



PRODUCTION ABOUT THE HEALTH OF THE GATHERER OF RECYCLABLE MATERIALS: A STUDY OF TRENDS

PRODUÇÃO ACERCA DA SAÚDE DO CATADOR DE MATERIAIS RECICLÁVEIS: UM ESTUDO DE TENDÊNCIAS

PRODUCCIÓN ACERCA DE LA SALUD DE LOS RECOLECTORES DE MATERIALES RECICLABLES: UN ESTUDIO DE LAS TENDENCIAS

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ABSTRACT

Objective: to discover the trends of the Brazilian production about the health of the gatherers' of recyclables. **Method:** a review of trends held in June 2014 in 12 theses and dissertations of the Digital Library of Theses and Dissertations and Lilacs, from the question: "What are the trends of the scientific production in theses and dissertations about the health of the gatherers of recyclable materials?" There was used for analysis of data the Technique of Content Analysis. **Results:** studies point to the risks and damage related to the work of gatherers of recyclable materials, the experienced prejudice and the negative view about the health services, the defensive strategies used in daily work and health elements present in their life and work. **Conclusion:** it becomes necessary interventional studies in the subject and the insertion of nursing in the production of knowledge. **Descriptors:** Occupational Health; Gatherers; Nursing.

RESUMO

Objetivo: descobrir as tendências da produção brasileira acerca da saúde do catador de materiais recicláveis. **Método:** revisão de tendências realizada em junho de 2014 em 12 teses e dissertações da Biblioteca Digital de Teses e Dissertações e Lilacs, a partir da questão: "Quais as tendências da produção científica brasileira em teses e dissertações acerca da saúde do catador de materiais recicláveis?" Utilizou-se para a análise dos dados a Técnica de Análise de Conteúdo. **Resultados:** estudos apontam para os riscos e danos relacionados ao trabalho do catador de materiais recicláveis, o preconceito vivenciado e a visão negativa acerca dos serviços de saúde, as estratégias defensivas utilizadas no cotidiano de trabalho e elementos de saúde presentes em sua vida e trabalho. **Conclusão:** fazem-se necessários estudos interventivos na temática e a inserção da enfermagem na produção do conhecimento. **Descritores:** Saúde do Trabalhador; Catadores; Enfermagem.

RESUMEN

Objetivo: descubrir las tendencias de la producción brasileña acerca de la salud de los recolectores de materiales reciclables. **Método:** revisión de las tendencias, que tuvo lugar en junio de 2014 en 12 tesis y disertaciones de la Biblioteca Digital de Tesis y Disertaciones y Lilacs, de la pregunta: "¿Cuáles son las tendencias de la producción científica brasileña en las tesis y disertaciones acerca de la salud de los recolectores de materiales reciclables?" Se utilizó para el análisis de los datos la Técnica de Análisis de Contenido. **Resultados:** los estudios apuntan a los riesgos y daños relacionados con el trabajo del recolector de materiales reciclables, el perjuicio sufrido y la visión negativa acerca de los servicios de salud, las estrategias defensivas utilizadas en el trabajo y elementos de salud presentes en su vida diaria y trabajo. **Conclusión:** la hacen necesarios estudios de intervención en el tema y la inserción de la Enfermería en la producción de conocimiento. **Descriptor:** Salud Ocupacional; Carroñeros; Enfermería.

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INTRODUCTION

Workers’ health seeks to involve the relationship between the process and work organization and the dynamic health-disease. It aims to establish also modes of intervention, in order to promote quality of life and health in the relationship between the man and his work.¹

Given these assumptions, the Occupational Health National Policy (PNSTT) seeks to establish a link between the spheres of the Unified Health System (SUS), in order to converge to promote improved quality of life and health of the worker. Thus, the PNSTT articulates a set of health policies, considering the mainstreaming of actions and work as an intrinsic element of the health-disease process.²

It is understood that work is related to the health of individuals and populations, and understand the conditions under which the worker experiences his work is fundamental, in order to think of health promotion strategies and disease prevention. In this sense, it is relevant a direct look at groups of workers described as usually excluded from public health policies, such as waste pickers.³

