

Worker's Surveillance in the Primary Care: learning with Family Health team of João Pessoa, Paraíba, Brazil

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Abstract *This study analyzed the Worker's Surveillance activities of Family Health teams, based on the perceptions of physicians and nurses in the city of João Pessoa. We used a 30-question questionnaire split into four blocks: data on the professional, occupational healthcare practices focusing on the production and epidemiological profile, and matrix and institutional support to the teams. A total of 179 professionals participated, 82% of them were female, and 46% aged 50 or more; 60% had worked in the area for more than 10 years. Results show that Worker's Surveillance activities are not part of team day-to-day activities: 53% mapped productive activities and 30% related them to health hazards. Twenty-four percent mentioned activities to eliminate/mitigate exposure to risk and vulnerabilities. The support of Family Health teams by the Reference Center for Occupational Health was mentioned by 45% of the participants, less than the number reported for Worker's Surveillance. Involvement in occupational health training was mentioned by 24% of the professionals. Results suggest the need to expand and strengthen continued education and team support.*

Key words *Health Surveillance, Worker's Surveillance, Primary care*

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Introduction

Brazil's PNSTT¹, or National Occupational Health Policy considers VISAT - Worker's Surveillance, to be a structuring pillar of occupational health. From the point of view of comprehensive healthcare, it is organized into two basic components - surveillance of occupational health hazards, which interfaces with epidemiological and workplace environment and condition surveillance, part of the health and environmental surveillance practices, which in turn articulate with health and Environmental Surveillance practices, as of often environmental problems emerge from the same manufacturing processes that cause occupational disease or injury. From this view, Worker's Surveillance is a cross-sectional set of actions articulated across the three elements of Health Surveillance and Care.

The healthcare services should consider inserting worker healthcare into its production processes, considering that occupation is an important determinant of the health-disease process. Thus, it is essential that healthcare teams be familiar with the work or occupation of the worker-user, and use this knowledge when developing Unified Healthcare System (SUS) activities for health promotion, protection, surveillance, care and rehabilitation.

The 1988 constitution and the regulations of the Organic Healthcare Law, assigned to SUS the responsibility of providing comprehensive occupational healthcare. Since then, it has been implemented under different organizational arrangements strategies and practices in terms of management, care and social control. Initially these activities were implemented by Programs or Reference Centers for Occupational Health, known as Cerests. This process was subsequently expanded and gained social visibility when Renast, the National Network for Comprehensive Occupational Healthcare, was created in 2002, defined as a strategic policy by the Ministry of Health².

The PNSTT was published in 2012, reinforcing Renast in the context of the Healthcare Network (HN), and points the way to how important worker care is within the scope of Primary Care (PC), considered the coordinator of care and the ordering force for the network. It also reinforced the need for integration between Health Surveillance sectors and actions in terms of Primary Care, ensuring comprehensive care based on the healthcare needs of the working population.

Among the Primary Care characteristics favoring occupational healthcare are the capillarity of the service network and the organization of activities, including Health Surveillance, within a territory under the responsibility of a multi-professional healthcare team, which enables taking healthcare closer to where people live and work. Actions are planned based on the territory and the population profile, so that their health status and living conditions may be taken into consideration, and links may develop between healthcare professionals and users, defining healthcare practices that are in harmony with the actual needs of users and the community³.

However, while integrated Health Surveillance in primary care is recognized as a requirement for comprehensive care, in the day-to-day of the work performed by Family Health teams (FHT), many of the activities are still focused on care itself. As a rule, Health Surveillance practices based on analyzing the health status of the population within the territory, with articulated interventions on the main determinants and controlling situations that pose a risk or may damage health remain occasional activities, generally linked to health emergencies such as the recent case of the triple epidemic (dengue, zika, chikungunya).

The technical-scientific literature lists FHT experiences and initiatives from the point of view of Health Surveillance, articulating Epidemiological and Environmental Surveillance⁴. Worker's Surveillance practices as part of Primary Care are rare and sporadic⁵. Since 2009, there has been an increase in the number of articles, book chapters, dissertations, theses and annals of domestic meetings, congresses and technical Public/Group Health meetings on this topic, published in the technical-scientific literature.

