,33}

Studies have shown this technology's efficacy and effectiveness to cope with stress among nursing workers. A clinical trial reports that auriculotherapy with needles or seeds produced a positive impact on the coping skills of a nursing staff.³² The levels of stress verified in the nursing staff of a university hospital were also efficiently decreased with the use of semi-permanent needles.³⁴ The technique's reach was expanded in a third randomized clinical trial, without protocol, and reduced stress among hospital nursing workers.³⁵

Therefore, CIHP as health and nursing technologies, can be use to cope with burnout as these consider individuals holistically, seeking to balance the human body by valuing one's mind and emotions experienced during the health-disease continuum.³¹

FINAL CONSIDERATIONS

Both occupational stress and burnout are conditions present in the work process of PHC nurses. The workers themselves do not have sufficient knowledge regarding this syndrome, though many are aware they have a mental condition due to stressful working conditions, and especially, because their personal and organizational quality of life has been affected.

No studies addressing the use of health technology in its enlarged conception and its influence on occupational health and burnout among PHC nursing were found. We need to deepen this discussion and acknowledge that technologies can be used in nursing to favor the knowledge of nurses in their daily practice and not only as a productive force in health services.

There is also a need for further studies aligning occupational health and mental health policies and CIHP developed in the scope of prevention, promotion, care delivery and the rehabilitation of professionals affected by work-related mental disorders, especially burnout.

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