The work of the gatherer is exhaustive and has a set of elements that promote physical and mental illness. These people live with high illness risk for repetitive strain injury/work-related musculoskeletal disorders (RSI/MSDs) and accidents (mainly related to sharps). Moreover, there is deterioration of physical and environmental conditions of work, in addition to living with negative subjective feelings.⁴

So, it is justified the need to meet the production of knowledge about the health of these individuals in dissertations and Brazilian theses, in particular, trends in research, to diagnose the directionality of scientific research about these subjects, the characteristics of the knowledge produced and advancement opportunities in this theme.

OBJECTIVE

- To discover the trends of the Brazilian production about the gatherers’ of recyclables health.

METHOD

Trends review study of Brazilian production around the theme of the health

of gatherers of recyclable materials. Therefore, a search was conducted in June 2014 in Digital Theses and Dissertations Library (BDTD) and electronic database Latin American and Caribbean Health Sciences (LILACS), from the following question search << What are the trends of the scientific production in theses and dissertations about gatherers’ of recyclables health? >>

The BDTD is a virtual library linked to the CAPES Portal. Among the bases and libraries linked to the portal, it was chosen for providing a comprehensive and updated collection of theses and Brazilian dissertations, with files in their entirety. For search, we opted for the advanced search. In the "summary", it was pointed out the word "health" and in the "title", the word "pickers" (we chose that name for being a descriptor at the Health Sciences Descriptors). It remained the "all words" in both fields.

The search yielded 15 results. The title and summary of all the works were read. Among them, nine answered the inclusion criteria, which were: thesis or corresponding dissertation research developed in Brazil, a summary shows that results were found related to the health of the collector, to make available the full text, online and free, and has been advocated by the year 2013. For the six excluded works, four did not present results related to the health of the gatherers in the abstract; one it was research with crab pickers; and one was held in 2014.

It is noteworthy that, for the selection of works, was considered the broad meaning of the collector's health phenomenon of recyclable materials. Productions were selected that pointed in their resumes, results behold, all or part of the physical, mental or social state of the gatherer, which includes his living conditions, work and health.

Regarding the LILACS database, we used the advanced form and the search was conducted according to the following combination: gatherers [Subject descriptor] and health [Words summary] and "T" [Literary] (where "T" means "theses", fitting to emphasize that this option includes theses and dissertations of the base simultaneously).

The initial search resulted in eight results. They have read the title and

summary of all the works and the same were submitted to the inclusion criteria. It was used as an exclusion criterion for this base: thesis or dissertation already captured in BDTD. Of the eight works screened at the base, four did not answer the research question and did not have the full text. Therefore, three works were selected for analysis. In all, therefore, 12 works composed the corpus of this research.

For data analysis, we used thematic analysis of the technical content, which was developed in three phases: pre-analysis, material exploration and data processing and interpretation.⁵

In the pre-analysis, there was the organization of the material to be analyzed. At that time, the works selected in order of appearance in the search were listed, and they have been called by the initial letter of the base followed by the numeral representing the order of appearance (B1, B2, B3... -originating from BDTD library - and L1, L2, L1 - originating from LILACS). Subsequently, a framework was developed in Microsoft Word 2010 text editor that listed the following data: the work identification code; classification (if thesis or dissertation); year of defense; method (design, data collection instruments and analysis technique); area of knowledge; and results. After the organization of the material, it was thoroughly read, in the sense that its contents be incorporated.⁵

In the second phase, material exploration, the analysis itself was performed, which was the discovery of the recording units (UR), which consist of keywords that symbolize or represent the

content of a particular text extract.⁵ At that stage, were underlined in yellow all UR in each set of results listed in the table, and after the UR that emerged were transcribed on paper and grouped semantically forming the three groups.

In a new page of text editor, a second framework was developed with three columns, each of which represented a cluster. Within each column were pasted all matching results, listed in the first frame.