Interventions on workplace disease and injuries and their determinates related to productive processes and the development model presume actions that are articulated and/or integrated with other SUS points of care, in particular health, epidemiological and environmental surveillance, and must have the support of the Cerest, social movements and worker representations, as well as the support of agencies such as the Ministry of Labor and Labor Prosecutor, among others, configuring intersectoral actions.

Recognizing the centrality of Primary Care for occupational healthcare, and the need to define strategies for technical, pedagogical and institutional support for FHTs, enabling them to provide comprehensive healthcare for workers,

this study looked at Worker's Surveillance measures performed by these teams in João Pessoa, Paraíba, to identify difficulties, opportunities and support. This study is part of the research line entitled "Organization of Occupational Healthcare Activities within Primary Care", performed by researchers at the Federal University of Minas Gerais, with the collaboration and financial support of the General Occupational Health Coordination (CGST), and the Ministry of Health, Health Surveillance Department.

Methodology

This is a descriptive, quali-quantitative study whose main unit of analysis is the activity of Family Health physicians and nurses in occupational health in the city of João Pessoa. João Pessoa was selected because it is a large city, with a population of over 300,000 inhabitants, because it has a Cerest, and a level of Family Health service coverage of over 70%, along with other key factors and facilitators to perform the study.

João Pessoa is the capital of the state of Paraíba. It has a population of 723,515, 53.31% female and 46.68% male⁶. The economically active population is 326,765, or 45% of the population. The city's economy is based on tourism, industry, trade, fishing, and the exploration of cashews and coconuts. Most of the jobs in the city are in Government Administration (114,259) and services (95,509)⁷. Family Health coverage in the city is 90.14%⁸, provided by 194 Family Health teams in 126 Family Health units in five Health Districts⁹.

The João Pessoa Reference Centers for Occupational Health (Cerest-JP) are part of the specialized healthcare network and cover Macro Region I, made up of 65 cities (29.14%), and a population of 1,906,595, or 48.34% of the population of the state of Paraíba¹⁰. According to the City of João Pessoa Healthcare Plan, there are 32 Healthcare Units considered to be Sentinel units for reporting workplace health issues and accidents in 5 cities¹¹.

This study had the agreement of healthcare managers and the support of the regional Cerest. A semi-structured questionnaire was applied to a sample comprised of 50% of the FHT in each of the city's five Health Districts. At the time, there were 175 operating teams. We used Microsoft Excel to randomly select the FHT in each dis-

trict, resulting in 89 FHT that participated in the study. The self-applied questionnaire was completed by FHT physicians and nurses, who agreed to participate in the study and signed a Free and Informed Consent Form.

The questionnaire was comprised of 30 questions in four blocks: a) overall identification of the healthcare professional; b) occupational healthcare practices; c) description of the territory (productive activities and epidemiology of the worker population), and d) matrix/institutional support to perform Worker's Surveillance activities.

We used a six-option Likert scale for categories related to surveying occupational healthcare activities performed by the teams (never, rarely, sometimes, almost always, always, I don't know), and four options for the category regarding support of incidents and players in developing measures (strongly disagree, disagree, agree, strongly agree).

Data from the questionnaires was tabulated using Microsoft Excel, and then consolidated and analyzed using the previously defined categories.

This study was approved on 10 July 2015 by the Federal University of Minas Gerais and Oswaldo Cruz Public Health Foundation Ethics Committee, number 1,154,763

Results and discussion

One hundred and seventy-nine professionals in 89 FHT in João Pessoa, 89 of them physicians and 90 nurses. Eighty-two of the participants are female, showing an increase in the number of women working in HF strategy. Forty-five percent were 50 or over, and about 60% had been working in the area for more than 10 years. Table 1 describes the physicians and nurses on the teams. We found that a significant percentage (59% of the physicians and 80% of the nurses) had worked in FH strategy for over four years.

Worker health activities performed by the FHTs are shown below, organized as follows: map of the productive activities in the territory, diagnostic of occupational health status, and specialized technical pedagogical and institutional support to develop occupational health activities. We stress that the study proposal was to learn about occupational health activities performed by FHTs based on the perception of university-educated professionals (physicians and nurses).

Map of the productive processes in the territory

Among the professionals in the study, 95 (52.5%) mentioned that the team always or almost always maps the productive activities in the territory, 48 (27%) said they never or rarely do this, and 19 (11%) were unable to provide information about mapping productive activities - 16 physicians and 3 nurses.