Finally, in the third stage, data processing and interpretation, the investigator in possession of concrete evidence makes interpretations and conclusions about the results.⁵ At that time, the groups were re-read with care and thought in the light of the research question. They were then reorganized into the following categories: Risks and damages related to the work of the gatherer of recyclable materials; Prejudice and experienced the negative view about the health services; Defensive strategies used by the gatherers; and Health elements in living the gatherer of recyclable materials.

RESULTS

The table below shows the relationship of the works selected for the analysis, its codes, titles and authors.

Code	Title	Author
B1	Working conditions in solid waste sorting units in four cooperatives of Campinas, SP: characterization and perception of gatherers.	Martina Barbosa
B2	Rethinking boundaries between the garbage and the body: ethnographic study on the daily life of recyclers, gatherers and recyclers on the Great Island of the Sailors.	Cristina Sosniski
B3	Work of the gatherers of recyclable materials in the eastern region of Goiania - Goiás in urban areas as an alternative to sustainability.	Juliana Alexandra Pereira de Carvalho Barco
B4	Working conditions, health and life habits of solid waste pickers of the Sun Valley Village in Aparecida de Goiania, Goiás State.	Edivalda Pereira de Abreu
B5	The dynamic pleasure-pain in the occupation of Recyclable Material Gatherers: study with two cooperatives in DF.	Cleide Maria de Sousa
B6	The profile of demands for social protection of the gatherers of recyclables of Guarapuava-PR.	Dan Junior Alves
B7	Perception of the gatherers of the Jangurussu in the face of environmental and occupational health risks.	Márcio Flávio Amorin Franco
B8	A psychosocial analysis of labor relations of recyclable material gatherers organized in cooperatives for recycling.	Luiza Ferreira Rezende de Medeiros
B9	Families of municipal solid waste gatherers in the perspective of environmental education: risk conditions and processes of resilience.	Priscila Freitas Chaves
L1	Perception of environmental risks of recyclable material collectors workers in a controlled landfill in the municipality of Duque de Caxias, RJ.	Marcelo Cardozo
L2	Gatherers of recyclable materials: trajectories of life, work and health.	Raquel de Souza Gonçalves
L3	More than leftovers and left over: trajectory of subject in the trash.	Denise Chrysóstomo de Moura Juncá

Figure 1. Theses and dissertations from BDTD and LILACS selected for analysis. Santa Maria (RS), Brazil.

Among the 12 works selected for analysis, n = 10 were dissertations and theses n = 2. Regarding the year of the defenses, n = 4 were defended between 2004 and 2006; n = 4 between 2007 and 2009; and n = 4 between 2010 and 2012.

Regarding the methodological design, predominated qualitative research (n = 11). The most commonly used data collection instruments were a semi-structured interview (n = 9), observation, non-participant or participant (n = 9) and document analysis (n = 6). These instruments were articulated and triangulated in most works. The method of data analysis that was highlighted was the Content Analysis (n = 5).

Regarding the areas of knowledge, there were stood out psychology (n = 3) and Public Health (n = 3). The other areas that were present were: Anthropology (n = 1), Civil Engineering - Sanitation and Environment (n = 1), Environmental Sciences and Health (n = 1) Applied Social Sciences (n = 1), Environmental Education (n = 1) and Ecology and Sustainable Production (n = 1). No analyzed publication was developed in the nursing field.

With regard to the trends of theses and dissertations, follow the themes that emerged from the content analysis.

♦ **Risks and work-related injuries of the gatherer of recyclable materials**

The theses and dissertations analyzed show that of the gatherer’s work is simultaneously subsistence source and suffering agent (B8). However, workers do not always recognize the elements of their work-related illness, conceived as a concept of health, often the absence of disease (B1).

Damage results were found suffered by gatherers in their daily work. Among them included: fatigue; numbness in the fingers; tendonitis; allergies and mycosis (related to contact with the organic or contaminated waste); patches on the skin due to sun exposure; conjunctivitis; headaches, spine, back and arms; dizziness; stress; pneumonia; bronchitis; difficulty breathing; dog bites; infectious diseases; dengue; intestinal infections; viruses; burns; contamination by air or by objects that collect; musculoskeletal problems; cough; lack of appetite; insomnia; and nausea (B1, B2, B4, B7, L1, L2, L3).

The gatherers believe that their body is the main working tool (B2), and therefore they are exposed to contact with the most

diverse waste and workloads. Therefore, the occurrence of accidents and illness related to work is common, and workers refer various personal and close people experiences. One study showed that half of respondent gatherers have witnessed accidents, most are injuries sharps (B4), which shows the risk involved in the work of recycling.

With regard to the risks identified in the theses and dissertations included: fire occurrence in the workplace (due to the presence of batteries, oil cans and other flammable products, risks of accidents involving trucks, sun exposure and excessive heat during the day and cold at night, living with cockroaches and rats, even in places for food, poor air circulation within the recycling warehouses, gutters and insufficient lighting on rainy days, lack of time to rest ; exhaustion at work with the wagons; police violence; risk of leptospirosis, inhalation of dust, presence of sharps; not conducting periodic health examinations, missing the prophylactic vaccination, lack of equipment, poor health, presence of medical waste, risk food contamination, contact with heavy metals such as lead, cadmium and mercury arising from the batteries to the mixed materials, casualization of labor relations, such as lack of physical structure, equipment, record in working papers and low wages; copper burns; smoke inhalation; living with dogs and buzzards (B1, B4, B3, B5, B7, B8, B9, L1, L2).

Theses and dissertations show exposure of families of children gatherers, since they live with the garbage and the employees' working environments (B2, L2, L3). Also, sometimes they feed their children with what they find in dumps and landfill, increasing the risk of contamination (B7).

Besides the physical, mechanical and biological hazards present in the work of gatherers, it showed that workers often cannot have leisure time in their vacant times (B8), which represents a risk of disease, in the views importance of these moments to worker health.

Also in relation to the risks present in the work of these individuals, the highlight was the disuse of Personal Protective Equipment (PPE) (B1, B6, B8, B9, L2, L2). Workers report that often, despite the equipment, only use gloves and boots (B4). They admit, though, that not always use this protection

because they feel heat, they are allergic to glove or do not understand its importance for the prevention of accidents and diseases (B8). In addition, other workers report that the PPE provided by local governments are insufficient, requiring them to improvise equipment with the materials found in recycling (B5, B6).

The gatherer of recyclable materials coexists with several risks to his health. In this sense, a striking element in the theses and dissertations was the precariousness of his living conditions and work. Urge measures for structural improvements in cooperatives (B1) and his housing conditions (B6). Many gatherers live in precarious situation, no sanitation, and no toilet at home or without electricity (B4, L2, L3). Related to this, there is evidence that the collectors have life histories marked by poverty, exclusion and the early work (L2), which indicates that precariousness is a characteristic of these groups of workers.

♦ Experienced prejudice and negative view about health services

In derivations of their conditions of life and work, and the fact that work with recyclable material, the gatherers refer prejudice by society and often by their own family (B1, B4, B5, B6, L2, L3). They report that often are mistaken for thieves by police and imprisoned unjustly (B5). Moreover, they feel treated with disgust and suffer when they are called scavengers, including by professionals from social services (B4, B6).

This neglect is also felt by professionals and health services. The Health Unit is the reference for these workers, but they do not always feel they are well attended and the service is definitive (B1, B2). In addition, some collectors refer not have access to health care when they need (B4).

In a study, few workers know the offer of the Reference Center for Social Assistance (CRAS) or resorted to the Center for Psychosocial Care (CAPS) available in the city (B6). This same study showed, the reports of collectors who care received at least is, for the most part, timely and targeted to acute damage, represented mainly by emergency services, medical appointments, tests, blood pressure measurements; not being identified projects or promotion and health education programs (B6).

Moreover, they attended the criticism of the community health worker, considered little gift for collectors. They reported a negative perception of public health policies, and the feeling of social abandonment and labor (B9).