When asked about the last time they were involved in any effort to map productive activities, 18% said 6 months ago, 20% between 6 months and 1 year ago, 24% over a year ago, and 39% were unable to say.

We call attention to the number of professionals who are unaware or not involved in mapping productive activities in the team's territory. In addition to being considered a common responsibility of all FHT professionals, it is also key to understand the relationship between work performed in productive processes, domicile and peri-domicile activities, and the health-disease process of those who live and work there³.

Identifying risks or situations where individual health is at risk due to productive activities was mentioned by 50% of the teams (always/almost always). However, only 32% had developed initiatives to inform and/or dialog with the community regarding these risks. Forty-three percent of the teams claim they never or rarely

take any initiative to communicate the risks of responsibilities to which the territory population is exposed.

Regarding the development of initiatives designed to eliminate or mitigate exposure to risk factors and vulnerabilities as a result of productive activities, we found limited team activity, as only 23% mentioned performing these activities always or almost always, 21% never, 22% rarely and 24% sometimes.

Table 2 shows the distribution of activities developed by the teams related to the category entitled "Mapping productive processes in FHT territories".

We found the teams are less involved in Worker's Surveillance as complexity increases. Although more than half (52.5%) the FHTs mentioned mapping productive activities and identifying health and environmental risks, only 23% of the professionals said they always/almost always take action to eliminate or minimize the risk factors and vulnerabilities associated or identified.

It is important to note that 10.6% of the professionals mentioned being unaware if the team develops any such activities. Although mapping territories and understanding their environmental, epidemiological and manufacturing characteristics is, in practice, an activity carried out by the Community Health Agent (CHA), even though participating in this process and identi-

Table 1. Characteristics of the Family Health team physicians and nurses who participated in the study.

Variables	Nurse	Physician	% Grand Total*
	%	%	
Gender			
Male	3	33	18
Female	97	67	82
Age (years)			
29 or less	13	22	17.4
30 - 39	24	14	19.1
40 - 49	24	13	18.5
50 - 59	28	13	20.2
60 or over	10	40	24.7
Time working in a FHT			
4 years or less	30	42	31
5 - 9 years	10	15	12
10 years or more	70	44	57

*Percent relative to total study participants, n = 179.

Table 2. Distribution of the responses given by the members of Family Health team from the City of João Pessoa Department of Health, for items in the “Mapping manufacturing processes” category in 2015.

Category	Never/rarely	Sometimes	Always/almost always	Does not know
	Relative Frequency	Relative Frequency	Relative Frequency	Relative Frequency
Maps manufacturing activities	26.8%	9.5%	52.5%	10.6%
Identifies occupational risks	20%	13%	47%	19%
Discusses occupational risks with the community	43%	18%	32%	6%
Acts to eliminate occupational risks	43%	24%	23%	9%
Negotiates measures to prevent occupational risks	49%	23%	18%	9%

ying groups, families and individuals exposed to risks and vulnerabilities are the responsibility of all team members.

Only 9% of the teams claim to always or almost always receive reports or requests for intervention in work or occupation related health issues, 4.2% of the respondents said their teams had never received any report and were unable to provide any information on the topic. These results suggest that primary care, although the main gateway for SUS users, is not recognized by the community as a channel to report work-related problems, nor as one potentially responsible for intervening and controlling these situations¹².

On the other hand, it is interesting to point to a report sent by the Community Health Agent to the João Pessoa CEREST team on the increased frequency of respiratory problems in children and the elderly, likely due to exposure to dust produced by a cement plant in the territory. In response to this report, Cerest implemented a multi-disciplinary intervention using a team comprised of a social worker, nurse, workplace physician, and physical therapist, with the support of the State Cerest, the State Department of the Environment and the Health and Environmental Surveillance authorities, working with the FHT responsible for the territory. This activity found that the company was not in compliance with the law, and that workers and those living close to the plant were exposed to dust and presenting with respiratory diseases. Measures were implemented with the company to correct the situation, and care provided to plant workers and other people exposed¹². This report reinforces the importance of the Community Health Agent to listen to the

complaints and problems experienced by the population, contributing his or her knowledge of the territory to develop articulated care and surveillance activities (health, epidemiology, occupational health and environmental), protecting the health of workers and the population whose health is under the responsibility of the team¹³.