♦ **Defensive strategies used by gatherers**

The waste gatherers use defensive strategies to deny, trivialize, minimize or rationalize the suffering experienced (B7). They have a tendency to reduce the importance of the damage to their health arising from work, and often refuse to work-disease relationship (B1).

The collectors mentioned in some studies, that accidents and other recycling-related damage are the result of inattention, distraction and lack of experience; thus blaming the victim for the damage and believe that the accident or illness, always happen to the other, but never with (B1, B4, B5, B7, B8, L1, L2, L3).

It was evident that few collectors can relate their work to the occurrence of disease (B4, L3). In general, they tend to deny the illness (L2, L3), trivializing the damage they suffer as conceived by diseases only the conditions which unable them to work, not identifying therefore the illness that affects (L1).

Another defensive strategy identified among waste gatherers was the exacerbation of virility. Workers idealize their strength, endurance and ability to face the rigor and danger (B7). Finally, they identified collective strategies represented by the support among collectors groups, fellowship, unity and working together (B5, B7).

♦ **Health elements in living of the recyclable materials gatherer**

Although all elements of suffering and illness identified in the collector, it became clear that they experience the satisfaction and pleasure and therefore may be able to build a healthy relationship with their work.

The reference of autonomy excelled felt by gatherers, related to self-employment, the fact of having no boss or boss, not to be overwhelmed by charges and regular power to organize their work (B1, B5, B6, B7, B8, B9, L2, L3). They consider that there was an improvement in their quality of life and work in recycling (B5, L3).

Among the positive elements of their work, they highlighted the possibility of

finding materials that are reused in their home and bring comfort to their family (B5, B7). Moreover, citing the fact that they feel important because of the role they perform in recycling (B8, B9) and pleasure on trying to overcome the dangers of contact with waste and to feel stronger (B7).

Social support networks stood out important for the health and welfare of the gatherers. They made references to family, friends, neighbors and religious community. According to them, family cohesion is a powerful device for the construction of well-being and quality of life by giving her achievements as overcoming hunger and racism. Still, the Catholic and Evangelical churches were cited as important spiritual support (B9).

Finally, he highlighted the importance of the “Bolsa Família” program to the quality of life of collectors, because through it they are able to provide the support of the family and purchase school supplies for children, keeping them, so at school (B4, B5, B6, B9).

DISCUSSION

The reality of grooming environments of recyclable materials is characterized by unhealthy conditions, ease of spread of disease, exploitation by companies responsible for recycling materials, misunderstanding and unwillingness of municipalities.⁶ This can be added to poor remuneration and informal work, pointing to the high exposure of that worker.

The precariousness of the gatherers of recyclable materials the work is the result of objective conditions and their impact on life and health of workers. Additionally, the precariousness is related to the fact that it is an activity that emerges as a result of new conformation of the working world,⁷ based on the flexibility of employment relationships, the relationships, the hours and working conditions.⁸

The trends of theses and dissertations show the precariousness expression, first, the risks, discomforts and physical damage resulting from the work of these individuals. Pain was one demonstrated experience in theses and dissertations analyzed. A study conducted in Governador Valadares, Minas Gerais, showed data on the presence of pain among collectors. According to this survey, 78,2% of interviewed subjects reported feeling pain of varying intensities and 37,5%

reported suffering pain daily. Among older workers, the pain presence of at least one part of the body, almost every day, was reported by 86,2%.⁹

Moreover, the disuse of PPE demonstrates a trivialization in relation to self-care of these workers and reinforces the risks involved in their daily work. Often because they lack access to gloves and other equipment essential for safety, workers are exposed to risks of accidents and diseases.¹⁰ In this construct, research showed that PPE often are not suited to the real needs of workers considering its anthropometric characteristics and activities that carry.¹¹ This points to the difficulties involved in the adaptation process and membership of workers to the equipment to help in self-care and protection.