Regarding integration between FHTs and Health Surveillance, we found more articulation between these teams and Health and Environmental Surveillance agencies, reported by 47% of the participants. Articulation with Worker’s Surveillance was mentioned by only 10% of the professionals participating in the study.

We also found that Occupational Health Surveillance is a fragile process that is still being built in the macro-region, as shown in the Cerest-JP 2014 Management report¹⁰. Progress has been made in practices to promote and protect occupational health, and expand data gathering and analysis of information to subsidize these measures, such as consolidating data published by the social security services (National Institute of Social Security - INSS) on the incidence of workplace accidents and injuries/disease¹⁰. According to the Report, 14 Worker’s Surveillance activities took place over this period, involving the inspection of workplace environments and processes in the city of João Pessoa. Among the inter-institutional activities, we point out the joint activities of the Ministry of Labor, and the Civil Construction, Trade and Telecom Worker’s Unions.

In addition to articulating with Health Surveillance, we also looked at the articulation between FHTs and those sectors considered es-

sential for comprehensive worker care, including the Reference Center on Occupational Health, the Municipal Health Council, Community Organizations and worker associations. Thirteen percent of the participants mentioned articulating with worker organizations, 24% of the teams worked with the Municipal Health Council and 35% with community associations. Articulation with Cerest, mentioned by the PNSTT as a FHT supporter, was mentioned by 22% of the participants.

Considering the importance of social involvement, mentioned in both the Primary Care Policy and the PNSTT, results show that user and community involvement in self-care should increase, as should collective measures and actions focused on improving living and working conditions.

Diagnostic of the occupational health situation

Among study participants, 43% mentioned that the teams diagnosed the health situation of workers living in the area of coverage, and believe this information is essential to plan and develop activities for health promotion, surveillance and care.

The diagnosis of the health situation of the population within a given territory is a multi-step team process. Initially Community Health Agents gather data from e-SUS files and home visits, creating a demographic, occupational and health status profile of worker users within the population for which they are responsible. Other moments in the process that may add data on the health status of those residing or working in the territory are intake and care provided by physicians, nurses, physical therapists and other team professionals, as well as group activities¹⁴. This service is important as it means that this is not strictly a new activity assigned to the team, but requalification of activities prescribed by the Primary Care Portal (PNAB) and performed as part of day-to-day activities.

The National Occupational Health Policy stresses the importance of analyzing occupational health to identify users and more vulnerable groups, such as the unemployed and those working at home or in informal or precarious labor relationships, as well as those performing hazardous activities¹.

Results show that identifying risks and vulnerabilities associated with productive activities performed in the territory, and developing initiatives to minimize exposure to these risks and vul-

nerabilities are not routine among family health teams. These findings reinforce the need and importance of technical and pedagogical support to enable FHTs to develop Occupational Health activities.

Recognizing worker users and creating a relationship between occupation and health-disease

Recognizing user workers and considering their employment, non-employment or unemployment situation and their relationship with the health-disease process and suffering are essential for providing care for workers within the scope of Primary Care. Seventy-nine percent of the teams report that they always or almost always try to find out user occupations, and 68% mentioned trying to better understand the characteristics of these occupations and the activities performed. It is interesting to note that this differs from the findings of Silva *et al.*¹⁵, who looked at Primary Care Team practices in the city of Chapecó and found that not recognizing users as workers to be one of the largest hurdles for incorporating occupational health activities in the day-to-day activities of the teams.

Although many (78.2%) of the professionals participating in this study claim to identify users as workers in their daily activities, only 26% mention that they always or almost always ask users about their previous work.

Another interesting finding is that 74% of the professionals claim they always or almost always investigate the relationship between the complaint filed by the user-worker and their work/occupation, however only 64% claim to be able to confirm this relationship. Only 7% claim they are never, or only rarely, able to define a causal relationship.

The relationship between occupation and the complaints/diseases presented by workers reveals the extent to which work contributes to the health-disease process, and may guide the measures to be taken. This requires that the Family Health Support Centers and CREST be able to provide specialized technical support to the FHTs¹⁶.

SINAN notification is a required outcome of investigating or diagnosing an occupational injury or disease. In the group we investigated, almost all team professionals claimed to be familiar with SINAN, however 13% were unaware that occupational diseases must be reported in the system. We found that reporting workplace diseases or accidents is not common practice among the

teams that participated in the study. While 64% claim that they always or almost always establish a relationship between occupation and the complaint, disease or health condition, only 29% always or almost always report these to SISAN. A significant (57%) number never or rarely reports work related diseases to SINAN.

Regarding workplace accidents, 52% of the participating professionals never or rarely report them, 13% report them sometimes and 33% claim to always or almost always report them (Table 3). The low percentage of workplace accidents that are reported, even though the relationship with occupation is easier to establish in such cases, may be due to the fact that these incidents are seen by urgent or emergency care services. Users only go to primary care units for workplace accidents if these are considered minor.

Systematization and analysis of information based on reports of occupation-related disease and injury were mentioned by 48% of the FHT professionals. This finding suggests that, although this activity is essential for recognizing the more frequent events and the more vulnerable groups in the population to be considered and prioritized when planning health activities and inter-sector interventions, there is a long road ahead and continued education is very important.

Under-reporting of cases seen by Primary Care Units in the SINAN system was also found by Lopes dos Santos & Lacaz¹⁷, who believe that the difficulty in defining a causal relationship between the disease or injury and occupation is due to the silent and lengthy evolution of occupational diseases, a situation that is worsened by failures in medical records and excess bureaucracy. FH professionals find the reporting form to be long, time consuming and complicated.

Table 3 shows the percent activities performed by Family Health teams that, according to physicians and nurses refer to “Diagnostic of occupational health situations”.

Specialized, pedagogical and institutional support for Family Health Teams, enabling them to perform occupational health activities

Specialized, pedagogical and institutional support for FHTs is essential for providing comprehensive healthcare for workers within SUS, and particularly within Primary Care, be it to develop care activities or to promote health and health surveillance¹⁷.

The National Occupational Health Policy¹ reaffirms the role of surveillance teams, in particular Cerest, to provide matrix support or, in other

Table 3. Distribution of the responses given by the members of Family Health team from the City of João Pessoa Department of Health, for items in the “Diagnosis of worker health situation” category in 2015.

Category	Never/rarely	Sometimes	Always/almost always	No answer
	Relative Frequency	Relative Frequency	Relative Frequency	Relative Frequency
Questions on current work	1.1%	20.1%	78.2%	0.56%
Questions on activities performed	5%	27%	68%	0
Questions about previous work/employment	34%	40%	26%	1%
Identifies risks in current work	6%	25%	70%	0
Identifies risks associated with previous occupation	23%	30%	46%	1%
Investigates a relationship between the complaint and the current or previous occupation	4%	21%	74%	1%
Are able to establish a relationship between the complaint and the current or previous occupation	7%	30%	64%	0
Reports workplace accidents to SINAN	52%	13%	33%	2%
Reports occupational diseases to SINAN	57%	13%	29%	1%

words, backup care and technical-pedagogical support for performing occupational health activities within Primary Care, and other care centers within the Healthcare Network (RAS).

According to this study, 45% of the team professionals we interviewed agree with the statement that “Cerest provides support and technical backup for FH teams”. This is significant, as it is double the percent teams mentioning articulation with Cerest (22%). This contradiction must be further investigated to strengthen Cerest activities.

When asked about the support offered by the Worker’s Surveillance System, 32% of those interviewed agree that it supports the development of occupational health activities within Primary Care. This contradicts the prevailing concept and guidelines on the importance of the supporting role of the Surveillance systems, Cerest support of FHTs.

The accumulated experience and the literature show that, for many years, Cerest activities within Primary Care focused on training courses based on the rationale of transmitting technical knowledge and information on occupational health themes. The study results show the need to redefine the support practices provided by the Cerests, incorporating new concepts and a new *modus operandi* for the matrix support model, such as the one proposed by Campos & Domirrtti¹⁸.

The technical and pedagogical support proposed within a matrix system opens new possibilities in the field of Occupational Health^{5,17,19}. The discussion of clinical cases and constant support would allow primary care teams to incorporate concepts and practices. Furthermore, the link between reference team professionals and its supporters facilitates intersectoral articulation, and creates spaces for interlocution to improve the solutions available for occupational health issues¹⁷.