Unhealthy working conditions and housing indicated by the trends are in addition to psychosocial issues related to the suffering of these workers, as prejudice and lack of access and care by the health services. Recyclables gatherers perceive themselves often stigmatized and associated with the garbage in the social imaginary, and feel the target of hatred and fear among the population.¹²

The non-recognition of work and negative social representations represent deleterious elements to the health of workers, since labor recognition of experiences are central to the creation of their individual and collective identity, and thus to aggregate human sense to their job.¹³ Therefore, the prejudice experienced daily can affect self-esteem and identity of the collector, printing in their subjectivity the mark of exclusion.

This exclusion delegated to the gatherer expands to relations with the health system, in which it is not often the support and assistance you expect. Thus, the worker sees the reference unit as an area without resolution, refraining from looking for it when you need it, for not believing that receive care.¹⁴ This situation converges to the marginalization of the gatherers who, while suffering with prejudice and exclusion, are not covered by health policies that support on their needs.

This shows that the collectors of recyclable materials are vulnerable to suffering powerful agents of whom need to resort to defensive strategies in order to prevent getting sick. Defensive strategies were striking in the analyzed theses and

dissertations and show that the collector tends to deny and minimize the risks to which they are exposed.

Defensive strategies comprise a set of mechanisms by which the worker seeks to change, transform and minimize perceptions regarding the suffering arising from work. The defensive strategies can be individual or collective, which are more common and more powerful, being jointly constructed by workers.¹⁵

Defensive strategies are essential for the worker to be able to distance themselves from pathogenic suffering and therefore of mental illness. However, its use can lead you to a process of alienation to act in order to block the mobilization of the same towards the transformation of reality, keeping it numbed in relation to a situation of suffering.¹⁵

Given these considerations, it becomes clear that on the one hand the use of defensive strategies by gatherers assists in maintaining the integrity of their mental apparatus, since anesthesia daily suffering, on the other hand causes they do not realize the risks they are exposed to daily, trivializing key measures of self-care.

Discuss the health of the collector of recyclable materials therefore requires thinking the precariousness of their work, as well as suffering from unfavorable elements to their health and wellbeing. However, the trends of the analyzed theses and dissertations showed that the work of the collector also involves health elements, playing the role of promoting income, living, citizenship and pleasure.

A study conducted with women waste gatherers in União Vitória, Paraná, points to the design of the same in relation to their work. For them, work on collecting garbage is viewed as the means by which it gained independence and can purchase goods honestly. Also according to the same, the work represented the opportunity to experience teamwork and strengthen self-esteem provided by the gain of their own money and the feeling of being productive. This has contributed to the survey participants indicate improvements in their quality of life.¹⁶

The positive aspects of working with recycled materials and support networks in which workers can rely represent mechanisms by which they seek to overcome suffering and building healthy and enjoyable relationship with work. In this

sense, the existence of areas of cooperation and solidarity among workers, as well as changes in beliefs of everyday situations that trigger pain is crucial.

Finally, given the complexity and uniqueness of the issues relating to health and work collector of recyclable materials, highlights the importance of the nursing to seek representation and role in the scientific research in this field. The nurse, given its ethical commitment to community health and quality of life,¹⁷ must extend their attention and care to vulnerable workers, in order to contribute to the construction of a network of health care for the full and effective worker.

FINAL REMARKS

The study of trends in Brazilian theses and dissertations about the health of gatherers of recyclables made possible to characterize and understand the progress and challenges of health research in this scenario, in order to encourage the visibility and recognition of the importance and needs of this work, it is essential that the continuation of studies and projects with them in order to generate knowledge that point to possibilities of action at the level of health and social and labor security.

It points to the need for interventional research in occupational health, and in particular the collector of recyclable materials. It is suggested that the frameset diagnoses presented in this study trends create subsidies and show ways for the development of jobs, in addition to producing knowledge, provide intervention experiences with these workers, aimed at linking research and care and, therefore, between knowledge production and social transformation.

Finally, we reiterate the importance of nursing to take its place in this process through its participation in the job with the collectors. Nurses should contribute their specific skills in the articulation of a network that seeks condensation of existing knowledge into actions and strategies for improving the conditions of life and work of these individuals.

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Production about the health of the gatherer...

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