Regarding institutional support, we point out the role performed by the city Primary Care coordinators, and the managers of the primary healthcare units in developing occupational health activities. Sixty one percent of the study participants agreed that the municipal PC coordinator supports the development of such activities, and 71% agree on the support of PHU managers.

Regarding continued education and/or training in occupational health activities, only 24% of the professionals on family care teams reported this, suggesting limited city investment in train-

ing Primary Care professionals to provide worker care²⁰.

The Primary Care Portal²¹ specifies that Continued Health Education is a pedagogical process that starts with acquiring/updating knowledge and skills, and involves learning based on the problems and challenges faced in day-to-day working processes. It further states that the Continued Education in Health should be considered a management strategy, with major potential to transform healthcare practices and team working processes, improving working conditions and the satisfaction of healthcare workers.

Regarding Continued Education in Health within the scope of Primary Care, data from the National Program to Improve Access and the Quality of Primary Care points to the importance of implementing this policy. However, 81.1% of those participating in this study claimed that there are Continued Education in Health activities for Primary Care workers. Eighteen point three percent denied such activities exist, and 0.5% were unable or did not know how to answer this question. According to the authors, there are regional differences, 87.1% of the teams in the southeast reporting such activities, and only 75.3% in the northeast. When asked of Continued Education in Health provides their needs and demands, 75.7% of the teams considered them to be adequate²².

From this point of view, discussions and problematizing the working process and routine activities performed, such as intake, clinical care, case discussions, home visits and operating groups, could lead professionals to start looking at occupations, transforming their activities from the perspective of Occupational Health.

Regarding the team problems and limitations for providing qualified worker care and ensuring comprehensive care, it is important to mention that teams are overworked, and responsible for a large number of families. This is made worse by turnover and the precarious links in labor contracts, local political interests overshadowing actual population healthcare needs, and the precarious nature of the occupational healthcare network.

One of the limitations of this study is that only physicians and nurses participated, leaving out other team professionals. This necessarily implies in reductionism and a bias in the perception of the practices developed. Another important issue is that no Family Health Support Center professionals were interviewed. These centers are a FHT support network. However, experience

and literature references indicate that initiatives in Occupational Health are still incipient.

Closing remarks

The results of this study reinforce the need to strengthen the implementation of the National Occupational Health Policy principles, guidelines and actions by Primary Care teams as the preferred gateway for users of the SUS healthcare network. This is particularly important in the current situation, where a sizable percentage of the working population belongs to the informal economy, works under precarious conditions, is unemployed or socially vulnerable, sometimes working in or around the home.

Recognizing the workers in the population and access to domiciliary work environments, which remain invisible and inaccessible to other institutions responsible for occupational health and safety within the area of Work and Social Security would give teams the conditions to address occupation related work-disease questions, and even some environmental problems that originate in the same manufacturing processes within the territories they handle.

The characteristics and organization of primary care team healthcare practices favor worker access to quality and responsible healthcare that is able to learn the mechanisms through which occupation influence occupational health and life.

However, results show that given worker insertion in private enterprise, worker health-care requires institutionalizing a systematic and quality institutional, technical and pedagogical support approach to qualify actions and ensure articulated continuity of care for the more complex elements, and/or the incorporation of technology.

In this scenario, the Cerest play an important role to organize activities, working with the Family Health Support Centers and other Health Surveillance areas, using as a reference the *modus operandi* of primary care teams, seeking to identify the best and most suited moments and strategies.

Worker's Surveillance must consider the territory as the operational basis to plan measures, incorporating problems arising from the manufacturing-occupation relationship, the environment and health in comprehensive activities covering primary care and Health Surveillance. This also requires the development of inter-sector networks for intervention, expanding the challenge of developing this type of activity within the territories under the responsibility of the Primary Care teams.

However, we must consider that the entire process must include discussion and implementation of interventions to improve the working and health conditions of the primary care teams themselves, without which they will be able to do little, no matter how motivated or pressured by the demands of reality.

Collaborations

LA Amorim did the field work and helped design the study and methodology, and draft and review the manuscript. TL Silva, JMH Machado and EC Dias helped design the study and methodology, and draft and review the manuscript. HP Faria participated in the design of the methodology, tabulation and analysis of the data and final revision of the text.

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